MOTOROLA SOLUTIONS

PROFESSIONAL DIGITAL TWO-WAY RADIO

MOTOTRBO™

DM4600/DM4600e, DM4601/DM4601e
ALPHANUMERIC DISPLAY MOBILE RADIO

USER GUIDE

en-US

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Contents

Important Safety Information..... 32
Software Version..... 33
Copyrights..... 34
Computer Software Copyrights..... 36
Radio Care..... 37
Chapter 1: Getting Started..... 39
1.1 Turning the Radio On..... 39
1.2 Turning the Radio Off..... 39
1.3 Adjusting the Volume.....39
Chapter 2: Radio Controls.....40
2.1 Volume/Channel Knob.....40
2.1.1 Setting Dual Knob Operation Preference..... 41
2.2 Keypad Microphone Buttons..... 42
Chapter 3: WAVE..... 44
3.1 WAVE OnCloud/OnPremise.....44
3.1.1 Switching from Radio Mode to WAVE Mode..... 44
3.1.2 Making WAVE Group Calls.....45
3.1.3 Receiving and Responding to WAVE Group Calls..... 45
3.1.4 Receiving and Responding to WAVE Private Calls..... 46
3.1.5 Switching from WAVE Mode to Radio Mode 46
3.2 WAVE Tactical/5000.....47
3.2.1 Setting Active WAVE Channels 47
3.2.2 Viewing WAVE Channel Information.....47
3.2.3 Viewing WAVE Endpoints Information.....48
3.2.4 Changing WAVE Configuration..... 48
3.2.5 Making WAVE Group Calls.....49
Part I: Capacity Max..... 50
4.1 Push-To-Talk (PTT) Button..... 50
4.2 Programmable Buttons.....50
4.3 Assignable Radio Functions..... 51
4.4 Assignable Settings or Utility Functions..... 53
4.5 Accessing Programmed Functions.....53
4.6 Status Indicators.....54
4.6.1 Icons..... 54

4.6.2 LED Indicator..... 60
4.6.3 Tones..... 61
4.6.3.1 Audio Tones..... 61
4.6.3.2 Indicator Tones..... 62
4.7 Registration..... 62
4.8 Zone and Channel Selections..... 63
4.8.1 Selecting Zones 64
4.8.2 Selecting Zones by Using the Alias Search..... 64
4.8.3 Selecting a Call Type..... 65
4.8.4 Selecting a Site..... 65
4.8.5 Roam Request..... 65
4.8.6 Site Lock On/Off..... 66
4.8.7 Site Restriction..... 66
4.8.8 Site Trunking 67
4.9 Calls..... 67
4.9.1 Group Calls..... 68
4.9.1.1 Making Group Calls..... 68
4.9.1.2 Making Group Calls by Using the Contacts List..... 69
4.9.1.3 Making Group Calls by Using the Programmable Number Key 70
4.9.1.4 Making Group Calls by Using the Alias Search 71
4.9.1.5 Responding to Group Calls..... 73
4.9.2 Broadcast Call 74
4.9.2.1 Making Broadcast Calls .. 74
4.9.2.2 Making Broadcast Calls Using the Contact List 75
4.9.2.3 Making Broadcast Calls Using the Programmable Number Key..... 76
4.9.2.4 Receiving Broadcast Calls 76
4.9.3 Private Call..... 77
4.9.3.1 Making Private Calls..... 77
4.9.3.2 Making Private Calls by Using the Programmable Number Key 78
4.9.3.3 Making Private Calls by Using the Alias Search 79

4.9.3.4 Making a Private Call with a One Touch Call Button 81
4.9.3.5 Making Private Calls by Using the Manual Dial..... 81
4.9.3.6 Receiving Private Calls.... 82
4.9.3.7 Accepting Private Calls ... 83
4.9.3.8 Declining Private Calls 83
4.9.4 All Calls 84
4.9.4.1 Making All Calls 84
4.9.4.2 Making All Calls by Using the Programmable Number Key 85
4.9.4.3 Making All Calls by Using the Alias Search..... 85
4.9.4.4 Receiving All Calls 87
4.9.5 Phone Calls..... 88
4.9.5.1 Making Phone Calls..... 88
4.9.5.2 Making Phone Calls with the Programmable Button 89
4.9.5.3 Making Phone Calls by Using the Contacts List 91
4.9.5.4 Making Phone Calls by Using the Alias Search..... 94
4.9.5.5 Making Phone Calls by Using the Manual Dial..... 96
4.9.5.6 Dual Tone Multi Frequency..... 99
4.9.5.6.1 Initiating DTMF Tone..... 99
4.9.5.7 Responding to Phone Calls as All Calls..... 99
4.9.5.8 Responding to Phone Calls as Group Calls..... 100
4.9.5.9 Responding to Phone Calls as Private Calls..... 100
4.9.6 Initiating Transmit Interrupt..... 101
4.9.7 Call Preemption..... 101
4.9.8 Voice Interrupt..... 102
4.9.8.1 Enabling Voice Interrupt. 102
4.10 Advanced Features..... 103
4.10.1 Call Queue..... 103
4.10.2 Priority Call..... 103
4.10.3 Talkgroup Scan 104
4.10.3.1 Turning Talkgroup Scan On or Off..... 104
4.10.4 Receive Group List..... 105

4.10.5 Priority Monitor.....105
4.10.5.1 Editing Priority for a Talkgroup..... 106
4.10.6 Multi-Talkgroup Affiliation..... 107
4.10.6.1 Adding Talkgroup Affiliation..... 107
4.10.6.2 Removing Talkgroup Affiliation..... 108
4.10.7 Talkback 109
4.10.8 Bluetooth®..... 109
4.10.8.1 Turning Bluetooth On and Off..... 110
4.10.8.2 Connecting to Bluetooth Devices..... 111
4.10.8.3 Connecting to Bluetooth Devices in Discoverable Mode..... 112
4.10.8.4 Disconnecting from Bluetooth Devices..... 112
4.10.8.5 Switching Audio Route between Internal Radio Speaker and Bluetooth Device.....113
4.10.8.6 Viewing Device Details 113
4.10.8.7 Deleting Device Name. 114
4.10.8.8 Bluetooth Mic Gain.....114
4.10.9 Indoor Location..... 115
4.10.9.1 Turning Indoor Location On or Off..... 115
4.10.9.2 Accessing Indoor Location Beacons Information... 117
4.10.10 Multi-Site Controls..... 117
4.10.10.1 Enabling Manual Site Search.....117
4.10.10.2 Site Lock On/Off.....117
4.10.10.3 Accessing Neighbor Sites List..... 118
4.10.11 Home Channel Reminder..... 118
4.10.11.1 Muting the Home Channel Reminder..... 118
4.10.11.2 Setting New Home Channels.....119
4.10.12 Remote Monitor..... 119
4.10.12.1 Initiating Remote Monitor..... 120

4.10.12.2 Initiating Remote Monitor by Using the Contacts List 120
4.10.12.3 Initiating Remote Monitors by Using the Manual Dial..... 121
4.10.13 Contacts Settings..... 122
4.10.13.1 Assigning Entries to Programmable Number Keys 123
4.10.13.2 Removing Associations Between Entries and Programmable Number Keys 124
4.10.13.3 Adding New Contacts 125
4.10.14 Call Indicator Settings..... 126
4.10.14.1 Activating or Deactivating Call Ringers for Private Calls..... 126
4.10.14.2 Activating or Deactivating Call Ringers for Text Messages 126
4.10.14.3 Activating or Deactivating Call Ringers for Call Alerts..... 127
4.10.14.4 Activating or Deactivating Call Ringers for Selective Calls..... 128
4.10.14.5 Activating or Deactivating Call Ringers for Telemetry Status with Text..... 128
4.10.14.6 Assigning Ring Styles 129
4.10.14.7 Escalating Alarm Tone Volume..... 130
4.10.15 Call Log Features 130
4.10.15.1 Viewing Recent Calls. 130
4.10.15.2 Storing Aliases or IDs from the Call List..... 131
4.10.15.3 Deleting Calls from the Call List..... 131
4.10.15.4 Deleting All Calls from the Call List 132
4.10.15.5 Viewing Details from the Call List..... 133
4.10.16 Call Alert Operation..... 133
4.10.16.1 Making Call Alerts..... 134

4.10.16.2 Making Call Alerts by Using the Contacts List..... 134
4.10.16.3 Responding to Call Alerts 135
4.10.17 Dynamic Caller Alias..... 135
4.10.17.1 Viewing the Caller Aliases List..... 135
4.10.17.2 Initiating Private Call From the Caller Aliases List..... 136
4.10.18 Mute Mode..... 136
4.10.18.1 Turning On Mute Mode..... 137
4.10.18.2 Setting Mute Mode Timer..... 137
4.10.18.3 Exiting Mute Mode..... 138
4.10.19 Emergency Operation..... 138
4.10.19.1 Sending Emergency Alarms..... 139
4.10.19.2 Sending Emergency Alarms with Call..... 140
4.10.19.3 Sending Emergency Alarms with Voice to Follow..... 142
4.10.19.4 Receiving Emergency Alarms 143
4.10.19.5 Responding to Emergency Alarms 144
4.10.19.6 Responding to Emergency Alarms with Call..... 145
4.10.19.7 Exiting Emergency Mode..... 146
4.10.20 Status Message..... 146
4.10.20.1 Sending Status Messages..... 147
4.10.20.2 Sending Status Message by Using Programmable Button..... 148
4.10.20.3 Sending a Status Message by Using the Contacts List..... 148
4.10.20.4 Sending Status Message by Using Manual Dial. 149
4.10.20.5 Viewing Status Messages..... 150
4.10.20.6 Responding to Status Messages..... 150

4.10.20.7 Deleting a Status Message..... 151
4.10.20.8 Deleting All Status Messages 152
4.10.21 Text Messaging 152
4.10.21.1 Text Messages.....153
4.10.21.1.1 Viewing Text Messages.....153
4.10.21.1.2 Viewing Telemetry Status Text Messages.....153
4.10.21.1.3 Responding to Text Messages.....154
4.10.21.1.4 Responding to Text Messages with Quick Text..... 155
4.10.21.1.5 Resending Text Messages.....156
4.10.21.1.6 Forwarding Text Messages.....156
4.10.21.1.7 Forwarding Text Messages by Using the Manual Dial..... 157
4.10.21.1.8 Editing Text Messages.....157
4.10.21.1.9 Writing Text Messages.....158
4.10.21.1.10 Sending Text Messages.....159
4.10.21.1.11 Deleting Text Messages from the Inbox..... 160
4.10.21.1.12 Deleting All Text Messages from the Inbox..... 160
4.10.21.2 Sent Text Messages.. 161
4.10.21.2.1 Viewing Sent Text Messages.....162
4.10.21.2.2 Sending Sent Text Messages.....162
4.10.21.2.3 Deleting Sent Text Messages from the Sent Items Folder.....163
4.10.21.2.4 Deleting All Sent Text Messages from the Sent Items Folder 163

4.10.21.3 Saved Text Messages 164
4.10.21.3.1 Viewing Saved Text Messages..... 164
4.10.21.3.2 Editing Saved Text Messages..... 165
4.10.21.3.3 Deleting Saved Text Messages from the Drafts Folder..... 165
4.10.21.4 Quick Text Messages 166
4.10.21.4.1 Sending Quick Text Messages 166
4.10.22 Text Entry Configuration..... 167
4.10.22.1 Enabling or Disabling Word Correct..... 168
4.10.22.2 Enabling or Disabling Word Predict..... 168
4.10.22.3 Sentence Cap..... 169
4.10.22.4 Viewing Custom Words..... 170
4.10.22.5 Editing Custom Words 170
4.10.22.6 Adding Custom Words 171
4.10.22.7 Deleting a Custom Word..... 172
4.10.22.8 Deleting All Custom Words..... 173
4.10.23 Job Tickets..... 174
4.10.23.1 Accessing the Job Ticket Folder..... 175
4.10.23.2 Logging In or Out of the Remote Server..... 175
4.10.23.3 Creating Job Tickets.. 176
4.10.23.4 Responding to Job Tickets..... 176
4.10.23.5 Sending Job Tickets Using One Job Ticket Template. 177
4.10.23.6 Sending Job Tickets Using More Than One Job Ticket Template..... 178
4.10.23.7 Deleting Job Tickets... 178
4.10.23.8 Deleting All Job Tickets..... 179
4.10.24 Privacy..... 180

4.10.24.1 Turning Privacy On or Off..... 181
4.10.25 Response Inhibit..... 181
4.10.25.1 Turning Response Inhibit On or Off.....182
4.10.26 Stun/Revive..... 182
4.10.26.1 Stunning a Radio..... 183
4.10.26.2 Stunning a Radio by Using the Contacts List 183
4.10.26.3 Stunning a Radio by Using the Manual Dial.....184
4.10.26.4 Reviving a Radio.....185
4.10.26.5 Reviving a Radio by Using the Contacts List..... 185
4.10.26.6 Reviving a Radio by Using the Manual Dial.....186
4.10.27 Radio Kill.....187
4.10.28 Lone Worker..... 187
4.10.29 Password Lock..... 187
4.10.29.1 Accessing the Radio by Using Password..... 188
4.10.29.2 Unlocking Radios in Locked State..... 188
4.10.29.3 Turning Password Lock On or Off.....189
4.10.29.4 Changing Passwords. 190
4.10.30 Notification List 191
4.10.30.1 Accessing Notification List 191
4.10.31 Over-the-Air Programming 191
4.10.32 Selecting Third-Party Peripherals Connection Modes.....192
4.10.33 Received Signal Strength Indicator..... 193
4.10.33.1 Viewing RSSI Values. 193
4.10.34 Front Panel Configuration.....193
4.10.34.1 Entering Front Panel Configuration Mode.....194
4.10.34.2 Editing Mode Parameters..... 194
4.10.35 Wi-Fi Operation.....194
4.10.35.1 Turning Wi-Fi On or Off..... 195
4.10.35.2 Turning Wi-Fi On or Off Remotely by Using a

Designated Radio (Individual Control)..... 196
4.10.35.3 Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Group Control)..... 196
4.10.35.4 Connecting to a Network Access Point..... 197
4.10.35.5 Checking Wi-Fi Connection Status.....198
4.10.35.6 Refreshing the Network List..... 199
4.10.35.7 Adding a Network.....199
4.10.35.8 Viewing Details of Network Access Points..... 200
4.10.35.9 Removing Network Access Points..... 201
4.10.36 Dynamic Group Number Assignment (DGNA)..... 202
4.10.36.1 Making DGNA Calls... 203
4.10.36.2 Making Non-DGNA Calls..... 203
4.10.36.3 Receiving and Responding to DGNA Calls..... 203
4.11 Utilities..... 204
4.11.1 Power Levels..... 204
4.11.1.1 Setting Power Levels... 204
4.11.2 Turning Radio Tones/Alerts On or Off..... 205
4.11.3 Turning Keypad Tones On or Off..... 206
4.11.4 Setting Tones/Alerts Volume Offset Levels..... 206
4.11.5 Turning Talk Permit Tone On or Off..... 207
4.11.6 Turning Power Up Tone On or Off..... 208
4.11.7 Setting Text Message Alert Tones..... 208
4.11.8 Changing Display Modes..... 209
4.11.9 Adjusting Display Brightness..... 209
4.11.10 Turning Horns/Lights On or Off 210
4.11.11 Turning LED Indicators On or Off..... 211
4.11.12 Turning Public Address System On or Off..... 211

4.11.13 Turning External Public Address System On or Off.....212
4.11.14 Turning Introduction Screen On or Off.....213
4.11.15 Setting Languages.....213
4.11.16 Identifying Cable Type.....214
4.11.17 Turning Voice Announcement On or Off 214
4.11.18 Turning Option Board On or Off.....215
4.11.19 Text-to-Speech.....215
4.11.19.1 Setting Text-to-Speech.....215
4.11.20 Setting Menu Timer.....216
4.11.21 Turning Digital Microphone AGC On or Off 217
4.11.22 Turning Intelligent Audio On or Off.....217
4.11.23 Turning the Acoustic Feedback Suppressor Feature On or Off.....218
4.11.24 Turning Trill Enhancement On or Off.....219
4.11.25 Audio Ambience.....219
4.11.25.1 Setting Audio Ambience.....220
4.11.26 Audio Profiles.....220
4.11.26.1 Setting Audio Profiles.221
4.11.27 Turning Global Navigation Satellite System On or Off.....222
4.11.28 General Radio Information 222
4.11.28.1 Checking Radio Alias and ID 223
4.11.28.2 Checking Firmware and Codeplug Versions.....223
4.11.28.3 Checking Software Update Information.....224
4.11.28.4 Checking GNSS Information.....224
4.11.28.5 Displaying Site Information.....225
4.11.29 Viewing Enterprise Wi-Fi Certificate Details.....225
Part II: Connect Plus.....227
5.1 Additional Radio Controls in Connect Plus Mode.....227
5.1.1 Push-To-Talk (PTT) Button.....227

5.1.2 Programmable Buttons..... 227
5.1.2.1 Assignable Radio Functions..... 228
5.1.2.2 Assignable Settings or Utility Functions.....229
5.1.3 Identifying Status Indicators in Connect Plus Mode..... 230
5.1.3.1 Display Icons.....230
5.1.3.2 Call Icons..... 232
5.1.3.3 Advanced Menu Icons... 233
5.1.3.4 Sent Item Icons 234
5.1.3.5 Bluetooth Device Icons.. 234
5.1.3.6 LED Indicator..... 235
5.1.3.7 Indicator Tones..... 236
5.1.3.8 Alert Tones.....236
5.1.4 Switching Between Connect Plus and Non-Connect Plus Modes.....236
5.2 Making and Receiving Calls in Connect Plus Mode.....237
5.2.1 Selecting a Site.....237
5.2.1.1 Roam Request..... 237
5.2.1.2 Site Lock On/Off.....237
5.2.1.3 Site Restriction.....238
5.2.2 Selecting a Zone.....238
5.2.3 Using Multiple Networks..... 239
5.2.4 Selecting a Call Type.....239
5.2.5 Receiving and Responding to a Radio Call..... 240
5.2.5.1 Receiving and Responding to a Group Call.....240
5.2.5.2 Receiving and Responding to a Private Call..... 241
5.2.5.3 Receiving a Site All Call. 241
5.2.5.4 Receiving an Inbound Private Phone Call..... 242
5.2.5.4.1 Making a Buffered Over-Dial in an Inbound Phone Private Call..... 242
5.2.5.4.2 Making a Live Over-Dial in an Inbound Phone Private Call..... 243
5.2.5.5 Receiving an Inbound Phone Talkgroup Call..... 243
5.2.5.6 Inbound Phone Multi-Group Call.....243

5.2.6 Making a Radio Call.....244
5.2.6.1 Making a Call with the Channel Selector Knob.....244
5.2.6.1.1 Making a Group Call.....244
5.2.6.1.2 Making a Private Call.....245
5.2.6.1.3 Making a Site All Call.....246
5.2.6.1.4 Making a Multi-group Call.....246
5.2.6.2 Making a Private Call with a One Touch Call Button....247
5.2.6.3 Making a Call with the Programmable Manual Dial Button.....247
5.2.6.3.1 Making a Private Call.....248
5.2.6.4 Making an Outbound Private Phone Call with the Programmable Manual Dial Button.....248
5.2.6.5 Making an Outbound Private Phone Call via the Phone Menu.....249
5.2.6.6 Making an Outbound Private Phone Call from Contacts.....250
5.2.6.7 Waiting for the Channel Grant in an Outbound Private Phone Call..... 251
5.2.6.8 Making a Buffered Over-Dial in a Connected Outbound Private Phone Call..... 252
5.2.6.9 Making a Live Over-Dial in a Connected Outbound Private Phone Call..... 253
5.3 Advanced Features in Connect Plus Mode 253
5.3.1 Home Channel Reminder..... 253
5.3.2 Auto Fallback.....254
5.3.2.1 Indications of Auto Fallback Mode.....254
5.3.2.2 Making/Receiving Calls in Fallback Mode.....255

5.3.2.3 Returning to Normal Operation..... 256
5.3.3 Radio Check..... 256
5.3.3.1 Sending a Radio Check. 256
5.3.4 Remote Monitor..... 257
5.3.4.1 Initiating Remote Monitor 258
5.3.5 Scan.....259
5.3.5.1 Starting and Stopping Scan.....259
5.3.5.2 Responding to a Transmission During a Scan.....260
5.3.6 User Configurable Scan.....260
5.3.7 Turning Scan On or Off.....261
5.3.8 Editing the Scan List..... 262
5.3.9 Add or Delete a Group via the Add Members Menu..... 263
5.3.10 Understanding Scan Operation. 265
5.3.11 Scan Talkback..... 265
5.3.12 Editing Priority for a Talkgroup.. 266
5.3.13 Contacts Settings.....267
5.3.13.1 Making a Private Call from Contacts.....268
5.3.13.2 Making a Call Alias Search.....268
5.3.13.3 Adding a New Contact. 269
5.3.14 Call Indicator Settings.....270
5.3.14.1 Activating and Deactivating Call Ringers for Call Alert..... 270
5.3.14.2 Activating and Deactivating Call Ringers for Private Calls.....271
5.3.14.3 Activating and Deactivating Call Ringers for Text Message..... 271
5.3.14.4 Selecting a Ring Alert Type.....272
5.3.14.5 Escalating Alarm Tone Volume.....273
5.3.15 Call Log.....273
5.3.15.1 Viewing Recent Calls... 273
5.3.15.2 Deleting a Call from a Call List..... 274
5.3.15.3 Viewing Details from a Call List..... 274
5.3.16 Call Alert Operation..... 275

5.3.16.1 Responding to Call Alerts 275
5.3.16.2 Making a Call Alert from the Contact List..... 275
5.3.16.3 Making a Call Alert with the One Touch Access Button... 276
5.3.17 Mute Mode..... 277
5.3.17.1 Turning On Mute Mode 277
5.3.17.2 Setting Mute Mode Timer..... 277
5.3.17.3 Exiting Mute Mode..... 278
5.3.18 Emergency Operation..... 279
5.3.18.1 Receiving an Incoming Emergency..... 280
5.3.18.2 Saving the Emergency Details to the Alarm List..... 281
5.3.18.3 Deleting the Emergency Details..... 281
5.3.18.4 Responding to an Emergency Call..... 282
5.3.18.5 Responding to an Emergency Alert..... 282
5.3.18.6 Ignore Emergency Revert Call..... 283
5.3.18.7 Initiating an Emergency Call..... 283
5.3.18.8 Initiating an Emergency Call with Voice to Follow..... 284
5.3.18.9 Initiating an Emergency Alert..... 284
5.3.18.10 Exiting Emergency Mode..... 285
5.3.19 Text Messaging 285
5.3.19.1 Sending a Quick Text Message..... 286
5.3.19.2 Sending Quick Text Messages with the One Touch Access Button..... 286
5.3.19.3 Accessing the Drafts Folder..... 287
5.3.19.3.1 Viewing a Saved Text Message..... 287
5.3.19.3.2 Editing and Sending a Saved Text Message..... 288

5.3.19.3.3 Deleting a Saved Text Message from Drafts..... 289
5.3.19.4 Managing Fail-to-Send Text Messages.....289
5.3.19.4.1 Resending a Text Message.....290
5.3.19.4.2 Forwarding a Text Message.....290
5.3.19.5 Managing Sent Text Messages.....290
5.3.19.5.1 Viewing a Sent Text Message.....291
5.3.19.5.2 Sending a Sent Text Message..... 291
5.3.19.5.3 Deleting All Sent Text Messages from Sent Items..... 293
5.3.19.6 Receiving a Text Message..... 294
5.3.19.7 Reading a Text Message..... 294
5.3.19.8 Managing Received Text Messages.....294
5.3.19.8.1 Viewing a Text Message from the Inbox..295
5.3.19.8.2 Replying to a Text Message from the Inbox..... 295
5.3.19.8.3 Deleting a Text Message from the Inbox..296
5.3.19.8.4 Deleting All Text Messages from the Inbox..... 297
5.3.20 Privacy..... 298
5.3.20.1 Making a Privacy-Enabled (Scrambled) Call..... 299
5.3.21 Security.....300
5.3.21.1 Radio Disable.....300
5.3.21.2 Radio Enable..... 302
5.3.22 Bluetooth Operation.....303
5.3.22.1 Turning Bluetooth On and Off..... 304
5.3.22.2 Finding and Connecting to a Bluetooth Device.....305
5.3.22.3 Finding and Connecting from a Bluetooth Device (Discoverable Mode).....306

5.3.22.4 Disconnecting from a Bluetooth Device.....306
5.3.22.5 Switching Audio Route between Internal Radio Speaker and Bluetooth Device.....307
5.3.22.6 Viewing Device Details 307
5.3.22.7 Deleting Device Name. 308
5.3.22.8 Bluetooth Mic Gain.....308
5.3.23 Indoor Location..... 309
5.3.23.1 Turning Indoor Location On or Off..... 309
5.3.23.2 Accessing Indoor Location Beacons Information... 310
5.3.24 Notification List..... 311
5.3.24.1 Accessing the Notification List.....311
5.3.25 Wi-Fi Operation.....311
5.3.25.1 Turning Wi-Fi On or Off312
5.3.25.2 Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Individual Control)..... 313
5.3.25.3 Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Group Control)..... 314
5.3.25.4 Connecting to a Network Access Point..... 314
5.3.25.5 Checking Wi-Fi Connection Status.....315
5.3.25.6 Refreshing the Network List..... 316
5.3.25.7 Adding a Network.....317
5.3.25.8 Viewing Details of Network Access Points..... 317
5.3.25.9 Removing Network Access Points..... 318
5.3.26 Utilities..... 319
5.3.26.1 Turning the Radio Tones/Alerts On or Off..... 319
5.3.26.2 Setting the Tone Alert Volume Offset Level.....320
5.3.26.3 Turning the Talk Permit Tone On or Off..... 321
5.3.26.4 Turning the Power Up Alert Tone On or Off.....321

5.3.26.5 Setting the Power Level 322
5.3.26.6 Changing the Display Mode..... 323
5.3.26.7 Adjusting the Display Brightness..... 323
5.3.26.8 Turning the Introduction Screen On or Off..... 324
5.3.26.9 Language..... 325
5.3.26.10 Turning the LED Indicator On or Off..... 325
5.3.26.11 Identifying Cable Type 326
5.3.26.12 Voice Announcement. 326
5.3.26.13 Menu Timer..... 327
5.3.26.14 Turning Horns/Lights On or Off..... 327
5.3.26.15 Setting Dual Knob Operation Preference..... 328
5.3.26.16 Digital Mic AGC (Mic AGC-D)..... 329
5.3.26.17 Intelligent Audio..... 329
5.3.26.18 Turning the Acoustic Feedback Suppressor Feature On or Off..... 331
5.3.26.19 Turning GNSS On or Off..... 331
5.3.26.20 Accessing General Radio Information..... 332
5.3.26.20.1 Checking the Radio Model Number Index..... 333
5.3.26.20.2 Checking the CRC of the Option Board OTA Codeplug File..... 333
5.3.26.20.3 Displaying the Site ID (Site Number) 334
5.3.26.20.4 Checking the Site Info..... 334
5.3.26.20.5 Checking the Radio ID..... 335
5.3.26.20.6 Checking the Firmware Version and Codeplug Version..... 336
5.3.26.20.7 Checking for Updates..... 336

5.3.26.21 Viewing Enterprise Wi-Fi Certificate Details..... 344
Part III: Other Systems..... 345
6.1 Push-To-Talk Button..... 345
6.2 Programmable Buttons..... 345
6.2.1 Assignable Radio Functions..... 346
6.2.2 Assignable Settings or Utility Functions..... 348
6.2.3 Accessing Programmed Functions..... 349
6.3 Status Indicators..... 349
6.3.1 Icons..... 350
6.3.2 LED Indicators 356
6.3.3 Tones..... 357
6.3.3.1 Indicator Tones..... 358
6.3.3.2 Audio Tones..... 358
6.4 Conventional Analog and Digital Modes..... 358
6.5 Icon Information..... 359
6.6 IP Site Connect..... 359
6.7 Capacity Plus–Single-Site 360
6.8 Capacity Plus–Multi-Site 360
6.9 Zone and Channel Selections..... 361
6.9.1 Selecting Zones 362
6.9.2 Selecting Zones by Using the Alias Search..... 362
6.9.3 Selecting Channels..... 363
6.10 Calls..... 363
6.10.1 Group Calls..... 364
6.10.1.1 Making Group Calls..... 364
6.10.1.2 Making Group Calls by Using the Contacts List 365
6.10.1.3 Making Group Calls by Using the Programmable Number Key 366
6.10.1.4 Responding to Group Calls..... 367
6.10.2 Private Calls 368
6.10.2.1 Making Private Calls 368
6.10.2.2 Making Private Calls by Using the Contacts List 369
6.10.2.3 Making Private Calls by Using the Manual Dial 369

6.10.2.4 Making Private Calls by Using the Programmable Number Key 370
6.10.2.5 Responding to Private Calls 371
6.10.3 All Calls..... 372
6.10.3.1 Receiving All Calls..... 372
6.10.3.2 Making All Calls..... 373
6.10.3.3 Making All Calls by Using the Programmable Number Key 373
6.10.4 Selective Calls 374
6.10.4.1 Making Selective Calls. 374
6.10.4.2 Responding to Selective Calls 375
6.10.5 Phone Calls 375
6.10.5.1 Making Phone Calls 376
6.10.5.2 Making Phone Calls by Using the Contacts List 377
6.10.5.3 Making Phone Calls by Using the Manual Dial 379
6.10.5.4 Making Group, Private, Phone or All Calls by Using the Alias Search 382
6.10.5.5 Dual Tone Multi Frequency..... 384
6.10.5.5.1 Initiating DTMF Tone..... 384
6.10.5.6 Responding to Phone Calls as Group Calls 384
6.10.5.7 Responding to Phone Calls as All Calls 385
6.10.5.8 Responding to Phone Calls as Private Calls 385
6.10.6 Initiating Transmit Interrupt ...386
6.10.7 Talkaround..... 386
6.10.7.1 Toggling Between Repeater and Talkaround Modes..... 387
6.10.8 Broadcast Voice Calls..... 387
6.10.8.1 Making Broadcast Voice Calls..... 388

6.10.8.2 Making Broadcast Voice Calls by Using the Programmable Number Key . 388
6.10.8.3 Making Broadcast Voice Calls by Using the Alias Search 388
6.10.8.4 Receiving Broadcast Voice Calls..... 390
6.10.9 Unaddressed Calls..... 391
6.10.9.1 Making Unaddressed Calls..... 391
6.10.9.2 Responding to Unaddressed Calls.....392
6.10.10 Open Voice Channel Mode (OVCM).....393
6.10.10.1 Making OVCM Calls...393
6.10.10.2 Responding to OVCM Calls..... 393
6.11 Advanced Features..... 394
6.11.1 Home Channel Reminder..... 394
6.11.1.1 Muting the Home Channel Reminder..... 395
6.11.1.2 Setting New Home Channels.....395
6.11.2 Radio Check 395
6.11.2.1 Sending Radio Checks 396
6.11.2.2 Sending Radio Checks by Using the Manual Dial 396
6.11.3 Remote Monitor..... 397
6.11.3.1 Initiating Remote Monitor..... 398
6.11.3.2 Initiating Remote Monitor by Using the Contacts List 399
6.11.3.3 Initiating Remote Monitor by Using the Manual Dial 400
6.11.4 Scan Lists..... 401
6.11.4.1 Viewing Entries in the Scan List 401
6.11.4.2 Viewing Entries in the Scan List by Using the Alias Search 402

6.11.4.3 Adding New Entries to the Scan List..... 402
6.11.4.4 Adding New Entries to the Scan List by Using the Alias Search 403
6.11.4.5 Deleting Entries from the Scan List..... 404
6.11.4.6 Setting Priority for Entries in the Scan List..... 405
6.11.5 Scan.....406
6.11.5.1 Turning Scan On or Off 406
6.11.5.2 Responding to Transmissions During Scanning 407
6.11.5.3 Deleting Nuisance Channels.....407
6.11.5.4 Restoring Nuisance Channels.....408
6.11.6 Vote Scan 408
6.11.7 Contacts Settings.....408
6.11.7.1 Making Group Calls by Using the Contacts List 409
6.11.7.2 Making Private Calls by Using the Contacts List 410
6.11.7.3 Assigning Entries to Programmable Number Keys 411
6.11.7.4 Removing Associations Between Entries and Programmable Number Keys 412
6.11.7.5 Adding New Contacts . 413
6.11.7.6 Setting Default Contact 413
6.11.8 Call Indicator Settings.....414
6.11.8.1 Activating or Deactivating Call Ringers for Call Alerts.....414
6.11.8.2 Activating or Deactivating Call Ringers for Private Calls 415
6.11.8.3 Activating or Deactivating Call Ringers for Selective Calls 415

6.11.8.4 Activating or Deactivating Call Ringers for Text Messages 416
6.11.8.5 Activating or Deactivating Call Ringers for Telemetry Status with Text..... 417
6.11.8.6 Assigning Ring Styles.. 417
6.11.8.7 Escalating Alarm Tone Volume.....418
6.11.9 Call Log Features 418
6.11.9.1 Viewing Recent Calls... 419
6.11.9.2 Deleting Calls from the Call List 419
6.11.9.3 Viewing Call List Details 420
6.11.9.4 Storing Aliases or IDs from the Call List 420
6.11.10 Call Alert Operation..... 421
6.11.10.1 Making Call Alerts..... 421
6.11.10.2 Making Call Alerts by Using the Contacts List..... 422
6.11.10.3 Making Call Alerts by Using the Manual Dial.....422
6.11.10.4 Responding to Call Alerts 423
6.11.11 Dynamic Caller Alias.....424
6.11.11.1 Viewing the Caller Aliases List.....424
6.11.11.2 Initiating Private Call From the Caller Aliases List..... 424
6.11.12 Mute Mode.....425
6.11.12.1 Turning On Mute Mode.....425
6.11.12.2 Setting Mute Mode Timer.....425
6.11.12.3 Exiting Mute Mode..... 426
6.11.13 Emergency Operation 427
6.11.13.1 Receiving Emergency Alarms.....428
6.11.13.2 Responding to Emergency Alarms.....429
6.11.13.3 Exiting Emergency Mode After Receiving the Emergency Alarm..... 430
6.11.13.4 Sending Emergency Alarms 430

6.11.13.5 Sending Emergency Alarms with Call 431
6.11.13.6 Emergency Alarms with Voice to Follow 432
6.11.13.7 Sending Emergency Alarms with Voice to Follow ..433
6.11.13.8 Reinitiating Emergency Mode.....433
6.11.13.9 Exiting Emergency Mode After Sending the Emergency Alarm..... 434
6.11.13.10 Deleting an Alarm Item from the Alarm List.....434
6.11.14 Text Messaging 435
6.11.14.1 Text Messages 435
6.11.14.1.1 Viewing Text Messages.....435
6.11.14.1.2 Viewing Telemetry Status Text Messages.....436
6.11.14.1.3 Responding to Text Messages 436
6.11.14.1.4 Responding to Text Messages with Quick Text 437
6.11.14.1.5 Resending Text Messages.....438
6.11.14.1.6 Forwarding Text Messages 439
6.11.14.1.7 Forwarding Text Messages by Using the Manual Dial 439
6.11.14.1.8 Editing Text Messages.....440
6.11.14.1.9 Writing Text Messages.....441
6.11.14.1.10 Sending Text Messages.....442
6.11.14.1.11 Deleting Text Messages from the Inbox..... 442
6.11.14.1.12 Deleting All Text Messages from the Inbox 443
6.11.14.2 Sent Text Messages 444

6.11.14.2.1 Viewing Sent Text Messages 444
6.11.14.2.2 Sending Sent Text Messages 445
6.11.14.2.3 Deleting Sent Text Messages from the Sent Items Folder 446
6.11.14.2.4 Deleting All Sent Text Messages from the Sent Items Folder 446
6.11.14.3 Saved Text Messages 447
6.11.14.3.1 Viewing Saved Text Messages..... 447
6.11.14.3.2 Editing Saved Text Messages..... 448
6.11.14.3.3 Deleting Saved Text Messages from the Drafts Folder..... 448
6.11.14.4 Quick Text Messages 449
6.11.14.4.1 Sending Quick Text Messages 449
6.11.15 Text Entry Configuration..... 450
6.11.15.1 Enabling or Disabling Word Correct..... 450
6.11.15.2 Enabling or Disabling Word Predict..... 451
6.11.15.3 Sentence Cap..... 452
6.11.15.4 Viewing Custom Words..... 452
6.11.15.5 Editing Custom Words 453
6.11.15.6 Adding Custom Words 454
6.11.15.7 Deleting a Custom Word..... 455
6.11.15.8 Deleting All Custom Words..... 456
6.11.16 Job Tickets..... 457
6.11.16.1 Accessing the Job Ticket Folder..... 458
6.11.16.2 Logging In or Out of the Remote Server..... 458
6.11.16.3 Creating Job Tickets.. 459

6.11.16.4 Responding to Job Tickets.....459
6.11.16.5 Sending Job Tickets Using One Job Ticket Template.460
6.11.16.6 Sending Job Tickets Using More Than One Job Ticket Template..... 461
6.11.16.7 Deleting Job Tickets...461
6.11.16.8 Deleting All Job Tickets.....462
6.11.17 Privacy 463
6.11.17.1 Turning Privacy On or Off 464
6.11.18 Response Inhibit.....464
6.11.18.1 Turning Response Inhibit On or Off.....465
6.11.19 Multi-Site Control 465
6.11.19.1 Enabling Manual Site Search.....465
6.11.19.2 Site Lock On/Off.....466
6.11.19.3 Accessing Neighbor Sites List..... 466
6.11.20 Security 466
6.11.20.1 Disabling Radios ...467
6.11.20.2 Disabling Radios by Using the Contacts List 468
6.11.20.3 Disabling Radios by Using the Manual Dial 469
6.11.20.4 Enabling Radios 470
6.11.20.5 Enabling Radios by Using the Contacts List 470
6.11.20.6 Enabling Radios by Using the Manual Dial 471
6.11.21 Lone Worker..... 473
6.11.22 Bluetooth®..... 473
6.11.22.1 Turning Bluetooth On and Off..... 474
6.11.22.2 Connecting to Bluetooth Devices..... 474
6.11.22.3 Connecting to Bluetooth Devices in Discoverable Mode..... 476
6.11.22.4 Disconnecting from Bluetooth Devices..... 476

6.11.22.5 Switching Audio Route between Internal Radio Speaker and Bluetooth Device.. 477
6.11.22.6 Viewing Device Details..... 477
6.11.22.7 Deleting Device Name 478
6.11.22.8 Bluetooth Mic Gain.....478
6.11.23 Indoor Location..... 479
6.11.23.1 Turning Indoor Location On or Off.....479
6.11.23.2 Accessing Indoor Location Beacons Information... 481
6.11.24 Notification List 481
6.11.24.1 Accessing Notification List 481
6.11.25 Auto-Range Transponder System 482
6.11.26 Over-the-Air Programming . 482
6.11.27 Transmit Inhibit..... 483
6.11.27.1 Enabling Transmit Inhibit..... 483
6.11.27.2 Disabling Transmit Inhibit..... 484
6.11.28 Selecting Third-Party Peripherals Connection Modes.....484
6.11.29 Received Signal Strength Indicator.....485
6.11.29.1 Viewing RSSI Values. 485
6.11.30 Password Lock..... 485
6.11.30.1 Accessing the Radio by Using Password..... 486
6.11.30.2 Unlocking Radios in Locked State.....486
6.11.30.3 Turning Password Lock On or Off.....487
6.11.30.4 Changing Passwords. 488
6.11.31 Front Panel Configuration.....489
6.11.31.1 Entering Front Panel Configuration Mode.....489
6.11.31.2 Editing Mode Parameters..... 489
6.11.32 Wi-Fi Operation.....489
6.11.32.1 Turning Wi-Fi On or Off..... 490

6.11.32.2 Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Individual Control)..... 491
6.11.32.3 Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Group Control)..... 492
6.11.32.4 Connecting to a Network Access Point..... 492
6.11.32.5 Checking Wi-Fi Connection Status.....493
6.11.32.6 Refreshing the Network List..... 494
6.11.32.7 Adding a Network.....495
6.11.32.8 Viewing Details of Network Access Points..... 495
6.11.32.9 Removing Network Access Points..... 496
6.12 Utilities..... 497
6.12.1 Squelch Levels 497
6.12.1.1 Setting Squelch Levels 497
6.12.2 Power Levels..... 498
6.12.2.1 Setting Power Levels... 498
6.12.3 Turning Radio Tones/Alerts On or Off.....499
6.12.4 Turning Keypad Tones On or Off.....500
6.12.5 Setting Tones/Alerts Volume Offset Levels.....500
6.12.6 Turning Talk Permit Tone On or Off.....501
6.12.7 Turning Power Up Tone On or Off.....502
6.12.8 Setting Text Message Alert Tones.....502
6.12.9 Changing Display Modes.....503
6.12.10 Adjusting Display Brightness... 504
6.12.11 Turning Horns/Lights On or Off 504
6.12.12 Turning LED Indicators On or Off.....505
6.12.13 Turning Public Address System On or Off.....506
6.12.14 Turning External Public Address System On or Off.....506

6.12.15 Turning Introduction Screen On or Off..... 507
6.12.16 Setting Languages..... 508
6.12.17 Identifying Cable Type..... 508
6.12.18 Voice Operating Transmission. 509
6.12.18.1 Turning Voice Operating Transmission On or Off..... 509
6.12.19 Turning Voice Announcement On or Off 510
6.12.20 Turning Option Board On or Off..... 510
6.12.21 Text-to-Speech..... 510
6.12.21.1 Setting Text-to-Speech..... 511
6.12.22 Turning Automatic Call Forwarding On or Off..... 512
6.12.23 Setting Menu Timer..... 512
6.12.24 Turning Analog Microphone AGC On or Off 513
6.12.25 Turning Digital Microphone AGC On or Off 513
6.12.26 Turning Intelligent Audio On or Off..... 514
6.12.27 Turning the Acoustic Feedback Suppressor Feature On or Off..... 515
6.12.28 Turning Trill Enhancement On or Off..... 515
6.12.29 Audio Ambience..... 516
6.12.29.1 Setting Audio Ambience..... 516
6.12.30 Audio Profiles..... 517
6.12.30.1 Setting Audio Profiles. 517
6.12.31 Turning Global Navigation Satellite System On or Off..... 518
6.12.32 Flexible Receive List 519
6.12.32.1 Turning Flexible Receive List On or Off..... 519
6.12.33 General Radio Information 520
6.12.33.1 Checking Radio Alias and ID 520
6.12.33.2 Checking Firmware and Codeplug Versions..... 521
6.12.33.3 Checking Software Update Information..... 521

6.12.33.4 Checking GNSS Information..... 522
6.12.33.5 Displaying Site Information..... 523
6.12.34 Viewing Enterprise Wi-Fi Certificate Details.....523
Part IV: Authorized Accessories List..... 524
Citizens Band License.....525
Citizens Band Repeater Operation.....525
Limited Warranty..... 526
MOTOROLA SOLUTIONS COMMUNICATION PRODUCTS..... 526
I. WHAT THIS WARRANTY COVERS AND FOR HOW LONG:..... 526
II. GENERAL PROVISIONS..... 527
III. STATE LAW RIGHTS:.....527
IV. HOW TO GET WARRANTY SERVICE.....527
V. WHAT THIS WARRANTY DOES NOT COVER.....527
VI. PATENT AND SOFTWARE PROVISIONS528
VII. GOVERNING LAW..... 529
VIII. For Australia Only..... 529

Important Safety Information

RF Energy Exposure and Product Safety Guide for Mobile Two-Way Radios

CAUTION:
This radio is restricted to Occupational use only.
Before using the radio, read the RF Energy Exposure and Product Safety Guide for Mobile Two-Way Radios which contains important operating instructions for safe usage and RF energy awareness and control for Compliance with applicable standards and Regulations.

Software Version

All the features described in the following sections are supported by the software version **R02.21.01.0000** or later.

See Checking Firmware and Codeplug Versions on page 223 to determine the software version of your radio.

Contact your dealer or administrator for more information.

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As defined by the WEEE directive, this cross-out trash bin label means that customers and end-users in EU countries should not dispose of electronic and electrical equipment or accessories in household waste.

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U.S. Pat. Nos. #5,870,405, #5,826,222, #5,754,974, #5,701,390, #5,715,365, #5,649,050, #5,630,011, #5,581,656, #5,517,511, #5,491,772, #5,247,579, #5,226,084 and #5,195,166.

Radio Care

This section describes the basic handling precaution of the radio.

Table 1: IP Specification

IP Specification	Description
IP67	Allows your radio to withstand adverse field conditions such as being submersed in water.

CAUTION:
Do not disassemble your radio. This could damage radio seals and result in leak paths into the radio. Radio maintenance should only be done in service depot that is equipped to test and replace the seal on the radio.

- If your radio has been submersed in water, shake your radio well to remove any water that may be trapped inside the speaker grille and microphone port. Trapped water could cause decreased audio performance.
- If your radio's battery contact area has been exposed to water, clean and dry battery contacts on both your radio and the battery before attaching the battery to radio. The residual water could short-circuit the radio.
- If your radio has been submersed in a corrosive substance (for example, saltwater), rinse radio and battery in fresh water then dry radio and battery.
- To clean the exterior surfaces of your radio, use a diluted solution of mild dishwashing detergent and fresh water (for example, one teaspoon of detergent to one gallon of water).
- Never poke the vent (hole) located on the radio chassis below the battery contact. This vent allows for pressure equalization in the radio. Doing so may create a leak path into radio and your radio's submersibility may be lost.
- Never obstruct or cover the vent, even with a label.
- Ensure that no oily substances come in contact with the vent.
- Your radio with antenna attached properly is designed to be submersible to a maximum depth of 1 m (3.28 ft) and a maximum submersion time of 30 minutes. Exceeding either maximum limit or use without antenna may result in damage to your radio.

- When cleaning your radio, do not use a high pressure jet spray on radio as this will exceed the 1 m depth pressure and may cause water to leak into your radio.

Getting Started

Getting Started provides instructions to prepare your radio for use.

1.1 Turning the Radio On

Press the **On/Off** button.

If successful, your radio shows the following indications:

- A tone sounds.

  NOTICE:
  If the Tones/Alerts function is disabled, there is no tone upon powering up.

- The green LED lights up.
- The display shows `MOTOTRBO (TM)`, followed by a welcome message or image.
- The Home screen lights up.

If your radio does not power up, check your battery. Make sure that the battery is charged and properly attached. Contact your dealer if your radio still does not power up.

1.2 Turning the Radio Off

Press and hold the **On/Off** button.

The radio may take up to seven seconds to completely turn off.

The display shows `Powering Down`.

1.3 Adjusting the Volume

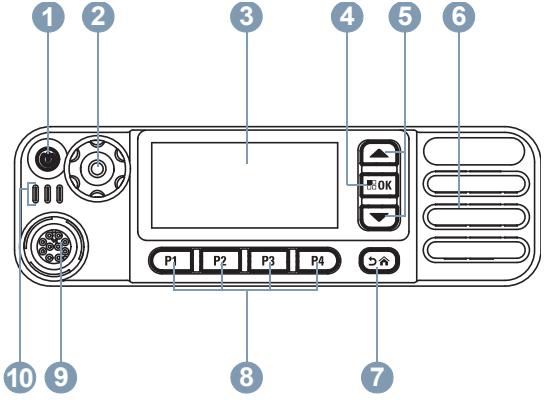
To adjust the volume of your radio, perform one of the following actions:

- To increase the volume, turn the **On/Off/Volume Control** knob clockwise.
- To decrease the volume, turn the **On/Off/Volume Control** knob counterclockwise.

NOTICE:
Your radio can be programmed to have a minimum volume offset where the volume level cannot be lowered past the programmed minimum volume.

Radio Controls

This chapter explains the buttons and functions to control the radio.



1 On/Off/Information Button

2 Volume/Channel Knob

3 Display

4 Menu/OK Button

5 Scroll Up/Down Buttons

6 Speaker

7 Return/Home Button

8 Front Programmable Buttons

9 Accessory Connector

10 LED Indicators

2.1

Volume/Channel Knob

The **Volume/Channel Knob** can be programmed for dual volume and channel control, or for volume control only.

To adjust the volume, see Adjusting the Volume on page 39.

To change the channels, press and hold the **Volume/Channel Knob** until the channel selection state is displayed. Turn the **Volume/Channel Knob** to select the channel. Do one of the following to exit the channel selection state:

- Press the **Volume/Channel Knob**.
- Press OK.
- Press .
- Wait for the menu timer to expire.

2.1.1

Setting Dual Knob Operation Preference

Follow the procedure to set the dual knob operation preference of the radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Dual Knob`. Press OK to select.

   The display shows `Volume Only` and `Volume & Channel`.
5. Press ▲ or ▼ to the required setting. Press OK to select.

   A ✓ appears beside the selected settings. The screen returns to the previous menu.

2.2

Keypad Microphone Buttons

You can use the 3 x 4 alphanumeric keypad on the 4-Way Navigation Keypad Microphone (Motorola Solutions part number RMN5127_) to access your radio features. Many characters require that you press a key multiple times. The table shows the number of times a key needs to be pressed to generate the required character.

Key	Number of Times Key is Pressed												
	1	2	3	4	5	6	7	8	9	10	11	12	13
	1	.	,	?	!	@	&	'	%	—	:	*	#
	A	B	C	2									
	D	E	F	3									
	G	H	I	4									
	J	K	L	5									

Key	Number of Times Key is Pressed												
	1	2	3	4	5	6	7	8	9	10	11	12	13
6 MNO	M	N	O	6									
7 PQRS	P	Q	R	S	7								
8 TUV	T	U	V	8									
9 WXYZ	W	X	Y	Z	9								
0	0	**NOTICE:** Press to enter "0" and long press to activate the CAPS lock. Another long press to turn off the CAPS lock.											
*	* or del	**NOTICE:** Press during text entry to delete the character. Press during numeric entry to enter a "*".											
#	# or space	**NOTICE:** Press during text entry to insert a space. Press during numeric entry to enter a "#".											

WAVE

Wide Area Voice Environment (WAVE™) provides a new method of making calls between two or more radios.

WAVE allows you to communicate across different networks and devices using Wi-Fi. WAVE calls are made when the radio is connected to an IP network through Wi-Fi.

Your radio supports different system configurations:

- WAVE OnCloud/OnPremise
- WAVE Tactical/5000

The method to initiate a WAVE Call is different for each system type. Refer to the appropriate section depending on the system configuration of your radio.

Table 2: WAVE Display Icons

The following icons appear momentarily on the display when WAVE is enabled.

	WAVE Connected WAVE is connected.
	WAVE Disconnected WAVE is disconnected.

NOTICE:
This feature is applicable to specific models only.

3.1 WAVE OnCloud/OnPremise

3.1.1 Switching from Radio Mode to WAVE Mode

1 Do one of the following:

- Press the programmed **WAVE** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to WAVE. Press OK to select.

The yellow LED double blinks.

The display shows a momentary notice of `Switching to WAVE`, then shows `Preparing WAVE`.

NOTICE:
Your radio automatically enables Wi-Fi after you switch to WAVE mode.

If successful:

- The blinking yellow LED turns off.
- The display shows the WAVE connected icon, `<Talkgroup Alias>`, and `<Channel Index>`.

If unsuccessful:

- A negative tone sounds.
- The red LED blinks.
- The display shows the WAVE disconnected icon and `No Connection` or `Activation: Fail`, depending on the error type.

NOTICE:
Synchronization occurs when new settings are updated to your radio. When you enter the WAVE mode, your radio displays `Syncing...`. When the synchronization completes, your radio returns to the home screen.

3.1.2
Making WAVE Group Calls

1. Use the channel selector knob or buttons to select a WAVE talkgroup.
2. To call, press the **PTT** button.

If the call is successful, the display shows the Group Call icon and the WAVE talkgroup alias.

If the call is unsuccessful:

- A negative indicator tone sounds.
- The display shows a momentary notice of `Call Failed` or `No Participants`.

3.1.3
Receiving and Responding to WAVE Group Calls

When you receive a WAVE group call:

- A tone sounds.
- The display shows the group call icon, WAVE talkgroup alias, and caller alias.

- Your radio unmutes and the incoming call sounds through the speaker.

1 To call, press the **PTT** button.

2 To listen, release the **PTT** button.

3.1.4

Receiving and Responding to WAVE Private Calls

When you receive a WAVE private call:

- A tone sounds.
- The display shows the private call icon and caller alias.
- Your radio unmutes and the incoming call sounds through the speaker.

1 To call, press the **PTT** button.

2 To listen, release the **PTT** button.

3.1.5

Switching from WAVE Mode to Radio Mode

1 Do one of the following:

- Press the programmed **Radio Mode** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Radio Mode`. Press OK to select.

The yellow LED double blinks.

The display shows a momentary notice of `Switching to Radio` and then shows `Preparing Radio`.

When successful:

- The blinking yellow LED turns off.
- The WAVE connected icon disappears on the status bar. The display shows `<Talkgroup Alias>` and `<Channel Index>`.

3.2 WAVE Tactical/5000

3.2.1 Setting Active WAVE Channels

NOTICE:
WAVE channels are configured through CPS. Your radio automatically enables Wi-Fi and logs in to the WAVE server once you enter WAVE channel.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `WAVE Channels`. Press OK to select.
3. Press ▲ or ▼ to the required WAVE channel. Press OK to select.
4. Press ▲ or ▼ to `Set As Active`. Press OK to select.

The display shows ✓ beside the selected channel.

3.2.2 Viewing WAVE Channel Information

1. Do one of the following:
   - Press the programmed **WAVE Channel List** button. Skip the following steps.
   - Press OK to access the menu.
2. Press ▲ or ▼ to `WAVE Channels`. Press OK to select.
3. Press ▲ or ▼ to the required WAVE channel. Press OK to select.
4. Press ▲ or ▼ to `View Details`. Press OK to select.

The display shows the WAVE channel details.

3.2.3

Viewing WAVE Endpoints Information

1 Do one of the following:

- Press the programmed **Contact** button. Skip to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to Endpoints. Press OK to select.

3 Press ▲ or ▼ to the required WAVE Endpoint. Press OK to select.

4 Press OK to select View Details.

The display shows the WAVE Endpoint details.

3.2.4

Changing WAVE Configuration

Follow the procedure to set the WAVE server IP address, user ID, and password.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to WAVE. Press OK to select.

5 Press OK to select Server Address. Press OK to change the server address. Press OK to select.

6 Press ▼ to User ID. Press OK to change the user ID. Press OK to select.

7 Press to Password. Press OK to view or change the WAVE password. Press OK to select.

8 Press to Apply. Press OK to apply all the changes made.

The display shows the positive mini notice momentarily before returning to the Radio Settings screen.

3.2.5
Making WAVE Group Calls

1 Select the WAVE channel with the required group alias or ID.

2 Press the **PTT** button to make the call.

The green LED lights up. The first text line displays the **Group Call** icon and alias. The second text line displays the WAVE group alias.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled

4 Release the **PTT** button to listen.

The green LED lights up when the target radio responds.The display shows the **Group Call** icon, and alias or ID, and the transmitting radio alias or ID.

5 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. The radio returns to the screen you were on prior to initiating the call.

Capacity Max

Capacity Max is MOTOTRBO control channel based trunked radio system.

MOTOTRBO digital radio products are marketed by Motorola Solutions primarily to business and industrial users. MOTOTRBO uses the European Telecommunications Standards Institute (ETSI) Digital Mobile Radio (DMR) standard, that is, two-slot Time Division Multiple Access (TDMA), to pack simultaneous voice or data in a 12.5 kHz channel (6.25 kHz equivalent).

4.1

Push-To-Talk (PTT) Button

The **PTT** button serves two basic purposes.

- While a call is in progress, the **PTT** button allows the radio to transmit to other radios in the call. The microphone is activated when the **PTT** button is pressed.
- While a call is not in progress, the **PTT** button is used to make a new call.

Press and hold the **PTT** button to talk. Release the **PTT** button to listen.

If the Talk Permit Tone or the **PTT** Sidetone is enabled, wait until the short alert tone ends before talking.

If the Channel Free Indication feature is enabled on your radio (programmed by your dealer), you will hear a short alert tone the moment the target radio (the radio that is receiving your call) releases the **PTT** button, indicating the channel is free for you to respond.

You hear a continuous Talk Prohibit Tone if your call is interrupted, for example when the radio receives an Emergency call. You should release the **PTT** button.

4.2

Programmable Buttons

Depending on the duration of a button press, your dealer can program the programmable buttons as shortcuts to radio functions.

Short press
Pressing and releasing rapidly.

Long press
Pressing and holding for the programmed duration.

NOTICE:
See Emergency Operation on page 427 for more information on the programmed duration of the **Emergency** button.

4.3

Assignable Radio Functions

The following radio functions can be assigned to the programmable buttons by your dealer or system administrator.

Audio Ambience
Allows the user to select an environment the radio is operating in.

Audio Profiles
Allows the user to select the preferred audio profile.

Bluetooth® Audio Switch
Toggles audio routing between internal radio speaker and external Bluetooth-enabled accessory.

Bluetooth Connect
Initiates a Bluetooth find-and-connect operation.

Bluetooth Disconnect
Terminates all existing Bluetooth connections between your radio and any Bluetooth-enabled devices.

Bluetooth Discoverable
Enables your radio to enter Bluetooth Discoverable Mode.

Contacts
Provides direct access to the Contacts list.

Call Alert
Provides direct access to the contacts list for you to select a contact to whom a Call Alert can be sent.

Call Log
Selects the call log list.

Emergency
Depending on the programming, initiates or cancels an emergency.

Ext Public Address (PA)
Toggles audio routing between the connected PA loudspeaker amplifier and the internal PA system of the radio.

Reset Home Channel
Sets a new home channel.

Silence Home Channel Reminder
Mutes the Home Channel Reminder.

Indoor Location
Toggles Indoor Location on or off.

Intelligent Audio
Toggles intelligent audio on or off.

Manual Dial
Initiates a Private Call by keying in any subscriber ID.

Manual Site Roam
Starts the manual site search.

Mic AGC
Toggles the internal microphone automatic gain control (AGC) on or off.

Notifications
Provides direct access to the Notifications list.

One Touch Access
Directly initiates a predefined Broadcast, Private, Phone or Group Call, a Call Alert, or a Quick Text message.

Option Board Feature
Toggles option board feature(s) on or off for option board-enabled channels.

Phone
Provides direct access to the Phone Contacts list.

Privacy
Toggles privacy on or off.

Public Address (PA)
Toggles the internal PA system of the radio on or off.

Radio Alias and ID
Provides radio alias and ID.

Remote Monitor
Turns on the microphone of a target radio without it giving any indicators.

Site Info
Displays the current Capacity Max site name and ID.

Plays site announcement voice messages for the current site when Voice Announcement is enabled.

Site Lock
When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Telemetry Control
Controls the Output Pin on a local or remote radio.

Text Message
Selects the text message menu.

Toggle Call Priority Level
Enables your radio to enter Call Priority Level High/Normal.

Trill Enhancement
Toggles trill enhancement on or off.

Voice Announcement On/Off
Toggles voice announcement on or off.

Voice Announcement for Channel
Plays zone and channel announcement voice messages for the current channel. This function is unavailable when Voice Announcement is disabled.

Wi-Fi
Toggles Wi-Fi on or off.

Zone Selection
Allows selection from a list of zones.

4.4

Assignable Settings or Utility Functions

The following radio settings or utility functions can be assigned to the programmable buttons.

Tones/Alerts
Toggles all tones and alerts on or off.

Backlight
Toggles display backlight on or off.

Channel Up/Down
Depending on the programming, changes channel to previous or next channel.

Display Mode
Toggles the day/night display mode on or off.

Power Level
Toggles transmit power level between high and low.

4.5

Accessing Programmed Functions

Follow the procedure to access programmed functions in your radio.

1 Do one of the following:

- Press the programmed button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to the menu function, and press OK to select a function or enter a sub-menu.

3 Do one of the following:

- Press ↩ to return to the previous screen.
- Long press ↩ to return to the Home screen.

Your radio automatically exits the menu after a period of inactivity and returns to the Home screen.

The Menu Navigation Buttons are also available on a keypad microphone. See Keypad Microphone Buttons on page 42.

4.6

Status Indicators

This chapter explains the status indicators and audio tones used in the radio.

4.6.1

Icons

The Liquid Crystal Display (LCD) of your radio shows the radio status, text entries, and menu entries.

Table 3: Display Icons

The following icons appear on the status bar at the top of the radio display. The icons are arranged left most in order of appearance or usage, and are channel-specific.

	Bluetooth Connected The Bluetooth feature is enabled. The icon stays lit when a remote Bluetooth device is connected.
	Bluetooth Not Connected The Bluetooth feature is enabled but there is no remote Bluetooth device connected.
	DGNA Radio is in DGNA Talkgroup.
	Emergency Radio is in Emergency mode.

	GNSS Available GNSS feature is enabled. The icon stays lit when a position fix is available.
	GNSS Not Available GNSS feature is enabled but is not receiving data from the satellite.
	High Volume Data Radio is receiving high volume data and channel is busy.
	Indoor Location Available[1] Indoor location status is on and available.
	Indoor Location Unavailable[1] Indoor location status is on but unavailable due to Bluetooth disabled or Beacons Scan suspended by Bluetooth.

	Mute Mode Mute Mode is enabled and speaker is muted.
	Notification Notification List has one or more missed events.
	Option Board The Option Board is enabled. (Option board enabled models only)
	Option Board Non-Function The Option Board is disabled.
	Over-the-Air Programming Delay Timer Indicates time left before automatic restart of radio.
	Priority 1 Indicates Priority Talkgroup 1.

[1] Only applicable for models with the latest software and hardware.

	Priority 2 Indicates Priority Talkgroup 2.
	Received Signal Strength Indicator (RSSI) The number of bars displayed represents the radio signal strength. Four bars indicate the strongest signal. This icon is only displayed while receiving.
	Response Inhibit Response Inhibit is enabled.
	Ring Only Ringing mode is enabled.
	Secure The Privacy feature is enabled.
	Shared Frequency Indicates radio is locking to shared control channel.

	Silent Ring Silent ring mode is enabled.
	Site Roaming The site roaming feature is enabled.
	Status Indicates a new status message.
	Tones Disable Tones are turned off.
	Unsecure The Privacy feature is disabled.
	Wi-Fi Excellent[2] Wi-Fi signal is excellent.
	Wi-Fi Good[2] Wi-Fi signal is good.
	Wi-Fi Average[2] Wi-Fi signal is average.

[2] Only applicable for DM4601e.

	Wi-Fi Poor[2] Wi-Fi signal is poor.
	Wi-Fi Unavailable[2] Wi-Fi signal is unavailable.

Table 4: Advance Menu Icons

The following icons appear beside menu items that offer a choice between two options or as an indication that there is a sub-menu offering two options.

	Checkbox (Checked) Indicates that the option is selected.
	Checkbox (Empty) Indicates that the option is not selected.
	Solid Black Box Indicates that the option selected for the menu item with a sub-menu.

Table 5: Bluetooth Device Icons

The following icons appear next to items in the list of Bluetooth-enabled devices available to indicate the device type.

	Bluetooth Audio Device Bluetooth-enabled audio device, such as a headset.
	Bluetooth Data Device Bluetooth-enabled data device, such as a scanner.
	Bluetooth PTT Device Bluetooth-enabled PTT device, such as a PTT-Only Device (POD).

	Bluetooth Sensor Device[2] Bluetooth-enabled sensor device, such as gas sensor.

Table 6: Call Icons

The following icons appear on the display during a call. These icons also appear in the Contacts list to indicate alias or ID type.

	Bluetooth PC Call Indicates a Bluetooth PC Call in progress. In the Contacts list, it indicates a Bluetooth PC Call alias (name) or ID (number).
	Call Priority High Indicating Call Priority Level High is enabled.
	DGNA Call Indicates a DGNA Call is in progress.
	Dispatch Call The Dispatch Call contact type is used to send a text message to a dispatcher PC through a third-party Text Message Server.
	Group Call/All Call Indicates a Group Call or All Call in progress. In the Contacts list, it indicates a group alias (name) or ID (number).
	Private Call Indicates a Private Call in progress. In the Contacts list, it indicates a subscriber alias (name) or ID (number).
	Phone Call as Group/All Call Indicates a Phone Call as Group Call or All Call in progress. In the Contacts list, it indicates a group alias (name) or ID (number).

	Phone Call as Private Call Indicates a Phone Call as Private Call in progress. In the Contacts list, it indicates a phone alias (name) or ID (number).

Table 7: Job Tickets Icons

The following icons appear momentarily on the display in the Job Ticket folder.

	All Jobs Indicates all jobs listed.
	New Jobs Indicates new jobs.
	In Progress Jobs are transmitting. This is seen before indication for Job Tickets Send Failed or Sent Successfully.
	Send Failed Jobs cannot be sent.
	Sent Successfully Jobs have been successfully sent.
	Priority 1 Indicates Priority Level 1 for jobs.
	Priority 2 Indicates Priority Level 2 for jobs.
	Priority 3 Indicates Priority Level 3 for jobs.

Table 8: Mini Notice Icons

The following icons appear momentarily on the display after an action to perform a task is taken.

	Failed Transmission (Negative) Failed action taken.
	Successful Transmission (Positive) Successful action taken.

	Transmission in Progress (Transitional) Transmitting. This is seen before indication for Successful Transmission or Failed Transmission.

Table 9: Sent Items Icons

The following icons appear at the top right corner of the display in the Sent Items folder.

	In Progress The text message to a subscriber alias or ID is pending transmission, followed by waiting for acknowledgement. The text message to a group alias or ID is pending transmission.
	Individual or Group Message Read The text message has been read.
	Individual or Group Message Unread The text message has not been read.
	Send Failed The text message cannot be sent.
	Sent Successfully The text message has been successfully sent.

4.6.2
LED Indicator

The LED indicator shows the operational status of your radio.

Blinking Red

Radio has failed the self-test upon powering up.

Radio is receiving an emergency transmission.

Radio is transmitting in low battery state.

Radio has moved out of range if Auto-Range Transponder System is configured.

Mute Mode is enabled.

Solid Green

Radio is powering up.

Radio is transmitting.

Radio is sending a Call Alert or an emergency transmission.

Blinking Green

Radio is receiving a call or data.

Radio is retrieving Over-the-Air Programming transmissions over the air.

Radio is detecting activity over the air.

NOTICE:
This activity may or may not affect the programmed channel of the radio due to the nature of the digital protocol.

Double Blinking Green

Radio is receiving a privacy-enabled call or data.

Solid Yellow

Radio is in Bluetooth Discoverable Mode.

Blinking Yellow

Radio has yet to respond to a Call Alert.

Double Blinking Yellow

Radio has Auto Roaming enabled.

Radio is actively searching for a new site.

Radio has yet to respond to a Group Call Alert.

Radio is locked.

4.6.3

Tones

The following are the tones that sound through on the radio speaker.

☐ High Pitched Tone

■ Low Pitched Tone

4.6.3.1

Audio Tones

Audio tones provide you with audible indications of the status, or response to data received on the radio.

Continuous Tone

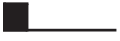
A monotone sound. Sounds continuously until termination.

Periodic Tone

Sounds periodically depending on the duration set by the radio. Tone starts, stops, and repeats itself.

Repetitive Tone

A single tone that repeats itself until it is terminated by the user.



Momentary Tone

Sounds once for a short duration set by the radio.

4.6.3.2

Indicator Tones

Indicator tones provide you with audible indications of the status after an action to perform a task is taken.

Positive Indicator Tone

Negative Indicator Tone

4.7

Registration

There are a number of registration-related messages that you may receive.

Registering

Typically, registration is sent to the system during power-up, Talkgroup change, or during site roaming. If a radio fails registration on a site, the radio automatically attempts to roam to another site. The radio temporarily removes the site where registration was attempted from the roaming list.

The indication means that the radio is busy searching for a site to roam, or that the radio has found a site successfully but is waiting for a response to the registration messages from the radio.

When `Registering` is displayed on the radio, a tone sounds and the yellow LED double flashes to indicate a site search.

If the indications persist, the user should change locations or if allowed, manually roam to another site.

Out of Range

A radio is deemed to be out of range when the radio is unable to detect a signal from the system or from the current site. Typically, this indication means that the radio is outside of the geographic outbound radio frequency (RF) coverage range.

When `Out of Range` is displayed on the radio, a repetitive tone sounds and the red LED flashes.

Contact your dealer or system administrator if the radio still receives out of range indications while being in an area with good RF coverage.

Talkgroup Affiliation Failed

A radio tries to affiliate to the Talkgroup specified in the channels or Unified Knob Position (UKP) during registration.

A radio that is in affiliation fail state is unable to make or receive calls from the Talkgroup that the radio is trying to affiliate to.

When a radio fails to affiliate with a Talkgroup, `UKP Alias` is displayed in the home screen with a highlighted background.

Contact your dealer or system administrator if the radio receives affiliation failure indications.

Register Denied

Registration denied indicators are received when the registration with the system is not accepted.

The radio does not indicate to the radio user the specific reason the registration was denied. Normally, a registration is denied when the system operator has disabled the access of the radio to the system.

When a radio is denied registration, `Register Denied` is displayed on the radio and the yellow LED double flashes to indicate a site search.

4.8

Zone and Channel Selections

This chapter explains the operations to select a zone or channel on your radio.

The radio can be programmed with a maximum of 250 Capacity Max Zones with a maximum of 160 Channels per zone. Each Capacity Max zone contains a maximum of 16

assignable positions.Each Capacity Max zone contains a maximum of 16 assignable positions.

4.8.1
Selecting Zones

Follow the procedure to select the required zone on your radio.

1 Do one of the following:

- Press the programmed **Zone Selection** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Zone`. Press OK to select.

The display shows ✓ and the current zone.

3 Press ▲ or ▼ to the required zone. Press OK to select.

The display shows `<Zone> Selected` momentarily and returns to the selected zone screen.

4.8.2
Selecting Zones by Using the Alias Search

Follow the procedure to select the required zone on your radio by using the alias search.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Zone`. Press OK to select.

The display shows ✓ and the current zone.

3 Enter the first character of the required alias.

The display shows a blinking cursor.

4 Enter the rest of the characters of the required alias.

The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.

The first text line shows the characters you entered. The following text lines show the shortlisted search results.

5 Press OK to select.

The display shows `<Zone> Selected` momentarily and returns to the selected zone screen.

4.8.3
Selecting a Call Type

Use the Channel Selector Knob to select a call type. This can be a Group Call, Broadcast Call, All Call, or Private Call, depending on how your radio is programmed. If you change the Channel Selector Knob to a different position (that has a call type assigned to it), this causes the radio to re-register with the Capacity Max System. The radio registers with the Talkgroup ID that has been programmed for the new Channel Selector Knob position call type.

Your radio does not operate when selected to an unprogrammed channel, use the Channel Selector Knob to select a programmed channel instead.

Once the required zone is displayed (if you have multiple zones in your radio), turn the programmed Channel Selector Knob to select the call type.

4.8.4
Selecting a Site

A site provides coverage for a specific area. In a multi-site network, the Capacity Max radio will automatically search for a new site when the signal level from the current site drops to an unacceptable level.

The Capacity Max system can support up to 250 sites.

4.8.5
Roam Request

A Roam Request tells the radio to search for a different site, even if the signal from the current site is acceptable.

If there are no sites available:

- The radio display shows `Searching` and continues to search through the list of sites.

- The radio will return to the previous site, if the previous site is still available.

NOTICE:
This is programmed by your dealer.

Press the programmed **Manual Site Roam** button.

You hear a tone, indicating the radio has switched to a new site. The display shows `Site ID <Site Number>`.

4.8.6
Site Lock On/Off

When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Press the programmed **Site Lock** button.

If the **Site Lock** function is toggled on:

- You hear a positive indicator tone, indicating the radio has locked to the current site.
- The display shows `Site Locked`.

If the **Site Lock** function is toggled off:

- You hear a negative indicator tone, indicating the radio is unlocked.
- The display shows `Site Unlocked`.

4.8.7
Site Restriction

In Capacity Max system, your radio administrator has the ability to decide which network sites your radio is and is not allowed to use.

The radio does not have to be reprogrammed to change the list of allowed and disallowed sites. If your radio attempts to register at a disallowed site, your radio receives indication that the site is denied. The radio then searches for a different network site.

When experiencing site restrictions, your radio displays `Register Denied` and the yellow LED double flashes to indicate a site search.

4.8.8

Site Trunking

Site Trunking is only available with Capacity Max system. A site must be able to communicate with the Trunk Controller to be considered as System Trunking.

If the site cannot communicate with the Trunk Controller in the system, a radio enters Site Trunking mode. While in Site Trunking, the radio provides a periodic audible and visual indication to the user to inform the user of their limited functionality.

When a radio is in Site Trunking, the radio displays `Site Trunking` and a repetitive tone sounds.

The radios in Site Trunking are still able to make group and individual voice calls as well as send text messages to other radios within the same site. Voice consoles, logging recorders, phone gateways, and data applications cannot communicate to the radios at the site.

Once in Site Trunking, a radio that is involved in calls across multiple sites will only be able to communicate with other radios within the same site. Communication to and from other sites would be lost.

NOTICE:
If there are multiple sites that cover the current location of the radio and one of the sites enters Site Trunking, the radio roams to another site if within coverage.

4.9

Calls

This chapter explains the operations to receive, respond to, make, and stop calls.

You can select a subscriber alias or ID, or group alias or ID after you have selected a channel by using one of these features:

Alias Search
This method is used for Group, Private, and All Calls only with a keypad microphone.

Contacts List
This method provides direct access to the Contacts list.

Manual Dial (by using Contacts)
This method is used for Private and Phone Calls only with a keypad microphone.

Programmed Number Keys

This method is used for Group, Private, and All Calls only with a keypad microphone.

NOTICE:
You can only have one alias or ID assigned to a number key, but you can have more than one number key associated to an alias or ID. All the number keys on a keypad microphone can be assigned. See Assigning Entries to Programmable Number Keys on page 411 for more information.

Programmed One Touch Access Button

This method is used for Group, Private, and Phone Calls only.

You can only have one ID assigned to a **One Touch Access** button with a short or long programmable button press. Your radio can have multiple **One Touch Access** buttons programmed.

Programmable Button

This method is used for Phone Calls only.

Volume/Channel Selector Knob

This method manually selects a subscriber alias or ID, or group alias or ID.

The LED lights up solid green while the radio is transmitting and blinks green when the radio is receiving.

NOTICE:
The LED lights up solid green while the radio is transmitting and double blinks green when the radio is receiving a privacy-enabled call.

To unscramble a privacy-enabled call, your radio must have the same Privacy Key, or the same Key Value and Key ID (programmed by your dealer), as the transmitting radio (the radio you are receiving the call from).

See Privacy on page 463 for more information.

4.9.1
Group Calls

Your radio must be configured as part of a group to receive a call from or make a call to the group of users.

4.9.1.1
Making Group Calls

To make a call to a group of users, your radio must be configured as part of that group.

1 Do one of the following:

- Select a channel with the active group alias or ID. See Selecting a Call Type on page 65.
- Press the programmed **One Touch Access** button.

2 Press the **PTT** button to make the call.

The green LED lights up. The first text line shows the **Group Call** icon and alias.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

4 Release the **PTT** button to listen.

The green LED lights up when the target radio responds. The display shows the **Group Call** icon, and alias or ID, and the transmitting radio alias or ID.

5 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period.

The call initiator can press to end a Group Call.

4.9.1.2

Making Group Calls by Using the Contacts List

1 Press to access the menu.

2 Press or to Contacts. Press to select.

3 Press or to the required alias or ID.

Press to select.

4 Press the **PTT** button to make the call.

The green LED lights up.

The first line displays the subscriber alias or ID. The second line displays `Group Call` and the **Group Call** icon.

5 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

6 Release the **PTT** button to listen.

The green LED blinks when any user in the group responds. The display shows the **Group Call** icon, and alias or ID, and the transmitting radio alias or ID.

7 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period.

You hear a short tone. The display shows `Call Ended`.

4.9.1.3

Making Group Calls by Using the Programmable Number Key

Follow the procedure to make Group Calls on your radio by using the programmable number key.

1 Long press the programmed number key to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

2 Press the **PTT** button to make the call.

The green LED lights up.

3 Release the **PTT** button to listen.

The green LED blinks when any user in the group responds.

4 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. The radio returns to the screen you were on before initiating the call.

The call initiator can press to end the Group Call.

See Assigning Entries to Programmable Number Keys on page 411 for more information.

4.9.1.4

Making Group Calls by Using the Alias Search

You can also use alias or alphanumeric search to retrieve the required subscriber alias. This feature is only applicable while in Contacts.

1 Press OK to access the menu.

2 Press or to Contacts. Press OK to select.

The display shows the entries in alphabetical order.

3 Press or to the required subscriber alias or ID. The first line of the display shows Phone Number:. The second line of the display shows a blinking cursor. Use the keypad to enter a telephone number.

4 Press OK to select. If the entry selected is empty, a negative indicator tone sounds and the display shows Phone Call Invalid #.

5 Press ▲ or ▼ to Call Phone and Press OK to select. If the access code was not preconfigured in the Contacts list, the first line of the display shows `Access Code:`. The second line of the display shows a blinking cursor. Enter the access code and press the OK button to proceed. If successful, the DTMF tone sounds. You hear the dialing tone of the telephone user. The first line of the display shows the subscriber alias or ID, and the RSSI icon. The second line of the display shows `Phone Call` and the Phone Call icon. If unsuccessful, a tone sounds and the display shows `Phone Call Failed`. Your radio returns to the Access Code input screen. If the access code was preconfigured in the Contacts list, the radio returns to the screen you were on prior to initiating the call.

6 Press the **PTT** button to talk and release it to listen. The **RSSI** icon disappears during transmission.

7 To enter extra digits, if requested by the Phone Call, do one of the following.

- Press any keypad key to begin the input of the extra digits. The first line of the display shows `Extra Digits:`. The second line of the display shows a blinking cursor. Enter the extra digits and press the OK button to proceed. The DTMF tone sounds and the radio returns to the previous screen.
- Press **One Touch Access** button. The DTMF tone sounds. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

8 Press ↩ to end the call. If deaccess code was not preconfigured in the Contacts list, the first line of the display shows `De-Access Code:`. The second line of the display shows a blinking cursor. Enter the deaccess code and press OK to proceed. The radio returns to the previous screen. The DTMF tone sounds and the display shows `Ending Phone Call`. If successful, a tone sounds and the display shows Phone Call Ended. Your radio returns to the Phone Call screen. If unsuccessful, your radio returns to the Phone Call screen. When you press the **PTT** button while in the Phone Contacts screen, as tone sounds and the display shows `Press OK to Place Phone Call`. When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`.

If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

9 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows `Call Ended`.

The call initiator can press to end the Group Call.

NOTICE:

During the channel access, press to dismiss the call attempt and a tone sounds button or to exit alias search. Press OK button or to exit alias search. During the call, when you press **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call. During channel access and access/deaccess code or extra digits transmission, you radio responds to On/Off button, Volume Knob, and Channel Rocker only. A tone sounds for every invalid input.

4.9.1.5

Responding to Group Calls

When you receive a Group Call:

- The green LED blinks.
- The display shows the **Group Call** icon at the top right corner.
- The first text line shows the caller alias.
- The second text line displays the group call alias.

- Your radio unmutes and the incoming call sounds through the speaker.

1 Do one of the following:

- If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.
- If the Voice Interrupt feature is enabled, press the **PTT** button to interrupt the audio from the transmitting radio and free the channel for you to respond.

The green LED lights up.

2 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period.

4.9.2
Broadcast Call

A Broadcast Call is a one-way voice call from any user to an entire talkgroup.

The Broadcast Call feature allows only the call initiating user to transmit to the talkgroup, while the recipients of the call cannot respond.

The broadcast initiator can also end the broadcast call. To receive a call from a group of users, or to call a group of users, the radio must be configured as part of a group.

4.9.2.1
Making Broadcast Calls

1 Do one of the following:

- Select a channel with the active group alias or ID. See Selecting a Call Type on page 65.
- Press the programmed **One Touch Access** button.

2 Press the **PTT** button to make the call.

The green LED lights up. The display shows the **Group Call** icon and alias.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

The call initiator can press to end the Broadcast Call.

4.9.2.2

Making Broadcast Calls Using the Contact List

1 Press OK to access the menu.

2 Press or to `Contacts`. Press OK to select.

3 Press or to the required alias or ID.

Press OK to select.

4 Press the **PTT** button to make the call.

The green LED blinks.
The first line displays the subscriber alias or ID. The second line displays `Group Call` and the **Group Call** icon.

5 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

The call initiator can press to end the Broadcast Call.

4.9.2.3

Making Broadcast Calls Using the Programmable Number Key

Follow the procedure to make Broadcast Calls on your radio using the programmable number key.

1 Long press the programmed number key to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

2 Press the **PTT** button to make the call.

The green LED lights up. The display shows the **Group Call** icon at the top right corner. The first text line shows the caller alias.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

The call initiator can press to end the Broadcast Call.

4.9.2.4

Receiving Broadcast Calls

Follow the procedure to receive a Broadcast Call on your radio.

When you receive a Broadcast Call:

- The green LED blinks.
- The display shows the **Group Call** icon at the top right corner.
- The first text line shows the caller alias.
- The second text line displays the group call alias.

- Your radio unmutes and the incoming call sounds through the speaker.

NOTICE:
Recipient users are not allowed to Talkback during a Broadcast Call. The display shows `Talkback Prohibit`. The Talkback Prohibit Tone plays momentarily if the **PTT** button is pressed during a Broadcast Call.

4.9.3
Private Call

A Private Call is a call from an individual radio to another individual radio.

There are two ways to set up a Private Call.

- The first call type is called Off Air Call Set-Up (OACSU). OACSU sets up the call after performing a radio presence check and completes the call automatically.
- The second type is called Full Off Air Call Set-Up (FOACSU). FOACSU also sets up the call after performing a radio presence check. However, FOACSU calls require user acknowledgment to complete the call and allows the user to either Accept or Decline the call.

The type of call is configured by the system administrator.

NOTICE:
Both the call initiator and recipient are able to terminate an on-going Private Call by pressing .

4.9.3.1
Making Private Calls

Your radio must be programmed for you to initiate a Private Call. If this feature is not enabled, you hear a negative indicator tone when you initiate the call. If the target radio is not available, a short tone sounds and the display show `Party Not Available`.

1 Do one of the following:
   - Select a channel with the active subscriber alias or ID. See Selecting a Call Type on page 65.
   - Press the programmed **One Touch Access** button.

2 Press the **PTT** button to make the call.

   The green LED lights up. The display shows the **Private Call** icon, the subscriber alias, and call status.

3 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

4 Release the **PTT** button to listen.

The green LED lights up when the target radio responds.

5 The call ends when there is no voice activity for a predetermined period. You will hear a short tone.The display shows `Call Ended`.

Both the call initiator and recipient are able to terminate an on-going Private Call by pressing .

4.9.3.2

Making Private Calls by Using the Programmable Number Key

Follow the procedure to make Private Calls on your radio by using the programmable number key.

1 Long press the programmed number key to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

2 Press the **PTT** button to make the call.

The green LED lights up. The display shows the **Private Call** icon, subscriber ID or alias, and call status.

3 Release the **PTT** button to listen.

The green LED blinks when the target radio responds. The display shows the destination alias.

4 The call ends when there is no voice activity for a predetermined period. You will hear a short tone. The display shows `Call Ended`.

Both the call initiator and recipient are able to terminate an on-going Private Call by pressing .

See Assigning Entries to Programmable Number Keys on page 411 for more information.

4.9.3.3

Making Private Calls by Using the Alias Search

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

The display shows the entries in alphabetical order.

3 Press ▲ or ▼ to the required subscriber alias or ID. The first line of the display shows Phone Number:. The second line of the display shows a blinking cursor. Use the keypad to enter a telephone number.

4 Press OK to select. If the entry selected is empty, a negative indicator tone sounds and the display shows Phone Call Invalid #.

5 Press ▲ or ▼ to Call Phone and Press OK to select. If the access code was not preconfigured in the Contacts list, the first line of the display shows Access Code:. The second line of the display shows a blinking cursor. Enter the access code and press the OK button to proceed. If successful, the DTMF tone sounds. You hear the dialing tone of the telephone user. The first line of the display shows the subscriber alias or ID, and the **RSSI** icon. The second line of the display shows Phone Call and the **Phone Call** icon. If unsuccessful, a tone sounds and the display shows Phone Call Failed. Your radio returns to the Access Code input screen. If the access code was preconfigured in the Contacts list, the radio returns to the screen you were on before initiating the call.

6 Press the **PTT** button to talk and release it to listen. The **RSSI** icon disappears during transmission.

7 To enter extra digits, if requested by the Phone Call, do one of the following.

- Press any keypad key to begin the input of the extra digits. The first line of the display shows Extra Digits:. The second line of the display

shows a blinking cursor. Enter the extra digits and press the OK button to proceed. The DTMF tone sounds and the radio returns to the previous screen.

- Press **One Touch Access** button. The DTMF tone sounds. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

8 Press the end key to end the call. If deaccess code was not preconfigured in the Contacts list, the first line of the display shows `De-Access Code:`. The second line of the display shows a blinking cursor. Enter the deaccess code and press OK to proceed. The radio returns to the previous screen. The DTMF tone sounds and the display shows `Ending Phone Call`. If successful, a tone sounds and the display shows `Phone Call Ended`. Your radio returns to the Phone Call screen. If unsuccessful, your radio returns to the Phone Call screen. When you press the **PTT** button while in the Phone Contacts screen, as tone sounds and the display shows `Press OK to Place Phone Call`. When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`.

If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on before initiating the call.

9 The call ends when there is no voice activity for a predetermined period. You will hear a short tone. The display shows `Call Ended`.

Both the call initiator and recipient are able to terminate an on-going Private Call by pressing the end key.

NOTICE:

During the channel access, press the end key to dismiss the call attempt and a tone sounds button or to exit alias search. Press OK button or the end key to exit alias search. During the call, when you press **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call.

4.9.3.4

Making a Private Call with a One Touch Call Button

The One Touch Call feature allows you to easily make a Private Call to a pre-defined Private Call alias or ID. This feature can be assigned to a short or long programmable button press.

You can only have one alias or ID assigned to a One Touch Call button. Your radio can have multiple One Touch Call buttons programmed.

1 Press the programmed **One Touch Call** button to make a Private Call to the pre-defined Private Call alias or ID.

2 Press the **PTT** button to make the call.

The LED lights up solid green.

The display shows the Private Call alias or ID.

3 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.

4 Release the **PTT** button to listen.

When the target radio responds, the LED blinks green.

If there is no voice activity for a predetermined period of time, the call ends.

Both the call initiator and recipient are able to terminate an on-going Private Call by pressing .

4.9.3.5

Making Private Calls by Using the Manual Dial

1 Press OK to access the menu.

2 Press or to Contacts. Press OK to select.

3 Press or to Manual Dial. Press OK to select.

4 Press or to Radio Number. Press OK to select.

5 Do one of the following:

- Enter the subscriber ID, and press OK to proceed.
- Edit the previously dialed subscriber ID, and press OK to proceed.

6 Press the **PTT** button to make the call.

The green LED lights up. The display shows the destination alias.

7 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

8 Release the **PTT** button to listen.

The green LED lights up when the target radio responds. The display shows the transmitting user alias or ID.

9 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows `Call Ended`.

Both the call initiator and recipient are able to terminate an on-going Private Call by pressing .

4.9.3.6

Receiving Private Calls

When you receive Private Calls configured as Off Air Call Set-Up (OACSU):

- The green LED blinks.

- Your radio unmutes and the incoming call sounds through the speaker.

NOTICE:
Depending on how your radio is configured, either OACSU or Full Off Air Call Set-Up (FOACSU), responding to Private Calls may or may not require user acknowledgment.

For the OACSU configuration, your radio unmutes and the call connects automatically.

4.9.3.7

Accepting Private Calls

When you receive Private Calls configured as Full Off Air Call Set-Up (FOACSU):

- The green LED blinks.

1 To accept a Private Call configured as FOACSU, do one of the following:

- Press ▲ or ▼ to `Accept` and press OK to answer a Private Call.
- Press the **PTT** button on any entry.

The green LED lights up.

2 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows `Call Ended`.

NOTICE:
Both the call initiator and recipient are able to terminate an on-going Private Call by pressing ↩.

4.9.3.8

Declining Private Calls

When you receive Private Calls configured as Full Off Air Call Set-Up (FOACSU):

- The green LED blinks.

  To decline a Private Call configured as FOACSU, do one of the following:

  - Press ▲ or ▼ to `Reject` and press OK to decline a Private Call.
  - Press ↩ to decline a Private Call.

4.9.4

All Calls

An All Call is a call from an individual radio to every radio on the site or every radio at a group of sites, depending on system configuration.

An All Call is used to make important announcements, requiring full attention from the user. The users on the system cannot respond to an All Call.

Capacity Max supports Site All Call and Multi-site All Call. The system administrator may configure one or both of these in your radio.

NOTICE:
Subscribers can support System-Wide All Calls but Motorola Solutions infrastructure does not support System-Wide All Calls.

4.9.4.1

Making All Calls

Your radio must be programmed for you to make an All Call.

1. Select a channel with the active All Call group alias or ID. See Selecting a Call Type on page 65.
2. Press the **PTT** button to make the call.

   The green LED lights up. The display shows the **Group Call** icon and either `All Call`, `Site All Call`, or `Multi Site Call` depending on the type of configuration.
3. Do one of the following:
   - Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
   - Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

Users on the channel cannot respond to an All Call.

The call initiator can press to end the All Call.

4.9.4.2

Making All Calls by Using the Programmable Number Key

Follow the procedure to make All Calls on your radio by using the programmable number key.

1 Long press the programmed number key assigned to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

2 Press the **PTT** button to make the call.

The green LED lights up. The display shows the **Group Call** icon and either `All Call`, `Site All Call`, or `Multi Site Call` depending on the type of configuration.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

The call initiator can press to end the All Call.

See Assigning Entries to Programmable Number Keys on page 411 for more information.

4.9.4.3

Making All Calls by Using the Alias Search

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

The display shows the entries in alphabetical order.

3 Press ▲ or ▼ to the required subscriber alias or ID. The first line of the display shows Phone Number:. The second line of the display shows a blinking cursor. Use the keypad to enter a telephone number.

4 Press OK to select. If the entry selected is empty, a negative indicator tone sounds and the display shows Phone Call Invalid #.

5 Press ▲ or ▼ to Call Phone. Press OK to select. If the access code was not preconfigured in the Contacts list, the first line of the display shows Access Code:. The second line of the display shows a blinking cursor. Enter the access code and press the OK button to proceed. If successful, the DTMF tone sounds. You hear the dialing tone of the telephone user. The first line of the display shows the subscriber alias or ID, and the RSSI icon. The second line of the display shows Phone Call and the Phone Call icon. If unsuccessful, a tone sounds and the display shows Phone Call Failed. Your radio returns to the Access Code input screen. If the access code was preconfigured in the Contacts list, the radio returns to the screen you were on prior to initiating the call.

6 Press the **PTT** button to talk and release it to listen. The RSSI icon disappears during transmission.

7 To enter extra digits, if requested by the Phone Call, do one of the following.

- Press any keypad key to begin the input of the extra digits. The first line of the display shows Extra Digits:. The second line of the display shows a blinking cursor. Enter the extra digits and press the OK button to proceed. The DTMF tone sounds and the radio returns to the previous screen.
- Press **One Touch Access** button. The DTMF tone sounds. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

8 Press to end the call. If deaccess code was not preconfigured in the Contacts list, the first line of the display shows `De-Access Code:`. The second line of the display shows a blinking cursor. Enter the deaccess code and press OK to proceed. The radio returns to the previous screen. The DTMF tone sounds and the display shows `Ending Phone Call`. If successful, a tone sounds and the display shows Phone Call Ended. Your radio returns to the Phone Call screen. If unsuccessful, your radio returns to the Phone Call screen. When you press the **PTT** button while in the Phone Contacts screen, as tone sounds and the display shows `Press OK to Place Phone Call`. When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`. If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

NOTICE:

The call initiator can press to end the All Call.

4.9.4.4

Receiving All Calls

When you receive an All Call, the following occur:

- A tone sounds.
- The green LED blinks.
- The display shows the **Group Call** icon at the top right corner.
- The first text line shows the caller alias ID.
- The second text line displays either `All Call`, `Site All Call`, or `Multi Site Call` depending on the type of configuration.
- Your radio unmutes and the incoming call sounds through the speaker.

The radio returns to the screen before receiving the All Call when the call ends.

If the Channel Free Indication feature is enabled, you hear a short alert tone when the transmitting radio releases the

PTT button, indicating the channel is free for you to use. You cannot respond to an All Call.

NOTICE:
The radio stops receiving the All Call if you switch to a different channel while receiving the call. You are not able to continue with any menu navigation or editing until the call ends during an All Call.

4.9.5
Phone Calls

A Phone Call is a call in between an individual radio or a group of radios and a telephone.

Depending on how the radio is configured, the following features may or may not be made available:

- Access code
- Dual Tone Multi Frequency (DTMF) tone
- De-access code
- Displaying of caller alias or ID on receiving a phone call
- Ability to reject or accept a phone call

The Phone Call capability can be enabled by assigning and setting up phone numbers on the system. Check with your system administrator to determine how your radio has been programmed.

4.9.5.1
Making Phone Calls

Follow the procedure to make Phone Calls on your radio.

1. Press the programmed **One Touch Access** button to the predefined alias or ID.

   If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

   If the access code is not preconfigured in the Contact List, the display shows `Access Code:`.

2. Enter the access code, and press OK to proceed.

   The access or deaccess code cannot be more than 10 characters.

3. Press the **PTT** button to respond to the call.

4. Release the **PTT** button to listen.

5 Enter extra digits with the keypad if requested by the call, and press OK to proceed.

If the call ends while you are entering the extra digits requested by the call, your radio returns to the screen you were on before initiating the call.

The DTMF Tone sounds. Your radio returns to the previous screen.

6 Press ⏻ to end the call.

7 Do one of the following:

- If the deaccess code was not preconfigured, enter the deaccess code when the display shows `De-Access Code:`, and press OK to proceed. The radio returns to the previous screen.
- Press the programmed **One Touch Access** button. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

The DTMF Tone sounds and the display shows `Ending Phone Call`.
If the call ends successfully:

- A tone sounds.
- The display shows `Call Ended`.

If the call fails to end, the radio returns to the Phone Call screen. Repeat the last two steps or wait for the telephone user to end the call.

4.9.5.2

Making Phone Calls with the Programmable Button

Follow the procedure to make Phone Calls with the programmable button.

1 Press the programmed **Phone** button to enter into the Phone Entry list.

2 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

If the access code was not preconfigured in the Contacts list, the display shows `Access Code:`.

Enter the access code and press the OK button to proceed.

The green LED lights up. The display shows **Phone Call** icon, subscriber alias or ID, and call status.

If the call-setup is successful:

- The DTMF tone sounds.
- You hear the call waiting tone of the telephone user.
- The display shows **Phone Call** icon, subscriber alias or ID, `Phone Call`, and call status.

If call-setup is unsuccessful:

- A tone sounds.
- The display shows `Phone Call Failed`.
- Your radio returns to the Access Code input screen. If the access code was preconfigured in the Contacts list, the radio returns to the screen you were on prior to initiating the call.

3 Press the **PTT** button to talk. Release the **PTT** button to listen. The RSSI icon disappears during transmission.

4 To enter extra digits, if requested by the Phone Call. Do one of the following:

- Press any keypad key to begin the input of the extra digits. The display shows `Extra Digits:` and a blinking cursor. Enter the extra digits and press the OK button to proceed. The DTMF tone sounds and the radio returns to the previous screen.
- Press **One Touch Access** button. The DTMF tone sounds. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

5 Press the end button to end the call.

If deaccess code was not preconfigured in the Contacts list, the display shows `De-Access Code:`.

Enter the deaccess code and press the OK button to proceed.

The DTMF tone sounds and the display shows `Ending Phone Call`.

If the end-call-setup is successful, a tone sounds and the display shows `Call Ended`.

If the end-call-setup is unsuccessful, your radio returns to the Phone Call screen.

When you press **PTT** button while in the Phone Contacts screen, a tone sounds and the display shows `Press OK to Place Call`.

When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`.

If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

NOTICE:

During channel access, press to dismiss the call attempt and a tone sounds.

During the call, when you press **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call.

During channel access and access/deaccess code or extra digits transmission, you radio responds to **On/Off**button, **Volume On/Off Volume Knob** , and **Channel Up/Down Channel Rocker** only. A tone sounds for every invalid input.

4.9.5.3

Making Phone Calls by Using the Contacts List

Follow the procedure to make Phone Calls on your radio by using the Contacts list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

The display shows the entries in alphabetical order.

3 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

When you press the **PTT** button while on the Phone Contacts screen:

- A negative indicator tone sounds.
- The display shows Press OK to Place Call.

If the selected entry is empty:

- A negative indicator tone sounds.
- The display shows Phone Call Invalid #.

4 Press ▲ or ▼ to Call Phone. Press OK to select.

The display shows Access Code: if the access code was not preconfigured.

5 Enter the access code, and press OK to proceed.

The access or deaccess code cannot be more than 10 characters.

The display shows Calling, subscriber alias or ID, and the **Phone Call** icon.
If the call is successful:

- The DTMF Tone sounds.
- You hear the call waiting tone of the telephone user.
- The display shows the subscriber alias or ID, the **Phone Call** icon, and Phone Call.

If the call is unsuccessful:

- A tone sounds.
- The display shows Phone Call Failed and then, Access Code:.

- Your radio returns to the screen you were on prior to initiating the call if the access code has been preconfigured in the Contacts list.

6 Press the **PTT** button to respond to the call.

The **RSSI** icon disappears.

7 Release the **PTT** button to listen.

8 Enter extra digits with the keypad if requested by the call, and press OK to proceed.

If the call ends while you are entering the extra digits requested by the call, your radio returns to the screen you were on prior to initiating the call.

The DTMF Tone sounds. Your radio returns to the previous screen.

9 Press ⏻ to end the call.

10 If the deaccess code was not preconfigured, enter the deaccess code when the display shows `De-Access Code:`, and press OK to proceed.

The radio returns to the previous screen. The DTMF Tone sounds and the display shows `Ending Phone Call`.

If the call ends successfully:

- A tone sounds.
- The display shows `Call Ended`.

If the call fails to end, the radio returns to the Phone Call screen. Repeat step 9 and step 10, or wait for the telephone user to end the call. When you press the PTT button while in the Phone Contacts screen, as tone sounds and the display shows `Press OK to Place Call`.

When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`.

If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

NOTICE:

During the channel access, press to dismiss the call attempt and a tone sounds.

During the call, when you press **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call.

During channel access and access/deaccess code or extra digits transmission, you radio responds to **On/Off** button, **Volume Knob**, and **Channel Rocker** only. A tone sounds for every invalid input.

4.9.5.4

Making Phone Calls by Using the Alias Search

You can also use alias or alphanumeric search to retrieve the required subscriber alias. This feature is only applicable while in Contacts. Follow the procedure to make Phone Calls on your radio by using the alias search.

1 Press OK to access the menu.

2 Press or to Contacts. Press OK to select.

The display shows the entries in alphabetical order.

3 Press or to the required subscriber alias or ID.

4 Press OK to select. If the entry selected is empty, a negative indicator tone sounds and the display shows Phone Call Invalid #.

5 Press or to Call Phone. Press OK to select.

If the access code was not preconfigured in the Contacts list, the display shows Access Code: and

a blinking cursor. Enter the access code and press the OK button to proceed.

If successful:

- The DTMF tone sounds.
- You hear the call waiting tone of the telephone user.
- The display shows the subscriber alias or ID, the **RSSI** icon, `Phone Call`, and the **Phone Call** icon.

If unsuccessful:

- A tone sounds.
- The display shows `Phone Call Failed`.
- Your radio returns to the Access Code input screen. If the access code was preconfigured in the Contacts list, the radio returns to the screen you were on prior to initiating the call.

6 Press the **PTT** button to talk and release it to listen. The **RSSI** icon disappears during transmission.

7 To enter extra digits, if requested by the Phone Call, do one of the following.

- Press any keypad key to begin the input of the extra digits. The display shows `Extra Digits:` and a blinking cursor. Enter the extra digits and press the OK button to proceed. The DTMF tone sound
- Press **One Touch Access** button. The DTMF tone sounds. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds and the radio returns to the previous screen.

8 Press the end button to end the call.

If deaccess code was not preconfigured in the Contacts list, the display shows `De-Access Code:` and a blinking cursor. Enter the deaccess code and press OK to proceed.

The radio returns to the previous screen. The DTMF tone sounds and the display shows `Ending Phone Call`.

If successful:

- A tone sounds.
- The display shows `Phone Call Ended`.

- Your radio returns to the Phone Call screen.

If unsuccessful:

- Your radio returns to the Phone Call screen.
- When you press the **PTT** button while in the Phone Contacts screen, as tone sounds and the display shows `Press OK to Place Phone Call`.
- When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`.
- If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

NOTICE:

During the channel access, press to dismiss the call attempt and a tone sounds button or to exit alias search. Press button or to exit alias search. During the call, when you press **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call. During channel access and access/deaccess code or extra digits transmission, you radio responds to On/Off button, Volume Knob, and Channel Rocker only. A tone sounds for every invalid input.

4.9.5.5

Making Phone Calls by Using the Manual Dial

Follow the procedure to make Phone Calls on your radio by using the manual dial.

1 Press to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to Manual Dial. Press OK to select.

4 Press ▲ or ▼ to Phone Number. Press OK to select.

The display shows Number: and a blinking cursor.

5 Enter the telephone number, and press OK to proceed.

The display shows Access Code: and a blinking cursor if the access code was not preconfigured.

6 Enter the access code, and press OK to proceed. The access or deaccess code cannot be more than 10 characters.

The green LED lights up. The display shows the **Phone Call** icon, subscriber alias, and call status.

If the call is successful:

- The DTMF Tone sounds.
- You hear the call waiting tone of the telephone user.
- The display shows subscriber alias and the **Phone Call** icon.

If the call is unsuccessful:

- A tone sounds.
- The display shows Phone Call Failed and then, Access Code:.
- Your radio returns to the screen you were on before initiating the call if the access code has been preconfigured in the Contacts list.

7 Press ↩ to end the call.

8 Do one of the following:

- If the deaccess code was not preconfigured, enter the deaccess code when the display shows De-Access Code:, and press OK to proceed. The radio returns to the previous screen.

- Press the programmed **One Touch Access** button. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

The DTMF Tone sounds and the display shows `Ending Phone Call`.

If the call ends successfully:

- A tone sounds.
- The display shows `Call Ended`.

If the call fails to end, the radio returns to the Phone Call screen. Repeat step 7, or wait for the telephone user to end the call.

NOTICE:
When you press **PTT** button while in the Phone Contacts screen, a tone sounds and the display shows `Press OK to Place Phone Call`.

When the telephone user ends the call, a tone sounds and the display shows `Call Ended`.

If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on before initiating the call.

During the channel access, press to dismiss the call attempt and a tone sounds.

During the call, when you press **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call.

During channel access and access/deaccess code or extra digits transmission, you radio responds to **On/Off** button, **Volume Knob**,

and **Channel Rocker** only. A tone sounds for every invalid input.

4.9.5.6

Dual Tone Multi Frequency

The Dual Tone Multi Frequency (DTMF) feature allows your radio to operate in a radio system with an interface to the telephone systems.

Disabling all radio tones and alert will automatically turn off the DTMF tone.

4.9.5.6.1

Initiating DTMF Tone

Follow the procedure to initiate a DTMF tone on your radio.

1 Press and hold the **PTT** button.

2 Do one of the following:

- Enter the desired number to initiate a DTMF tone.
- Press * to initiate a DTMF tone.
- Press # to initiate a DTMF tone.

4.9.5.7

Responding to Phone Calls as All Calls

When you receive a Phone Call as an All Call, the receiving radio is unable to talkback or respond. The recipient user is also not allowed to end the All Call.

When you receive a Phone Call as an All Call:

- The display shows the **Phone Call** icon at the top right corner.
- The display shows either `All Call`, `Site All Call`, or `Multi Site Call` depending on the type of configuration and `Phone Call`.
- The green LED blinks.

- Your radio unmutes and the incoming call sounds through the speaker.

4.9.5.8

Responding to Phone Calls as Group Calls

Follow the procedure to respond to Phone Calls as Group Calls on your radio.

When you receive a Phone Call as a Group Call:

- The display shows the **Phone Call** icon and `Phone Call`.
- The green LED blinks.
- Your radio unmutes and the incoming call sounds through the speaker.

1. Press the **PTT** button to respond to the call.
2. Release the **PTT** button to listen.
3. Press ⏻ to end the call.

NOTICE:
Your radio is not able to terminate a phone call as a group call. The telephone user must end the call. The recipient user is only allowed to talk back during the call.

The display shows `Ending Phone Call`.
If the call ends successfully:

- A tone sounds.
- The display shows `Call Ended`.

If the call fails to end, the radio returns to the Phone Call screen. Repeat step 3 or wait for the telephone user to end the call.

4.9.5.9

Responding to Phone Calls as Private Calls

Follow the procedure to respond to Phone Calls as Private Calls on your radio.

When you receive a Phone Call as a Private Call:

- The display shows the **Phone Call** icon and `Phone Call`.

- The green LED blinks.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Press the **PTT** button to respond to the call.

2 Release the **PTT** button to listen.

3 Press ⏻ to end the call.

NOTICE:
Your radio is not able to terminate a phone call as a group call. The telephone user must end the call. The recipient user is only allowed to talk back during the call.

The display shows `Ending Phone Call`.
If the call ends successfully:

- A tone sounds.
- The display shows `Call Ended`.

If the call fails to end, the radio returns to the Phone Call screen. Repeat step 3 or wait for the telephone user to end the call.

4.9.6
Initiating Transmit Interrupt

An ongoing call is interrupted, when you perform the following actions:

- Press the **Voice PTT** button.
- Press the **Emergency** button.

The receiving radio displays `Call Interrupted`.

4.9.7
Call Preemption

Call Preemption allows a radio to stop any in-progress voice transmission and initiate a priority transmission.

With the Call Preemption feature, the system interrupts and preempts ongoing calls in instances where trunked channels are unavailable.

Higher priority calls such as an Emergency Call or an All Call preempt the transmitting radio to accommodate the higher priority call. If no other Radio Frequency (RF) channels are available, an Emergency Call preempts an All Call as well.

4.9.8

Voice Interrupt

Voice Interrupt allows the user to shut down an in-progress voice transmission.

This feature uses reverse channel signaling to stop the in-progress voice transmission of a radio, if the interrupting radio is configured to Voice Interrupt, and the transmitting radio is configured to be Voice Call Interruptible. The interrupting radio is then allowed to make a voice transmission to the participant in the stopped call.

The Voice Interrupt feature significantly improves the probability of successfully delivering a new transmission to the intended parties when a call is in progress.

Voice Interrupt is accessible to the user only if this feature has been set up in the radio. Check with your dealer or system administrator for more information.

4.9.8.1

Enabling Voice Interrupt

Follow the procedure to initiate Voice Interrupt on your radio.

Your radio must be programmed to allow you to use this feature. Check with your dealer or system administrator for more information.

1 To interrupt the transmission during an on-going call, press the **PTT** button.

On the interrupted radio, the display shows `Call Interrupted`. The radio sounds a negative indicator tone until the **PTT** button is released.

2 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.

If unsuccessful:

- A negative indicator tone sounds.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

4.10

Advanced Features

This chapter explains the operations of the features available in your radio.

Your dealer or system administrator may have customized your radio for your specific needs. Check with your dealer or system administrator for more information.

4.10.1

Call Queue

When there are no resources available to process a call, Call Queue enables the call request to be placed in the system queue for the next available resources.

You hear a Call Queue Tone after pressing the **PTT** button and radio screen displays `Call In Queue` indicating that the radio has entered Call Queue State. The **PTT** button may be released once the Call Queue Tone is heard.

If the call setup is successful, the following occur:

- The green LED blinks.
- If enabled, the Talk Permit Tone sounds.
- The display shows the call type icon, ID or alias.
- The radio user has up to 4 seconds to press the **PTT** button to begin voice transmission.

If the call setup is unsuccessful, the following occur:

- If enabled, the Reject Tone sounds.
- The display shows the failure notice screen momentarily.
- The call is terminated and the radio exits the call setup.

4.10.2

Priority Call

Priority Call allows the system to preempt one of the ongoing non-priority calls and initiate the requested high priority call when all channels are busy.

With all channels occupied with high priority calls, the system does not preempt any calls, and places the requesting high-priority call into call queue. If the system fails to place the requesting high-priority call into call queue, it declares failure.

The default settings for Priority Call are preconfigured. Press the programmable button to toggle between normal and high priority level. When you use the following features, the call priority level reverts automatically to the preconfigured setting.

- All voice calls
- DMR Ⅲ Text Message/Text Message
- Job Ticket
- Remote monitor

The following are the types of Priority Call:

High Priority

The radio displays `Next Call: High Priority`.

Call Priority High icon appears at the top of your radio display.

Voice Announcement sounds Next Call: High Priority.

Normal Priority

The radio displays `Next Call: Normal Priority`.

Call Priority High icon disappears.

Voice Announcement sounds Next Call: Normal Priority.

4.10.3

Talkgroup Scan

This feature allows your radio to monitor and join calls for groups defined by a Receive Group List.

When scan is enabled, your radio unmutes to any member in its Receive Group List.

When scan is disabled, your radio does not receive transmission from any members of the Receive Group List, except for All Call, Permanent Talkgroup, and the selected Talkgroup.

4.10.3.1

Turning Talkgroup Scan On or Off

Follow the procedure to turn Talkgroup Scan on or off on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Scan`. Press OK to select.
3. Do one of the following:
   - Press ▲ or ▼ to `Turn On`. Press OK to select.
   - Press ▲ or ▼ to `Turn Off`. Press OK to select.

If scan is enabled:

- The display shows `Scan On` and **Scan** icon.

- The yellow LED blinks.
- A positive indicator tone sounds.

If scan is disabled:

- The display shows `Scan Off`.
- The **Scan** icon disappears.
- The LED turns off.
- A negative indicator tone sounds.

4.10.4
Receive Group List

Receive Group List is a feature that allows you to create and assign members on the talkgroup scan list.

This list is created when your radio is programmed and it determines which groups can be scanned. Your radio can support a maximum of 16 members in this list.

If your radio has been programmed to edit the scan list, you can:

- Add/remove talkgroups.
- Add, remove, and/or edit priority for talkgroups. Refer to Editing Priority for a Talkgroup on page 106.
- Add, remove, and/or edit affiliation talkgroups. Refer to Adding Talkgroup Affiliation on page 107 and Removing Talkgroup Affiliation on page 108.
- Replace the existing scan list with a new scan list.

If a talkgroup is programmed as Permanent Talkgroup, you are unable to edit the talkgroup from the scan list.

IMPORTANT:
To add member into the list, the talkgroup must first be configured in the radio.

NOTICE:
Receive Group List is programmed by the system administrator. Check with your dealer or system administrator for more information.

4.10.5
Priority Monitor

The Priority Monitor feature allows the radio to automatically receive transmission from talkgroups with higher priority even when radio is in a talkgroup call.

Radio leaves lower priority talkgroup call for higher priority talkgroup call.

NOTICE:
This feature can only be accessed when Talkgroup Scan feature is enabled.

Priority Monitor feature applies only to members in the Receive Group List. There are two Priority Talkgroups: Priority 1 (P1) and Priority 2 (P2). P1 has higher priority than P2. In Capacity Max system, the radio receives transmission according to the priority order below:

1 Emergency Call for P1 Talkgroup
2 Emergency Call for P2 Talkgroup
3 Emergency Call for Non-priority Talkgroups in the Receive Group List
4 All Call
5 P1 Talkgroup Call
6 P2 Talkgroup Call
7 Non-priority Talkgroups in the Receive Group List

See Editing Priority for a Talkgroup on page 106 for more information on how to add, remove, and/or edit the priority of the talkgroups in the scan list.

NOTICE:
This feature is programmed by the system administrator. Check with your dealer or system administrator for more information.

4.10.5.1

Editing Priority for a Talkgroup

In the Talkgroup Scan Menu, you can view or edit the priority of a talkgroup.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Scan. Press OK to select.

3 Press ▲ or ▼ to View/Edit List. Press OK to select.

4 Press ▲ or ▼ to the required talkgroup. Press OK to select.

The current priority is indicated by a **Priority 1** or **Priority 2** icon beside the talkgroup.

5 Press ▲ or ▼ to Edit Priority. Press OK to select.

6 Press ▲ or ▼ to the required priority level.

Press OK to select.

If another talkgroup has been assigned to Priority 1 or Priority 2, you can choose to overwrite the current priority. When the display shows Overwrite Existing?, press ▲ or ▼ to the following options:

- No to return to the previous step.
- Yes to overwrite.

The display shows positive mini notice before returning to the previous screen. The priority icon appears beside the talkgroup.

4.10.6

Multi-Talkgroup Affiliation

Your radio can be configured for up to seven talkgroups at a site.

Of the 16 talkgroups in the Receive Group List, up to seven talkgroups can be assigned as affiliation talkgroups. The selected talkgroup and the priority talkgroups are automatically affiliated.

4.10.6.1

Adding Talkgroup Affiliation

Follow the procedure to add a talkgroup affiliation.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Scan. Press OK to select.

3 Press ▲ or ▼ to View/Edit List. Press OK to select.

4 Press ▲ or ▼ to the required talkgroup ID or alias. Press OK to select.

The affiliation status is displayed at the View/Edit List. The display shows ● beside the selected talkgroup ID or alias.

5 Press ▲ or ▼ to Edit Affiliation. Press OK to select.

6 Do one of the following:

- Press ▲ or ▼ to On. Press OK to select.
- Press ▲ or ▼ to Off. Press OK to select.

When On is selected, ● appears beside the talkgroup ID or alias.

If affiliation is successful, the display shows ✓ beside the selected talkgroup ID or alias.

If affiliation is unsuccessful, ● remains beside the talkgroup ID or alias.

NOTICE:
The radio displays List Full when a maximum of seven talkgroups are selected for affiliation in the scan list. To select a new talkgroup for affiliation, remove an existing affiliated talkgroup to make way for the new addition. See Removing Talkgroup Affiliation on page 108 for more information.

4.10.6.2

Removing Talkgroup Affiliation

When the affiliation list is full and you want to select a new talkgroup for affiliation, remove an existing affiliated talkgroup to make way for the new addition. Follow the procedure to remove a talkgroup affiliation.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Scan. Press OK to select.

3 Press ▲ or ▼ to View/Edit List. Press OK to select.

4 Press ▲ or ▼ to the required talkgroup ID or alias. Press OK to select.

The affiliation status is displayed at the View/Edit List. The display shows ● beside the selected talkgroup ID or alias.

5 Press ▲ or ▼ to Edit Affiliation. Press OK to select.

6 Press ▲ or ▼ to Off. Press OK to select.

When Off is selected, ● disappears from beside the talkgroup ID or alias.

4.10.7
Talkback

The Talkback feature allows you to respond to a transmission while scanning.

If your radio scans into a call from the selectable group scan list, and if the **PTT** button is pressed during the scanned call, the operation of the radio depends on whether Talkback was enabled or disabled during radio programming. Check with your dealer or system administrator for more information.

Talkback Disabled

The radio leaves the scanned call and attempts to transmit on the contact for the currently selected channel position. After the Call Hang Time on the currently selected contact expires, the radio returns to the home channel and starts the Scan Hang Time Timer. The radio resumes group scan after its Scan Hang Time Timer expires.

Talkback Enabled

If the **PTT** button is pressed during the Group Hang Time of the scanned call, the radio attempts to transmit to the scanned group.

NOTICE:
If you scan into a call for a group that is not assigned to a channel position in the currently selected zone and the call ends, switch to the proper zone and then select the channel position of the group to talk back to that group.

4.10.8
Bluetooth®

This feature allows you to use your radio with a Bluetooth-enabled device (accessory) through a Bluetooth connection. Your radio supports both Motorola Solutions and Commercially available Off-The-Shelf (COTS) Bluetooth-enabled devices.

Bluetooth operates within a range of 10 m (32ft) line of sight. This is an unobstructed path between your radio and

your Bluetooth-enabled device. For high degree of reliability, Motorola Solutions recommends to not separate the radio and the accessory.

At the fringe areas of reception, both voice and tone quality start to sound "garbled" or "broken". To correct this problem, position your radio and Bluetooth-enabled device closer to each other (within the 10 m defined range) to re-establish clear audio reception. The Bluetooth function of your radio has maximum power of 2.5 mW (4 dBm) at the 10 m range.

Your radio can support up to three simultaneous Bluetooth connections with Bluetooth-enabled devices of unique types. For example, a headset, a scanner, a sensor device, and a PTT-Only Device (POD).

Refer to the user manual of your respective Bluetooth-enabled device for more details on the full capabilities of your Bluetooth-enabled device.

NOTICE:
If disabled through CPS, all Bluetooth-related features are disabled and the Bluetooth device database is erased.

4.10.8.1

Turning Bluetooth On and Off

Follow the procedure to turn Bluetooth on and off.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Bluetooth`. Press OK to select.
3. Press ▲ or ▼ to `My Status`. Press OK to select.

   The display shows `On` and `Off`. The current status is indicated by a ✓ .
4. Do one of the following:
   - Press ▲ or ▼ to `On`. Press OK to select. The display shows ✓ beside `On`.
   - Press ▲ or ▼ to `Off`. Press OK to select. The display shows ✓ beside `Off`.

4.10.8.2

Connecting to Bluetooth Devices

Follow the procedure to connect to Bluetooth devices.

Turn on your Bluetooth-enabled device and place it in pairing mode.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Bluetooth`. Press OK to select.
3. Press ▲ or ▼ to `Devices`. Press OK to select.
4. Do one of the following:
   - Press ▲ or ▼ to the required device. Press OK to select.
   - Press ▲ or ▼ to `Find Devices` to locate available devices. Press ▲ or ▼ to the required device. Press OK to select.
5. Press ▲ or ▼ to `Connect`. Press OK to select.

   Your Bluetooth-enabled device may require additional steps to complete the pairing. Refer to the user manual of your Bluetooth-enabled device.

   The display shows `Connecting to <Device>`.

Wait for acknowledgment.
If successful:

- A positive indicator tone sounds.
- The display shows `<Device> Connected` and the **Bluetooth Connected** icon.
- The display shows ✓ beside the connected device.

If unsuccessful:

- A negative indicator tone sounds.

- The display shows `Connecting Failed`.

NOTICE:
If pin code is required, see Accessing the Radio by Using Password on page 188.

4.10.8.3

Connecting to Bluetooth Devices in Discoverable Mode

Follow the procedure to connect to Bluetooth devices in discoverable mode.

Turn on your Bluetooth-enabled device and place it in pairing mode.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Bluetooth`. Press OK to select.
3. Press ▲ or ▼ to `Find Me`. Press OK to select. The radio can now be found by other Bluetooth-enabled devices for a programmed duration. This is called Discoverable Mode.

Wait for acknowledgment.
If successful:

- A positive indicator tone sounds.
- The display shows `<Device> Connected` and the **Bluetooth Connected** icon.
- The display shows ✓ beside the connected device.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows `Connecting Failed`.

4.10.8.4

Disconnecting from Bluetooth Devices

Follow the procedure to disconnect from Bluetooth devices.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Bluetooth`. Press OK to select.

3 Press ▲ or ▼ to Devices. Press OK to select.

4 Press ▲ or ▼ to the required device. Press OK to select.

5 Press ▲ or ▼ to Disconnect. Press OK to select.

The display shows Disconnecting from <Device>.

NOTICE:
Your Bluetooth-enabled device may require additional steps to disconnect. Refer to respective user manuals of any Bluetooth-enabled devices.

Wait for acknowledgment.

- A tone sounds.
- The display shows <Device> Disconnected and the **Bluetooth Connected** icon disappears.
- The ✓ disappears beside the connected device.

4.10.8.5

Switching Audio Route between Internal Radio Speaker and Bluetooth Device

Follow the procedure to toggle audio routing between internal radio speaker and external Bluetooth device.

Press the programmed **Bluetooth Audio Switch** button.

The display shows one of the following results:

- A tone sounds. The display shows Route Audio to Radio.
- A tone sounds. The display shows Route Audio to Bluetooth.

4.10.8.6

Viewing Device Details

Follow the procedure to view device details on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Bluetooth. Press OK to select.

3 Press ▲ or ▼ to Devices. Press OK to select.

4 Press ▲ or ▼ to the required device. Press OK to select.

5 Press ▲ or ▼ to View Details. Press OK to select.

4.10.8.7

Deleting Device Name

You can remove a disconnected device from the list of Bluetooth-enabled devices.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Bluetooth. Press OK to select.

3 Press ▲ or ▼ to Devices. Press OK to select.

4 Press ▲ or ▼ to the required device. Press OK to select.

5 Press ▲ or ▼ to Delete. Press OK to select. The display shows Device Deleted.

4.10.8.8

Bluetooth Mic Gain

This feature allows the user to control the microphone gain value of the connected Bluetooth-enabled device.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Bluetooth. Press OK to select.

3 Press ▲ or ▼ to BT Mic Gain. Press OK to select.

4 Press ▲ or ▼ to the BT Mic Gain type and the current values. Press OK to select. You can edit the values here.

5 Press ▲ or ▼ to increase or to decrease values. Press OK to select.

4.10.9

Indoor Location

NOTICE:
Indoor Location feature is applicable for models with the latest software and hardware. Check with your dealer or system administrator for more information.

Indoor Location is use to keep track of the location of radio users. When Indoor Location is activated, the radio is in a limited discoverable mode. Dedicated beacons are used to locate the radio and determine its position.

4.10.9.1

Turning Indoor Location On or Off

You can turn on or turn off Indoor Location by performing one of the following actions.

- Access this feature through the menu.
  a. Press OK to access the menu.
  b. Press ▲ or ▼ to Bluetooth and press OK to select.
  c. Press ▲ or ▼ to Indoor Location and press OK to select.
  d. Press OK to turn on Indoor Location.
  The display shows Indoor Location On. You hear a positive indicator tone.
  One of the following scenarios occurs.

- If successful, the Indoor Location Available icon appears on the Home screen display.
- If unsuccessful, the display shows `Turning On Failed`. You hear a negative indicator tone.

e. Press OK to turn off Indoor Location.

The display shows `Indoor Location Off`. You hear a positive indicator tone.
One of the following scenarios occurs.

- If successful, the Indoor Location Available icon disappears on the Home screen display.
- If unsuccessful, the display shows `Turning Off Failed`. You hear a negative indicator tone.

- Access this feature by using the programmed button.

a. Long press the programmed **Indoor Location** button to turn on Indoor Location.

The display shows `Indoor Location On`. You hear a positive indicator tone.
One of the following scenarios occurs.

- If successful, the Indoor Location Available icon appears on the Home screen display.
- If unsuccessful, the display shows `Turning On Failed`. If unsuccessful, you hear a negative indicator tone.

b. Press the programmed **Indoor Location** button to turn off Indoor Location.

The display shows `Indoor Location Off`. You hear a positive indicator tone.
One of the following scenarios occurs.

- If successful, the Indoor Location Available icon disappears on the Home screen display.
- If unsuccessful, the display shows `Turning Off Failed`. If unsuccessful, you hear a negative indicator tone.

4.10.9.2

Accessing Indoor Location Beacons Information

Follow the procedure to access Indoor Location beacons information.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Bluetooth` and press OK to select.
3. Press ▲ or ▼ to `Indoor Location` and press OK to select.
4. Press ▲ or ▼ to `Beacons` and press OK to select.

The display shows the beacons information.

4.10.10

Multi-Site Controls

These features are applicable when your current radio channel is configured to a Capacity Max system.

4.10.10.1

Enabling Manual Site Search

If the radio finds a new site, your radio shows the following indications:

- A positive tone sounds.

If the radio fails to find a new site, your radio shows the following indications:

- A negative tone sounds.

4.10.10.2

Site Lock On/Off

When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Press the programmed **Site Lock** button.

If the **Site Lock** function is toggled on:

- You hear a positive indicator tone, indicating the radio has locked to the current site.
- The display shows `Site Locked`.

If the **Site Lock** function is toggled off:

- You hear a negative indicator tone, indicating the radio is unlocked.
- The display shows `Site Unlocked`.

4.10.10.3

Accessing Neighbor Sites List

This feature allows the user to check the adjacent sites list of the current home site. Follow the procedure to access the Neighbor Sites List:

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Info`. Press OK to select.
4. Press ▲ or ▼ to `Neighbor Sites`. Press OK to select.

4.10.11

Home Channel Reminder

This feature provides a reminder when the radio is not set to the home channel for a period of time.

If this feature is enabled when your radio is not set to the home channel for a period of time, the following occurs periodically:

- The Home Channel Reminder tone and announcement sound.
- The display shows `Non Home Channel`.

4.10.11.1

Muting the Home Channel Reminder

When the Home Channel Reminder sounds, you can temporarily mute the reminder.

Press the programmed **Silence Home Channel Reminder** button.

The display shows `HCR Silenced`.

4.10.11.2

Setting New Home Channels

When the Home Channel Reminder occurs, you can set a new home channel.

1 Do one of the following:

- Press the **Reset Home Channel** programmable button to set the current channel as the new Home Channel. Skip the following steps.
  The first line of the display shows the channel alias and the second line shows `New Home Ch`.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Home Channel`. Press OK to select.

5 Press ▲ or ▼ to the desired new home channel alias. Press OK to select.

The display shows ✓ beside the selected home channel alias.

4.10.12

Remote Monitor

This feature is used to turn on the microphone of a target radio with a subscriber alias or ID. You can use this feature to remotely monitor any audible activity surrounding the target radio.

Both your radio and the target radio must be programmed to allow you to use this feature.

If initiated, the green LED blinks once on the target radio. This feature automatically stops after a programmed duration or when there is any user operation on the target radio.

4.10.12.1

Initiating Remote Monitor

Follow the procedure to initiate Remote Monitor on your radio.

1 Press the programmed **Remote Monitor** button.

2 Press or to the required alias or ID.

Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.

3 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.
- The audio from the monitored radio starts playing for a programmed duration, and the display shows `Rem. Monitor`. Once the timer expires, an alert tone sounds, and the LED turns off.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.10.12.2

Initiating Remote Monitor by Using the Contacts List

Follow the procedure to initiate Remote Monitor on your radio by using the Contacts list.

1 Press OK to access the menu.

2 Press or to `Contacts`. Press OK to select.

3 Press or to the required alias or ID.

Press OK to select.

4 Press or to `Remote Mon.`. Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.

5 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.
- The audio from the monitored radio starts playing for a programmed duration, and the display shows `Rem. Monitor`. Once the timer expires, an alert tone sounds, and the LED turns off.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.10.12.3

Initiating Remote Monitors by Using the Manual Dial

Follow the procedure to initiate Remote Monitor on your radio by using the manual dial.

1 Press OK to access the menu.

2 Press or to `Contacts`. Press OK to select.

3 Press or to `Manual Dial`. Press OK to select.

4 Press or to `Radio Number`. Press OK to select.

5 Do one of the following:

- Enter the subscriber alias or ID, and press OK to proceed.
- Edit the previously dialed ID, and press OK to proceed.

6 Press ▲ or ▼ to Remote Mon.. Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.

7 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.
- The audio from the monitored radio starts playing for a programmed duration, and the display shows Rem. Monitor. Once the timer expires, an alert tone sounds, and the LED turns off.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.10.13

Contacts Settings

Contacts provides address book capabilities on your radio. Each entry corresponds to an alias or ID that you use to initiate a call. The entries are alphabetically sorted.

Each entry, depending on context, associates with the different call types: Group Call, Private Call, Broadcast Call, Site All Call, Multi-site All Call, PC Call, or Dispatch Call.

PC Call and Dispatch Call are data-related. They are only available with the applications. Refer to the data applications documentation for further details.

Contacts menu allows you to assign each entry to a programmable number key or more on a keypad microphone. If an entry is assigned to a number key, your radio can perform a quick dial on the entry.

NOTICE:
You see a checkmark before each number key that is assigned to an entry. If the checkmark is before Empty, you have not assign a number key to the entry.

Each entry within Contacts displays the following information:

- Call Type
- Call Alias
- Call ID

NOTICE:
If the Privacy feature is enabled on a channel, you can make privacy-enabled Group Calls, Private Calls, All Calls, and Phone Calls on that channel. Only target radios with the same Privacy Key, or the same Key Value and Key ID as your radio are able to decrypt the transmission.

4.10.13.1

Assigning Entries to Programmable Number Keys

Follow the procedure to assign entries to programmable number keys on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts`. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID. Press OK to select.

4 Press ▲ or ▼ to `Program Key`. Press OK to select.

5 Do one of the following:

- If the desired number key has not been assigned to an entry, press ▲ or ▼ to the desired number key. Press OK to select.
- If the desired number key has been assigned to an entry, the display shows `The Key is Already Assigned` and then, the first text line shows `Overwrite?`. Do one of the following:

  Press ▲ or ▼ to `Yes`. Press OK to select.

The radio sounds a positive indicator tone and the display shows `Contact Saved` and a positive mini notice.

Press ▲ or ▼ to `No` to return to the previous step.

Each entry can be associated to different number keys. You see a ✓ before each number key that is assigned to an entry. If the ✓ is before `Empty`, that number key is not assigned.
If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

The screen automatically returns to the previous menu.

4.10.13.2

Removing Associations Between Entries and Programmable Number Keys

Follow the procedure to remove the associations between entries and programmable number keys on your radio.

1 Do one of the following:

- Long press the programmed number key to the required alias or ID. Proceed to step 4.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts`. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.
Press OK to select.

4 Press ▲ or ▼ to `Program Key`. Press OK to select.

5 Press ▲ or ▼ to `Empty`. Press OK to select.
The first text line shows `Clear from all keys`.

6 Press ▲ or ▼ to Yes. Press OK to select.

NOTICE:
When an entry is deleted, the association between the entry and its programmed number key(s) is removed.

A positive indicator tone sounds. The display shows Contact Saved.
The screen automatically returns to the previous menu.

4.10.13.3

Adding New Contacts

Follow the procedure to add new contacts on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to New Contact. Press OK to select.

4 Press ▲ or ▼ to select contact type Radio Contact or Phone Contact. Press OK to select.

5 Enter the contact number with the keypad, and press OK to proceed.

6 Enter the contact name with the keypad, and press OK to proceed.

7 Press ▲ or ▼ to the required ringer type.
Press OK to select.
A positive indicator tone sounds. The display shows a positive mini notice.

4.10.14

Call Indicator Settings

This feature allows you to configure call or text message ringing tones.

4.10.14.1

Activating or Deactivating Call Ringers for Private Calls

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Tones/Alerts`. Press OK to select.
5. Press ▲ or ▼ to `Call Ringers`. Press OK to select.
6. Press ▲ or ▼ to `Private Call`. Press OK to select.
7. Press ▲ or ▼ to the required tone. Press OK to select.

   If enabled, ✓ appears beside `Enabled`. If disabled, ✓ disappears beside `Enabled`.

4.10.14.2

Activating or Deactivating Call Ringers for Text Messages

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alerts. Press OK to select.

5 Press ▲ or ▼ to Call Ringers. Press OK to select.

6 Press ▲ or ▼ to Text Message. Press OK to select.

The display shows ✓ and the current tone.

7 Press ▲ or ▼ to the required tone. Press OK to select. The display shows ✓ beside the selected tone.

4.10.14.3

Activating or Deactivating Call Ringers for Call Alerts

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alert. Press OK to select.

5 Press ▲ or ▼ to Call Ringers. Press OK to select.

6 Press ▲ or ▼ to Call Alert. Press OK to select.

7 Press ▲ or ▼ to the required tone. Press OK to select. The display shows ✓ beside the selected tone.

4.10.14.4

Activating or Deactivating Call Ringers for Selective Calls

Follow the procedure to activate or deactivate call ringers for Selective Calls on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Tones/Alerts`. Press OK to select.

5 Press ▲ or ▼ to `Call Ringers`. Press OK to select.

6 Press ▲ or ▼ to `Selective Call`. Press OK to select.

The display shows ✓ and the current tone.

7 Press ▲ or ▼ to the required tone. Press OK to select. The display shows ✓ beside the selected tone.

4.10.14.5

Activating or Deactivating Call Ringers for Telemetry Status with Text

Follow the procedure to activate or deactivate call ringers for telemetry status with text on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alert. Press OK to select.

5 Press ▲ or ▼ to Call Ringers. Press OK to select.

6 Press ▲ or ▼ to Telemetry. Press OK to select.

The current tone is indicated by a ✓ .

4.10.14.6

Assigning Ring Styles

The radio can be programmed to sound one of eleven predefined ringing tones when receiving a Private Call, a Call Alert, or a Text Message from a particular contact.The radio sounds out each ring style as you navigate through the list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

The entries are alphabetically sorted.

3 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

4 Press ▲ or ▼ to View/Edit. Press OK to select.

5 Press OK until display shows Ringer menu

A ✓ indicates the current selected tone.

6 Press ▲ or ▼ to the required tone. Press OK to select.

A ✓ appears beside the selected tone.

4.10.14.7

Escalating Alarm Tone Volume

The radio can be programmed to continually alert, when a radio call remains unanswered. This is done by automatically increasing the alarm tone volume over time. This feature is known as Escalert.

4.10.15

Call Log Features

Your radio keeps track of all recent outgoing, answered, and missed Private Calls. The call log feature is used to view and manage recent calls.

Missed Call Alerts may be included in the call logs, depending on the system configuration on your radio. You can perform the following tasks in each of your call lists:

- Store Alias or ID to Contacts
- Delete Call
- Delete All Calls
- View Details

4.10.15.1

Viewing Recent Calls

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Call Log`. Press OK to select.

3 Press ▲ or ▼ to the preferred list. The options are `Missed`, `Answered`, and `Outgoing` lists.

Press OK to select.

The display shows the most recent entry.

4 Press ▲ or ▼ to view the list.

You can start a call with the alias or ID the display is currently showing by pressing the **PTT** button.

4.10.15.2

Storing Aliases or IDs from the Call List

Follow the procedure to store aliases or IDs on your radio from the Call list.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Call Log`. Press OK to select.
3. Press ▲ or ▼ to the required list. Press OK to select.
4. Press ▲ or ▼ to the required alias or ID.
   Press OK to select.
5. Press ▲ or ▼ to `Store`. Press OK to select.
   The display shows a blinking cursor.
6. Enter the rest of the characters of the required alias.
   Press OK to select.
   You can store an ID without an alias.
   The display shows a positive mini notice.

4.10.15.3

Deleting Calls from the Call List

Follow the procedure to delete calls on your radio from the Call list.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Call Log`. Press OK to select.
3. Press ▲ or ▼ to the required list. Press OK to select.
   If the list is empty:
   - A tone sounds.

- The display shows List Empty.

4 Press or to the required alias or ID. Press OK to select.

5 Press or to Delete Entry?. Press OK to select.

6 Do one of the following:

- Press OK to select Yes to delete the entry. The display shows Entry Deleted.
- Press or to No. Press OK to select. The radio returns to the previous screen.

4.10.15.4

Deleting All Calls from the Call List

Follow the procedure to delete all calls on your radio from the Call list.

1 Press OK to access the menu.

2 Press or to Call Log. Press OK to select.

3 Press or to the required list. Press OK to select.

4 Press or to the required alias or ID. Press OK to select.

5 Press or to Delete All. Press OK to select.

6 Do one of the following:

- Press OK to select Yes to delete all entries. The display shows a positive mini notice.
- Press or to No. Press OK to select. The radio returns to the previous screen.

4.10.15.5

Viewing Details from the Call List

Follow the procedure to view details on your radio from the Call list.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Call Log`. Press OK to select.
3. Press ▲ or ▼ to the required list. Press OK to select.
4. Press ▲ or ▼ to the required alias or ID.
   Press OK to select.
5. Press ▲ or ▼ to `View Details`. Press OK to select.
   The display shows the details.

4.10.16

Call Alert Operation

Call Alert paging enables you to alert a specific radio user to call you back when they are able to do so.

This feature is applicable for subscriber aliases or IDs only and is accessible through the menu by using Contacts, manual dial, or a programmed **One Touch Access** button.

In Capacity Max, the Call Alert feature allows a radio user or a dispatcher to send an alert to another radio user requesting the radio user to call back the initiating radio user when available. Voice communication is not involved in this feature.

The Call Alert Operation can be configured by the dealer or the system administrator in two ways:

- The radio is configured to allow you to press the **PTT** button to respond directly to the call initiator by making a Private Call.
- The radio is configured to allow you to press the **PTT** button and continue with other Talkgroup communication. Pressing the **PTT** button on the call alert entry will not allow the user to respond to the call initiator. The user must navigate to the Missed Call Log option at the Call Log menu and respond to the Call Alert from there.

An Off Air Call Set-Up (OACSU) private call allows the user to respond immediately while a Full Off Air Call Set-Up (FOACSU) private call requires user acknowledgment for the call. OACSU type calls are therefore, recommended being used for the Call Alert feature. See Private Call on page 77.

4.10.16.1

Making Call Alerts

Follow the procedure to make Call Alerts on your radio.

1 Press the programmed **One Touch Access** button.

The display shows `Call Alert` and the subscriber alias or ID. The green LED lights up.

2 Wait for acknowledgment.

If the Call Alert acknowledgment is received, the display shows a positive mini notice.

If the Call Alert acknowledgment is not received, the display shows a negative mini notice.

4.10.16.2

Making Call Alerts by Using the Contacts List

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts`. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

4 Press ▲ or ▼ to `Call Alert`. Press OK to select.

The display shows `Call Alert` and the subscriber alias or ID. The green LED lights up.

5 Wait for acknowledgment.

- If the acknowledgment is received, the display shows a positive mini notice.

- If the acknowledgment is not received, the display shows a negative mini notice.

4.10.16.3

Responding to Call Alerts

When you receive a Call Alert:

- A repetitive tone sounds.
- The yellow LED blinks.
- The display shows the notification list listing a Call Alert with the alias or ID of the calling radio.

  Depending on the configuration by your dealer or system administrator, you can respond to a Call Alert by doing one of the following:

  - Press the **PTT** button and respond with a Private Call directly to the caller.
  - Press the **PTT** button to continue normal talkgroup communication.
    The Call Alert is moved to the Missed Call option at the Call Log menu. You can respond to the caller from the Missed Called log.

See Notification List on page 191 and Call Log Features on page 130 for more information.

4.10.17

Dynamic Caller Alias

This feature allows you to dynamically edit a Caller Alias from your radio front panel.

NOTICE:
A keypad microphone is required to perform this feature.

When in a call, the receiving radio displays the Caller Alias of the transmitting radio.

The Caller Aliases list can store up to 500 Caller Aliases of transmitting radio. You can view or make Private Calls from the Caller Aliases list. When you turn off your radio, the history of receiving Caller Aliases is removed from the Caller Aliases list.

4.10.17.1

Viewing the Caller Aliases List

You can access the Caller Aliases list to view the transmitting Caller Alias details.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Caller Aliases`. Press OK to select.

3 Press ▲ or ▼ to the preferred list. Press OK to select.

4 Press ▲ or ▼ to `View Details`. Press OK to select.

4.10.17.2

Initiating Private Call From the Caller Aliases List

You can access the Caller Aliases list to initiate Private Call.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Caller Aliases`. Press OK to select.

3 Press ▲ or ▼ to the ***<required Caller Alias>***.

4 To call, press and hold the **PTT** button.

4.10.18

Mute Mode

Mute Mode provides an option to silence all audio indicators on your radio.

When Mute Mode is initiated, all audio indicators are muted except higher priority features such as emergency operations.

When Mute Mode is exited, your radio resumes playing ongoing tones and audio transmissions.

IMPORTANT:
You can only enable either Face Down or Man Down one at a time. Both features cannot be enabled together.

4.10.18.1

Turning On Mute Mode

Follow the procedure to turn on Mute Mode.

Access this feature by using the programmed **Mute Mode** button.

The following occurs when Mute mode is enabled:

- Positive Indicator Tone sounds.
- Display shows `Mute Mode On`.
- The red LED light starts blinking and remains blinking until Mute Mode is exited.
- Display shows **Mute Mode** icon on home screen.
- Radio is muted.
- Mute Mode Timer begins counting down the duration that is configured.

4.10.18.2

Setting Mute Mode Timer

Mute Mode feature can be enabled for a pre-configured amount of time by setting the Mute Mode Timer. The timer duration is configured in the radio menu and can range between 0.5–6 hours. Mute Mode is exited once the timer expires.

If the timer is left at 0, the radio remains in Mute mode for an indefinite period until the programmed **Mute Mode** button is pressed.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Mute Timer`. Press OK to select.
5. Press ▲ or ▼ to edit the numeric value of each digit, and press OK.

4.10.18.3

Exiting Mute Mode

This feature can be exited automatically once the Mute Mode Timer expires.

Do one of the following to exit Mute mode manually:

- Press the programmed **Mute Mode** button.
- Press the **PTT** button on any entry.

The following occurs when Mute mode is disabled:

- Negative Indicator Tone sounds.
- Display shows `Mute Mode Off`.
- The blinking red LED turns off.
- **Mute Mode** icon disappears from home screen.
- Your radio unmutes and speaker state is restored.
- If the timer has not expired, Mute mode timer is stopped.

NOTICE:
Mute Mode is also exited if the user transmits voice or switches to an unprogrammed channel.

4.10.19

Emergency Operation

An Emergency Alarm is used to indicate a critical situation. You are able to initiate an Emergency at any time even when there is activity on the current channel.

In Capacity Max, the receiving radio can only support a single Emergency Alarm at a time. If initiated, a second Emergency Alarm will override the first alarm.

When an Emergency Alarm is received, the recipient may choose to either delete the alarm and exit the Alarm List, or respond to the Emergency Alarm by pressing the **PTT** button and transmitting non-emergency voice.

Your dealer or system administrator can set the duration of a button press for the programmed **Emergency** button, except for long press, which is similar with all other buttons:

Short Press
Duration between 0.05 seconds and 0.75 seconds.

Long Press
Duration between 1.00 second and 3.75 seconds.

The **Emergency** button is assigned with the Emergency On/Off feature. Check with your dealer for the assigned operation of the **Emergency** button.

NOTICE:
If short press the **Emergency** button is assigned to turn on the Emergency mode, then long press the **Emergency** button is assigned to exit the Emergency mode.

If long press the **Emergency** button is assigned to turn on the Emergency mode, then short press the **Emergency** button is assigned to exit the Emergency mode.

Your radio supports three Emergency Alarms:

- Emergency Alarm
- Emergency Alarm with Call
- Emergency Alarm with Voice to Follow

In addition, each alarm has the following types:

Regular
Radio transmits an alarm signal and shows audio and/or visual indicators.

Silent
Radio transmits an alarm signal without any audio or visual indicators. Radio receives calls without any sound through the speaker, until the programmed *hot mic* transmission period is over and/or you press the **PTT** button.

Silent with Voice
Radio transmits an alarm signal without any audio or visual indicators, but allow incoming calls to sound through the speaker.

NOTICE:
Only one of the Emergency Alarms above can be assigned to the programmed **Emergency** button or the **Emergency** footswitch.

4.10.19.1

Sending Emergency Alarms

This feature allows you to send an Emergency Alarm, a non-voice signal, which triggers an alert indication on a group of radios. Follow the procedure to send Emergency Alarms on your radio.

Your radio does not display any audio or visual indicators during Emergency mode when it is set to Silent.

1 Press the programmed **Emergency On** button.

You see one of these results:

- The display shows `Tx Alarms` and the destination alias.
- The display shows `Tx Telegram` and the destination alias.

The green LED lights up. The **Emergency** icon appears.

NOTICE:
If programmed, the Emergency Search tone sounds. This tone is muted when the radio transmits or receives voice, and stops when the radio exits Emergency mode. The Emergency Search tone can be programmed by the dealer or system administrator.

2 Wait for acknowledgment.

If successful:

- The Emergency tone sounds.
- The green LED blinks.
- The display shows `Alarm Sent`.

If unsuccessful after all retries have been exhausted:

- A tone sounds.
- The display shows `Alarm Failed`.

The radio exits the Emergency Alarm mode and returns to the Home screen.

NOTICE:
When configured for Emergency Alarm only, the emergency process consists only of the Emergency Alarm delivery. The emergency ends when an acknowledgment is received from the system, or when channel access attempts have been exhausted.

No voice call is associated with the sending of an Emergency Alarm when operating as Emergency Alarm Only.

4.10.19.2

Sending Emergency Alarms with Call

This feature allows you to send an Emergency Alarm with Call to a group of radios or a dispatcher. Upon acknowledgment by the infrastructure within the group, a group of radios can communicate over a programmed Emergency channel.

The radio must be configured for Emergency Alarm and Call to perform an emergency call after the alarm process.

1 Press the programmed **Emergency On** button.

The display shows `Tx Alarm` and the destination alias. The **Emergency** icon appears.The green LED lights up.

NOTICE:
If your radio is programmed, the Emergency Search tone sounds. This tone is muted when the radio transmits or receives voice, and stops when the radio exits Emergency mode.

If an Emergency Alarm acknowledgment is successfully received:

- The Emergency tone sounds.
- The green LED blinks.
- The display shows `Alarm Sent`.
- Your radio enters the Emergency call mode when the display shows `Emergency` and the destination group alias.

If an Emergency Alarm acknowledgment is not successfully received:

- All retries are exhausted.
- A low-pitched tone sounds.
- The display shows `Alarm Failed`.
- The radio exits the Emergency Alarm mode.

2 Press the **PTT** button to initiate a voice transmission.

The green LED lights up.The display shows the **Group Call** icon.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

4 Release the **PTT** button to listen.

The display shows the caller and group aliases.

5 Press the **PTT** button to respond to the call.

If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the

transmitting radio releases the **PTT** button, indicating the channel is free for you to respond.

6 Press the **Emergency Off** button to exit the Emergency mode.

The radio returns to the Home screen.

NOTICE:
Depending on how your radio is programmed, you may or may not hear a Talk Permit tone. Your radio dealer or system administrator can provide more information on how your radio has been programmed for Emergency.

The Emergency Call initiator may press to end an on-going emergency call. The radio returns to a call idle state but the emergency call screen remains open.

4.10.19.3

Sending Emergency Alarms with Voice to Follow

This feature allows you to send an Emergency Alarm with Voice to Follow to a group of radios. Your radio microphone is automatically activated, allowing you to communicate with the group of radios without pressing the **PTT** button. This activated microphone state is also known as *hot mic*.

NOTICE:
Your radio cannot detect a non-IMPRES microphone that is attached to the rear accessory connector.
When no microphone is detected at the specified programmed connector, your radio checks the alternative connector. Here, your radio gives priority to the detected microphone.

If your radio has Emergency Cycle Mode enabled, repetitions of *hot mic* and receiving period are made for a programmed duration. During Emergency Cycle Mode, received calls sound through the speaker.

If you press the **PTT** button during the programmed receiving period, you hear a prohibit tone, indicating that you should release the **PTT** button. The radio ignores the **PTT** button press and remains in Emergency mode.

If you press the **PTT** button during *hot mic*, and continue to press it after the *hot mic* duration expires, the radio continues to transmit until you release the **PTT** button.

If the Emergency Alarm request fails, the radio does not retry to send the request, and enters the *hot mic* state directly.

NOTICE:
Some accessories may not support *hot mic*. Check with your dealer or system administrator for more information.

Follow the procedure to send Emergency Alarms with voice to follow on your radio.

1 Press the programmed **Emergency On** button or the **Emergency** footswitch.

You see one of these results:

- The display shows `Tx Alarm` and the destination alias.
- The display shows `Tx Telegram` and the destination alias.

The green LED lights up. The **Emergency** icon appears.

2 Once the display shows `Alarm Sent`, speak clearly into the microphone.

The radio automatically stops transmitting when:

- The cycling duration between *hot mic* and receiving calls expires, if Emergency Cycle Mode is enabled.
- The *hot mic* duration expires, if Emergency Cycle Mode is disabled.

3 Press the **Emergency Off** button to exit the Emergency mode.

The radio returns to the Home screen.

4.10.19.4

Receiving Emergency Alarms

The receiving radio can only support a single Emergency Alarm at a time. If initiated, a second Emergency Alarm will override the first alarm. Follow the procedure to receive and view Emergency Alarms on your radio.

When you receive an Emergency Alarm:

- A tone sounds.

- The red LED blinks.
- The display shows the Emergency Alarm List, the Emergency Talkgroup ID or alias, and the ID or alias of the transmitting radio.

1 Press OK to view the alarm.

2 Press OK to view the action options and details of the entry in the Alarm List.

3 Press ⌂ and select Yes to exit the Alarm list.

The radio returns to the home screen with an **Emergency Icon** displayed at the top, indicating the unresolved Emergency Alarm. The **Emergency Icon** disappears once the entry in the Alarm List is deleted.

4 Press OK to access the menu.

5 Select Alarm List to revisit the Alarm list.

6 The tone sounds and the red LED blinks until you exit the Emergency mode. However, the tone can be silenced. Do one of the following:

- Press the **PTT** button to call the group of radios which received the Emergency Alarm.
- Press any programmable button.

4.10.19.5

Responding to Emergency Alarms

When an Emergency Alarm is received, the recipient may choose to either delete the alarm and exit the Alarm List, or respond to the Emergency Alarm by pressing the **PTT** button and transmitting non-emergency voice. Follow the procedure to respond to Emergency Alarms on your radio.

1 If the Emergency Alarm Indication is enabled, the Emergency Alarm List appears when the radio receives an Emergency Alarm. Press ▲ or ▼ to the required alias or ID.

2 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating

the channel is free for you to respond. Press the **PTT** button to transmit non-emergency voice to the same group the Emergency Alarm targeted.

The green LED lights up.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

4 Release the **PTT** button to listen.

When the emergency initiating radio responds:

- The red LED blinks.
- The display shows the **Emergency Call** icon, the Emergency Talkgroup ID or alias, and the ID or alias of the transmitting radio.

NOTICE:
If the Emergency Call Indication is not enabled, the display shows the **Group Call** icon, Emergency Talkgroup ID or alias, and the ID or alias of the transmitting radio.

4.10.19.6

Responding to Emergency Alarms with Call

Follow the procedure to respond to Emergency Alarms with Call on your radio.

When you receive an Emergency Call:

- The Emergency Call Tone sounds if the Emergency Call Indication and Emergency Call Decode Tone is enabled. The Emergency Call Tone will not sound if only the Emergency Call Indication is enabled.
- The display shows the **Emergency Call** icon at the top right corner.
- The text line shows the Emergency Talkgroup ID or alias, and the ID or alias of the transmitting radio.
- Your radio unmutes and the incoming call sounds through the speaker.

1 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating

the channel is free for you to respond. Press the **PTT** button to respond to the call.

The green LED lights up.

2 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

When the emergency initiating radio responds:

- The red LED blinks.
- The display shows the **Emergency Call** icon, the Emergency Talkgroup ID or alias, and the ID or alias of the transmitting radio.

NOTICE:
If the Emergency Call Indication is not enabled, the display shows the **Group Call** icon, Emergency Talkgroup ID or alias, and the ID or alias of the transmitting radio.

4.10.19.7

Exiting Emergency Mode

Press the programmed **Emergency Off** button.

Your radio shows the following indications:

- The tone ceased.
- The red LED extinguished.
- When acknowlegment is received, the display of the transmitting radio shows `Cancel Emer Success`. If no acknowledgement is received, the display shows `Cancel Emer Failed`.

NOTICE:
If the Cancel Emergency configuration is enabled on the transmitting radio, the emergency alarm in your receiving radio will cease and the status is added to the Alarm List of the receiving radio.

4.10.20

Status Message

This feature allows the user to send status messages to other radios.

The Quick Status list is configured by using CPS-RM and comprises up to a maximum of 99 statuses.

The maximum length for each status message is 16 characters.

NOTICE:
Every status has a corresponding digital value ranging from 0–99. An alias can be specified to each status for ease of reference.

4.10.20.1

Sending Status Messages

Follow the procedure below to send a status message.

1 Do one of the following:

- Press the programmed **One Touch Access** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Status`. Press OK to select.

3 Press ▲ or ▼ to `Quick Status`. Press OK to select.

4 Press ▲ or ▼ to the required status message. Press OK to select.

5 Press ▲ or ▼ to the required subscriber alias or ID, or group alias or ID. Press OK to select.

If successful:

- A positive indicator tone sounds.
- The LED turns off.
- The display shows a positive mini notice momentarily before returning to the `Quick Status` screen.
- The display shows ✓ beside the sent status message.

If unsuccessful:

- A negative indicator tone sounds.
- The LED turns off.
- The display shows the failure notice momentarily before returning to the `Quick Status` screen.

4.10.20.2

Sending Status Message by Using Programmable Button

Follow the procedure to send a status message by using the programmable button.

1. Press the programmed **Status Message** button.
2. Press ▲ or ▼ to the required status message. Press OK to select. The contact list is displayed.
3. Press ▲ or ▼ to the required subscriber alias or ID, or group alias or ID. Press OK to select.

If successful:

- A positive indicator tone sounds.
- The LED turns off.
- The display shows a positive mini notice momentarily before returning to the `Quick Status` screen.
- The display shows ✓ beside the sent status message.

If unsuccessful:

- A negative indicator tone sounds.
- The LED turns off.
- The display shows the failure notice momentarily before returning to the `Quick Status` screen.

4.10.20.3

Sending a Status Message by Using the Contacts List

Follow the procedure to send a status message by using the contacts list.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Contacts`. Press OK to select.
3. Press ▲ or ▼ to the required subscriber alias or ID, or group alias or ID. Press OK to select.
4. Press ▲ or ▼ to `Send Status`. Press OK to select.

5 Press ▲ or ▼ to the required status message. Press OK to select.

If successful:

- A positive indicator tone sounds.
- The LED turns off.
- The display shows a positive mini notice momentarily before returning to the `Quick Status` screen.
- The display shows ✓ beside the sent status message.

If unsuccessful:

- A negative indicator tone sounds.
- The LED turns off.
- The display shows the failure notice momentarily before returning to the `Quick Status` screen.

4.10.20.4

Sending Status Message by Using Manual Dial

Follow the procedure to send a status message by using the manual dial.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts`. Press OK to select.

3 Press ▲ or ▼ to `Manual Dial`. Press OK to select.

4 Press ▲ or ▼ to `Radio Number`. Press OK to select.

5 Enter the required subscriber alias or ID, or group alias or ID, and press OK to proceed.

6 Press ▲ or ▼ to `Send Status`. Press OK to select.

7 Press ▲ or ▼ to the required status message. Press OK to select.

If successful:

- A positive indicator tone sounds.
- The LED turns off.
- The display shows a positive mini notice momentarily before returning to the `Quick Status` screen.
- The display shows ✓ beside the sent status message.

If unsuccessful:

- A negative indicator tone sounds.
- The LED turns off.
- The display shows the failure notice momentarily before returning to the `Quick Status` screen.

4.10.20.5

Viewing Status Messages

Follow the procedure to view status messages.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Status`. Press OK to select.
3. Press ▲ or ▼ to `Inbox`. Press OK to select.
4. Press ▲ or ▼ to the required status message.

   Press OK to select.

   The content of the status message is displayed to the radio user.

Received status messages can also be viewed by accessing the Notification List. See Notification List on page 191 for more information.

4.10.20.6

Responding to Status Messages

Follow the procedure to reply status messages.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Status`. Press OK to select.

3 Press ▲ or ▼ to Inbox. Press OK to select.

4 Press ▲ or ▼ to the required status message. Press OK to select.

5 The content of the status is displayed. Press OK to select.

6 Press ▲ or ▼ to Reply. Press OK to select.

7 Press ▲ or ▼ to the required status message. Press OK to select.

If successful:

- A positive indicator tone sounds.
- The LED turns off.
- The display shows a positive mini notice before returning to the Inbox screen.
- The display shows ✓ beside the sent status message.

If unsuccessful:

- A negative indicator tone sounds.
- The LED turns off.
- The display shows the failure notice momentarily before returning to the Inbox screen.

4.10.20.7

Deleting a Status Message

Follow the procedure to delete a status message from your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Status. Press OK to select.

3 Press ▲ or ▼ to Inbox. Press OK to select.

4 Press ▲ or ▼ to the required status message. Press OK to select.

5 The content of the status is displayed. Press OK to select.

6 Press ▲ or ▼ to Delete. Press OK to select.

7 Press ▲ or ▼ to Yes. Press OK to select.

- The display shows a positive mini notice before returning to the Inbox screen.

4.10.20.8
Deleting All Status Messages

Follow the procedure to delete all status messages from your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Status. Press OK to select.

3 Press ▲ or ▼ to Inbox. Press OK to select.

4 Press ▲ or ▼ to Delete All. Press OK to select.

5 Press ▲ or ▼ to Yes. Press OK to select.

- The display shows List Empty.

4.10.21
Text Messaging

Your radio is able to receive data, for example a text message, from another radio or a text message application.

There are two types of text messages, Digital Mobile Radio (DMR) Short Text Message and text message. The maximum length of a DMR Short Text Message is 23 characters. The maximum length of a text message is 280 characters, including the subject line. The subject line only

appears when you receive messages from e-mail applications.

NOTICE:
The maximum character length is only applicable for models with the latest software and hardware. For radio models with older software and hardware, the maximum length of a text message is 140 characters. Contact your dealer for more information.

4.10.21.1

Text Messages

The text messages are stored in an Inbox, and sorted according to the most recently received.

The radio exits the current screen once the inactivity timer expires. Long press ⏻ at any time to return to the Home screen.

4.10.21.1.1

Viewing Text Messages

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Messages`. Press OK to select.

3 Press ▲ or ▼ to `Inbox`. Press OK to select.

If the Inbox is empty:

- The display shows `List Empty`.
- A tone sounds, if the Keypad Tone is turned on.

4 Press ▲ or ▼ to the required message. Press OK to select.

The display shows a subject line if the message is from an e-mail application.

4.10.21.1.2

Viewing Telemetry Status Text Messages

Follow the procedure to view a telemetry status text message from the inbox.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Messages. Press OK to select.

3 Press ▲ or ▼ to Inbox. Press OK to select.

4 Press ▲ or ▼ to the required message. Press OK to select.

You cannot reply to a Telemetry Status text message.

The display shows Telemetry: <Status Text Message>.

5 Long press ↩ to return to the Home screen.

4.10.21.1.3

Responding to Text Messages

When you receive a text message:

- The display shows the Notification list with the alias or ID of the sender.
- The display shows the **Message** icon.

NOTICE:
The radio exits the Text Message alert screen and sets up a Private or Group Call to the sender of the message if the **PTT** button is pressed.

1 Do one of the following:

- Press ▲ or ▼ to Read. Press OK to select.
  The display shows the text message. The display shows a subject line if the message is from an e-mail application.
- Press ▲ or ▼ to Read Later. Press OK to select.
  The radio returns to the screen you were on prior to receiving the text message.
- Press ▲ or ▼ to Delete. Press OK to select.

2 Do one of the following:

- Press OK to return to inbox.

- Press OK a second time to reply, forward, or delete the text message.

4.10.21.1.4

Responding to Text Messages with Quick Text

Follow the procedure to respond to text messages with Quick Text messages on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to Step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Messages`. Press OK to select.

3 Press ▲ or ▼ to `Inbox`. Press OK to select.

4 Press ▲ or ▼ to the required message. Press OK to select.

The display shows a subject line if the message is from an e-mail application.

5 Press OK to access the sub-menu.

6 Press ▲ or ▼ to `Reply`. Press OK to select.

7 Press ▲ or ▼ to `Quick Reply`. Press OK to select.

8 Press ▲ or ▼ to the required message. Press OK to select.

The display shows a transitional mini notice, confirming the message is being sent.

9 Wait for acknowledgment.

If successful:

- A tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A tone sounds.
- The display shows a negative mini notice.
- The radio returns to the Resend option screen.

4.10.21.1.5

Resending Text Messages

When you are at the Resend option screen:

Press OK to resend the same message to the same subscriber or group alias or ID.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.
- The radio returns to the Resend option screen.

4.10.21.1.6

Forwarding Text Messages

When you are at the Resend option screen:

1 Press ▲ or ▼ to Forward, and press OK to send the same message to another subscriber or group alias or ID.

2 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

The display shows a transitional mini notice, confirming your message is being sent.

3 Wait for acknowledgment.

If successful:

- A tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A tone sounds.
- The display shows a negative mini notice.

NOTICE:
You can also manually select a target radio address (see Forwarding Text Messages by Using the Manual Dial on page 439).

4.10.21.1.7

Forwarding Text Messages by Using the Manual Dial

1 Press ▲ or ▼ to `Forward`. Press OK to select.

2 Press OK to send the same message to another subscriber or group alias or ID.

3 Press ▲ or ▼ to `Manual Dial`. Press OK to select.

The display shows `Radio Number:`.

4 Enter the subscriber ID, and press OK to proceed.

The display shows a transitional mini notice, confirming your message is being sent.

5 Wait for acknowledgment.

If successful:

- A tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A tone sounds.
- The display shows a negative mini notice.

4.10.21.1.8

Editing Text Messages

Select `Edit` to edit the message.

NOTICE:
If a subject line is present (for messages received from an e-mail application), you cannot edit it.

1 Press ▲ or ▼ to Edit. Press OK to select.
The display shows a blinking cursor.

2 Use the keypad to edit your message.
- Press ◀ to move one space to the left.
- Press ▶ or #⇧ to move one space to the right.
- Press *⌫ to delete any unwanted characters.
- Long press #⇧ to change text entry method.

3 Press OK once message is composed.

4 Do one of the following:
- Press ▲ or ▼ to Send and press OK to send the message.
- Press ▲ or ▼ to Save and press OK to save the message to the Drafts folder.
- Press ↩ to edit the message.
- Press ↩ to choose between deleting the message or saving it to the Drafts folder.

4.10.21.1.9

Writing Text Messages

Follow the procedure to write text message on your radio.

1 Do one of the following:
- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to Messages. Press OK to select.

3 Press ▲ or ▼ to Compose. Press OK to select.
A blinking cursor appears.

4 Use the keypad to type your message.

Press ◀ to move one space to the left.

Press ▶ or #⃣ to move one space to the right.

Press *⃣ to delete any unwanted characters.

Long press #⃣ to change text entry method.

5 Press OK once message is composed.

Do one of the following:

- Press OK to send the message.
- Press ↩⌂. Press ▲ or ▼ to choose among editing, deleting, or saving the message.

  Press OK to select.

4.10.21.1.10

Sending Text Messages

It is assumed that you have a newly written text message or a saved text message.

Select the message recipient. Do one of the following:

- Press ▲ or ▼ to the required alias or ID.

  Press OK to select.
- Press ▲ or ▼ to `Manual Dial`. Press OK to select.Key in the subscriber ID. The first line of the display shows `Radio Number:`. The second line of the display shows a blinking cursor. Key in the subscriber alias or ID. Press OK.

The display shows transitional mini notice, confirming your message is being sent.

If successful:

- A tone sounds.
- The display shows positive mini notice.

If unsuccessful:

- A low tone sounds.
- The display shows negative mini notice.
- The message is moved to the Sent Items folder.

- The message is marked with a Send Failed icon.

NOTICE:
For a newly written text message, the radio returns you to the `Resend` option screen.

4.10.21.1.11

Deleting Text Messages from the Inbox

Follow the procedure to delete text messages from the Inbox on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Messages`. Press OK to select.

3 Press ▲ or ▼ to `Inbox`. Press OK to select.

If the Inbox is empty:

- The display shows `List Empty`.
- A tone sounds.

4 Press ▲ or ▼ to the required message. Press OK to select.

The display shows a subject line if the message is from an e-mail application.

5 Press OK to access the sub-menu.

6 Press ▲ or ▼ to `Delete`. Press OK to select.

7 Press ▲ or ▼ to `Yes`. Press OK to select.

The display shows a positive mini notice. The screen returns to the Inbox.

4.10.21.1.12

Deleting All Text Messages from the Inbox

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to Messages. Press OK to select.

3 Press ▲ or ▼ to Inbox. Press OK to select.

If the Inbox is empty:

- The display shows List Empty.
- A tone sounds.

4 Press ▲ or ▼ to Delete All. Press OK to select.

5 Press ▲ or ▼ to Yes. Press OK to select.

The display shows a positive mini notice.

4.10.21.2

Sent Text Messages

Once a message is sent to another radio, it is saved in Sent Items folder. The most recent sent text message is always added to the top of the Sent Items folder. You can resend, forward, edit, or delete a Sent text message.

The Sent Items folder is capable of storing a maximum of 30 last sent messages. When the folder is full, the next sent text message automatically replaces the oldest text message in the folder.

If you exit the message sending screen while the message is being sent, the radio updates the status of the message in the Sent Items folder without providing any indication in the display or via sound.

If the radio changes mode or powers down before the status of the message in Sent Items folder is updated, the radio cannot complete any In-Progress messages and automatically marks it with a **Send Failed** icon.

The radio supports a maximum of five In-Progress messages at one time. During this period, the radio cannot send any new message and automatically marks it with a **Send Failed** icon.

If you long press at any time, the radio returns to the Home screen.

NOTICE:
If the channel type, for example a conventional digital or Capacity Plus channel, is not a match, you can only edit, forward, or delete a Sent message.

4.10.21.2.1
Viewing Sent Text Messages

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press or to Messages. Press OK to select.

3 Press or to Sent Items. Press OK to select.

If the Sent Items folder is empty:

- The display shows List Empty.
- A low tone sounds, if the Keypad Tone is turned on.

4 Press or to the required message. Press OK to select.

The icon at the top right corner of the screen indicates the status of the message. See Sent Item Icons.

4.10.21.2.2
Sending Sent Text Messages

When you are viewing a Sent message:

1 Press OK .

2 You can either resend or forward the sent text message. Do one of the following:

- to Resend. Press OK to select.

- to Forward. Press OK to select.

The display shows a transitional mini notice, confirming your message is being sent.

3 Wait for acknowledgment.

If successful:

- A tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A tone sounds.
- The display shows a negative mini notice.
- The radio proceeds to the Resend option screen. See Resending Text Messages on page 156 for more information.

4.10.21.2.3

Deleting Sent Text Messages from the Sent Items Folder

Follow the procedure to delete sent text messages from the Sent Items folder on your radio.

When you are viewing a Sent message:

1 Press OK .

2 Press or to Delete. Press OK to select.

4.10.21.2.4

Deleting All Sent Text Messages from the Sent Items Folder

Follow the procedure to delete all sent text messages from the Sent Items folder on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press or to Messages. Press OK to select.

3 Press ▲ or ▼ to Sent Items. Press OK to select.

If the Sent Items folder is empty:

- The display shows List Empty.
- A tone sounds.

4 Press ▲ or ▼ to Delete All. Press OK to select.

5 Do one of the following:

- Press ▲ or ▼ to Yes. Press OK to select.
  The display shows a positive mini notice.
- Press ▲ or ▼ to No. Press OK to select.
  The radio returns to the previous screen.

4.10.21.3

Saved Text Messages

You can save a text message to send it at a later time.

If a **PTT** button press or a mode change causes the radio to exit the text message writing/editing screen while you are in the process of writing or editing a text message, your current text message is automatically saved to the Drafts folder.

The most recent saved text message is always added to the top of the Drafts list.

The Drafts folder stores a maximum of 10 last saved messages. When the folder is full, the next saved text message automatically replaces the oldest text message in the folder.

4.10.21.3.1

Viewing Saved Text Messages

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to Messages. Press OK to select.

3 Press ▲ or ▼ to Drafts. Press OK to select.

4 Press ▲ or ▼ to the required message. Press OK to select.

4.10.21.3.2

Editing Saved Text Messages

1 Press OK while viewing the message.

2 Press ▲ or ▼ to Edit. Press OK to select.

A blinking cursor appears.

3 Use the keypad to type your message.

Press ◀ to move one space to the left.

Press ▶ or # to move one space to the right.

Press * to delete any unwanted characters.

Long press # to change text entry method.

4 Press OK once message is composed.

Do one of the following:

- Press ▲ or ▼ to Send. Press OK to send the message.
- Press ↩. Press ▲ or ▼ to choose between saving or deleting the message. Press OK to select.

4.10.21.3.3

Deleting Saved Text Messages from the Drafts Folder

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to Messages. Press OK to select.

3 Press ▲ or ▼ to Drafts. Press OK to select.

4 Press ▲ or ▼ to the required message. Press OK to select.

5 Press ▲ or ▼ to Delete. Press OK to delete the text message.

4.10.21.4

Quick Text Messages

Your radio supports a maximum of 50 Quick Text messages as programmed by your dealer.

While Quick Text messages are predefined, you can edit each message before sending it.

4.10.21.4.1

Sending Quick Text Messages

Follow the procedure to send predefined Quick Text messages on your radio to a predefined alias.

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press the programmed **One Touch Access** button. Proceed to step 6.
  The display shows a transitional mini notice, confirming your message is being sent.
- Press OK to access the menu.

2 Press ▲ or ▼ to Messages. Press OK to select.

3 Press ▲ or ▼ to Quick Text. Press OK to select.

4 Press ▲ or ▼ to the required Quick Text message. Press OK to select.

5 Do the following to select the recipient and send the message.

The display shows a transitional mini notice, confirming that your message is being sent.

6 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.
- The radio proceeds to the `Resend` option screen. See Resending Text Messages on page 156 for more information.

4.10.22

Text Entry Configuration

Your radio allows you to configure different text.

You can configure the following settings for entering text on your radio:

- Word Predict
- Word Correct
- Sentence Cap
- My Words

Your radio supports the following text entry methods:

- Numbers
- Symbols
- Predictive or Multi-Tap
- Language (If programmed)

NOTICE:

Press ↩ at any time to return to the previous screen or long press ↩ to return to the Home Screen. The radio exits the current screen once the inactivity timer expires.

4.10.22.1

Enabling or Disabling Word Correct

Supplies alternative word choices when the word entered into the text editor is not recognized by the in-built dictionary.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Text Entry`. Press OK to select.
5. Press ▲ or ▼ to `Word Correct`. Press OK to select.
6. Do one of the following:
   - Press ▲ or ▼ to `Word Correct`. Press OK to select.
   - Press to enable Word Correct. If enabled, ✓ appears beside `Enabled`.
   - Press to disable Word Correct. If disabled, ✓ disappears beside `Enabled`.

4.10.22.2

Enabling or Disabling Word Predict

Word Predict: Your radio can learn common word sequences that you often enter. It then predicts the next word you may want to use after you enter the first word of a common word sequence into the text editor.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Text Entry. Press OK to select.

5 Press ▲ or ▼ to Word Predict. Press OK to select.

6 Do one of the following:

- Press OK to enable the Word Predict. If enabled, ✓ appears beside Enabled.
- Press OK to disable Microphone Dynamic Distortion Control. If disabled, ✓ disappears beside Enabled.

4.10.22.3

Sentence Cap

This feature is used to automatically enable capitalization of the first letter in the first word for every new sentence.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Text Entry. Press OK to select.

5 Press ▲ or ▼ to Sentence Cap. Press OK to select.

6 Do one of the following:

- Press OK to enable Sentence Cap. If enabled, ✓ appears beside `Enabled`.
- Press OK to disable Sentence Cap. If disabled, ✓ disappears beside `Enabled`.

4.10.22.4

Viewing Custom Words

You can add your own custom words into the in-built dictionary of your radio. Your radio maintains a list to contain these words.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Text Entry`. Press OK to select.
5. Press ▲ or ▼ to `My Words`. Press OK to select.
6. Press ▲ or ▼ to `List of Words`. Press OK to select.

   The display shows the list of custom words.

4.10.22.5

Editing Custom Words

You can edit custom words saved in your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Text Entry. Press OK to select.

5 Press ▲ or ▼ to My Words. Press OK to select.

6 Press ▲ or ▼ to List of Words. Press OK to select.

Display shows the list of custom words.

7 Press ▲ or ▼ to the required word. Press OK to select.

8 Press ▲ or ▼ to Edit. Press OK to select.

9 Use the keypad to edit your custom word.

- Press ◀ to move one space to the left.
- Press ▶ key to move one space to the right.
- Press the * key to delete any unwanted characters.
- Long press # to change text entry method.

10 Press OK once your custom word is completed.

The display shows transitional mini notice, confirming your custom word is being saved.

- If the custom word is saved, a tone sounds and the display shows positive mini notice.
- If the custom word is not saved, a low tone sounds and the display show negative mini notice.

4.10.22.6

Adding Custom Words

You can add custom words into the in-built radio dictionary.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Text Entry. Press OK to select.

5 Press ▲ or ▼ to My Words. Press OK to select.

6 Press ▲ or ▼ to Add New Word. Press OK to select.

Display shows the list of custom words.

7 Use the keypad to edit your custom word.

- Press ◀ to move one space to the left.
- Press ▶ key to move one space to the right.
- Press the * key to delete any unwanted characters.
- Long press # to change text entry method.

8 Press OK once your custom word is completed.

The display shows transitional mini notice, confirming your custom word is being saved.

- If the custom word is saved, a tone sounds and the display show positive mini notice.
- If the custom word is not saved, a low tone sounds and the display show negative mini notice.

4.10.22.7
Deleting a Custom Word

You can delete the custom words saved in your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Text Entry. Press OK to select.

5 Press ▲ or ▼ to My Words. Press OK to select.

6 Press ▲ or ▼ to the required word. Press OK to select.

7 Press ▲ or ▼ to Delete. Press OK to select.

8 Choose one of the following.

- At Delete Entry?, press OK to select Yes. The display shows Entry Deleted.
- Press ▲ or ▼ to No. Press OK to return to the previous screen.

4.10.22.8

Deleting All Custom Words

You can delete all custom words from the in-built dictionary of your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Text Entry. Press OK to select.

5 Press ▲ or ▼ to My Words. Press OK to select.

6 Press ▲ or ▼ to Delete All. Press OK to select.

7 Do one of the following:

- At Delete Entry?, press OK to select Yes. The display shows All Entries Deleted.
- Press ▲ or ▼ to No to return to the previous screen. Press OK to select.

4.10.23

Job Tickets

This feature allows your radio to receive messages from the dispatcher listing out tasks to perform.

NOTICE:
This feature can be customized through the Customer Programming Software (CPS) according to user requirements. Check with your dealer or system administrator for more information.

There are two folders that contain different Job Tickets:

My Tasks folder
Personalized Job Tickets assigned to your signed in user ID.

Shared Tasks folder
Shared Job Tickets assigned to a group of individuals.

You can respond to Job Tickets in order to sort them into Job Ticket Folders. By default, the folders are **All**, **New**, **Started**, and **Completed**. Check with your dealer or system administrator for an additional 10 folders.

Job Tickets are retained even after the radio is turned off and turned on again.

All Job Tickets are located in the **All** folder. Depending on how your radio is programmed, Job Tickets are sort by their priority level followed by time received. New Job Tickets, Job Tickets with recent changes in state, and Job Tickets with the highest priority are listed first.

Upon reaching the maximum number of Job Tickets, the next Job Ticket automatically replaces the last Job Ticket in your radio. Your radio supports a maximum of 100 or 500 Job Tickets, depending on your radio model. Check with your dealer or system administrator for more information. Your radio automatically detects and discards duplicated Job Tickets with the same Job Ticket ID.

Depending on the importance of the Job Tickets, the dispatcher adds a Priority Level to them. There are three priority levels: Priority 1, Priority 2, and Priority 3. Priority 1

has the highest priority and Priority 3 has the lowest priority. There are also Job Tickets with no priority.

Your radio updates accordingly when dispatcher makes the following changes:

- Modify content of Job Tickets.
- Add or edit Priority Level of Job Tickets.
- Move Job Tickets from folder to folder.
- Canceling of Job Tickets.

4.10.23.1

Accessing the Job Ticket Folder

Follow the procedure to access the Job Ticket folder.

1 Do one of the following:

- Press the programmed **Job Ticket** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Job Tickets`. Press OK to select.

3 Press ▲ or ▼ to the required folder. Press OK to select.

4 Press ▲ or ▼ to the required Job Ticket. Press OK to select.

4.10.23.2

Logging In or Out of the Remote Server

This feature allows you to log in and log out of the remote server by using your user ID.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Log In`. Press OK to select.

If you are already logged in, menu displays `Log Out`.

The display shows a transitional mini notice, indicating the request is in progress.

3 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.10.23.3

Creating Job Tickets

Your radio is able to create Job Tickets, which are based on a Job Ticket template and send out tasks that need to be performed.

CPS programming software is required to configure the Job Ticket template.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Job Tickets`. Press OK to select.

3 Press ▲ or ▼ to `Create Ticket`. Press OK to select.

4.10.23.4

Responding to Job Tickets

Follow the procedure to respond to job tickets on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Job Tickets`. Press OK to select.

3 Press ▲ or ▼ to the required folder. Press OK to select.

4 Press ▲ or ▼ to the required job ticket. Press OK to select.

5 Press OK once more to access the sub-menu.

You can also press the corresponding number key (1–9) to **Quick Reply**.

6 Press ▲ or ▼ to the required job ticket. Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress.

7 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.10.23.5

Sending Job Tickets Using One Job Ticket Template

If your radio is configured with one Job Ticket template, perform the following actions to send the Job Ticket.

1 Use the keypad to type the required room number.

Press OK to select.

2 Press ▲ or ▼ to `Room Status`. Press OK to select.

3 Press ▲ or ▼ to the required option. Press OK to select.

4 Press ▲ or ▼ to `Send`. Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress.

5 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.10.23.6

Sending Job Tickets Using More Than One Job Ticket Template

If your radio is configured with more than one Job Ticket template, perform the following actions to send the Job Tickets.

1 Press ▲ or ▼ to the required option. Press OK to select.

2 Press ▲ or ▼ to Send. Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress.

3 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.10.23.7

Deleting Job Tickets

Follow the procedure to delete job tickets on your radio.

1 Do one of the following:

- Press the programmed **Job Ticket** button. Proceed to step 4

- Press OK to access the menu.

2 Press ▲ or ▼ to Job Tickets. Press OK to select.

3 Press ▲ or ▼ to the required folder. Press OK to select.

4 Press ▲ or ▼ to All folder. Press OK to select.

5 Press ▲ or ▼ to the required Job Ticket.
Press OK to select.

6 Press OK again while viewing the Job Ticket.

7 Press ▲ or ▼ to Delete. Press OK to select.
The display shows a transitional mini notice, indicating the request is in progress.

8 Wait for acknowledgment.
If successful:
- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:
- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.10.23.8

Deleting All Job Tickets

Follow the procedure to delete all job tickets on your radio.

1 Do one of the following:
- Press the programmed **Job Ticket** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to Job Tickets. Press OK to select.

3 Press ▲ or ▼ to the required folder. Press OK to select.

4 Press ▲ or ▼ to `All` folder. Press OK to select.

5 Press ▲ or ▼ to `Delete All`. Press OK to select.

6 Do one of the following:

- Press ▲ or ▼ to `Yes`. Press OK to select.
  The display shows a positive mini notice.
- Press ▲ or ▼ to `No`. Press OK to select.
  The radio returns to the previous screen.

4.10.24

Privacy

This feature helps to prevent eavesdropping by unauthorized users on a channel by the use of a software-based scrambling solution. The signaling and user identification portions of a transmission are not scrambled.

Your radio must have privacy enabled on the channel to send a privacy-enabled transmission, although this is not a necessary requirement for receiving a transmission. While on a privacy-enabled channel, the radio is still able to receive clear or unscrambled transmissions.

Your radio only supports Enhanced Privacy. To unscramble a privacy-enabled call or data transmission, your radio must be programmed to have the same Key Value and Key ID for Enhanced Privacy as the transmitting radio.

If your radio receives a scrambled call that is of a different Key Value and Key ID, you hear nothing at all for Enhanced Privacy.

On a privacy-enabled channel, your radio is able to receive clear or unscrambled calls, depending on how your radio is programmed. In addition, your radio may play a warning tone or not, depending on how it is programmed.

NOTICE:
This feature is not applicable in Citizens Band channels that are in the same frequency.

The green LED lights up when the radio is transmitting, and blinks rapidly when the radio is receiving an ongoing privacy-enabled transmission.

NOTICE:
Some radio models may not offer this Privacy feature, or may have a different configuration. Check with your dealer or system administrator for more information.

4.10.24.1

Turning Privacy On or Off

Follow the procedure to turn privacy on or off on your radio.

1 Do one of the following:

- Press the programmed **Privacy** button. Skip the steps below.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Privacy`. Press OK to select.

5 Do one of the following:

- Press ▲ or ▼ to `On`. Press OK to select. The display shows ✓ beside `On`.
- Press ▲ or ▼ to `Off`. Press OK to select. The display shows ✓ beside `Off`.

4.10.25

Response Inhibit

This feature helps prevent your radio from responding to any incoming transmissions.

NOTICE:
Contact your dealer to determine how your radio has been programmed.

If enabled, your radio does not generate any outgoing transmissions in respond to incoming transmissions, such as Radio Check, Call Alert, Radio Disable, Remote Monitor, Automatic Registration Service (ARS), Responding to Private Messages, and Sending GNSS location reports.

Your radio cannot receive Confirmed Private Calls when this feature is enabled. However, your radio is able to manually send transmission.

4.10.25.1

Turning Response Inhibit On or Off

Follow the procedure to enable or disable Response Inhibit on your radio.

Press the programmed **Response Inhibit** button.

If successful:

- A positive indicator tone sounds.
- The display shows a momentary positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a momentary negative mini notice.

4.10.26

Stun/Revive

This feature allows you to enable or disable any radio in the system. For example, the dealer or system administrator may want to disable a stolen radio to prevent unauthorized users from using it, and enable the radio when it is recovered.

A radio can be disabled (stunned) or enabled (revived) either through the console or through a command initiated by another radio.

Once a radio is disabled, the radio sounds a negative indicator tone and the home screen shows `Channel Denied`.

When a radio is stunned, the radio cannot request nor receive any user initiated services on the system that performed the Stun procedure. However, the radio can switch to another system. The radio continues to send GNSS location reports and can be monitored remotely when it was stunned.

NOTICE:
The dealer or system administrator may permanently disable a radio. See Radio Kill on page 187 for more information.

4.10.26.1

Stunning a Radio

Follow the procedure to disable a radio.

1 Press the programmed **Radio Disable** button.

2 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED blinks.

3 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.10.26.2

Stunning a Radio by Using the Contacts List

Follow the procedure to disable a radio by using the Contacts List.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts`. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

4 Press ▲ or ▼ to `Radio Disable`. Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED blinks.

5 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.10.26.3

Stunning a Radio by Using the Manual Dial

Follow the procedure to disable a radio by using the manual dial.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to Manual Dial. Press OK to select.

4 Press ▲ or ▼ to Radio Number. Press OK to select.

The first text line shows Radio Number:.

5 Enter the subscriber ID, and press OK to proceed.

6 Press ▲ or ▼ to Radio Disable. Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED blinks.

7 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.10.26.4

Reviving a Radio

Follow the procedure to enable a radio.

1 Press the programmed **Radio Enable** button.

2 Press or to the required alias or ID.

Press OK to select.

The display shows `Radio Enable` and the subscriber alias or ID. The green LED lights up.

3 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.10.26.5

Reviving a Radio by Using the Contacts List

Follow the procedure to enable a radio by using the Contacts List.

1 Press OK to access the menu.

2 Press or to `Contacts`. Press OK to select.

3 Press or to the required alias or ID.

Press OK to select.

4 Press or to `Radio Enable`. Press OK to select.

The green LED blinks.

The display shows `Radio Enable` and the subscriber alias or ID. The green LED lights up.

5 Wait for acknowledgment.

If successful:

- A tone sounds.
- The display shows `Radio Enable Successful`.

If unsuccessful:

- A tone sounds.
- The display shows `Radio Enable Failed`.

4.10.26.6

Reviving a Radio by Using the Manual Dial

Follow the procedure to enable a radio by using the Manual Dial.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts`. Press OK to select.

3 Press ▲ or ▼ to `Manual Dial`. Press OK to select.

4 Press ▲ or ▼ to `Private Call`. Press OK to select.

The first text line shows `Radio Number:`.

5 Enter the subscriber ID, and press OK to proceed.

6 Press ▲ or ▼ to `Radio Enable`. Press OK to select.

The green LED blinks.
The display shows `Radio Enable` and the subscriber alias or ID. The green LED lights up.

7 Wait for acknowledgment.

If successful:

- A tone sounds.
- The display shows `Radio Enable Successful`.

If unsuccessful:

- A tone sounds.
- The display shows `Radio Enable Failed`.

4.10.27

Radio Kill

This feature is an enhanced security measure to restrict unauthorized access to a radio.

Radio Kill causes a radio to be rendered inoperable. For example, the dealer may want to kill a stolen or misplaced radio to prevent unauthorized usage.

When powered on, a killed radio displays `Radio Killed` on the screen momentarily to indicate the killed state.

NOTICE:
A killed radio can only be revived at a Motorola Solutions service depot. Contact your dealer for more information.

4.10.28

Lone Worker

This feature prompts an emergency to be raised if there is no user activity, such as any radio button press or activation of the channel selector, for a predefined time.

Following no user activity for a programmed duration, the radio pre-warns you using an audio indicator once the inactivity timer expires.

If there is still no acknowledgment by you before the predefined reminder timer expires, the radio initiates an emergency condition as programmed by the dealer.

4.10.29

Password Lock

You can set a password to restrict access to your radio. Each time you turn on your radio, you are asked to enter the password.

Your radio supports a 4-digit password input.

You can also use a keypad microphone to enter the password.

Your radio is unable to receive calls in locked state.

4.10.29.1

Accessing the Radio by Using Password

Turn on your radio.

1 Enter the four-digit password.

a Use a keypad microphone.

b To edit the numeric value of each digit, press ▲ or ▼. To enter and move to the next digit, press OK.

NOTICE:
The use of **Emergency** footswitch cancels password input to access the radio.

2 Press OK to confirm the password.

If you enter the password correctly, the radio powers up.

If you enter the wrong password after the first and second attempt, your radio shows the following indications:

- A continuous tone sounds.
- The display shows `Wrong Password`.

Repeat step 1.

If you enter the wrong password after the third attempt, your radio shows the following indications:

- A tone sounds.
- The yellow LED double blinks.
- The display shows `Wrong Password` and then, `Radio Locked`.
- Your radio enters into locked state for 15 minutes.

NOTICE:
In locked state, your radio responds to inputs from the **On/Off/Volume Control Knob** and programmed **Backlight** button only.

Wait for the 15-minute locked state timer to end and then repeat step 1.

NOTICE:
If you turn off and turn your radio on again, the 15-minute timer restarts.

4.10.29.2

Unlocking Radios in Locked State

Your radio is unable to receive calls in locked state. Follow the procedure to unlock your radio in locked state.

Do one of the following:

- If the radio is powered on, wait for 15 minutes and then repeat the steps in Accessing the Radio by Using Password on page 188 to access the radio.
- If the radio is powered off, power up the radio. Your radio restarts the 15-minute timer for locked state. A tone sounds. The yellow LED double blinks. The display shows `Radio Locked`.

  Wait for 15 minutes and then repeat the steps in Accessing the Radio by Using Password on page 188 to access the radio.

4.10.29.3

Turning Password Lock On or Off

Follow the procedure to turn password lock on or off on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Passwd Lock`. Press OK to select.
5. Enter the current four-digit password.
   - Use a keypad microphone.
   - Press ▲ or ▼ to edit the numeric value of each digit, and press OK to enter and move to the next digit.
     A positive indicator tone sounds for every digit pressed.
6. Press OK to enter the password.

   If the password is incorrect, the display shows `Wrong Password` and automatically returns to the previous menu.
7. Do one of the following:

- Press ▲ or ▼ to Turn On. Press OK to select.
  The display shows ✓ beside Turn On.
- Press ▲ or ▼ to Turn Off. Press OK to select.
  The display shows ✓ beside Turn Off.

4.10.29.4

Changing Passwords

Follow the procedure to change passwords on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to Utilities. Press OK to select.
3. Press ▲ or ▼ to Radio Settings. Press OK to select.
4. Press ▲ or ▼ to Passwd Lock. Press OK to select.
5. Enter the current four-digit password, and press OK to proceed.
   If the password is incorrect, the display shows Wrong Password and automatically returns to the previous menu.
6. Press ▲ or ▼ to Change PWD. Press OK to select.
7. Enter a new four-digit password, and press OK to proceed.
8. Re-enter the new four-digit password, and press OK to proceed.
   If successful, the display shows Password Changed.
   If unsuccessful, the display shows Passwords Do Not Match.

The screen automatically returns to the previous menu.

4.10.30

Notification List

Your radio has a Notification list that collects all your unread events on the channel, such as unread text messages, telemetry messages, missed calls, and call alerts.

The display shows the **Notification** icon when the Notification list has one or more events.

The list supports a maximum of 40 unread events. When the list is full, the next event automatically replaces the oldest event. After the events are read, they are removed from the Notification list.

For text messages, missed calls, and call alert events, the maximum number of notifications are 30 text messages and 10 missed calls or call alerts. This maximum number depends on individual feature (job tickets or text messages or missed calls or call alerts) list capability.

4.10.30.1

Accessing Notification List

Follow the procedure to access the Notification list on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Notification`. Press OK to select.
3. Press ▲ or ▼ to the required event. Press OK to select.

   Long press ↩ to return to the Home screen.

4.10.31

Over-the-Air Programming

Your dealer can remotely update your radio by using Over-the-Air Programming (OTAP) without physical connection. Additionally, some settings can also be configured by using OTAP.

When your radio undergoes OTAP, the green LED blinks.

When your radio receives high volume data:

- The display shows the **High Volume Data** icon.
- The channel becomes busy.
- A negative tone sounds if you press the **PTT** button.

When OTAP completes, depending on the configuration:

- A tone sounds. The display shows `Updating Restarting`. Your radio restarts by powering off and on again.
- You can select `Restart Now` or `Postpone`. When you select `Postpone`, your radio returns to the previous screen. The display shows the **OTAP Delay Timer** icon until the automatic restart occurs.

When your radio powers up after automatic restart:

- If successful, the display shows `Sw Update Completed`.
- If the program update is unsuccessful, a tone sounds, the red LED blinks once, and the display shows `Sw Update Failed`.

NOTICE:
If the programming update is unsuccessful, the software update failure indications appear every time you turn on your radio. Contact your dealer to reprogram your radio with the latest software to eliminate the software update failure indications.

See Checking Software Update Information on page 224 for the updated software version.

4.10.32

Selecting Third-Party Peripherals Connection Modes

Follow the procedure to select one of the following third-party peripherals connection modes:

- Motorola Solutions
- PC and Audio
- Data Accessory
- Telemetry
- Generic

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Cable Type. Press OK to select.

5 Press ▲ or ▼ to the required connection mode. Press OK to select.

The display shows the selected connection mode. The screen returns to the previous menu.

4.10.33

Received Signal Strength Indicator

This feature allows you to view the Received Signal Strength Indicator (RSSI) values.

The display shows the **RSSI** icon at the top right corner. See Display Icons for more information on the **RSSI** icon.

4.10.33.1

Viewing RSSI Values

Attach the 4-Way Navigation Keypad Microphone (Motorola Solutions part number RMN5127_) to your radio.

At the home screen, using the 4-Way Navigation Keypad Microphone, press ◀ three times and immediately press ▶ three times.

The display shows the current RSSI values.

To return to the home screen, press and hold ⏎.

4.10.34

Front Panel Configuration

You are able to customize certain feature parameters in Front Panel Configuration (FPC) to enhance the use of your radio.

4.10.34.1

Entering Front Panel Configuration Mode

Long press ⮌ at any time to return to the Home screen.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Program Radio`. Press OK to select.

4.10.34.2

Editing Mode Parameters

Use the following buttons as required while navigating through the feature parameters.

- ▲ , ▼ – Scroll through options, increase/decrease values, or navigate vertically.
- OK – Select the option or enter a sub-menu.
- ⮌ – Short-press to return to previous menu or to exit the selection screen. Long-press to return to Home screen.

4.10.35

Wi-Fi Operation

This feature allows you to set up and connect to a Wi-Fi network. Wi-Fi supports updates for radio firmware, codeplug, and resources such as language packs and voice announcement.

NOTICE:
This feature is applicable to DM4601e only.

Wi-Fi® is a registered trademark of Wi-Fi Alliance®.

Your radio supports WEP/WPA/WPA2-Personal and WPA/WPA2-Enterprise Wi-Fi networks.

WEP/WPA/WPA2-Personal Wi-Fi network

Uses pre-shared key (password) based authentication.

Pre-shared key can be entered by using the menu or CPS/RM.

WPA/WPA2-Enterprise Wi-Fi network

Uses certificate-based authentication.

Your radio must be pre-configured with a certificate.

NOTICE:
Check with your dealer or system administrator to connect to WPA/WPA2-Enterprise Wi-Fi network.

The programmed **Wi-Fi On or Off** button is assigned by your dealer or system administrator. Check with your dealer or system administrator to determine how your radio has been programmed.

Voice Announcements for the programmed **Wi-Fi On or Off** button can be customized through CPS according to user requirements. Check with your dealer or system administrator for more information.

NOTICE:
You can turn on or turn off Wi-Fi remotely by using a designated radio (see Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Individual Control) on page 196 and Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Group Control) on page 196). Check with your dealer or system administrator for more information.

4.10.35.1

Turning Wi-Fi On or Off

1 Press the programmed **Wi-Fi On or Off** button. Voice Announcement sounds Turning On Wi-Fi or Turning Off Wi-Fi.

2 Access this feature using the menu.

a Press OK to access the menu.

b Press ▲ or ▼ to `WiFi` and press OK to select.

c Press ▲ or ▼ to `WiFi On` and press OK to select.

d Press OK to turn on/off Wi-Fi.

If Wi-Fi is on, the display shows ✓ beside `Enabled`.

If Wi-Fi is off, the ✓ disappears from beside `Enabled`.

4.10.35.2

Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Individual Control)

You can turn Wi-Fi on or off remotely in Individual Control (One to One).

NOTICE:
Only radio with specific CPS setting supports this function, check with your dealer or system administrator for more information.

1 Do one of the following:

- Long press the programmable button. Use the keypad to enter the ID and press OK to select. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts` and press OK to select.

3 Press ▲ or ▼ to `WiFi Control` and press OK to select.

4 Press ▲ or ▼ to select `On` or `Off`.

5 Press OK to select.

If successful, the display shows a positive mini notice.

If unsuccessful, the display shows a negative mini notice.

4.10.35.3

Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Group Control)

You can turn Wi-Fi on or off remotely in Group Control (One to Many).

NOTICE:
Only radio with specific CPS setting supports this function, check with your dealer or system administrator for more information.

1. Press OK to access the menu.
2. Press ▲ or ▼ to Contacts and press OK to select.
3. Press ▲ or ▼ to select the required subscriber alias or ID.
4. Press ▲ or ▼ to WiFi Control and press OK to select.
5. Press ▲ or ▼ to select On or Off.
6. Press OK to select.

If successful, the display shows Sent Successfully.

If unsuccessful, the display shows a negative mini notice.

4.10.35.4

Connecting to a Network Access Point

When you turn on Wi-Fi, the radio scans and connects to a network access point.

NOTICE:
You can also connect to a network access point using the menu.

The WPA-Enterprise Wi-Fi network access points are pre-configured. Check with your dealer or system administrator to determine how your radio has been programmed.

1. Press OK to access the menu.
2. Press ▲ or ▼ to WiFi and press OK to select.
3. Press ▲ or ▼ to Networks and press OK to select.

4 Press ▲ or ▼ to a network access point and press OK to select.

NOTICE:
For WPA-Enterprise Wi-Fi, if a network access point is not preconfigured, the `Connect` option is not available.

5 Press ▲ or ▼ to `Connect` and press OK to select.

6 For WPA-Personal Wi-Fi, enter the password and press OK .

7 For WPA-Enterprise Wi-Fi, password is configured by using RM.

If the preconfigured password is correct, your radio automatically connects to the selected network access point.

If the preconfigured password is incorrect, the display shows `Authentication Failure`, and automatically returns to the previous menu.

If the connection is successful, the radio displays a notice and the network access point is saved into the profile list.

If the connection is unsuccessful, the radio displays shows the failure notice screen momentarily and automatically returns to the previous menu.

4.10.35.5

Checking Wi-Fi Connection Status

Press the programmed **Wi-Fi Status Query** button for the connection status by using Voice Announcement. Voice Announcement sounds Wi-Fi is Off, Wi-Fi is On but No Connection, or Wi-Fi is On with Connection.

- The display shows `WiFi Off` when the Wi-Fi is turned off.
- The display shows `WiFi On, Connected` when the radio is connected to a network.
- The display shows `WiFi On, Disconnected` when the Wi-Fi is turned on but the radio is not connected to any network.

Voice Announcements for the Wi-Fi status query results can be customized through CPS according to user requirements. Check with your dealer or system administrator for more information.

NOTICE:
The programmed **Wi-Fi Status Query** button is assigned by your dealer or system administrator. Check with your dealer or system administrator to determine how your radio has been programmed.

4.10.35.6

Refreshing the Network List

- Perform the following actions to refresh the network list through the menu.

  a. Press OK to access the menu.

  b. Press ▲ or ▼ to `WiFi` and press OK to select.

  c. Press ▲ or ▼ to `Networks` and press OK to select.

  When you enter the Networks menu, the radio automatically refreshes the network list.

- If you are already in the Networks menu, perform the following action to refresh the network list.

  Press ▲ or ▼ to `Refresh` and press OK to select.

  The radio refreshes and displays the latest network list.

4.10.35.7

Adding a Network

NOTICE:
This task is not applicable to WPA-Enterprise Wi-Fi networks.

If a preferred network is not in the available network list, perform the following actions to add a network.

1 Press OK to access the menu.

2 Press ▲ or ▼ to WiFi and press OK to select.

3 Press ▲ or ▼ to Networks and press OK to select.

4 Press ▲ or ▼ to Add Network and press OK to select.

5 Enter the Service Set Identifier (SSID) and press OK .

6 Press ▲ or ▼ to Open and press OK to select.

7 Enter the password and press OK .

The radio displays a positive mini notice to indicate that the network is successfully saved.

Viewing Details of Network Access Points

You can view details of network access points.

1 Press OK to access the menu.

2 Press ▲ or ▼ to WiFi and press OK to select.

3 Press ▲ or ▼ to Networks and press OK to select.

4 Press ▲ or ▼ to a network access point and press OK to select.

5 Press ▲ or ▼ to View Details and press OK to select.

NOTICE:
WPA-Personal Wi-Fi and WPA-Enterprise Wi-Fi display different details of Network Access Points.

WPA-Personal Wi-Fi

For a connected network access point, your radio displays Service Set Identifier (SSID), Security Mode, Media Access Control (MAC) address, and Internet Protocol (IP) address.

For a non-connected network access point, your radio displays SSID and Security Mode.

WPA-Enterprise Wi-Fi

For a connected network access point, your radio displays SSID, Security Mode, Identity, Extended Authentication Protocol (EAP) Method, Phase 2 Authentication, Cert Name, MAC address, IP address, Gateway, DNS1, and DNS2.

For a non-connected network access point, your radio displays SSID, Security Mode, Identity, EAP Method, Phase 2 Authentication, and Cert Name.

4.10.35.9

Removing Network Access Points

NOTICE:
This task is not applicable to Enterprise Wi-Fi networks.

Perform the following actions to remove network access points from the profile list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to WiFi and press OK to select.

3 Press ▲ or ▼ to Networks and press OK to select.

4 Press ▲ or ▼ to the selected network access point and press OK to select.

5 Press ▲ or ▼ to Remove and press OK to select.

6 Press ▲ or ▼ to Yes and press OK to select.

The radio displays a positive mini notice to indicate that the selected network access point is successfully removed.

4.10.36

Dynamic Group Number Assignment (DGNA)

Dynamic Group Number Assignment (DGNA) is a feature which allows the console to assign and remove a new talkgroup from your radio over the air.

When the console assigns DGNA to your radio, your radio is in DGNA mode:

- A tone sounds.
- The display shows <DGNA Talkgroup Alias> Assigned momentarily before returning to the home screen.
- The DGNA icon appears in the status bar.
- The home screen displays DGNA talkgroup alias.

When the console removes DGNA from your radio, your radio returns to the previous talkgroup:

- A tone sounds.
- The display shows <DGNA Talkgroup Alias> Removed momentarily before returning to the home screen.
- The DGNA icon disappears from the status bar.
- The home screen displays the previous talkgroup alias.

Depending on how your radio is programmed, you can view, edit, and listen to the original scan lists channels and the non-DGNA talkgroups.

When your radio is in DGNA mode, pressing the PTT button allows you to communicate only with the current DGNA talkgroup. To communicate with the previous non-DGNA talkgroup, program the **One Touch Access** button. See Making Non-DGNA Calls on page 203.

NOTICE:
Check with your dealer or system administrator to determine how your radio has been programmed.

4.10.36.1

Making DGNA Calls

When your radio is in DGNA mode, press the **PTT** button to make the call.

- A DGNA tone sounds.
- The display shows the DGNA icon and the DGNA talkgroup alias.

NOTICE:
If your radio is not in DGNA mode and you press the **One Touch Access** button, your radio sounds a tone, indicating error. The display remains unchanged.

4.10.36.2

Making Non-DGNA Calls

1 Press the programmed **One Touch Access** button.

- A positive tone sounds.
- Voice Announcement sounds One Touch Replaced Call.
- The display shows `<Talkgroup Alias>` and `Press PTT` momentarily.

NOTICE:
If your radio is not in DGNA mode and you press the **One Touch Access** button, your radio sounds a negative tone, indicating error. The display remains unchanged.

2 Press **PTT** button before a negative tone sounds and your radio returns to the home screen.

NOTICE:
When your radio is in the home screen, a PTT press makes call to the DGNA talkgroup.

4.10.36.3

Receiving and Responding to DGNA Calls

When you receive a DGNA call:

- A DGNA tone sounds.
- The display shows the DGNA icon, DGNA talkgroup alias, and radio alias.

- Your radio unmutes and the incoming call sounds through the speaker.

1 Press the **PTT** button to respond to the call.

2 Release the **PTT** button to listen.

4.11

Utilities

This chapter explains the operations of the utility functions available in your radio.

4.11.1

Power Levels

You can customize the power setting to high or low for each channel.

High
This enables communication with radios located at a considerable distance from you.

Low
This enables communication with radios in closer proximity.

NOTICE:
This feature is not applicable in Citizens Band channels that are in the same frequency.

4.11.1.1

Setting Power Levels

Follow the procedure to set the power levels on your radio.

1 Do one of the following:

- Press the programmed **Power Level** button. Skip the steps below.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Power`. Press OK to select.

5 Do one of the following:

- Press ▲ or ▼ to High. Press OK to select.
  The display shows ✓ beside High.
- Press ▲ or ▼ to Low. Press OK to select.
  The display shows ✓ beside Low.

6 Long press ⌂ to return to the Home screen.

4.11.2

Turning Radio Tones/Alerts On or Off

You can enable and disable all radio tones and alerts, if needed, except for incoming Emergency alert tone . Follow the procedure to turn tones and alerts on or off on your radio.

1 Do one of the following:

- Press the programmed **Tones/Alerts** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alerts. Press OK to select.

5 Press ▲ or ▼ to All Tones. Press OK to select.

6 Press OK to enable or disable all tones and alerts. The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

4.11.3

Turning Keypad Tones On or Off

Follow the procedure to turn keypad tones on or off on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to Utilities. Press OK to select.
3. Press ▲ or ▼ to Radio Settings. Press OK to select.
4. Press ▲ or ▼ to Tones/Alerts. Press OK to select.
5. Press ▲ or ▼ to Keypad Tones. Press OK to select.
6. Press OK to enable or disable keypad tones. The display shows one of the following results:
   - If enabled, ✓ appears beside Enabled.
   - If disabled, ✓ disappears beside Enabled.

4.11.4

Setting Tones/Alerts Volume Offset Levels

This feature adjusts the volume of the tones or alerts, allowing it to be higher or lower than the voice volume. Follow the procedure to set the tones and alerts volume offset levels on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to Utilities. Press OK to select.
3. Press ▲ or ▼ to Radio Settings. Press OK to select.
4. Press ▲ or ▼ to Tones/Alerts. Press OK to select.

5 Press ▲ or ▼ to Vol. Offset. Press OK to select.

6 Press ▲ or ▼ to the required volume offset level.

A feedback tone sounds with each corresponding volume offset level.

7 Do one of the following:

- Press OK to select. The required volume offset level is saved.
- Press ↩ to exit. The changes are discarded.

4.11.5

Turning Talk Permit Tone On or Off

Follow the procedure to turn Talk Permit Tone on or off on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alerts. Press OK to select.

5 Press ▲ or ▼ to Talk Permit. Press OK to select.

6 Press OK to enable or disable the Talk Permit Tone.

The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

4.11.6

Turning Power Up Tone On or Off

Follow the procedure to turn Power Up Tone on or off on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Tones/Alerts`. Press OK to select.
5. Press ▲ or ▼ to `Power Up`. Press OK to select.
6. Press OK to enable or disable the Power Up Tone. The display shows one of the following results:
   - If enabled, ✓ appears beside `Enabled`.
   - If disabled, ✓ disappears beside `Enabled`.

4.11.7

Setting Text Message Alert Tones

You can customize the text message alert tone to Momentary or Repetitive for each entry in the Contacts list. Follow the procedure to set the text message alert tones on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Contacts`. Press OK to select.
3. Press ▲ or ▼ to the required alias or ID. Press OK to select.
4. Press ▲ or ▼ to `Message Alert`. Press OK to select.

5 Do one of the following:

- Press ▲ or ▼ to Momentary. Press OK to select.
  The display shows ✓ beside Momentary.
- Press ▲ or ▼ to Repetitive. Press OK to select.
  The display shows ✓ beside Repetitive.

4.11.8
Changing Display Modes

You can change the display mode of the radio between Day or Night, as needed. This feature affects the color palette of the display. Follow the procedure to change the display mode of your radio.

1 Do one of the following:

- Press the programmed **Display Mode** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Display. Press OK to select.

The display shows Day Mode and Night Mode.

5 Press ▲ or ▼ to the required setting. Press OK to select.

The display shows ✓ beside the selected setting.

4.11.9
Adjusting Display Brightness

Follow the procedure to adjust the display brightness on your radio. Display brightness cannot be adjusted when Auto Brightness is enabled.

1 Do one of the following:

- Press the programmed **Brightness** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Brightness`. Press OK to select.

The display shows the progress bar.

5 Press ▲ or ▼ to decrease or increase the display brightness. Press OK to select.

The setting value is varied from 1 to 8.

4.11.10

Turning Horns/Lights On or Off

Your radio is able to notify you of an incoming call through the horns and lights feature. When activated, an incoming call sounds the horn and turns on the lights of your vehicle. This feature needs to be installed through your radio rear accessory connector by your dealer. Follow the procedure to turn all horns and lights on or off on your radio.

1 Do one of the following:

- Press the programmed **Horns/Lights** button. Skip the steps below.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to Horns/Lights. Press OK to select.

5 Press OK to enable or disable Horns/Lights. The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

4.11.11

Turning LED Indicators On or Off

Follow the procedure to turn the LED indicators on or off on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to LED Indicator. Press OK to select.

5 Press OK to enable or disable the LED indicator.

The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

4.11.12

Turning Public Address System On or Off

Follow the procedure to enable or disable the internal public address (PA) system of your radio.

1 Do one of the following:

- Press the programmed **Public Address** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Public Address. Press OK to select.

5 Press OK to enable or disable Public Address.

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

4.11.13

Turning External Public Address System On or Off

Follow the procedure to enable or disable the external public address (PA) system of your radio.

1 Do one of the following:

- Press the programmed **Ext Public Address** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to External Public Address. Press OK to select.

5 Press OK to enable or disable external public address.

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

4.11.14

Turning Introduction Screen On or Off

You can enable and disable the Introduction Screen by following the procedure.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Display`. Press OK to select.
5. Press ▲ or ▼ to `Intro Screen`. Press OK to select.
6. Press OK to enable or disable the Introduction Screen.

   The display shows one of the following results:

   - If enabled, ✓ appears beside `Enabled`.
   - If disabled, ✓ disappears beside `Enabled`.

4.11.15

Setting Languages

Follow the procedure to set the languages on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to Languages. Press OK to select.

5 Press ▲ or ▼ to the required language. Press OK to select.

The display shows ✓ beside the selected language.

4.11.16
Identifying Cable Type

Do the following steps to select the type of cable your radio uses.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Cable Type. Press OK to select.

5 The current cable type is indicated by a ✓.

4.11.17
Turning Voice Announcement On or Off

This feature enables the radio to audibly indicates the current zone or channel the user has just assigned, or the programmable button the user has just pressed.

This is typically useful when the user has difficulty reading the content shown on the display.

This audio indicator can be customized according to customer requirements. Follow the procedure to turn Voice Announcement on or off on your radio.

4.11.18

Turning Option Board On or Off

Option board capabilities within each channel can be assigned to programmable buttons. A channel can support up to 6 option board features. Follow the procedure to turn option board on or off on your radio.

Press the programmed **Option Board** button.

4.11.19

Text-to-Speech

The Text-to-Speech feature can only be enabled by your dealer. If Text-to-Speech is enabled, the Voice Announcement feature is automatically disabled. If Voice Announcement is enabled, then the Text-to-Speech feature is automatically disabled.

This feature enables the radio to audibly indicate the following features:

- Current Channel
- Current Zone
- Programmed button feature on or off
- Content of received text messages
- Content of received Job Tickets

This audio indicator can be customized per customer requirements. This feature is typically useful when the user is in a difficult condition to read the content shown on the display.

4.11.19.1

Setting Text-to-Speech

Follow the procedure to set the Text-to-Speech feature.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Voice Announcement`. Press OK to select.

5 Press ▲ or ▼ to any of the following features. Press OK to select.

The available features are as follows:

- All
- Messages
- Job Tickets
- Channel
- Zone
- Program Button

✓ appears beside the selected setting.

4.11.20

Setting Menu Timer

You can set the time your radio stays in the menu before it automatically switches to the Home screen. Follow the procedure to set the menu timer.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Display. Press OK to select.

5 Press ▲ or ▼ to Menu Timer. Press OK to select.

6 Press ▲ or ▼ to the required setting. Press OK to select.

4.11.21

Turning Digital Microphone AGC On or Off

The Digital Microphone Automatic Gain Control (AGC) controls the microphone gain of the radio automatically while transmitting on a digital system.
This feature suppresses loud audio or boosts soft audio to a preset value in order to provide a consistent level of audio. Follow the procedure to turn Digital Microphone AGC on or off on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Mic AGC-D`. Press OK to select.

5 Press OK to enable or disable Digital Microphone AGC.

The display shows one of the following results:

- If enabled, ✓ appears beside `Enabled`.
- If disabled, ✓ disappears beside `Enabled`.

4.11.22

Turning Intelligent Audio On or Off

Your radio automatically adjusts the audio volume to overcome current background noise in the environment, inclusive of both stationary and non-stationary noise sources. This is a receive-only feature and does not affect transmission audio. Follow the procedure to turn Intelligent Audio on or off on your radio.

NOTICE:
This feature is not applicable during a Bluetooth session.

1 Do one of the following:

- Press the programmed **Intelligent Audio** button. Skip the steps below.
- Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Intelligent Audio. Press OK to select.

5 Do one of the following:

- Press ▲ or ▼ to On. Press OK to select. The display shows ✓ beside On.
- Press ▲ or ▼ to Off. Press OK to select. The display shows ✓ beside Off.

Turning the Acoustic Feedback Suppressor Feature On or Off

This feature allows you to minimize acoustic feedback in received calls.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Settings and press OK to select.

4 Press ▲ or ▼ to AF Suppressor and press OK to select.

You can also use or buttons to change the selected option.

5 Do one of the following.

- Press OK to enable Acoustic Feedback Suppressor. The display shows ✓ beside Enabled.
- Press OK to disable Acoustic Feedback Suppressor. The ✓ disappears from beside Enabled.

4.11.24

Turning Trill Enhancement On or Off

You can enable this feature when you are speaking in a language that contains many words with alveolar trill (rolling "R") pronunciations. Follow the procedure to turn Trill Enhancement on or off on your radio.

1 Do one of the following:
- Press the programmed **Trill Enhancement** button. Skip the steps below.
- Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Trill Enhance. Press OK to select.

5 Do one of the following:
- Press ▲ or ▼ to On. Press OK to select. The display shows ✓ beside On.
- Press ▲ or ▼ to Off. Press OK to select. The display shows ✓ beside Off.

4.11.25

Audio Ambience

You can customize the audio ambience for your radio according to your environment.

Default
This is the default setting.

Loud

This setting enables Noise Suppressor and increases speaker loudness for use in noisy surroundings.

Work Group

This setting enables AF Suppressor and disables AGC for use when a group of radios are near to each other.

4.11.25.1

Setting Audio Ambience

Follow the procedure to set the audio ambience on your radio according to your environment.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Audio Ambience`. Press OK to select.
5. Press ▲ or ▼ to the required setting. Press OK to select.

   The settings are as follows.

   - Choose `Default` for the default factory settings.
   - Choose `Loud` to increase speaker loudness when using in noisy surroundings.
   - Choose `Work Group` to reduce acoustic feedback when using with a group of radios that are near to each other.

   The display shows ✓ beside the selected setting.

4.11.26

Audio Profiles

You can customize the audio profiles for your radio according to your preference.

Default
This is the default setting.

Level 1, Level 2, and Level 3
These settings are intended to compensate for noise-induced hearing loss that is typical for adults in their 40’s, 50’s, and 60’s or over.

Treble Boost, Mid Boost, and Bass Boost
These settings are intended for a tinnier sound, a more nasal sound, and a deeper sound.

4.11.26.1

Setting Audio Profiles

Follow the procedure to set audio profiles on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Audio Profiles`. Press OK to select.

5 Press ▲ or ▼ to the required setting. Press OK to select.

The settings are as follows.

- Choose `Default` to disable the previously selected audio profile and return to the default factory settings.
- Choose `Level 1`, `Level 2`, or `Level 3` for audio profiles intended to compensate for noise-induced hearing loss that is typical for adults over 40 years of age.
- Choose `Treble Boost`, `Mid Boost`, or `Bass Boost` for audio profiles that align with your preference for tinnier, more nasal, or deeper sounds.

The display shows ✓ beside the selected setting.

4.11.27

Turning Global Navigation Satellite System On or Off

Global Navigation Satellite System (GNSS) is a satellite navigation system that determines the radio precise location. GNSS includes Global Positioning System (GPS), Global Navigation Satellite System (GLONASS), and BeiDou Navigation Satellite System (BDS).

NOTICE:
Selected radio models may offer GPS, GLONASS, and BDS. GNSS constellation is configured by using CPS. Check with your dealer or system administrator to determine how your radio has been programmed.

1

2 Do one of the following steps to toggle GNSS on or off on your radio.

- Press the programmed **GNSS** button.
- Press OK to access the menu. Proceed to the next step.

3 Press ▲ or ▼ to `Utilities`. Press OK to select.

4 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

5 Press ▲ or ▼ to `GNSS`. Press OK to select.

6 Press OK to enable or disable GNSS.

If enabled, ✓ appears beside `Enabled`.
If disabled, ✓ disappears beside `Enabled`.

4.11.28

General Radio Information

Your radio contains information on various general parameters.

The general information of your radio is as follows:

- Radio alias and ID.
- Firmware and Codeplug versions.

- Software update.
- GNSS information.
- Site information.

NOTICE:

Press ↩ to return to the previous screen. Long press ↩ to return to the Home screen. The radio exits the current screen once the inactivity timer expires.

4.11.28.1

Checking Radio Alias and ID

1 Do one of the following:

- Press the programmed **Radio Alias and ID** button. Skip the following steps.
  A positive indicator tone sounds.

  You can press the programmed **Radio Alias and ID** button to return to the previous screen.

- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Info`. Press OK to select.

4 Press ▲ or ▼ to `My ID`. Press OK to select.

The first text line shows the radio alias. The second text line shows the radio ID.

4.11.28.2

Checking Firmware and Codeplug Versions

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to Radio Info. Press OK to select.

4 Press ▲ or ▼ to Versions. Press OK to select.

The display shows the current firmware and codeplug versions.

4.11.28.3

Checking Software Update Information

This feature shows the date and time of the latest software update carried out through OTAP or Wi-Fi. Follow the procedure to check the software update information on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Info. Press OK to select.

4 Press ▲ or ▼ to SW Update. Press OK to select.

The display shows the date and time of the latest software update.

Software Update menu is only available after at least one successful OTAP or Wi-Fi session. See Over-the-Air Programming on page 482 for more information.

4.11.28.4

Checking GNSS Information

Displays the GNSS information on your radio, such as values of:

- Latitude
- Longitude
- Altitude
- Direction
- Velocity

- Horizontal Dilution of Precision (HDOP)
- Satellites
- Version

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Info`. Press OK to select.
4. Press ▲ or ▼ to `GNSS Info`. Press OK to select.
5. Press ▲ or ▼ to the required item. Press OK to select. The display shows the requested GNSS information.

4.11.28.5

Displaying Site Information

Follow the procedure to display the current site name your radio is on.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Info`. Press OK to select.
4. Press ▲ or ▼ to `Site Info`. Press OK to select.

The display shows the current site name.

4.11.29

Viewing Enterprise Wi-Fi Certificate Details

You can view the details of the selected Enterprise Wi-Fi Certificate.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Certificate Menu`. Press OK to select.

   ✓ appears beside ready certificates.
4. Press ▲ or ▼ to the required certificate.

   Press OK to select.

Your radio displays the full details of the certificate.

NOTICE:
For unready certificates, the display shows only Status.

Connect Plus

Connect Plus is a full trunking solution based on DMR technology. Connect Plus uses a dedicated control channel for channel requests and allocations.

5.1

Additional Radio Controls in Connect Plus Mode

This chapter explains the additional radio controls available to the radio user through preprogrammed means such as programmable buttons and assignable radio functions.

5.1.1

Push-To-Talk (PTT) Button

The **PTT** button on the side of the radio serves two basic purposes:

- While a call is in progress, the **PTT** button allows the radio to transmit to other radios in the call.

  Press and hold the **PTT** button to talk. Release the **PTT** button to listen.

  The microphone is activated when the **PTT** button is pressed.

- While a call is not in progress, the **PTT** button is used to make a new call (see Making a Radio Call on page 244).

If the Talk Permit Tone is enabled, wait until the short alert tone ends before talking.

5.1.2

Programmable Buttons

Your dealer can program the programmable buttons as shortcuts to radio functions depending on the duration of a button press:

Short press
Pressing and releasing rapidly.

Long press
Pressing and holding for the programmed duration.

NOTICE:
The programmed duration of a button press is applicable for all assignable radio/utility functions or settings. See Emergency Operation on page 279 for more information on the programmed duration of the *Emergency* button.

5.1.2.1

Assignable Radio Functions

Bluetooth® Audio Switch
Toggles audio routing between internal radio speaker and external Bluetooth-enabled accessory.

Bluetooth Connect
Initiates a Bluetooth find-and-connect operation.

Bluetooth Disconnect
Terminates all existing Bluetooth connections between your radio and any Bluetooth-enabled devices.

Bluetooth Discoverable
Enables your radio to enter Bluetooth Discoverable Mode.

Busy Queue Cancellation
Exits the busy mode when a non-Emergency call in the Busy Queue was initiated. Emergency calls, once accepted into the Busy Queue, cannot be cancelled.

Call Log
Selects the call log list.

Channel Announcement
Plays zone and channel announcement voice messages for the current channel.

Contacts
Provides direct access to the Contacts list.

Emergency On/Off
Depending on the programming, initiates or cancels an emergency.

Horns/Lights
Toggles horns and lights feature on or off.

Indoor Location
Toggles Indoor Location on or off.

Intelligent Audio
Toggles intelligent audio on or off.

Manual Dial
Depending on the programming, initiates a Private or Phone Call by keying in any subscriber ID or phone number.

One Touch Access
Directly initiates a predefined Private Call, a Call Alert, a Quick Text message, or Home Revert.

Privacy
Toggles privacy on or off.

Radio Check
Determines if a radio is active in a system.

Radio Enable
Allows a target radio to be remotely enabled.

Radio Disable
Allows a target radio to be remotely disabled.

Remote Monitor
Turns on the microphone of a target radio without it giving any indicators.

Reset Home Channel
Sets a new home channel.

Ring Alert Type
Provides direct access to the Ring Alert Type Setting.

Roam Request
Requests to search for a different site.

Scan
Toggles scan on or off.

Silence Home Channel Reminder
Mutes the Home Channel Reminder.

Site Lock On/Off
When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Text Message
Selects the text message menu.

Voice Announcement On/Off
Toggles voice announcement on or off.

Wi-Fi
Toggles Wi-Fi on or off.

Zone
Allows selection from a list of zones.

5.1.2.2

Assignable Settings or Utility Functions

AF Suppressor
Toggles the Acoustic Feedback Suppressor feature on or off.

All Tones/Alerts
Toggles all tones and alerts on or off.

Backlight Brightness
Adjusts the brightness level.

Channel Up/Down
Depending on the programming, changes channel to previous or next channel.

Display Mode
Toggles the day/night display mode on or off.

Global Navigation Satellite System (GNSS)
Toggles the satellite navigation system on or off.

Power Level
Toggles transmit power level between high and low.

Unassigned
Indicates that the button function has not yet been assigned.

5.1.3

Identifying Status Indicators in Connect Plus Mode

5.1.3.1

Display Icons

The following are icons that appear on the display of the radio.

	Received Signal Strength Indicator (RSSI) The number of bars displayed represents the radio signal strength. Four bars indicate the strongest signal. This icon is only displayed while receiving.
	Bluetooth Not Connected The Bluetooth feature is enabled but there is no remote Bluetooth device connected.
	Bluetooth Connected The Bluetooth feature is enabled. The icon stays lit when a remote Bluetooth device is connected.
	High Volume Data Radio is receiving high volume data and channel is busy.
	Indoor Location Available [3] Indoor location status is on and available.
	Indoor Location Unavailable [3]

[3] Only applicable for models with the latest software and hardware

	Indoor location status is on but unavailable due to Bluetooth disabled or Beacons Scan suspended by Bluetooth.
	Mute Mode Mute Mode is enabled and speaker is muted.
	Notification Notification List has items to review.
	Power Level Radio is set at Low power or Radio is set at High power.
	Tones Disable Tones are turned off.
	Option Board The Option Board is enabled.
	Option Board Non-Function The Option Board is disabled.
	GNSS Available The GPS/GNSS feature is enabled. The icon stays lit when a position fix is available.
	GNSS Not Available/Out of Range The GPS/GNSS feature is enabled but is not receiving data from the satellite.
	Scan Scan feature is enabled.
	Emergency Radio is in Emergency mode.
	Secure The Privacy feature is enabled.
	Unsecure The Privacy feature is disabled.
	Site Roaming The site roaming feature is enabled.
	Contact Radio contact is available.

	Call Log Radio call log.
	Message Incoming message.
	Ring Only Ringing mode is enabled.
	Silent Ring Silent ring mode is enabled.
	Vibrate Vibrate mode is enabled.
	Vibrate and Ring Vibrate and Ring mode is enabled.
	Wi-Fi Excellent [4] Wi-Fi signal is excellent.
	Wi-Fi Good [4] Wi-Fi signal is good.
	Wi-Fi Average [4] Wi-Fi signal is average.
	Wi-Fi Poor [4] Wi-Fi signal is poor.
	Wi-Fi Unavailable [4] Wi-Fi signal is unavailable.

[4] Only applicable for DM4601e

5.1.3.2

Call Icons

The following icons appear on your radio display during a call. These icons also appear in the Contacts list to indicate ID type.

	Private Call Indicates a Private Call in progress. In the Contacts list, it indicates a subscriber alias (name) or ID (number).

	Group Call/Site All Call Indicates a Group Call or Site All Call in progress. In the Contacts list, it indicates a group alias (name) or ID (number).
	Phone Call as Private Call Indicates a Phone Call as Private Call in progress.
	Bluetooth PC Call Indicates a Bluetooth PC Call in progress. In the Contacts list, it indicates a Bluetooth PC Call alias (name) or ID (number).
	Dispatch Call The Dispatch Call contact type is used to send a text message to a dispatcher PC through a third-party Text Message Server.

5.1.3.3

Advanced Menu Icons

The following icons appear beside menu items that offer a choice between two options or as an indication that there is a sub-menu offering two options.

	Checkbox (Empty) Indicates the option is not selected.
	Checkbox (Checked) Indicates the option is selected.
	Solid Black Box Indicates the option selected for the menu item with a sub-menu.

5.1.3.4

Sent Item Icons

The following icons appear at the top right corner of the radio display in the Sent Items folder.

OR	**Sent Successfully** The text message is sent successfully.
OR	**In-Progress** • The text message to a group alias or ID is pending transmission. • The text message to a subscriber alias or ID is pending transmission, followed by waiting for acknowledgement.
OR	**Individual or Group Message Read** The text message has been read.
OR	**Individual or Group Message Unread** The text message has not been read.
OR	**Send Failed** The text message has not been sent.

5.1.3.5

Bluetooth Device Icons

The following icons also appear next to items in the list of Bluetooth-enabled devices available to indicate the device type.

	Bluetooth Data Device Bluetooth-enabled data device, such as a scanner.
	Bluetooth Audio Device Bluetooth-enabled audio device, such as a headset.

	Bluetooth PTT Device Bluetooth-enabled PTT device, such as a PTT-Only Device (POD).
	Bluetooth Sensor Device Bluetooth-enabled sensor device, such as gas sensor.

5.1.3.6

LED Indicator

The LED indicator shows the operational status of your radio.

Blinking red	Radio is transmitting at low battery condition, receiving an emergency transmission or has failed the self-test upon powering up, or has moved out of range if radio is configured with Auto-Range Transponder System. Mute Mode is enabled.
Rapidly blinking red	Radio is receiving over-the-air file transfer (Option Board firmware file, Network Frequency file or Option Board Codeplug file) or upgrading to a new Option Board firmware file.
Blinking green and yellow	Radio is receiving a Call Alert, received a text message or Scan is enabled and is receiving activity.
Solid yellow	Radio is in Bluetooth Discoverable Mode.
Double blinking yellow	Radio is actively searching for a new site.
Blinking yellow	Radio is receiving a Call Alert or Scan is enabled and is idle (radio will remain muted to any activity).
Solid green	Radio is powering up or transmitting.
Blinking green	Radio is powering up, receiving a call or data.
Double blinking green	Radio is receiving a privacy-enabled call.

5.1.3.7

Indicator Tones

The following are the tones that sound through the radio speaker.

High pitched tone		Low pitched tone	

Indicator tones provide you with audible indications of the status after an action to perform a task is taken.

	Positive Indicator Tone
	Negative Indicator Tone

5.1.3.8

Alert Tones

Alert tones provide you with audible indications of the status, or response to data received on the radio.

Continuous Tone	A monotone sound. Sounds continuously until termination.
Periodic Tone	Sounds periodically depending on the duration set by the radio. Tone starts, stops, and repeats itself.
Repetitive Tone	A single tone that repeats itself until it is terminated by the user.
Momentary Tone	Sounds only once for a short period of time defined by the radio.

5.1.4

Switching Between Connect Plus and Non-Connect Plus Modes

To switch to a non-Connect Plus mode, you must change to another zone, if programmed by your dealer or system administrator. Check with your dealer or system administrator to see if your radio has been programmed with non-Connect Plus zones, and what features are available while operating in non-Connect Plus zones.

5.2

Making and Receiving Calls in Connect Plus Mode

This section explains general radio operations and call features that are available in your radio.

5.2.1

Selecting a Site

A site provides coverage for a specific area. A Connect Plus site has a site controller and a maximum of 15 repeaters. In a multi-site network, the Connect Plus radio will automatically search for a new site when the signal level from the current site drops to an unacceptable level.

5.2.1.1

Roam Request

A Roam Request tells the radio to search for a different site, even if the signal from the current site is acceptable.

If there are no sites available:

- The radio displays `Searching` and `Selected Channel Alias` and continues to search through the list of sites.
- The radio will return to the previous site, if the previous site is still available.

NOTICE:
This is programmed by your dealer.

Press the programmed **Roam Request** button.

You hear a tone, indicating the radio has switched to a new site. The display shows `Site ID <Site Number>`.

5.2.1.2

Site Lock On/Off

When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Press the programmed **Site Lock** button.

If the **Site Lock** function is toggled on:

- You hear a positive indicator tone, indicating the radio has locked to the current site.
- The display shows `Site Locked`.

If the **Site Lock** function is toggled off:

- You hear a negative indicator tone, indicating the radio is unlocked.
- The display shows `Site Unlocked`.

5.2.1.3

Site Restriction

Your Connect Plus radio system administrator has the ability to decide which network sites your radio is and is not allowed to use. Your radio does not need to be reprogrammed to change the list of allowed and disallowed sites. If your radio attempts to register at a disallowed site, you see a brief message stating: `Site <number given> Not Allowed`. The radio then searches for a different network site.

5.2.2

Selecting a Zone

The radio can be programmed with a maximum of 16 Connect Plus Zones and each Connect Plus zone contains a maximum of 16 assignable positions on the Channel Selector Knob.

Each assignable knob position can be used to start one of the following voice call types:

- Group Call
- Multi-group Call
- Site All Call
- Private Call

1 Access the Zone feature by performing the following:

Radio Controls	Steps
Programmed Zone Selection button	Press the programmed **Zone Selection** button.
Radio menu	**a** Press OK to access the menu. **b** Press ▲ or ▼ to `Zone` and press OK to select.

The current zone is displayed and indicated by a ✓ .

2 Select the required zone.

Radio Control	Steps
or	Press or and scroll to the required zone.

3 Press OK to select.

The display shows `<Zone> Selected` momentarily and returns to the selected zone screen.

5.2.3

Using Multiple Networks

If your radio has been programmed to use multiple Connect Plus networks, you can select a different network by switching to the Connect Plus zone that is assigned to the desired network. These network-to-zone assignments are configured by your dealer through radio programming.

5.2.4

Selecting a Call Type

Use the Channel Selector Knob to select a call type. This can be a Group Call, Multi-group Call, Site All Call or Private Call, depending on how your radio is programmed. If you change the Channel Selector Knob to a different position (that has a call type assigned to it), this causes the radio to re-register with the Connect Plus site. The radio registers with the Registration Group ID that has been programmed for the new Channel Selector Knob position call type.

If you select a position that has no call type assigned to it, your radio sounds a continuous tone and the display shows `Unprogrammed`. Your radio does not operate when selected to an unprogrammed channel, use the Channel Selector Knob to select a programmed channel instead.

Once the required zone is displayed (if you have multiple zones in your radio), turn the programmed Channel Selector Knob to select the call type.

5.2.5

Receiving and Responding to a Radio Call

Once the channel, subscriber ID or call type is displayed, you can proceed to receive and respond to calls.

The LED lights up solid green while the radio is transmitting and blinks green when the radio is receiving.

NOTICE:
The LED lights up solid green while the radio is transmitting and double blinks green when the radio is receiving a privacy-enabled call. To unscramble a privacy-enabled call, your radio must have the same Privacy Key, OR the same Key Value and Key ID (programmed by your dealer), as the transmitting radio (the radio you are receiving the call from).

See Privacy on page 298 for more information.

5.2.5.1

Receiving and Responding to a Group Call

To receive a call from a group of users, your radio must be configured as part of that group.

When you receive a Group Call (while on the Home screen), the LED blinks green.The Group Call icon appears in the top right corner. The first text line shows the caller alias. The second text line displays the group call alias. Your radio unmutes and the incoming call sounds through the radio speaker.

1 Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

The LED lights up solid green.

2 Wait for one of the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

3 Release the **PTT** button to listen.

If there is no voice activity for a predetermined period of time, the call ends.

NOTICE:
See Making a Group Call on page 244 for details on making a Group Call.

5.2.5.2

Receiving and Responding to a Private Call

A Private Call is a call from an individual radio to another individual radio.

When you receive a Private Call, the LED blinks green. The first line of the display shows the subscriber alias or ID, and the RSSI icon. The second line displays `Private Call` and the Private Call icon. Your radio unmutes and the incoming call sounds through the speaker of the radio.

1. Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth.
2. Press the **PTT** button to respond to the call.

   The LED lights up solid green.
3. Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.
4. Release the **PTT** button to listen.

If there is no voice activity for a predetermined period of time, the call ends.

The display shows `Call Ended`.

See Making a Private Call on page 245 for details on making a Private Call.

5.2.5.3

Receiving a Site All Call

A Site All Call is a call from an individual radio to every radio on the site. It is used to make important announcements requiring the user's full attention.

When you receive an Site All Call, a tone sounds and the LED blinks green.

The Group Call icon appears in the top right corner. The first text line shows the caller alias. The second text line displays `Site All Call`. Your radio unmutes and the incoming call sounds through the radio speaker.

Once the Site All Call ends, the radio returns to the previous screen before receiving the call. A Site All Call does not wait for a predetermined period of time before ending.

You cannot respond to a Site All Call.

NOTICE:
See Making a Site All Call on page 246 for details on making a Site All Call.

The radio stops receiving the Site All Call if you switch to a different channel while receiving the call. During a Site All Call, you will not be able to use any programmed button functions until the call ends.

5.2.5.4

Receiving an Inbound Private Phone Call

When you receive an Inbound Private Phone Call, the Phone Call as Private Call icon appears in the top right corner. The first text line shows `Phone Call`.

1 Press and hold the **PTT** button to answer and talk. Release the **PTT** button to listen.

2 Long press ⏻ to end the call.

The first line of the display shows `Ending`. The second line of the display shows `Phone Call...`. The display returns to the Phone Call screen.

The display shows `Phone Call Ended`.

5.2.5.4.1

Making a Buffered Over-Dial in an Inbound Phone Private Call

During the call, the Phone Call as Private Call icon appears in the top right corner. The first text line of the display shows `Phone Call`.

1 Use the keypad to enter the digits and press the OK button.

Press * followed by # within 2 seconds to insert a pause. The `P` replaces * and # on the display.

The Phone Call as Private Call icon appears in the top right corner. The first text line of the display shows the entered digits.

2 Long press ⏻ to end the call.

The first line of the display shows `Ending`. The second line of the display shows `Phone Call...`. The display returns to the Phone Call screen.

The display shows `Phone Call Ended`.

5.2.5.4.2

Making a Live Over-Dial in an Inbound Phone Private Call

During the call, the Phone Call as Private Call icon appears in the top right corner. The first text line of the display shows `Phone Call`.

1 Press the **PTT** button and use the keypad to enter the digits.

The Phone Call as Private Call icon appears in the top right corner. The first text line of the display shows the Live Dial digits.

2 Long press ⏻ to end the call.

The first line of the display shows `Ending`. The second line of the display shows `Phone Call...`. The display returns to the Phone Call screen.

The display shows `Phone Call Ended`.

5.2.5.5

Receiving an Inbound Phone Talkgroup Call

When you receive an Inbound Phone Talkgroup Call, the Group Call icon appears in the top right corner. The first text line shows `Call1`.

Press the **PTT** button to talk and release it to listen.

5.2.5.6

Inbound Phone Multi-Group Call

When you receive an Inbound Phone Multi-Group Call, the Group Call icon appears in the top right corner. The first text line shows `Multigroup Call`. The radio unmutes and

the incoming multi-group call sounds through the radio speaker.

5.2.6
Making a Radio Call

After selecting your channel, you can select a subscriber alias or ID, or group alias or ID by using:

- The Channel Selector Knob.
- A programmed **One Touch Access** button – The One Touch Access feature allows you to make a Private Call to a predefined ID easily. This feature can be assigned to a short or long programmable button press. You can only have one ID assigned to a **One Touch Access** button. Your radio can have multiple **One Touch Access** buttons programmed.
- The Contacts list (see Contacts Settings on page 267).

NOTICE:
Your radio must have the Privacy feature enabled on the channel to send a privacy-enabled transmission. Only target radios with the same Key Value and Key ID as your radio will be able to unscramble the transmission.

See Privacy on page 298 for more information.

5.2.6.1
Making a Call with the Channel Selector Knob

This feature allows the radio users to make different call types : Group Call, Private Call, Site All Call, Multi-group Call.

5.2.6.1.1
Making a Group Call

To make a call to a group of users, your radio must be configured as part of that group.

1. Select the channel with the active group alias or ID. See Selecting a Call Type on page 239.
2. Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth.
3. Press the **PTT** button to make the call.

   The LED lights up solid green. The Group Call icon appears in the top right corner. The first text line shows the group call alias.

4 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

5 Release the **PTT** button to listen.

When the target radio responds, the LED blinks green, the radio unmutes and the response sounds through the radio speaker. You see the Group Call icon, the group alias or ID, and transmitting radio alias or ID on your display.

If there is no voice activity for a predetermined period of time, the call ends. Radio returns to the screen you were on prior to initiating the call.

5.2.6.1.2

Making a Private Call

While you can receive and/or respond to a Private Call initiated by an authorized individual radio, your radio must be programmed for you to initiate a Private Call.

You will hear a negative indicator tone, when you make a Private Call using the **One Touch Access** button, or the Channel Selector Knob, if this feature is not enabled.

1 Do one of the following.

- Select the channel with the active subscriber alias or ID. See Selecting a Call Type on page 239.
- Press the programmed **One Touch Access** button.

2 Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

3 Press the **PTT** button to make the call.

The LED lights up solid green. The Private Call icon appears on the top right corner. The first text line shows the target subscriber alias. The second text line displays the call status.

4 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

5 Release the **PTT** button to listen.

When the target radio responds, the LED blinks green.

If there is no voice activity for a predetermined period of time, the call ends. You hear a short tone. The display shows `Call Ended`.

Your radio may be programmed to perform a radio presence check prior to setting up the Private Call. If the target radio is not available, you hear a short tone and see negative mini notice on the display.

5.2.6.1.3

Making a Site All Call

This feature allows you to transmit to all users on the site that are currently not engaged in another call. Your radio must be programmed to allow you to use this feature.

Users on the channel/site cannot respond to an Site All Call.

1 Select the channel with the active Site All Call group alias. See Selecting a Call Type on page 239.

2 Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

3 Press the **PTT** button to make the call.

The LED lights up solid green. The Group Call icon appears in the top right corner. The first text line shows `Site All Call`.

4 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

5.2.6.1.4

Making a Multi-group Call

This feature allows you to transmit to all users on multiple groups. Your radio must be programmed to allow you to use this feature.

NOTICE:
Users on the groups cannot respond to a Multi-group Call.

1 Turn the Channel Selector Knob to select the Multi-group alias or ID.

2 Press the **PTT** button to make the call.

The LED lights up solid green. The display shows the Multi-group alias or ID.

Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.

5.2.6.2

Making a Private Call with a One Touch Call Button

NOTICE:
Programmable buttons press must be initiated from the Home screen.

The One Touch Call feature allows you to easily make a Private Call to a pre-defined Private Call alias or ID. This feature can be assigned to a short or long programmable button press.

You can ONLY have one alias or ID assigned to a One Touch Call button. Your radio can have multiple One Touch Call buttons programmed.

1. Press the programmed **One Touch Call** button to make a Private Call to the pre-defined Private Call alias or ID.

   The display shows the Private Call alias or ID.

2. Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

3. Press the **PTT** button to make the call.

   The LED lights up solid green.

4. Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.

5. Release the **PTT** button to listen.

   When the target radio responds, the LED blinks green.

   If there is no voice activity for a predetermined period of time, the call ends.

5.2.6.3

Making a Call with the Programmable Manual Dial Button

This feature allows the radio users to make private calls using the programmable manual dial button.

5.2.6.3.1

Making a Private Call

1 Press the programmed **Manual Dial** button to enter into the Manual Dial screen.

The display shows `Number:`.

2 Use the keypad to enter a subscriber alias or Private ID.

3 Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

4 Press the **PTT** button to make the call.

The LED lights up solid green. The Private Call icon appears in the top right corner. The first text line shows the subscriber alias. The second text line displays the call status.

5 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.

6 Release the **PTT** button to listen.

When the target radio responds, the LED blinks green.

If there is no voice activity for a predetermined period of time, the call ends. You hear a short tone. The display shows `Call Ended`.

5.2.6.4

Making an Outbound Private Phone Call with the Programmable Manual Dial Button

1 Press the programmed **Manual Dial** button to enter into the Manual Dial screen.

The display shows `Number:`.

2 Use the keypad to enter a telephone number, and press OK to place a call to the entered number.

Press ◀ to delete any unwanted characters. Press * followed by # within 2 seconds to insert a pause. The P replaces * and # on the display.

If successful, the first line of the display shows Phone Call. The second line of the display shows the dialed telephone number.

If an invalid telephone number is selected, the display shows a negative mini notice, Phone Call Failed, Resource Not Available, or Invalid Permissions.

If OK is pressed with no telephone number entered, the radio sounds a positive indicator tone then a negative indicator tone. The display remains the same.

3 Long press ⏻ to end the call.

The first line of the display shows Ending. The second line of the display shows Phone Call....

The display shows Phone Call Ended.

5.2.6.5

Making an Outbound Private Phone Call via the Phone Menu

1 Press OK to access the menu.

2 Press ▲ or ▼ to Phone and press OK to select.

3 Press OK to select Manual Dial.

The first line of the display shows Number, the second line of the display shows a blinking cursor.

4 Use the keypad to enter a telephone number, and press OK to place a call to the entered number.

Press ◀ to delete any unwanted characters. Press * followed by # within 2 seconds to insert a pause. The P replaces * and # on the display.

If successful, the first line of the display shows Phone Call. The second line of the display shows the dialed telephone number.

If an invalid telephone number is selected, the display shows a negative mini notice, Phone Call Failed, Resource Not Available, or Invalid Permissions.

If OK is pressed with no telephone number entered, the radio sounds a positive indicator tone then a negative indicator tone. The display remains the same.

5 Long press ↩ to end the call.

The first line of the display shows Ending. The second line of the display shows Phone Call....

The display shows Phone Call Ended.

5.2.6.6

Making an Outbound Private Phone Call from Contacts

NOTICE:
If the Phone Manual Dial is disabled in MOTOTRBO Connect Plus Option Board CPS, the Phone Number item will **not** be displayed in the Menu.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts and press OK to select.

3 Press ▲ or ▼ to Manual Dial and press OK to select.

4 Press ▲ or ▼ to Phone Number and press OK to select.

The first line of the display shows Number, the second line of the display shows a blinking cursor.

5 Use the keypad to enter a telephone number, and press OK to place a call to the entered number.

If the **PTT** button is pressed, the display shows a negative mini notice, `Press OK to Send` and returns to the previous screen.

Press ◀ to delete any unwanted characters. Press * followed by # within 2 seconds to insert a pause. The `P` replaces * and # on the display.

If successful, the first line of the display shows `Phone Call`. The second line of the display shows the dialed telephone number.

If OK is pressed with no telephone number entered, the radio sounds a positive indicator tone then a negative indicator tone. The display remains the same.

6 Long press ↩ to end the call.

The first line of the display shows `Ending`. The second line of the display shows `Phone Call...`.

The display shows `Phone Call Ended`.

5.2.6.7

Waiting for the Channel Grant in an Outbound Private Phone Call

When you make a Private Phone Call, the first line of the display shows `Phone Call`. The second line of the display shows the dialed telephone number.

When the call is connected, the Phone Call as Private Call icon appears in the top right corner. The first line of the display shows the telephone number.

If unsuccessful, the display shows a negative mini notice, `Phone Call Failed`, `Resource Not Available`, or `Invalid Permissions`.

Long press ↩ to end the call.

The display returns to the previous screen.

5.2.6.8

Making a Buffered Over-Dial in a Connected Outbound Private Phone Call

During the call, the Phone Call as Private Call icon appears in the top right corner. The first text line of the display shows the telephone number.

1 Use the keypad to enter the digits.

Press ◀ to delete any unwanted characters. Press *< followed by #P within 2 seconds to insert a pause. The P replaces * and # on the display.

The first text line of the display shows Extra Digits, the second text line of the display shows the entered extra digits.

2 Press the OK button.

If the **PTT** button is pressed, the display shows a negative mini notice, Press OK to Send and returns to the previous screen.

The Phone Call as Private Call icon appears in the top right corner. The first text line of the display shows the telephone number with the over-dial digits appended.

3 Do one of the following.

- Press ↩ to return to the Phone Call screen.
- Long press ↩ to end the call.

5.2.6.9

Making a Live Over-Dial in a Connected Outbound Private Phone Call

During the call, the Phone Call as Private Call icon appears in the top right corner. The first text line of the display shows the telephone number.

1 Press the **PTT** button and use the keypad to enter the digits.

The Phone Call as Private Call icon appears in the top right corner. The first text line of the display shows the telephone number with the over-dial digits appended.

2 Long press to end the call.

The first line of the display shows `Ending`. The second line of the display shows `Phone Call....`

The display shows `Phone Call Ended`.

5.3

Advanced Features in Connect Plus Mode

This chapter explains the operations of the features available in your radio.

5.3.1

Home Channel Reminder

This feature provides a reminder when the radio is not set to the home channel for a period of time.

If this feature is enabled by using the CPS, the Home Channel Reminder tone and announcement sound, the first line of the display shows `Non` and the second line shows `Home Channel` periodically when the radio is not set to the home channel for a period of time.

You can respond to the reminder by performing one of the following actions:

- Return to the home channel.
- Mute the reminder temporarily by using the programmable button.
- Set a new home channel by using the programmable button.

5.3.2

Auto Fallback

Auto Fallback is a system feature that allows you to continue to make and receive non-emergency calls on the selected Group Contact, if certain types of failures occur in the Connect Plus system.

If one of these failures occurs, your radio attempts to roam to a different Connect Plus site. This search process may result in your radio finding an operable Connect Plus site, or it may result in your radio finding a Fallback Channel (if your radio is enabled for Auto Fallback).

A Fallback Channel is a repeater that is normally part of an operable Connect Plus site, but cannot communicate with either the site controller or Connect Plus network at that moment. In Fallback mode, the repeater operates as a single digital repeater. Auto Fallback Mode supports non-emergency Group Calls only. No other call types are supported in Fallback Mode.

5.3.2.1

Indications of Auto Fallback Mode

When your radio is using a Fallback channel, you hear the intermittent Fallback Tone approximately once every 15 seconds (except while transmitting). The display periodically shows a brief message, `Fallback Channel`. Your radio only permits PTT on the selected Group Contact (Group Call, Multigroup Call, or Site All Call). It does not allow you to make other types of calls.

5.3.2.2

Making/Receiving Calls in Fallback Mode

NOTICE:
Calls are heard only by radios that are monitoring the same Fallback channel and selected to the same Group. Calls are not networked to other sites or other repeaters.
Emergency voice calls or Emergency Alerts are not available in Fallback mode. If you press the emergency button in Fallback mode, the radio provides an invalid key press tone. Display-equipped radios also show the message, “Feature not available”.

Private (radio to radio) and Phone calls are not available in Fallback mode. If you attempt a call to a private contact, you will receive a denial tone. At this point you should select a desired group contact. Other non-supported calls include Remote Monitor, Call Alert, Radio Check, Radio Enable, Radio Disable, Text messaging, Location Updates, and packet data calls.

Enhanced Traffic Channel Access (ETCA) is not supported in Auto Fallback mode. If two or more radio users press **PTT** at the same time (or at

almost the same time), it is possible that both radios transmit until **PTT** is released. In this event, it is possible that none of the transmissions will be understood by receiving radios.

Making calls in Fallback mode is similar to normal functioning. Simply select the group contact you wish to use (using the radio's normal channel selection method), and then press the **PTT** to start your call. It is possible that the channel may be in use already by another group. If the channel is in use, you receive a busy tone and the display will say "Channel Busy". You may select Group, Multi-group or Site All Call contacts using your radio's normal channel selection method. While the radio is operating on the Fallback Channel, the Multigroup operates just like other Groups. It is only heard by radios that are currently selected to the same Multi-group.

5.3.2.3
Returning to Normal Operation

If the site returns to normal trunking operation while you are in range of your Fallback repeater, your radio automatically exits Auto Fallback mode. You hear a registration "beep" when the radio successfully registers. If you are in the range of an operable site (that is not in Fallback mode), you may press the Roam Request button (if programmed for your radio) to force your radio to search for and register on an available site. If no other site is available, your radio returns to Auto Fallback mode after searching is complete. If you drive out of coverage of your Fallback repeater, your radio enters Search mode (display indicates `Searching`).

5.3.3
Radio Check

If enabled, this feature allows you to determine if another radio is active in a system without disturbing the user of that radio. No audible or visual notification is shown on the target radio.

This feature is only applicable for subscriber IDs.

5.3.3.1
Sending a Radio Check

1 Access the Radio Check feature.

Radio Control	Steps
Programmed Ra-	**a** Press the programmed **Radio Check** button.

Radio Control	Steps
dio Check button	**b** Press ▲ or ▼ to the required subscriber alias or ID and press OK to select.
Menu	**a** Press OK to access the menu. **b** Press ▲ or ▼ to `Contacts` and press OK to select. **c** Press ▲ or ▼ to the required subscriber alias or ID and press OK to select. **d** Press ▲ or ▼ to `Radio Check` and press OK to select.

The display shows the Target Alias, indicating the request is in progress. The LED lights up solid green.

2 Wait for acknowledgment.

If the target radio is active in the system, a tone sounds and the display briefly shows `Target Radio Available`.

If the target radio is not active in the system, a tone sounds and the display briefly shows `Target Radio Not Available`.

Radio returns to the subscriber alias or ID screen when initiated via Menu.

Radio returns to the Home Screen if initiated via the programmable button.

5.3.4
Remote Monitor

Use the Remote Monitor feature to turn on the microphone of a target radio (subscriber alias or IDs only). The green LED will blink once on the target subscriber. You can use this feature to monitor, remotely, any audible activity surrounding the target radio.

Your radio must be programmed to allow you to use this feature.

5.3.4.1

Initiating Remote Monitor

NOTICE:
Remote Monitor automatically stops after a programmed duration or when there is any attempt to initiate transmission, change channels or power down the radio.

1 Access the Remote Monitor feature.

Radio Control	Steps
Programmed Remote Monitor Button	**a** Press the programmed **Remote Monitor** button. **b** Press ▲ or ▼ to the required subscriber alias or ID and press OK to select.
Menu	**a** Press OK to access the menu. **b** Press ▲ or ▼ to `Contacts` and press OK to select. **c** Press ▲ or ▼ to the required subscriber alias or ID and press OK to select. **d** Press ▲ or ▼ to `Manual Dial` and press OK to select. **e** Press ▲ or ▼ to `Remote Mon.` and press OK to select.

The first text line shows `Rem. Monitor`. The second text line displays the Target Alias, indicating the request is in progress. The LED lights up blinking green.

2 Wait for acknowledgment.

If successful, a positive indicator tone sounds and the display momentarily shows `Rem. Monitor Successful`. Your radio starts playing audio from the monitored radio for a programmed duration and display shows `Rem. Monitor`, followed by target alias. Once the timer expires, the radio sounds an alert tone and the LED turns off.

If unsuccessful, the radio sounds a negative indicator tone the display shows `Rem. Monitor Failed`.

5.3.5

Scan

This feature allows your radio to monitor and join calls for groups defined in a pre-programmed scan list. When scan is enabled, the scan icon appears on the status bar and the LED blinks yellow when idle.

5.3.5.1

Starting and Stopping Scan

NOTICE:
This procedure turns the Scan feature On or Off for all Connect Plus zones with the same Network ID as your currently selected zone. It is important to note that even when the Scan feature is turned on via this procedure, scan may still be disabled for some (or all) groups on your scan list. See Editing the Scan List on page 262 for more information.

You can start and stop scanning by pressing the programmed **Scan** button **OR** follow the procedure described next.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Scan` and press OK to select.

3 Press ▲ or ▼ to `Turn On` or `Turn Off` and press OK to select.

- The display shows `Scan On` if scan is enabled.

- The Scan menu shows `Turn Off` if scan is enabled.
- The display shows `Scan Off` if scan is disabled.
- The Scan menu shows `Turn On` if scan is disabled.

5.3.5.2

Responding to a Transmission During a Scan

During scanning, your radio stops on a group where activity is detected. The radio continuously listens for any member in the scan list when idle on the control channel.

1 Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

2 Press the **PTT** button during hang time.

The LED lights up solid green.

3 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

4 Release the **PTT** button to listen.

If you do not respond within the hang time, the radio returns to scanning other groups.

5.3.6

User Configurable Scan

If the Edit List menu is enabled, a user is able to Add and Remove the scan members from the Add Member menu. A Scan List member must be a regular Group Contact (for example, not Multi-group or Site All Call/Network Wide All Call) that is currently assigned to a Channel Selector position in a Connect Plus Zone with the same Network ID as the currently selected Zone. The Talkgroup alias must not match any Talkgroup that has been included in the current Zone Scan List.

Scan can be turned on or off from the menu or by pressing a programmed **Scan On/Off** button.

This feature functions only when the radio is not currently involved in a call. If you are presently listening to a call, your radio cannot scan for other group calls, and is therefore unaware they are in progress. Once your call is finished, your radio returns to the control channel time slot and is able to scan for groups that are in the scan list.

5.3.7

Turning Scan On or Off

NOTICE:
This procedure turns the Scan feature On or Off for all zones with the same Network ID as your currently selected zone. It is important to note that even when the Scan feature is turned on via this procedure, scan may still be disabled for some (or all) groups on your scan list. See the next section for more information.

If Scan is turned on, the Scan icon appears on your display. When Scan is on and you are not participating in a call, the LED blinks green and yellow.

The procedure for turning Scan on or off depends on how your radio is programmed. If programmed with a Scan On/Off button, use the button to toggle the feature on or off. If your radio has been programmed so that Scan can be turned on or off via the menu, follow the procedure described next.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Scan` and press OK to select.

3 Press ▲ or ▼ to `Turn On` or `Turn Off` and press OK to select.

- The display shows `Scan On` momentarily if scan is disabled.
- The display shows `Scan Off` momentarily if scan is enabled.

5.3.8

Editing the Scan List

NOTICE:
If the scan list entry happens to be the currently selected group, the radio listens for activity on this group regardless of whether the list entry currently shows a check mark or not. Whenever a radio is not in a call, the radio listens for activity on its Selected Group, Multi-group, the Site All Call, and its Default Emergency Revert Group (if configured for one). This operation cannot be disabled. If Scan is enabled the radio will also listen for activity on enabled Zone Scan List members.

Your scan list determines which groups can be scanned. The list is created when your radio is programmed. If your radio has been programmed to allow you to edit the scan list, you can:

- Enable/disable scan for individual groups on the list.
- Add and Remove the scan members from the Add Member menu. Refer to Add or Delete a Group via the Add Members Menu on page 263.

NOTICE:
A Scan List member must be a regular Group Contact (not Multi-group or Site All Call/Network Wide All Call) that is currently assigned to a Channel Selector position in a Connect Plus Zone with the same Network ID as the currently selected Zone.
The Talkgroup alias must not match any Talkgroup that has been included in the current Zone Scan List.

1 Press OK to access the menu.

2 Press ▲ or ▼ to View/Edit List and press OK to select.

3 Press ▲ or ▼ to the desired Group name.

If a check mark precedes the Group name, then scan is currently enabled for this Group.

If there is no check mark preceding the Group name, then scan is currently disabled for this Group.

4 OK to select the desired Group.

The display shows Enable if scan is currently disabled for the Group.

The display shows Disable if scan is currently enabled for the Group.

5 Select the displayed option (Enable or Disable) and press OK to select.

Depending on which option was selected, the radio momentarily displays Scan Enabled or Scan Disabled as confirmation.

The radio displays the Zone scan list again. If scan was enabled for the Group, the check mark displays before the Group name. If scan was disabled for the Group, the check mark is removed before the Group name.

5.3.9

Add or Delete a Group via the Add Members Menu

The Connect Plus radio does not allow a duplicate group number or a duplicate group alias to be placed on a zone scan list (or to be shown as a "scan candidate"). Thus, the list of "scan candidates" described in step 6 and step 7 sometimes changes after adding or deleting a group from the zone scan list.

If your radio has been programmed to allow you to edit the scan list, you can use the Add Members menu to add a group to the scan list of the currently selected zone, or to delete a group from the scan list of the currently selected zone.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Scan option and press OK to select.

3 Press ▲ or ▼ to <Add Members> and press OK to select.

The display shows Add Members from Zone n (n = the Connect Plus zone number of the first Connect Plus zone in your radio with the same Network ID as your currently selected zone).

4 Do one of the following.

- If the group you want to add to the scan list is assigned to a channel selector position in that zone, go to step 6.
- If the group you want to add to the scan list is assigned to a channel selector position in a different Connect Plus zone, go to step 5.

5 Press ▲ or ▼ to scroll a list of Connect Plus zones that have the same Network ID as the currently selected zone.

6 After locating the Connect Plus zone where the desired group is assigned to a channel selector position, press OK to select.

Your radio displays the first entry in a list of groups assigned to a channel position in that zone. The groups on the list are called "scan candidates", because they can be added to the scan list of your currently selected zone (or they are already on the zone scan list).

If the zone does not have any groups that can be added to the scan list, the radio displays `No Candidates`.

7 Press ▲ or ▼ to scroll through the list of candidate groups.

If a plus sign (+) is displayed immediately before the group alias, this indicates the group is currently on the scan list for the selected zone.

If the plus sign (+) is not displayed immediately before the alias, the group is not currently on the scan list, but can be added.

8 Press OK when the desired group alias is displayed.

If this group is not currently on the scan list for the currently selected zone, the `Add` (Group Alias) message is displayed.

If this group is already on the scan list for the currently selected zone, the `Delete` (Group Alias) message is displayed.

9 Press OK to accept the displayed message (`Add` or `Delete`).

If deleting a group from the list, you will know the operation is successful because the plus sign (+) will no longer display immediately before the alias.

If adding a group to the list, you will know the operation is successful because the plus sign (+) will display before the alias.

If you are attempting to add a group, and the list is already full, the radio displays `List Full`. If this should occur, it will be necessary to delete a group from the scan list prior to adding a new one.

10 When finished, press ⏎ as many times as necessary to return to the desired menu.

5.3.10
Understanding Scan Operation

NOTICE:
If the Radio joins a call for a Zone Scan List member from a different Zone and Call Hang Timer expires before you are able to respond, in order to respond, you must navigate to the Zone and Channel of the Scan List Member and start a new call.

There are some circumstances in which you can miss calls for groups that are in your scan list. When you miss a call for one of the following reasons, this does not indicate a problem with your radio. This is a normal scan operation for Connect Plus.

- Scan feature is not turned on (check for the scan icon on the display).
- Scan list member has been disabled via the menu (see Editing the Scan List on page 262).
- You are participating in a call already.
- No member of the scanned group is registered at your site (Multisite systems only).

5.3.11
Scan Talkback

If your radio scans into a call from the selectable group scan list, and if the **PTT** button is pressed during the scanned call, the operation of the radio depends on whether Scan Talkback was enabled or disabled during radio programming.

Scan Talkback Disabled

The radio leaves the scanned call and attempts to transmit on the contact for the currently selected

channel position. After the Call Hang Time on the currently selected contact expires, the radio returns to the home channel and starts the Scan Hang Time Timer. The radio resumes group scan after its Scan Hang Time Timer expires.

Scan Talkback Enabled

If the **PTT** button is pressed during the Group Hang Time of the scanned call, the radio attempts to transmit to the scanned group.

NOTICE:
If you scan into a call for a group that is not assigned to a channel position in the currently selected zone and you miss the Hang Time of the call, switch to the proper zone and then select the channel position of the group to talk back to that group.

5.3.12

Editing Priority for a Talkgroup

The Priority Monitor feature allows the radio to automatically receive transmission from the talkgroup with higher priority when it is in another call. A tone sounds when the radio switches to the call with higher priority.

There are two levels of priority for the talkgroups: `P1` and `P2`. `P1` has higher priority than `P2`.

NOTICE:
If Default Emergency Revert Group ID is configured in MOTOTRBO Connect Plus Option Board CPS, there are three levels of priority for talkgroups: P0, P1, and P2. P0 is the permanent Emergency Revert Group ID and the highest priority. Check with your dealer or system administrator for more information.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Scan` and press OK to select.
3. Press ▲ or ▼ to `View/Edit List` and press OK to select.
4. Press ▲ or ▼ to the required talkgroup and press OK to select.

5 Press ▲ or ▼ to Edit Priority and press OK to select.

6 Press ▲ or ▼ to the required priority level and press OK to select.

The display shows positive mini notice before returning to the previous screen. The priority icon appears on the left of the talkgroup.

5.3.13

Contacts Settings

NOTICE:
You can add, or edit subscriber IDs for Connect Plus Contacts. Deleting subscriber IDs can only be performed by your dealer.
If the Privacy feature is enabled on a channel, you can make a privacy-enabled voice call on that channel. Only target radios with the same Privacy Key, or the same Key Value and Key ID as your radio are able to unscramble the transmission.

Access to Contact Lists depends on the zone configuration:

- If only one zone is configured in the radio, the Contact List directly displays the list from the current selected zone.
- If multiple zones are configured in the radio, the Zone Contact Folder displays all zones with identical network IDs as the current selected zone. The user can access the contacts in these zones.

Contacts provide “address-book” capabilities on your radio. Each entry corresponds to an alias or ID that you use to initiate a call.

Each zone provides a Contact List with up to 100 contacts. The following contact types are available:

- Private Call
- Group Call
- Multigroup Call
- Site All Call Voice
- Site All Call Text
- Dispatch Call

The Dispatch Call contact type is used to send a text message to a dispatcher PC through a third-party Text Message Server.

5.3.13.1

Making a Private Call from Contacts

1. Press OK to access the menu.
2. Press ▲ or ▼ to Contacts and press OK to select.

   The entries are alphabetically sorted.
3. Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth.
4. Press the **PTT** button to make the call.

   The LED lights up solid green.
5. Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.
6. Release the **PTT** button to listen.

   When the target radio responds, the LED blinks green and the display shows the transmitting user's ID.

   If there is no voice activity for a predetermined period of time, the call ends.

   You hear a short tone. The display shows Call Ended.

5.3.13.2

Making a Call Alias Search

You can also use alias or alphanumeric search to retrieve the required subscriber alias.

This feature is only applicable while in Contacts.

1. Press OK to access the menu.
2. Press ▲ or ▼ to Contacts and press OK to select.

   The entries are alphabetically sorted.
3. Key in the first character of the required alias, and then press the ▲ or ▼ button to locate the required alias.

4 Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

5 Press the **PTT** button to make the call.

The LED lights up solid green. The display shows the destination alias.

6 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

7 Release the **PTT** button to listen.

When the target radio responds, the LED blinks green.

If there is no voice activity for a predetermined period of time, the call ends.

The display shows `Call Ended`.

5.3.13.3

Adding a New Contact

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts` and press OK to select.

3 Press ▲ or ▼ to `New Contact` and press OK to select.

4 Use the keypad to enter the contact number and press OK to confirm.

5 Use the keypad to enter the contact name and press OK to confirm.

6 If adding a Radio Contact, press ▲ or ▼ to the required ringer type and press OK to select.

The radio sounds a positive indicator tone and the display shows `Contact Saved`.

5.3.14

Call Indicator Settings

This feature allows the radio users to configure call or text message ringing tones.

5.3.14.1

Activating and Deactivating Call Ringers for Call Alert

You can select, or turn on or off ringing tones for a received Call Alert.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities` and press OK to select.

3 Press ▲ or ▼ to `Radio Settings` and press OK to select.

4 Press ▲ or ▼ to `Tones/Alert` and press OK to select.

5 Press ▲ or ▼ to `Call Ringers` and press OK to select.

6 Press ▲ or ▼ to `Call Alert` and press OK to select.

The current tone is indicated by a ✓.

7 Press ▲ or ▼ to the required tone and press OK to select.

✓ appears beside selected tone.

5.3.14.2

Activating and Deactivating Call Ringers for Private Calls

You can turn on or off the ringing tones for a received Private Call.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities` and press OK to select.

3 Press ▲ or ▼ to `Radio Settings` and press OK to select.

4 Press ▲ or ▼ to `Tones/Alerts` and press OK to select.

5 Press ▲ or ▼ to `Call Ringers` and press OK to select.

6 Press ▲ or ▼ to `Private Call` and press OK to select.

7 Press OK to enable/disable the Private Call ringing tones.

The display shows ✓ beside `Enabled`, if Private Call ringing tones are enabled.

The ✓ is not displayed when Private Call ringing tones are disabled.

5.3.14.3

Activating and Deactivating Call Ringers for Text Message

You can turn on or off the ringing tones for a received Text Message.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Settings and press OK to select.

4 Press ▲ or ▼ to Tones/Alerts and press OK to select.

5 Press ▲ or ▼ to Call Ringers and press OK to select.

6 Press ▲ or ▼ to Text Message and press OK to select.

The current tone is indicated by a ✓.

7 Press ▲ or ▼ to the required tone and press OK to select.

✓ appears beside selected tone.

5.3.14.4

Selecting a Ring Alert Type

NOTICE:
The programmed **Ring Alert Type** button is assigned by your dealer or system administrator. Check with your dealer or system administrator to determine how your radio has been programmed.

You can program the radio calls to one predetermined vibrate call. If All Tones status is disabled, the radio displays the All Tone Mute icon. If All Tones status is enabled, the related ring alert type is displayed.

The radio vibrates once if it is a momentary ring style. The radio vibrates repetitively if it is a repetitive ring style. When set to Ring and Vibrate, the radio sounds a specific ring tone if there is any incoming radio transaction (for example, Call Alert or Message). It sounds like a positive indicator tone or missed call.

5.3.14.5

Escalating Alarm Tone Volume

You can program your radio to continually alert you when a radio call remains unanswered. This is done by automatically increasing the alarm tone volume over time. This feature is known as Escalert.

5.3.15

Call Log

Your radio keeps track of all recent outgoing, answered, and missed Private Calls. Use the call log feature to view and manage recent calls.

You can perform the following tasks in each of your call lists:

- Delete
- View Details

5.3.15.1

Viewing Recent Calls

The lists are `Missed`, `Answered`, and `Outgoing`.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Call Log` and press OK to select.
3. Press ▲ or ▼ to preferred list and press OK to select.

   The display shows the most recent entry at the top of the list.
4. Press ▲ or ▼ to view the list.

   Press the **PTT** button to start a Private Call with the current selected alias or ID.

5.3.15.2

Deleting a Call from a Call List

1 Press OK to access the menu.

2 Press ▲ or ▼ to Call Log and press OK to select.

3 Press ▲ or ▼ to the required list and press OK to select.

When you select a call list and it contains no entries, the display shows List Empty, and sounds a low tone if Keypad Tones are turned on .

4 Press ▲ or ▼ to the required alias or ID and press OK to select.

5 Press ▲ or ▼ to Delete and press OK to select.

6 Do one of the following:

- Press OK to select Yes to delete the entry. The display shows Entry Deleted.
- Press ▲ or ▼ to No, and press the OK button to return to the previous screen.

5.3.15.3

Viewing Details from a Call List

1 Press OK to access the menu.

2 Press ▲ or ▼ to Call Log and press OK to select.

3 Press ▲ or ▼ to the required list and press OK to select.

4 Press ▲ or ▼ to the required alias or ID and press OK to select.

5 Press ▲ or ▼ to View Details and press OK to select.

Display shows details of call list.

5.3.16
Call Alert Operation

Call Alert paging enables you to alert a specific radio user to call you back when they are able to do so.

This feature is accessible through the menu by using Contacts, manual dial or a programmed **One Touch Access** button.

5.3.16.1
Responding to Call Alerts

When you receive a Call Alert:

- A repetitive tone sounds.
- The yellow LED blinks.
- The display shows the notification list listing a Call Alert with the alias or ID of the calling radio.

  Depending on the configuration by your dealer or system administrator, you can respond to a Call Alert by doing one of the following:

  - Press the **PTT** button and respond with a Private Call directly to the caller.
  - Press the **PTT** button to continue normal talkgroup communication.
    The Call Alert is moved to the Missed Call option at the Call Log menu. You can respond to the caller from the Missed Called log.

See Notification List on page 191 and Call Log Features on page 130 for more information.

5.3.16.2
Making a Call Alert from the Contact List

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts and press OK to select.

3 Use one of the steps described next to select the required subscriber alias or ID:

- select the subscriber alias directly
  - Press ▲ or ▼ to the required subscriber alias and press OK to select.
- use the Manual Dial menu
  - Press ▲ or ▼ to Manual Dial and press OK to select.
  - The Manual Dial text entry screen shall be displayed. Enter the Subscriber ID and press OK .

4 Press ▲ or ▼ to Call Alert and press OK to select.

The display shows Call Alert: <Subscriber Alias or ID>Call Alert and the subscriber alias or ID, indicating that the Call Alert has been sent.

The LED lights up solid green when your radio is sending the Call Alert.

If the Call Alert acknowledgement is received, the display shows Call Alert Successful.

If the Call Alert acknowledgement is not received, the display shows Call Alert Failed.

5.3.16.3

Making a Call Alert with the One Touch Access Button

Press the programmed **One Touch Access** button to make a Call Alert to the predefined alias.

The display shows Call Alert and the subscriber alias or ID, indicating that the Call Alert has been sent.

The LED lights up solid green when your radio is sending the Call Alert.

If the Call Alert acknowledgement is received, the display shows `Call Alert Successful`.

If the Call Alert acknowledgement is not received, the display shows `Call Alert Failed`.

5.3.17

Mute Mode

Mute Mode provides an option to silence all audio indicators on your radio.

When Mute Mode is initiated, all audio indicators are muted except higher priority features such as emergency operations.

When Mute Mode is exited, your radio resumes playing ongoing tones and audio transmissions.

IMPORTANT:
You can only enable either Face Down or Man Down one at a time. Both features cannot be enabled together.

5.3.17.1

Turning On Mute Mode

Follow the procedure to turn on Mute Mode.

Access this feature by using the programmed **Mute Mode** button.

The following occurs when Mute mode is enabled:

- Positive Indicator Tone sounds.
- Display shows `Mute Mode On`.
- The red LED light starts blinking and remains blinking until Mute Mode is exited.
- Display shows **Mute Mode** icon on home screen.
- Radio is muted.
- Mute Mode Timer begins counting down the duration that is configured.

5.3.17.2

Setting Mute Mode Timer

Mute Mode feature can be enabled for a pre-configured amount of time by setting the Mute Mode Timer. The timer duration is configured in the radio menu and can range

between 0.5–6 hours. Mute Mode is exited once the timer expires.

If the timer is left at 0, the radio remains in Mute mode for an indefinite period until the programmed **Mute Mode** button is pressed.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Mute Timer`. Press OK to select.
5. Press ▲ or ▼ to edit the numeric value of each digit, and press OK .

5.3.17.3

Exiting Mute Mode

This feature can be exited automatically once the Mute Mode Timer expires.

Do one of the following to exit Mute mode manually:

- Press the programmed **Mute Mode** button.
- Press the **PTT** button on any entry.

The following occurs when Mute mode is disabled:

- Negative Indicator Tone sounds.
- Display shows `Mute Mode Off`.
- The blinking red LED turns off.
- **Mute Mode** icon disappears from home screen.
- Your radio unmutes and speaker state is restored.
- If the timer has not expired, Mute mode timer is stopped.

NOTICE:
Mute Mode is also exited if the user transmits voice or switches to an unprogrammed channel.

5.3.18

Emergency Operation

NOTICE:
If your radio is programmed for Silent or Silent with Voice emergency initiation, in most cases it automatically exits silent operation after the Emergency Call or Emergency Alert is finished. The exception to this rule is when Emergency Alert is the configured Emergency Mode and Silent is the configured Emergency Type. If your radio is programmed in this manner, the silent operation continues until you cancel silent operation by pressing **PTT** or the button configured for Emergency Off.

Emergency voice calls and Emergency Alerts are not supported when operating in Connect Plus Auto Fallback mode. For more information see the Auto Fallback on page 254.

An Emergency Alert is used to indicate a critical situation. You can initiate an Emergency at any time on any screen display, even when there is activity on the current channel. Pressing the **Emergency** button initiates the programmed Emergency mode. The programmed Emergency mode may also be initiated by triggering the optional Man Down feature. The Emergency feature may be disabled in your radio.

Your dealer can set the duration of a button press for the programmed **Emergency** button, except for long press, which is similar with all other buttons:

Short press
Between 0.05 seconds and 0.75 seconds.

Long press
Between 1.00 second and 3.75 seconds.

The **Emergency** button is assigned with the Emergency On/Off feature. Check with your dealer for the assigned operation of the **Emergency** button.

- If the short press for the **Emergency** button is assigned to turn on the Emergency mode, then the long press for the **Emergency** button is assigned to exit the Emergency mode.
- If the long press for the **Emergency** button is assigned to turn on the Emergency mode, then the short press for the **Emergency** button is assigned to exit the Emergency mode.

When your radio is selected to a Connect Plus zone, it supports three Emergency modes:

Emergency Call
You must press the **PTT** button to talk on the assigned emergency time slot.

Emergency Call with Voice to Follow
For the first transmission on the assigned emergency time slot, the microphone is automatically unmuted and you may talk without pressing the **PTT** button. The microphone stays “hot” in this fashion for a time period programmed into the radio. For subsequent transmissions in the same Emergency call, you must press the **PTT** button.

Emergency Alert
An Emergency Alert is not a voice call. It is an emergency notification that is sent to radios that are configured to receive these alerts. The radio sends an emergency alert by using the control channel of the currently registered site. The Emergency Alert is received by radios in the Connect Plus network that are programmed to receive them (no matter which network site they are registered to).

Only one of the Emergency Modes can be assigned to the Emergency button per zone. In addition, each Emergency mode has the following types:

Regular
Radio initiates an Emergency and shows audio and/or visual indicators.

Silent
Radio initiates an Emergency without any audio or visual indicators. The radio suppresses all audio or visual indications of the Emergency until you press the **PTT** button to start a voice transmission.

Silent with Voice
The same as Silent operation, except that the radio also unmutes for some voice transmissions.

5.3.18.1

Receiving an Incoming Emergency

Your radio may be programmed to sound an alert tone and also display information about the incoming Emergency. If so programmed, upon receiving the incoming Emergency, the display shows the Emergency Details screen with the emergency icon, the Alias or ID of the radio that requested the Emergency, the Group Contact being used for the Emergency, and one additional line of information. The additional information is the name of the zone that contains the Group Contact.

At the present time, the radio displays only the most recently decoded Emergency. If a new Emergency is received before the prior Emergency is cleared, the details for the new Emergency replace the details of the previous Emergency.

Depending on how your radio has been programmed, the Emergency Details screen (or Alarm List screen) will stay on your radio display even after the Emergency ends. You can save the emergency details to the Alarm List, or you can delete the emergency details as described in the following sections.

5.3.18.2

Saving the Emergency Details to the Alarm List

Saving the emergency details to the Alarm List allows you to view the details again at a later time by selecting Alarm List from the Main Menu.

1 While the Emergency Details (or Alarm List) screen is displayed, press .

The **Exit Alarm List** screen displays.

2 Perform one of the following actions:

- Select **Yes** and press OK to save the emergency details to the Alarm List, and to exit the Emergency Details (or Alarm List) screen.
- Select **No** and press OK to return to the Emergency Details (or Alarm List) screen.

5.3.18.3

Deleting the Emergency Details

1 While the Emergency Details screen is displayed, press .

The **Delete** screen displays.

2 Perform one of the following actions:

- Select **Yes** and press OK to delete the emergency details.
- Select **No** and press OK to return to the Emergency Details screen.

5.3.18.4

Responding to an Emergency Call

NOTICE:
If you do not respond to the Emergency Call within the time allotted for the Emergency Call Hang Time, the Emergency call will end. If you want to speak to the group after the Emergency Call Hang Time expires, you must first select the channel position assigned to the group (if not already selected). Then, press **PTT** to start a non-Emergency Call to the group.

1 When receiving an Emergency Call, press any button to stop all Emergency Call received indications.

2 Press the **PTT** button to initiate a voice transmission on the Emergency group.

All radios that are monitoring this group hear your transmission.

3 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.

The LED lights up green.

4 Release the **PTT** button to listen.

When the emergency initiating radio responds, the LED blinks green. You see the Group Call icon, the group ID, and transmitting radio ID on your display.

5.3.18.5

Responding to an Emergency Alert

NOTICE:
The Group contact used for the Emergency Alert should not be used for voice communication. This could prevent other radios from sending and receiving Emergency Alerts on the same group.

An Emergency Alert from a radio indicates that the user is in an urgent situation. You may respond to the alert by initiating a private call to the radio who declared the emergency, initiating a group call to a designated talk group, sending the radio a Call Alert, initiating a Remote Monitor of that radio, etc. The proper response is determined by your organization and the individual situation.

5.3.18.6

Ignore Emergency Revert Call

This feature enhancement provides an option for your radio to disregard an active Emergency Revert Call.

To enable Ignore Emergency Revert Call, your radio must be configured through the Connect Plus Customer Programming Software (CPCPS).

When the feature is enabled, the radio does not display Emergency Call indications and does not receive any audio on the default Emergency Revert Group ID.

Contact with your dealer for more information.

5.3.18.7

Initiating an Emergency Call

NOTICE:
If your radio is set to Silent, it does not display any audio or visual indicators during Emergency mode until you press the **PTT** button to initiate a voice transmission.
If your radio is set to Silent with Voice, it does not initially display any audio or visual indicators that the radio is in Emergency mode. However, your radio unmutes for the transmissions of radios responding to your emergency. The emergency indicators only appear once you press the **PTT** button to initiate a voice transmission from your radio.

For both “Silent” and “Silent with Voice” operation, the radio automatically exits silent operation after the Emergency Call is finished.

1 Press the programmed **Emergency** button.

2 Press the **PTT** button to initiate a voice transmission on the Emergency group.

When you release the **PTT** button, the Emergency call continues for the time allotted for the Emergency Call Hang Time.

If you press the **PTT** button during this time, the Emergency call continues.

5.3.18.8

Initiating an Emergency Call with Voice to Follow

Your radio must be programmed for this type of operation.

When enabled for this operation, when you press the programmed **Emergency** button, and when your radio receives the time slot assignment, the microphone is automatically activated without pressing the **PTT** button. This activated microphone state is also known as "hot mic". The "hot mic" applies to the first voice transmission from your radio during the Emergency call. For subsequent transmissions in the same Emergency call, you must press the **PTT** button.

1 Press the programmed **Emergency** button.

2 The microphone remains active for the "hot mic" time specified in your radio codeplug programming.

During this time, the LED lights up green.

3 Press and hold the **PTT** button to talk longer than the programmed duration.

5.3.18.9

Initiating an Emergency Alert

NOTICE:
If your radio is programmed for "Silent" or "Silent with Voice", it will not provide any audio or visual indications that it is sending an Emergency Alert. If programmed for "Silent", the silent operation continues indefinitely until you press PTT or the button configured for "Emergency Off". If programmed for "Silent with Voice", the radio automatically cancels silent operation when the site controller broadcasts the Emergency Alert.

Press the orange **Emergency** button.

Upon transmitting the Emergency Alert to the site controller, the radio display shows the Emergency icon, the Group contact used for the Emergency Alert, and `TX Alarm`.

Once the Emergency Alert is successfully sent and is being broadcast for other radios to hear, a positive indicator tone

sounds and the radio displays `Alarm Sent`. If the Emergency Alert is unsuccessful, a negative indicator tone sounds and the radio displays `Alarm Failed`.

5.3.18.10

Exiting Emergency Mode

NOTICE:
If the Emergency call ends due to the expiration of the Emergency Hang Time, but the emergency condition is not over, press the **Emergency** button again to restart the process.

If you initiate an Emergency Alert by pressing the programmed **Emergency** button, your radio automatically exits Emergency mode after receiving a response from the Connect Plus system.

If you initiate an Emergency call by pressing the programmed **Emergency** button, your radio will be assigned a channel automatically when one becomes available. Once your radio has transmitted a message indicating the emergency, you cannot cancel your Emergency call. However, if you pressed the button by accident or the emergency no longer exists, you may wish to say this over the assigned channel. When you release the **PTT** button, the Emergency call is discontinued after the Emergency Call Hang Time expires.

If your radio was configured for Emergency with Voice to Follow, use the “hot mic” period to explain your error, then press and release the **PTT** button to discontinue the transmission. The Emergency call is discontinued after the Emergency Call Hang Time expires.

5.3.19

Text Messaging

Your radio is able to receive data, for example a text message, from another radio or a text message application.

There are two types of text messages, Digital Mobile Radio (DMR) Short Text Message and text message. The maximum length of a DMR Short Text Message is 23 characters. The maximum length of a text message is 280 characters, including the subject line. The subject line only appears when you receive messages from e-mail applications.

NOTICE:
The maximum character length is only applicable for models with the latest software and hardware. For radio models with older software and hardware, the maximum length of a text message is 140 characters. Contact your dealer for more information.

5.3.19.1

Sending a Quick Text Message

Your radio supports a maximum of 10 Quick Text messages as programmed by your dealer.

While Quick Text messages are predefined, you can edit each message before sending it.

If you are sending the message, perform the following to select a recipient:

- Press ▲ or ▼ to the required alias and press OK to select.
- Press ▲ or ▼ to `Manual Dial`, and press OK to select. The first line of the display shows `Number:`. The second line of the display shows a blinking cursor. Key in the subscriber alias or ID and press OK .

The display shows `Sending Message`, confirming your message is being sent.

If the message is sent successfully, a tone sounds and the display shows `Message Sent`.

If the message cannot be sent, a low tone sounds and the display shows `Message Send Failed`.

If the text message fails to send, the radio returns you to the `Resend` option screen (see Managing Fail-to-Send Text Messages on page 289).

5.3.19.2

Sending Quick Text Messages with the One Touch Access Button

To send a predefined Quick Text message to a predefined alias, press the programmed **One Touch Access** button.

The display shows `Sending Message`.

If message is successfully sent, your radio shows the following indications:

- A positive tone sounds.
- The display shows `Message Sent`.

If message fails to be sent, your radio shows the following indications:

- A negative tone sounds.

- The display shows `Message Send Failed`.

If the text message fails to send, the radio returns you to the `Resend` option screen.
See Managing Fail-to-Send Text Messages on page 289.

5.3.19.3

Accessing the Drafts Folder

The Drafts folder stores a maximum of ten (10) last saved messages. When the folder is full, the next saved text message automatically replaces the oldest text message in the folder.

NOTICE:
You can edit saved text message before sending it. Only available with a keypad microphone (see Editing and Sending a Saved Text Message on page 288. Long press ⏎ at any time to return to the Home screen.

5.3.19.3.1

Viewing a Saved Text Message

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	**a** Press OK to access the menu. **b** Press ▲ or ▼ to `Messages` and press OK to select.

2 Press ▲ or ▼ to `Drafts` and press OK to select.

3 Press ▲ or ▼ to the required message and press OK to select.

5.3.19.3.2

Editing and Sending a Saved Text Message

1 Press OK again while viewing the message.

2 Press ▲ or ▼ to Edit and press OK to select.

A blinking cursor appears.

3 Use the keypad to type your message.

Press ◀ to move one space to the left. Press ▶ or the # key to move one space to the right. Press the * key to delete any unwanted characters.

Long press # to change text entry method.

4 Press OK once message is composed.

5 Select the message recipient by:

- Press ▲ or ▼ to the required alias and press OK to select.
- Press ▲ or ▼ to Manual Dial, and press OK to select. The first line of the display shows Number:. The second line of the display shows a blinking cursor. Key in the subscriber alias or ID and press OK .

The display shows Sending Message, confirming your message is being sent.

If the message is sent successfully, a tone sounds and the display shows Message Sent.

If the message cannot be sent, a low tone sounds and the display shows Message Send Failed.

If the text message cannot be sent, it is moved to the Sent Items folder and marked with a Send Failed icon.

5.3.19.3.3

Deleting a Saved Text Message from Drafts

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	**a** Press OK to access the menu. **b** Press ▲ or ▼ to Messages and press OK to select.

2 Press ▲ or ▼ to Drafts and press OK to select.

3 Press ▲ or ▼ to the required message and press OK to select.

4 Press ▲ or ▼ to Delete and press OK to delete the text message.

5.3.19.4

Managing Fail-to-Send Text Messages

You can select one of the following options while at the Resend option screen:

- Resend
- Forward
- Edit

5.3.19.4.1

Resending a Text Message

Press OK to resend the same message to the same subscriber/group alias or ID.

If the message is sent successfully, a tone sounds and the display shows the positive mini notice.

If the message cannot be sent, the display shows the negative mini notice.

5.3.19.4.2

Forwarding a Text Message

Select `Forward` to send the message to another subscriber/group alias or ID.

1 Press ▲ or ▼ to `Forward` and press OK to select.

2 To select the message recipient, press ▲ or ▼ to the required alias or ID and press OK to select.

The display shows `Sending Message`, confirming your message is being sent.

If the message is sent successfully, a tone sounds and the display shows `Message Sent`.

If the message cannot be sent, a low tone sounds and the display shows `Message Send Failed`.

5.3.19.5

Managing Sent Text Messages

Once a message is sent to another radio, it is saved in Sent Items. The most recent sent text message is always added to the top of the Sent Items list.

The Sent Items folder is capable of storing a maximum of 30 last sent messages. When the folder is full, the next

sent text message automatically replaces the oldest text message in the folder.

NOTICE:

Long press ⌂ at any time to return to the Home screen.

5.3.19.5.1

Viewing a Sent Text Message

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	**a** Press OK to access the menu.
	b Press ▲ or ▼ to `Messages` and press OK to select.

2 Press ▲ or ▼ to `Sent Items` and press OK to select.

3 Press ▲ or ▼ to the required message and press OK to select.

The icon at the top right corner of the screen indicates the status of the message (see Sent Item Icons on page 234).

5.3.19.5.2

Sending a Sent Text Message

You can select one of the following options while viewing a sent text message:

- Resend

- Forward
- Edit
- Delete

1 Press OK again while viewing the message.

2 ▲ or ▼ to one of the following options and press OK to select.

Option	Steps
Forward	Select `Forward` to send the selected text message to another subscriber/group alias or ID (see Forwarding a Text Message on page 290).
Delete	Select `Delete` to delete the text message.
Resend	Select `Resend` to resend the selected text message to the same subscriber/group alias or ID.

Option	Steps
	The display shows `Sending Message`, confirming that the same message is being sent to the same target radio. If the message is sent successfully, a tone sounds and the display shows `Message Sent`. If the message cannot be sent, a low tone sounds and the display shows `Message Send Failed`. If the message fails to send, the radio returns you to the `Resend` option screen. Press OK to resend the message to the same subscriber/group alias or ID.

If you exit the message sending screen while the message is being sent, the radio updates the status of the message in the Sent Items folder without any audio or visual indication.

If the radio changes mode or powers down before the status of the message in Sent Items is updated,

the radio cannot complete any In-Progress messages and automatically marks it with a **Send Failed** icon.

The radio supports a maximum of five In-Progress messages at one time. During this period, the radio cannot send any new message and automatically marks it with a **Send Failed** icon.

5.3.19.5.3

Deleting All Sent Text Messages from Sent Items

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	**a** Press OK to access the menu.
	b Press ▲ or ▼ to `Messages` and press OK to select.

2 Press ▲ or ▼ to `Sent Items` and press OK to select.

When you select `Sent Items` and it contains no text messages, the display shows `List Empty`, and sounds a low tone if Keypad Tones are turned on.

3 Press ▲ or ▼ to `Delete All` and press OK to select.

4 Choose one of the following.

- Press ▲ or ▼ to `Yes` and press OK to select. The display shows positive mini notice.

- Press ▲ or ▼ to No and press OK to return to the previous screen.

5.3.19.6

Receiving a Text Message

When your radio receives a message, the display shows the Notification List with the alias or ID of the sender and the Message icon.

You can select one of the following options when receiving a text message:

- Read
- Read Later
- Delete

5.3.19.7

Reading a Text Message

1 Press ▲ or ▼ to Read? and press OK to select.

Selected message in the Inbox opens.

2 Do one of the following:

- Press OK to return to the Inbox.
- Press OK a second time to reply, forward, or delete the text message.

5.3.19.8

Managing Received Text Messages

Use the Inbox to manage your text messages. The Inbox is capable of storing a maximum of 30 messages.

Text messages in the Inbox are sorted according to the most recently received.

Your radio supports the following options for text messages:

- Reply (via Quick Text)
- Forward
- Delete

- Delete All

NOTICE:
If the channel type is not a match, you can only forward, delete, or delete all Received messages.

Long press ⏻ at any time to return to the Home screen.

5.3.19.8.1
Viewing a Text Message from the Inbox

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Messages` and press OK to select.

3 Press ▲ or ▼ to `Inbox` and press OK to select.

4 Press ▲ or ▼ to view the messages.

5 Do one of the following:

- Press OK to select the current message, and press OK again to reply, forward, or delete that message.
- Long press ⏻ to return to the Home screen.

5.3.19.8.2
Replying to a Text Message from the Inbox

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	**a** Press OK to access the menu.

Radio Controls	Steps
	b Press ▲ or ▼ to Messages and press OK to select.

2 Press ▲ or ▼ to Inbox and press OK to select.

3 Press ▲ or ▼ to the required message and press OK to select.

4 Press OK once more to access the sub-menu.

5 Use your keypad to write/edit your message.

6 Press OK once message is composed.

The display shows Sending Message, confirming your message is being sent.

If the message is sent successfully, a tone sounds and the display shows Message Sent.

If the message cannot be sent, a low tone sounds and the display shows Message Send Failed.

If the message cannot be sent, the radio returns you to the Resend option screen (see Managing Fail-to-Send Text Messages on page 289).

5.3.19.8.3

Deleting a Text Message from the Inbox

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	**a** Press OK to access the menu.

Radio Controls	Steps
	b Press ▲ or ▼ to `Messages` and press OK to select.

2 Press ▲ or ▼ to `Inbox` and press OK to select.

3 Press ▲ or ▼ to the required message and press OK to select.

4 Press OK once more to access the sub-menu.

5 Press ▲ or ▼ to `Delete` and press OK to select.

6 Press ▲ or ▼ to `Yes` and press OK to select.

The display shows `Message Deleted`, and the screen returns to the Inbox.

5.3.19.8.4

Deleting All Text Messages from the Inbox

1 Access the **Text Message** feature.

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	**a** Press OK to access the menu.

Radio Controls	Steps
	b Press ▲ or ▼ to Messages and press OK to select.

2 Press ▲ or ▼ to Inbox and press OK to select.

When you select Inbox and it contains no text messages, the display shows List Empty, and sounds a low tone if Keypad Tones are turned on (see Turning Keypad Tones On or Off on page 206).

3 Press ▲ or ▼ to Delete All and press OK to select.

4 Press ▲ or ▼ to Yes and press OK to select.

The display shows Inbox Cleared.

5.3.20

Privacy

If enabled, this feature helps to prevent eavesdropping by unauthorized users on a channel by the use of a software-based scrambling solution. The signaling and user identification portions of a transmission are not scrambled.

Your radio must have privacy enabled on the current channel selector position to send a privacy-enabled transmission, although this is not a necessary requirement for receiving a transmission. While on a privacy-enabled channel selector position, the radio is still able to receive clear (unscrambled) transmissions.

Your radio supports Enhanced Privacy.

To unscramble a privacy-enabled call transmission, your radio must be programmed to have the same Key Value and Key ID (for Enhanced Privacy) as the transmitting radio.

If your radio receives a scrambled call that is of a different Key Value and Key ID, you hear nothing at all (Enhanced Privacy).

If the radio has a privacy type assigned, the Home screen shows the Secure or Unsecure icon, except when the radio is sending or receiving an Emergency call or alarm.

The LED lights up solid green while the radio is transmitting and blinks green rapidly when the radio is receiving an ongoing privacy-enabled transmission.

You can access this feature by performing one of the following actions:

- Press the programmed **Privacy** button to toggle privacy on or off.
- Using the Radio Menu as described by the steps described next.

NOTICE:
Some radio models may not offer this Privacy feature. Check with your dealer or system administrator for more information.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities` and press OK to select.

3 Press ▲ or ▼ to `Radio Settings` or ▲ or ▼ to `Connect Plus` and press OK to select.

4 Press ▲ or ▼ to `Enhanced Privacy`.

If the display shows `Turn On`, press OK to enable Privacy. The radio displays a message confirming your selection.

If the display shows `Turn Off`, press OK to disable Privacy. The radio displays a message confirming your selection.

If the radio has a privacy type assigned, the secure or unsecure icon appears on the status bar, except when the radio is sending or receiving an Emergency Alert.

5.3.20.1

Making a Privacy-Enabled (Scrambled) Call

Toggle privacy on using the programmed privacy button or by using the menu. Your radio must have the Privacy feature enabled for the currently selected channel position to send a privacy-enabled transmission. When privacy is enabled for the currently selected channel position, all voice transmissions made by your radio will be scrambled.

This includes Group Call, Multigroup Call, talk-back during scanned calls, Site All Call, Emergency Call, and Private Call. Only receiving radios with the same Key Value and Key ID as your radio will be able to unscramble the transmission.

5.3.21

Security

You can enable or disable any radio in the system. For example, you might want to disable a stolen radio, to prevent the thief from using it, and enable that radio, when it is recovered.

NOTICE:
Performing Radio Disable and Enable is limited to radios with these functions enabled. Check with your dealer or system administrator for more information.

5.3.21.1

Radio Disable

1 Access this feature by performing one of the following actions:

Radio Controls	Steps
Radio Disable button	**a** Press the programmed **Radio Disable** button. **b** Press ▲ or ▼ to the required alias or ID and press OK to select.
Radio menu	**a** Press OK to access the menu. **b** Press ▲ or ▼ to Contacts and press OK to select. The entries are alphabetically sorted. **c** Use one of the steps described next to select the required subscriber alias or ID: • Select the required alias or ID directly.

Radio Controls	Steps
	• Press ▲ or ▼ to the required alias or ID and press OK to select. • Use the `Manual Dial` menu. • Press ▲ or ▼ to `Manual Dial` and press OK to select. • Press ▲ or ▼ to `Radio Number` and press OK to select. • The first line of the display shows `Radio Number:`. The second line of the display shows a blinking cursor. Use the keypad to enter the subscriber alias or ID and press OK .
	d Press ▲ or ▼ to `Radio Disable` and press OK to select.

The display shows `Radio Disable: <Target Alias or ID>` and the LED blinks green.

2 Wait for acknowledgement.

If successful, a positive indicator tone sounds and the display shows `Radio Disable Successful`.

If not successful, a negative indicator tone sounds and the display shows `Radio Disable Failed`.

5.3.21.2

Radio Enable

1 Access this feature by performing one of the following actions:

Radio Controls	Steps
Radio Enable button	**a** Press the programmed **Radio Enable** button. **b** Press ▲ or ▼ to the required alias or ID and press OK to select.
Radio menu	**a** Press OK to access the menu. **b** Press ▲ or ▼ to `Contacts` and press OK to select. The entries are alphabetically sorted.
	c Use one of the steps described next to select the required subscriber alias or ID • Select the required alias or ID directly. • Press ▲ or ▼ to the required alias or ID and press OK to select. • Use the `Manual Dial` menu. • Press ▲ or ▼ to `Manual Dial` and press OK to select.

Radio Controls	Steps
	• Press ▲ or ▼ to Radio Number and press OK to select. • The first line of the display shows Radio Number:. The second line of the display shows a blinking cursor. Use the keypad to enter the subscriber alias or ID and press OK . **d** Press ▲ or ▼ to Radio Enable and press OK to select.

The display shows Radio Enable: <Subscriber Alias or ID> and the LED lights up solid green.

2 Wait for acknowledgement.

If successful, a positive indicator tone sounds and the display shows Radio Enable Successful.

If not successful, a negative indicator tone sounds and the display shows Radio Enable Failed.

5.3.22

Bluetooth Operation

NOTICE:
If disabled via the CPS, all Bluetooth-related features are disabled and the Bluetooth device database is erased.

This feature allows you to use your radio with a Bluetooth-enabled device (accessory) via a wireless Bluetooth connection. Your radio supports both Motorola Solutions and Commercially available Off-The-Shelf (COTS) Bluetooth-enabled devices.

Bluetooth operates within a range of 10 meters (32 feet) line of sight. This is an unobstructed path between your radio and your Bluetooth-enabled device.

It is not recommended that you leave your radio behind and expect your Bluetooth-enabled device to work with a high degree of reliability when they are separated.

At the fringe areas of reception, both voice and tone quality will start to sound "garbled" or "broken". To correct this problem, simply position your radio and Bluetooth-enabled device closer to each other (within the 10-meter/32 feet defined range) to re-establish clear audio reception. Your radio's Bluetooth function has a maximum power of 2.5 mW (4 dBm) at the 10-meter/32 feet range.

Your radio can support up to 4 simultaneous Bluetooth connections with Bluetooth-enabled devices of unique types. For example, a headset, and a PTT-Only Device (POD).

Refer to your respective Bluetooth-enabled device's user manual for more details on your Bluetooth-enabled device's full capabilities.

5.3.22.1

Turning Bluetooth On and Off

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Bluetooth` and press OK to select.

3 Press ▲ or ▼ to `My Status` and press OK to select.

The display shows `On` and `Off`. The current status is indicated by a ✓ .

4 Do one of the following:

- Press ▲ or ▼ to `On` and press OK to select. The display shows `On` and a ✓ appears left of the selected status.
- Press ▲ or ▼ to `Off` and press OK to select. The display shows `Off` and a ✓ appears left of the selected status.

5.3.22.2

Finding and Connecting to a Bluetooth Device

Do not turn off your Bluetooth-enabled device or press during the finding and connecting operation as this cancels the operation.

1 Turn on your Bluetooth-enabled device and place it in pairing mode. Refer to respective Bluetooth-enabled device user manual.

2 On your radio, press OK to access the menu.

3 Press or to Bluetooth and press OK to select.

4 Press or to Devices and press OK to select.

5 Do one of the following:

- Press or to the required device and press OK to select.
- Press or to Find Devices to locate available devices. Press or to the required device and press OK to select.

6 Press or to Connect and press OK to select.

Display shows Connecting to <Device>. Your Bluetooth-enabled device may require additional steps to complete the pairing. Refer to respective Bluetooth-enabled device user manual.

If successful, the radio display shows <Device>Connected. A tone sounds and ✓ appears besides the connected device. The Bluetooth Connected icon appears on the status bar.

If unsuccessful, the radio display shows Connecting Failed.

5.3.22.3

Finding and Connecting from a Bluetooth Device (Discoverable Mode)

Do not turn off your Bluetooth or your radio during the finding and connecting operation as this may cancel the operation.

1 Turn Bluetooth On.

See Turning Bluetooth On and Off on page 304.

2 Press OK to access the menu.

3 Press ▲ or ▼ to `Bluetooth` and press OK to select.

4 Press ▲ or ▼ to `Find Me` and press OK to select.

Your radio can now be found by other Bluetooth-enabled devices for a programmed duration. This is called Discoverable Mode.

5 Turn on your Bluetooth-enabled device and pair it with your radio.

Refer to respective Bluetooth-enabled device user manual.

5.3.22.4

Disconnecting from a Bluetooth Device

1 On your radio, press OK to access the menu.

2 Press ▲ or ▼ to `Bluetooth` and press OK to select.

3 Press ▲ or ▼ to `Devices` and press OK to select.

4 Press ▲ or ▼ to the required device and press OK to select.

5 Press ▲ or ▼ to Disconnect and press OK to select.

Display shows Disconnecting from <Device>. Your Bluetooth-enabled device may require additional steps to disconnect. Refer to respective Bluetooth-enabled device user manual.

The radio display shows <Device> Disconnected. A positive indicator tone sounds and ✓ disappears beside the connected device. The Bluetooth Connected icon disappears on the status bar.

5.3.22.5

Switching Audio Route between Internal Radio Speaker and Bluetooth Device

You can toggle audio routing between internal radio speaker and external Bluetooth-enabled accessory.

Press the programmed **Bluetooth Audio Switch** button.

- A tone sounds and display shows Route Audio to Radio.
- A tone sounds and display shows Route Audio to Bluetooth.

5.3.22.6

Viewing Device Details

1 Press OK to access the menu.

2 Press ▲ or ▼ to Bluetooth and press OK to select.

3 Press ▲ or ▼ to Devices and press OK to select.

4 Press ▲ or ▼ to the required device and press OK to select.

5 Press ▲ or ▼ to View Details and press OK to select.

5.3.22.7
Deleting Device Name

You can remove a disconnected device from the list of Bluetooth-enabled devices.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Bluetooth and press OK to select.

3 Press ▲ or ▼ to Devices and press OK to select.

4 Press ▲ or ▼ to the required device and press OK to select.

5 Press ▲ or ▼ to Delete and press OK to select.

The display shows Device Deleted.

5.3.22.8
Bluetooth Mic Gain

Allows control of the connected Bluetooth-enabled device microphone gain value.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Bluetooth and press OK to select.

3 Press ▲ or ▼ to BT Mic Gain and press OK to select.

4 Press ▲ or ▼ to the BT Mic Gain type and the current values.

To edit values, press OK to select.

5 Press ▲ or ▼ to increase or to decrease values and press OK to select.

5.3.23

Indoor Location

NOTICE:
Indoor Location feature is applicable for models with the latest software and hardware. Check with your dealer or system administrator for more information.

Indoor Location is use to keep track of the location of radio users. When Indoor Location is activated, the radio is in a limited discoverable mode. Dedicated beacons are used to locate the radio and determine its position.

5.3.23.1

Turning Indoor Location On or Off

You can turn on or turn off Indoor Location by performing one of the following actions.

- Access this feature through the menu.

a. Press OK to access the menu.

b. Press ▲ or ▼ to `Bluetooth` and press OK to select.

c. Press ▲ or ▼ to `Indoor Location` and press OK to select.

d. Press OK to turn on Indoor Location.

The display shows `Indoor Location On`. You hear a positive indicator tone.
One of the following scenarios occurs.

- If successful, the Indoor Location Available icon appears on the Home screen display.
- If unsuccessful, the display shows `Turning On Failed`. You hear a negative indicator tone.

e. Press OK to turn off Indoor Location.

The display shows `Indoor Location Off`. You hear a positive indicator tone.
One of the following scenarios occurs.

- If successful, the Indoor Location Available icon disappears on the Home screen display.
- If unsuccessful, the display shows `Turning Off Failed`. You hear a negative indicator tone.

- Access this feature by using the programmed button.

  a. Long press the programmed **Indoor Location** button to turn on Indoor Location.

  The display shows `Indoor Location On`. You hear a positive indicator tone.
  One of the following scenarios occurs.

  - If successful, the Indoor Location Available icon appears on the Home screen display.
  - If unsuccessful, the display shows `Turning On Failed`. If unsuccessful, you hear a negative indicator tone.

  b. Press the programmed **Indoor Location** button to turn off Indoor Location.

  The display shows `Indoor Location Off`. You hear a positive indicator tone.
  One of the following scenarios occurs.

- If successful, the Indoor Location Available icon disappears on the Home screen display.
- If unsuccessful, the display shows `Turning Off Failed`. If unsuccessful, you hear a negative indicator tone.

5.3.23.2

Accessing Indoor Location Beacons Information

Follow the procedure to access Indoor Location beacons information.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Bluetooth` and press OK to select.
3. Press ▲ or ▼ to `Indoor Location` and press OK to select.

4 Press ▲ or ▼ to Beacons and press OK to select.

The display shows the beacons information.

5.3.24

Notification List

Your radio has a Notification List that collects all your "unread" events on the channel, such as unread text messages, missed calls, and call alerts.

The Notification icon appears on the status bar when the Notification List has one or more events.

The list supports a maximum of 40 unread events. When it is full, the next event automatically replaces the oldest event.

NOTICE:
After the events are read, they are removed from the Notification List.

5.3.24.1

Accessing the Notification List

Follow the procedure to access the notification list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Notification and press OK to select.

3 Press ▲ or ▼ to the required event and press OK to select.

Long press ↩ to return to the Home Screen.

5.3.25

Wi-Fi Operation

This feature allows you to set up and connect to a Wi-Fi network. Wi-Fi supports updates for radio firmware, codeplug, and resources such as language packs and voice announcement.

NOTICE:
This feature is applicable to DM4601e only.

Wi-Fi® is a registered trademark of Wi-Fi Alliance®.

Your radio supports WEP/WPA/WPA2-Personal and WPA/WPA2-Enterprise Wi-Fi networks.

WEP/WPA/WPA2-Personal Wi-Fi network

Uses pre-shared key (password) based authentication.

Pre-shared key can be entered by using the menu or CPS/RM.

WPA/WPA2-Enterprise Wi-Fi network

Uses certificate-based authentication.

Your radio must be pre-configured with a certificate.

NOTICE:
Check with your dealer or system administrator to connect to WPA/WPA2-Enterprise Wi-Fi network.

The programmed **Wi-Fi On or Off** button is assigned by your dealer or system administrator. Check with your dealer or system administrator to determine how your radio has been programmed.

Voice Announcements for the programmed **Wi-Fi On or Off** button can be customized through CPS according to user requirements. Check with your dealer or system administrator for more information.

NOTICE:
You can turn on or turn off Wi-Fi remotely by using a designated radio (see Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Individual Control) on page 196 and Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Group Control) on page 196). Check with your dealer or system administrator for more information.

5.3.25.1

Turning Wi-Fi On or Off

1 Press the programmed **Wi-Fi On or Off** button. Voice Announcement sounds Turning On Wi-Fi or Turning Off Wi-Fi.

2 Access this feature using the menu.

a Press OK to access the menu.

b Press ▲ or ▼ to `WiFi` and press OK to select.

c Press ▲ or ▼ to `WiFi On` and press OK to select.

d Press OK to turn on/off Wi-Fi.

If Wi-Fi is on, the display shows ✓ beside `Enabled`.

If Wi-Fi is off, the ✓ disappears from beside `Enabled`.

5.3.25.2

Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Individual Control)

You can turn Wi-Fi on or off remotely in Individual Control (One to One).

NOTICE:
Only radio with specific CPS setting supports this function, check with your dealer or system administrator for more information.

1 Do one of the following:

- Long press the programmable button. Use the keypad to enter the ID and press OK to select. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts` and press OK to select.

3 Press ▲ or ▼ to `WiFi Control` and press OK to select.

4 Press ▲ or ▼ to select `On` or `Off`.

5 Press OK to select.

If successful, the display shows a positive mini notice.

If unsuccessful, the display shows a negative mini notice.

5.3.25.3

Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Group Control)

You can turn Wi-Fi on or off remotely in Group Control (One to Many).

NOTICE:
Only radio with specific CPS setting supports this function, check with your dealer or system administrator for more information.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts` and press OK to select.

3 Press ▲ or ▼ to select the required subscriber alias or ID.

4 Press ▲ or ▼ to `WiFi Control` and press OK to select.

5 Press ▲ or ▼ to select `On` or `Off`.

6 Press OK to select.

If successful, the display shows `Sent Successfully`.

If unsuccessful, the display shows a negative mini notice.

5.3.25.4

Connecting to a Network Access Point

When you turn on Wi-Fi, the radio scans and connects to a network access point.

NOTICE:
You can also connect to a network access point using the menu.

The WPA-Enterprise Wi-Fi network access points are pre-configured. Check with your dealer or system administrator to determine how your radio has been programmed.

1 Press OK to access the menu.

2 Press ▲ or ▼ to WiFi and press OK to select.

3 Press ▲ or ▼ to Networks and press OK to select.

4 Press ▲ or ▼ to a network access point and press OK to select.

NOTICE:
For WPA-Enterprise Wi-Fi, if a network access point is not preconfigured, the Connect option is not available.

5 Press ▲ or ▼ to Connect and press OK to select.

6 For WPA-Personal Wi-Fi, enter the password and press OK .

7 For WPA-Enterprise Wi-Fi, password is configured by using RM.

If the preconfigured password is correct, your radio automatically connects to the selected network access point.

If the preconfigured password is incorrect, the display shows Authentication Failure, and automatically returns to the previous menu.

If the connection is successful, the radio displays a notice and the network access point is saved into the profile list.

If the connection is unsuccessful, the radio displays shows the failure notice screen momentarily and automatically returns to the previous menu.

5.3.25.5

Checking Wi-Fi Connection Status

Press the programmed **Wi-Fi Status Query** button for the connection status by using Voice Announcement. Voice

Announcement sounds Wi-Fi is Off, Wi-Fi is On but No Connection, or Wi-Fi is On with Connection.

- The display shows `WiFi Off` when the Wi-Fi is turned off.
- The display shows `WiFi On, Connected` when the radio is connected to a network.
- The display shows `WiFi On, Disconnected` when the Wi-Fi is turned on but the radio is not connected to any network.

  Voice Announcements for the Wi-Fi status query results can be customized through CPS according to user requirements. Check with your dealer or system administrator for more information.

  NOTICE:
  The programmed **Wi-Fi Status Query** button is assigned by your dealer or system administrator. Check with your dealer or system administrator to determine how your radio has been programmed.

5.3.25.6

Refreshing the Network List

- Perform the following actions to refresh the network list through the menu.

  a. Press OK to access the menu.

  b. Press ▲ or ▼ to `WiFi` and press OK to select.

  c. Press ▲ or ▼ to `Networks` and press OK to select.

  When you enter the Networks menu, the radio automatically refreshes the network list.

- If you are already in the Networks menu, perform the following action to refresh the network list.

  Press ▲ or ▼ to `Refresh` and press OK to select.

  The radio refreshes and displays the latest network list.

5.3.25.7

Adding a Network

NOTICE:
This task is not applicable to WPA-Enterprise Wi-Fi networks.

If a preferred network is not in the available network list, perform the following actions to add a network.

1 Press OK to access the menu.

2 Press ▲ or ▼ to WiFi and press OK to select.

3 Press ▲ or ▼ to Networks and press OK to select.

4 Press ▲ or ▼ to Add Network and press OK to select.

5 Enter the Service Set Identifier (SSID) and press OK .

6 Press ▲ or ▼ to Open and press OK to select.

7 Enter the password and press OK .

The radio displays a positive mini notice to indicate that the network is successfully saved.

5.3.25.8

Viewing Details of Network Access Points

You can view details of network access points.

1 Press OK to access the menu.

2 Press ▲ or ▼ to WiFi and press OK to select.

3 Press ▲ or ▼ to Networks and press OK to select.

4 Press ▲ or ▼ to a network access point and press OK to select.

5 Press ▲ or ▼ to View Details and press OK to select.

NOTICE:
WPA-Personal Wi-Fi and WPA-Enterprise Wi-Fi display different details of Network Access Points.

WPA-Personal Wi-Fi

For a connected network access point, your radio displays Service Set Identifier (SSID), Security Mode, Media Access Control (MAC) address, and Internet Protocol (IP) address.

For a non-connected network access point, your radio displays SSID and Security Mode.

WPA-Enterprise Wi-Fi

For a connected network access point, your radio displays SSID, Security Mode, Identity, Extended Authentication Protocol (EAP) Method, Phase 2 Authentication, Cert Name, MAC address, IP address, Gateway, DNS1, and DNS2.

For a non-connected network access point, your radio displays SSID, Security Mode, Identity, EAP Method, Phase 2 Authentication, and Cert Name.

5.3.25.9

Removing Network Access Points

NOTICE:
This task is not applicable to Enterprise Wi-Fi networks.

Perform the following actions to remove network access points from the profile list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to WiFi and press OK to select.

3 Press ▲ or ▼ to Networks and press OK to select.

4 Press ▲ or ▼ to the selected network access point and press OK to select.

5 Press ▲ or ▼ to Remove and press OK to select.

6 Press ▲ or ▼ to Yes and press OK to select.

The radio displays a positive mini notice to indicate that the selected network access point is successfully removed.

5.3.26

Utilities

This chapter explains the operations of the utility functions available in your radio.

5.3.26.1

Turning the Radio Tones/Alerts On or Off

You can enable and disable all radio tones and alerts (except for the incoming Emergency alert tone) if needed.

Press the programmed **All Tones/Alerts** button to toggle all tones on or off, or follow the procedure described next to access this feature via the radio menu.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Settings and press OK to select.

4 Press ▲ or ▼ to Tones/Alerts and press OK to select.

5 Press ▲ or ▼ to All Tones and press OK to select.

6 Press OK to enable/disable all tones and alerts.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

5.3.26.2

Setting the Tone Alert Volume Offset Level

You can adjust the Tone Alert Volume Offset level if needed. This feature adjusts the volume of the tones/alerts, allowing it to be higher or lower than the voice volume.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Settings and press OK to select.

4 Press ▲ or ▼ to Tones/Alerts and press OK to select.

5 Press ▲ or ▼ to Vol. Offset and press OK to select.

6 Press ▲ or ▼ to the required volume value.

The radio sounds a feedback tone with each corresponding volume value.

7 Do one of the following:

- Press OK to keep the required displayed volume value.
- Press ↩ to exit without changing the current volume offset settings.

5.3.26.3

Turning the Talk Permit Tone On or Off

You can enable and disable the Talk Permit Tone if needed.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities` and press OK to select.
3. Press ▲ or ▼ to `Radio Settings` and press OK to select.
4. Press ▲ or ▼ to `Tones/Alerts` and press OK to select.
5. Press ▲ or ▼ to `Talk Permit` and press OK to select.
6. Press OK to enable/disable the Talk Permit Tone.

   The display shows ✓ beside `Enabled`.

   The ✓ disappears from beside `Enabled`.

5.3.26.4

Turning the Power Up Alert Tone On or Off

You can enable and disable the Power Up Alert Tone if needed.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities` and press OK to select.
3. Press ▲ or ▼ to `Radio Settings` and press OK to select.

4 Press ▲ or ▼ to Tones/Alerts and press OK to select.

5 Press ▲ or ▼ to Power Up and press OK to select.

6 Press OK to enable/disable the Power Up Alert Tone.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

5.3.26.5

Setting the Power Level

You can customize your radio power setting to high or low for each Connect Plus zone.

High enables communication with tower sites in Connect Plus mode located at a considerable distance from you. Low enables communication with tower sites in Connect Plus mode in closer proximity.

Press the programmed **Power Level** button to toggle transmit power level between high and low.

Follow the procedure described next to access this feature via the radio menu.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Settings and press OK to select.

4 Press ▲ or ▼ to Power and press OK to select.

5 Press ▲ or ▼ to the required setting and press OK to select.

✓ appears beside selected setting. At any time, long press to return to the Home screen.

Screen returns to the previous menu.

5.3.26.6

Changing the Display Mode

You can change radio display mode between Day or Night, as needed. This affects the color palette of the display.

1 Press OK to access the menu.

2 Press or to Utilities and press OK to select.

3 Press or to Radio Settings and press OK to select.

4 Press or to Display and press OK to select.

The display shows Day Mode and Night Mode.

5 Press or to the required setting and press OK to enable. ✓ appears besides selected setting.

5.3.26.7

Adjusting the Display Brightness

You can adjust the display brightness of the radio as needed.

NOTICE:
Display brightness cannot be adjusted when Auto Brightness is enabled.

1 Press OK to access the menu.

2 Press or to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Settings and press OK to select.

4 Press ▲ or ▼ to Display and press OK to select.

5 Press ▲ or ▼ to Brightness and press OK to select.

The display shows a progress bar.

6 Decrease display brightness by pressing ▲ or increase the display brightness by pressing ▼ .

Select from setting of 1 to 8. Press OK to confirm your entry.

5.3.26.8

Turning the Introduction Screen On or Off

You can enable and disable the Introduction Screen if needed.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Settings and press OK to select.

4 Press ▲ or ▼ to Display and press OK to select.

5 Press ▲ or ▼ to Intro Screen and press OK to select.

6 Press OK to enable/disable the Introduction Screen.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

5.3.26.9

Language

You can set your radio display to be in your required language.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Settings and press OK to select.

4 Press ▲ or ▼ to Languages and press OK to select.

5 Press ▲ or ▼ to the required language and press OK to enable. ✓ appears beside selected language.

5.3.26.10

Turning the LED Indicator On or Off

You can enable and disable the LED Indicator if needed.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Settings and press OK to select.

4 Press ▲ or ▼ to LED Indicator and press OK to select.

5 Press OK to enable/disable the LED Indicator.
The display shows ✓ beside Enabled.
The ✓ disappears from beside Enabled.

5.3.26.11
Identifying Cable Type

You can select the type of cable your radio uses.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Settings and press OK to select.

4 Press ▲ or ▼ to Cable Type and press OK to select.

5 The current cable type is indicated by a ✓.

5.3.26.12
Voice Announcement

This feature enables the radio to audibly indicate the current Zone or Channel the user has just assigned, or programmable button press. This audio indicator can be customized per customer requirements. This is typically useful when the user is in a difficult condition to read the content shown on the display.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Settings and press OK to select.

4 Press ▲ or ▼ to Voice Announcement and press OK to select.

You can also use or to change the selected option.

5 Do one of the following:

- Press OK to enable Voice Announcement. The display shows ✓ beside Enabled.
- Press OK to disable Voice Announcement. The ✓ disappears from beside Enabled.

5.3.26.13

Menu Timer

Set the period of time your radio stays in the menu before it automatically switches to the Home screen.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Settings and press OK to select.

4 Press ▲ or ▼ to Display and press OK to select.

5 Press ▲ or ▼ to Menu Timer and press OK to select.

6 Press ▲ or ▼ to the required setting and press OK to select.

5.3.26.14

Turning Horns/Lights On or Off

This feature needs to be installed through the rear accessory connector of your radio by your dealer.

Your radio is able to notify you of an incoming call via the horns and lights feature. When activated, an incoming call sounds your vehicle's horn and turns on its lights.

1 Do one of the following:

- Press the programmed **Horns/Lights** button to toggle horns and light feature on or off. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities` and press OK to select.

3 Press ▲ or ▼ to `Radio Settings` and press OK to select.

4 Press ▲ or ▼ to `Horn/Lights` and press OK to select.

5 Press OK to enable/disable Horns/Lights.

The display shows ✓ beside `Enabled`.

The ✓ disappears from beside `Enabled`.

5.3.26.15

Setting Dual Knob Operation Preference

Your radio has a dual-purpose **Volume/Channel Knob**. Disabling the dual-purpose option sets the knob to work as a Volume Knob only.

1 OK to access the menu.

2 ▲ or ▼ to `Utilities` and press OK to select.

3 ▲ or ▼ to `Radio Settings` and press OK to select.

4 ▲ or ▼ to `Dual Knob` and press OK to select.

5 The display shows `Volume Only` and `Volume & Ch`. or to the required setting and press OK to select.

✓ appears beside selected setting.

Screen returns to the previous menu.

5.3.26.16

Digital Mic AGC (Mic AGC-D)

This feature controls the your radio's microphone gain automatically while transmitting on a digital system. It suppresses loud audio or boosts soft audio to a preset value in order to provide a consistent level of audio.

1 Press OK to access the menu.

2 Press or to `Utilities` and press OK to select.

3 Press or to `Radio Settings` and press OK to select.

4 Press or to `Mic AGC-D` and press OK to select.

5 Do one of the following:

- Press OK to enable **Mic AGC-D** . The display shows ✓ beside `Enabled` .
- Press OK to disable **Mic AGC-D** . The ✓ disappears from beside `Enabled` .

5.3.26.17

Intelligent Audio

Your radio can automatically adjust its audio volume to overcome background noise in the environment, inclusive of all stationary and non-stationary noise sources. This feature is a Receive-only feature and does not affect Transmit audio.

1 Press OK to access the menu.

Radio Control	Steps
Menu	**a** Press OK to access the menu. **b** Press ▲ or ▼ to `Radio Settings` and press OK to select. **c** Press ▲ or ▼ to `Radio Settings` and press OK to select. **d** Press ▲ or ▼ to `Intelligent Audio` and press OK to select. **NOTICE:** You can also use or to change the selected option. **e** Do one of the following:

Radio Control	Steps
	• Press OK to enable Intelligent Audio. The display shows ✓ beside `Enabled`. • Press OK to disable Intelligent Audio. The ✓ disappears from beside `Enabled`.

2 Press ▲ or ▼ to `Utilities` and press OK to select.

3 Press ▲ or ▼ to `Radio Settings` and press OK to select.

4 Press ▲ or ▼ to `Intelligent Audio` and press OK to select.

5 Do one of the following:

- Press OK to enable Intelligent Audio. The display shows ✓ beside `Enabled`.
- Press OK to disable Intelligent Audio. The ✓ disappears from beside `Enabled`.

5.3.26.18

Turning the Acoustic Feedback Suppressor Feature On or Off

This feature allows you to minimize acoustic feedback in received calls.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities` and press OK to select.
3. Press ▲ or ▼ to `Radio Settings` and press OK to select.
4. Press ▲ or ▼ to `AF Suppressor` and press OK to select.

   You can also use or to change the selected option.
5. Do one of the following.
   - Press OK to enable Acoustic Feedback Suppressor. The display shows ✓ beside `Enabled`.
   - Press OK to disable Acoustic Feedback Suppressor. The ✓ disappears from beside `Enabled`.

5.3.26.19

Turning GNSS On or Off

Global Navigation Satellite System (GNSS) is a satellite navigation system that determines the radio precise location. GNSS includes Global Positioning System (GPS),

Global Navigation Satellite System (GLONASS), and BeiDou Navigation Satellite System (BDS).

NOTICE:
Selected radio models may offer GPS, GLONASS, and BDS. GNSS constellation is configured by using CPS. Check with your dealer or system administrator to determine how your radio has been programmed.

1 Do one of the following:

- Press the programmed **GNSS** button to toggle the feature on or off. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `GNSS`. Press OK to select.

5 Press OK to enable/disable GNSS.

If enabled, ✓ appears beside `Enabled`.

If disabled, ✓ disappears beside `Enabled`.

See Checking the GNSS Information on page 343 for details on retrieving GNSS information.

5.3.26.20

Accessing General Radio Information

Your radio contains information on the following:

- Battery
- Degree of Tilt (Accelerometer)
- Radio Model Number Index
- Option Board Over-the-Air (OTA) Codeplug CRC
- Site Number
- Site Info
- Radio Alias and ID
- Firmware and Codeplug Versions
- GNSS Information

Press ⮌ at any time to return to the previous screen or long press ⮌ to return to the Home screen. The radio exits the current screen once the inactivity timer expires.

5.3.26.20.1

Checking the Radio Model Number Index

This index number identifies your radio model-specific hardware. Your radio system administrator may ask for this number when preparing a new Option Board codeplug for your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities` and press OK to select.
3. Press ▲ or ▼ to `Radio Info` and press OK to select.
4. Press ▲ or ▼ to `Model Index` and press OK to select.

   The display shows the Model Number Index.

5.3.26.20.2

Checking the CRC of the Option Board OTA Codeplug File

Follow the instructions below if your radio system administrator asks you to view the Option Board OTA Codeplug File CRC (Cyclic Redundancy Check). This menu option only appears if the Option Board received its last codeplug update OTA.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities` and press OK to select.
3. Press ▲ or ▼ to `Radio Info` and press OK to select.

4 Press ▲ or ▼ to OB OTA CPcrc and press OK to select.

The display shows some letters and numbers. Communicate this information to your radio system administrator exactly as shown.

5.3.26.20.3

Displaying the Site ID (Site Number)

NOTICE:
If you are not currently registered at a site, the display shows Not Registered.

The radio briefly shows the Site ID as it registers with a Connect Plus site. Following registration, the radio does not generally indicate the Site number. To display the registered Site number, do the following:

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Info and press OK to select.

4 Press ▲ or ▼ to Site Number and press OK to select.

The display shows the Network ID and the Site Number.

5.3.26.20.4

Checking the Site Info

NOTICE:
If you are not currently registered at a site, the display shows Not Registered.

The Site Info feature provides information that can be useful to a service technician. It consists of the following information:

- Repeater number of current Control Channel repeater.
- RSSI: Last signal strength value measured from Control Channel repeater.

- Neighbor List sent by Control Channel repeater (five numbers separated by commas).

If you are requested to use this feature, please report the displayed information exactly as it appears on the screen.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities` and press OK to select.
3. Press ▲ or ▼ to `Radio Info` and press OK to select.
4. Press ▲ or ▼ to `Site Info` and press OK to select.

   The display shows the Site Info.

5.3.26.20.5

Checking the Radio ID

This feature displays the ID of your radio.

Follow the procedure described next to access this feature via the radio screen.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities` and press OK to select.
3. Press ▲ or ▼ to `Radio Info` and press OK to select.
4. Press ▲ or ▼ to `My ID` and press OK to select.

   The display shows the radio ID.

5.3.26.20.6

Checking the Firmware Version and Codeplug Version

Displays the firmware version on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Info and press OK to select.

4 Press ▲ or ▼ to Versions and press OK to select.

The display a list with the following information:

- (Radio) Firmware Version
- (Radio) Codeplug Version
- Option Board Firmware Version
- Option Board Frequency Version
- Option Board Hardware Version
- Option Board Codeplug Version

5.3.26.20.7

Checking for Updates

Connect Plus provides the ability to update certain files (Option Board Codeplug, Network Frequency File, and Option Board Firmware File) Over-The-Air (OTA).

NOTICE:
Check with the dealer or network administrator to determine whether this feature has been enabled for your radio.

Any display Connect Plus radio has the ability to show its current Option Board OTA Codeplug CRC, Frequency File version or Option Board firmware file version by using a menu option. In addition, display radios that have been enabled for over-the-air file transfer can display the version of a "pending file". A "pending file" is a Frequency File or Option Board firmware file that the Connect Plus radio knows about through system messaging, but the radio has not yet collected all of the file packets. If a display Connect Plus radio has a pending file, the menu provides options to:

- See the version number of the pending file.

- See what percentage of packets has been collected so far.
- Request the Connect Plus radio to resume collecting file packets.

If the radio is enabled for Connect Plus OTA file transfer, there may be times when the radio automatically joins a file transfer without first notifying the radio user. While the radio is collecting file packets, the LED rapidly blinks red and the radio displays the High Volume Data icon on the Home Screen status bar.

NOTICE:
The Connect Plus radio cannot collect file packets and receive calls at the same time. If you wish to cancel the file transfer, press and release the **PTT** button. This causes the radio to request a call on the selected Contact Name, and it will also cancel the file transfer for that radio until the process resumes at a later time.

There are several things that can make the file transfer process start again. The first example applies to all OTA file types. The other examples apply only to the Network Frequency File and Option Board Firmware File:

- The radio system administrator re-initiates the OTA file transfer.
- The Option Board pre-defined timer expires, which causes the Option Board to automatically resume the process of collecting packets.
- The timer has not yet expired, but the radio user requests the file transfer to resume through the menu option.

After the Connect Plus radio finishes downloading all file packets, it must upgrade to the newly acquired file. For the Network Frequency File, this is an automatic process and does not require a radio reset. For the Option Board Codeplug File, this is an automatic process that will cause a brief interruption to service as the Option Board loads the new codeplug information and re-acquires a network site. How quickly the radio upgrades to a new Option Board firmware file depend on how the radio has been configured by the dealer or system administrator. The radio will either upgrade immediately after collecting all file packets, or it will wait until the next time that the user turns the radio on.

NOTICE:
Check with your dealer or system administrator to determine how your radio has been programmed.

The process of upgrading to a new Option Board firmware file takes several seconds, and it requires the Connect Plus Option Board to reset the radio. Once the upgrade starts, the radio user will not be able to make or receive calls until

the process is completed. During the process, radio display prompts user to not turn off the radio.

5.3.26.20.7.1

Firmware File

The following section provides information on the radio firmware.

5.3.26.20.7.1.1

Firmware Up to Date

NOTICE:
If the Option Board firmware file is not Up to Date (and if the radio has partially collected a more recent Option Board firmware file version) the radio displays a list with additional options; `Version`, `%Received`, and `Download`.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities` and press OK to select.
3. Press ▲ or ▼ to `Radio Info` and press OK to select.
4. Press ▲ or ▼ to `Updates` and press OK to select.
5. Press ▲ or ▼ to `Firmware` and press OK to select.

   The display shows `Firmware is Up to Date`.

5.3.26.20.7.2

Pending Firmware – Version

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities` and press OK to select.
3. Press ▲ or ▼ to `Radio Info` and press OK to select.

4 Press ▲ or ▼ to Updates and press OK to select.

5 Press ▲ or ▼ to Firmware and press OK to select.

6 Press ▲ or ▼ to Version and press OK to select.

If there is a pending Option Board firmware file, the display shows the pending firmware version number.

If there is a pending Option Board firmware file, the display shows Firmware is Up to Date.

5.3.26.20.7.3

Pending Firmware – % Received

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Info and press OK to select.

4 Press ▲ or ▼ to Updates and press OK to select.

5 Press ▲ or ▼ to Firmware and press OK to select.

6 Press ▲ or ▼ to %Received and press OK to select.

The screen displays the percentage of firmware file packets collected so far.

NOTICE:
When at 100%, the radio needs to be power cycled Off and then On to initiate the firmware upgrade.

5.3.26.20.7.4

Pending Firmware – Download

If the Connect Plus radio has previously left an OTA Option Board Firmware File Transfer with a partial file, the unit automatically rejoins the file transfer (if still ongoing) when an internal timer expires. If you want the unit to rejoin an ongoing Option Board Firmware File transfer prior to expiration of this internal timer, use the Download option as described below.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities` and press OK to select.

3 Press ▲ or ▼ to `Radio Info` and press OK to select.

4 Press ▲ or ▼ to `Updates` and press OK to select.

5 Press ▲ or ▼ to `Firmware` and press OK to select.

6 Press ▲ or ▼ to `Download` and press OK to select.

The display shows the following:

Download Available	`Start Download`
No Download Available	`Download not available`

7 Do one of the following:

- Select `Yes` and press OK to start the download.
- Select `No` and press OK to return to the previous menu.

5.3.26.20.7.5

Frequency File

The following section provides information on the frequency file of the radio.

5.3.26.20.7.5.1

Frequency File Up to Date

NOTICE:
If the Frequency File is not Up to Date (and if the radio has partially collected a more recent frequency file version) the radio displays a list with additional options; `Version`, `%Received`, and `Download`.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities` and press OK to select.
3. Press ▲ or ▼ to `Radio Info` and press OK to select.
4. Press ▲ or ▼ to `Frequency` and press OK to select.

   The display shows `Freq. File is Up to Date`.

5.3.26.20.7.5.2

Frequency File Pending – Version

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities` and press OK to select.
3. Press ▲ or ▼ to `Radio Info` and press OK to select.
4. Press ▲ or ▼ to `Updates` and press OK to select.
5. Press ▲ or ▼ to `Frequency` and press OK to select.

6 Press ▲ or ▼ to Version and press OK to select.

If there is a pending Frequency File, the display shows the pending Frequency File version number.

5.3.26.20.7.5.3

Frequency File Pending – % Received

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Info and press OK to select.

4 Press ▲ or ▼ to Updates and press OK to select.

5 Press ▲ or ▼ to %Received and press OK to select.

The screen displays the percentage of frequency file packets collected so far.

5.3.26.20.7.5.4

Frequency File Pending – Download

If the Connect Plus radio has previously left an OTA Network Frequency File Transfer with a partial file, the unit automatically rejoins the file transfer (if still ongoing) when an internal timer expires. If you want the unit to rejoin an ongoing Network Frequency File transfer prior to expiration of this internal timer, use the Download option as described below.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Info and press OK to select.

4 Press ▲ or ▼ to Updates and press OK to select.

5 Press ▲ or ▼ to Frequency and press OK to select.

6 Press ▲ or ▼ to Download and press OK to select.

Download Currently Unavailable	Download not available
Download Currently Available	Start Download

7 Do one of the following:

- Select Yes and press to start the download.
- Select No and press to return to the previous menu.

5.3.26.20.7.6

Checking the GNSS Information

Displays the GNSS information on your radio, such as values of:

- Latitude
- Longitude
- Altitude
- Direction
- Velocity
- Horizontal Dilution of Precision (HDOP)
- Satellites
- Version

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities and press OK to select.

3 Press ▲ or ▼ to Radio Info and press OK to select.

4 Press ▲ or ▼ to GNSS Info and press OK to select.

5 Press ▲ or ▼ to the required item and press OK to select.

The display shows the requested GNSS information.

See Turning GNSS On or Off on page 331 for details on GNSS.

5.3.26.21

Viewing Enterprise Wi-Fi Certificate Details

You can view the details of the selected Enterprise Wi-Fi Certificate.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Certificate Menu. Press OK to select.

✓ appears beside ready certificates.

4 Press ▲ or ▼ to the required certificate.

Press OK to select.

Your radio displays the full details of the certificate.

NOTICE:
For unready certificates, the display shows only Status.

Other Systems

Features that are available to the radio users under this system are available in this chapter.

6.1

Push-To-Talk Button

The Push-to-Talk **(PTT)** button serves two basic purposes:

- While a call is in progress, the **PTT** button allows the radio to transmit to other radios in the call. The microphone is activated when the **PTT** button is pressed.
- While a call is not in progress, the **PTT** button is used to make a new call.

Long press the **PTT** button to talk. Release the **PTT** button to listen.

If the Talk Permit Tone or the PTT Sidetone is enabled, wait until the short alert tone ends before talking.

If the Channel Free Indication feature is enabled on your radio (programmed by your dealer), you hear a short alert tone the moment the target radio (the radio that is receiving your call) releases the **PTT** button, indicating the channel is free for you to respond.

You hear a continuous Talk Prohibit Tone if your call is interrupted. You should release the **PTT** button if you hear a continuous Talk Prohibit Tone.

6.2

Programmable Buttons

Depending on the duration of a button press, your dealer can program the programmable buttons as shortcuts to radio functions.

Short press
Pressing and releasing rapidly.

Long press
Pressing and holding for the programmed duration.

NOTICE:
See Emergency Operation on page 427 for more information on the programmed duration of the **Emergency** button.

6.2.1

Assignable Radio Functions

The following radio functions can be assigned to the programmable buttons.

Audio Ambience
Allows the user to select an environment the radio is operating in.

Audio Profiles
Allows the user to select the preferred audio profile.

Bluetooth® Audio Switch
Toggles audio routing between internal radio speaker and external Bluetooth-enabled accessory.

Bluetooth Connect
Initiates a Bluetooth find-and-connect operation.

Bluetooth Disconnect
Terminates all existing Bluetooth connections between your radio and any Bluetooth-enabled devices.

Bluetooth Discoverable
Enables your radio to enter Bluetooth Discoverable Mode.

Call Alert
Provides direct access to the contacts list for you to select a contact to whom a Call Alert can be sent.

Call Forwarding
Toggles Call Forwarding on or off.

Call Log
Selects the call log list.

Channel Announcement
Plays zone and channel announcement voice messages for the current channel.

Contacts
Provides direct access to the Contacts list.

Emergency
Depending on the programming, initiates or cancels an emergency.

Ext Public Address (PA)
Toggles audio routing between the connected PA loudspeaker amplifier and the internal PA system of the radio.

Indoor Location
Toggles Indoor Location on or off.

Intelligent Audio
Toggles intelligent audio on or off.

Manual Dial
Initiates a Private Call by keying in any subscriber ID.

Manual Site Roam [5]
Starts the manual site search.

Mic AGC
Toggles the internal microphone automatic gain control (AGC) on or off.

Monitor
Monitors a selected channel for activity.

Notifications
Provides direct access to the Notifications list.

Nuisance Channel Delete[5]
Temporarily removes an unwanted channel, except for the Selected Channel, from the scan list. The Selected Channel refers to the selected zone or channel combination of the user from which scan is initiated.

One Touch Access
Directly initiates a predefined Private, Phone or Group Call, a Call Alert, a Quick Text message, or Home Revert.

Option Board Feature
Toggles option board feature(s) on or off for option board-enabled channels.

Permanent Monitor[5]
Monitors a selected channel for all radio traffic until function is disabled.

Phone
Provides direct access to the Phone Contacts list.

Privacy
Toggles privacy on or off.

Public Address (PA)
Toggles the internal PA system of the radio on or off.

Radio Alias and ID
Provides radio alias and ID.

Radio Check
Determines if a radio is active in a system.

Radio Disable
Allows a target radio to be remotely disabled.

Radio Enable
Allows a target radio to be remotely enabled.

Remote Monitor
Turns on the microphone of a target radio without it giving any indicators.

[5] Not applicable in Capacity Plus.

Repeater/Talkaround[5]
Toggles between using a repeater and communicating directly with another radio.

Reset Home Channel
Sets a new home channel.

Silence Home Channel Reminder
Mutes the Home Channel Reminder.

Scan [6]
Toggles scan on or off.

Site Info
Displays the current site name and ID of Capacity Plus-Multi-Site.

Plays site announcement voice messages for the current site when Voice Announcement is enabled.

Site Lock[5]
When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Telemetry Control
Controls the Output Pin on a local or remote radio.

Text Message
Selects the text message menu.

Transmit Interrupt Remote Dekey
Stops an ongoing interruptible call to free the channel.

Trill Enhancement
Toggles trill enhancement on or off.

Voice Announcement On/Off
Toggles voice announcement on or off.

Voice Operating Transmission (VOX)
Toggles VOX on or off.

Wi-Fi
Toggles Wi-Fi on or off.

Zone Selection
Allows selection from a list of zones.

6.2.2
Assignable Settings or Utility Functions

The following radio settings or utility functions can be assigned to the programmable buttons.

[6] Not applicable in Capacity Plus–Single-Site.

Tones/Alerts
Toggles all tones and alerts on or off.

Backlight
Toggles display backlight on or off.

Channel Up/Down
Depending on the programming, changes channel to previous or next channel.

Display Mode
Toggles the day/night display mode on or off.

Power Level
Toggles transmit power level between high and low.

6.2.3

Accessing Programmed Functions

Follow the procedure to access programmed functions in your radio.

1 Do one of the following:

- Press the programmed button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to the menu function, and press OK to select a function or enter a sub-menu.

3 Do one of the following:

- Press ↩ to return to the previous screen.
- Long press ↩ to return to the Home screen.

Your radio automatically exits the menu after a period of inactivity and returns to the Home screen.

The Menu Navigation Buttons are also available on a keypad microphone. See Keypad Microphone Buttons on page 42.

6.3

Status Indicators

This chapter explains the status indicators and audio tones used in the radio.

6.3.1

Icons

The Liquid Crystal Display (LCD) of your radio shows the radio status, text entries, and menu entries.

Table 10: Display Icons

The following icons appear on the status bar at the top of the radio display. The icons are arranged left most in order of appearance or usage, and are channel-specific.

	Bluetooth Connected The Bluetooth feature is enabled. The icon stays lit when a remote Bluetooth device is connected.
	Bluetooth Not Connected The Bluetooth feature is enabled but there is no remote Bluetooth device connected.
	Call Log Radio call log.
	Contact Radio contact is available.
	Emergency Radio is in Emergency mode.
	Flexible Receive List Flexible receive list is enabled.
	GNSS Available GNSS feature is enabled. The icon stays lit when a position fix is available.
	GNSS Not Available GNSS feature is enabled but is not receiving data from the satellite.
	High Volume Data Radio is receiving high volume data and channel is busy.
	Indoor Location Available [7] Indoor location status is on and available.

[7] Only applicable for models with the latest software and hardware.

	Indoor Location Unavailable[7] Indoor location status is on but unavailable due to Bluetooth disabled or Beacons Scan suspended by Bluetooth.
	Message Incoming message.
	Monitor Selected channel is being monitored.
	Mute Mode Mute Mode is enabled and speaker is muted.
	Notification Notification List has one or more missed events.
	Option Board The Option Board is enabled. (Option board enabled models only.)

	Option Board Non-Function The Option Board is disabled.
	Over-the-Air Programming Delay Timer Indicates time left before automatic restart of radio.
	Received Signal Strength Indicator (RSSI) The number of bars displayed represents the radio signal strength. Four bars indicate the strongest signal. This icon is only displayed while receiving.
	Response Inhibit Response Inhibit is enabled.
	Ring Only Ringing mode is enabled.
	Scan [8] Scan feature is enabled.

[8] Not applicable in Capacity Plus.

	Scan-Priority 1[8] Radio detects activity on channel/ group designated as Priority 1.
	Scan-Priority 2[8] Radio detects activity on channel/ group designated as Priority 2.
	Secure The Privacy feature is enabled.
	Sign In Radio is signed in to the remote server.
	Sign Out Radio is signed out of the remote server.
	Silent Ring Silent ring mode is enabled.
	Site Roaming [9] The site roaming feature is enabled.

	Talkaround[8] In the absence of a repeater, the radio is configured for direct radio to radio communication.
	Tones Disable Tones are turned off.
	Unsecure The Privacy feature is disabled.
	Vote Scan Vote scan feature is enabled.
	Wi-Fi Excellent [10] Wi-Fi signal is excellent.
	Wi-Fi Good[10] Wi-Fi signal is good.
	Wi-Fi Average[10] Wi-Fi signal is average.

[9] Not applicable in Capacity Plus–Single-Site.
[10] Only applicable for DM4601e .

	Wi-Fi Poor[10] Wi-Fi signal is poor.
	Wi-Fi Unavailable[10] Wi-Fi signal is unavailable.

Table 11: Advance Menu Icons

The following icons appear beside menu items that offer a choice between two options or as an indication that there is a sub-menu offering two options.

	Checkbox (Checked) Indicates that the option is selected.
	Checkbox (Empty) Indicates that the option is not selected.
	Solid Black Box Indicates that the option selected for the menu item with a sub-menu.

Table 12: Bluetooth Device Icons

The following icons appear next to items in the list of Bluetooth-enabled devices available to indicate the device type.

	Bluetooth Audio Device Bluetooth-enabled audio device, such as a headset.
	Bluetooth Data Device Bluetooth-enabled data device, such as a scanner.
	Bluetooth PTT Device Bluetooth-enabled PTT device, such as a PTT-Only Device (POD).

	Bluetooth Sensor Device[10] Bluetooth-enabled sensor device, such as gas sensor.

Table 13: Call Icons

The following icons appear on the display during a call. These icons also appear in the Contacts list to indicate alias or ID type.

	Bluetooth PC Call Indicates a Bluetooth PC Call in progress. In the Contacts list, it indicates a Bluetooth PC Call alias (name) or ID (number).
	Dispatch Call The Dispatch Call contact type is used to send a text message to a dispatcher PC through a third-party Text Message Server.
	Group Call/All Call Indicates a Group Call or All Call in progress. In the Contacts list, it indicates a group alias (name) or ID (number).
	Private Call Indicates a Private Call in progress. In the Contacts list, it indicates a subscriber alias (name) or ID (number).
	Phone Call as Group/All Call Indicates a Phone Call as Group Call or All Call in progress. In the Contacts list, it indicates a group alias (name) or ID (number).
	Phone Call as Private Call Indicates a Phone Call as Private Call in progress.

	In the Contacts list, it indicates a phone alias (name) or ID (number).

Table 14: Job Tickets Icons

The following icons appear momentarily on the display in the Job Ticket folder.

	All Jobs Indicates all jobs listed.
	New Jobs Indicates new jobs.
	In Progress Jobs are transmitting. This is seen before indication for Job Tickets Send Failed or Sent Succesfully.
	Send Failed Jobs cannot be sent.
	Sent Successfully Jobs have been successfully sent.

	Priority 1 Indicates Priority Level 1 for jobs.
	Priority 2 Indicates Priority Level 2 for jobs.
	Priority 3 Indicates Priority Level 3 for jobs.

Table 15: Mini Notice Icons

The following icons appear momentarily on the display after an action to perform a task is taken.

	Failed Transmission (Negative) Failed action taken.
	Successful Transmission (Positive) Successful action taken.

	Transmission in Progress (Transitional) Transmitting. This is seen before indication for Successful Transmission or Failed Transmission.

Table 16: Sent Items Icons

The following icons appear at the top right corner of the display in the Sent Items folder.

	In Progress The text message to a subscriber alias or ID is pending transmission, followed by waiting for acknowledgement. The text message to a group alias or ID is pending transmission.
	Individual or Group Message Read The text message has been read.
	Individual or Group Message Unread The text message has not been read.
	Send Failed The text message cannot be sent.
	Sent Successfully The text message has been successfully sent.

6.3.2

LED Indicators

LED indicators show the operational status of your radio.

Blinking Red

Radio has failed the self-test upon powering up.

Radio is receiving an emergency transmission.

Radio is transmitting in low battery state.

Radio has moved out of range if Auto-Range Transponder System is configured.

Mute Mode is enabled.

Solid Green

Radio is powering up.

Radio is transmitting.

Radio is sending a Call Alert or an emergency transmission.

Blinking Green

Radio is receiving a call or data.

Radio is retrieving Over-the-Air Programming transmissions.

Radio is detecting activity over the air.

NOTICE:
This activity may or may not affect the programmed channel of the radio due to the nature of the digital protocol.

There is no LED indication when the radio is detecting activity over the air in Capacity Plus.

Double Blinking Green

Radio is receiving a privacy-enabled call or data.

Solid Yellow

Radio is monitoring a conventional channel.

Radio is in Bluetooth Discoverable Mode.

Blinking Yellow

Radio is scanning for activity.

Radio has yet to respond to a Call Alert.

Radio has Flexible Receive List enabled.

All Capacity Plus–Multi-Site channels are busy.

Double Blinking Yellow

Radio has Auto Roaming enabled.

Radio is actively searching for a new site.

Radio has yet to respond to a Group Call Alert.

Radio is locked.

Radio is not connected to the repeater while in Capacity Plus.

All Capacity Plus channels are busy.

6.3.3

Tones

The following are the tones that sound through on the radio speaker.

High Pitched Tone

Low Pitched Tone

6.3.3.1

Indicator Tones

Indicator tones provide you with audible indications of the status after an action to perform a task is taken.

Positive Indicator Tone

Negative Indicator Tone

6.3.3.2

Audio Tones

Audio tones provide you with audible indications of the status, or response to data received on the radio.

Continuous Tone

A monotone sound. Sounds continuously until termination.

Periodic Tone

Sounds periodically depending on the duration set by the radio. Tone starts, stops, and repeats itself.

Repetitive Tone

A single tone that repeats itself until it is terminated by the user.

Momentary Tone

Sounds once for a short duration set by the radio.

6.4

Conventional Analog and Digital Modes

Each channel in your radio can be configured as a conventional analog or conventional digital channel.

1 : Channel Selector Knob

Use the **Channel Rocker** to switch between an analog or a digital channel.

Certain features are unavailable when switching from digital to analog mode. The icons for digital features reflect this change by appearing “grayed out”. The disabled features are hidden in the menu.

Your radio also has features available in both analog and digital modes. The minor differences in the way each feature works do **not** affect the performance of your radio.

NOTICE:
Your radio also switches between digital and analog modes during a dual mode scan. See Scan on page 406 for more information.

6.5

Icon Information

Throughout this publication, the icons described are used to indicate features supported in either the conventional analog or conventional digital mode, or made available with a keypad-enabled microphone.

Indicates a conventional **Analog Mode-Only** feature.

Indicates a conventional **Digital Mode-Only** feature.

For features that are available in **both** conventional analog and digital modes, both icons are **not** shown.

6.6

IP Site Connect

This feature allows your radio to extend conventional communication beyond the reach of a single site by connecting to different available sites by using an Internet Protocol (IP) network. This is a conventional multi-site mode.

When the radio moves out of range from one site and into the range of another, the radio connects to the repeater of the new site to send or receive calls or data transmissions. This is done either automatically or manually depending on your settings.

In an automatic site search, the radio scans through all available sites when the signal from the current site is weak or when the radio is unable to detect any signal from the current site. The radio then locks on to the repeater with the strongest Received Signal Strength Indicator (RSSI) value.

In a manual site search, the radio searches for the next site in the roam list that is currently in range but which may not have the strongest signal and locks on to the repeater.

NOTICE:
Each channel can only have either Scan or Roam enabled, not both at the same time.

Channels with this feature enabled can be added to a particular roam list. The radio searches the channels in the roam list during the automatic roam operation to locate the best site. A roam list supports a maximum of 16 channels, including the selected channel.

NOTICE:
You cannot manually add or delete an entry in the roam list. Contact your dealer for more information.

6.7

Capacity Plus–Single-Site

Capacity Plus–Single-Site is a single-site trunking configuration of the MOTOTRBO radio system, which uses a pool of channels to support hundreds of users and up to 254 Groups. This feature allows your radio to efficiently utilize the available number of programmed channels while in Repeater Mode.

You hear a negative indicator tone if you try to access a feature not applicable to Capacity Plus–Single-Site by using a programmable button press.

Your radio also has features that are available in conventional digital mode, IP Site Connect, and Capacity Plus. However, the minor differences in the way each feature works does not affect the performance of your radio.

Check with your dealer or system administrator for more information on this configuration.

6.8

Capacity Plus–Multi-Site

Capacity Plus–Multi-Site is a multi-channel trunking configuration of the MOTOTRBO radio system, combining

the best of both Capacity Plus and IP Site Connect configurations.

Capacity Plus–Multi-Site allows your radio to extend trunking communication beyond the reach of a single site, by connecting to different available sites which are connected with an IP network. It also provides an increase in capacity by efficiently utilizing the combined available number of programmed channels supported by each of the available sites.

When the radio moves out of range from one site and into the range of another, it connects to the repeater of the new site to send or receive calls/data transmissions. Depending on your settings, this is done automatically or manually.

If the radio is set to do this automatically, it scans through all available sites when the signal from the current site is weak or when the radio is unable to detect any signal from the current site. It then locks on to the repeater with the strongest RSSI value.

In a manual site search, the radio searches for the next site in the roam list that is currently in range (but which may not have the strongest signal) and locks on to it.

Any channel with Capacity Plus–Multi-Site enabled can be added to a particular roam list. The radio searches these channels during the automatic roam operation to locate the best site.

NOTICE:
You cannot manually add or delete an entry to the roam list. Check with your dealer or system administrator for more information.

Similar to Capacity Plus–Single Site, icons of features not applicable to Capacity Plus–Multi-Site are not available in the menu. You hear a negative indicator tone if you try to access a feature not applicable to Capacity Plus–Multi-Site by using a programmable button press.

6.9

Zone and Channel Selections

This chapter explains the operations to select a zone or channel on your radio. A zone is a group of channels.

Your radio supports up to 99 channels and 2 zones, with a maximum of 99 channels per zone.

Each channel can be programmed with different features and/or support different groups of users.

6.9.1

Selecting Zones

Follow the procedure to select the required zone on your radio.

1 Do one of the following:

- Press the programmed **Zone Selection** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Zone`. Press OK to select.

The display shows ✓ and the current zone.

3 Press ▲ or ▼ to the required zone. Press OK to select.

The display shows `<Zone> Selected` momentarily and returns to the selected zone screen.

6.9.2

Selecting Zones by Using the Alias Search

Follow the procedure to select the required zone on your radio by using the alias search.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Zone`. Press OK to select.

The display shows ✓ and the current zone.

3 Enter the first character of the required alias.

The display shows a blinking cursor.

4 Enter the rest of the characters of the required alias.

The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.

The first text line shows the characters you entered. The following text lines show the shortlisted search results.

5 Press OK to select.

The display shows `<Zone> Selected` momentarily and returns to the selected zone screen.

6.9.3

Selecting Channels

Follow the procedure to select the required channel on your radio.

Do one of the following:

- Press the **Scroll Up/Down** button.
- Use the **Volume/Channel Knob**.
- Press the programmed **Channel Up/Down** buttons.

NOTICE:
If **Virtual Channel Stop** is enabled, your radio stops proceeding beyond the first or the last channel, and a tone is heard.

6.10

Calls

This chapter explains the operations to receive, respond to, make, and stop calls.

You can select a subscriber alias or ID, or group alias or ID after you have selected a channel by using one of these features:

Alias Search
This method is used for Group, Private, and All Calls only with a keypad microphone.

Contacts List
This method provides direct access to the Contacts list.

Manual Dial (by using Contacts)
This method is used for Private and Phone Calls only with a keypad microphone.

Programmed Number Keys

This method is used for Group, Private, and All Calls only with a keypad microphone.

NOTICE:
You can only have one alias or ID assigned to a number key, but you can have more than one number key associated to an alias or ID. All the number keys on a keypad microphone can be assigned. See Assigning Entries to Programmable Number Keys on page 411 for more information.

Programmed One Touch Access Button

This method is used for Group, Private, and Phone Calls only.

You can only have one ID assigned to a **One Touch Access** button with a short or long programmable button press. Your radio can have multiple **One Touch Access** buttons programmed.

Programmable Button

This method is used for Phone Calls only.

Volume/Channel Selector Knob

This method manually selects a subscriber alias or ID, or group alias or ID.

The LED lights up solid green while the radio is transmitting and blinks green when the radio is receiving.

NOTICE:
The LED lights up solid green while the radio is transmitting and double blinks green when the radio is receiving a privacy-enabled call.

To unscramble a privacy-enabled call, your radio must have the same Privacy Key, or the same Key Value and Key ID (programmed by your dealer), as the transmitting radio (the radio you are receiving the call from).

See Privacy on page 463 for more information.

6.10.1
Group Calls

Your radio must be configured as part of a group to receive a call from or make a call to the group of users.

6.10.1.1
Making Group Calls

Follow the procedure to make Group Calls on your radio.

1 Do one of the following:

- Select a channel with the active group alias or ID.
- Press the programmed **One Touch Access** button.

2 Press the **PTT** button to make the call.

The green LED lights up. The display shows the **Group Call** icon and the group call alias.

3 Release the **PTT** button to listen.

The green LED lights up when the target radio responds. The display shows the **Group Call** icon, the group alias or ID, and the transmitting radio alias or ID.

4 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. The radio returns to the screen you were on prior to initiating the call.

6.10.1.2

Making Group Calls by Using the Contacts List

Follow the procedure to make Group Calls on your radio by using the Contacts list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

4 Press the **PTT** button to make the call.

The green LED lights up.

5 Release the **PTT** button to listen.

The green LED blinks when any user in the group responds. The display shows the **Group Call** icon, and alias or ID, and the transmitting radio alias or ID.

6 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period.

6.10.1.3

Making Group Calls by Using the Programmable Number Key

Follow the procedure to make Group Calls on your radio by using the programmable number key.

1 Long press the programmed number key to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

2 Press the **PTT** button to make the call.

The green LED lights up.

3 Release the **PTT** button to listen.

The green LED blinks when any user in the group responds.

4 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. The radio returns to the screen you were on before initiating the call.

See Assigning Entries to Programmable Number Keys on page 411 for more information.

6.10.1.4

Responding to Group Calls

To receive a call from a group of users, your radio must be configured as part of that group. Follow the procedure to respond to Group Calls on your radio.

When you receive a Group Call:

- The green LED blinks.
- The display shows the **Group Call** icon at the top right corner.
- The first text line shows the caller alias.
- The second text line displays the group call alias.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Do one of the following:

- If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.
- If the Voice Interrupt feature is enabled, press the **PTT** button to interrupt the audio from the transmitting radio and free the channel for you to respond.

  The green LED lights up.

2 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period.

If the radio receives a Group Call while not on the Home screen, it remains on its current screen prior to answering the call.

Long press to return to the Home screen to view the caller alias before replying.

6.10.2

Private Calls

A Private Call is a call from an individual radio to another individual radio.

There are two ways to set up a Private Call. The first type sets up the call after performing a radio presence check, while the second type sets up the call immediately. Only one of these types can be programmed to your radio by your dealer.

6.10.2.1

Making Private Calls

Your radio must be programmed to initiate a Private Call. If this feature is not enabled, a negative indicator tone sounds when you initiate the call. Follow the procedure to make Private Calls on your radio.

Use the Text Message or Call Alert features to contact an individual radio. For more information, see Text Messaging on page 152 or Call Alert Operation on page 421.

1 Do one of the following:

- Select a channel with the active subscriber alias or ID.
- Press the programmed **One Touch Access** button.

2 Press the **PTT** button to make the call.

The green LED lights up. The display shows the **Private Call** icon, the subscriber alias, and call status.

3 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

4 Release the **PTT** button to listen.

The green LED blinks when the target radio responds.

5 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows `Call Ended`.

6.10.2.2

Making Private Calls by Using the Contacts List

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

4 Press the **PTT** button to make the call.

The green LED lights up. The display shows the destination alias.

5 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

6 Release the **PTT** button to listen.

The green LED blinks when the target radio responds. The display shows the transmitting user alias or ID.

7 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows Call Ended.

6.10.2.3

Making Private Calls by Using the Manual Dial

Follow the procedure to make Private Calls on your radio by using the manual dial.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to Manual Dial. Press OK to select.

4 Press ▲ or ▼ to Radio Number. Press OK to select.

5 Do one of the following:

- Enter the subscriber ID, and press OK to proceed.
- Edit the previously dialed subscriber ID, and press OK to proceed.

6 Press the **PTT** button to make the call.

The green LED lights up. The display shows the destination alias.

7 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

8 Release the **PTT** button to listen.

The green LED lights up when the target radio responds. The display shows the transmitting user alias or ID.

9 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows Call Ended.

6.10.2.4 Making Private Calls by Using the Programmable Number Key

Follow the procedure to make Private Calls on your radio by using the programmable number key.

1 Long press the programmed number key to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

2 Press the **PTT** button to make the call.

The green LED lights up. The display shows the **Private Call** icon at the top right corner. The first text line shows the caller alias. The second text line shows the call status.

3 Release the **PTT** button to listen.

The green LED blinks when the target radio responds. The display shows the destination alias.

4 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The radio returns to the screen you were on before initiating the call.

See Assigning Entries to Programmable Number Keys on page 411 for more information.

6.10.2.5

Responding to Private Calls

Follow the procedure to respond to Private Calls on your radio.

When you receive a Private Call:

- The green LED blinks.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Do one of the following:

- If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.
- If the Transmit Interrupt Remote Dekey feature is enabled, press the **PTT** button to stop an

ongoing interruptible call and free the channel for you to respond.

The green LED lights up.

2 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period.

6.10.3

All Calls

An All Call is a call from an individual radio to every radio on the channel. An All Call is used to make important announcements, requiring full attention from the user. The users on the channel cannot respond to an All Call.

6.10.3.1

Receiving All Calls

When you receive an All Call:

- A tone sounds.
- The green LED blinks.
- The display shows the **Group Call** icon at the top right corner.
- The first text line shows the caller alias ID.
- The second text line displays `All Call`.
- Your radio unmutes and the incoming call sounds through the speaker.

The radio returns to the screen before receiving the All Call when the call ends.

An All Call does not wait for a predetermined period before ending.

If the Channel Free Indication feature is enabled, you hear a short alert tone when the transmitting radio releases the **PTT** button, indicating the channel is free for you to use.

You cannot respond to an All Call.

NOTICE:
The radio stops receiving the All Call if you switch to a different channel while receiving the call. You are not able to continue with any menu navigation or editing until the end of an All Call.

6.10.3.2

Making All Calls

Your radio must be programmed for you to make an All Call. Follow the procedure to make All Calls on your radio.

1 Select a channel with the active All Call group alias or ID.

2 Press the **PTT** button to make the call.

The green LED lights up. The display shows the **Group Call** icon and `All Call`.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

Users on the channel cannot respond to an All Call.

6.10.3.3

Making All Calls by Using the Programmable Number Key

Follow the procedure to make All Calls on your radio by using the programmable number key.

1 Long press the programmed number key assigned to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

2 Press the **PTT** button to make the call.

The green LED lights up.

3 Release the **PTT** button to listen.

The green LED lights up when the target radio responds. You cannot respond to an All Call at the moment.

4 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. The radio returns to the screen you were on prior to initiating the call.
For a Private Call, you hear a short tone when the call ends.

See Assigning Entries to Programmable Number Keys on page 411 for more information.

6.10.4

Selective Calls

A Selective Call is a call from an individual radio to another individual radio. It is a Private Call on an analog system.

6.10.4.1

Making Selective Calls

Your radio must be programmed for you to initiate a Selective Call. Follow the procedure to make Selective Calls on your radio.

1 Select a channel with the active subscriber alias or ID.

2 Press the **PTT** button to make the call.

The green LED lights up. The display shows the **Private Call** icon, the subscriber alias, and call status.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

4 Release the **PTT** button to listen.

The green LED lights up when the target radio responds.

5 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period.

6 The display shows `Call Ended`.

6.10.4.2

Responding to Selective Calls

Follow the procedure to respond to Selective Calls on your radio.

When you receive a Selective Call:

- The green LED blinks.
- The first text line shows the **Private Call** icon and the caller alias or `Selective Call` or `Alert with Call`.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Press the **PTT** button to respond to the call.

The green LED lights up.

2 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows `Call Ended`.

6.10.5

Phone Calls

A Phone Call is a call from an individual radio to a telephone.

If Phone Call capability is not enabled in your radio:

- The display shows `Unavailable`.
- Your radio mutes the call.
- Your radio returns to the previous screen when the call ends.

During the Phone Call, your radio attempts to end the call when:

- You press the **One Touch Access** button with the deaccess code preconfigured.
- You enter the deaccess code as the input for extra digits.

During channel access, access or deaccess code, or extra digits transmission, your radio responds to the **On/Off** , **Volume Control**, and **Channel Selector** buttons or knobs only. A tone sounds for every invalid input.

During channel access, press to dismiss the call attempt. A tone sounds.

NOTICE:
The access or deaccess code cannot be more than 10 characters.

Check with your dealer or system administrator for more information.

6.10.5.1

Making Phone Calls

Follow the procedure to make Phone Calls on your radio.

1 Press the programmed **One Touch Access** button to the predefined alias or ID.

If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds. If the access code is not preconfigured in the Contact List, the display shows `Access Code:`.

2 Enter the access code, and press OK to proceed.

The access or deaccess code cannot be more than 10 characters.

3 Press the **PTT** button to respond to the call. Release the **PTT** button to listen.

4 Enter extra digits with the keypad if requested by the call, and press OK to proceed.

If the call ends while you are entering the extra digits requested by the call, your radio returns to the screen you were on before initiating the call.

The Dual Tone Multi Frequency (DTMF) Tone sounds. Your radio returns to the previous screen.

5 Press to end the call.

6 Do one of the following:

- If the deaccess code was not preconfigured, enter the deaccess code when the display shows `De-Access Code:`, and press OK to proceed. The radio returns to the previous screen.

- Press the programmed **One Touch Access** button.
  If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

The DTMF Tone sounds and the display shows `Ending Phone Call`.
If the call ends successfully:

- A tone sounds.
- The display shows `Call Ended`.

If the call fails to end, the radio returns to the Phone Call screen. Repeat the last two steps or wait for the telephone user to end the call.

6.10.5.2

Making Phone Calls by Using the Contacts List

Follow the procedure to make Phone Calls on your radio by using the Contacts list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts`. Press OK to select.

The display shows the entries in alphabetical order.

3 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

When you press the **PTT** button while on the Phone Contacts screen:

- The first line of the display shows `Phone Number:`.
- The second line of the display shows a blinking cursor.

If the selected entry is empty:

- A negative indicator tone sounds.
- The display shows `Phone Call Invalid #`.

4 Press ▲ or ▼ to Call Phone. Press OK to select.

The display shows Access Code: if the access code was not preconfigured.

5 Enter the access code, and press OK to proceed.

The access or deaccess code cannot be more than 10 characters.

The first text line shows Calling. The second text line shows the subscriber alias or ID, and the **Phone Call** icon.
If the call is successful:

- The DTMF Tone sounds.
- You hear the dialing tone of the telephone user.
- The first text line shows the subscriber alias or ID, and the **RSSI** icon.
- The second text line shows Phone Call, and the **Phone Call** icon.

If the call is unsuccessful:

- A tone sounds.
- The display shows Phone Call Failed and then, Access Code:.
- Your radio returns to the screen you were on prior to initiating the call if the access code has been preconfigured in the Contacts list.

6 Press the **PTT** button to respond to the call.

The **RSSI** icon disappears.

7 Release the **PTT** button to listen.

8 Enter extra digits with the keypad if requested by the call, and press OK to proceed.

If the call ends while you are entering the extra digits requested by the call, your radio returns to the screen you were on prior to initiating the call.

The DTMF Tone sounds. Your radio returns to the previous screen.

9 Press ⏻ to end the call.

10 If the deaccess code was not preconfigured, enter the deaccess code when the display shows `De-Access Code:`, and press OK to proceed.

The radio returns to the previous screen. The DTMF Tone sounds and the display shows `Ending Phone Call`.
If the call ends successfully:

- A tone sounds.
- The display shows `Call Ended`.

If the call fails to end, the radio returns to the Phone Call screen. Repeat step 9 and step 10, or wait for the telephone user to end the call. When you press the **PTT** button while in the Phone Contacts screen, as tone sounds and the display shows `Press OK to Place Phone Call`.

When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`.

If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

NOTICE:

During the channel access, press ⏻ to dismiss the call attempt and a tone sounds.

During the call, when you press **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call.

During channel access and access/ deaccess code or extra digits transmission, your radio responds to **On/Off** button, **Volume Knob**, and **Channel Rocker** only. A tone sounds for every invalid input.

6.10.5.3

Making Phone Calls by Using the Manual Dial

Follow the procedure to make Phone Calls on your radio by using the manual dial.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to Manual Dial. Press OK to select.

4 Press ▲ or ▼ to Phone Number. Press OK to select.

The display shows Number: and a blinking cursor.

5 Enter the telephone number, and press OK to proceed.

The display shows Access Code: and a blinking cursor if the access code was not preconfigured.

6 Enter the access code, and press OK to proceed.

The access or deaccess code cannot be more than 10 characters.

7 The green LED lights up. The display shows the **Phone Call** icon at the top right corner. The first text line shows the subscriber alias. The second text line shows the call status.
If the call is successful:

- The DTMF Tone sounds.
- You hear the dialing tone of the telephone user.
- The first text line shows the subscriber alias.
- The display continues to show the **Phone Call** icon at the top right corner.

If the call is unsuccessful:

- A tone sounds.
- The display shows Phone Call Failed and then, Access Code:.
- Your radio returns to the screen you were on before initiating the call if the access code has been preconfigured in the Contacts list.

8 Press ↩ to end the call.

9 Do one of the following:

- If the deaccess code was not preconfigured, enter the deaccess code when the display shows `De-Access Code:`, and press OK to proceed. The radio returns to the previous screen.
- Press the programmed **One Touch Access** button.
  If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

The DTMF Tone sounds and the display shows `Ending Phone Call`.
If the call ends successfully:

- A tone sounds.
- The display shows `Call Ended`.

If the call fails to end, the radio returns to the Phone Call screen. Repeat step 8, or wait for the telephone user to end the call.

NOTICE:
When you press **PTT** button while in the Phone Contacts screen, a tone sounds and the display shows `Press OK to Place Phone Call`.

When the telephone user ends the call, a tone sounds and the display shows `Call Ended`.

If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on before initiating the call.

During the channel access, press ⏻ to dismiss the call attempt and a tone sounds.

During the call, when you press **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call.

During channel access and access/deaccess code or extra digits transmission, you radio responds to **On/Off** button, **Volume Knob**,

and **Channel Rocker** only. A tone sounds for every invalid input.

6.10.5.4

Making Group, Private, Phone or All Calls by Using the Alias Search

Follow the procedure to make any calls by using the alias search.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

The display shows the entries in alphabetical order.

3 Press ▲ or ▼ to the required subscriber alias or ID. The first line of the display shows Phone Number:. The second line of the display shows a blinking cursor. Use the keypad to enter a telephone number.

4 Press OK to select. If the entry selected is empty, a negative indicator tone sounds and the display shows Phone Call Invalid #.

5 Press ▲ or ▼ to Call Phone and Press OK to select. If the access code was not preconfigured in the Contacts list, the first line of the display shows Access Code:. The second line of the display shows a blinking cursor. Enter the access code and press the OK button to proceed. If successful, the DTMF tone sounds. You hear the dialing tone of the telephone user. The first line of the display shows the subscriber alias or ID, and the RSSI icon. The second line of the display shows Phone Call and the Phone Call icon. If unsuccessful, a tone sounds and the display shows Phone Call Failed. Your radio returns to the Access Code input screen. If the access code was preconfigured in the Contacts list, the radio returns to the screen you were on prior to initiating the call.

6 Press the **PTT** button to talk and release it to listen. The RSSI icon disappears during transmission.

7 To enter extra digits, if requested by the Phone Call, do one of the following.

- Press any keypad key to begin the input of the extra digits. The first line of the display shows `Extra Digits:`. The second line of the display shows a blinking cursor. Enter the extra digits and press the OK button to proceed. The DTMF tone sounds and the radio returns to the previous screen.
- Press **One Touch Access** button. The DTMF tone sounds. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

8 Press the end button to end the call. If deaccess code was not preconfigured in the Contacts list, the first line of the display shows `De-Access Code:`. The second line of the display shows a blinking cursor. Enter the deaccess code and press OK to proceed. The radio returns to the previous screen. The DTMF tone sounds and the display shows `Ending Phone Call`. If successful, a tone sounds and the display shows Phone Call Ended. Your radio returns to the Phone Call screen. If unsuccessful, your radio returns to the Phone Call screen. When you press the **PTT** button while in the Phone Contacts screen, as tone sounds and the display shows `Press OK to Place Phone Call`. When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`. If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

NOTICE:

During the channel access, press the end button to dismiss the call attempt and a tone sounds button or to exit alias search. Press OK or the end button to exit alias search. During the call, when you press the **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call. During channel access and access/ deaccess code or extra digits transmission, you radio responds to On/Off button, Volume Knob, and Channel Rocker only. A tone sounds for every invalid input.

6.10.5.5

Dual Tone Multi Frequency

The Dual Tone Multi Frequency (DTMF) feature allows your radio to operate in a radio system with an interface to the telephone systems.

Disabling all radio tones and alert will automatically turn off the DTMF tone.

6.10.5.5.1

Initiating DTMF Tone

Follow the procedure to initiate a DTMF tone on your radio.

1 Press and hold the **PTT** button.

2 Do one of the following:

- Enter the desired number to initiate a DTMF tone.
- Press * to initiate a DTMF tone.
- Press # to initiate a DTMF tone.

6.10.5.6

Responding to Phone Calls as Group Calls

Follow the procedure to respond to Phone Calls as Group Calls on your radio.

When you receive a Phone Call as a Group Call:

- The display shows the **Phone Call** icon at the top right corner.
- The display shows the group alias and `Phone Call`.

If Phone Call capability is not enabled on your radio, the first line of the display shows `Unavailable` and your radio mutes the call. Your radio returns to the previous screen when the call ends.

1 Press the **PTT** button to respond to the call. Release the **PTT** button to listen.

2 Press the end key to end the call.

The display shows `Ending Phone Call`.
If the call ends successfully:

- A tone sounds.
- The display shows `Call Ended`.

If the call fails to end, the radio returns to the Phone Call screen. Repeat this step or wait for the telephone user to end the call.

6.10.5.7

Responding to Phone Calls as All Calls

When you receive a Phone Call as an All Call, you can respond to or end the call, only if an All Call type is assigned to the channel. Follow the procedure to respond to Phone Calls as All Calls on your radio.

When you receive a Phone Call as an All Call:

- The display shows the **Phone Call** icon at the top right corner.
- The display shows `All Call` and `Phone Call`.

If Phone Call capability is not enabled on your radio, the first line of the display shows `Unavailable` and your radio mutes the call.

Your radio returns to the previous screen when the call ends.

1 Press the **PTT** button to respond to the call.

2 Release the **PTT** button to listen.

3 Press to end the call.

The display shows `Ending Phone Call`.
If the call ends successfully:

- A tone sounds.
- The display shows `All Call` and `Call Ended`.

If the call fails to end, the radio returns to the Phone Call screen. Repeat step 3 or wait for the telephone user to end the call.

6.10.5.8

Responding to Phone Calls as Private Calls

Follow the procedure to respond to Phone Calls as Private Calls on your radio.

When you receive a Phone Call as a Private Call:

- The display shows the **Phone Call** icon at the top right corner.
- The display shows the caller alias or `Phone Call`.

If Phone Call capability is not enabled on your radio, the first line of the display shows `Unavailable` and your radio mutes the call. Your radio returns to the previous screen when the call ends.

1. Press the **PTT** button to respond to the call. Release the **PTT** button to listen.
2. Press to end the call.

   The display shows `Ending Phone Call`.
   If the call ends successfully:

   - A tone sounds.
   - The display shows `Call Ended`.

   If the call fails to end, the radio returns to the Phone Call screen. Repeat this step or wait for the telephone user to end the call.

6.10.6
Initiating Transmit Interrupt

An ongoing call is interrupted, when you perform the following actions:

- Press the **Voice PTT** button.
- Press the **Emergency** button.
- Perform data transmission.
- Press the programmed **TX Interrupt Remote Dekey** button.

The recipient radio displays `Call Interrupted`.

6.10.7
Talkaround

This feature allows you to continue communicating when your repeater is non-operational, or when your radio is out of range from the repeater but within the talk range of other radios.

The talkaround setting is retained even after powering down.

NOTICE:
This feature is not applicable in Capacity Plus–Single-Site, Capacity Plus–Multi-Site, and Citizens Band channels that are in the same frequency.

6.10.7.1

Toggling Between Repeater and Talkaround Modes

Follow the procedure to toggle between Repeater and Talkaround modes on your radio.

1 Do one of the following:

- Press the programmed **Repeater/Talkaround** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Talkaround`. Press OK to select.

If enabled, ✓ appears beside `Enabled`.

If disabled, ✓ disappears beside `Enabled`.

The screen automatically returns to the previous screen.

6.10.8

Broadcast Voice Calls

A Broadcast Voice Call is a one-way voice call from any user to an entire talkgroup.

The Broadcast Voice Call feature allows only the call initiating user to transmit to the talkgroup, while the recipients of the call cannot respond (no Call Hang Time).

Your radio must be programmed to allow you to use this feature. Check with your dealer or system administrator for more information.

6.10.8.1

Making Broadcast Voice Calls

Program your radio to make Broadcast Voice Calls.

1 Select a channel with the active group alias or ID.

2 Press the **PTT** button to make the call.

The green LED lights up. The display shows `Broadcast Call`, the **Group Call** icon and alias.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

NOTICE:
Users on the channel cannot respond to Broadcast Voice Calls.

The radio returns to the previous menu after the call ends.

6.10.8.2

Making Broadcast Voice Calls by Using the Programmable Number Key

Follow the procedure to make Broadcast Voice Call on your radio by using the programmable number key.

1 On the **Home** screen, long press the programmed number key assigned to the predefined alias or ID.

If the number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

If the number key is not associated to an entry, a negative indicator tone sounds

2 Press the **PTT** button to make the call.

The green LED lights up.

See Assigning Entries to Programmable Number Keys on page 411 for more information.

6.10.8.3

Making Broadcast Voice Calls by Using the Alias Search

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

The display shows the entries in alphabetical order.

3 Press ▲ or ▼ to the required subscriber alias or ID.

The first line of the display shows Phone Number:. The second line of the display shows a blinking cursor.

4 Use the keypad to enter a telephone number.

5 Press OK to select. If the selected entry is empty, a negative indicator tone sounds and the display shows Phone Call Invalid #

6 Press ▲ or ▼ to Call Phone and Press OK to select. If the access code was not preconfigured in the Contacts list, the first line of the display shows Access Code:. The second line of the display shows a blinking cursor. Enter the access code and press the OK button to proceed. If successful, the DTMF tone sounds. You hear the dialing tone of the telephone user. The first line of the display shows the subscriber alias or ID, and the RSSI icon. The second line of the display shows Phone Call and the Phone Call icon. If unsuccessful, a tone sounds and the display shows Phone Call Failed. Your radio returns to the Access Code input screen. If the access code was preconfigured in the Contacts list, the radio returns to the screen you were on prior to initiating the call.

7 Press the **PTT** button to talk and release it to listen. The RSSI icon disappears during transmission.

8 To enter extra digits, if requested by the Phone Call, do one of the following.

- Press any keypad key to begin the input of the extra digits. The first line of the display shows Extra Digits:. The second line of the display shows a blinking cursor. Enter the extra digits and press the OK button to proceed. The DTMF

tone sounds and the radio returns to the previous screen.

- Press **One Touch Access** button. The DTMF tone sounds. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

9 Press to end the call. If deaccess code was not preconfigured in the Contacts list, the first line of the display shows `De-Access Code:`. The second line of the display shows a blinking cursor. Enter the deaccess code and press OK to proceed. The radio returns to the previous screen. The DTMF tone sounds and the display shows `Ending Phone Call`. If successful, a tone sounds and the display shows Phone Call Ended. Your radio returns to the Phone Call screen. If unsuccessful, your radio returns to the Phone Call screen. When you press the **PTT** button while in the Phone Contacts screen, as tone sounds and the display shows `Press OK to Place Phone Call`. When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`. If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

NOTICE:

During the channel access, press to dismiss the call attempt and a tone sounds button or to exit alias search. Press OK button or to exit alias search. During the call, when you press One Touch Access button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call. During channel access and access/deaccess code or extra digits transmission, you radio responds to On/Off button, Volume Knob, and Channel Rocker only. A tone sounds for every invalid input.

6.10.8.4 Receiving Broadcast Voice Calls

When you receive a Broadcast Voice Call:

- A tone sounds.
- The green LED blinks.

- The display shows the **Group Call** icon at the top right corner.
- The first text line shows the caller alias ID.
- The second text line displays `Broadcast Call`.
- Your radio unmutes and the incoming call sounds through the speaker.

When the call ends, the radio returns to the previous screen.

A Broadcast Voice Call does not wait for a predetermined period before ending.

You cannot respond to a Broadcast Voice Call.

NOTICE:
The radio stops receiving the Broadcast Voice Call if you switch to a different channel while receiving the call. You cannot continue with any menu navigation or editing until the end of the Broadcast Voice Call.

6.10.9
Unaddressed Calls

An Unaddressed Call is a group call to one of the 16 predefined group IDs.

This feature is configured using CPS-RM. A contact for one of the predefined IDs is required to initiate and/or receive an Unaddressed Call. Check with your dealer or system administrator for more information.

6.10.9.1
Making Unaddressed Calls

1 Select a channel with the active group alias or ID.

2 Press the **PTT** button to make the call.

The green LED lights up.The text line shows `Unaddress Call`, the **Group Call** icon and alias.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

4 Release the **PTT** button to listen.

The green LED lights up when the target radio responds. A momentary tone sounds. The display

shows Unaddress Call, the **Group Call** icon, and alias or ID, and the transmitting radio alias or ID.

5 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating that the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period.

The call initiator can press to end a Group Call.

6.10.9.2

Responding to Unaddressed Calls

When you receive an Unaddressed Call:

- The green LED blinks.
- A momentary tone sounds.
- The text line shows Unaddress Call, the caller alias, and the group call alias.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Do one of the following:

- If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.
- If the Voice Interrupt feature is enabled, press the **PTT** button to interrupt the audio from the transmitting radio and free the channel for you to respond.

The green LED lights up.

2 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period.

6.10.10

Open Voice Channel Mode (OVCM)

An Open Voice Channel Mode (OVCM) allows a radio that is not preconfigured to work in a particular system to both receive and transmit during a group or individual call.

The OVCM group call also supports broadcast calls. Program your radio to use this feature. Check with your dealer or system administrator for more information.

6.10.10.1

Making OVCM Calls

Your radio must be programmed for you to make an OVCM Call. Follow the procedure to make OVCM Calls on your radio.

1 Press the **PTT** button to make the call.

The green LED lights up.

The text line shows the call type icon, OVCM and alias. indicating that the radio has entered OVCM State.

2 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

6.10.10.2

Responding to OVCM Calls

When you receive an OVCM Call:

- The green LED blinks.
- The text line shows the call type icon, OVCM, and alias.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Do one of the following:

- If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button,

indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

- If the Voice Interrupt feature is enabled, press the **PTT** button to interrupt the audio from the transmitting radio and free the channel for you to respond.

The green LED lights up.

2 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period.

6.11

Advanced Features

This chapter explains the operations of the features available in your radio.

Your dealer or system administrator may have customized your radio for your specific needs. Check with your dealer or system administrator for more information.

6.11.1

Home Channel Reminder

This feature provides a reminder when the radio is not set to the home channel for a period of time.

If this feature is enabled through CPS, when your radio is not set to the home channel for a period of time, the following occurs periodically:

- The Home Channel Reminder tone and announcement sound.
- The first line of the display shows `Non`.
- The second line shows `Home Channel`.

You can respond to the reminder by performing one of the following actions:

- Return to the home channel.
- Mute the reminder temporarily using the programmable button.
- Set a new home channel using the programmable button.

6.11.1.1

Muting the Home Channel Reminder

When the Home Channel Reminder sounds, you can temporarily mute the reminder.

Press the programmed **Silence Home Channel Reminder** button.

The display shows `HCR Silenced`.

6.11.1.2

Setting New Home Channels

When the Home Channel Reminder occurs, you can set a new home channel.

1 Do one of the following:

- Press the **Reset Home Channel** programmable button to set the current channel as the new Home Channel. Skip the following steps.
  The first line of the display shows the channel alias and the second line shows `New Home Ch`.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Home Channel`. Press OK to select.

5 Press ▲ or ▼ to the desired new home channel alias. Press OK to select.

The display shows ✓ beside the selected home channel alias.

6.11.2

Radio Check

This feature allows you to determine if another radio is active in a system without disturbing the radio user. No audible or visual notification is shown on the target radio. This feature is only applicable for subscriber aliases or IDs.

Your radio must be programmed to allow you to use this feature.

6.11.2.1

Sending Radio Checks

Follow the procedure to send radio checks on your radio.

1 Press the programmed **Radio Check** button.

2 Press or to the required alias or ID.

Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress.The green LED lights up.

Wait for acknowledgment.

If you press OK when the radio is waiting for acknowledgment, a tone sounds, the radio terminates all retries, and exits Radio Check mode.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

The radio returns to the subscriber alias or ID screen.

6.11.2.2

Sending Radio Checks by Using the Manual Dial

Follow the procedure to send radio checks on your radio by using the manual dial.

1 Press OK to access the menu.

2 Press or to `Contacts`. Press OK to select.

3 Press or to `Manual Dial`. Press OK to select.

4 Press or to `Radio Number`. Press OK to select.

5 Do one of the following:

- Enter the subscriber alias or ID, and press OK to proceed.
- Edit the previously dialed ID, and press OK to proceed.

6 Press ▲ or ▼ to `Radio Check`. Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.

7 Wait for acknowledgment.

If you press ↩ when the radio is waiting for acknowledgement, a tone sounds, the radio terminates all retries, and exits Radio Check mode.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

The radio returns to the subscriber alias or ID screen.

6.11.3

Remote Monitor

This feature is used to turn on the microphone of a target radio with a subscriber alias or ID. You can use this feature to remotely monitor any audible activity surrounding the target radio.

There are two types of Remote Monitor:

- Remote Monitor without Authentication
- Remote Monitor with Authentication.

Authenticated Remote Monitor is a purchasable feature. In Authenticated Remote Monitor, verification is required when your radio turns on the microphone of a target radio.

When your radio initiates this feature on a target radio with User Authentication, a passphrase is required. The passphrase is preprogrammed into the target radio through CPS.

Both your radio and the target radio must be programmed to allow you to use this feature.

This feature stops after a programmed duration or when there is any user operation on the target radio.

6.11.3.1

Initiating Remote Monitor

Follow the procedure to initiate Remote Monitor on your radio.

1 Press the programmed **Remote Monitor** button.

2 Press ▲ or ▼ to the required alias or ID.

3 Press OK to select. One of the following scenarios occurs:

- The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.
- A passphrase screen appears.

  Enter the passphrase. Press OK to proceed.
  - If the passphrase is correct, the display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.
  - If the passphrase is incorrect, the display shows a negative mini notice, and returns to the previous screen.

4 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.
- The audio from the monitored radio starts playing for a programmed duration, and the display shows `Rem. Monitor`. Once the timer expires, an alert tone sounds, and the LED turns off.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.3.2

Initiating Remote Monitor by Using the Contacts List

Follow the procedure to initiate Remote Monitor on your radio by using the Contacts list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

4 Press ▲ or ▼ to Remote Mon..

5 Press OK to select. One of the following scenarios occurs:

- The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.
- A passphrase screen appears.

  Enter the passphrase. Press OK to proceed.
  - If the passphrase is correct, the display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.
  - If the passphrase is incorrect, the display shows a negative mini notice, and returns to the previous screen.

6 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.
- The audio from the monitored radio starts playing for a programmed duration, and the display shows Rem. Monitor. Once the timer expires, an alert tone sounds, and the LED turns off.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.3.3

Initiating Remote Monitor by Using the Manual Dial

Follow the procedure to initiate Remote Monitor on your radio by using the manual dial.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Contacts`. Press OK to select.
3. Press ▲ or ▼ to `Manual Dial`. Press OK to select.
4. Press ▲ or ▼ to `Radio Number`. Press OK to select.
5. Do one of the following:
   - Enter the subscriber alias or ID, and press OK to proceed.
   - Edit the previously dialed ID, and press OK to proceed.
6. Press ▲ or ▼ to `Remote Mon.`.
7. Press OK to select. One of the following scenarios occurs:
   - The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.
   - A passphrase screen appears.

     Enter the passphrase. Press OK to proceed.
     - If the passphrase is correct, the display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.
     - If the passphrase is incorrect, the display shows a negative mini notice, and returns to the previous screen.
8. Wait for acknowledgment.

   If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.
- The audio from the monitored radio starts playing for a programmed duration, and the display shows `Rem. Monitor`. Once the timer expires, an alert tone sounds, and the LED turns off.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.4

Scan Lists

Scan lists are created and assigned to individual channels or groups. Your radio scans for voice activity by cycling through the channel or group sequence specified in the scan list for the current channel or group.

Your radio can support up to 250 scan lists, with a maximum of 16 members in a list.

Each scan list supports a mixture of both analog and digital entries.

You can add, delete, or prioritize channels by editing a scan list.

You can attach a new scan list to your radio by using Front Panel Programming. See Front Panel Configuration on page 193 for more information.

The **Priority** icon appears on the left of the member alias, if set, to indicate whether the member is on a Priority 1 or Priority 2 channel list. You cannot have multiple Priority 1 or Priority 2 channels in a scan list. There is no **Priority** icon if priority is set to **None**.

NOTICE:
This feature is not applicable in Capacity Plus.

6.11.4.1

Viewing Entries in the Scan List

Follow the procedure to view the entries in the Scan list on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Scan`. Press OK to select.

3 Press or to Scan List. Press OK to select.

4 Press or to view each member on the list.

6.11.4.2 Viewing Entries in the Scan List by Using the Alias Search

Follow the procedure to view entries in the Scan list on your radio by using the alias search.

1 Press OK to access the menu.

2 Press or to Scan. Press OK to select.

3 Press or to Scan List. Press OK to select.

4 Enter the first character of the required alias.

The display shows a blinking cursor.

5 Enter the rest of the characters of the required alias.

The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.

The first text line shows the characters you entered. The following text lines show the shortlisted search results.

6.11.4.3 Adding New Entries to the Scan List

Follow the procedure to add new entries to the Scan list on your radio.

1 Press OK to access the menu.

2 Press or to Scan. Press OK to select.

3 Press ▲ or ▼ to Scan List. Press OK to select.

4 Press ▲ or ▼ to Add Member. Press OK to select.

5 Press ▲ or ▼ to the required alias or ID.
Press OK to select.

6 Press ▲ or ▼ to the required priority level.
Press OK to select.
The display shows a positive mini notice and then, Add Another?.

7 Do one of the following:

- Press ▲ or ▼ to Yes to add another entry.
  Press OK to select. Repeat step 5 and step 6.
- Press ▲ or ▼ to No to save the current list.
  Press OK to select.

6.11.4.4

Adding New Entries to the Scan List by Using the Alias Search

Follow the procedure to add new entries to the Scan list on your radio by using the alias search.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Scan. Press OK to select.

3 Press ▲ or ▼ to Scan List. Press OK to select.

4 Press ▲ or ▼ to Add Member. Press OK to select.

5 Enter the first character of the required alias.

The display shows a blinking cursor.

6 Enter the rest of the characters of the required alias.

The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.

The first text line shows the characters you entered. The following text lines show the shortlisted search results.

7 Press OK to select.

8 Press ▲ or ▼ to the required priority level.

Press OK to select.

The display shows a positive mini notice and then, `Add Another?`.

9 Do one of the following:

- Press ▲ or ▼ to `Yes` to add another entry.

  Press OK to select. Repeat Step step 5 to Step step 8.

- Press ▲ or ▼ to `No` to save the current list.

  Press OK to select.

6.11.4.5

Deleting Entries from the Scan List

Follow the procedure to delete entries from the Scan list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Scan`. Press OK to select.

3 Press ▲ or ▼ to `Scan List`. Press OK to select.

4 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

5 Press ▲ or ▼ to Delete. Press OK to select.

The display shows Delete Entry?.

6 Do one of the following:

- Press ▲ or ▼ to Yes to delete the entry. Press OK to select.
  The display shows a positive mini notice.
- Press ▲ or ▼ to No to return to the previous screen. Press OK to select.

7 Repeat step 4 to step 6 to delete other entries.

8 Long press ⌂ to return to the Home screen after deleting all required aliases or IDs.

6.11.4.6

Setting Priority for Entries in the Scan List

Follow the procedure to set priorities for entries in the Scan list on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Scan. Press OK to select.

3 Press ▲ or ▼ to Scan List. Press OK to select.

4 Press ▲ or ▼ to the required alias or ID. Press OK to select.

5 Press ▲ or ▼ to Edit Priority. Press OK to select.

6 Press or to the required priority level.

Press OK to select.

The display shows a positive mini notice before returning to the previous screen. The **Priority** icon appears on the left of the member alias.

6.11.5

Scan

Your radio cycles through the programmed scan list for the current channel looking for voice activity when you start a scan.

NOTICE:
This feature is not applicable in Capacity Plus.

During a dual-mode scan, if you are on a digital channel, and your radio locks onto an analog channel, it automatically switches from digital mode to analog mode for the duration of the call. This is also true for the reverse.

There are two ways of initiating scan:

Main Channel Scan (Manual)

Your radio scans all the channels or groups in your scan list. On entering scan, your radio may, depending on the settings, automatically start on the last scanned active channel or group, or on the channel where scan was initiated.

Auto Scan (Automatic)

Your radio automatically starts scanning when you select a channel or group that has Auto Scan enabled.

NOTICE:
When you configure **Receive Group Message In Scan**, your radio is able to receive group messages from non-home channels. Your radio is able to reply the group messages on home channel but is not able to reply on non-home channels. Check with your dealer or system administrator for more information.

6.11.5.1

Turning Scan On or Off

Follow the procedure to turn scan on or off on your radio.

1 Press OK to access the menu.

2 Press or to Scan. Press OK to select.

3 Press ▲ or ▼ to Scan State. Press OK to select.

4 Press ▲ or ▼ to the required scan state and press OK to select.

If scan is enabled:

- The display shows Scan On and **Scan** icon.
- The yellow LED blinks.

If scan is disabled:

- The display shows Scan Off.
- The **Scan** icon disappears.
- The LED turns off.

6.11.5.2

Responding to Transmissions During Scanning

During scanning, your radio stops on a channel or group where activity is detected. The radio stays on that channel for a programmed duration known as hang time. Follow the procedure to respond to transmissions during scanning.

1 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button during hang time.

The green LED lights up.

2 Release the **PTT** button to listen.

The radio returns to scanning other channels or groups if you do not respond within the hang time.

6.11.5.3

Deleting Nuisance Channels

If a channel continually generates unwanted calls or noise, (termed a "nuisance" channel), you can temporarily remove the unwanted channel from the scan list. This capability does not apply to the channel designated as the Selected Channel. Follow the procedure to delete nuisance channels on your radio.

1 When your radio locks on to an unwanted or nuisance channel, press the programmed **Nuisance Channel Delete** button until you hear a tone.

2 Release the programmed **Nuisance Channel Delete** button.

The nuisance channel is deleted.

6.11.5.4

Restoring Nuisance Channels

Follow the procedure to restore nuisance channels on your radio.

Do one of the following:

- Turn the radio off and then power it on again.
- Stop and restart a scan using the programmed **Scan** button or menu.
- Change the channel using the **Channel Up/ Down** button.

6.11.6

Vote Scan

Vote Scan provides you with wide area coverage in areas where there are multiple base stations transmitting identical information on different analog channels.

Your radio scans analog channels of multiple base stations and performs a voting process to select the strongest received signal. Once that is established, your radio receives transmissions from that base station.

During a vote scan, the yellow LED blinks and the display shows the **Vote Scan** icon.

To respond to a transmission during a vote scan, see Responding to Transmissions During Scanning on page 407.

6.11.7

Contacts Settings

Contacts provides address book capabilities on your radio. Each entry corresponds to an alias or ID that you use to initiate a call. The entries are alphabetically sorted.

Each entry, depending on context, associates with the different call types: Group Call, Private Call, All Call, PC Call, or Dispatch Call.

PC Call and Dispatch Call are data-related. They are only available with the applications. Refer to the data applications documentation for further details.

Additionally, Contacts menu allows you to assign each entry to a programmable number key or more on a keypad microphone. If an entry is assigned to a number key, your radio can perform a quick dial on the entry.

NOTICE:
You see a checkmark before each number key that is assigned to an entry. If the checkmark is before `Empty`, you have not assign a number key to the entry.

Each entry within Contacts displays the following information:

- Call Type
- Call Alias
- Call ID

NOTICE:
If the Privacy feature is enabled on a channel, you can make privacy-enabled Group Calls, Private Calls, and All Calls on that channel. Only target radios with the same Privacy Key, or the same Key Value and Key ID as your radio will be able to decrypt the transmission.

6.11.7.1

Making Group Calls by Using the Contacts List

Follow the procedure to make Group Calls on your radio by using the Contacts list.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Contacts`. Press OK to select.
3. Press ▲ or ▼ to the required alias or ID.
   Press OK to select.

4 Press the **PTT** button to make the call.

The green LED lights up.

5 Release the **PTT** button to listen.

The green LED blinks when any user in the group responds. The display shows the **Group Call** icon, and alias or ID, and the transmitting radio alias or ID.

6 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period.

6.11.7.2

Making Private Calls by Using the Contacts List

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

4 Press the **PTT** button to make the call.

The green LED lights up. The display shows the destination alias.

5 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

6 Release the **PTT** button to listen.

The green LED blinks when the target radio responds. The display shows the transmitting user alias or ID.

7 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows `Call Ended`.

6.11.7.3

Assigning Entries to Programmable Number Keys

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts`. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.
Press OK to select.

4 Press ▲ or ▼ to `Program Key`. Press OK to select.

5 Do one of the following:

- If the desired number key has not been assigned to an entry, press ▲ or ▼ to the desired number key. Press OK to select.
- If the desired number key has been assigned to an entry, the display shows `The Key is Already Assigned` and then, the first text line shows `Overwrite?`. Do one of the following:

  Press ▲ or ▼ to `Yes`. Press OK to select.

  The radio sounds a positive indicator tone and the display shows `Contact Saved` and a positive mini notice.

  Press ▲ or ▼ to `No` to return to the previous step.

Each entry can be associated to different number keys. You see a ✓ before each number key that is assigned to an entry. If the ✓ is before `Empty`, that number key is not assigned.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

The screen automatically returns to the previous menu.

6.11.7.4

Removing Associations Between Entries and Programmable Number Keys

1 Do one of the following:

- Long press the programmed number key to the required alias or ID. Proceed to step 4.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts`. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

4 Press ▲ or ▼ to `Program Key`. Press OK to select.

5 Press ▲ or ▼ to `Empty`. Press OK to select.

The first text line shows `Clear from all keys`.

6 Press ▲ or ▼ to `Yes`. Press OK to select.

NOTICE:
When an entry is deleted, the association between the entry and its programmed number key(s) is removed.

A positive indicator tone sounds. The display shows `Contact Saved`.
The screen automatically returns to the previous menu.

6.11.7.5

Adding New Contacts

Follow the procedure to add new contacts on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to Contacts. Press OK to select.
3. Press ▲ or ▼ to New Contact. Press OK to select.
4. Press ▲ or ▼ to select contact type Radio Contact or Phone Contact. Press OK to select.
5. Enter the contact number with the keypad, and press OK to proceed.
6. Enter the contact name with the keypad, and press OK to proceed.
7. Press ▲ or ▼ to the required ringer type.
   Press OK to select.
   A positive indicator tone sounds. The display shows a positive mini notice.

6.11.7.6

Setting Default Contact

Follow the procedure to set the default contact on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to Contacts. Press OK to select.
3. Press ▲ or ▼ to the required alias or ID.
   Press OK to select.

4 Press ▲ or ▼ to Set as Default. Press OK to select.

A positive indicator tone sounds. The display shows a positive mini notice. The display shows ✓ beside the selected default alias or ID.

6.11.8
Call Indicator Settings

This feature allows you to configure call or text message ringing tones.

6.11.8.1
Activating or Deactivating Call Ringers for Call Alerts

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alert. Press OK to select.

5 Press ▲ or ▼ to Call Ringers. Press OK to select.

6 Press ▲ or ▼ to Call Alert. Press OK to select.

7 Press ▲ or ▼ to the required tone. Press OK to select. The display shows ✓ beside the selected tone.

6.11.8.2

Activating or Deactivating Call Ringers for Private Calls

Follow the procedure to activate or deactivate call ringers for Private Calls on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Tones/Alerts`. Press OK to select.
5. Press ▲ or ▼ to `Call Ringers`. Press OK to select.
6. Press ▲ or ▼ to `Private Call`. Press OK to select.

   The display shows ✓ beside `On` if Private Call ringing tones are enabled.

   The display shows ✓ beside `Off` if Private Call ringing tones are disabled.
7. Press ▲ or ▼ to the required tone. Press OK to select.

   If enabled, ✓ appears beside `Enabled`. If disabled, ✓ disappears beside `Enabled`.

6.11.8.3

Activating or Deactivating Call Ringers for Selective Calls

Follow the procedure to activate or deactivate call ringers for Selective Calls on your radio.

1. Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alerts. Press OK to select.

5 Press ▲ or ▼ to Call Ringers. Press OK to select.

6 Press ▲ or ▼ to Selective Call. Press OK to select.

The display shows ✓ and the current tone.

7 Press ▲ or ▼ to the required tone. Press OK to select. The display shows ✓ beside the selected tone.

6.11.8.4

Activating or Deactivating Call Ringers for Text Messages

Follow the procedure to activate or deactivate call ringers for text messages on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alerts. Press OK to select.

5 Press ▲ or ▼ to Call Ringers. Press OK to select.

6 Press ▲ or ▼ to Text Message. Press OK to select.

The display shows ✓ and the current tone.

7 Press ▲ or ▼ to the required tone. Press OK to select.

The display shows ✓ beside the newly selected tone.

6.11.8.5

Activating or Deactivating Call Ringers for Telemetry Status with Text

Follow the procedure to activate or deactivate call ringers for telemetry status with text on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alert. Press OK to select.

5 Press ▲ or ▼ to Call Ringers. Press OK to select.

6 Press ▲ or ▼ to Telemetry. Press OK to select.

The current tone is indicated by a ✓ .

6.11.8.6

Assigning Ring Styles

The radio can be programmed to sound one of eleven predefined ringing tones when receiving a Private Call, a Call Alert, or a Text Message from a particular contact.The

radio sounds out each ring style as you navigate through the list.

1. Press OK to access the menu.
2. Press ▲ or ▼ to Contacts. Press OK to select.
   The entries are alphabetically sorted.
3. Press ▲ or ▼ to the required alias or ID.
   Press OK to select.
4. Press ▲ or ▼ to View/Edit. Press OK to select.
5. Press OK until display shows Ringer menu
   A ✓ indicates the current selected tone.
6. Press ▲ or ▼ to the required tone. Press OK to select.
   A ✓ appears beside the selected tone.

6.11.8.7

Escalating Alarm Tone Volume

The radio can be programmed to continually alert, when a radio call remains unanswered. This is done by automatically increasing the alarm tone volume over time. This feature is known as Escalert.

6.11.9

Call Log Features

Your radio keeps track of all recent outgoing, answered, and missed Private Calls. The call log feature is used to view and manage recent calls.

Missed Call Alerts may be included in the call logs, depending on the system configuration on your radio. You can perform the following tasks in each of your call lists:

- Store Alias or ID to Contacts

- Delete Call
- Delete All Calls
- View Details

6.11.9.1

Viewing Recent Calls

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Call Log`. Press OK to select.

3 Press ▲ or ▼ to the preferred list. The options are `Missed`, `Answered`, and `Outgoing` lists.

Press OK to select.

The display shows the most recent entry.

4 Press ▲ or ▼ to view the list.

You can start a call with the alias or ID the display is currently showing by pressing the **PTT** button.

6.11.9.2

Deleting Calls from the Call List

Follow the procedure to delete calls from the Call list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Call Log`. Press OK to select.

3 Press ▲ or ▼ to the required list. Press OK to select.

If the list is empty:

- A tone sounds.
- The display shows `List Empty`.

4 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

5 Press or to Delete Entry?. Press OK to select.

6 Do one of the following:

- Press OK to select Yes to delete the entry. The display shows Entry Deleted.
- Press or to No. Press OK to select.

The radio returns to the previous screen.

6.11.9.3 Viewing Call List Details

Follow the procedure to view call details on your radio.

1 Press OK to access the menu.

2 Press or to Call Log. Press OK to select.

3 Press or to the required list. Press OK to select.

4 Press or to the required alias or ID.

Press OK to select.

5 Press or to View Details. Press OK to select.

The display shows the call details.

6.11.9.4 Storing Aliases or IDs from the Call List

Follow the procedure to store aliases or IDs on your radio from the Call list.

1 Press OK to access the menu.

2 Press or to Call Log. Press OK to select.

3 Press ▲ or ▼ to the required list. Press OK to select.

4 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

5 Press ▲ or ▼ to `Store`. Press OK to select.

The display shows a blinking cursor.

6 Enter the rest of the characters of the required alias.

Press OK to select.

You can store an ID without an alias.

The display shows a positive mini notice.

6.11.10

Call Alert Operation

Call Alert paging enables you to alert a specific radio user to call you back.

This feature is applicable for subscriber aliases or IDs only and is accessible through the menu using Contacts, manual dial, or a programmed **One Touch Access** button.

6.11.10.1

Making Call Alerts

Follow the procedure to make Call Alerts on your radio.

1 Press the programmed **One Touch Access** button.

The display shows `Call Alert` and the subscriber alias or ID. The green LED lights up.

2 Wait for acknowledgment.

If the Call Alert acknowledgment is received, the display shows a positive mini notice.

If the Call Alert acknowledgment is not received, the display shows a negative mini notice.

6.11.10.2

Making Call Alerts by Using the Contacts List

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

4 Press ▲ or ▼ to Call Alert. Press OK to select.

The display shows Call Alert and the subscriber alias or ID. The green LED lights up.

5 Wait for acknowledgment.

- If the acknowledgment is received, the display shows a positive mini notice.
- If the acknowledgment is not received, the display shows a negative mini notice.

6.11.10.3

Making Call Alerts by Using the Manual Dial

Follow the procedure to make Call Alerts on your radio by using the manual dial.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to Manual Dial. Press OK to select.

The display shows a blinking cursor.

4 Enter the subscriber ID and press OK to proceed.

5 Press ▲ or ▼ to `Call Alert`. Press OK to select.

The display shows `Call Alert` and the subscriber alias or ID. The green LED lights up.

6 Wait for acknowledgment.

- If the Call Alert acknowledgment is received, the display shows a positive mini notice.
- If the Call Alert acknowledgment is not received, the display shows a negative mini notice.

6.11.10.4

Responding to Call Alerts

When you receive a Call Alert:

- A repetitive tone sounds.
- The yellow LED blinks.
- The display shows the notification list listing a Call Alert with the alias or ID of the calling radio.

  Depending on the configuration by your dealer or system administrator, you can respond to a Call Alert by doing one of the following:

  - Press the **PTT** button and respond with a Private Call directly to the caller.
  - Press the **PTT** button to continue normal talkgroup communication.
    The Call Alert is moved to the Missed Call option at the Call Log menu. You can respond to the caller from the Missed Called log.

See Notification List on page 191 and Call Log Features on page 130 for more information.

6.11.11

Dynamic Caller Alias

This feature allows you to dynamically edit a Caller Alias from your radio front panel.

NOTICE:
A keypad microphone is required to perform this feature.

When in a call, the receiving radio displays the Caller Alias of the transmitting radio.

The Caller Aliases list can store up to 500 Caller Aliases of transmitting radio. You can view or make Private Calls from the Caller Aliases list. When you turn off your radio, the history of receiving Caller Aliases is removed from the Caller Aliases list.

6.11.11.1

Viewing the Caller Aliases List

You can access the Caller Aliases list to view the transmitting Caller Alias details.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Caller Aliases`. Press OK to select.

3 Press ▲ or ▼ to the preferred list. Press OK to select.

4 Press ▲ or ▼ to `View Details`. Press OK to select.

6.11.11.2

Initiating Private Call From the Caller Aliases List

You can access the Caller Aliases list to initiate Private Call.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Caller Aliases`. Press OK to select.

3 Press ▲ or ▼ to the ***<required Caller Alias>***.

4 To call, press and hold the **PTT** button.

6.11.12

Mute Mode

Mute Mode provides an option to silence all audio indicators on your radio.

When Mute Mode is initiated, all audio indicators are muted except higher priority features such as emergency operations.

When Mute Mode is exited, your radio resumes playing ongoing tones and audio transmissions.

IMPORTANT:
You can only enable either Face Down or Man Down one at a time. Both features cannot be enabled together.

6.11.12.1

Turning On Mute Mode

Follow the procedure to turn on Mute Mode.

Access this feature by using the programmed **Mute Mode** button.

The following occurs when Mute mode is enabled:

- Positive Indicator Tone sounds.
- Display shows `Mute Mode On`.
- The red LED light starts blinking and remains blinking until Mute Mode is exited.
- Display shows **Mute Mode** icon on home screen.
- Radio is muted.
- Mute Mode Timer begins counting down the duration that is configured.

6.11.12.2

Setting Mute Mode Timer

Mute Mode feature can be enabled for a pre-configured amount of time by setting the Mute Mode Timer. The timer duration is configured in the radio menu and can range between 0.5–6 hours. Mute Mode is exited once the timer expires.

If the timer is left at 0, the radio remains in Mute mode for an indefinite period until the programmed **Mute Mode** button is pressed.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Mute Timer`. Press OK to select.
5. Press ▲ or ▼ to edit the numeric value of each digit, and press OK.

6.11.12.3

Exiting Mute Mode

This feature can be exited automatically once the Mute Mode Timer expires.

Do one of the following to exit Mute mode manually:

- Press the programmed **Mute Mode** button.
- Press the **PTT** button on any entry.

The following occurs when Mute mode is disabled:

- Negative Indicator Tone sounds.
- Display shows `Mute Mode Off`.
- The blinking red LED turns off.
- **Mute Mode** icon disappears from home screen.
- Your radio unmutes and speaker state is restored.
- If the timer has not expired, Mute mode timer is stopped.

NOTICE:
Mute Mode is also exited if the user transmits voice or switches to an unprogrammed channel.

6.11.13

Emergency Operation

An Emergency Alarm is used to indicate a critical situation. You are able to initiate an Emergency at any time even when there is activity on the current channel.

Your dealer can set the duration of a button press for the programmed **Emergency** button, except for long press, which is similar with all other buttons:

Short Press

Duration between 0.05 seconds and 0.75 seconds.

Long Press

Duration between 1.00 second and 3.75 seconds.

The **Emergency** button is assigned with the Emergency On/Off feature. Check with your dealer for the assigned operation of the **Emergency** button.

NOTICE:
If a short press to the **Emergency** button initiates Emergency mode, then a long press to the same enables the radio to exit Emergency mode.

If a long press to the **Emergency** button initiates Emergency mode, then a short press to the same enables the radio to exit Emergency mode.

Your radio supports three Emergency Alarms:

- Emergency Alarm
- Emergency Alarm with Call
- Emergency Alarm with Voice to Follow

NOTICE:
Only one of the Emergency Alarms above can be assigned to the programmed **Emergency** button or the Emergency footswitch.

In addition, each alarm has the following types:

Regular

Radio transmits an alarm signal and shows audio and/or visual indicators.

Silent

Radio transmits an alarm signal without any audio or visual indicators. Radio receives calls without any sound through the speaker, until the programmed *hot mic* transmission period is over and/or you press the **PTT** button.

Silent with Voice

Radio transmits an alarm signal without any audio or visual indicators, but allow incoming calls to sound through the speaker.

6.11.13.1

Receiving Emergency Alarms

When you receive an Emergency Alarm:

- A tone sounds.
- The red LED blinks.
- The display shows the **Emergency** icon, and the Emergency caller alias or if there is more than one alarm, all emergency caller aliases are displayed in an Alarm List.

1 Do one of the following:

- If only one alarm, press OK to view more details.
- If more than one alarm, press ▲ or ▼ to the required alias, and press OK to view more details.

2 Press OK to view the action options.

3 Press ↩ and select `Yes` to exit the Alarm list.

4 Press OK to access the menu.

5 Select `Alarm List` to revisit the Alarm list.

6 The tone sounds and the LED blinks red until you exit the Emergency mode. However, the tone can be silenced. Do one of the following:

- Press the **PTT** button to call the group of radios which received the Emergency Alarm.
- Press any programmable button.
- Exit Emergency mode. See Exiting Emergency Mode After Receiving the Emergency Alarm on page 430.

7 To return to home screen, perform the following actions:

a Press ↩.

b Press ▲ or ▼ to `Yes`.

c Press OK to select.

The radio returns to the home screen and the display shows the Emergency icon.

6.11.13.2

Responding to Emergency Alarms

1 Make sure the display shows the Alarm List. Press ▲ or ▼ to the required alias or ID.

2 Press the **PTT** button to transmit non-emergency voice to the same group the Emergency Alarm targeted.

If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond.

NOTICE:
Emergency voice can only be transmitted by the emergency initiating radio. All other radios, including the emergency receiving radio, transmit non-emergency voice.

The green LED lights up. Your radio remains in the Emergency mode.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

4 Release the **PTT** button to listen.

When the emergency initiating radio responds:

- The green LED blinks.
- The display shows the **Group Call** icon and ID, transmitting radio ID, and the Alarm list.

6.11.13.3

Exiting Emergency Mode After Receiving the Emergency Alarm

Do one of the following to exit Emergency mode after receiving Emergency alarm:

- Delete the alarm items.
- Power down the radio.

6.11.13.4

Sending Emergency Alarms

This feature allows you to send an Emergency Alarm, a non-voice signal, which triggers an alert indication on a group of radios. Your radio does not display any audio or visual indicators during Emergency mode when it is set to Silent.

Follow the procedure to send Emergency Alarms on your radio.

1 Press the programmed **Emergency On** button.

You see one of these results:

- The display shows `Tx Alarms` and the destination alias.
- The display shows `Tx Telegram` and the destination alias.

The green LED lights up. The **Emergency** icon appears.

NOTICE:
If programmed, the Emergency Search tone sounds. This tone is muted when the radio transmits or receives voice, and stops when the radio exits Emergency mode. The Emergency Search tone can be programmed through CPS.

2 Wait for acknowledgment.

If successful:

- The Emergency tone sounds.
- The red LED blinks.
- The display shows `Alarm Sent`.

If unsuccessful after all retries have been exhausted:

- A tone sounds.
- The display shows `Alarm Failed`.

The radio exits the Emergency Alarm mode and returns to the Home screen.

6.11.13.5

Sending Emergency Alarms with Call

This feature allows you to send an Emergency Alarm with Call to a group of radios. Upon acknowledgement by a radio within the group, the group of radios can communicate over a programmed Emergency channel. Follow the procedure to send Emergency Alarms with call on your radio.

1 Press the programmed **Emergency On** button or the **Emergency** footswitch. The display shows Sending Alarm, which alternates with your radio ID.

You see the following:

- The display shows `Tx Telegram` and the destination alias.

The green LED lights up. The **Emergency** icon appears.

NOTICE:
If programmed, the Emergency Search tone sounds. This tone is muted when the radio transmits or receives voice, and stops when the radio exits Emergency mode. The Emergency Search tone can be programmed by your dealer or system administrator.

2 Wait for acknowledgment.

If successful:

- The Emergency tone sounds.
- The red LED blinks.
- The display shows `Alarm Sent`.
- Your radio enters the Emergency call mode when the display shows `Emergency` and the destination group alias.

3 Press the **PTT** button to make the call.

The green LED lights up. The display shows the **Group Call** icon.

4 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

5 Release the **PTT** button to listen.

The display shows the caller and group aliases.

6 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

7 To exit the Emergency mode once the call ends, press the **Emergency Off** button.

The radio returns to the Home screen.

6.11.13.6

Emergency Alarms with Voice to Follow

This feature allows you to send an Emergency Alarm with Voice to Follow to a group of radios. Your radio microphone is automatically activated, allowing you to communicate with the group of radios without pressing the **PTT** button. This activated microphone state is also known as *hot mic*.

NOTICE:
Your radio cannot detect a non-IMPRES microphone that is attached to the rear accessory connector.
When no microphone is detected at the specified programmed connector, your radio checks the alternative connector. Here, your radio gives priority to the detected microphone.

If your radio has Emergency Cycle Mode enabled, repetitions of *hot mic* and receiving period are made for a programmed duration. During Emergency Cycle Mode, received calls sound through the speaker.

If you press the **PTT** button during the programmed receiving period, you hear a prohibit tone, indicating that you should release the **PTT** button. The radio ignores the **PTT** button press and remains in Emergency mode.

If you press the **PTT** button during *hot mic*, and continue to press it after the *hot mic* duration expires, the radio continues to transmit until you release the **PTT** button.

If the Emergency Alarm request fails, the radio does not retry to send the request, and enters the *hot mic* state directly.

NOTICE:
Some accessories may not support *hot mic*. Check with your dealer or system administrator for more information.

6.11.13.7

Sending Emergency Alarms with Voice to Follow

1 Press the programmed **Emergency On** button or the **Emergency** footswitch.

You see one of these results:

- The display shows `Tx Alarm` and the destination alias.

The green LED lights up. The **Emergency** icon appears.

2 Once the display shows `Alarm Sent`, speak clearly into the microphone.

The radio automatically stops transmitting when:

- The cycling duration between *hot mic* and receiving calls expires, if Emergency Cycle Mode is enabled.
- The *hot mic* duration expires, if Emergency Cycle Mode is disabled.

3 Press the **Emergency Off** button to exit the Emergency mode.

The radio returns to the Home screen.

6.11.13.8

Reinitiating Emergency Mode

Perform one of the following actions:

- Change the channel while the radio is in Emergency mode.

  NOTICE:
  You can reinitiate emergency mode only if you enable emergency alarm on the new channel.

- Press the programmed **Emergency On** button during an emergency initiation or transmission state.

The radio exits the Emergency mode, and reinitiates Emergency.

6.11.13.9

Exiting Emergency Mode After Sending the Emergency Alarm

This feature is only applicable to the radio sending the Emergency Alarm.

Your radio exits Emergency mode when:

- An acknowledgment is received (for Emergency Alarm only).
- All retries to send the alarm have been exhausted.

NOTICE:
If your radio is powered off, it exits the Emergency mode. The radio does not reinitiate the Emergency mode automatically when it is turned on again.

Follow the procedure to exit Emergency mode on your radio.

Do one of the following:

- Press the programmed **Emergency Off** button.
- Change the channel to a new channel that has no emergency system configured.
  The display shows `No Emergency`.

6.11.13.10

Deleting an Alarm Item from the Alarm List

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Alarm List`. Press OK to select.

3 Press ▲ or ▼ to the required alarm item.
Press OK to select.

4 Press ▲ or ▼ to Delete. Press OK to select.

6.11.14
Text Messaging

Your radio is able to receive data, for example a text message, from another radio or a text message application.

There are two types of text messages, Digital Mobile Radio (DMR) Short Text Message and text message. The maximum length of a DMR Short Text Message is 23 characters. The maximum length of a text message is 280 characters, including the subject line. The subject line only appears when you receive messages from e-mail applications.

NOTICE:
The maximum character length is only applicable for models with the latest software and hardware. For radio models with older software and hardware, the maximum length of a text message is 140 characters. Contact your dealer for more information.

6.11.14.1
Text Messages

The text messages are stored in an Inbox, and sorted according to the most recently received.

6.11.14.1.1
Viewing Text Messages

1 Press OK to access the menu.

2 Press ▲ or ▼ to Messages. Press OK to select.

3 Press ▲ or ▼ to Inbox. Press OK to select.
If the Inbox is empty:

- The display shows `List Empty`.
- A tone sounds, if the Keypad Tone is turned on.

4 Press ▲ or ▼ to the required message. Press OK to select.

The display shows a subject line if the message is from an e-mail application.

6.11.14.1.2

Viewing Telemetry Status Text Messages

Follow the procedure to view a telemetry status text message from the inbox.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Messages`. Press OK to select.

3 Press ▲ or ▼ to `Inbox`. Press OK to select.

4 Press ▲ or ▼ to the required message. Press OK to select.

You cannot reply to a Telemetry Status text message.

The display shows `Telemetry: <Status Text Message>`.

5 Long press ↩ to return to the Home screen.

6.11.14.1.3

Responding to Text Messages

Follow the procedure to respond to text messages on your radio.

When you receive a text message:

- The display shows the Notification list with the alias or ID of the sender.

- The display shows the **Message** icon.

NOTICE:
The radio exits the Text Message alert screen and sets up a Private or Group Call to the sender of the message if the **PTT** button is pressed.

1 Do one of the following:

- Press ▲ or ▼ to `Read`. Press OK to select.
  The display shows the text message. The display shows a subject line if the message is from an e-mail application.
- Press ▲ or ▼ to `Read Later`. Press OK to select.
  The radio returns to the screen you were on prior to receiving the text message.
- Press ▲ or ▼ to `Delete`. Press OK to select.

2 Do one of the following:

- Press OK to return to inbox.
- Press OK a second time to reply, forward, or delete the text message.

6.11.14.1.4

Responding to Text Messages with Quick Text

Follow the procedure to respond to text messages with Quick Text messages on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to Step step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Messages`. Press OK to select.

3 Press ▲ or ▼ to `Inbox`. Press OK to select.

4 Press ▲ or ▼ to the required message. Press OK to select.

The display shows a subject line if the message is from an e-mail application.

5 Press OK to access the sub-menu.

6 Press ▲ or ▼ to `Reply`. Press OK to select.

7 Press ▲ or ▼ to `Quick Reply`. Press OK to select.

8 Press ▲ or ▼ to the required message. Press OK to select.

The display shows a transitional mini notice, confirming the message is being sent.

9 Wait for acknowledgment.

If successful:

- A tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A tone sounds.
- The display shows a negative mini notice.
- The radio returns to the `Resend` option screen.

6.11.14.1.5

Resending Text Messages

When you are at the `Resend` option screen:

Press OK to resend the same message to the same subscriber or group alias or ID.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

- The radio returns to the Resend option screen.

6.11.14.1.6

Forwarding Text Messages

Follow the procedure to forward text messages on your radio.

When you are at the Resend option screen:

1 Press ▲ or ▼ to Forward, and press OK to send the same message to another subscriber or group alias or ID.

2 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

The display shows a transitional mini notice, confirming your message is being sent.

3 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

NOTICE:
You can also manually select a target radio address (see Forwarding Text Messages by Using the Manual Dial on page 439).

6.11.14.1.7

Forwarding Text Messages by Using the Manual Dial

Follow the procedure to forward text messages by using the manual dial on your radio.

1 Press ▲ or ▼ to Forward. Press OK to select.

2 Press OK to send the same message to another subscriber or group alias or ID.

3 Press or to Manual Dial. Press OK to select.

The display shows Radio Number:.

4 Enter the subscriber ID, and press OK to proceed.

The display shows a transitional mini notice, confirming your message is being sent.

5 Wait for acknowledgment.

If successful:

- A tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A tone sounds.
- The display shows a negative mini notice.

6.11.14.1.8

Editing Text Messages

Select Edit to edit the message.

NOTICE:
If a subject line is present (for messages received from an e-mail application), you cannot edit it.

1 Press or to Edit. Press OK to select.

The display shows a blinking cursor.

2 Use the keypad to edit your message.

- Press to move one space to the left.
- Press or to move one space to the right.
- Press to delete any unwanted characters.
- Long press to change text entry method.

3 Press OK once message is composed.

4 Do one of the following:

- Press or to Send and press OK to send the message.

- Press or to Save and press OK to save the message to the Drafts folder.
- Press to edit the message.
- Press to choose between deleting the message or saving it to the Drafts folder.

6.11.14.1.9

Writing Text Messages

Follow the procedure to write text message on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press or to Messages. Press OK to select.

3 Press or to Compose. Press OK to select.

A blinking cursor appears.

4 Use the keypad to type your message.

Press to move one space to the left.

Press or to move one space to the right.

Press to delete any unwanted characters.

Long press to change text entry method.

5 Press OK once message is composed.

Do one of the following:

- Press OK to send the message.
- Press . Press or to choose among editing, deleting, or saving the message.

  Press OK to select.

6.11.14.1.10

Sending Text Messages

It is assumed that you have a newly written text message or a saved text message.

Select the message recipient. Do one of the following:

- Press ▲ or ▼ to the required alias or ID. Press OK to select.
- Press ▲ or ▼ to `Manual Dial`. Press OK to select.Key in the subscriber ID. The first line of the display shows `Radio Number:`. The second line of the display shows a blinking cursor. Key in the subscriber alias or ID. Press OK .

The display shows transitional mini notice, confirming your message is being sent.

If successful:

- A tone sounds.
- The display shows positive mini notice.

If unsuccessful:

- A low tone sounds.
- The display shows negative mini notice.
- The message is moved to the Sent Items folder.
- The message is marked with a Send Failed icon.

NOTICE:
For a newly written text message, the radio returns you to the `Resend` option screen.

6.11.14.1.11

Deleting Text Messages from the Inbox

Follow the procedure to delete text messages from the Inbox on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to Messages. Press OK to select.

3 Press ▲ or ▼ to Inbox. Press OK to select.

If the Inbox is empty:

- The display shows List Empty.
- A tone sounds.

4 Press ▲ or ▼ to the required message. Press OK to select.

The display shows a subject line if the message is from an e-mail application.

5 Press OK to access the sub-menu.

6 Press ▲ or ▼ to Delete. Press OK to select.

7 Press ▲ or ▼ to Yes. Press OK to select.

The display shows a positive mini notice. The screen returns to the Inbox.

6.11.14.1.12

Deleting All Text Messages from the Inbox

Follow the procedure to delete all text messages from the Inbox on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to Messages. Press OK to select.

3 Press ▲ or ▼ to Inbox. Press OK to select.

If the Inbox is empty:

- The display shows `List Empty`.
- A tone sounds.

4 Press ▲ or ▼ to `Delete All`. Press OK to select.

5 Press ▲ or ▼ to `Yes`. Press OK to select.
The display shows a positive mini notice.

6.11.14.2

Sent Text Messages

Once a message is sent to another radio, it is saved in Sent Items folder. The most recent sent text message is always added to the top of the Sent Items folder. You can resend, forward, edit, or delete a Sent text message.

The Sent Items folder is capable of storing a maximum of 30 last sent messages. When the folder is full, the next sent text message automatically replaces the oldest text message in the folder.

If you exit the message sending screen while the message is being sent, the radio updates the status of the message in the Sent Items folder without providing any indication in the display or via sound.

If the radio changes mode or powers down before the status of the message in Sent Items folder is updated, the radio cannot complete any In-Progress messages and automatically marks it with a **Send Failed** icon.

The radio supports a maximum of five In-Progress messages at one time. During this period, the radio cannot send any new message and automatically marks it with a **Send Failed** icon.

If you long press ↩ at any time, the radio returns to the Home screen.

NOTICE:
If the channel type, for example a conventional digital or Capacity Plus channel, is not a match, you can only edit, forward, or delete a Sent message.

6.11.14.2.1

Viewing Sent Text Messages

Follow the procedure to view sent text messages on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to Messages. Press OK to select.

3 Press ▲ or ▼ to Sent Items. Press OK to select.

If the Sent Items folder is empty:

- The display shows List Empty.
- A low tone sounds, if the Keypad Tone is turned on.

4 Press ▲ or ▼ to the required message. Press OK to select.

The icon at the top right corner of the screen indicates the status of the message. See Sent Item Icons.

6.11.14.2.2

Sending Sent Text Messages

Follow the procedure to send a sent text message on your radio.

When you are viewing a Sent message:

1 Press OK while viewing the message.

2 You can either resend or forward the sent text message. Do one of the following:

- ▼ to Resend. Press OK to select.
- ▼ to Forward. Press OK to select.

The display shows a transitional mini notice, confirming your message is being sent.

3 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.
- The radio proceeds to the `Resend` option screen. See Resending Text Messages on page 156 for more information.

6.11.14.2.3

Deleting Sent Text Messages from the Sent Items Folder

Follow the procedure to delete sent text messages from the Sent Items folder on your radio.

When you are viewing a Sent message:

1 Press OK .

2 Press ▲ or ▼ to `Delete`. Press OK to select.

6.11.14.2.4

Deleting All Sent Text Messages from the Sent Items Folder

Follow the procedure to delete all sent text messages from the Sent Items folder on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Messages`. Press OK to select.

3 Press ▲ or ▼ to `Sent Items`. Press OK to select.

If the Sent Items folder is empty:

- The display shows `List Empty`.
- A tone sounds.

4 Press ▲ or ▼ to Delete All. Press OK to select.

5 Do one of the following:

- Press ▲ or ▼ to Yes. Press OK to select.
  The display shows a positive mini notice.
- Press ▲ or ▼ to No. Press OK to select.
  The radio returns to the previous screen.

6.11.14.3

Saved Text Messages

You can save a text message to send it at a later time.

If a **PTT** button press or a mode change causes the radio to exit the text message writing/editing screen while you are in the process of writing or editing a text message, your current text message is automatically saved to the Drafts folder.

The most recent saved text message is always added to the top of the Drafts list.

The Drafts folder stores a maximum of 10 last saved messages. When the folder is full, the next saved text message automatically replaces the oldest text message in the folder.

6.11.14.3.1

Viewing Saved Text Messages

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to Messages. Press OK to select.

3 Press ▲ or ▼ to Drafts. Press OK to select.

4 Press ▲ or ▼ to the required message. Press OK to select.

6.11.14.3.2

Editing Saved Text Messages

1 Press OK while viewing the message.

2 Press ▲ or ▼ to Edit. Press OK to select.
A blinking cursor appears.

3 Use the keypad to type your message.
Press ◀ to move one space to the left.
Press ▶ or #⇧ to move one space to the right.
Press *⌫ to delete any unwanted characters.
Long press #⇧ to change text entry method.

4 Press OK once message is composed.
Do one of the following:

- Press ▲ or ▼ to Send. Press OK to send the message.
- Press ↩⌂. Press ▲ or ▼ to choose between saving or deleting the message. Press OK to select.

6.11.14.3.3

Deleting Saved Text Messages from the Drafts Folder

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to Messages. Press OK to select.

3 Press ▲ or ▼ to Drafts. Press OK to select.

4 Press or to the required message. Press OK to select.

5 Press or to Delete. Press OK to delete the text message.

6.11.14.4

Quick Text Messages

Your radio supports a maximum of 50 Quick Text messages as programmed by your dealer.

While Quick Text messages are predefined, you can edit each message before sending it.

6.11.14.4.1

Sending Quick Text Messages

Follow the procedure to send predefined Quick Text messages on your radio to a predefined alias.

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to step 6.
- Press the programmed **One Touch Access** button.
  The display shows a transitional mini notice, confirming your message is being sent.

  Proceed to step 6.
- Press OK to access the menu.

2 Press or to Messages. Press OK to select.

3 Press or to Quick Text. Press OK to select.

4 Press or to the required Quick Text message. Press OK to select.

5 Do the following to select the recipient and send the message.

The display shows a transitional mini notice, confirming that your message is being sent.

6 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.
- The radio proceeds to the `Resend` option screen. See Resending Text Messages on page 156 for more information.

6.11.15

Text Entry Configuration

Your radio allows you to configure different text.

You can configure the following settings for entering text on your radio:

- Word Predict
- Word Correct
- Sentence Cap
- My Words

Your radio supports the following text entry methods:

- Numbers
- Symbols
- Predictive or Multi-Tap
- Language (If programmed)

NOTICE:

Press ↩ at any time to return to the previous screen or long press ↩ to return to the Home Screen. The radio exits the current screen once the inactivity timer expires.

6.11.15.1

Enabling or Disabling Word Correct

Supplies alternative word choices when the word entered into the text editor is not recognized by the in-built dictionary.

1 Press OK to access the menu.

2 Press or to Utilities. Press OK to select.

3 Press or to Radio Settings. Press OK to select.

4 Press or to Text Entry. Press OK to select.

5 Press or to Word Correct. Press OK to select.

6 Do one of the following:

- Press or to Word Correct. Press OK to select.
- Press to enable Word Correct. If enabled, ✓ appears beside Enabled.
- Press to disable Word Correct. If disabled, ✓ disappears beside Enabled.

6.11.15.2

Enabling or Disabling Word Predict

Word Predict: Your radio can learn common word sequences that you often enter. It then predicts the next word you may want to use after you enter the first word of a common word sequence into the text editor.

1 Press OK to access the menu.

2 Press or to Utilities. Press OK to select.

3 Press or to Radio Settings. Press OK to select.

4 Press or to Text Entry. Press OK to select.

5 Press or to Word Predict. Press OK to select.

6 Do one of the following:

- Press OK to enable the Word Predict. If enabled, ✓ appears beside Enabled.
- Press OK to disable Microphone Dynamic Distortion Control. If disabled, ✓ disappears beside Enabled.

6.11.15.3

Sentence Cap

This feature is used to automatically enable capitalization of the first letter in the first word for every new sentence.

1. Press OK to access the menu.
2. Press ▲ or ▼ to Utilities. Press OK to select.
3. Press ▲ or ▼ to Radio Settings. Press OK to select.
4. Press ▲ or ▼ to Text Entry. Press OK to select.
5. Press ▲ or ▼ to Sentence Cap. Press OK to select.
6. Do one of the following:
   - Press OK to enable Sentence Cap. If enabled, ✓ appears beside Enabled.
   - Press OK to disable Sentence Cap. If disabled, ✓ disappears beside Enabled.

6.11.15.4

Viewing Custom Words

You can add your own custom words into the in-built dictionary of your radio. Your radio maintains a list to contain these words.

1. Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Text Entry. Press OK to select.

5 Press ▲ or ▼ to My Words. Press OK to select.

6 Press ▲ or ▼ to List of Words. Press OK to select.

The display shows the list of custom words.

6.11.15.5

Editing Custom Words

You can edit custom words saved in your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Text Entry. Press OK to select.

5 Press ▲ or ▼ to My Words. Press OK to select.

6 Press ▲ or ▼ to List of Words. Press OK to select.

Display shows the list of custom words.

7 Press ▲ or ▼ to the required word. Press OK to select.

8 Press ▲ or ▼ to Edit. Press OK to select.

9 Use the keypad to edit your custom word.

- Press ◀ to move one space to the left.
- Press ▶ key to move one space to the right.
- Press the * key to delete any unwanted characters.
- Long press #⇧ to change text entry method.

10 Press OK once your custom word is completed.

The display shows transitional mini notice, confirming your custom word is being saved.

- If the custom word is saved, a tone sounds and the display shows positive mini notice.
- If the custom word is not saved, a low tone sounds and the display show negative mini notice.

6.11.15.6

Adding Custom Words

You can add custom words into the in-built radio dictionary.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Text Entry. Press OK to select.

5 Press ▲ or ▼ to My Words. Press OK to select.

6 Press ▲ or ▼ to Add New Word. Press OK to select.

Display shows the list of custom words.

7 Use the keypad to edit your custom word.

- Press ◀ to move one space to the left.
- Press ▶ key to move one space to the right.
- Press the * key to delete any unwanted characters.
- Long press # to change text entry method.

8 Press OK once your custom word is completed.

The display shows transitional mini notice, confirming your custom word is being saved.

- If the custom word is saved, a tone sounds and the display show positive mini notice.
- If the custom word is not saved, a low tone sounds and the display show negative mini notice.

6.11.15.7

Deleting a Custom Word

You can delete the custom words saved in your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Text Entry`. Press OK to select.

5 Press ▲ or ▼ to `My Words`. Press OK to select.

6 Press ▲ or ▼ to the required word. Press OK to select.

7 Press ▲ or ▼ to `Delete`. Press OK to select.

8 Choose one of the following.

- At Delete Entry?, press OK to select Yes. The display shows Entry Deleted.
- Press ▲ or ▼ to No. Press OK to return to the previous screen.

6.11.15.8

Deleting All Custom Words

You can delete all custom words from the in-built dictionary of your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to Utilities. Press OK to select.
3. Press ▲ or ▼ to Radio Settings. Press OK to select.
4. Press ▲ or ▼ to Text Entry. Press OK to select.
5. Press ▲ or ▼ to My Words. Press OK to select.
6. Press ▲ or ▼ to Delete All. Press OK to select.
7. Do one of the following:
   - At Delete Entry?, press OK to select Yes. The display shows All Entries Deleted.
   - Press ▲ or ▼ to No to return to the previous screen. Press OK to select.

6.11.16

Job Tickets

This feature allows your radio to receive messages from the dispatcher listing out tasks to perform.

NOTICE:
This feature can be customized through the Customer Programming Software (CPS) according to user requirements. Check with your dealer or system administrator for more information.

There are two folders that contain different Job Tickets:

My Tasks folder
Personalized Job Tickets assigned to your signed in user ID.

Shared Tasks folder
Shared Job Tickets assigned to a group of individuals.

You can respond to Job Tickets in order to sort them into Job Ticket Folders. By default, the folders are **All**, **New**, **Started**, and **Completed**. Check with your dealer or system administrator for an additional 10 folders.

Job Tickets are retained even after the radio is turned off and turned on again.

All Job Tickets are located in the **All** folder. Depending on how your radio is programmed, Job Tickets are sort by their priority level followed by time received. New Job Tickets, Job Tickets with recent changes in state, and Job Tickets with the highest priority are listed first.

Upon reaching the maximum number of Job Tickets, the next Job Ticket automatically replaces the last Job Ticket in your radio. Your radio supports a maximum of 100 or 500 Job Tickets, depending on your radio model. Check with your dealer or system administrator for more information. Your radio automatically detects and discards duplicated Job Tickets with the same Job Ticket ID.

Depending on the importance of the Job Tickets, the dispatcher adds a Priority Level to them. There are three priority levels: Priority 1, Priority 2, and Priority 3. Priority 1 has the highest priority and Priority 3 has the lowest priority. There are also Job Tickets with no priority.

Your radio updates accordingly when dispatcher makes the following changes:

- Modify content of Job Tickets.
- Add or edit Priority Level of Job Tickets.
- Move Job Tickets from folder to folder.
- Canceling of Job Tickets.

6.11.16.1

Accessing the Job Ticket Folder

Follow the procedure to access the Job Ticket folder.

1 Do one of the following:

- Press the programmed **Job Ticket** button. Proceed to step 3.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Job Tickets`. Press OK to select.

3 Press ▲ or ▼ to the required folder. Press OK to select.

4 Press ▲ or ▼ to the required Job Ticket. Press OK to select.

6.11.16.2

Logging In or Out of the Remote Server

This feature allows you to log in and log out of the remote server by using your user ID.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Log In`. Press OK to select.

If you are already logged in, menu displays `Log Out`.

The display shows a transitional mini notice, indicating the request is in progress.

3 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.16.3

Creating Job Tickets

Your radio is able to create Job Tickets, which are based on a Job Ticket template and send out tasks that need to be performed.

CPS programming software is required to configure the Job Ticket template.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Job Tickets`. Press OK to select.
3. Press ▲ or ▼ to `Create Ticket`. Press OK to select.

6.11.16.4

Responding to Job Tickets

Follow the procedure to respond to job tickets on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Job Tickets`. Press OK to select.
3. Press ▲ or ▼ to the required folder. Press OK to select.
4. Press ▲ or ▼ to the required job ticket. Press OK to select.
5. Press OK once more to access the sub-menu.

   You can also press the corresponding number key (1–9) to **Quick Reply**.
6. Press ▲ or ▼ to the required job ticket. Press OK to select.

   The display shows a transitional mini notice, indicating the request is in progress.

7 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.16.5

Sending Job Tickets Using One Job Ticket Template

If your radio is configured with one Job Ticket template, perform the following actions to send the Job Ticket.

1 Use the keypad to type the required room number.

Press OK to select.

2 Press ▲ or ▼ to `Room Status`. Press OK to select.

3 Press ▲ or ▼ to the required option. Press OK to select.

4 Press ▲ or ▼ to `Send`. Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress.

5 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.16.6

Sending Job Tickets Using More Than One Job Ticket Template

If your radio is configured with more than one Job Ticket template, perform the following actions to send the Job Tickets.

1 Press ▲ or ▼ to the required option. Press OK to select.

2 Press ▲ or ▼ to `Send`. Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress.

3 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.16.7

Deleting Job Tickets

Follow the procedure to delete job tickets on your radio.

1 Do one of the following:

- Press the programmed **Job Ticket** button. Proceed to step 4
- Press OK to access the menu.

2 Press ▲ or ▼ to `Job Tickets`. Press OK to select.

3 Press ▲ or ▼ to the required folder. Press OK to select.

4 Press ▲ or ▼ to `All` folder. Press OK to select.

5 Press or to the required Job Ticket.

Press OK to select.

6 Press OK again while viewing the Job Ticket.

7 Press or to Delete. Press OK to select.

The display shows a transitional mini notice, indicating the request is in progress.

8 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

Deleting All Job Tickets

Follow the procedure to delete all job tickets on your radio.

1 Do one of the following:

- Press the programmed **Job Ticket** button. Proceed to step 3.
- Press OK to access the menu.

2 Press or to Job Tickets. Press OK to select.

3 Press or to the required folder. Press OK to select.

4 Press or to All folder. Press OK to select.

5 Press or to Delete All. Press OK to select.

6 Do one of the following:

- Press or to Yes. Press OK to select.
  The display shows a positive mini notice.
- Press or to No. Press OK to select.
  The radio returns to the previous screen.

6.11.17

Privacy

This feature helps to prevent eavesdropping by unauthorized users on a channel by the use of a software-based scrambling solution. The signaling and user identification portions of a transmission are not scrambled.

Your radio must have privacy enabled on the channel to send a privacy-enabled transmission, although this is not a necessary requirement for receiving a transmission. While on a privacy-enabled channel, the radio is still able to receive clear or unscrambled transmissions.

Some radio models may not offer Privacy feature, or may have a different configuration. Check with your dealer or system administrator for more information.

Your radio supports two types of privacy, but only one can be assigned to your radio. They are:

- Basic Privacy
- Enhanced Privacy

To unscramble a privacy-enabled call or data transmission, your radio must be programmed to have the same Privacy Key for Basic Privacy, or the same Key Value and Key ID for Enhanced Privacy as the transmitting radio.

If your radio receives a scrambled call that is of a different Privacy Key, or different Key Value and Key ID, you either hear a garbled transmission for Basic Privacy or nothing at all for Enhanced Privacy.

On a privacy-enabled channel, your radio is able to receive clear or unscrambled calls, depending on how your radio is programmed. In addition, your radio may play a warning tone or not, depending on how it is programmed.

The green LED lights up when the radio is transmitting, and blinks rapidly when the radio is receiving an ongoing privacy-enabled transmission.

NOTICE:
This feature is not applicable in Citizens Band channels that are in the same frequency.

6.11.17.1

Turning Privacy On or Off

Follow the procedure to turn privacy on or off on your radio.

1 Do one of the following:

- Press the programmed **Privacy** button. Skip the proceeding steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to ***<required privacy>***.

Press OK to select.

- If privacy is on, display shows ✓ beside `Enabled`.
- If privacy is off, display shows empty box beside `Enabled`.

6.11.18

Response Inhibit

This feature helps prevent your radio from responding to any incoming transmissions.

NOTICE:
Contact your dealer to determine how your radio has been programmed.

If enabled, your radio does not generate any outgoing transmissions in respond to incoming transmissions, such as Radio Check, Call Alert, Radio Disable, Remote Monitor, Automatic Registration Service (ARS), Responding to Private Messages, and Sending GNSS location reports.

Your radio cannot receive Confirmed Private Calls when this feature is enabled. However, your radio is able to manually send transmission.

6.11.18.1

Turning Response Inhibit On or Off

Follow the procedure to enable or disable Response Inhibit on your radio.

Press the programmed **Response Inhibit** button.

If successful:

- A positive indicator tone sounds.
- The display shows a momentary positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a momentary negative mini notice.

6.11.19

Multi-Site Control

Your radio is able to search for sites and switch between sites when signal is weak or your radio is unable to detect any signal from the current site.

When the signal is strong, the radio remains on the current site.

This setting is applicable when your current radio channel is part of an IP Site Connect or Capacity Plus–Multi-Site configuration.

Your radio can perform either one of the following site searches:

- Automatic Site Search
- Manual Site Search

If the current channel is a multi-site channel with an attached roam list and is out of range, and the site is unlocked, your radio also performs automatic site search.

6.11.19.1

Enabling Manual Site Search

If the radio finds a new site, your radio shows the following indications:

- A positive tone sounds.

If the radio fails to find a new site, your radio shows the following indications:

- A negative tone sounds.

6.11.19.2

Site Lock On/Off

When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Press the programmed **Site Lock** button.

If the **Site Lock** function is toggled on:

- You hear a positive indicator tone, indicating the radio has locked to the current site.
- The display shows `Site Locked`.

If the **Site Lock** function is toggled off:

- You hear a negative indicator tone, indicating the radio is unlocked.
- The display shows `Site Unlocked`.

6.11.19.3

Accessing Neighbor Sites List

This feature allows the user to check the adjacent sites list of the current home site. Follow the procedure to access the Neighbor Sites List:

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Info`. Press OK to select.
4. Press ▲ or ▼ to `Neighbor Sites`. Press OK to select.

6.11.20

Security

This feature allows you to enable or disable any radio in the system.

For example, you may want to disable a stolen radio to prevent unauthorized users from using it, and enable the radio when it is recovered.

There are two ways to enable or disable a radio, with authentication and without authentication.

Authenticated Radio Disable is a purchasable feature. In Authenticated Radio Disable, verification is required when you enable or disable a radio. When your radio initiates this feature on a target radio with User Authentication, a passphrase is required. The passphrase is preprogrammed in the target radio through CPS.

You will not receive an acknowledgment if you press during Radio Enable or Radio Disable operation.

NOTICE:
Check with your dealer or system administrator for more information.

6.11.20.1

Disabling Radios

Follow the procedure to disable your radio.

1 Press the programmed **Radio Disable** button.

2 Press or to the required alias or ID.

3 Press OK to select. One of the following scenarios occurs:

- The display shows a transitional mini notice, indicating the request is in progress. The green LED blinks.
- A passphrase screen appears.

  Enter the passphrase. Press OK to proceed.

  - If the passphrase is correct, the display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.
  - If the passphrase is incorrect, the display shows a negative mini notice, and returns to the previous screen.

4 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.20.2

Disabling Radios by Using the Contacts List

Follow the procedure to disable your radio by using the Contacts list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts`. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.

Press OK to select.

4 Press ▲ or ▼ to `Radio Disable`.

5 Press OK to select. One of the following scenarios occurs:

- The display shows a transitional mini notice, indicating the request is in progress. The green LED blinks.
- A passphrase screen appears.

  Enter the passphrase. Press OK to proceed.

  - If the passphrase is correct, the display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.
  - If the passphrase is incorrect, the display shows a negative mini notice, and returns to the previous screen.

6 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.20.3

Disabling Radios by Using the Manual Dial

Follow the procedure to disable your radio by using the manual dial.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Contacts`. Press OK to select.

3 Press ▲ or ▼ to `Manual Dial`. Press OK to select.

4 Press ▲ or ▼ to `Radio Number`. Press OK to select.

The first text line shows `Radio Number:`.

5 Enter the subscriber ID, and press OK to proceed.

6 Press ▲ or ▼ to `Radio Disable`.

7 Press OK to select. One of the following scenarios occurs:

- The display shows a transitional mini notice, indicating the request is in progress. The green LED blinks.
- A passphrase screen appears.

  Enter the passphrase. Press OK to proceed.

  - If the passphrase is correct, the display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.
  - If the passphrase is incorrect, the display shows a negative mini notice, and returns to the previous screen.

8 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.20.4

Enabling Radios

Follow the procedure to enable your radio.

1 Press the programmed **Radio Enable** button.

2 Press ▲ or ▼ to the required alias or ID.

3 Press OK to select. One of the following scenarios occurs:

- The display shows `Radio Enable` and the subscriber alias or ID. The green LED lights up.
- A passphrase screen appears.

  Enter the passphrase. Press OK to proceed.

  - If the passphrase is correct, the display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.
  - If the passphrase is incorrect, the display shows a negative mini notice, and returns to the previous screen.

4 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.20.5

Enabling Radios by Using the Contacts List

Follow the procedure to enable your radio by using the Contacts list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.
Press OK to select.

4 Press ▲ or ▼ to Radio Enable.

5 Press OK to select. One of the following scenarios occurs:

- The green LED blinks. The display shows Radio Enable and the subscriber alias or ID. The green LED lights up.
- A passphrase screen appears.

  Enter the passphrase. Press OK to proceed.

  - If the passphrase is correct, the display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.
  - If the passphrase is incorrect, the display shows a negative mini notice, and returns to the previous screen.

6 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.20.6

Enabling Radios by Using the Manual Dial

Follow the procedure to enable your radio by using the manual dial.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to Manual Dial. Press OK to select.

4 Press ▲ or ▼ to Private Call. Press OK to select.

The first text line shows Radio Number:.

5 Enter the subscriber ID, and press OK to proceed.

6 Press ▲ or ▼ to Radio Enable.

7 Press OK to select. One of the following scenarios occurs:

- The green LED blinks. The display shows Radio Enable and the subscriber alias or ID. The green LED lights up.
- A passphrase screen appears.

  Enter the passphrase. Press OK to proceed.
  - If the passphrase is correct, the display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.
  - If the passphrase is incorrect, the display shows a negative mini notice, and returns to the previous screen.

8 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.11.21

Lone Worker

This feature prompts an emergency to be raised if there is no user activity, such as any radio button press or channel selection, for a predefined time.

Following no user activity for a programmed duration, the radio pre-warns you using an audio indicator once the inactivity timer expires.

If there is still no acknowledgment by you before the predefined reminder timer expires, the radio initiates an Emergency Alarm.

Only one of the following Emergency Alarms is assigned to this feature:

- Emergency Alarm
- Emergency Alarm with Call
- Emergency Alarm with Voice to Follow

The radio remains in the emergency state, allowing voice messages to proceed until action is taken. See Emergency Operation on page 427 for more information on ways to exit Emergency.

NOTICE:
This feature is limited to radios with this function enabled. Check with your dealer or system administrator for more information.

6.11.22

Bluetooth®

This feature allows you to use your radio with a Bluetooth-enabled device (accessory) through a Bluetooth connection. Your radio supports both Motorola Solutions and Commercially available Off-The-Shelf (COTS) Bluetooth-enabled devices.

Bluetooth operates within a range of 10 m (32ft) line of sight. This is an unobstructed path between your radio and your Bluetooth-enabled device. For high degree of reliability, Motorola Solutions recommends to not separate the radio and the accessory.

At the fringe areas of reception, both voice and tone quality start to sound "garbled" or "broken". To correct this problem, position your radio and Bluetooth-enabled device closer to each other (within the 10 m defined range) to re-establish clear audio reception. The Bluetooth function of your radio has maximum power of 2.5 mW (4 dBm) at the 10 m range.

Your radio can support up to three simultaneous Bluetooth connections with Bluetooth-enabled devices of unique types. For example, a headset, a scanner, a sensor device, and a PTT-Only Device (POD).

Refer to the user manual of your respective Bluetooth-enabled device for more details on the full capabilities of your Bluetooth-enabled device.

NOTICE:
If disabled through CPS, all Bluetooth-related features are disabled and the Bluetooth device database is erased.

6.11.22.1

Turning Bluetooth On and Off

Follow the procedure to turn Bluetooth on and off.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Bluetooth`. Press OK to select.

3 Press ▲ or ▼ to `My Status`. Press OK to select.

The display shows `On` and `Off`. The current status is indicated by a ✓ .

4 Do one of the following:

- Press ▲ or ▼ to `On`. Press OK to select. The display shows ✓ beside `On`.
- Press ▲ or ▼ to `Off`. Press OK to select. The display shows ✓ beside `Off`.

6.11.22.2

Connecting to Bluetooth Devices

Follow the procedure to connect to Bluetooth devices.

Turn on your Bluetooth-enabled device and place it in pairing mode.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Bluetooth. Press OK to select.

3 Press ▲ or ▼ to Devices. Press OK to select.

4 Do one of the following:

- Press ▲ or ▼ to the required device. Press OK to select.
- Press ▲ or ▼ to Find Devices to locate available devices. Press ▲ or ▼ to the required device. Press OK to select.

5 Press ▲ or ▼ to Connect. Press OK to select.

Your Bluetooth-enabled device may require additional steps to complete the pairing. Refer to the user manual of your Bluetooth-enabled device.

The display shows Connecting to <Device>.

Wait for acknowledgment.
If successful:

- A positive indicator tone sounds.
- The display shows <Device> Connected and the **Bluetooth Connected** icon.
- The display shows ✓ beside the connected device.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows Connecting Failed.

NOTICE:
If pin code is required, see Accessing the Radio by Using Password on page 188.

6.11.22.3

Connecting to Bluetooth Devices in Discoverable Mode

Follow the procedure to connect to Bluetooth devices in discoverable mode.

Turn on your Bluetooth-enabled device and place it in pairing mode.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Bluetooth`. Press OK to select.
3. Press ▲ or ▼ to `Find Me`. Press OK to select. The radio can now be found by other Bluetooth-enabled devices for a programmed duration. This is called Discoverable Mode.

Wait for acknowledgment.
If successful:

- A positive indicator tone sounds.
- The display shows `<Device> Connected` and the **Bluetooth Connected** icon.
- The display shows ✓ beside the connected device.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows `Connecting Failed`.

6.11.22.4

Disconnecting from Bluetooth Devices

Follow the procedure to disconnect from Bluetooth devices.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Bluetooth`. Press OK to select.
3. Press ▲ or ▼ to `Devices`. Press OK to select.

4 Press ▲ or ▼ to the required device. Press OK to select.

5 Press ▲ or ▼ to `Disconnect`. Press OK to select.

The display shows `Disconnecting from <Device>`.

NOTICE:
Your Bluetooth-enabled device may require additional steps to disconnect. Refer to respective user manuals of any Bluetooth-enabled devices.

Wait for acknowledgment.

- A tone sounds.
- The display shows `<Device> Disconnected` and the **Bluetooth Connected** icon disappears.
- The ✓ disappears beside the connected device.

6.11.22.5

Switching Audio Route between Internal Radio Speaker and Bluetooth Device

Follow the procedure to toggle audio routing between internal radio speaker and external Bluetooth device.

Press the programmed **Bluetooth Audio Switch** button.

The display shows one of the following results:

- A tone sounds. The display shows `Route Audio to Radio`.
- A tone sounds. The display shows `Route Audio to Bluetooth`.

6.11.22.6

Viewing Device Details

Follow the procedure to view device details on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Bluetooth. Press OK to select.

3 Press ▲ or ▼ to Devices. Press OK to select.

4 Press ▲ or ▼ to the required device. Press OK to select.

5 Press ▲ or ▼ to View Details. Press OK to select.

6.11.22.7

Deleting Device Name

You can remove a disconnected device from the list of Bluetooth-enabled devices.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Bluetooth. Press OK to select.

3 Press ▲ or ▼ to Devices. Press OK to select.

4 Press ▲ or ▼ to the required device. Press OK to select.

5 Press ▲ or ▼ to Delete. Press OK to select. The display shows Device Deleted.

6.11.22.8

Bluetooth Mic Gain

This feature allows the user to control the microphone gain value of the connected Bluetooth-enabled device.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Bluetooth. Press OK to select.

3 Press ▲ or ▼ to BT Mic Gain. Press OK to select.

4 Press ▲ or ▼ to the BT Mic Gain type and the current values. Press OK to select. You can edit the values here.

5 Press ▲ or ▼ to increase or to decrease values. Press OK to select.

6.11.23

Indoor Location

NOTICE:
Indoor Location feature is applicable for models with the latest software and hardware. Check with your dealer or system administrator for more information.

Indoor Location is use to keep track of the location of radio users. When Indoor Location is activated, the radio is in a limited discoverable mode. Dedicated beacons are used to locate the radio and determine its position.

6.11.23.1

Turning Indoor Location On or Off

You can turn on or turn off Indoor Location by performing one of the following actions.

- Access this feature through the menu.
  a. Press OK to access the menu.
  b. Press ▲ or ▼ to Bluetooth and press OK to select.
  c. Press ▲ or ▼ to Indoor Location and press OK to select.
  d. Press OK to turn on Indoor Location.
  The display shows Indoor Location On. You hear a positive indicator tone.
  One of the following scenarios occurs.

- If successful, the Indoor Location Available icon appears on the Home screen display.
- If unsuccessful, the display shows `Turning On Failed`. You hear a negative indicator tone.

e. Press OK to turn off Indoor Location.

The display shows `Indoor Location Off`. You hear a positive indicator tone.
One of the following scenarios occurs.

- If successful, the Indoor Location Available icon disappears on the Home screen display.
- If unsuccessful, the display shows `Turning Off Failed`. You hear a negative indicator tone.

- Access this feature by using the programmed button.

a. Long press the programmed **Indoor Location** button to turn on Indoor Location.

The display shows `Indoor Location On`. You hear a positive indicator tone.
One of the following scenarios occurs.

- If successful, the Indoor Location Available icon appears on the Home screen display.
- If unsuccessful, the display shows `Turning On Failed`. If unsuccessful, you hear a negative indicator tone.

b. Press the programmed **Indoor Location** button to turn off Indoor Location.

The display shows `Indoor Location Off`. You hear a positive indicator tone.
One of the following scenarios occurs.

- If successful, the Indoor Location Available icon disappears on the Home screen display.
- If unsuccessful, the display shows `Turning Off Failed`. If unsuccessful, you hear a negative indicator tone.

6.11.23.2

Accessing Indoor Location Beacons Information

Follow the procedure to access Indoor Location beacons information.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Bluetooth` and press OK to select.
3. Press ▲ or ▼ to `Indoor Location` and press OK to select.
4. Press ▲ or ▼ to `Beacons` and press OK to select.

The display shows the beacons information.

6.11.24

Notification List

Your radio has a Notification list that collects all your unread events on the channel, such as unread text messages, telemetry messages, missed calls, and call alerts.

The display shows the **Notification** icon when the Notification list has one or more events.

The list supports a maximum of 40 unread events. When the list is full, the next event automatically replaces the oldest event. After the events are read, they are removed from the Notification list.

For text messages, missed calls, and call alert events, the maximum number of notifications are 30 text messages and 10 missed calls or call alerts. This maximum number depends on individual feature (job tickets or text messages or missed calls or call alerts) list capability.

6.11.24.1

Accessing Notification List

Follow the procedure to access the Notification list on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Notification`. Press OK to select.

3 Press ▲ or ▼ to the required event. Press OK to select.

Long press ⌂ to return to the Home screen.

6.11.25

Auto-Range Transponder System

The Auto-Range Transponder System (ARTS) is an analog-only feature designed to inform you when your radio is out-of-range of other ARTS-equipped radios.

ARTS-equipped radios transmit or receive signals periodically to confirm that they are within range of each other.

Your radio provides indications of states as follows:

First-Time Alert
A tone sounds.

The display shows channel alias and `In Range`.

ARTS-in-Range Alert
A tone sounds, if programmed.

The display shows channel alias and `In Range`.

ARTS-Out-of-Range Alert
A tone sounds. The red LED rapidly blinks.

The display shows `Out of Range` alternating with the Home screen.

NOTICE:
Check with your dealer or system administrator for more information.

6.11.26

Over-the-Air Programming

Your dealer can remotely update your radio through Over-the-Air Programming (OTAP) without any physical connection. Additionally, some settings can also be configured by using OTAP.

When your radio undergoes OTAP, the green LED blinks.

When your radio receives high volume data:

- The display shows the **High Volume Data** icon.
- The channel becomes busy.
- A negative tone sounds if you press the **PTT** button.

When OTAP completes, depending on the configuration:

- A tone sounds. The display shows `Updating Restarting`. Your radio restarts by powering off and on again.
- You can select `Restart Now` or `Postpone`. When you select `Postpone`, your radio returns to the previous screen. The display shows the **OTAP Delay Timer** icon until the automatic restart occurs.

When your radio powers up after automatic restart:

- If successful, the display shows `Sw Update Completed`.
- If the program update is unsuccessful, a tone sounds, the red LED blinks once, and the display shows `Sw Update Failed`.

NOTICE:
If the programming update is unsuccessful, the software update failure indications appear every time you turn on your radio. Contact your dealer to reprogram your radio with the latest software to eliminate the software update failure indications.

See Checking Software Update Information on page 224 for the updated software version.

6.11.27

Transmit Inhibit

Transmit inhibit feature allow users to block all transmission from the radio.

NOTICE:
Bluetooth and Wi-Fi features are available in Transmit Inhibit mode.

6.11.27.1

Enabling Transmit Inhibit

Follow the procedure to enable Transmit Inhibit.

Perform one of the following actions:

- Press ▲ or ▼ to `Tx Inhibit` and press OK to select.
- Press the **Transmit Inhibit** programmable button.

- A positive indicator tone sounds.

- The display shows `Tx Inhibit On`.

NOTICE:
The status of the Transmit Inhibit does not change after the radio powers up.

6.11.27.2

Disabling Transmit Inhibit

Follow the procedure to disable Transmit Inhibit.

Perform one of the following actions:

- Press ▲ or ▼ to `Tx Inhibit` and press OK to select.
- Press the **Transmit Inhibit** programmable button.

- A negative indicator tone sounds. Transmission is back to normal operation.
- The display shows `Tx Inhibit Off`.

6.11.28

Selecting Third-Party Peripherals Connection Modes

Follow the procedure to select one of the following third-party peripherals connection modes:

- Motorola Solutions
- PC and Audio
- Data Accessory
- Telemetry
- Generic

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Cable Type`. Press OK to select.

5 Press or to the required connection mode. Press OK to select.

The display shows the selected connection mode. The screen returns to the previous menu.

6.11.29

Received Signal Strength Indicator

This feature allows you to view the Received Signal Strength Indicator (RSSI) values.

The display shows the **RSSI** icon at the top right corner. See Display Icons for more information on the **RSSI** icon.

6.11.29.1

Viewing RSSI Values

Attach the 4-Way Navigation Keypad Microphone (Motorola Solutions part number RMN5127_) to your radio.

At the home screen, using the 4-Way Navigation Keypad Microphone, press ◀ three times and immediately press ▶ three times.

The display shows the current RSSI values.

To return to the home screen, press and hold .

6.11.30

Password Lock

You can set a password to restrict access to your radio. Each time you turn on your radio, you are asked to enter the password.

Your radio supports a 4-digit password input.

You can also use a keypad microphone to enter the password.

Your radio is unable to receive calls in locked state.

6.11.30.1

Accessing the Radio by Using Password

Turn on your radio.

1 Enter the four-digit password.

a Use a keypad microphone.

b To edit the numeric value of each digit, press ▲ or ▼. To enter and move to the next digit, press OK.

NOTICE:
The use of **Emergency** footswitch cancels password input to access the radio.

2 Press OK to confirm the password.

If you enter the password correctly, the radio powers up.

If you enter the wrong password after the first and second attempt, your radio shows the following indications:

- A continuous tone sounds.
- The display shows `Wrong Password`.

Repeat step 1.

If you enter the wrong password after the third attempt, your radio shows the following indications:

- A tone sounds.
- The yellow LED double blinks.
- The display shows `Wrong Password` and then, `Radio Locked`.
- Your radio enters into locked state for 15 minutes.

NOTICE:
In locked state, your radio responds to inputs from the **On/Off/Volume Control Knob** and programmed **Backlight** button only.

Wait for the 15-minute locked state timer to end and then repeat step 1.

NOTICE:
If you turn off and turn your radio on again, the 15-minute timer restarts.

6.11.30.2

Unlocking Radios in Locked State

Your radio is unable to receive calls in locked state. Follow the procedure to unlock your radio in locked state.

Do one of the following:

- If the radio is powered on, wait for 15 minutes and then repeat the steps in Accessing the Radio by Using Password on page 188 to access the radio.
- If the radio is powered off, power up the radio. Your radio restarts the 15-minute timer for locked state. A tone sounds. The yellow LED double blinks. The display shows `Radio Locked`.

  Wait for 15 minutes and then repeat the steps in Accessing the Radio by Using Password on page 188 to access the radio.

6.11.30.3

Turning Password Lock On or Off

Follow the procedure to turn password lock on or off on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Passwd Lock`. Press OK to select.
5. Enter the current four-digit password.
   - Use a keypad microphone.
   - Press ▲ or ▼ to edit the numeric value of each digit, and press OK to enter and move to the next digit.
     A positive indicator tone sounds for every digit pressed.
6. Press OK to enter the password.

   If the password is incorrect, the display shows `Wrong Password` and automatically returns to the previous menu.
7. Do one of the following:

- Press ▲ or ▼ to Turn On. Press OK to select.
  The display shows ✓ beside Turn On.
- Press ▲ or ▼ to Turn Off. Press OK to select.
  The display shows ✓ beside Turn Off.

6.11.30.4

Changing Passwords

Follow the procedure to change passwords on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to Utilities. Press OK to select.
3. Press ▲ or ▼ to Radio Settings. Press OK to select.
4. Press ▲ or ▼ to Passwd Lock. Press OK to select.
5. Enter the current four-digit password, and press OK to proceed.
   If the password is incorrect, the display shows Wrong Password and automatically returns to the previous menu.
6. Press ▲ or ▼ to Change PWD. Press OK to select.
7. Enter a new four-digit password, and press OK to proceed.
8. Re-enter the new four-digit password, and press OK to proceed.
   If successful, the display shows Password Changed.
   If unsuccessful, the display shows Passwords Do Not Match.

The screen automatically returns to the previous menu.

6.11.31
Front Panel Configuration

You are able to customize certain feature parameters in Front Panel Configuration (FPC) to enhance the use of your radio.

6.11.31.1
Entering Front Panel Configuration Mode

Long press ⏎ at any time to return to the Home screen.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Program Radio`. Press OK to select.

6.11.31.2
Editing Mode Parameters

Use the following buttons as required while navigating through the feature parameters.

- ▲ , ▼ – Scroll through options, increase/decrease values, or navigate vertically.
- OK – Select the option or enter a sub-menu.
- ⏎ – Short-press to return to previous menu or to exit the selection screen. Long-press to return to Home screen.

6.11.32
Wi-Fi Operation

This feature allows you to set up and connect to a Wi-Fi network. Wi-Fi supports updates for radio firmware,

codeplug, and resources such as language packs and voice announcement.

NOTICE:
This feature is applicable to DM4601e only.

Wi-Fi® is a registered trademark of Wi-Fi Alliance®.

Your radio supports WEP/WPA/WPA2-Personal and WPA/WPA2-Enterprise Wi-Fi networks.

WEP/WPA/WPA2-Personal Wi-Fi network
Uses pre-shared key (password) based authentication.

Pre-shared key can be entered by using the menu or CPS/RM.

WPA/WPA2-Enterprise Wi-Fi network
Uses certificate-based authentication.

Your radio must be pre-configured with a certificate.

NOTICE:
Check with your dealer or system administrator to connect to WPA/WPA2-Enterprise Wi-Fi network.

The programmed **Wi-Fi On or Off** button is assigned by your dealer or system administrator. Check with your dealer or system administrator to determine how your radio has been programmed.

Voice Announcements for the programmed **Wi-Fi On or Off** button can be customized through CPS according to user requirements. Check with your dealer or system administrator for more information.

NOTICE:
You can turn on or turn off Wi-Fi remotely by using a designated radio (see Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Individual Control) on page 196 and Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Group Control) on page 196). Check with your dealer or system administrator for more information.

6.11.32.1

Turning Wi-Fi On or Off

1 Press the programmed **Wi-Fi On or Off** button.
Voice Announcement sounds Turning On Wi-Fi or Turning Off Wi-Fi.

2 Access this feature using the menu.

a Press OK to access the menu.

b Press or to `WiFi` and press OK to select.

c Press or to `WiFi On` and press OK to select.

d Press OK to turn on/off Wi-Fi.

If Wi-Fi is on, the display shows ✓ beside `Enabled`.

If Wi-Fi is off, the ✓ disappears from beside `Enabled`.

6.11.32.2

Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Individual Control)

You can turn Wi-Fi on or off remotely in Individual Control (One to One).

NOTICE:
Only radio with specific CPS setting supports this function, check with your dealer or system administrator for more information.

1 Do one of the following:

- Long press the programmable button. Use the keypad to enter the ID and press OK to select. Proceed to step 3.
- Press OK to access the menu.

2 Press or to `Contacts` and press OK to select.

3 Press or to `WiFi Control` and press OK to select.

4 Press or to select `On` or `Off`.

5 Press OK to select.

If successful, the display shows a positive mini notice.

If unsuccessful, the display shows a negative mini notice.

6.11.32.3

Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Group Control)

You can turn Wi-Fi on or off remotely in Group Control (One to Many).

NOTICE:
Only radio with specific CPS setting supports this function, check with your dealer or system administrator for more information.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Contacts` and press OK to select.
3. Press ▲ or ▼ to select the required subscriber alias or ID.
4. Press ▲ or ▼ to `WiFi Control` and press OK to select.
5. Press ▲ or ▼ to select `On` or `Off`.
6. Press OK to select.

If successful, the display shows `Sent Successfully`.

If unsuccessful, the display shows a negative mini notice.

6.11.32.4

Connecting to a Network Access Point

When you turn on Wi-Fi, the radio scans and connects to a network access point.

NOTICE:
You can also connect to a network access point using the menu.

The WPA-Enterprise Wi-Fi network access points are pre-configured. Check with your dealer or system administrator to determine how your radio has been programmed.

1 Press OK to access the menu.

2 Press ▲ or ▼ to WiFi and press OK to select.

3 Press ▲ or ▼ to Networks and press OK to select.

4 Press ▲ or ▼ to a network access point and press OK to select.

NOTICE:
For WPA-Enterprise Wi-Fi, if a network access point is not preconfigured, the Connect option is not available.

5 Press ▲ or ▼ to Connect and press OK to select.

6 For WPA-Personal Wi-Fi, enter the password and press OK .

7 For WPA-Enterprise Wi-Fi, password is configured by using RM.

If the preconfigured password is correct, your radio automatically connects to the selected network access point.

If the preconfigured password is incorrect, the display shows Authentication Failure, and automatically returns to the previous menu.

If the connection is successful, the radio displays a notice and the network access point is saved into the profile list.

If the connection is unsuccessful, the radio displays shows the failure notice screen momentarily and automatically returns to the previous menu.

6.11.32.5

Checking Wi-Fi Connection Status

Press the programmed **Wi-Fi Status Query** button for the connection status by using Voice Announcement. Voice

Announcement sounds Wi-Fi is Off, Wi-Fi is On but No Connection, or Wi-Fi is On with Connection.

- The display shows `WiFi Off` when the Wi-Fi is turned off.
- The display shows `WiFi On, Connected` when the radio is connected to a network.
- The display shows `WiFi On, Disconnected` when the Wi-Fi is turned on but the radio is not connected to any network.

  Voice Announcements for the Wi-Fi status query results can be customized through CPS according to user requirements. Check with your dealer or system administrator for more information.

  NOTICE:
  The programmed **Wi-Fi Status Query** button is assigned by your dealer or system administrator. Check with your dealer or system administrator to determine how your radio has been programmed.

6.11.32.6

Refreshing the Network List

- Perform the following actions to refresh the network list through the menu.

  a. Press OK to access the menu.

  b. Press ▲ or ▼ to `WiFi` and press OK to select.

  c. Press ▲ or ▼ to `Networks` and press OK to select.

  When you enter the Networks menu, the radio automatically refreshes the network list.

- If you are already in the Networks menu, perform the following action to refresh the network list.

  Press ▲ or ▼ to `Refresh` and press OK to select.

  The radio refreshes and displays the latest network list.

6.11.32.7

Adding a Network

NOTICE:
This task is not applicable to WPA-Enterprise Wi-Fi networks.

If a preferred network is not in the available network list, perform the following actions to add a network.

1 Press OK to access the menu.

2 Press ▲ or ▼ to WiFi and press OK to select.

3 Press ▲ or ▼ to Networks and press OK to select.

4 Press ▲ or ▼ to Add Network and press OK to select.

5 Enter the Service Set Identifier (SSID) and press OK .

6 Press ▲ or ▼ to Open and press OK to select.

7 Enter the password and press OK .

The radio displays a positive mini notice to indicate that the network is successfully saved.

6.11.32.8

Viewing Details of Network Access Points

You can view details of network access points.

1 Press OK to access the menu.

2 Press ▲ or ▼ to WiFi and press OK to select.

3 Press ▲ or ▼ to Networks and press OK to select.

4 Press ▲ or ▼ to a network access point and press OK to select.

5 Press ▲ or ▼ to View Details and press OK to select.

NOTICE:
WPA-Personal Wi-Fi and WPA-Enterprise Wi-Fi display different details of Network Access Points.

WPA-Personal Wi-Fi

For a connected network access point, your radio displays Service Set Identifier (SSID), Security Mode, Media Access Control (MAC) address, and Internet Protocol (IP) address.

For a non-connected network access point, your radio displays SSID and Security Mode.

WPA-Enterprise Wi-Fi

For a connected network access point, your radio displays SSID, Security Mode, Identity, Extended Authentication Protocol (EAP) Method, Phase 2 Authentication, Cert Name, MAC address, IP address, Gateway, DNS1, and DNS2.

For a non-connected network access point, your radio displays SSID, Security Mode, Identity, EAP Method, Phase 2 Authentication, and Cert Name.

6.11.32.9

Removing Network Access Points

NOTICE:
This task is not applicable to Enterprise Wi-Fi networks.

Perform the following actions to remove network access points from the profile list.

1 Press OK to access the menu.

2 Press ▲ or ▼ to WiFi and press OK to select.

3 Press ▲ or ▼ to Networks and press OK to select.

4 Press ▲ or ▼ to the selected network access point and press OK to select.

5 Press ▲ or ▼ to `Remove` and press OK to select.

6 Press ▲ or ▼ to `Yes` and press OK to select.

The radio displays a positive mini notice to indicate that the selected network access point is successfully removed.

6.12

Utilities

This chapter explains the operations of the utility functions available in your radio.

6.12.1

Squelch Levels

You can adjust the squelch level to filter out unwanted calls with low signal strength or channels with noise higher than normal background.

Normal
This is the default setting.

Tight
This setting filters out unwanted calls and/or background noise. Calls from remote locations may also be filtered out.

NOTICE:
This feature is not applicable in Citizens Band channels that are in the same frequency.

6.12.1.1

Setting Squelch Levels

Follow the procedure to set the squelch levels on your radio.

1 Do one of the following:

- Press the programmed **Squelch** button. Skip the following steps.

- Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Squelch. Press OK to select.

5 Do one of the following:

- Press ▲ or ▼ to Normal. Press OK to select.
  The display shows ✓ beside Normal.
- Press ▲ or ▼ to Tight. Press OK to select.
  The display shows ✓ beside Tight.

The screen automatically returns to the previous menu.

6.12.2

Power Levels

You can customize the power setting to high or low for each channel.

High
This enables communication with radios located at a considerable distance from you.

Low
This enables communication with radios in closer proximity.

NOTICE:
This feature is not applicable in Citizens Band channels that are in the same frequency.

6.12.2.1

Setting Power Levels

Follow the procedure to set the power levels on your radio.

1 Do one of the following:

- Press the programmed **Power Level** button. Skip the steps below.

- Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Power. Press OK to select.

5 Do one of the following:

- Press ▲ or ▼ to High. Press OK to select.
  The display shows ✓ beside High.
- Press ▲ or ▼ to Low. Press OK to select.
  The display shows ✓ beside Low.

6 Long press ↩ to return to the Home screen.

6.12.3

Turning Radio Tones/Alerts On or Off

You can enable and disable all radio tones and alerts, if needed, except for incoming Emergency alert tone . Follow the procedure to turn tones and alerts on or off on your radio.

1 Do one of the following:

- Press the programmed **Tones/Alerts** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alerts. Press OK to select.

5 Press ▲ or ▼ to All Tones. Press OK to select.

6 Press OK to enable or disable all tones and alerts. The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

6.12.4
Turning Keypad Tones On or Off

Follow the procedure to turn keypad tones on or off on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alerts. Press OK to select.

5 Press ▲ or ▼ to Keypad Tones. Press OK to select.

6 Press OK to enable or disable keypad tones. The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

6.12.5
Setting Tones/Alerts Volume Offset Levels

This feature adjusts the volume of the tones or alerts, allowing it to be higher or lower than the voice volume. Follow the procedure to set the tones and alerts volume offset levels on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alerts. Press OK to select.

5 Press ▲ or ▼ to Vol. Offset. Press OK to select.

6 Press ▲ or ▼ to the required volume offset level.

A feedback tone sounds with each corresponding volume offset level.

7 Do one of the following:

- Press OK to select. The required volume offset level is saved.
- Press ↩ to exit. The changes are discarded.

6.12.6

Turning Talk Permit Tone On or Off

Follow the procedure to turn Talk Permit Tone on or off on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Tones/Alerts. Press OK to select.

5 Press ▲ or ▼ to Talk Permit. Press OK to select.

6 Press OK to enable or disable the Talk Permit Tone.

The display shows one of the following results:

- If enabled, ✓ appears beside `Enabled`.
- If disabled, ✓ disappears beside `Enabled`.

6.12.7
Turning Power Up Tone On or Off

Follow the procedure to turn Power Up Tone on or off on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Tones/Alerts`. Press OK to select.

5 Press ▲ or ▼ to `Power Up`. Press OK to select.

6 Press OK to enable or disable the Power Up Tone. The display shows one of the following results:

- If enabled, ✓ appears beside `Enabled`.
- If disabled, ✓ disappears beside `Enabled`.

6.12.8
Setting Text Message Alert Tones

You can customize the text message alert tone to Momentary or Repetitive for each entry in the Contacts list. Follow the procedure to set the text message alert tones on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Contacts. Press OK to select.

3 Press ▲ or ▼ to the required alias or ID.
Press OK to select.

4 Press ▲ or ▼ to Message Alert. Press OK to select.

5 Do one of the following:

- Press ▲ or ▼ to Momentary. Press OK to select.
  The display shows ✓ beside Momentary.
- Press ▲ or ▼ to Repetitive. Press OK to select.
  The display shows ✓ beside Repetitive.

6.12.9

Changing Display Modes

You can change the display mode of the radio between Day or Night, as needed. This feature affects the color palette of the display. Follow the procedure to change the display mode of your radio.

1 Do one of the following:

- Press the programmed **Display Mode** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Display. Press OK to select.
The display shows Day Mode and Night Mode.

5 Press ▲ or ▼ to the required setting. Press OK to select.

The display shows ✓ beside the selected setting.

6.12.10
Adjusting Display Brightness

Follow the procedure to adjust the display brightness on your radio. Display brightness cannot be adjusted when Auto Brightness is enabled.

1 Do one of the following:

- Press the programmed **Brightness** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Brightness`. Press OK to select.

The display shows the progress bar.

5 Press ▲ or ▼ to decrease or increase the display brightness. Press OK to select.

The setting value is varied from 1 to 8.

6.12.11
Turning Horns/Lights On or Off

Your radio is able to notify you of an incoming call through the horns and lights feature. When activated, an incoming call sounds the horn and turns on the lights of your vehicle. This feature needs to be installed through your radio rear accessory connector by your dealer. Follow the procedure to turn all horns and lights on or off on your radio.

1 Do one of the following:

- Press the programmed **Horns/Lights** button. Skip the steps below.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Horns/Lights`. Press OK to select.

5 Press OK to enable or disable Horns/Lights. The display shows one of the following results:

- If enabled, ✓ appears beside `Enabled`.
- If disabled, ✓ disappears beside `Enabled`.

6.12.12

Turning LED Indicators On or Off

Follow the procedure to turn the LED indicators on or off on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `LED Indicator`. Press OK to select.

5 Press OK to enable or disable the LED indicator.

The display shows one of the following results:

- If enabled, ✓ appears beside `Enabled`.
- If disabled, ✓ disappears beside `Enabled`.

6.12.13

Turning Public Address System On or Off

Follow the procedure to enable or disable the internal public address (PA) system of your radio.

1 Do one of the following:

- Press the programmed **Public Address** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Public Address`. Press OK to select.

5 Press OK to enable or disable Public Address.

- If enabled, ✓ appears beside `Enabled`.
- If disabled, ✓ disappears beside `Enabled`.

6.12.14

Turning External Public Address System On or Off

Follow the procedure to enable or disable the external public address (PA) system of your radio.

1 Do one of the following:

- Press the programmed **Ext Public Address** button. Skip the following steps.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to External Public Address. Press OK to select.

5 Press OK to enable or disable external public address.

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

6.12.15

Turning Introduction Screen On or Off

You can enable and disable the Introduction Screen by following the procedure.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Display. Press OK to select.

5 Press ▲ or ▼ to Intro Screen. Press OK to select.

6 Press OK to enable or disable the Introduction Screen.

The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

6.12.16

Setting Languages

Follow the procedure to set the languages on your radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Languages`. Press OK to select.
5. Press ▲ or ▼ to the required language. Press OK to select.

   The display shows ✓ beside the selected language.

6.12.17

Identifying Cable Type

Do the following steps to select the type of cable your radio uses.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Cable Type`. Press OK to select.
5. The current cable type is indicated by a ✓.

6.12.18

Voice Operating Transmission

The Voice Operating Transmission (VOX) allows you to initiate a hands-free voice-activated call on a programmed channel. The radio automatically transmits, for a programmed period, whenever the microphone on the VOX-capable accessory detects voice.

NOTICE:
This feature is not applicable in Citizens Band channels that are in the same frequency.

You can enable or disable VOX by doing one of the following:

- Turn the radio off and then power it on again to enable VOX.
- Change the channel by using the **Scroll Up/Down** buttons to enable VOX.
- Change the channel by using the **Volume/Channel Knob**to enable VOX.
- Turn VOX on or off by using the programmed **VOX** button or menu to enable or disable VOX.
- Press the **PTT** button during radio operation to disable VOX.

NOTICE:
Turning this feature on or off is limited to radios with this function enabled. Check with your dealer or system administrator for more information.

6.12.18.1

Turning Voice Operating Transmission On or Off

Follow the procedure to turn VOX on or off on your radio.

1 Do one of the following:
   - Press the programmed **VOX** button. Skip the steps below.
   - Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to VOX. Press OK to select.

5 Press OK to enable or disable **VOX**.

NOTICE:
If the Talk Permit Tone is enabled, use a trigger word to initiate the call. Wait for the Talk Permit Tone to finish before speaking clearly into the microphone. See Turning Talk Permit Tone On or Off on page 207 for more information.

6.12.19

Turning Voice Announcement On or Off

This feature enables the radio to audibly indicates the current zone or channel the user has just assigned, or the programmable button the user has just pressed.

This is typically useful when the user has difficulty reading the content shown on the display.

This audio indicator can be customized according to customer requirements. Follow the procedure to turn Voice Announcement on or off on your radio.

6.12.20

Turning Option Board On or Off

Option board capabilities within each channel can be assigned to programmable buttons. A channel can support up to 6 option board features. Follow the procedure to turn option board on or off on your radio.

Press the programmed **Option Board** button.

6.12.21

Text-to-Speech

The Text-to-Speech feature can only be enabled by your dealer. If Text-to-Speech is enabled, the Voice Announcement feature is automatically disabled. If Voice Announcement is enabled, then the Text-to-Speech feature is automatically disabled.

This feature enables the radio to audibly indicate the following features:

- Current Channel
- Current Zone
- Programmed button feature on or off
- Content of received text messages
- Content of received Job Tickets

This audio indicator can be customized per customer requirements. This feature is typically useful when the user is in a difficult condition to read the content shown on the display.

6.12.21.1

Setting Text-to-Speech

Follow the procedure to set the Text-to-Speech feature.

1 Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Voice Announcement`. Press OK to select.

5 Press ▲ or ▼ to any of the following features. Press OK to select.

The available features are as follows:

- `All`
- `Messages`
- `Job Tickets`
- `Channel`
- `Zone`
- `Program Button`

✓ appears beside the selected setting.

6.12.22

Turning Automatic Call Forwarding On or Off

You can enable your radio to automatically forward voice calls to another radio.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Call Forward`. Press OK to select.
5. Do one of the following:
   - Press ▲ or ▼ to enable Call Forwarding. If enabled, ✓ appears beside `Enabled`.
   - Press ▲ or ▼ to disable Call Forwarding. If disabled, ✓ disappears beside `Enabled`.

6.12.23

Setting Menu Timer

You can set the time your radio stays in the menu before it automatically switches to the Home screen. Follow the procedure to set the menu timer.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Settings`. Press OK to select.
4. Press ▲ or ▼ to `Display`. Press OK to select.

5 Press ▲ or ▼ to Menu Timer. Press OK to select.

6 Press ▲ or ▼ to the required setting. Press OK to select.

6.12.24

Turning Analog Microphone AGC On or Off

The Analog Microphone Automatic Gain Control (AGC) controls the microphone gain of the radio automatically while transmitting on an analog system.
This feature suppresses loud audio or boosts soft audio to a preset value in order to provide a consistent level of audio. Follow the procedure to turn Analog Microphone AGC on or off on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Mic AGC-A. Press OK to select.

5 Press OK to enable or disable Analog Microphone AGC.

The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

6.12.25

Turning Digital Microphone AGC On or Off

The Digital Microphone Automatic Gain Control (AGC) controls the microphone gain of the radio automatically while transmitting on a digital system.
This feature suppresses loud audio or boosts soft audio to a preset value in order to provide a consistent level of

audio. Follow the procedure to turn Digital Microphone AGC on or off on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Mic AGC-D. Press OK to select.

5 Press OK to enable or disable Digital Microphone AGC.

The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

6.12.26

Turning Intelligent Audio On or Off

Your radio automatically adjusts the audio volume to overcome current background noise in the environment, inclusive of both stationary and non-stationary noise sources. This is a receive-only feature and does not affect transmission audio. Follow the procedure to turn Intelligent Audio on or off on your radio.

NOTICE:
This feature is not applicable during a Bluetooth session.

1 Do one of the following:

- Press the programmed **Intelligent Audio** button. Skip the steps below.
- Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press or to Radio Settings. Press OK to select.

4 Press or to Intelligent Audio. Press OK to select.

5 Do one of the following:

- Press or to On. Press OK to select. The display shows ✓ beside On.
- Press or to Off. Press OK to select. The display shows ✓ beside Off.

6.12.27

Turning the Acoustic Feedback Suppressor Feature On or Off

This feature allows you to minimize Acoustic Feedback Suppressor in received calls. Follow the procedure to turn the Acoustic Feedback Suppressor on or off on your radio.

1 Press OK to access the menu.

2 Press or to Utilities. Press OK to select..

3 Press or to Radio Settings. Press OK to select.

4 Press or to AF Suppressor. Press OK to select.

5 Do one of the following:

- Press to enable Acoustic Feedback Suppressor. If enabled, ✓ appears beside Enabled.
- Press to disable Acoustic Feedback Suppressor. If disabled, ✓ disappears beside Enabled.

6.12.28

Turning Trill Enhancement On or Off

You can enable this feature when you are speaking in a language that contains many words with alveolar trill

(rolling "R") pronunciations. Follow the procedure to turn Trill Enhancement on or off on your radio.

1 Do one of the following:

- Press the programmed **Trill Enhancement** button. Skip the steps below.
- Press OK to access the menu.

2 Press ▲ or ▼ to `Utilities`. Press OK to select.

3 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

4 Press ▲ or ▼ to `Trill Enhance`. Press OK to select.

5 Do one of the following:

- Press ▲ or ▼ to `On`. Press OK to select. The display shows ✓ beside `On`.
- Press ▲ or ▼ to `Off`. Press OK to select. The display shows ✓ beside `Off`.

6.12.29

Audio Ambience

You can customize the audio ambience for your radio according to your environment.

Default
This is the default setting.

Loud
This setting enables Noise Suppressor and increases speaker loudness for use in noisy surroundings.

Work Group
This setting enables AF Suppressor and disables AGC for use when a group of radios are near to each other.

6.12.29.1

Setting Audio Ambience

Follow the procedure to set the audio ambience on your radio according to your environment.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Audio Ambience. Press OK to select.

5 Press ▲ or ▼ to the required setting. Press OK to select.

The settings are as follows.

- Choose Default for the default factory settings.
- Choose Loud to increase speaker loudness when using in noisy surroundings.
- Choose Work Group to reduce acoustic feedback when using with a group of radios that are near to each other.

The display shows ✓ beside the selected setting.

6.12.30

Audio Profiles

You can customize the audio profiles for your radio according to your preference.

Default
This is the default setting.

Level 1, Level 2, and Level 3
These settings are intended to compensate for noise-induced hearing loss that is typical for adults in their 40's, 50's, and 60's or over.

Treble Boost, Mid Boost, and Bass Boost
These settings are intended for a tinnier sound, a more nasal sound, and a deeper sound.

6.12.30.1

Setting Audio Profiles

Follow the procedure to set audio profiles on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Settings. Press OK to select.

4 Press ▲ or ▼ to Audio Profiles. Press OK to select.

5 Press ▲ or ▼ to the required setting. Press OK to select.

The settings are as follows.

- Choose Default to disable the previously selected audio profile and return to the default factory settings.
- Choose Level 1, Level 2, or Level 3 for audio profiles intended to compensate for noise-induced hearing loss that is typical for adults over 40 years of age.
- Choose Treble Boost, Mid Boost, or Bass Boost for audio profiles that align with your preference for tinnier, more nasal, or deeper sounds.

The display shows ✓ beside the selected setting.

6.12.31

Turning Global Navigation Satellite System On or Off

Global Navigation Satellite System (GNSS) is a satellite navigation system that determines the radio precise location. GNSS includes Global Positioning System (GPS),

Global Navigation Satellite System (GLONASS), and BeiDou Navigation Satellite System (BDS).

NOTICE:
Selected radio models may offer GPS, GLONASS, and BDS. GNSS constellation is configured by using CPS. Check with your dealer or system administrator to determine how your radio has been programmed.

1

2 Do one of the following steps to toggle GNSS on or off on your radio.

- Press the programmed **GNSS** button.
- Press OK to access the menu. Proceed to the next step.

3 Press ▲ or ▼ to `Utilities`. Press OK to select.

4 Press ▲ or ▼ to `Radio Settings`. Press OK to select.

5 Press ▲ or ▼ to `GNSS`. Press OK to select.

6 Press OK to enable or disable GNSS.

If enabled, ✓ appears beside `Enabled`.
If disabled, ✓ disappears beside `Enabled`.

6.12.32

Flexible Receive List

Flexible Receive List is a feature that allows you to create and assign members on the receive talkgroup list. Your radio can support a maximum of 16 members in the list. This feature is supported in Capacity Plus.

6.12.32.1

Turning Flexible Receive List On or Off

Follow the procedure to turn Flexible Receive List on or off.

1 Do one of the following:

- Press the programmed **Flexible Receive List** button. Skip the following steps.

- Press OK to access the menu.

2 Press ▲ or ▼ to `Flexible Rx List`. Press OK to select.

3 Do one of the following:

- Press ▲ or ▼ to `Turn On`. Press OK to select.
  A positive indicator tone sounds.
  The display shows a positive mini notice.
- Press ▲ or ▼ to `Turn Off`. Press OK to select.
  A negative indicator tone sounds.
  The display shows a negative mini notice.

6.12.33

General Radio Information

Your radio contains information on various general parameters.

The general information of your radio is as follows:

- Radio alias and ID.
- Firmware and Codeplug versions.
- Software update.
- GNSS information.
- Site information.

NOTICE:

Press ↩ to return to the previous screen. Long press ↩ to return to the Home screen. The radio exits the current screen once the inactivity timer expires.

6.12.33.1

Checking Radio Alias and ID

1 Do one of the following:

- Press the programmed **Radio Alias and ID** button. Skip the following steps.
  A positive indicator tone sounds.
  You can press the programmed **Radio Alias and ID** button to return to the previous screen.

- Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Info. Press OK to select.

4 Press ▲ or ▼ to My ID. Press OK to select.

The first text line shows the radio alias. The second text line shows the radio ID.

6.12.33.2

Checking Firmware and Codeplug Versions

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press ▲ or ▼ to Radio Info. Press OK to select.

4 Press ▲ or ▼ to Versions. Press OK to select.

The display shows the current firmware and codeplug versions.

6.12.33.3

Checking Software Update Information

This feature shows the date and time of the latest software update carried out through OTAP or Wi-Fi. Follow the procedure to check the software update information on your radio.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Utilities. Press OK to select.

3 Press or to Radio Info. Press OK to select.

4 Press or to SW Update. Press OK to select.

The display shows the date and time of the latest software update.

Software Update menu is only available after at least one successful OTAP or Wi-Fi session. See Over-the-Air Programming on page 482 for more information.

6.12.33.4

Checking GNSS Information

Displays the GNSS information on your radio, such as values of:

- Latitude
- Longitude
- Altitude
- Direction
- Velocity
- Horizontal Dilution of Precision (HDOP)
- Satellites
- Version

1 Press OK to access the menu.

2 Press or to Utilities. Press OK to select.

3 Press or to Radio Info. Press OK to select.

4 Press or to GNSS Info. Press OK to select.

5 Press or to the required item. Press OK to select. The display shows the requested GNSS information.

6.12.33.5

Displaying Site Information

Follow the procedure to display the current site name your radio is on.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Radio Info`. Press OK to select.
4. Press ▲ or ▼ to `Site Info`. Press OK to select.

The display shows the current site name.

6.12.34

Viewing Enterprise Wi-Fi Certificate Details

You can view the details of the selected Enterprise Wi-Fi Certificate.

1. Press OK to access the menu.
2. Press ▲ or ▼ to `Utilities`. Press OK to select.
3. Press ▲ or ▼ to `Certificate Menu`. Press OK to select.

   ✓ appears beside ready certificates.
4. Press ▲ or ▼ to the required certificate. Press OK to select.

Your radio displays the full details of the certificate.

NOTICE:
For unready certificates, the display shows only Status.

Authorized Accessories List

Motorola Solutions provides a list of accessories to improve the productivity of your radio.

Table 17: Antenna

Part Number	Description
HAF4019_	800/900, 806–941 MHz, 1/4 Wave
HAF4020_	800/900, 806–941 MHz, 3.0dB Gain
HAF4023_	800/900, 806–941 MHz, 5.0dB Gain
HAF4027_	800/900, 806–941 MHz, 5.0dB Gain, Through-Hole Mount, Mini-U
PMAD4107_	UHF, 350–400 MHz, 1/4 Wave, Through-Hole Mount, BNC

Table 18: Antenna for use with base PMAN4003_ only

Part Number	Description
HAE6027_	UHF, 494–512 MHz, 3.0 dB Gain, Through-Hole Mount
HAE6028_	UHF, 470–494 MHz, 3.0 dB Gain, Through-Hole Mount
HAE6029_[11]	UHF, 403–527 MHz, 2.0 dB Gain, Through-Hole Mount
HAE6030_	UHF, 470–527 MHz, 1/4 Wave, Through-Hole Mount
PMAE4039_	UHF, 403–430 MHz, 1/4 Wave
PMAE4041_	UHF, 450–470 MHz, 1/4 Wave
PMAE4040_	UHF, 406–420 MHz, 3.5 dB Gain
PMAE4042_	UHF, 450–470 MHz, 3.5 dB Gain
PMAE4043_	UHF, 450–470 MHz, 5.0 dB Gain

[11] Use with standard antenna bases

Citizens Band License

The use of the Citizens Band radio service is licensed in Australia by the Australian Communications and Media Authority (ACMA) Radiocommunications (Citizens Band Radio Stations) Class Licence and in New Zealand by the Ministry of Economic Development New Zealand (MED) General User Radio Licence (GURL) for Citizens Band Radio, and operation is subject to the conditions contained in those licences.

In Australia, a Citizens Band transmitter shall not be operated on UHF emergency channels 5 and 35 and no voice transmissions are permitted on data (telemetry/telecommand) channels 22 and 23, except in an emergency. The radio that complies to this Standard will inhibit voice operation on channels 22 and 23. In the event that additional telemetry/telecommand channels are approved by the ACMA, these channels shall be added to those currently listed where voice transmission is inhibited.

Always listen on a channel (or observe a channel-busy indicator) to ensure it is not already being used before transmitting.

Citizens Band Repeater Operation

A repeater is a station established at a fixed location that receives radio signals from one Citizens Band station and automatically retransmits the signal to another station using the corresponding output channel. UHF Citizens Band repeaters can be found in all states and enable the range of vehicle to vehicle communications to be significantly increased. Avoid operating on locally used repeater input channels (which are in the range of channels 31 to 38, and channels 71 to 78 when they are authorized) or locally used repeater receiving channels (which will be in the range channels 1 to 8, and channels 41 to 48 when they are authorized), unless long-distance communication via the repeater facility is specifically required.

NOTICE:
In Australia, channel 11 is the customary calling channel for establishing communication and channel 40 is the customary road vehicle channel.

Limited Warranty

MOTOROLA SOLUTIONS COMMUNICATION PRODUCTS

I. WHAT THIS WARRANTY COVERS AND FOR HOW LONG:

Motorola Solutions, Inc. ("Motorola Solutions") warrants the Motorola Solutions manufactured Communication Products listed below ("Product") against defects in material and workmanship under normal use and service for a period of time from the date of purchase as scheduled below:

Mobile Radios	Two (2) Years
Product Accessories	One (1) Year

Motorola Solutions, at its option, will at no charge either repair the Product (with new or reconditioned parts), replace it (with a new or reconditioned Product), or refund the purchase price of the Product during the warranty period provided it is returned in accordance with the terms of this warranty. Replaced parts or boards are warranted for the balance of the original applicable warranty period. All replaced parts of Product shall become the property of Motorola Solutions.

This express limited warranty is extended by Motorola Solutions to the original end user purchaser only and is not assignable or transferable to any other party. This is the complete warranty for the Product manufactured by Motorola Solutions. Motorola Solutions assumes no obligations or liability for additions or modifications to this warranty unless made in writing and signed by an officer of Motorola Solutions.

Unless made in a separate agreement between Motorola Solutions and the original end user purchaser, Motorola Solutions does not warrant the installation, maintenance or service of the Product.

Motorola Solutions cannot be responsible in any way for any ancillary equipment not furnished by Motorola Solutions which is attached to or used in connection with the Product, or for operation of the Product with any ancillary equipment, and all such equipment is expressly excluded from this warranty. Because each system which may use the Product is unique, Motorola Solutions disclaims liability for range, coverage, or operation of the system as a whole under this warranty.

II. GENERAL PROVISIONS

This warranty sets forth the full extent of Motorola Solutions responsibilities regarding the Product. Repair, replacement or refund of the purchase price, at Motorola Solutions option, is the exclusive remedy. THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. IN NO EVENT SHALL MOTOROLA SOLUTIONS BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW.

III. STATE LAW RIGHTS:

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION OR EXCLUSIONS MAY NOT APPLY.

This warranty gives specific legal rights, and there may be other rights which may vary from state to state.

IV. HOW TO GET WARRANTY SERVICE

You must provide proof of purchase (bearing the date of purchase and Product item serial number) in order to receive warranty service and, also, deliver or send the Product item, transportation and insurance prepaid, to an authorized warranty service location. Warranty service will be provided by Motorola Solutions through one of its authorized warranty service locations. If you first contact the company which sold you the Product (for example, dealer or communication service provider), it can facilitate your obtaining warranty service. You can also call Motorola Solutions at 1-800-927-2744.

V. WHAT THIS WARRANTY DOES NOT COVER

1 Defects or damage resulting from use of the Product in other than its normal and customary manner.

2 Defects or damage from misuse, accident, water, or neglect.

3 Defects or damage from improper testing, operation, maintenance, installation, alteration, modification, or adjustment.

4 Breakage or damage to antennas unless caused directly by defects in material workmanship.

5 A Product subjected to unauthorized Product modifications, disassembles or repairs (including, without limitation, the addition to the Product of non-Motorola Solutions supplied equipment) which adversely affect performance of the Product or interfere with Motorola Solutions normal warranty inspection and testing of the Product to verify any warranty claim.

6 Product which has had the serial number removed or made illegible.

7 Rechargeable batteries if:

- any of the seals on the battery enclosure of cells are broken or show evidence of tampering.
- the damage or defect is caused by charging or using the battery in equipment or service other than the Product for which it is specified.

8 Freight costs to the repair depot.

9 A Product which, due to illegal or unauthorized alteration of the software/firmware in the Product, does not function in accordance with Motorola Solutions published specifications or the FCC certification labeling in effect for the Product at the time the Product was initially distributed from Motorola Solutions.

10 Scratches or other cosmetic damage to Product surfaces that does not affect the operation of the Product.

11 Normal and customary wear and tear.

VI. PATENT AND SOFTWARE PROVISIONS

Motorola Solutions will defend, at its own expense, any suit brought against the end user purchaser to the extent that it is based on a claim that the Product or parts infringe a United States patent, and Motorola Solutions will pay those costs and damages finally awarded against the end user purchaser in any such suit which are attributable to any such claim, but such defense and payments are conditioned on the following:

1 Motorola Solutions will be notified promptly in writing by such purchaser of any notice of such claim,

2 Motorola Solutions will have sole control of the defense of such suit and all negotiations for its settlement or compromise, and

3 Should the Product or parts become, or in Motorola Solutions opinion be likely to become, the subject of a claim of infringement of a United States patent, that such purchaser will permit Motorola Solutions, at its option and expense, either to procure for such purchaser the right to continue using the Product or parts or to replace or modify the same so that it becomes non-infringing or to grant such purchaser a credit for the Product or parts as depreciated and accept its return. The depreciation will be an equal amount per year over the lifetime of the Product or parts as established by Motorola Solutions.

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VII. GOVERNING LAW

This Warranty is governed by the laws of the State of Illinois, U.S.A.

VIII. For Australia Only

This warranty is given by Motorola Solutions Australia Pty Limited (ABN 16 004 742 312) of Tally Ho Business Park, 10 Wesley Court. Burwood East, Victoria.

Our goods come with guarantees that cannot be excluded under the Australia Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Motorola Solutions Australia's limited warranty above is in addition to any rights and remedies you may have under the Australian Consumer Law. If you have any queries, please call Motorola Solutions Australia at 1800 457 439. You may also visit our website: http://www.motorolasolutions.com/XA-EN/Pages/Contact_Us for the most updated warranty terms.

www.motorolasolutions.com/mototrbo

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