

XPR 6300/6350/6500/6550

Digital Portable Radio

Quick Reference Card

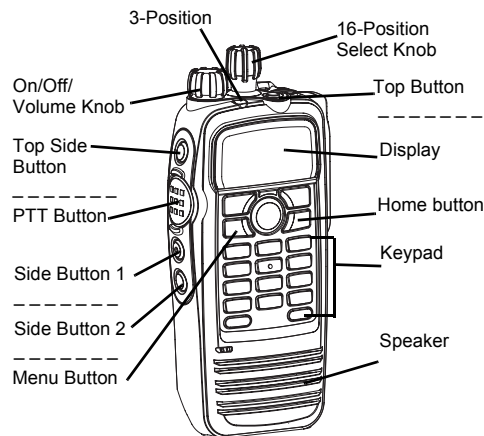
Product Safety and RF Exposure Compliance



Before using this product, read the operating instructions for safe usage contained in the Product Safety and RF Exposure booklet enclosed with your radio.

ATTENTION!

This radio is restricted to occupational use only to satisfy FCC RF energy exposure requirements. Before using this product, read the RF energy awareness information and operating instructions in the Product Safety and RF Exposure booklet enclosed with your radio (Motorola Publication part number 6881095C98) to ensure compliance with RF energy exposure limits.



Write your radio's programmed features on the dotted lines.

Select a Zone Using the Menu

- 1 Press until ZONE
- 2 Press , , or directly below ZONE.
- 3 Press until the zone you desire is shown
OR
Use the **keypad** directly to dial the zone number.
- 4 Press to confirm, or press **PTT** to transmit.

Select a Channel

Method 1: Using the Select Knob

After selecting the desired zone, turn the 16-position Select Knob to the desired channel.

Method 2: Using the Menu

- 1 Press until CHAN
- 2 Press , , or directly below CHAN.
- 3 Press until channel you desire is shown
- 4 Press to confirm, or press **PTT** to transmit.

Send an Emergency Alarm

- 1 Radio on and press **Emergency** button. You see red LED; you hear short, medium-pitched tone.
- 2 Display shows EMERGENCY
- 3 When acknowledgment is received, you hear four tones; alarm ends; radio exits emergency.

Send Silent Emergency Alarm

- 1 Radio on and press **Emergency** button. You see no LED; you hear no tone.
- 2 Press **PTT**.
- 3 Alarm continues until you exit by:
 - Press and hold **Emergency** button for one second.**OR**
 - Press **PTT** again.

Answer a Phone Call

- 1 Phone-like ringing, LED flashes GREEN, PHONE CALL and are displayed.
- 2 Press **Call Response** button.
- 3 Press **PTT** button to talk; release to listen.
- 4 Press to hang up.

Send a Phone Call

- 1 Press until PHON
- 2 Press , , or directly below PHON.
- 3 Press or to scroll to phone number.
- 4 Press **PTT** (or **Quick Access** button, if programmed) to talk, release to listen.

Display Status Symbols

	Call Received. Receiving an individual call
	View/Program Mode. The radio is in the view or program mode; On Steady = view mode; Flashing = program mode
	Received Signal Strength Indication (RSSI). Received signal strength for the current site (trunking only). The more stripes in the symbol, the stronger the signal.
	Battery • Conventional = Flashes when the battery is low. • Smart = The number of bars (0-3) shown indicates the charge remaining in your battery. Note: Smart battery will be available at a future date.
	Talkaround. You are talking directly to another radio or through a repeater; On = direct; Off = repeater
	Monitor (Carrier Squelch). This channel is being monitored.
	Scan. The radio is scanning a scan list

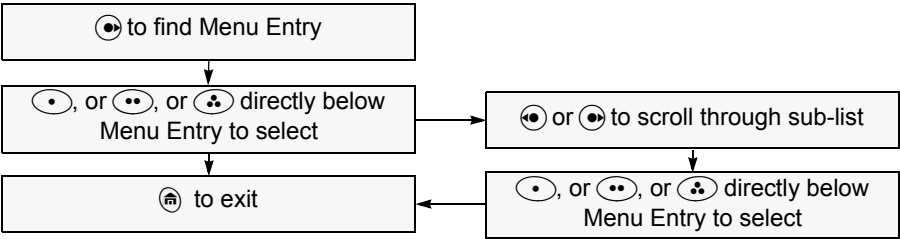
Menu Entries (Use With Menu Navigation)

<i>Entry</i>	<i>Menu Selection</i>	<i>Page</i>
BATT	*Smart Battery	17
CALL	Private Call	58
CHAN	Select a Channel	25
CLOCK	Edit Time and Date	68
DIR	Repeater/Direct	64
MUTE	Keypad Mute	35
NAME	Text Select	47
NUM	Number Select	45
PAGE	Call Alert Page	60

*Available at a future date.

<i>Entry</i>	<i>Menu Selection</i>	<i>Page</i>
PHON	Phone	53
PROG	Editing	45
PSWD	Password	34
PWR	TX Power Level	31
RPGM	Reprogram Request	76
SCAN	Scan On/Off	49
SITE	Site Lock	80
TGRP	Talkgroup Call	63
VIEW	Viewing a List	43
ZONE	Select a Zone	24

Menu Navigation





MOTOROLA

XPR 6300/6350/6500/6550

Digital Portable Radio

User Guide

6816821H01

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For a list of Motorola-approved antennas, batteries, and other accessories, visit the following web site which lists approved accessories: <http://www.motorola.com/governmentandenterprise>

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Table 1: Channel Map

Use the chart below to map the channels (Cx) and zones (Zx) for your radio.

	Z1	Z2	Z3	Z4	Z5	Z6
C1						
C2						
C3						
C4						
C5						
C6						
C7						
C8						
C9						
C10						
C11						
C12						
C13						
C14						
C15						
C16						

Notes

General Radio Operation

Notations Used in This Manual

You will notice the use of **WARNINGS**, **CAUTIONS**, and **Note** throughout this manual. These notations are used to emphasize that safety hazards exist and that care must be taken or observed.



WARNING: An operational procedure, practice, condition, etc. exists which may result in injury or death if not carefully observed.



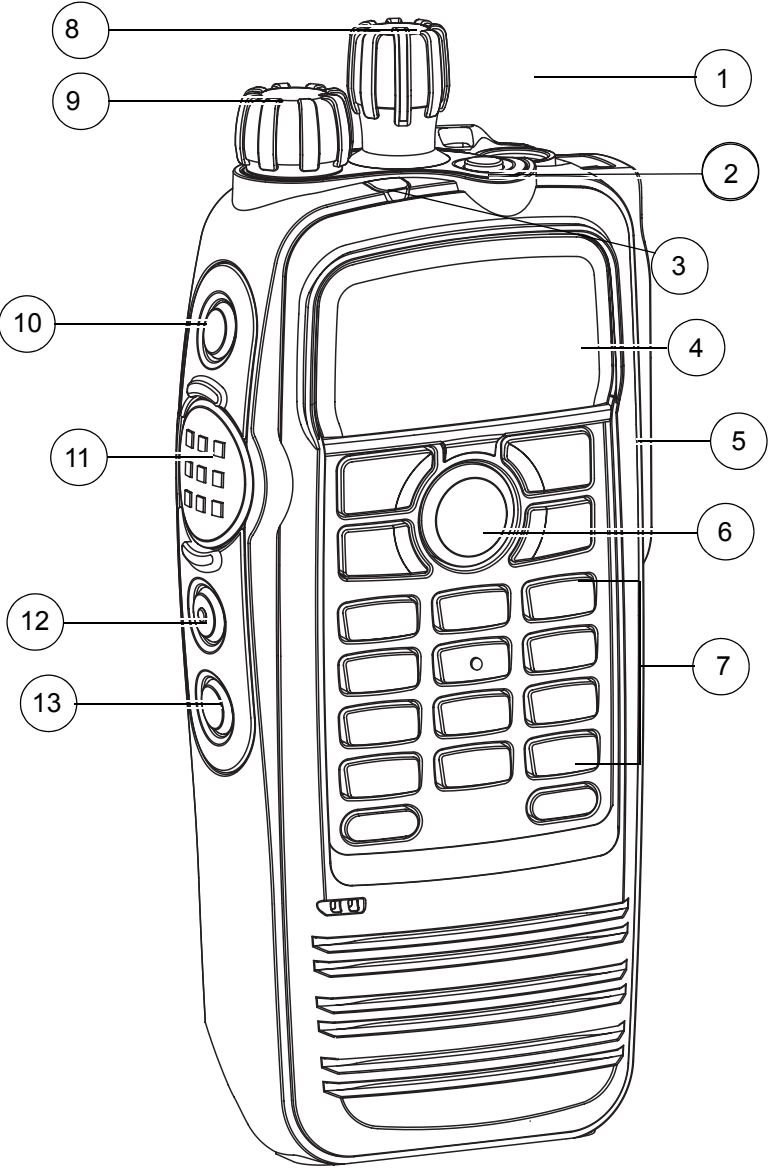
CAUTION: An operational procedure, practice, condition, etc. exists which may result in damage to the equipment if not carefully observed.

Note: A **Note** is an operational procedure, practice, or condition, etc. which is essential to emphasize.

The following special notations identify certain items:

Example	Description
Light button, or 	Buttons and keys are shown in bold print, or as representative symbols.
	Information appearing in the radio's display is shown using the special display font.
PHONE	Menu entries are shown similar to the way they appear in the radio's display.
Press 	This means "Press the right side of the 4-Way Navigation button."

XPR 6300/6350/6500/6550 Radio



Physical Features of the XPR 6300/6350/6500/6550 Radio

Item		Page
1	Antenna	18
2	Top Button (programmable)	
3	LED	11
4	Display	
5	Universal Connector	20
6	Menu Select Buttons	5
7	Keypad	7
8	16-Position Knob (programmable)	
9	On/Off/Volume Control Knob	10
10	Top Side (Select) Button (programmable)	
11	Push-to-Talk (PTT) Button	
12	Side Button 1 (programmable)	
13	Side Button 2 (programmable)	

Programmable Features

The programmable controls on your radio can be programmed by a qualified technician to operate certain software-activated features. The features that can be assigned to these controls, and the page numbers where these features can be found, are listed below.

Table 1: Programmable Features

Feature	Page	Feature	Page
Call Alert Page	60	Private Call	57
Call Response	53	Repeater/Direct	64
Channel Selection	25	Reprogram Request	76
Dynamic Priority	52	Scan On/Off	49
Emergency	39	Site Lock/Unlock	80
Keypad Mute	35	Site Search	81
Light	5	*Smart Battery	17
Monitor	29	Transmit Power Level	31
Nuisance Delete	51	Volume Set	27
Phone	53	Zone Selection	24
PL Defeat	37		

*Available at a future date.

Any references in this manual to controls that are “preprogrammed” means that a qualified technician must use the radio’s programming software to assign a feature to a control.

Display



This figure is typical of what you see on your radio. The 132x34 full dot matrix black and white liquid crystal display (LCD) shows radio status, text, and menu entries.

Backlight

If poor light conditions make the display and keypad difficult to read, turn Auto On/Off the automatic backlight option via radio menu.

This illumination of yellow-green will remain on for a preprogrammed time before they turn off automatically, or you can turn them off immediately by pressing the **Light** button again.

Status Symbols

The top two rows in the display contain symbols indicating the radio's status.

Table 2: Status Symbols

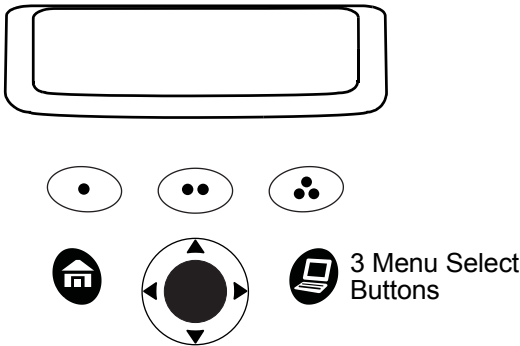
Symbol	Indication	Page
	Call Received. Flashes when an Individual Call is received.	57
	View/Program Mode. - View a list (steady) - Program a list (flashing)	43
	Received Signal Strength Indication (RSSI). The received signal strength for the current site. Trunked only. The more stripes in the symbol, the stronger the received signal.	81
	Battery - Conventional = Flashes when the battery is low. - Smart = The number of bars (0-3) shown indicates the charge remaining in your battery. Flashes when battery level reaches 10% or less. Note: Smart battery will be available at a future date.	15
	Talkaround. - On = Talking directly to another radio, not through a repeater. Conventional operation only. - Off = Talking through a repeater.	64
	Monitor (Carrier Squelch). The selected channel is being monitored. Conventional operation only.	29
	Scan. The radio is scanning a scan list.	49

Menu Entry (Softkey)

The bottom row of the display contains one to three menu entries (also known as softkeys). The menu entries allow you to select from one of several menus to access the radio's features. The menu entries are accessed using the **Menu Select** buttons.

Menu Select Buttons

The **Menu Select** buttons access the menu entries of features that have been activated by a qualified radio technician. Your radio may be programmed differently from the following example, but the display for selecting Scan on or off might look like this:



Example: To turn scan on:

Press .

The display shows the selected state.



Menu Entry Features

In most cases, press  to display the following feature selections.

Table 3: Menu Entry Features

Feature	Menu Entry	Page	Feature	Menu Entry	Page
Call Alert Page	PAGE	61	Reprogram Request	RPGM	76
Channel Selection	CHAN	25	Scan On/Off	SCAN	49
Edit a List	PROG	45, 47	Site Lock/Unlock	SITE	80
Keypad Mute	MUTE	35	Smart Battery*	BATT	17
Number Select	NUM	45	Talkgroup Call	TGRP	63
Password	PSWD	34	Text Select	NAME	47
Phone	PHON	54	Time/Date	CLCK	68
Private Call	CALL	58	Transmit Power Level	PWR	31
Radio Lock	RADIO LOCKED	33	View a List	VIEW	43
Repeater/ Direct	DIR	64	Zone Selection	ZONE	24

*Available at a future date.

Home Button (🏠)

The **Home** button will always return you to the home (default) display. In most cases, this is the current mode.

Some radio features that can be edited by you require saving information in memory. Pressing the **Home** button while using those features will cause information to be saved before going to the home display.

Some features do not require you to press the **Home** button to go to the home display. This reduces the required number of button presses.

Keypad

The 3 x 4 alphanumeric keypad provides an interface to your radio's features.

The keypad functions in a manner similar to a standard telephone keypad when entering numeric digits.

When the keypad is used to edit a list, each key can generate different characters of the alphabet. Refer to the following table for a complete list of characters.

Table 4: Keypad Character Editing Table

Key	Number of times the key is pressed								
	1	2	3	4	5	6	7	8	9
0	0	(	)	<	>				
1	1	&	%						
2abc	A	B	C	2	a	b	c		
3def	D	E	F	3	d	e	f		
4ghi	G	H	I	4	g	h	i		
5jkl	J	K	L	5	j	k	l		
6mno	M	N	O	6	m	n	o		
7pqrs	P	Q	R	S	7	p	q	r	s
8tuv	T	U	V	8	t	u	v		
9wxyz	W	X	Y	Z	9	w	x	y	z
*	*	/	+	-	=				
#	#	.	!	?	,	;			

LED Indicators

Table 5: LED Indicators

This LED Color:	Indicates:
RED (Illuminated)	Transmitting
RED (Blinking)	• Channel Busy or • Low Battery (lights while transmitting)
GREEN (Blinking)	Receiving Individual Call

Alert Tones

Your radio uses alert tones to inform you of radio conditions.

Table 6: Alert Tones

You hear:	Tone Name	Heard:
<i>Short, Low-Pitched Tone</i>	Invalid Key-Press	when the wrong key is pressed.
	Radio Self-Test Failed	when the radio fails the power-up self test.
	Reject	when an unauthorized request is made.
	Time-Out Timer Warning	four seconds before time out.
<i>Long, Low-Pitched Tone</i>	No ACK Received	when the radio does not receive an acknowledgment.
	Time-Out Timer Timed Out	after time out.
	Talk Prohibit/PTT Inhibit	(when the PTT button is pressed) transmissions are prevented.
	Out-of-Range	(when the PTT button is pressed) the radio is out of range of the system.
	Invalid Mode	when the radio is set to an unprogrammed channel.
	Individual Call Warning Tone	when the radio is in Individual Call without any activity for more than 6 seconds.

Table 6: Alert Tones (Continued)

You hear:	Tone Name	Heard:
<i>A Group of Low-Pitched Tones (Busy Tone)</i>	Busy	when the system is busy.
<i>Short, Medium-Pitched Tone</i>	Valid Key-Press	when the correct key is pressed.
	Radio Self-Test Pass	when the radio passes its power-up self-test.
	Priority Channel Received	when activity on a priority channel is received.
	Emergency Alarm Entry	when entering the emergency state.
	Central Echo	when the central controller has received a request from a radio.
<i>Long, Medium-Pitched Tone</i>	Volume Set	when volume changed on a quiet channel.
	Emergency Exit	upon exiting the emergency state.

Table 6: Alert Tones (Continued)

You hear:	Tone Name	Heard:
<i>A Group of Medium-Pitched Tones</i>	Failsoft	when the trunking system fails.
	Automatic Call Back	when the voice channel is available from the previous request.
	Talk Permit	(When pressing the PTT button) verifies the system is accepting transmissions.
	Console Acknowledge	when a status, emergency alarm, or reprogram request acknowledgment is received.
	Received Individual Call	when a Call Alert, or Private Conversation Call is received.
	Call Alert Sent	when a Call Alert is received by the target radio.
<i>Short, High-Pitched Tone (Chirp)</i>	Low-Battery Chirp	when the battery is below the preset threshold value.
<i>Ringing</i>	Fast Ringing	when the system is searching for the Private Conversation Call target radio.
	Enhanced Call Sent	when waiting for the Private Conversation Call target radio to respond to the call.
	Phone Call Received	when a landline phone call is received.
<i>Gurgle</i>	Dynamic Regrouping	when the PTT button is pressed, a dynamic ID has been received.

Standard Accessories

Battery



To avoid a possible explosion:

- **DO NOT** replace the battery in any area labeled “hazardous atmosphere”.
- **DO NOT** discard batteries in a fire.

Charge the Battery

The Motorola-approved battery shipped with your radio is uncharged. Prior to using a new battery, charge it for a minimum of 16 hours to ensure optimum capacity and performance.

For a list of Motorola-authorized batteries available for use with your XPR 6300/6350/6500/6550 radio, see “Batteries” on page 77.

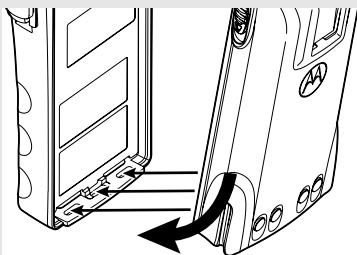
Note: When charging a battery attached to a radio, turn the radio off to ensure a full charge.

Battery Charger

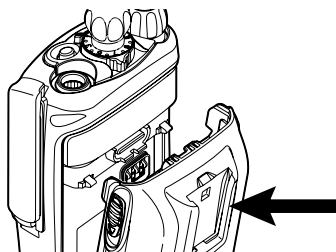
To charge the battery, place the battery, with or without the radio, in a Motorola-approved charger. The charger’s LED indicates the charging progress; see your charger’s user guide. For a list of chargers, see “Chargers” on page 78.

Attach the Battery

- 1 With the radio off, fit the three extensions at the bottom of the battery into the bottom slots on the radio.

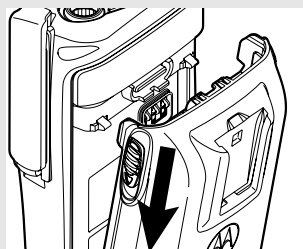


- 2 Press the top of the battery against the radio until both latches click into place.

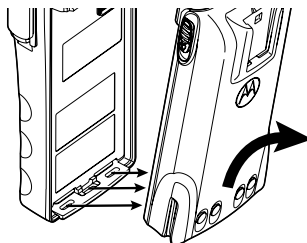


Remove the Battery

- 1 With the radio off, slide down the latches on the sides of the battery.



- 2 Pull the top of the battery away from the radio.



Smart Battery Condition

This feature lets you view the condition of your Smart Battery when it becomes available.

Use the Menu

- 1 Press  to find BATT.

BATT

- 2 Press , , or  directly below BATT.

CAPACITY	70%
INIT	10/01
EST CHGS	11

Note: If a Smart Battery is not powering your radio

SMART BATT
DATA NOT
AVAILABLE

- 3 Press  to exit.

Use the Preprogrammed Smart Battery Button

- 1 Press the **Smart Battery** button.

CAPACITY	70%
INIT	10/01
EST CHGS	11

Note: If a Smart Battery is not powering your radio

SMART BATT
DATA NOT
AVAILABLE

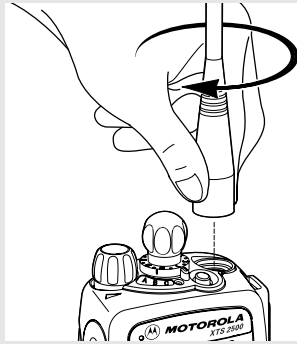
- 2 Press  to exit.

Antenna

For information regarding other available antennas, see page 77.

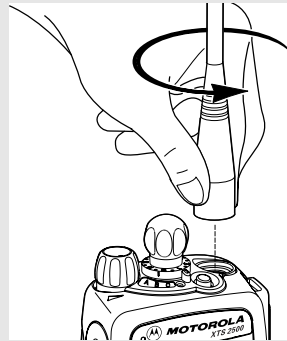
Attach the Antenna

With the radio off, turn the antenna clockwise to attach it.



Remove the Antenna

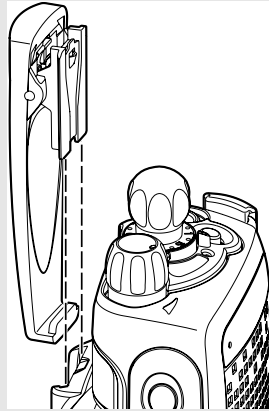
With the radio off, turn the antenna counter-clockwise to remove it.



Belt Clip

Attach the Belt Clip

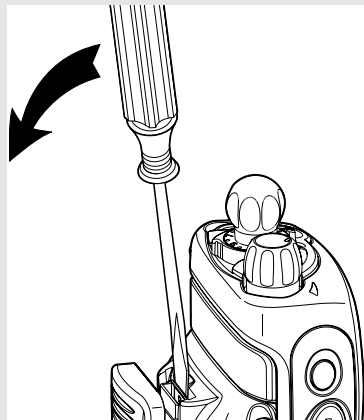
- 1 Align the grooves of the belt clip with those of the battery.



- 2 Press the belt clip downward until you hear a click.

Remove the Belt Clip

- 1 Use a flat-bladed screwdriver to press the belt clip tab away from the battery.



- 2 Slide the belt clip upward to remove it.

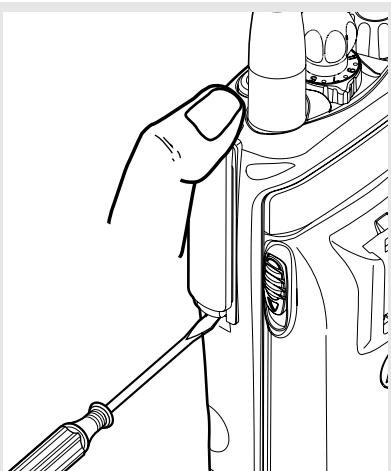
Universal Connector Cover

The universal connector cover is located on the antenna side of the radio. It is used to connect certain accessories to the radio.

Note: To prevent damage to the connector, shield it with the connector cover when not in use.

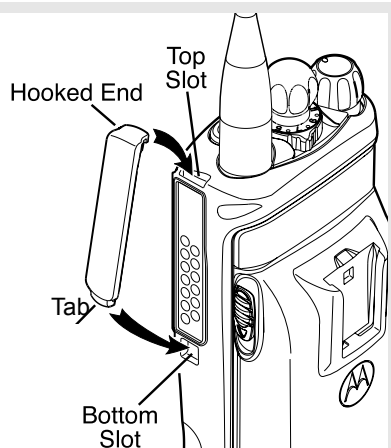
Remove the Connector Cover

- 1 Insert a flat-bladed screwdriver into the area between the bottom of the cover and the slot below the connector.
- 2 Hold the top of the cover with your thumb while you pry the bottom of the cover away from the radio with the screwdriver.



Attach the Connector Cover

- 1 Insert the hooked end of the cover into the top of the connector. Press downward on the cover's top to seat it into the slot.
- 2 Press the cover's lower tab below the connector until it snaps in place.



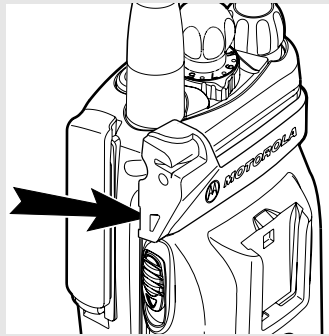
Remote Speaker Microphone Adapter

The Remote Speaker Microphone (RSM) adapter is located on the back of the radio, just above the battery. **It must be used to connect the RSM accessories (see page 80) to the radio.** If the RSM is not used, the adapter should be removed.

Remove the Adapter

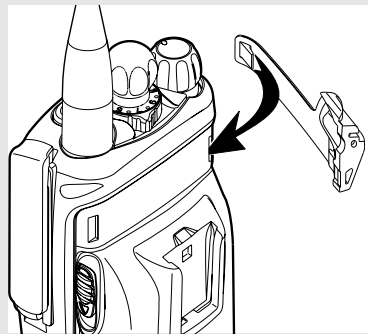
Lift the larger side (below the antenna port) of the adapter away from the radio using your finger.

If you cannot easily remove the adapter with your finger, use a small, flat bladed screwdriver to pry the larger end side of the adapter away from the radio.

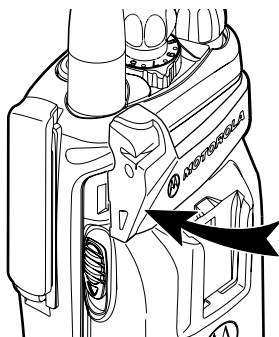


Attach the Adapter

- 1 With the Motorola side of the adapter facing out, snap the smaller end of the adapter into place in the shroud indent, below the **On/Off Volume Control Knob**.



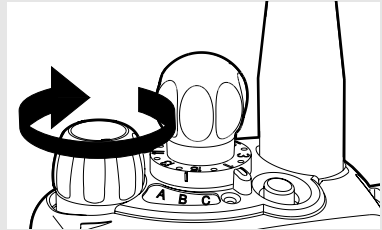
- 2 Snap the larger end of the adapter into place in the shroud indent, below the antenna port.



Radio On and Off

Turn the Radio On

Turn the **On/Off/Volume Control** knob clockwise.



- If the power-up test is successful, you will briefly see **Self Test** and then the home display.
- If the power-up test is unsuccessful, you will see **ERROR XX/YY**. (XX/YY is an alphanumeric code.) Turn off the radio, check the battery, and turn the radio on again. If the radio continues to fail the power-up test, record the **ERROR XX/YY** code and contact a qualified service technician.

Self Test

ERROR XX/YY

Turn the Radio Off

Turn the **On/Off/Volume Control** knob counterclockwise until it clicks.

