







HT1250·LS+

**Professional Series** 

Two-Way Radio User Guide

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# **Notes**

## **SAFETY**

# 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 68P81095C98) to ensure compliance with RF energy exposure limits.

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

#### BATTERY INFORMATION

### **Charging Batteries**

This product is powered by a nickel-cadmium (NICd), nickel-metal-hydride (NiMH), or lithium-ion rechargeable battery. Charge the battery before use to ensure optimum capacity and performance. The battery was designed specifically to be used with a Motorola charger. Charging in non-Motorola equipment may lead to battery damage and void the battery warranty.

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

The battery should be at about 77°F (25°C) (room temperature), whenever possible. Charging a cold battery (below 50° F [10°C]) may result in leakage of electrolyte and ultimately in failure of the battery. Charging a hot battery (above 95°F [35°C]) results in reduced discharge capacity, affecting the performance of the radio. Motorola rapid-rate battery chargers contain a temperature-sensing circuit to ensure that batteries are charged within the temperature limits stated above.

SAFETY

# **Notes**

## **INTRODUCTION**



Welcome to Motorola's HT Series family of radio users. The HT1250•LS+<sup>™</sup>, the Intelligent Radio, combines the very latest in two-way technology while delivering

outstanding functionality at the touch of a button.

The HT1250•LS+ portable radio operates on PassPort® and LTR trunked and conventional radio systems.

#### TRUNKED RADIO SYSTEMS

Trunked systems allow a large number of users to share a relatively small number of frequencies or repeaters without interfering with each other. The airtime of all the repeaters in a trunked system is pooled, which maximizes the amount of airtime available to any one radio and minimizes channel congestion.

## PassPort® Trunked Systems

PassPort is an enhanced trunking protocol developed by Trident Micro Systems that supports wide area dispatch networking. A network is formed by linking several trunked sites together to form a single system. This offers users an extended communication coverage area. Additionally, users with PassPort can seamlessly roam among all sites within the network. Seamless roaming means that the radio user does not have to manually change the zones on the radio when roaming from site-to-site.

## LTR® Trunked Systems

LTR is a transmission-based trunking protocol developed by the E. F. Johnson Company for primarily single site trunking applications. In transmission trunking, a repeater is used for only the duration of a single transmission. Once a transmission is completed, that repeater becomes available to other users. This means that a conversation comprised of many transmissions may occur over several different channels within the LTR system. This method of trunking provides system efficiency

by making repeaters available to all users after every transmission.

## **CONVENTIONAL RADIO SYSTEMS**

Conventional radio systems typically refers to unit-to-unit communications through a single channel. Conventional systems also allow radio users to extend communication coverage by relaying their messages through a repeater. To ensure coordinated use by multiple talkgroups, each radio user must monitor the channel or repeater before transmitting to verify that the system is not currently busy.

#### HT1250•LS+ RADIO FEATURES

Note:

Throughout this manual there are features listed as trunked and conventional. **Trunked** indicates the feature functions in both PassPort and LTR zones unless otherwise noted. **Conventional** indicates the feature functions in Conventional zones only.

### **HT1250•LS+ Portable Feature Highlights:**

#### Radio Wide Features

- 14-Character Alphanumeric Display
- 7 Programmable Feature Buttons
- Up to 15 PassPort and/or LTR Zones with up to 16 Talkgroups per Zone
- Up to 16 Conventional Channels
- X-Pand<sup>™</sup> Audio Enhancement Selectable by Conventional Channel, LTR repeater or PassPort Talkgroup
- Home Channel Revert
- Telephone Interconnect
- User-programmable Phone and Scan Lists
- Voice Storage Capability

#### **PassPort Zone Features**

- Unique Mobile Identification Number (MIN) per radio
- Unique Electronic Serial Number (ESN) per radio
- Registration/Deregistration upon power up/power down
- Automatic Seamless Roaming Between Networked Sites
- Site/Talkgroup Restriction
- Optional Primary Talkgroup
- Primary Talkgroup Transmit Inhibit

## PassPort Zone Features (Cont.)

- Registered Site and Mobile Identity View
- User Initiated Roam Request
- Push-To-Talk (PTT) ID Aliasing
- Primary Auto Group Scan and PassPort Group Scan
- Roam (Site) Lock
- Call Signaling Features
  - PTT ID Alias or MIN

     (Display of Mobile
     Identification Number or Alias if preprogrammed in the radio.)

     Selective Call

     Call Alert

- Radio Check

Name/Call Tone

- PTT ID

- Call List

Tagging

#### LTR Zone Features

- MDC 1200 Signaling
  - Call Alert
  - Selective Call
  - Emergency Alert
  - Message Status
  - Selective Radio Inhibit

- Auto Group System, All Group Scan
- System Scan with 2 Priority Levels

#### **Conventional Zone Features**

- MDC 1200 Signaling
  - Call Alert
  - Selective Call
  - Emergency
     Alert
  - Message Status
  - Selective Radio Inhibit

- Radio Check
- PTT ID
- Call List
   Name/Call Tone
  - Tagging

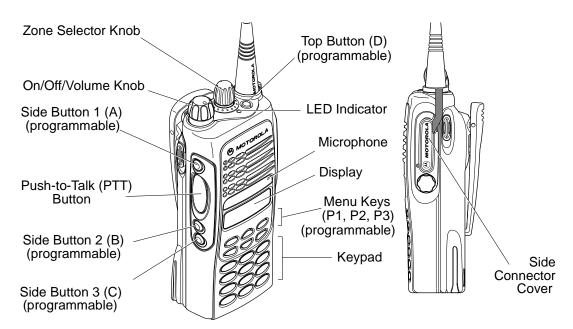
- Monitor and Sticky Permanent Monitor
- System Scan with 2 priority levels

# **Notes**

## **RADIO OVERVIEW**

### PARTS OF THE RADIO

#### HT1250•LS+ Model



#### On/Off/Volume Knob

Turns the radio on or off, and adjusts the radio's volume.

#### **Zone Selector Knob**

Switches the radio to different trunked and conventional zones. It is also used to scroll through menu choices when in Menu Mode.

#### **LED Indicator**

Indicates battery status (see page 24); or the status of power-up, scan, or receipt of a talkgroup or selective call (see table below):

LED Color	Indicates
Steady red	Radio is transmitting ( <b>PTT</b> button pressed)
Flashing red	Radio is attempting to access trunked system ( <b>PTT</b> button pressed), or
	Radio is receiving (PTT button released)
Double	Call Light feature, or
flashing yellow	Individual Selective Call Received (trunked operation only)

LED Color	Indicates
Single flashing yellow	Group Selective Call received (trunked operation only) Individual Selective Call or Call Alert (PassPort operation only)
Momentary green	Radio has powered-up successfully
Double flashing green	System or All Group Scan operation, PassPort Group Scan

## Push-to-Talk (PTT) Button

Press and hold down this button to talk; release it to listen.

### Microphone

When sending a message, hold the microphone 1 to 2 inches (2.5 to 5 cm) away from your mouth, and speak clearly into the microphone.

Menu Keys Exit	Up	Menu/Select		
<u> </u>		□/•		
PI	<b>P2</b>	P3		
Left	Down	Right		

## Menu/Select Key 1/9

Used to enter menu mode. When in menu mode, this key is also used to make menu selections.

## Exit Key (S)

Used to move to the previous menu level (short press) or to exit menu mode (long press).

## Up Key and Down Key

- Used to scroll through the preprogrammed talkgroups of a selected trunked zone, or through conventional channels when in conventional zone.
- Used for scrolling when in menu mode.
- The key can also be programmed with a radio feature (see page 16).

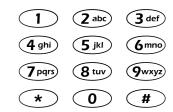
## Right Key P3

Moves the cursor right or inserts a space when editing call, scan, and phone lists. This key can also be programmed with a radio feature (see page 16).

## Left Key P1

Used as a backspace key when editing radio call, scan, and phone lists. This key can also be programmed with a radio feature (see page 16).

## **Keypad Keys**



These keys are used for:

- Dialing a phone number
- Entering a specific radio ID number when making a selective call or call alert
- Entering information when programming radio call, scan, and phone lists

Each key can generate several different characters. For example, to enter the character "C," press the (2 abc) key three times. (Refer to the following table.)

# **Entering Characters Using the Keypad**

	Number of Times Key is Pressed														
Key	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	0	(	)	<	>										
1	1	&	%	#	*										
2 abc	Α	В	С	2	а	b	С	2	Á	Ç	à	á	Ç		
3 def	D	Е	F	3	d	е	f	3	È	É	Ê	è	é	ê	
4 ghi	G	Н	I	4	g	h	i	4	ĺ	ì	ĺ				
5 jkl	J	K	L	5	j	k	- 1	5							
(6mno	М	N	0	6	m	n	0	6	Ñ	Ó	Ô	ò	ó	ô	ö
7 pqrs	Р	Q	R	S	7	р	q	r	s	7					
8 tuv	Т	U	V	8	t	u	٧	8	Ú	ù	ú				
9wxyz	W	Х	Υ	Z	9	W	х	у	Z	9	Ý	ý			
*	*	/	+	-	=										
#	#	Blank Space	-		!	?	,	"	,	;	:				

## **Display**



The top two screen rows display menu and radio status information:

Symbol	Indication
X-Pand	The X-Pand feature is activated. When in narrow band, this feature improves audio quality.
LH Power Level	Low Power "L" or High Power "H" is activated.
□ Monitor	The selected channel is being monitored (conventional operation only).
① Phone	Phone mode is selected.

Symbol	Indication
<u>A</u> Emergency	An Emergency Siren is being sounded. Or, an Emergency Alarm is being sent.
Call Received (LTR/Conv.)	A Selective Call or Call Alert has been received (LTR trunked and Conventional operation only).
Incoming Call/ Page (PassPort Selective Call/ Call Alert)	A Selective Call or Call Alert has been transmitted or received. Flashing icon indicates call attempt in progress, while a solid icon indicates that the call has been established (PassPort operation only).
ス	When the green LED is blinking, it indicates that the System, PassPort Scan, or All Group Scan feature has been activated.
Scan	When the green LED is off, it indicates that non-prioritized Auto Group Scan has been activated.

Symbol	Indication
Z <sub>*</sub> •Priority 1 Scan ( ● flashing)	Indicates activity on a priority 1 talkgroup or channel during System Scan.
Z. Priority 2 Scan ( ● steady)	When the green LED is on, it indicates activity on a priority 2 talkgroup or channel during System Scan. When the green LED is off, it indicates prioritized Auto Group Scan has been activated.
→  Talkaround	You are not transmitting through a repeater (Conventional operation only).
Programming Mode	A Program list is being edited.
<b>◯</b> Keypad Lock	Keypad is locked.

Symbol	Indication
Battery Level	The number of bars (0–4) shown indicates the charge remaining in your battery.
BB:BBAM Clock	Shows the time (12- or 24-hour).
Signal Strength	The more bars, the stronger the signal being received by your radio.
PassPort Zone	A PassPort zone has been selected.

## **Programmable Buttons**

Several of your radio's buttons can be programmed by your dealer as shortcuts to many of the radio's features.

Programmable buttons include:

- The Three Side Buttons (A, B, C) and the Top Button (D)
- The Three Lower Menu Keys (P1, P2, P3) (when the radio is not in menu mode)

Each button can access up to two features, depending on the type of button press:

 Short Press—quickly pressing and releasing the programmable buttons,

-or-

 Long Press—pressing and holding the programmable buttons for a period of time (programmable for 1/2 to 1 1/2 seconds),

-or-

 Hold Down—pressing and holding down the programmable buttons while checking status or making adjustments. The table on page 18 summarizes the programmable features available and shows the page number where the feature is explained.

In the "Button" column, have your dealer write down the programmable buttons next to the features that have been programmed to them.

Use the abbreviations (for example, A for Side Button 1, D for Top Button, etc.) shown in the radio illustration at the front of this manual.

Also, where a choice exists, have your dealer indicate whether the button press is short press (SP) or long press (LP).

Check with your dealer for a complete list of features your radio supports.

## **Programmable Features**

Feature	Indicator	Short Press	Long Press	Hold Down	Page	Button
Battery Gauge	LED Color	_	_	Check the battery's charge status.	24	
Emergency (Top button only)	A	Initiate Emergency Siren or Emergency Alarm (Conventional mode only).	Cancel Emergency Siren or Cancel Emergency Alarm (Conven- tional mode only).	_	52	
Home Channel Revert	_	Directly access your favorite trunked zone and talkgroup or conventional channel.†		_	33	
Keypad Lock	Ø	_	Toggle keypad between locked and unlocked.	_	_	
Light	_	Turn on your radio backlight.†		_	_	
Monitor §	Д	Exit permanent monitor mode.	Enter permanent monitor mode.	Continually monitor channel	_	
Phone	0	Directly access Pho	Directly access Phone mode.†		76	
Radio Call ‡§	LED Color	Directly access radio call menu.†		_	45	
Member Call <sup>‡§</sup>	_	Directly access one of the first 3 members of your Radio Call List.		_	45, 47	

<sup>†</sup> This feature is activated by **EITHER** a short **OR** a long press, but not both.

<sup>§</sup> Conventional operation only. ‡LTR trunked operation only. \*PassPort trunked operation only.

## **Programmable Features (Cont.)**

Feature	Indicator	Short Press	Long Press	Hold Down	Page	Button
Speed Call ‡§	_	Display last entry ca	lled. †	_	45, 47	
Repeater/Talkaround §	<b> →</b>	Toggle between using a conventional repeater or transmitting directly to another radio.†		_	32	
Roam Request*	Searching	Manually initiate PassPort roaming function.†	Stop PassPort roaming function.	_	38	
Home Site Revert*	Searching	Turn Home Site Rev	ert on.†	_	39	
Roam Lock*	_	Turn Roam Lock on	Turn Roam Lock on or off.†		40	
Selective Call* (Preprogrammed Button)	LED Color	Send a Selective Call.†		_	57	
Selective Call* (One-Touch Button)	_	Directly access the Radio Call List.†		_	59	
Call Alert* (Preprogrammed Button)	LED Color	Send a Call Alert <sup>†</sup>		_	61	
Call Alert* (One-Touch Button)	_	Directly access the Radio Call List.†			62	
Power Level	ĽН	Toggle transmit power level between high and low.†		_	99	

<sup>&</sup>lt;sup>†</sup> This feature is activated by **EITHER** a short **OR** a long press, but not both.

<sup>§</sup> Conventional operation only. ‡ LTR trunked operation only. \*PassPort trunked operation only.

## **Programmable Features (Cont.)**

Feature	Indicator	Short Press	Long Press	Hold Down	Page	Button
Scan/Delete Nuisance Channel	ス	Turn PassPort Group, All Group, and System scan on or off.	Delete a nuisance channel while scanning.	_	70	
Site/MIN View*	_	Display the PassPort site number on which the unit is registered, the Home Site and unit's MIN (Mobile Identification Number).†		_	37	
Speed Dial	_	Quickly access spee	Quickly access speed dial phone list.†		67	
Squelch §	_	Toggle squelch level between tight and normal.†		_	88	
Voice Storage Record/ Playback	_	Playback recorded messages.	Record voice memos.	_	87	
Voice Storage Playback Exit	_	Exit Voice Storage Play Back mode.†		_	87	
Voice Storage Playback Delete	_	Delete recorded messages.†		_	88	
Volume Set	_	_	_	Sound a tone for adjusting your radio's volume level.	29	

<sup>†</sup> This feature is activated by **EITHER** a short **OR** a long press, but not both.

<sup>§</sup> Conventional operation only. ‡ LTR trunked operation only. \*PassPort trunked operation only.

## **Programmable Features (Cont.)**

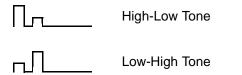
Feature	Indicator	Short Press	Long Press	Hold Down	Page	Button
Edit Scan List	_	Add, Delete, or Prioritize talkgroups or channels.		_	70	
Status§	_	Direct entry to the message menu.†		_	50	
Message§	_	Direct entry to the message menu.†		_	51	

<sup>&</sup>lt;sup>†</sup> This feature is activated by **EITHER** a short **OR** a long press, but not both.

<sup>§</sup> Conventional operation only. ‡LTR trunked operation only. \*PassPort trunked operation only.

# AUDIO INDICATORS FOR PROGRAMMABLE BUTTONS

In addition to having visual indicators, some programmable buttons use tones to indicate one of two modes:



Button	High-Low Tone	Low-High Tone
Scan	Stop scan	Start scan
Power Level	High power selected	<b>Low</b> power selected
Squelch (no visual indicator)	Normal squelch	Tight squelch
Keypad Lock	Unlocked	Locked
Repeater/ Talkaround	Uses conventional repeater	Does not use conventional repeater

## **GETTING STARTED**

#### **BATTERY INFORMATION**

#### **Charging the Battery**

If a battery is new or its charge level is very low, you need to charge it before you can use it.

**Note:** Batteries are shipped uncharged from the factory. Always charge a new battery 14 to 16 hours before initial use, regardless of the status indicated by the charger.

#### To charge the battery:

Place the battery, with or without the radio, in the charger. The charger LED indicates the charging progress:

LED Color	Battery/Charger Status
No LED Indication	Battery inserted incorrectly.
Single Green Flash	Successful charger power-up.
Flashing Red*	Battery unchargeable or not making proper contact.

LED Color	Battery/Charger Status
Steady Red	Battery in rapid-charge mode.
Flashing Yellow	Battery in charger, not in rapid- charge mode but waiting to be charged.
Flashing Green†	Battery 90% (or more) charged.
Steady Green	Battery fully charged.

- \* Remove the battery from the charger. Clean battery contacts with isopropyl alcohol applied to a soft cloth. Place the battery back in the charger. If the LED indicator continues to flash red, replace the battery.
- † A standard battery may require one hour to charge to 90%.

## **Battery Charge Status**

You can check your battery's charge status in two ways:

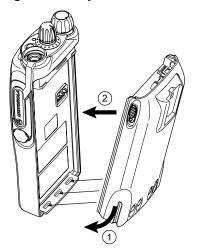
- The charge status is shown by the status indicator symbol on the display. This
  does not require any action by you; the
  symbol is shown automatically.
- Hold down the preprogrammed Battery LED Indicator button (see page 16). The charge status is shown by the color of the radio's LED indicator.

Battery Level	LED Indicator	Status Indicator
High	Green	
Sufficient	Yellow	or IIII
Low	Flashing red	
Very Low	None	(flashing)

Battery charges will only charge the Motorolaauthorized batteries listed below; other batteries may not charge.

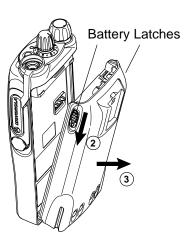
Part No.	Description
HNN9008	1500 mAH NiMH High Capacity Battery (standard)
HNN9009	1900 mAH NiMH Ultra High Capacity Battery
HNN9010	1800 mAH NiMH, Ultra High Capacity - Factory Mutual
HNN9011	1200 mAH Ni-CD, High Capacity Battery - Factory Mutual
HNN9012	1300 mAH Ni-CD High Capacity Battery
HNN9013	1200 mAH Lithium Ion Battery
HPNN4045	1200 mAH NiMH, 7.5 V Battery
HNN4001	Impres <sup>™</sup> 1900 mAH NiMH, 7.5 V Battery
HNN4002	Impres <sup>™</sup> 1800 mAH NiMH, 7.5 V Battery - Intrinsically Safe (FM)
HNN4003	Impres <sup>™</sup> 2000 mAH Li-ion, 7.5 V Battery

## **Attaching the Battery**



- 1 Fit the extensions at the bottom of the battery into the bottom slots on the radio.
- **2** Press the top part of the battery toward the radio until you hear a click.

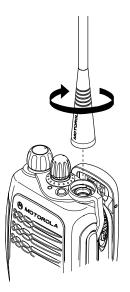
### Removing the Battery



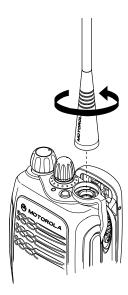
- 1 Turn off the radio (see page 28).
- 2 Slide both battery latches downward.
- **3** Pull the top part of the battery away from the radio.

## **ACCESSORY INFORMATION**

## **Attaching the Antenna**



## Removing the Antenna



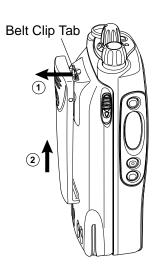
Turn the antenna clockwise to attach it.

Turn the antenna counterclockwise to remove it.

## **Attaching the Belt Clip**

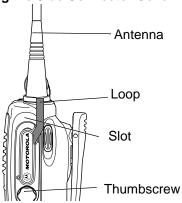


## Removing the Belt Clip



- 1 Align the grooves of the belt clip with those of the battery.
- 2 Press the belt clip downward until you hear a click.
- 1 Use a key to press the belt clip tab away from the battery.
- 2 Slide the belt clip upward to remove it.

#### **Attaching the Side Connector Cover**



- Place the loop (attached to the side connector cover) over the antenna; then slide it downward until it touches the top of the radio.
- 2 Insert the tab on the top of the cover into the slot above the connector.
- 3 Position the cover over the connector and align the thumbscrew with the threaded hole in the radio.
- 4 Tighten the thumbscrew to hold the cover in place. Do not overtighten the thumbscrew.

### TURNING THE RADIO ON OR OFF



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

If power-up is successful, you hear the Self-Test Pass Tone

and see the LED momentarily turn green.

If the radio fails to power up, you hear the Self-Test Fail Tone \_\_\_\_\_.



Turn the **On/Off/ Volume** knob counterclockwise until you hear a click.

#### ADJUSTING THE VOLUME

Turn the **On-Off/Volume Control** knob clockwise to increase the volume or counterclockwise to decrease the volume.

-or-

- 1 Hold down the **Volume Set** button (see this page); you hear a continuous tone.
- 2 Turn the On-Off/Volume Control knob to the desired volume level.
- 3 Release the Volume Set button.

# SELECTING A TRUNKED ZONE AND TALKGROUP

Note: Throughout this manual there are features listed as trunked and conventional.

Trunked indicates the feature functions in both PassPort and LTR zones unless otherwise noted. Conventional indicates the feature functions in Conventional zones only.

Up to 15 PassPort and/or LTR trunked zones (containing 16 talkgroups each) can be programmed into your radio.

#### To select a trunked zone and talkgroup:

- Use the Zone Selector knob to select the appropriate trunked zone.
- 2 or P2 until you see the desired preprogrammed talkgroup on the display.

**Note:** (the PassPort Zone symbol) appears when a PassPort Zone has been selected.

#### SENDING A TRUNKED CALL

#### To send a trunked call:

 Hold the radio in a vertical position at a distance of about 1 to 2 inches (2.5 to 5 cm) from your mouth.



2 Press and hold the PTT button.

-or-

Press and release the **PTT** button and wait 3 seconds.

- If access to the trunked system was successful, the LED indicator lights steady red.
  - In addition, your dealer can program your radio to sound a short, highpitched (talk permit) tone, indicating successful trunked system access.
- If access to the trunked system was unsuccessful, the LED indicator flashes red and a low-pitched (talk prohibit) tone sounds, indicating that the system was busy or out-of-range.

- 3 With the PTT button depressed, speak clearly into the microphone.
- 4 Release the PTT button to listen.

You will see the Alias (if preprogrammed) or MIN of the calling radio on your radio's display.

# SELECTING A CONVENTIONAL ZONE AND CHANNEL

- 1 Use the **Zone Selector** knob to select the appropriate conventional zone.
- or with until you see the desired conventional channel on the display.

## SENDING A CONVENTIONAL CALL

**Note:** In the United States, FCC regulations require you to monitor the conventional channels before sending a call. The monitor feature (see page 16) can be accessed through one of your programmable buttons.

 Hold the radio in a vertical position at a distance of about 1 to 2 inches (2.5 to 5 cm) from your mouth.



- 2 Press the PTT button and speak clearly into the microphone. The LED indicator lights steady red while the call is being sent.
- Release the PTT button to listen.

# RECEIVING A TRUNKED OR CONVENTIONAL CALL

- 1 Turn your radio on.
- 2 Adjust your radio's volume (see page 29).
- 3 Use the Zone Selector knob to select the desired trunked or conventional zone.
  - · Make sure the PTT button is released.
- Listen for voice activity. The LED indicator flashes red when your radio is receiving.

Note: The Mobile Identification Number (XXXX) or Alias (if preprogrammed) of the calling radio appears on the display if Caller ID is enabled.

v	v	v	v.
m	w.	m	60

# REPEATER OR TALKAROUND |→| MODE

#### (CONVENTIONAL OPERATION ONLY)

Talkaround mode enables you to communicate with another radio when either:

- The repeater is not operating
  - -or-
- Your radio is out of the repeater's range but within communicating distance of another radio.

**Note:** The |→| symbol appears on the display when talkaround mode is selected.

# To Select Repeater Mode or Talkaround Mode

Press the preprogrammed **Repeater/ Talkaround** button (see page 16) to toggle between repeater mode and talkaround mode.

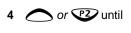
-or-

- 1 (1/•) to enter menu mode.
- 2 or 🔁 until

Rptr/Talkarnd

3 ☐/● to select

(Rptr/Talkarnd



Rptr/Talkarnd

*–or*– until

Talkarnd Mode

5 (a) to confirm your selection.

## **CALL LIGHT**

#### (TRUNKED OPERATION ONLY)

The **Call Light** indicator informs you that you have received a call from a specified talkgroup (as programmed by your dealer). The yellow LED indicator will flash continuously, indicating that a trunked call has been received.

### To Turn the Call Light Off

- Press the PTT button.
- Select another trunked or conventional zone.
- Press any preprogrammed button.
- Turn the radio off, then on again.

### **HOME CHANNEL REVERT**

The Home Channel Revert feature allows you to instantly access your favorite trunked talkgroup or conventional channel at the touch of a button.

#### **To Activate Home Channel Revert**

Press the preprogrammed **Home Channel Revert** button (see page 18).

# **Notes**

# **PASSPORT TRUNKING**

PassPort<sup>®</sup> is an enhanced, wide-area trunking protocol developed by Trident Micro Systems. Up to 128 trunked sites can be linked together to form one PassPort system, which means that your communications can extend far beyond the reach of a single trunked site.

#### SEAMLESS ROAMING

PassPort Trunking systems offer you the ability to seamlessly roam among all sites in a network. Seamless Roaming means that you do not have to manually change the zones on the radio when roaming from site-to-site. As you roam throughout a PassPort System's coverage area, your HT1250•LS+ radio is regularly monitoring the RSSI (Received Signal Strength Indication) level of the site on which you are currently registered. In addition, if the signal strength falls below the acceptable threshold pre-programmed by your dealer, your radio starts monitoring the RSSI level of adjacent sites within the network. This allows the HT1250•LS+ radio to quickly roam to the site with the strongest signal, which provides

you with optimal audio quality throughout your communications.

#### **Initial Registration**

Before communications with your talkgroup can begin, your radio needs to register on the PassPort system. Registration automatically takes place upon radio power up or after selecting the desired PassPort zone on the selector knob unless your radio is Site Restricted from that site or Group Restricted from that talkgroup. What you see:

1 Upon radio Power up, you see: (if you select a PassPort zone after the radio is powered up, see step 2).

PassPort

The selected
PassPort Zone
Alias appears on the
display (if preprogrammed).

ZONE ALIAS

3 The selected Talkgroup Alias appears on the display (if preprogrammed).

TLKGRP ALIAS

**Note:** If the radio performs a more extensive frequency search in order to attempt registration, you may see:

SEARCHING

4 Upon successful PassPort Registration, you see:

REG SITE XXX

**Note:** Your radio sounds a "Low-High" tone upon successful PassPort System registration. The XXX number indicates the site within the PassPort system on which you have registered.

5 After successfully registering to a site, the selected Pass-Port talkgroup alias appears and remains on the display.

TLKGRP ALIAS

#### **Roaming and Registering Between Sites**

Once initial registration with the PassPort system has occurred, your radio constantly monitors the RSSI to ensure an acceptable signal level is maintained (as programmed by your dealer). When the RSSI in the radio falls below this acceptable level, the HT1250•LS+ radio attempts to roam to and register onto another site within the PassPort system. This process happens automatically and requires no action on your part. What you see:

When the radio is searching for a new site, attempting successful registration to a site, or if the radio roams to a restricted site, you see:

SEARCHING

**Note:** This message is displayed until registration occurs. For more information about site restriction, please contact your local dealer.

When the radio has successfully registered to a new site in the PassPort System, XXX indicates the site number you see:

REG SITE XXX

**Note:** You will not see this if your radio is Site Restricted from the site it is trying to access.

3 The selected Pass-Port talkgroup alias appears and remains on the display.

TLKGRP ALIAS

Note: If the radio is set to a restricted talkgroup, you see:

GrpRestrict

For more information about site and group restriction, see page 42.

#### SITE/MIN VIEW

There may be circumstances when you want to view the number of the PassPort site on which you are registered as well as your Mobile Identification Number (MIN).

# To Start and Stop Viewing Site/MIN

1 Press the preprogrammed **Site/MIN View** button (see page 16).

The display shows the number of the site on which you are currently registered.

Site Now XXX

**Note:** If the preprogrammed button is activated prior to or during registration, a bad key chirp is sounded and you see:

Site Now n/a

The display indicates the Home Site ID (HSID) and Mobile Identification Number. (MIN) XXX indicates the ASID, YYYYY indicates the MIN.

IAM XXX-YYYYY

**Note:** This message can still be activated even if the radio is not registered.

#### **PTT ID ALIAS**

Your HT1250•LS+ radio supports the display of the Alias of the calling radio when receiving a group dispatch call in PassPort mode. This Alias corresponds to the MIN of the calling radio in the Radio Call List.

**Note:** Alias will be displayed only if preprogrammed in the radio via the PassPort Customer Programming Software (PPCPS). Otherwise, the MIN is displayed.

#### **ROAM REQUEST**

Because of the RSSI feature, the HT1250•LS+ radio automatically roams to an affiliated site when the signal from the registered site becomes too weak for quality communication. This RSSI threshold is programmed by your dealer. However, if you believe the signal strength would be better on another site, you may want to manually initiate the roaming process. This feature is called Roam Request.

#### To Start a Roam Request

1 Press the preprogrammed Roam Request button (see page 16).

You see:

Roam Request

When the radio is searching for a new site or attempting registration to a site, you see:

SEARCHING

When the radio has successfully registered to the new site on the PassPort System, you see:

REG SITE XXX

-or-

A bad key chirp may sound and you see:

Roam Not Avail

This can occur under the following circumstances.

- When registration to a site with a higher RSSI than your current site is unavailable.
- When the preprogrammed button is pressed before the radio has collected its "neighbor list". A "neighbor list" is a list of frequencies from adjoining sites within the PassPort system that are used during the roam process.
- When your radio is programmed for a single site system (home site only).

In these cases, wait a few seconds and try again.

4 The selected Pass-Port talkgroup alias appears and remains on the display:

TLKGRP ALIAS

#### To Cancel a Roam Request

1 Press and hold the preprogrammed Roam Request button (see page 19) again before the radio has registered to a site.

You see:

Cncl Roam Req

**Note:** The radio then attempts to return to the previously registered site.

#### **HOME SITE REVERT**

This feature allows you to force a radio to search for its home site and register on it while the radio is currently registered on an affiliated site.

Press the preprogrammed **Home Site Revert** button (see page 19).

When the radio is searching for a new site or attempting registration to a site, you see:

SEARCHING

When the radio has successfully registered to its PassPort home site, you see:

REG SITE XXX

 The radio sounds a "Low-High" tone upon successful PassPort System registration.
 The XXX number indicates the site within the PassPort system on which you have registered.

**Note:** If the radio is already registered on its home site and Home Site Revert is initiated, a bad key chirp is sounded.

4 After successfully registering on the home site, the selected PassPort talkgroup alias appears and remains on the display.

TLKGRP ALIAS

#### Notes:

- The radio must currently be registered on an affiliated site.
- If the radio cannot register to its Home Site for any reason, the radio reverts back to its current affiliated site.

#### **ROAM LOCK**

Because of the RSSI (Received Signal Strength Indication) feature, the HT1250•LS+ radio automatically roams to a different site when the signal falls below the RSSI level programmed in your radio by your dealer. In some instances (inside a building or in fringe areas), you may want to prevent your radio from roaming. This is possible by enabling the Roam (Site) Lock function.

Note: If you are currently on an affiliated site and wish to lock onto your home site, you need to first press the preprogrammed Home Site Revert button prior to pressing the preprogrammed Roam Lock button.

#### To Activate Roam Lock

1 Press the preprogrammable **Roam Lock** button (see page 19).

2 You see.

TLKGRP ALIAS

Alternating with:

Roam Locked

at one second intervals.

· A good key chirp is heard.

**Note:** A radio can be roam-locked only when it is registered to a site.

#### To Deactivate Roam Lock

Press the preprogrammable **Roam Lock** button again or turn off your radio or switch zones/talkgroups to cancel the Roam Lock feature. Your radio automatically re-registers onto the PassPort system.

**Note:** Once deactivated, the radio follows the roaming criteria programmed in the radio.

#### PASSPORT PRIMARY TALKGROUP

This is the first talkgroup preprogrammed in your list. Per definition, it always has the highest-level priority among all other preprogrammed talkgroups, also called secondary talkgroups. As such, any transmission on the primary talkgroup is heard on all other idle talkgroups regardless of where the radio is registered (home or affiliated sites). In addition, a user can respond to a call on the primary talkgroup simply by pressing the **PTT** button within a preprogrammed period of time.

If you prefer to use the primary talkgroup for "announcement" calls, you can disable the transmit function. In addition, if you do not have a need for a primary talkgroup, it is possible to disable the level of priority of this talkgroup in the programming software.

**Note:** Please contact your local dealer for additional information.

# SITE / TALKGROUP RESTRICTION (Access Privileges by MIN)

The HT1250•LS+ portable radio offers two "access privilege" features called Site Restriction and Talkgroup Restriction. These features, however, can only be enabled or disabled through the PassPort infrastructure (if the Access Privileges by MIN option is available). These features allow the radio to register and operate normally on the home site and on specific affiliated sites or talkgroups which are not restricted as programmed at the infrastructure level by the system operator.

**Note:** All sites except the Home Site can be site and/or talkgroup restricted.

#### Site Restriction

The registration and roaming process is unaffected for "non-restricted" radios. However, when a radio is site-restricted from a certain affiliated site in the system, it is prohibited from registering on that site and immediately tries to register to its home site. If the radio is unable to register on the home site, the radio moves on to the next frequency (in its

neighbor list of sites) and attempts to register there. What you see:

#### For 3 seconds

SiteRestrict

Searching

#### then:

Until successful registration to its home site or a non-restricted affiliated site.

-or-

If the radio does not support this feature or the system does not receive an acknowledgement message from the radio. You see:

Disabled

Note:

If your radio is disabled, power it down and contact your local dealer.

For additional information about site/ talkgroup restriction, please contact your local dealer.

#### **Group Restriction**

The registration and roaming process is unaffected for "non-restricted" radios. However, when a radio is talkgroup-restricted from all unrestricted affiliated sites in the system (except the home site where it is always available), it is not able to register on that talkgroup. In this case, you have to either switch talkgroups within the same site or roam to the home site (via the Home Site Revert feature) or initiate a Roam Request to a different talkgroup on an affiliated site.

#### You see:

GrpRestrict

If you subsequently initiate a roam request to the home site or to a different talkgroup on an affiliated site, you see:

Searching

# **TROUBLESHOOTING**

While in PassPort zones, there are some specific display messages that indicate you should contact your dealer for assistance.

Message	What it Means		
"Invalid Group ID"	Your dealer needs to verify talk- group programming in your radio or the PassPort system.		
"DISABLED"	Your radio requires reactivation on the PassPort system (not applicable to conventional and LTR functionality).		
Blank display upon power up with a fully charged battery.	Your radio needs to be returned to your dealer for reactivation or service.		

# **RADIO CALLS**

(LTR Trunked and Conventional)

#### MAKING A SELECTIVE CALL

You can make a selective call to a particular radio or to a group of radios, as programmed by your dealer.

#### To Make a Selective Call

Press the preprogrammed Radio Call button (see page 18), and proceed to step 4 on page 46.

-or-

Press the preprogrammed **Member Call** button corresponding to the member you wish
to call.

You see:

Name xxxx

alternating with:

Selective Call

**Note:** For DTMF radio models, if you press any digit on the keypad (#1-9), the display shows the corresponding entry from the Radio Call List.

2 Proceed to step 7 on page 46.

-or-

1 Press the preprogrammed **Speed Call** button.

You see the Alias or ID of the last called entry.

Name xxxx

**Note:** For DTMF radio models, if you press any digit on the keypad (#1-9), the display shows the corresponding entry from the Radio Call List.

2 Proceed to step 7 on page 46.

- The LED lights a steady yellow
- 6 or P2 to locate the desired ID in the Radio Call List.

-or-

Enter the ID number of the radio you want to call. (Full keypad model only.)

- 7 Press the PTT button to send the call.
  - The radio sounds a continuous tone, if programmed by your dealer.
  - · The LED lights a steady red.

- 8 Press the PTT button and talk; release the PTT button to listen.

Hold down 🔊 to exit menu mode.

**Note:** In LTR Trunked mode, the Selective Call is sent if the system is available.

# RECEIVING A SELECTIVE CALL **♪**

#### When you Receive a Selective Call

- The display shows 

   and the preprogrammed name or ID of the calling radio.
- The LED flashes yellow, if programmed by your dealer.
- You hear an alert tone.

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

Note: In LTR trunked mode, unless you make a Selective Call back to the caller within the preprogrammed time, your response is heard by all members of your talkgroup. In LTR trunked mode, the Selective Call is received only if the system is available.

#### **SENDING A CALL ALERT PAGE**

You can alert another person by sending a Call Alert page.

### To Send a Call Alert Page

Press the preprogrammed Radio Call button (see page 26) and proceed to step 4 on page 47.

-or-

 Press the preprogrammed Member Call button corresponding to the member you wish to call.

You see:

Name xxxx

alternating with:

Call Alert

**Note:** For DTMF radio models, if you press any digit on the keypad (#1-9), the display shows the corresponding entry from the Radio Call List.

2 Proceed to step 7 on page 48.

-or-

1 Press the preprogrammed **Speed Call** button.

You see the Alias or ID of the last called entry.

Name xxxx

**Note:** For DTMF radio models, if you press any digit on the keypad (#1-9), the display shows the corresponding entry from the Radio Call List.

Proceed to step 7 on page 48.

-or-

1 (a) to enter menu mode.

or 🔁 until

Radio Call

⊕/● to select

Radio Call

or 🔁 until

Call Alert

5 🗐 to select

Call Alert

- The LED lights a steady yellow
- 6 or 22 to locate the desired ID in the Radio Call List.

-or-

Enter the ID number of the radio you want to page.

7 Press the PTT button.

You see:

Call In Prog

and the preprogrammed name or ID alternating on the display.

 The LED lights a steady yellow. The LED then flashes red every time the radio attempts to transmit the call. 8 If the Call Alert page is received by the target radio, you see:

Acknowledge

If not received, you see:

No Acknowledge

• The radio sounds a short alert tone.

9 🔊 to return to

Call Alert

-or-

Hold down (3) to exit menu mode.

**Note:** In LTR trunked mode, a Call Alert Page is sent only if the system is available.

# RECEIVING A CALL ALERT PAGE ▶

#### When you Receive a Call Alert Page

- You hear four alert tones, either once or continuously, as programmed by your dealer.
- The LED flashes a single yellow for a group call, or flashes a double yellow for an individual call.

To answer the page, press the **PTT** button; to cancel the page, press any other key.

**Notes:** Your radio displays only the last Call Alert page received. Also, your radio does not receive any Selective Calls until you clear the page.

In LTR trunked mode, a Call Alert Page is sent only if the system is available.

#### RADIO CHECK

Radio Check allows you to determine if a radio is within the range of the trunked or conventional system and turned on, without disturbing the user of that radio. This feature can also be used when attempts with Selective Call and Call Alert fail.

#### To Perform a Radio Check

- 1 (1) to enter menu mode.
- 2 or 2 until Radio Call
- **3 ⑤** to select Radio Call
- 4 or Wuntil Radio Check
- (Radio Check
- 6 or P2 to locate the desired ID in the Radio Call list.

-or-

Enter the ID number of the radio you are checking.

7 Press the PTT button.

You see:

Call In Prog

If the Radio Check is received by the target radio, you see:

Acknowledge

If not received, you see:

(No Acknowledge

9 🔊 to return to

Radio Check

-or-

Hold down (5) to exit menu mode.

**Note:** In LTR trunked mode, the Radio Check is sent only if the system is available.

## **SENDING A STATUS**

This feature gives you the ability to send a status update to the base. The status feature makes more efficient use of the channel compared to voice transmissions. Status updates of up to 14 characters may be programmed by your dealer.

#### To Send a Status

- 1 (a) to enter Menu Mode.
- 2 or until
  - (a) to select (Status
- 4 or to locate the desired status in the preprogrammed list.

-or-

3

when using the enhanced keypad microphone only,

Status

enter the number of the status you wish to send.

-or-

if programmed by your dealer (see page 21), press the button that has been preprogrammed for a specific status.

**Note:** You cannot retransmit the current status update.

In LTR Trunked mode, the status is sent if the system is available.

5 Press the PTT button.

You see:

Update In Prog

Notes: If the radio is not able to send the status or the radio does not receive an acknowledgement if an acknowledgement is expected, you see:

No Acknowledge

If the radio is not able to send the status and no acknowledgement is expected, you see:

No Channel

### **SENDING A MESSAGE**

This feature gives you the ability to send and receive preprogrammed messages. Data messages make more efficient use of channels compared to voice transmissions. Messages of up to 14 characters may be programmed by your dealer.

#### To Send an Electronic (Data) Message

- 1 (a) to enter Menu Mode.
- 2 or wuntil

Message

3 (a) to select

Message

-or-

when using the enhanced keypad microphone only,

enter the number of the message you wish to send.

-or-

if programmed by your dealer (see page 21), press the button that has been preprogrammed for a specific message.

**Notes:** You cannot retransmit the current message update.

In LTR Trunked mode, the message is sent if the system is available.

5 Press the PTT button.

You see:

Msg In Prog

Notes: If the radio is not able to send the message or the radio does not receive an acknowledgement if an acknowledgement is expected, you see:

No Acknowledge

If the radio is not able to send the message and no acknowledgement is expected, you see:

No Channel

# **RECEIVING A MESSAGE**

When your radio receives a message:

- You hear two alert tones.
- The yellow LED indicator flashes.
- You see: Msg Received alternating with the preprogrammed alias.

**Note:** If you receive a message that is not programmed into your radio, the display alternates with the following:

Message #\_

and

No Alias

**Note:** The message is received if the system is

available.

# SENDING AN EMERGENCY ALERT 🛕

In the event of an emergency, you may need to quickly get the attention of others for help. The Emergency Alert feature (If programmed by your dealer, causes your radio to send a priority Emergency Alert (see page 18) to a specific radio or dispatch center.

The  $\triangle$  symbol appears on the display when your radio is in the Emergency Alert state.

**Note:** In conventional mode, emergency alerts have priority over all other calls. In LTR trunked mode, the emergency alert is sent if the system is available.

An Emergency Alert can be programmed to do one of the following:

- show ▲ and sound a tone
   -or-
- show 🛕 (silent Emergency)

-or-

 activate the microphone so that all activity can be transmitted (for a predetermined amount of time).

To activate the Emergency Alert, press the preprogrammed Emergency button.

**To cancel the Emergency Alert**, press and hold the preprogrammed **Emergency** button, or press the PTT button.

# EDITING A RADIO CALL LIST

Your radio has a Radio Call list that contains the names and radio IDs of several talkgroups or individuals. The ID numbers in the Radio Call List are programmed by your dealer, and cannot be changed from your radio. However, you can edit the names associated with these IDs. The symbol appears on the display when you are editing.

**Note:** The radio cannot receive any calls while you are editing.

### To Edit a Call List Entry



- 9 (a) to select the entry.
- **10** Use your keypad to edit the entry (page 13).
- 11 (a) to save your changes.

Entry Saved

- 12 🔊 to return to
- (Edit Entry?

-or-

Hold down to exit menu mode.

#### NAME AND CALL TONE TAGGING

You can program your radio to sound a particular alert tone when a specific user is calling (name tone tagging), or when receiving a particular type of radio call (call tone tagging).

**Note:** Name and call tone tagging are valid only for selective calls and call alerts.

There are seven alert tones to select from. (See table, page page 94.)

### To Tag a Specific User's Name

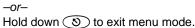
- 1 (a) to enter menu mode.
- 2 or Wuntil Audio/Tones
- B □/● to select Audio/Tones
- 4 or valuatil Name Tone Tag
- 5 (a) to select Name Tone Tag
- 6 or vant to tag.
- 7 (a) to confirm the selection.
- 8 or wuntil you see and hear the tone you want to use for this name.
- 9 (1) to confirm the selection.

You see:

Name Tag Set

10 🕲 to return to

Name Tone Tag



You see: Call Tone Set

# To Tag a Type of Radio Call

10 sto return to -or-

(Call Tone Tag

1 (a) to enter menu mode.

to enter mena mode

Hold down (5) to exit menu mode.

2 or Wuntil

Audio/Tones

3 🗐/• to select

(Audio/Tones

4 or 🔁 until

Call Tone Tag

5 🗐/ to select

Call Tone Tag

- 6 or vant to tag.
- 7 (1) to confirm the selection.
- 8 or vuntil you see and hear the tone you want to use for this type of call.
- 9 (1/•) to confirm the selection.

# **Notes**

# **PASSPORT SIGNALING**

Selective Call and Call Alert are available using the PassPort protocol. As such, no third party can hear the conversation of two users engaged in a Selective Call. Selective Call and Call Alert are mutually exclusive. If one of the users is engaged in a Selective Call or Call Alert while roaming to a different site, the Selective Call or Call Alert will end.

#### **SELECTIVE CALL**

You can initiate a Selective Call to a particular radio in three different ways:

- · Using a preprogrammed button.
- · Through the menu.
- Using the One-Touch button.

# Sending a Selective Call using the Preprogrammed Button

 Press the preprogrammed Selective Call button (see page 19). Proceed to Step 4.

-or-

### Sending a Selective Call through the Menu

- ☐/●) to enter menu mode.
- 2 or 🔁 until

Selective Call

3 (a) to select

(Selective Call

- The LED indicator lights a steady yellow.
- The display shows and the preprogrammed Alias or ID of the last active Selective Call is displayed.
- 4 If the unit has not been engaged in a Selective Call after power-up, you see:

Select User

or vo to locate the desired Alias or ID in the Radio Call List.

-or-

or P2 then press the first letter of the desired Alias using the DTMF keys to start an alphabetical search. (Full keypad model only.)

-or-

Enter the ID number of the radio you wish to call. (Full keypad model only.)

-or-

Press \* and the DTMF key (0 to 9) (if programmed by your dealer) corresponding to the radio you wish to call.

Note: This option does not require you to press the PTT button to send the Selective Call.

- 5 Press the PTT button to send the Selective Call.
  - While the Selective Call is being established the blinks and the LED indicator flashes red momentarily.
  - · A talk permit tone sounds.

Once the Selective Call is received and acknowledged by the target radio, the 

displays solid.

#### Notes:

• If the Selective Call cannot be established.

you see:

No Acknowledge

for 5 seconds. The LED indicator turns off.

 If all channels are busy while attempting a Selective Call,

you see:

System Busy

and will hear a delayed busy tone as long as the **PTT** button is pressed.

If the **PTT** button is kept pressed and the system frees up a channel, the radio automatically attempts to re-establish the call.

 So to end the Selective Call and revert to talkgroup dispatch, or press the preprogrammed Selective Call button. You can then manually re-initiate the call. (See Step 1.) 7 Press the PTT button to talk; release to listen.

8 (5) to end the Selective Call.

**Note:** If the Selective Call has prematurely ended,

you see:

Call Ended

and a tone sounds (if preprogrammed by your dealer).

### Sending a Selective Call using the One-Touch Button

- Press and hold the preprogrammed Onetouch button.
  - · The LED indicator lights a steady yellow.
  - The display shows and the preprogrammed Alias or ID is displayed.
- 2 The Selective Call is sent automatically.

- While the Selective Call is being established the blinks and the LED indicator flashes red momentarily.
  - Once the Selective Call is established the displays solid.

#### Notes:

- If preprogrammed by your dealer, your radio sounds a short high-pitched tone (call established tone) to indicate that you are ready to engage in a conversation.
- If the Selective Call cannot be established,

you see:

No Acknowledge

for 5 seconds. The LED indicator turns off.

 If all channels are busy while attempting a Selective Call.

you see:

System Busy

and will hear a delayed busy tone as long as the **PTT** button is pressed.

If the **PTT** button is kept pressed and the system frees up a channel, the radio automatically attempts to re-establish the call.

- So to end the Selective Call and revert to talkgroup dispatch, or press the preprogrammed Selective Call button. You can then manually re-initiate the call. (See Step 1.)
- 4 Press the PTT button to talk: release to listen.
- 5 So to end the Selective Call.

**Note:** If the Selective Call has prematurely ended.

you see: Call Ended

and a tone sounds (if preprogrammed by your dealer).

# Receiving a Selective Call

- 1 When you receive a Selective Call:
  - The blinks and, if preprogrammed by your dealer, the LED indicator lights steady yellow.

You see:

Incoming Call

followed by the preprogrammed Alias or ID of the calling radio.

Note: If preprogrammed by your dealer, your radio sounds a short high-pitched tone (call established tone) to indicate that you are ready to engage in a conversation.

- 2 To answer the Selective Call, press the PTT button to talk; release to listen.
- 3 (5) to end the Selective Call.

**Note:** If the Selective Call has prematurely ended,

you see:

Call Ended

and a tone sounds (if preprogrammed by your dealer).

#### **CALL ALERT**

You can alert another person by sending a Call Alert to a particular radio in three different ways:

- · Using a preprogrammed button.
- Through the menu.
- · Using the One-Touch button.

# Sending a Call Alert using the Preprogrammed Button

 Press the preprogrammed Call Alert button (see page 19). Proceed to Step 4.

#### Sending a Call Alert through the Menu

- 1 (1/•) to enter menu mode.
- 2 or 🔁 until

Call Alert

3 (1) to select

Call Alert

- The LED indicator lights a steady yellow.
- The display shows and the preprogrammed Alias or ID of the last active Call Alert is displayed.

4 If the unit has not been engaged in a Call Alert after power-up, you see:

Select User

or vo to locate the desired Alias or ID in the Radio Call List.

-or-

or P2 then press the first letter of the desired Alias using the DTMF keys to start an alphabetical search. (Full keypad model only.)

-or-

Enter the ID number of the radio you wish to page. (Full keypad model only.)

-or-

Press \* and DTMF key (0 to 9) (if programmed by your dealer) corresponding to the radio you wish to page.

Note: This option does not require you to press the PTT button to send the Call Alert.

- 5 Press the PTT button to send the Call Alert.
  - While the Call Alert is being established the blinks and the LED indicator flashes red momentarily.
- Once the Call Alert is received and acknowledged by the target radio, the displays solid and you see:

Acknowledge

#### Notes:

If the Call Alert cannot be established,

you see:

No Acknowledge

for 5 seconds. The LED indicator turns off.

 If all channels are busy while attempting a Call Alert,

you see:

System Busy

and will hear a delayed busy tone as long as the **PTT** button is pressed.

If the **PTT** button is kept pressed and the system frees up a channel, the radio automatically attempts to re-establish the call.

- So to end the Call Alert and revert to talkgroup dispatch, or press the preprogrammed Call Alert button. You can then manually re-initiate the call. (See Step 1.)
- 7 (5) to end the Call Alert.

# Sending a Call Alert using the One-Touch Button

- 1 Press and hold the preprogrammed **One- Touch** button.
  - The LED indicator lights steady yellow.
  - The display shows and the preprogrammed Alias or ID is displayed.
- 2 The Call Alert is sent automatically.
  - · The LED indicator lights steady red.

**Note:** Your radio sounds a continuous tone (if programmed by your dealer).

- While the Call Alert is being established the blinks and the LED indicator flashes red momentarily.
  - Once the Call Alert is established the displays solid.

#### Notes:

- If preprogrammed by your dealer, your radio sounds a short high-pitched tone (page established tone) to indicate that the page was successful.
- If the Call Alert cannot be established,

you see:

No Acknowledge

for 5 seconds. The LED indicator turns off.

 If all channels are busy while attempting a Call Alert.

you see:

System Busy

and hear a delayed busy tone as long as the **PTT** button is pressed.

If the **PTT** button is kept pressed and the system frees up a channel, the radio automatically attempts to re-establish the call.

- So to end the Call Alert and revert to talkgroup dispatch, or press the preprogrammed Call Alert button. You can then manually re-initiate the call. (See Step 1.)
- 4 (v) to end the Call Alert.

#### Receiving a Call Alert

- 1 When you receive a Call Alert:
  - The 
     blinks and, if preprogrammed by your dealer, the LED indicator lights steady yellow.

You see:

Incoming Page

followed by the preprogrammed Alias or ID of the calling radio.

 Once the Call Alert is established the displays solid.

**Note:** If preprogrammed by your dealer, your radio sounds a short high-

pitched tone (page established tone) to indicate that the page was suc-

cessful.

2 To answer the Call Alert, press the PTT button to talk; release to listen.

3 (5) to end the Call Alert.

# **SCAN**

Your HT1250•LS+ radio is equipped with the Scan feature, which allows you to search for, lock onto, and monitor voice activity on trunked talkgroups and conventional channels.

There are five types of Scan available in your radio:

- Auto Group Scan
- All Group Scan
- PassPort Primary Auto Scan
- PassPort Group Scan
- System Scan

The table below summarizes the Scan types available in each zone type.

Zone	PassPort Primary Auto Scan	Pass- Port Group Scan	LTR Auto Group Scan	LTR All Group Scan	System Scan
PassPort Trunked	х	Х			
LTR Trunked			х	х	х

Zone	PassPort Primary Auto Scan	Pass- Port Group Scan	LTR Auto Group Scan	LTR All Group Scan	System Scan
Conven- tional					х

Shaded areas indicate that Scan can be enabled through a programmable button (see page 16) or through your radio menu.

#### **TALKBACK**

When activity is detected during any type of scan, scanning stops and the active talkgroup or channel appears and remains on the display until scanning resumes. Your dealer can program the amount of time you can respond (or "TALKBACK") to the caller before your radio resumes scanning.

You must press the **PTT** button to participate in the call; otherwise, scanning continues to the other talkgroups or channels.

# PASSPORT PRIMARY AUTO GROUP SCAN

(PASSPORT TRUNKED OPERATION ONLY)

PassPort Primary Auto Group Scan automatically scans the primary (first) talkgroup within the selected PassPort zone. Any time you are positioned on a PassPort talkgroup other than the first one, your radio automatically scans activity on the first talkgroup within that zone.

Note:

This feature is enabled AUTOMATICALLY with your radio. It is not enabled through the radio menu or through a preprogrammed scan button.

# PASSPORT GROUP SCAN (PASSPORT TRUNKED OPERATION ONLY)

PassPort Group Scan scans talkgroups within the selected PassPort trunked zone, as programmed by your dealer. Up to 16 different talkgroups can be programmed into each Scan list, with one Scan list assigned to each position on the **Zone Selector** knob. You can edit these Scan lists through your radio's menu (see page 70).

#### When PassPort Group Scan is Enabled

- The symbol appears on the display.
- The LED indicator blinks green during PassPort Group Scan operation; it stops blinking when the radio switches to an active talkgroup or channel.

#### Note:

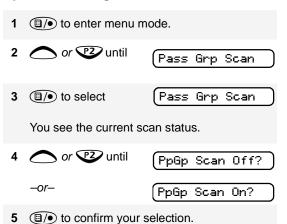
- PassPort Group Scan is not available when registered on a non-home site.
- If you switch to another PassPort zone, LTR, or conventional zone while the radio is scanning, scanning resumes upon return to the PassPort zone where PassPort Group Scan was enabled.
- If the radio is turned off while scanning, the radio resumes scanning when you turn it back on. If the radio registers on a non-home site, scanning is not enabled until the radio registers at its home site.

#### To Start or Stop PassPort Group Scan Operation through a Preprogrammed Button (see page 16)

- Press the preprogrammed Scan button to start PassPort Group Scan.
- Press the preprogrammed Scan button again to stop the PassPort Group Scan.

-or-

# To Start or Stop PassPort Group Scan Operation through the Menu



# AUTO GROUP SCAN Z

(LTR TRUNKED OPERATION ONLY)

Auto Group Scan automatically scans talkgroups within an LTR trunked zone as programmed by your dealer. Auto Group Scan can be either non-prioritized or prioritized.

- Non-prioritized Auto Group Scan automatically scans all talkgroups programmed with Auto Group Scan.
- Prioritized Auto Group Scan automatically scans the selected talkgroup and all lower 4-numbered talkgroups. For example, if talkgroups 1, 3, and 4 have been programmed by your dealer with Auto Group Scan and talkgroup 4 is selected, the radio automatically scans talkgroups 1, 3, and 4, and skips talkgroup 2.

#### To Start Auto Group Scan

Select a talkgroup that has been programmed for Auto Group Scan by your dealer.

**Note:** You do not need to press a preprogrammed **Scan** button.

- The symbol appears on the display when non-prioritized Auto Group Scan has been activated.
- The Z, symbol appears on the display when prioritized Auto Group Scan has been activated.
- There is no LED indicator during Auto Group Scan.

#### To Stop Auto Group Scan

Select a talkgroup that has not been programmed for Auto Group Scan by your dealer.

# ALL GROUP SCAN (LTR TRUNKED OPERATION ONLY)

All Group Scan scans all talkgroups within the selected LTR trunked zone.

When All Group Scan is enabled:

- The symbol appears on the display.
- The LED indicator blinks green during All Group Scan operation; it stops blinking when the radio switches to an active talkgroup.

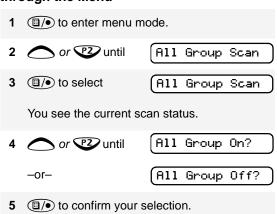
**Note:** If you enter menu mode while the radio is scanning, scanning stops. It resumes when you exit menu mode.

# To Start or Stop All Group Scan Operation through a Preprogrammed Button (see page 16)

- Press the preprogrammed All Group Scan button once to start All Group Scan.
- Press the preprogrammed All Group Scan button again to stop All Group Scan.

-or-

# To Start or Stop All Group Scan Operation through the Menu



# SYSTEM SCAN $\angle$ (LTR TRUNKED AND CONVENTIONAL OPERATION)

System Scan scans trunked talkgroups and conventional channels between LTR and conventional zones, as programmed by your dealer. Up to 16 different talkgroups or conventional channels can be programmed into each Scan list. You can edit these lists through your radio's menu (see page 70).

#### When System Scan is Enabled

- The symbol appears on the display.
- The LED indicator blinks green during System Scan operation; it stops blinking when the radio switches to an active talkgroup or channel.

**Note:** If you enter menu mode while the radio is scanning, scanning stops. It resumes when you exit menu mode.

### To Start or Stop a System Scan Operation

Press the preprogrammed **Scan** button (see page 23) to start or stop scanning,

-or-

#### Do the following:

- 1 (a) to enter menu mode.
- 2 or 🔁 until

System Scan

3 (a) to select

System Scan

You see the current scan status.

4 or P2 until

Sys Scan On?

-or-

Sys Scan Off?

5 (a) to confirm your selection.

#### Notes:

- In conventional zones only, if there is activity on a non-priority channel, the radio disconnects the user from the current conversation and automatically switches to an active priority channel. This is indicated with a short alert tone.
- Your radio can either revert to a "selected" channel or the "last active" channel depending on its programming. For additional details, contact your local dealer.

# DELETING A NUISANCE CHANNEL/ TALKGROUP

# (PASSPORT GROUP SCAN OR SYSTEM SCAN OPERATION ONLY)

If a talkgroup or channel continually generates unwanted calls (a "nuisance" channel), use the preprogrammed **Scan** button to temporarily delete the talkgroup or channel from the Scan list.

#### To Temporarily Delete the Channel/ Talkgroup

- While the radio's receiving activity is on the nuisance channel, press and hold the **Scan** button until you hear a high-pitched tone (valid key press).
- Release the Scan button. The nuisance channel has been temporarily deleted from your Scan list.

**Note:** In PassPort mode, you cannot delete

a priority channel/talkgroup (see page 72), or the currently selected

talkgroup in a Scan list.

# Restoring a Channel/Talkgroup Back to the Scan List

To restore a previously deleted talkgroup or channel back to the Scan list, restart the scan operation or turn your radio off and on again.

Note:

In PassPort mode, the talkgroup can also be restored by scrolling through the list, or switching the current selected talkgroup or zone.

#### **EDITING A SCAN LIST**

# (PASSPORT GROUP SCAN OR SYSTEM SCAN OPERATION ONLY)

One Scan list is assigned to each of the 16 positions on the **Zone Selector** knob. Each Scan list can contain up to 16 talkgroups and/ or channels. The same talkgroup or channel can be included in several Scan lists, and the same Scan list can be assigned to several **Zone Selector** positions.

When you edit a Scan list, you can either add, delete, or prioritize talkgroups or channels.

Note: In PassPort mode, talkgroups cannot be prioritized.

Your HT1250•LS+ radio cannot receive any calls while you are editing a Scan list. The symbol is displayed while you are in edit mode.

**Note:** In Conventional operation only, even if there is activity on a non-priority channel, your radio automatically switches to an active priority channel and indicates the activity with a short tone.

#### **VIEW A SCAN LIST**

To view Talkgroups or Channels in a Scan List:

- 1 (1/•) to enter menu mode.
- 2 or P2 until Program Lists
- 3 🗐/ to select

Program Lists

4 or 🔁 until

Scan List

Note: One Scan list per mode of operation is available.

5 🗐 to select Scan List

6 or 🔁 until

View List

- 7 (a) to confirm your selection.
- 8 or to see the talkgroup or channel in your list.
- 9 Hold down 🔊 to exit menu mode.

#### ADDING OR DELETING TALKGROUPS OR CHANNELS IN A SCAN LIST

To add or delete Talkgroups or Channels in a Scan List:

- 1 (1/•) to enter menu mode.
- or 🔁 until

Program Lists

3 ⊕/● to select

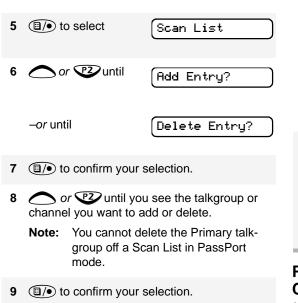
Program Lists

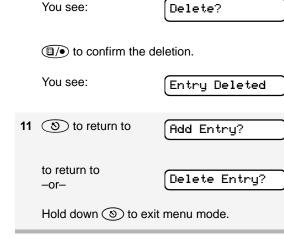
or 🔁 until

Scan List

Note: One Scan list per mode of operation

is available.





# PRIORITIZING A TALKGROUP OR CHANNEL IN A SCAN LIST (SYSTEM SCAN OPERATION ONLY)

You may want to check the activity on one or two talkgroups or channels more frequently than others. You can do this by prioritizing them:

If you delete a talkgroup or channel,

Entry Saved

10 If you added a talkgroup or channel,

you see

-or-

Priority Channel	Scanning Sequence
None specified	Ch1⇒Ch2⇒Ch3⇒ Ch4⇒Ch1
Channel 2 (Priority 1)	Ch2→Ch1→Ch2→Ch3→ Ch2→Ch4→Ch2→Ch1
Channel 2 (Priority 1) and Channel 8 (Priority 2)	Ch2→Ch1→Ch8→Ch3→ Ch2→Ch4→Ch8→Ch1

**Note:** In Conventional operation only, even if there is activity on a non-priority channel, your radio automatically switches to an active priority channel and indicates the activity with a short tone.

#### **Setting Priority Talkgroups or Channels**

- 1 (1/e) to enter menu mode.
- 2 or P2 until

Program Lists

- 3 🗐/• to select Program Lists
- 4 or P2 until Scan List
- 5 🗐 to select Scan List
- 6 or wuntil Edit Priority?
- 7 (a) to select (Edit Priority?
- 8 or 🖭 until Priority #1?
  - −or−until Priority #2?

You see the current priority talkgroup or channel.

- 9 (a) to select the desired priority level.
- 10 or vantil you see the talkgroup or channel you want to prioritize.

- 11 (a) to prioritize that talkgroup or channel.
- 12 So to return to Edit Priority?

Hold down 🔊 to exit menu mode.

**Note:** You cannot reprioritize a priority 1 talk-group or channel to priority 2.

#### **PHONE**

Your HT1250•LS+ radio allows you to place and receive telephone calls through trunked and conventional systems (depending on phone line availability). Telephone calls through a repeater allow only one person to speak at a time.

## MAKING A PHONE CALL ① THROUGH A TRUNKED SYSTEM

**Note:** The following instructions assume your radio has been programmed as follows by your dealer using CPS (Customer Programming Software).

- Dial type: Live
- Access/Deaccess type: Immediate Auto
- Tone Span: Timed 100 ms tone duration

#### To Initiate a Phone Call

Do the following:

1 Select a trunked zone and talkgroup that have been programmed for telephone.

2 (1/•) to enter menu mode.

-or-

Press the preprogrammed **Phone** button, and skip to step 5.

-or-

Press and release the **Speed Dial** button to use the speed dial feature. Then press the (1 to 9) key corresponding to the number you want to call on the Phone list. Or press 0 if you want to call the last number dialed. Press the **PTT** button. A dial tone sounds. Press the **PTT** button again to send the phone number.

-or-

For an LTR trunked system, press and hold the **PTT** button while dialing a number. (If your radio has been programmed for Hot keypad, this is a radio-wide setting).

3 or P2 until Phone

4 **(a)** to confirm

Phone

① appears on the display when you are in Phone mode.

- **5** Press and Release the **PTT** button.
  - If phone access is successful, a dial tone sounds.
  - If phone access is unsuccessful, a lowpitched alternating tone sounds. Disconnect the call (see step 8) and try again.
- 6 Enter the phone number with the keypad. The number is automatically sent without pressing the PTT button again.

-or-

or P2 to select a number from the phone list.



Press and release the **PTT** button again to send the number.

- 7 Hold the radio in a vertical position with the microphone 1 to 2 inches (2.5 to 5 cm) away from your mouth. Press the PTT button to talk; release it to listen.
- To disconnect the phone call:
  Press and hold to exit Phone.
  no longer appears on the display.

# MAKING A PHONE CALL ① THROUGH A CONVENTIONAL SYSTEM

#### To Initiate a Phone Call

Press the preprogrammed **Phone** button, and skip to step 5.

-or-

Press the **PTT** button, and if the Hot keypad feature has been programmed by your dealer, do the following:

- 1 Select a conventional zone and channel that have been programmed for telephone.
- 2 (1/•) to enter menu mode.

3 or valuntil Phone

4 🗐/• to select

play when you are in

Phone

① appears on the display when you are in Phone Mode.

(For conventional operation with auto access only). You hear a series of tones, indicating that an access code is being sent automatically, and see your access code:

-or-

Enter your access code using the keypad.

6 When you hear a dial tone:

Enter the phone number using the keypad.



-or-

or very to select a number from the phone list.



-or- (see step 7)

- 7 a Press and release the preprogrammed Speed Dial button (see step 6) to use the Speed Dial feature.
  - b Press the key (1 to 9) corresponding to the number you want to call, or press 0 if you want to call the last number dialed.

Note: To redial the last number dialed (if not using Speed Dial), press and release the PTT button immediately after the access code is sent. The radio sends the last number dialed.

-or-

If you entered your access code using the keypad, press the value once to access the last number dialed; then press and release the PTT button.

- 8 Press and release the PTT button, if required for your radio.
- 9 Hold the radio in a vertical position with the microphone 1 to 2 inches (2.5 to 5 cm) away from your mouth. Press the PTT button to talk; release it to listen.

**10** To disconnect a phone call, do one of the following:

Enter the deaccess code using the keypad.

-or-

If your radio has the deaccess code programmed, go to step 9.

11 To exit Phone Mode:

Press and hold # to disconnect the call.

① disappears from the display.

# RECEIVING A PHONE CALL ① THROUGH A TRUNKED OR CONVENTIONAL SYSTEM

To Receive a Phone Call

1 or 2 to select an LTR trunked talkgroup or conventional channel that has been programmed for telephone.

-or-

Activate any scan type containing a telephone talkgroup or channel (see page 57).

**Note:** No PassPort talkgroup or zone selection is needed in PassPort mode.

 When a phone call is received, a ringing tone sounds, alerting you to answer the phone call.

**Note:** The ① also appears on the display in PassPort mode.

2 Press the PTT button to answer the phone call. Press the PTT button to talk; release it to listen. 3 To disconnect the phone call and exit Phone and menu mode:

Press and hold to disconnect the call.

**Note:** ① no longer appears on the display in PassPort mode.

#### MODIFYING THE PHONE LIST □

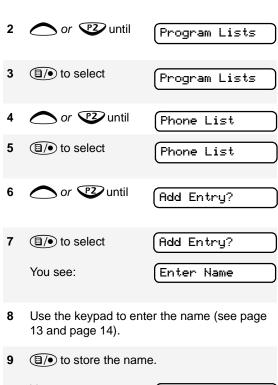
Your HT1250•LS+ radio contains a Phone list that holds up to 25 phone numbers. The Phone list is shared between trunked and conventional Phone operation. You can modify the Phone list in three ways through your radio's menu:

- Add an entry
- Delete an entry
- Edit an existing entry

The symbol appears on the display when you are modifying the phone list.

#### To Add an Entry

1 (1/•) to enter menu mode.



You see:

Enter Phone #

- 10 Use the keypad to enter the phone number. You can also add a dash (press P3) and a Pause Indicator (hold down # until the # character on the display changes to a "P").
- 11 (a) to store the phone number.
- 12 or 2 until you see the location in the list where you want to store the phone number.
- 13 (a) to store the phone number.

You see:

Entry Saved

■/● to return to

Add Entry?

Hold down (5) to exit menu mode.

#### To Delete an Entry

- (1) to enter menu mode.
- or **until**

Program Lists

(□/•) to select

Program Lists

or Wuntil

Phone List

(1) to select

Phone List

or P2 until

Delete Entry?

■/● to select

Delete Entry

- or vousee the entry you want to delete.
- (a) to select the entry.
- 10 You see:

Delete?

(a) again to confirm the deletion.

You see:

Entry Deleted



#### To Edit an Entry

- 1 (a) to enter menu mode.
- 2 or P2 until Program Lists
- 3 

  ☐/● to select

Program Lists

4 or 🔁 until

Phone List

5 (a) to select

Phone List

6 or Quntil

Edit Entry?

7 🗐 o to select

Edit Entry?

- 8 or want to edit.
- b (a) to select the entry.
- 10 or P2 until (to edit the name),

Edit Name?

-or- until

(to edit the phone number),

Edit Number?

-or- until

Edit Location?

(to edit the location in the phone list).

- 11 (a) to confirm your selection.
- 12 Use the keypad to edit the entry (see page 14),

-or-

or Until you see the location where you want to store the phone number.

- 13 (a) to store the information.
- 14 🕲 to return to

-or-

Edit Entry?

Hold down 🔊 to exit menu mode.

#### **VOICE STORAGE**

The HT1250•LS+ radio's voice storage feature enables your radio to perform seven types of voice related functions:

- Incoming Call Recording
- Voice Memo Recording
- Recorded Message Playback
- Recorded Message Delete
- Recorded Message Transmission
- Automatic Message Reply ("When Available")
- Message Time Stamping

There is a total of 120 seconds recording time available for all voice storage activity. Your dealer can divide the 120 seconds into a defined number of equal length time slots. The following table summarizes the slot length options available with the HT1250•LS+ radio:

Number of Equal Length Slots	Slot Length (Seconds)
1	120
2	60
5	24
10	12
20	6

## When recording calls, keep in mind these time slot guidelines:

 As a time slot becomes close to full, you see a timer count down the final 5 seconds.

When a time slot is completely full, an alert tone sounds

The display shows:

Msg Slot Full

Recording stops.

 When all message slots have at least one message stored, an alert tone sounds. If a voice storage record function is requested, the display shows:

Memory Full

#### INCOMING CALL RECORDING

The HT1250•LS+ radio allows you to record incoming calls in either of two ways:

- Selective Incoming Call Recording
- All Incoming Call Recording

**Note:** Only the audio transmissions of your caller is recorded.

#### **Selective Incoming Call Recording**

This feature enables you to record incoming calls selectively, or on a call-by-call basis.

To Selectively Record an Incoming Call:

Press and hold the preprogrammed Record/ Playback button (see page 16) while receiving the call.

The display shows

Recording

A confirmation tone sounds, indicating that the radio begins recording.

- 2 The radio records the call until the message slot is full or until you release the preprogrammed Record/Playback button.
- 3 Release the Record/Playback button to stop recording.

#### **All Incoming Call Recording**

This feature enables you to automatically record all incoming trunked and conventional dispatch calls, trunked and conventional telephone interconnect calls, and MDC selective calls.

This feature is useful when you need to keep informed of channel activity while away from your radio.

**Note:** This feature does not work while in scan mode.

#### To Record All Incoming Calls

- (a) to enter menu mode. or 🔁 until Voice Storage
- (1) to select Voice Storage
- or 🔁 until Record
- ■/ to select Record
- or Valuntil All Incoming
- (1) to select All Incoming
- The display continuously flashes, except while a call is being recorded.

All Incoming

The display shows while your radio is recording.

Recording

The radio also records the time stamp and the Channel Alias to the message slot.

**10** Press (5) to stop recording. -or-

> Go to step 1 again to continue recording in the next available slot.

Note: Five seconds before the message

Time Left XX

slot ends, the radio display shows

(where XX = remaining seconds).

The "voice storage full" alert sounds when the message slot is full, and recording stops.

The display shows:

Msq Slot Full

#### **VOICE MEMO RECORDING**

In addition to recording calls received, the HT1250•LS+ radio offers you the ability to record voice memos (or personal reminders) into the radio. The voice memo recording feature is useful for quickly saving phone numbers, names, or any other brief voice information. You can record voice memos using the preprogrammed **Record/Playback** button (see page 20) or your radio's menu.

#### **Important Note:**

To record properly, incoming calls cannot be received while a voice memo is being recorded.

#### To Record a Voice Memo using the Preprogrammed Record/Playback Button

- Press and hold the preprogrammed Record/ Playback button.
  - The display shows:

Recording

 A confirmation tone sounds, indicating that the radio begins recording.

- Without pressing the PTT button, speak clearly into the microphone to record your memo. The radio records your memo until the message slot is full or until you release the preprogrammed Record/Playback button.
- 3 Release the Record/Playback button to stop recording.

#### To Record a Voice Memo using the Menu

7 (1/•) to select

The display shows:

Recording

Without pressing the PTT button, speak clearly into the microphone to record your memo. The radio records your memo until the message slot is full or until you press .

**Note:** To stop recording at any time, press **③**.

9 Press to stop recording.

-or-

Repeat steps 7 and 8 to store additional messages.

#### RECORDED MESSAGE PLAYBACK

The HT1250•LS+ allows you to list, select, and Playback previously recorded incoming call or voice memo messages. You can play back a message by using the preprogrammed **Record/Playback** button (see page 20) or your radio's menu.

**Note:** Recorded message **Playback** cannot be initiated while your radio is receiving. Also, you don't receive any incoming calls while you play back messages.

Playing Msg XXX

#### To Play Back a Message using the Preprogrammed Record/Playback Button

- 1 Press and release the preprogrammed Record/Playback button.
  - The first message plays, and the display shows (XXX = the message number)

Playing Msg XXX

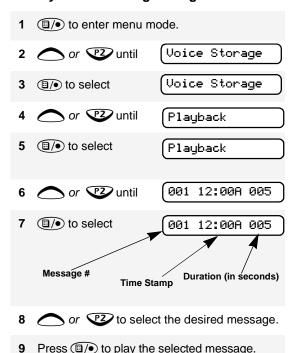
- To advance to the next message at any time during Play back, press and release the **Record/Playback** button again.
- 3 To exit/cancel Play Back mode:

Press and release the preprogrammed **Playback Exit** button (see page 20).

-or-

Press to stop Play Back.

#### To Playback a Message using the Menu



10 or 22 anytime during playback to advance to the next message.

#### RECORDED MESSAGE DELETE

The HT1250•LS+ radio allows you to delete previously recorded incoming call or voice memo messages. You can delete a message using either the preprogrammed **Delete Playback** button (see page 20) or your radio's menu.

**Note:** Messages must be deleted one at a time.

To Delete a Message using the Preprogrammed Delete Playback Button (see page 20)

- 1 Press and release the preprogrammed **Record/Playback** button.
- 2 or vo select the desired message.
- 3 Press and hold the preprogrammed Delete Playback button to delete current message.
- 4 S to stop deleting messages.

#### To Delete a Message using the Menu

(1) to enter menu mode. or 🖭 until Voice Storage (1) to select Voice Storage or **W** until Delete (□/•) to select Delete or P2 to select the desired message. 7 Press (1) to delete the selected message. 8 or 2 to select the another message to be deleted, then go to step 7. -or-Press (5) to stop deleting messages.

## RECORDED MESSAGE TRANSMISSION

This feature allows you to transmit a recorded message to another radio user.

#### To Transmit a Recorded Message

- 1 Press and hold the **PTT** button to initiate the message transmission.
- While holding down the PTT button, press the preprogrammed Record/Playback button to select and play back the desired recorded call or memo.
- When finished transmitting your message, press the Record/Playback button again to stop transmitting.

# AUTOMATIC MESSAGE REPLY: "WHEN AVAILABLE" (LTR TRUNKED AND CONVENTIONAL OPERATION ONLY)

The automatic Message Reply feature allows you to transmit a recorded message to a caller when your radio receives an MDC selective call.

## To Enable the Automatic Message Reply Feature

- 1 (a)/
   to enter menu mode.
- 2 or 2 until Utilities
- 3 🗐/• to select
- 4 or will When Available
- 5 🗐 to select When Available
- or with AutoReply On?

7 🗐/• to select

#### To Record a Message

- 1 or Wuntil Recorded Msg
- 2 🗐 to select Recorded Msg
  - Note: The display shows Recording
- Without pressing the PTT button, speak clearly into the microphone to record your memo. The radio records your memo until the message slot is full or until you press .

The display shows: Msg Slot Full

4 To exit or cancel recording, press 🔊.

With this feature enabled, the recorded message is automatically transmitted whenever your radio receives an individual call.

## **To Disable the Automatic Message Reply Feature**

1	☐/● to enter menu m	node.
2	or 🔁 until	Utilities
3	<b>⑤</b> to select	Utilities
4	or P2 until	When Available
5		(When Available)
6	or 🔁 until	(AutoReply Off?)
7		

#### **Notes**

# AUDIO/TONE SETTINGS

#### **AUDIO/TONE SETTINGS**

You can customize the audio and tone feature settings on your radio by

- 1 (1/•) to enter menu mode.
- 2 or valuntil Audio/Tones
- 3 (a) to select Audio/Tones
- 4 or vantil you see the feature you want to change (see the table on the next page).
- 5 (a) to select the feature. You see the feature's current setting.
- 6 or P2 for available settings. (For Name and Call Tone Tagging, see page 54.)
- 7 (a) to set the desired setting.

#### **Audio/Tone Settings**

Feature	What it Does	Settings
Alert Vol Lvl	Makes the volume level of the audio and alert tones independent. If turned on, it makes the alert tones follow the settings in the CPS; if turned off, the alert tones follow the setting of the volume knob.	Ind Alert Off Ind Alert On
Tone Disable	Turns all alert and audio tones on or off.	Tones On Tones Off
Name and Call Tone Tagging <sup>‡§</sup>	Assigns a specific ring tone when receiving a call from a specific user (see page 54 for details).	Standard Alert #1–#7
Call Tone Tag ‡§	Assigns a specific tone when receiving a specific type of radio call (see page 54 for details).	Standard Alert #1–#7
Escalert ‡§	Increases the volume of the alarm tones when a radio call is not answered.	Escalert On Escalert Off
Companding	Provides the same audio quality for 12.5 kHz and for 25 kHz channels.	Compand On Compand Off
Keypad Tones	Turns keypad tones on or off except for programmable buttons (see page 16).	Tones On Tones Off

#### **UTILITIES**

You can customize some of your radio's feature by:

- 1 (1/•) to enter menu mode.
- 2 or 🔁 until
- 3 ☐/● to select

Utilities

Utilities

- 4 or vantil you see the feature you want to change (see table on the next page).
- 6 or vailable settings.
- 7 (a) to select the desired setting.

#### **Utilities Features**

Feature	What it Does	Settings
Squelch §	Sets radio squelch at either normal or tight (see page 98).	Sqlch Tight Sqlch Normal
Power Level	Changes the power level of the radio to high, low, or auto (see page 98).	Power High Power Low Power Auto
Clock	Sets the time, or turns the clock on or off (see page 100).	Clock On Clock Off Set Time
Reminder Alarm	Sets the alarm, or turns it on or off (see page 100).	Alarm On Alarm Off Set Time
Language Selection <sup>§‡</sup>	Selects the language to be shown in your radio's displays.	English Spanish Portuguese French
Light Disable	Turns your radio's LED indicator, the display, and keypad backlight on or off.	Lights on Lights off

<sup>§</sup> Conventional Operation only.

<sup>&</sup>lt;sup>‡</sup> LTR trunked operation only.

#### **Utilities Features (continued)**

Feature	What it Does	Settings
When Available <sup>‡§</sup>	Transmits a recorded message to a caller when your radio receives an MDC Selective call.	Auto reply on Auto reply off Record msg Review msg
Software Ver #	In LTR trunked and conventional operation, displays the radio's software version number when you press .	
	In PassPort operation, displays the PassPort software version number when you press .	
	<b>Note:</b> The LTR and conventional software version number may be different than the PassPort software version number.	

<sup>§</sup> Conventional Operation only.

<sup>&</sup>lt;sup>‡</sup> LTR trunked operation only.

## SETTING TIGHT OR NORMAL SQUELCH

#### (CONVENTIONAL OPERATION ONLY)

Use this feature to filter out nuisance (unwanted) calls and/or background noise. However, tightening squelch could cause calls from remote locations to be filtered out as well. In this case, normal squelch may be more desired.

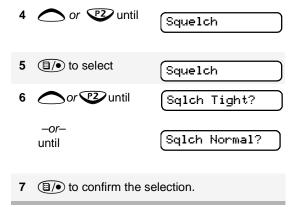
#### To Select Tight or Normal Squelch

Press the preprogrammed **Squelch** button (see page 20) to toggle between tight and normal squelch,

-or-

Do the following:

- 1 (1/•) to enter menu mode.
- 2 or V2 until Utilities
- 3 (a) to select (Utilities



#### SETTING THE POWER LEVEL LH

Each channel in your radio has a predefined transmit power level that can be changed.

- High power (H) allows you to reach a radio that is farther away.
- Low power (L) conserves the battery's charge.
- Auto power (conventional operation only) automatically sets the optimal power level based on the strength of the signal received. If the received signal is weak, the transmit level will be set to high, and viceversa.

#### Note:

- Be aware that a message received from a nearby radio might change your radio's power level to low. This may cause radios that are farther away not to receive your transmissions.
- In PassPort mode, the power level is predefined radio wide.

#### To Set the Power Level

Press the preprogrammed **Power Level** button (see page 19) to toggle between *low* and *high*,

-or-

Do the following:

- 1 (a) to enter menu mode.
- or 🔁 until

Utilities

3 (a) to select

Utilities

4 or Wuntil

Power Level

5 🗐/ to select

Power Level

The display shows the current power level.

6 or P2 until

Power High?

*–or–* until

Power Low?

*–or–* until

Power Auto?

7 (1/•) to confirm the selection.

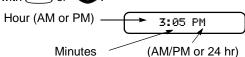
#### **SETTING THE CLOCK/ALARM**

#### To Set the Clock/Alarm

- 1 (1/•) to enter menu mode.
- 2 or Vuntil Utilities
- 3 🗐 to select Utilities
- 4 or P2 until Clock

  -or-until Reminder Alarm
- 5 (a) to confirm your selection.
- 6 or P2 until Set Time?

When a setting is blinking, you can change it with or P2.



Note: You cannot select "24 hr" for

Reminder Alarm

- 9 P3 to move to the previous *or* next setting.
- 10 (a) to save your changes.
- 11 So to return to

  Or to return to

  Reminder Alarm

  Or Clock
  - *−or*− Hold down ⑤ to exit menu mode.

#### WARRANTY

## LIMITED WARRANTY MOTOROLA COMMUNICATION PRODUCTS

## I. WHAT THIS WARRANTY COVERS AND FOR HOW LONG:

MOTOROLA INC. ("MOTOROLA") warrants the MOTOROLA 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:

HT1250•LS+ Portable Two (2) Years Units

Product Accessories One (1) Year

Motorola, 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.

This express limited warranty is extended by MOTOROLA 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. MOTOROLA assumes no obligations or liability for additions or modifications to this warranty unless made in writing and signed by an officer of MOTOROLA. Unless made in a separate agreement between MOTOROLA and the original end user purchaser, MOTOROLA does not warrant the installation, maintenance or service of the Product.

MOTOROLA cannot be responsible in any way for any ancillary equipment not

furnished by MOTOROLA 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 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'S responsibilities regarding the Product. Repair, replacement or refund of the purchase price, at MOTOROLA'S 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 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 through one of its authorized warranty service locations. If you first contact the company which sold you the Product (e.g., dealer or communication service provider), it can facilitate your obtaining warranty service. You can also call Motorola at 1-800-927-2744 US/Canada.

### V. WHAT THIS WARRANTY DOES NOT COVER:

- A) Defects or damage resulting from use of the Product in other than its normal and customary manner.
- B) Defects or damage from misuse, accident, water, or neglect.
- C) Defects or damage from improper testing,

- operation, maintenance, installation, alteration, modification, or adjustment.
- Breakage or damage to antennas unless caused directly by defects in material workmanship.
- E) A Product subjected to unauthorized Product modifications, disassemblies or repairs (including, without limitation, the addition to the Product of non-Motorola supplied equipment) which adversely affect performance of the Product or interfere with Motorola's normal warranty inspection and testing of the Product to verify any warranty claim.
- Product which has had the serial number removed or made illegible.
- G) 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.
- H) Freight costs to the repair depot.
- A Product which, due to illegal or unauthorized alteration of the software/ firmware in the Product, does not function in accordance with MOTOROLA's published

- specifications or the FCC type acceptance labeling in effect for the Product at the time the Product was initially distributed from MOTOROLA.
- Scratches or other cosmetic damage to Product surfaces that does not affect the operation of the Product.
- K) Normal and customary wear and tear.

#### **VI. PATENT AND SOFTWARE PROVISIONS:**

MOTOROLA 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 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:

- A) that MOTOROLA will be notified promptly in writing by such purchaser of any notice of such claim;
- B) that MOTOROLA will have sole control of the defense of such suit and all negotiations for its settlement or compromise; and
- Should the Product or parts become, or in MOTOROLA's opinion be likely to become, the subject of a claim of infringement of a

United States patent, that such purchaser will permit MOTOROLA, 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.

MOTOROLA will have no liability with respect to any claim of patent infringement which is based upon the combination of the Product or parts furnished hereunder with software, apparatus or devices not furnished by MOTOROLA, nor will MOTOROLA have any liability for the use of ancillary equipment or software not furnished by MOTOROLA which is attached to or used in connection with the Product. The foregoing states the entire liability of MOTOROLA with respect to infringement of patents by the Product or any parts thereof.

Laws in the United States and other countries preserve for MOTOROLA certain exclusive rights for copyrighted MOTOROLA software such as the exclusive rights to reproduce in copies and distribute copies of such Motorola software.

MOTOROLA software may be used in only the Product in which the software was originally embodied and such software in such Product may not be replaced, copied, distributed, modified in any way, or used to produce any derivative thereof. No other use including, without limitation, alteration, modification, reproduction, distribution, or reverse engineering of such MOTOROLA software or exercise of rights in such MOTOROLA software is permitted. No license is granted by implication, estoppel or otherwise under MOTOROLA patent rights or copyrights.

#### VII. GOVERNING LAW:

This Warranty is governed by the laws of the State of Illinois, USA.

#### **Notes**

#### **ACCESSORIES**

Motorola offers a number of accessories to enhance the productivity of your two-way radio. Many of the available accessories are listed below. For a complete list, see your Motorola dealer.

#### **CARRY ACCESSORIES**

HLN9714_	Spring 2 1/2" Belt Clip
HLN9844_	Spring 1.5" Belt Clip
HLN9952_	Belt Clip Carry Holder
HLN6602_	Universal Chest Pack
HLN9985_	Waterproof Bag
NTN5243_	Carry Strap
RLN4815_	Fanny Pack Carry Accessory (Universal Radio Pack)

#### **CARRY CASES**

HLN9677_	Leather DTMF Case, Thin Battery with Belt Loop
HLN9689_	Leather DTMF Case, Standard Battery with Belt loop
HLN9690_	Leather DTMF Case, Thin Battery with Swivel

HLN9694_	Leather DTMF Case, Standard Battery with Swivel
HLN9701_	Nylon Case, with Belt Loop - Fits all Batteries
HLN9946_	Leather Keypad Case with Belt Loop
HLN9998_	Leather Keypad Case with Swivel
HLN9945_	Leather Keypad Case with Belt Loop
HLN9955_	Leather Keypad Case with Swivel

#### **CHARGERS**

AAHTN3000_	120 V, Rapid Rate, Single-Unit Intelli- Charger
AAHTN3003_	120 V, 6-Unit, Rapi-Rate Intelli- Charger
NLN7967_	Wall Mount Kit for Multi-Unit Charger
RLN4883_	Travel Charger (includes voltage regulated lighter adapter, custom charger bse, coil cord, and mounting bracket)
RL-76345	Battery Optimizing System (BOS) Adapter Plate
WPLN4071_R	Battery Optimizing System - 110 V AC, 50/60 Hz, 4 Station
WPLN4079-R	Battery Maintenance System Plus (BMS Plus) - 110 V AC, 50/60 Hz
WPPN4079-R	BMS Battery Adapter (For Ni-Cad and NiMH Batteries)

WPLN4107-R	Motorola Conditioning Charger Kit (includes 7.2 Volt base, removable adapter plate and transformer, 60 minute Rapid Charger, 110 V)
WPPN4065-R	Motorola Conditioning Charger. Four- Station Base only. 110 V (requires Adapter Plate)
WPPN4082-R	Adapter Plate Only (for Motorola Conditioning Charger)
RLN4814_	Vehicular Mounting Bracket (for use with Motorola Single Unit Conditioning Charger Bases)
HLN9793_	Charger Insert Spacer (compatible with A version chargers only)
HLN9794_	Charger Insert Spacer (compatible with B and C version chargers only)

#### **HEADSETS AND ACCESSORIES**

AARMN4018_	Lightweight Headset with Boom Microphone and In-Line PTT - FM (Factory Mutual) Approved
AARMN4031_	Lightweight Headset with Swivel Boom Microphone - (FM Approved (VOX oper- ational only on conventional channel)
AARMN4017_	Ultra-Light Headset - FM Approved (VOX operational only on conventional channel)

AARMN4032_	Medium Weight Dual Muff Headset, Over the Head with Noise Cancelling Mic - FM Approved
AARMN4019_	Medium Weight Over-the-Head Dual Muff Headset with Noise Cancelling Microphone and in line PTT. FM Approved
ARMN4020_	Heavy Duty Muff Headset with Noise Cancelling Microphone and PTT on Earcup, Noise Reduction Rating = 24 dB - FM Approved (VOX operational only on conventional channel)
RMN4051_	2-Way Hard-hat Mount Headset, Black - Noise Reduction Rating = 22 dB (required RKN4097)
RMN4052_	Tactical HeadBand-Style Headset, Gray - Noise Reduction Rating = 24 dB (requires RKN4097)
RMN4053_	Tactical Hard-hat Mount Headset, Gray - Noise Reduction Rating = 22 dB (requires RKN4097)
RMN4054_	Receive-Only Hard-hat Mount Headset with 3.5mm right angle plug - Noise Reduction Rating = 22 dB
RMN4055_	Receive-Only HeadBand-Style Headset with 3.5mm right angle plug - Noise Reduction Rating = 24 dB

RKN4097_	In-Line Adapter Cable for user with RMN4051. RMN4052, and RMN4053 Headsets
ENMN4014_	3-Wire Surveillance Kit with Microphone & PTT (Black) - FM Approved
ENMN4012_	Ultra Lightweight, Behind the Head, Headset with Streamlined Boom Micro- phone
ENMN4013_	Flexible Ear Receiver (Flexible Earloop and Speaker that Rests External to the Ear
ENMN4016_	Medium Duty Headset, Behind the Head, with In-line PTT with Noise Cancelling Boom Microphone

BDN6641_	Ear Microphone - Gray (for high noise levels from 95 dB to 105 dB) - requires Interface Module - FM Approved
RMN4044_	Interface Module for PTT Operation Only - FM Approved
0180358B38	Finger Push to Talk Switch for Ear Microphone System - FM Approved
0180300E83	Body Switch Push to Talk for Ear Microphone System
AARMN4045_	Ear Microphone Interface Module PTT or VOX
ENMN4017_	3-Wire Surveillance Kit with Microphone and PTT (Beige)

#### **MICROPHONES**

HMN9052_	Standard Remote Speaker Microphone
AAHMN9053_	Noise-Cancelling Remote Speaker Microphone - FM Approved
AAHKN9055_	Remote Speaker Microphone Replacement Cable

#### **EAR MICROPHONE SYSTEM**

BDN6677_	Ear Microphone - Black (for noise levels up to 95 dB) - requires Interface Module
BDN6678_	Ear Microphone - Beige (for noise levels up to 95 dB) - requires Interface Module

#### INTEGRATED MICROPHONE/ RECEIVER

This devices's acoustic technology does not rely on conduction for communication.

NTN1722_	Integrated Ear Microphone/Receiver System with PTT on Radio Adapter - FM Approved
NTN1723_	Integrated Ear Microphone/Receiver System wit Palm PTT - FM Approved
NTN1724_	Integrated Ear Microphone/Receiver System with Ring PTT - FM Approved

NNTN4187_	Integrated Microphone/Receiver with Remote Push-to-Talk Body Switch - FM Approved
NNTN4188_	Replacement Remote Push-to-Talk Body Switch
NTN8821_	CommPort Maintenance Kit - includes Replacement Ear Tubes (qty. 10), Wind- screens (qty. 2) and Microphone Seal Strips (qty. 10)
NTN8986_	Adhesive Pads (qty. 90) for Secure Attachment to the Ear
NTN8988_	Ear Straps (qty. 10) for Secure Attachment to the Ear
NKN6525_	Replacement Snap-on-Side PTT Cable for NTN1737
NKN6508_	Replacement Cable for NTN1722
RLN4760_	Small Custom Earpiece, Right Ear (for use with NTN8371)
RLN4761_	Medium Custom Earpiece, Right Ear (for use with NTN8371)
RLN4762_	Large Custom Earpiece, Right Ear (for use with NTN8371)
RLN4763_	Small Custom Earpiece, Left Ear (for use with NTN8371)
RLN4764_	Medium Custom Earpiece, Left Ear (for use with NTN8371)
RLN4765_	Large Custom Earpiece, Left Ear (for use with NTN8371)

NKN6510_	Replacement Palm PTT Cable for NTN1723
NKN6512_	Replacement Ring PTT Cable for NTN1723

#### **EARPIECE**

AARLN4885_	Receive Only Foam Earbud with 3.5mm plug - (for use with AAHMN9053, AAHMN8054, and AAHMN9057) - FM Approved
AARMN4022_	2-Wire Earpiece with Microphone & PTT (Beige) - FM Approved
AARMN4029_	2-Wire Earpiece with Microphone & PTT (Black) - FM Approved
RLN5316_	2-Wire Comfort Ear Piece with Combined Microphone and PTT, Beige Surveillance Kits with Extended-Wear Comfort Earpieces include a Low Noise Enhancement (NTN8371) already attached for extra comfort and convenience.
RLN5315_	2-Wire Comfort Ear Piece with Combined Microphone and PTT, Black Surveillance Kits with Extended-Wear Comfort Earpieces include a Low Noise Enhancement (NTN8371) already attached for extra comfort and convenience.
AARMN4021_	Earpiece with Volume Control (Beige) - FM Approved

AARMN4028_	Earpiece with Volume Control (Black) - FM Approved
RLN4941_	Receive-Only Earpiece with translucent tube, rubber eartip, and 3.5mm plug (for use with AAHMN9053, AAHMN9054, and AAHMN9057)
RLN4922_	Completely Discrete Earpiece Kit - must be used with any standard 2 or 3 wire sur- veillance earpiece kit
NTN8370_	Extreme Noise Earpiece Adapter Kit, Noise Reduction Rating - 28 dB (for use with AARMN4022 and AARMN4029)
NTN8371_	Low Noise Earpiece Adapter Kit (for use with AARMN4022 and AARMN4029)
RLN5037_	Replacement Ear Tubes (qty 10)

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HLN9820_	Accessory Dust Cover
AAHLN9716_	Audio Accessory Adapter for the user of GP300/P1225•LS audio accessories - FM Approved (not compatible with BDN6706 or BDN6646)
AAHLN9717_	3.5mm Accessory Adapter
3080384G15	Cigarette Lighter Adapter
RLN4853_	Adapter 10 to 20 pin
AARKN4073_	Cloning Cable

AARKN4074_	Programming/Test Cable (requires RIB box)
AARKN4075_	Programming cable (includes internal Rib)
0180305G54	Shop battery eliminator cable. Requires RLN4510A (7.5 volt source)
RLN4510_	7.5 Volt Universal Battery Eliminator

#### **BATTERIES**

HNN9008_R	1500 mAH NiMH High Capacity Battery (standard)			
HNN9009_R	1900 mAH NiMH Ultra High Capacity Battery			
HNN9010_R	1800 mAH NiMH, Ultra High Capacity - FM Approved			
HNN9011_R	1200 mAH Ni-Cad, High Capacity Battery - FM Approved			
HNN9012_R	1300 mAH Ni-Cad High Capacity Battery			
HNN9013_R	1200 mAH Lithium Ion Battery			
WPNN4045	1200 mAH NiMH High Capacity Battery			
HNN4001	Impres <sup>™</sup> 1900 mAH NiMH, 7.5 V Battery			
HNN4002	Impres <sup>™</sup> 1800 mAH NiMH, 7.5 V Battery - Intrinsically Safe (FM)			
HNN4003	Impres <sup>™</sup> 2000 mAH Li-ion, 7.5 V Battery			

#### **ANTENNAS**

HKAD4000_	215-225 MHz, Helical
NAF5083_	700 MHz 1/2-Wave, Whip

#### **MANUALS**

6864110R12	HT1250•LS+ 220/700 MHz Detailed Service Manual
6864110R15	HT1250•LS+ 220/700 MHz Basic Service Manual
6881092C58	Installation Manual



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