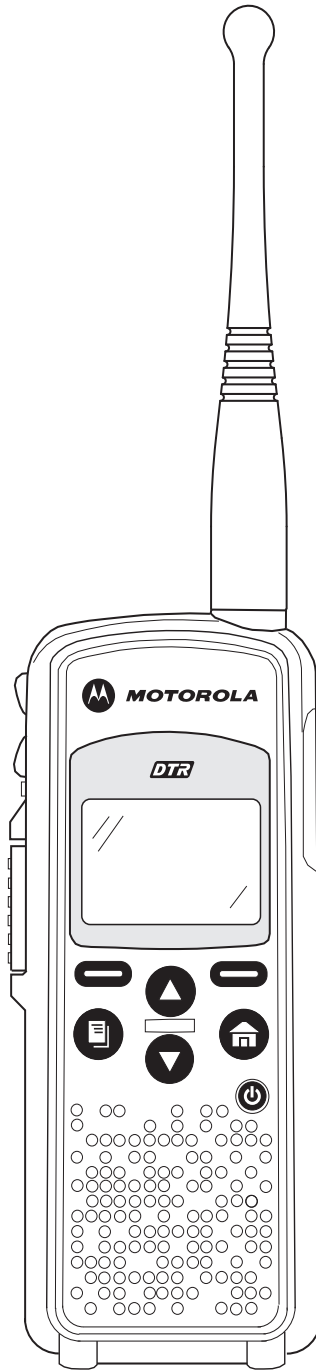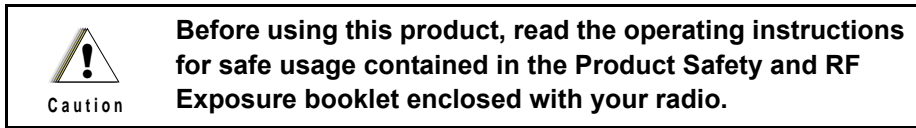**MOTOROLA**

DTR Series™
DTR410/DTR550/DTR650
User Guide

Foreword

The information contained in this manual relates to all DTR Series portable radios, unless otherwise specified.

Product Safety and RF Exposure Compliance

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

ATTENTION!

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

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>

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Notes

FCC Licensing Information

DTR Series™ professional two-way radios operate in the license-free 900 MHz ISM band and are subject to the Rules and Regulations of the Federal Communications Commission (FCC)

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Read this manual carefully and make sure you know how to properly operate radio before use.

Changes or modifications not expressly approved by Motorola may void the user's authority granted by the FCC to operate this radio and should not be made. To comply with FCC requirements, transmitter adjustments should be made only by or under the supervision of a person certified as technically qualified to perform transmitter maintenance and repairs. Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

NOTE: Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited.

Notes

Chapter 1   Introduction

Thank you for purchasing a Motorola DTR Series™ radio. Your radio is a product of Motorola's 75 plus years of experience as a world leader in the designing and manufacturing of communications equipment. The DTR Series radios provide cost-effective communications for businesses such as retail stores, restaurants, schools, construction sites, manufacturing, property and hotel management, and more. Motorola professional two-way radios are the perfect communications solution for all of today's fast-paced industries.

Please read this manual carefully to ensure you know how to properly operate the radio before use.

This User's Guide covers operation and maintenance of your DTR Series radio.

Notations Used in This Manual

Throughout the text in this publication, you will notice the use of WARNINGS, Cautions, and Notes. These notations are used to emphasize that safety hazards exist, and the care that must be taken or observed.

WARNING

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

CAUTION: An operational procedure, practice, or condition, etc., which may result in damage to

Caution

the equipment if not carefully observed.

NOTE: An operational procedure, practice, or condition, etc., which is essential to emphasize.

The following special notations identify certain items:

Example	Description
Volume Control	Button names are shown in bold print.
⏻	Radio keys and buttons are shown as they appear on the radio.
Contcs	Text appearing on the display is shown in bold print.

Your model number is shown on the radio lens above the display, and tells you the following information:

DTR Features

	DTR410	DTR550	DTR650
PublicGroups Available	Up to 25 (20 default)	Up to 20 (5 default)	Up to 50 (5 default)
Group Scan	Up to 10 per channel	Up to 5 per channel	Up to 5 per channel
PrivateGroups Available	-	Up to 10	Up to 20
PrivateCall	Yes	Yes	Yes
SMS Messaging (See DTR SMS Tool: <http://www.motorola.com/DTR/>)	10 Quick Notes (20 available)	5 Quick Notes (15 available)	10 Quick Notes (25 available)
Vibracall®	Yes	Yes	Yes
Clock/Alarm	Yes	Yes	Yes
Scroll List	Yes	Yes	Yes
Call Forwarding	Yes	Yes	Yes
Remote Disable	Yes	Receive Only	Yes
Remote Monitor	Yes	Receive Only	Yes
Remote Time	Yes	Receive Only	Yes
Battery Life	15.5 Hours (5/5/90)	15.5 Hours (5/5/90)	20 Hours (5/5/90)
Charging Time	Up to 3 Hours	Up to 3 Hours	Up to 1 Hour

DTR Features

	DTR410	DTR550	DTR650
Drop in Charging Tray	Yes	Yes	Yes
Customer Programming Software (CPS) Compatible	Yes	No	No

Your DTR Series Radio

Antenna

Volume Controls

Audio Jack
Connect audio accessories

Push-to-Talk (PTT)
Button

Option Keys
Use to select display options

Home Key
Use to exit the current menu
and return to the idle screen

Menu Key

Power Button

Speaker

Navigation Keys
Use to scroll menu settings

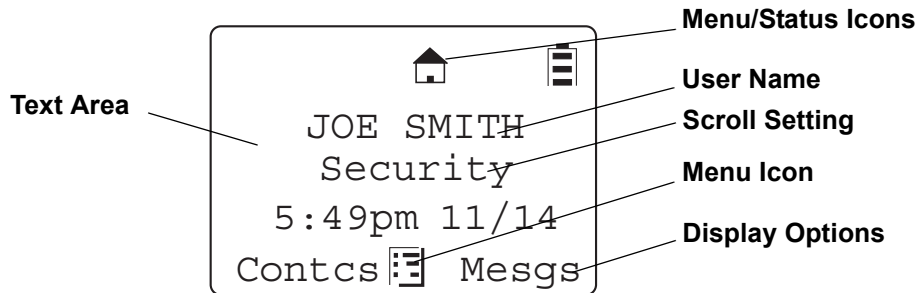Plug-in Charging
and Connect Data
Accessories

Microphone
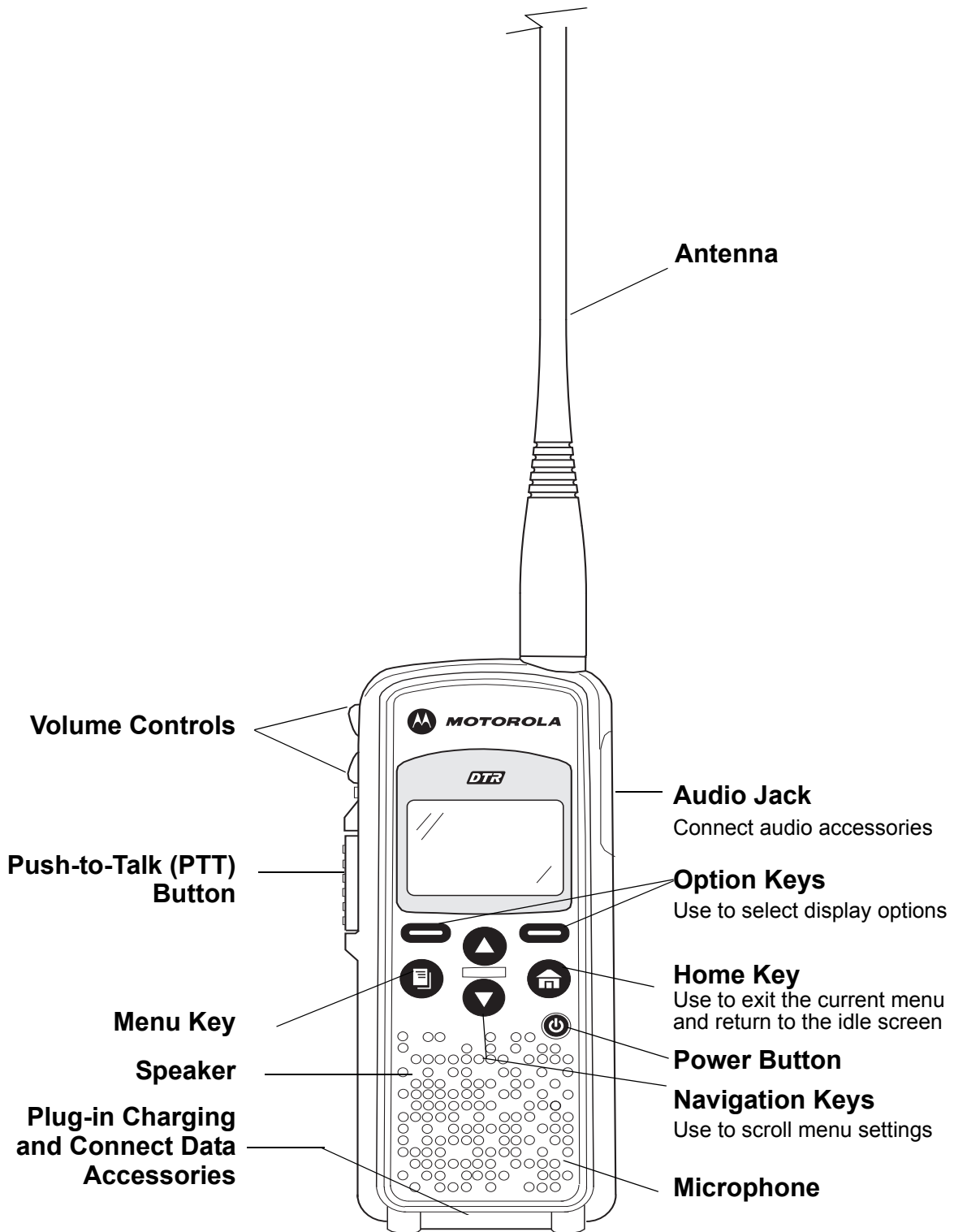
Getting Started

NOTE: The DTR410 radio is Customer Programming Software (CPS) compatible. Please refer to "Chapter 5 Programming the Radio with Customer Programming Software (CPS) (DTR410 Only)" on page 5-1 for more details.

Any time your radio is powered on, the display provides you with information and options.

Menu/Status Icons
User Name
Text Area
JOE SMITH
Security
Scroll Setting
5:49pm 11/14
Menu Icon
Contcs ☰ Mesgs
Display Options

The display shown is in idle. The idle screen appears when your radio is on, but not engaged in any activity.

Menu Icons

Menu icons appear when you are accessing a particular menu. The icon for that menu appears in the upper left corner of the display.

🔧	**Settings**	Customize your radio.
	Recent Calls	Lists recent calls.
	My Info	View personal radio information.
📖	**Contacts**	Create, view, store, edit contacts.
✉	**Messages**	View, reply, create, send messages.

Status Icons

Status icons usually appear in first row at the top of the display. Some appear at all times. Others appear only when your radio is engaged in certain activities or when you have activated certain features.

🏠	**Home**	The private or group contact shown is on your home channel.
	PublicGroup	The contact selected is a PublicGroup.
	PrivateGroup	The contact selected is a PrivateGroup.
	Scan	The radio is scanning PublicGroups on your current channel.
	Call Forward	Your radio is set to forward calls.
	Alarm	The alarm has been set.
	VibraCall	Your radio is set to vibrate when receiving an alert or text message.
☰	**Menu**	Main Menu.
	Text Input	Indicates you are entering text. The mini keyboard must be attached to the radio

| | **Battery Status** | More bars on the battery indicate a greater charge. When the battery is flashing, it is time to charge the radio. |
| | **New Message** | You have a new unopened text message. |

Text Area

This area displays menus, messages, unit names or IDs, and other information.

Display Options

Two display options appear at the bottom of most screens. You select a display option by pressing the ⬭ below it.

Menu Key

Many features provide context-sensitive menus that let you access related features and actions. The ⊟ icon appears any time a context-sensitive menu is available. Press 🗐 to access the menu.

Menus and Lists

Your radio's features are arranged in menus, submenus, and lists. To access the items in a menu or list, scroll using either the ▲ or ▼ keys.

Antenna

Your DTR Series radio may be equipped with a removable antenna. To install the antenna, rotate it clockwise into the fitting on the top of the radio until it seats into the radio housing.

WARNING: **DO NOT use your radio without an antenna.**

Battery

WARNING: **To avoid a possible explosion: DO NOT replace the battery in any area labeled "hazardous atmosphere." DO NOT discard batteries in a fire.**

Battery Life

Your radio uses a rechargeable Lithium Ion (Li-Ion) battery.

Based on 5% transmit, 5% receive, 90% standby (standard duty cycle):

- NNTN4655 Li-Ion; Up to 20 Hours
- SNN5706 Li-Ion; Up to 15.5 Hours

Battery life is determined by several factors. Among the more critical are the regular overcharge of batteries and the average depth of discharge with each cycle. Typically, the greater the overcharge and the deeper the average discharge, the fewer cycles a battery will last.

For example, a battery which is overcharged and discharged 100% several times a day, lasts fewer cycles than a battery that receives less of an overcharge and is discharged to 50% per day. Further, a battery which receives minimal overcharging and averages only 25% discharge, lasts even longer.

WARNING: **Care should be taken to avoid external short circuiting of the battery. A sustained high-rate discharge (for example, a paper clip placed accidentally across the battery contacts) may permanently damage the battery, void the battery warranty, and create a burn or fire hazard.**

Motorola batteries are designed specifically to be used with a Motorola charger and vice versa. Charging in non-Motorola equipment may lead to battery damage and void the battery warranty. 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.

WARNING: **Do not attempt to change or charge the battery in a hazardous atmosphere.**

To charge the battery, place the battery (with or without the radio) in a Motorola-approved charger.

Charging the Radio

While the radio is charging, the display lights and the battery status icon flashes to show the status. The battery charges in approximately 1-3 hours, and battery gauge shows all segments and stop flashing when fully charged.

## Charging using the Drop-in Charging Tray

NOTE: Use of the Drop-in Charging Tray is recommended for daily use.

1. Place the charging tray on a flat surface.
2. Connect the plug-in charger and drop-in charging tray by inserting the plug into the rear of the drop-in charging tray.
3. Plug the charger into an AC outlet.
4. Insert the radio (with battery installed) into the charging tray.

NOTE: The charging tray has been designed to charge the radio with or without the holster.

Charging using the Plug-in Charger

1. Plug the charger into an AC outlet.
2. Open the accessory connector cover.
3. Plug the other end of the charger into the accessory connector.
4. Disconnect the charger from the radio by pressing the two side buttons on the charger and remove from the radio.

Accessory Connector
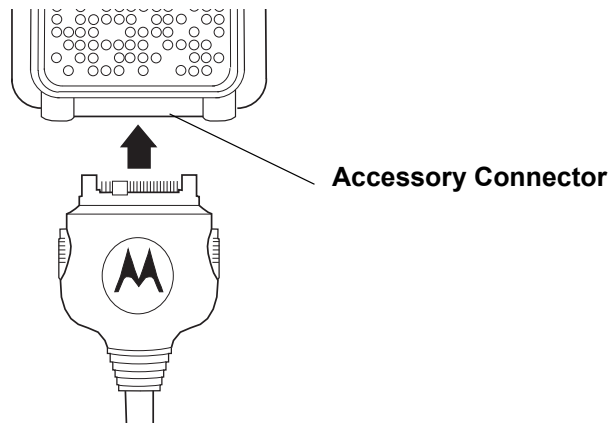
Charging a Radio and Battery using a Multi-Unit Charger

A Multi-Unit Charger (MUC) is available separately (RPN4040) which charges up to 6 radios, batteries, or a combination of the two at the same time.

When charging a radio in the MUC, the battery icon on the radio display shows the charging status.

When charging a battery, the LED in front of the pocket indicates charging status. The LED is solid red when the battery is charging, and solid green when charging is complete.

Battery Meter

The battery meter in the upper right corner of the radio display shows how much battery power is remaining:

Battery Type	3 Bars	2 Bars	1 Bar	Flashing
Li-Ion				
	100%–85%	85%–25%	25%–10%	Final 10%

Attaching the Battery

1. If the battery door is already in place, slide the lock tab to the left to unlock the battery latch. Push down on the latch and lift the battery door off the radio.

2. Insert the battery, printed arrows first, into the battery compartment and press down to secure firmly in place.

3. Replace the battery door onto the radio and slide the latch into place. Slide the lock tab to the right to lock the battery latch.
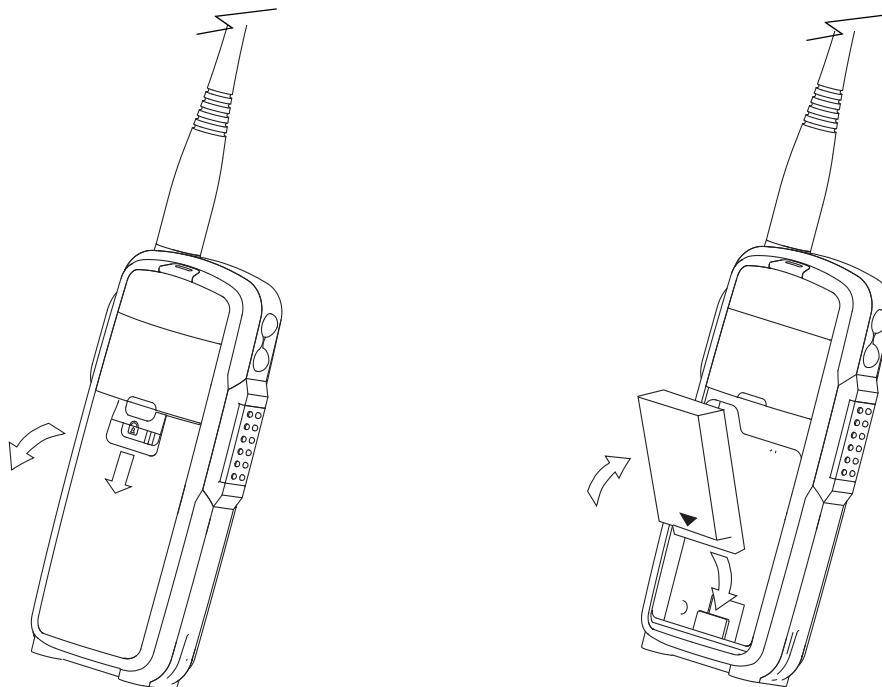
Swivel Belt Holster

1. Slide the bottom of radio into the holster and push the top of the radio against it until it snaps into place.

2. To remove, push the tab located on top of the holster and pull the radio from it.

NOTE: In case of loss, please contact your point-of-sale to request replacement part number RLN5713 for DTR550/650 (53961 for DTR410).
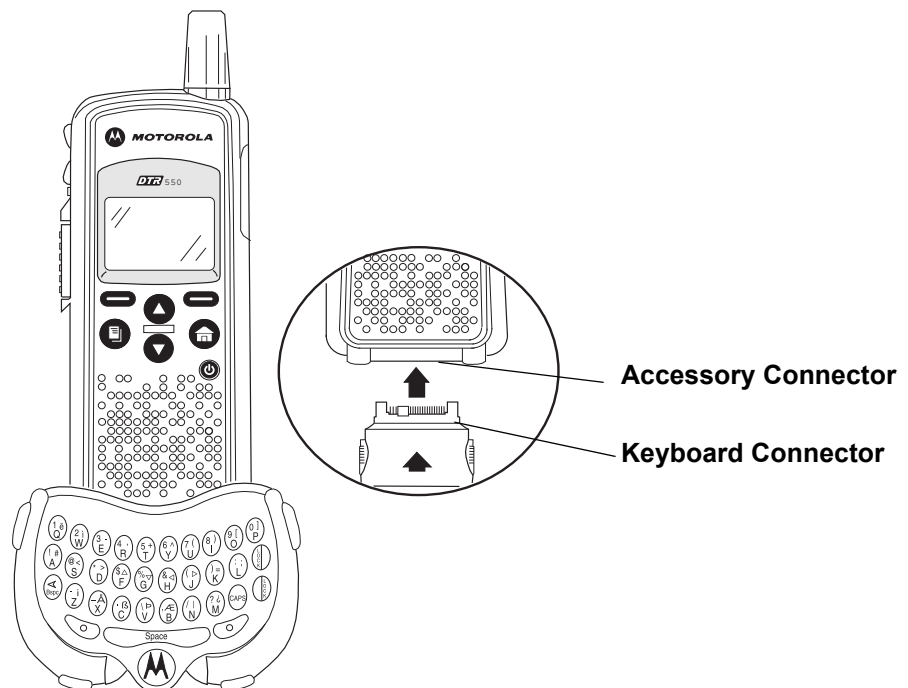
Mini Keyboard

A mini keyboard accessory, part number NNTN5491 for DTR550/650 (53967 for DTR410), is available separately that can be attached to your radio. The mini keyboard allows you to customize Private and Group names, write text messages, and create/modify stored text messages.

Attaching the Mini Keyboard to the Radio

When the mini keyboard is attached to your radio, the "Device Attached" message is displayed.

1. Insert the mini keyboard's connector, with the arrow facing up, into your radio's accessory connector.

2. Fold the mini keyboard over the front of your radio.

Accessory Connector

Keyboard Connector

Disconnecting the Mini Keyboard from Your Radio

1. Press and hold the buttons on the side of the mini keyboard connector.

2. Pull the mini keyboard connector straight out from your radio's accessory connector. Do not twist the connector.

Entering Text with the Mini Keyboard

If you have attached the mini keyboard correctly and the keyboard bezel is installed on the keyboard base you can begin.

Here are some important points to remember when using the mini keyboard.

- Your radio DTR550/650 accepts a maximum of 512 characters in its largest input fields while the DTR410 accepts a maximum of 80 characters.
- Some of your radio's functions cannot be used simultaneously, just as when you are using your radios without the mini keyboard.
- Letters and functions shown in white are the default keys.
- All letters are lower case by default. For example, pressing the "Q" key displays "q."
- The Bspc key works as a Back Space key when entering a message.
- The Space key works as a Space Bar.

Yellow/Lock Key Functionality

1. Press the Yellow key once. The next key pressed displays the yellow character on that key. The keyboard then returns to the default keys (as if the yellow key had not been pressed).
   - For example, press the Yellow key followed by the "Q" key, and a "1" displays. If "Q" is pressed again, a "q" displays.
2. Press the Yellow key twice to lock the keyboard in the yellow mode. All subsequent key presses display the yellow character associated with the key pressed. The keys that do not have yellow functions (Left Option, Right Option, Bspc, Space) still operate in the default (white) mode.
3. Press the Yellow key again to unlock the yellow mode and revert back to the default (white) mode.
4. Press the Green key to cancel the yellow mode and enter the green mode.
5. Press the CAPS key to cancel the yellow mode and enter the CAPS mode.

Green/Lock Key Functionality

1. Press the Green key once. The next key pressed displays the Green character on that key. The keyboard then returns to the default keys (as if the green key had not been pressed).
   - For example, press the Green key followed by the "U" key, and a "{" displays. If "U" is pressed again, a "u" displays.
2. Press the Green key twice to lock the keyboard in the green mode. All subsequent key presses display the Green character or function associated with the key pressed. The keys that do not have green functions still operate in the default (white) mode.
3. Press the Green key again to unlock the green mode and revert back to the default (white) mode.
4. Press the Yellow key to cancel the green mode and enter the yellow mode.
5. Press the CAPS key to cancel the green mode and enter the CAPS mode.

CAPS Key Functionality

1. Press the CAPS key once. The next key pressed displays the capitalized character on that key. Subsequent keys pressed are displayed in lower case.
2. Press the CAPS key twice to lock the keyboard in the caps mode. All subsequent key presses display the capitalized character associated with the key pressed.
3. Press the CAPS key again to unlock the caps mode and revert back to the lower case mode.

4. Press the Yellow or Green key to unlock the caps mode and enter the yellow or green mode, respectively.

Standard Yellow Function Green Function

Standard	Yellow Function	Green Function
Q	1	APOSTROPHE
W	2	"
E	3	~
R	4	ACCENT
T	5	+
Y	6	^
U	7	{
I	8	}
O	9	[
P	0	]
A	!	#
S	@	<
D	*	>
F	$	UP ARROW
G	%	DOWN ARROW
H	&	LEFT ARROW
J	(	RIGHT ARROW
K	)	=
L	:	;
Z	-	¡
X	_	Å
C	.	ß
V	\	Þ
B	,	Æ
N	/	I
M	?	¿

Using Mini Keyboard Key Shortcuts

You can perform most of your radio's functions using the keys on the Motorola mini keyboard.

Radio Key	Action	Keyboard Equivalent
▭ Left Option	Chooses current left display option	 Left Option Key
▭ Right Option	Chooses current right display option	 Right Option Key

Extended Character Set

The mini keyboard lets you enter special characters using a combination of keystrokes.

NOTE: The extended character set is only available if your radio is configured for a language other than English.

Accent Example	Description	Keystrokes
å	acute accent (for letters a, e, i, o, u, y)	single quote, then letter
â	circumflex (for a, e, i, o, u	⬤ + Y+ letter Green
ä	umlaut (for letters a, e, i, o, u)	shift and quote, then letter
à	grave accent (for letters a, e, i, o, u)	grave accent, then letter
ã	tilde (for letters a, n, o)	⬤ + ~ + letter Green
Å	nordic A-ring (for letter a only)	⬤ + X Green

Accent Marks

To create a letter with an accent mark over it, enter the keystrokes listed in the table above.

If your radio displays a language other than English, you must press the right arrow after a single quote, ~, ', /, -, or ^ for the character to appear.

Other Special Characters

To create other special characters, enter the keystrokes listed in the table below.

Accent Example	Description	Keystrokes
ß	sharp s, German sz ligature	+ C Green
Æ	diphthong AE ligature	+ B Green
ç or Ç	cedilla	single quote, then c or C
Þ	icelandic thom	+ V Green
ð or Ð	icelandic eth	dash and d or D
ø or Ø	nordic O-Slash	/, then o or O
¿	upside down?	+ M Green
¡	upside down!	+ Z Green

Accessories

The DTR Series radio comes with a Lithium-Ion battery and a Drop-in Charging Tray.

Various accessories are available for use with your DTR Series radio, including holsters, hands-free accessories, headset accessories, a mini keyboard, and more.

To order additional accessories, contact your dealer or call (800) 927-2744.

Chapter 2   General Radio Operations

Your radio is ready for use after a fully-charged battery has been installed. However, your radio should be programmed in order to be fully compatible with any existing DTR Series radios and to fully utilize all radio features.

Refer to Chapter 3 - Advanced Radio Operations.

Turning Your Radio On or Off

Press ⏻ to turn your radio on.

The radio chirps and the display briefly shows **Motorola**.

The display shows the radio Unit ID or Name, current Scroll list setting, time, date, and the available Option key selections. If the radio has been assigned a unique Unit Name, the name displays rather than the Unit ID for both the radio and any Contacts.

```
        🏠           🔋

    17179860200
      Public1
    5:49pm 11/14
   Contcs▤  Mesgs
```
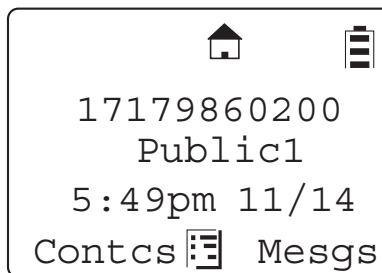
Press and hold ⏻ to turn the radio off.

Adjusting the Speaker Volume

The **Volume Control** buttons are located on the upper left side of the radio. To adjust the speaker volume, press the upper button to increase the volume level and press the lower button to decrease the volume level. When either button is pressed, the display shows a bar chart indicating the present level for the volume.

```
        🏠           🔋

       Volume

   ◀▐██████████▶
                  3
```
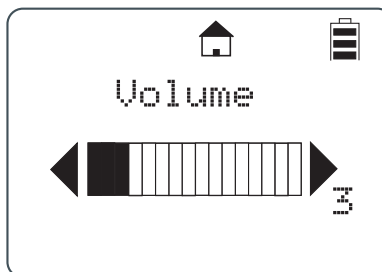
Setting Voice VibraCall on

Go to Main Menu, select Settings, scroll down to **VibraCall,** select and switch to On. The radio vibrates briefly. When Voice VibraCall is on, the radio vibrates whenever a call is received after being idle for at 30 seconds

Selecting a Scroll List Contact

In idle mode, use ▲ or ▼ to select the desired TalkGroup/Private contact. Press the PTT button for one-touch communication.

Viewing a Contact

1. From the main screen, press ⬭ under **Contcs** to enter the Contact List.

```
       🏠              🔋

      JOE SMITH
       Security
    5:49pm 11/14
   Contcs 🔲  Mesgs
```
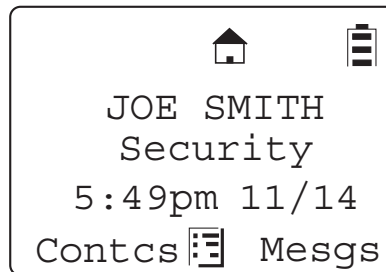
The Contact List screen appears with the first contact highlighted in the list.

```
  📖         🏠        🔋
       ─Contacts─
    Mike Jones
    Receiving        🗺
    Security         👥
  Alert          Back
```

2. Scroll to highlight the desired contact.

3. To view the contact, press ⬭ under **View** for Group contacts or press 🗐 and press ⬭ under **View** for Private contacts. The display changes and shows the contact (group number or name), the ID number, and the channel number.

```
  📖         🏠        🔋
      ─Mike Jones─
    Mike Jones
    17178565789
    Channel 1
                 Back
```

NOTE: For PrivateGroup contacts, members of the group are viewed by pressing ⬭ under **Member**.

Receiving and Making Calls

> **NOTE:** Your DTR Series radio must be programmed to be fully compatible with other DTR Series radios and fully utilize all radio features. Refer to Chapter 3 - Advanced Radio Operations.

Types of Calls

Your radio can make and receive three different types of voice calls:

- PublicGroup – One-to-many communication to all radios set to your channel and PublicGroup number. All DTR Series radios are factory programmed with 2 to 5 PublicGroups.
- Private – One-to-one communication with another radio, requires adding a user to the Contacts List.
- PrivateGroup – One-to-many communication to only radios in your group. Requires adding all members to your Contact List then cloning the group (either over the air or with the RRDN5378 cloning cable) to member radios. Offers a higher level of privacy than a PublicGroup.
- Private Reply with Group Call – user receives a group call and replies back with a private call, thus not tying up the whole group.

Private Reply with Group Calls

An end user can create a group such as "Security Only" and privately response to that particular group.

Receiving a Call

When a call is received, the radio chirps and the display shows the call type and transmitting caller's user ID or name.

```
 ⌂              🔋

Talkgrp in Use
    Security
  (Joe Smith)
```

```
 ⌂              🔋

Private in use
  Mike Jones
```
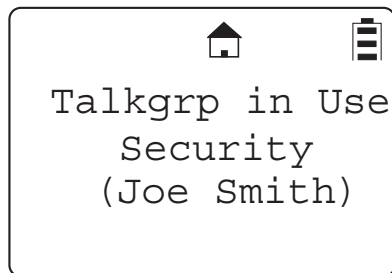
Making a Call

1. Choose a contact from your Scroll List, Contacts, or Recent Call List.
2. Press and hold the **PTT** button. Begin speaking after the radio emits the talk permit tone. To maximize clarity, hold the radio two-to-three inches away from your mouth.
3. Release the **PTT** button to listen.

> **NOTE:** If "User Not Available" displays, the recipient is either: In a Call, Out of Range, or Turned Off. Press ⌂ to cancel and then try the call again. When contacting a group, at least one member must be available for the call to be successful.

> **NOTE:** Radio PTT button is disabled when accessory is connected to the radio. This can be done via CPS (customer programming software).

Call Alerts

Sending a call alert lets the recipient know you want to talk to him or her. When you send a call alert, the recipient's radio emits a series of beeps, or vibrates, and displays your Unit Name or ID along with the time and date.

The recipient can:

- Answer – begin a call by pressing the PTT button.
- Clear – delete the call alert.
- Voice Vibrate Call – the radio vibrates when a call is received after being idle for at least 30 seconds

Sending Call Alerts

NOTE: Only Private Contacts can be alerted.

1. Highlight the Private Name/ID in Contacts or Recent Calls..

```
┌─────────────────────────┐
│  📖         🏠       🔋  │
│        Contacts          │
│    Shipping          ‖   │
│    Maintenance       ‖   │
│    Smith                 │
│  Alert   ▤        Back   │
└─────────────────────────┘
```

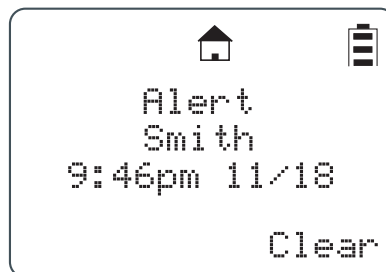2. Press ⬭ under **Alert**. "Ready to Alert" appears on the display.
3. Press the PTT button until "Alert Successful" appears on the display.

NOTE: If the alert is not successful, the radio you are trying to reach is either in a call, on another channel, has the radio turned off, or is out of range.

Receiving a Call Alert

When you receive a call alert, you must answer or clear it. You cannot make new calls until you do.

```
┌─────────────────────────┐
│         🏠        🔋     │
│                          │
│         Alert            │
│         Smith            │
│      9:46pm 11/18        │
│                          │
│                  Clear   │
└─────────────────────────┘
```

To answer a call alert, press the PTT button to respond to the sender. To clear a call alert, press ⬭ under **Clear**.

Text Messaging

Your radio can send and receive short text messages to Private or Group contacts. Your radio must be on and within range to receive text messages.

NOTE: DTR SMS test messaging is available on the DTR website with the help file of how to use this tool. The DTR SMS tool allow an end user to communicate to a specific fleet with the use of the end user's computer fromdifferent locations.

Receiving a Message

When you receive a text message, "New Message Received" appears on the display. The sender and group (if applicable) are also indicated.

```
New Message
  Received
 From Jones
Read       Back
```

To View the Message

1. Press ⬭ under **Read** to read the message.

NOTE: If you are in a menu when the message is received, you must exit and read it from the Inbox.

2. If the message fills more than one screen, scroll to read the entire message.

3. To delete the message, press 🗐 and press ⬭ under **Delete**.

To Dismiss the Message Notification

Press ⬭ under **Back** to read the message at a later time. This icon ✉ appears on the display, reminding you that you have an unread message.
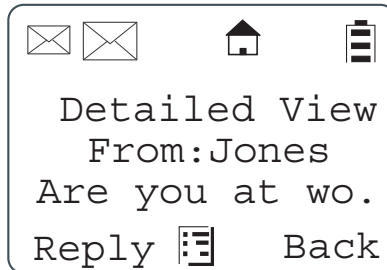
Reading from the Inbox

1. Press ⬭ under **Mesgs**.

2. Scroll to the message you want to read.

3. Press ⬭ under **Read**.

4. If the message fills more than one screen, scroll to read it.

```
——— Inbox ———
[Send Mesg]
✉ Are you at
✉ No
Read  ▤   Back
```
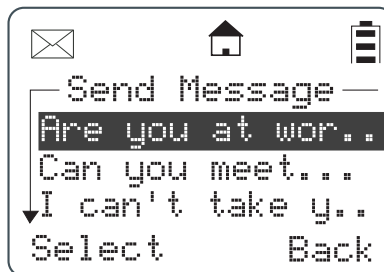
Replying to a Received Message

Your radio has a number of pre-programmed Quick Notes available, or the mini keyboard can be used to create a response. Additional Quick Notes can be created and the existing ones modified/deleted with the mini keyboard by selecting Text Messaging while in Programming Mode.

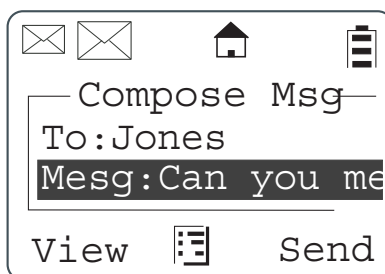1. To reply to the message, press ⬭ under **Reply**.

```
┌──────────────────────────┐
│ ⊠ ⊠        🏠        🔋   │
│                          │
│    Detailed View         │
│     From:Jones           │
│   Are you at wo..        │
│                          │
│   Reply ▤     Back       │
└──────────────────────────┘
```

2. The Send Message screen appears.

NOTE: If the mini keyboard is connected to the radio, the **[Write Mesg]** option appears on the display. Refer to Composing a Message Using the mini keyboard.

```
┌──────────────────────────┐
│   ⊠         🏠        🔋  │
│   ┌─Send Message─        │
│   │Are you at wor..      │
│   │Can you meet...       │
│   ▼I can't take y..      │
│   Select        Back     │
└──────────────────────────┘
```

3. Scroll to highlight a reply message and press ⬭ under **Select** to select the reply message. The Compose Msg. screen appears.

```
┌──────────────────────────┐
│ ⊠ ⊠        🏠        🔋   │
│   ┌─Compose Msg─         │
│   To:Jones               │
│   Mesg:Can you me        │
│                          │
│   View  ▤     Send       │
└──────────────────────────┘
```
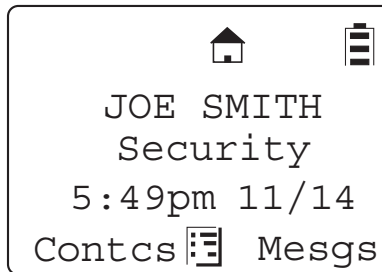
4. To change the Contact you are sending to, press ⬭ under **Change**. This returns you to the Contact List. Scroll to select the correct Contact and press ⬭ under **Select**.

5. To view the text messages in the list, scroll to select the message and press ⬭ under **View**.

6. Press ⬭ under **Send** to send the reply.

Sending a Text Message

Your radio can send and receive short text messages to Private or Group contacts, and has several pre-programmed Quick Notes available. The mini keyboard can be used to change, add additional, or delete these messages while in Programming Mode. This accessory can also be used to write new messages from User Mode.

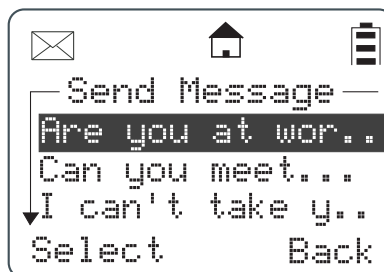1. Press ⬭ under **Mesgs**. The message inbox is displayed.

```
            ⌂            ▤

        JOE SMITH
         Security
       5:49pm 11/14
      Contcs▤  Mesgs
```

2. Highlight **[Send Mesg]** and press ⬭ under **Select**.

```
    ✉         ⌂            ▤

        ── Inbox ──
      [Send Mesg]



      Select      Back
```

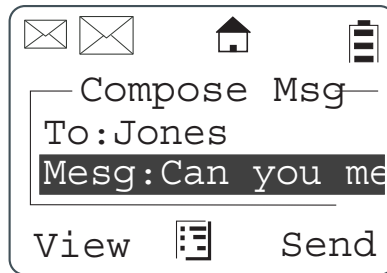3. The Send Message screen appears.

NOTE: If the mini keyboard is connected to the radio, the **[Write Mesg]** option appears on the display. Refer to Composing a Message Using the mini keyboard.

4. Scroll to select the message you want to send.

```
    ✉         ⌂            ▤

      ─Send Message─
      Are you at wor..
      Can you meet...
     ↓I can't take y..
      Select      Back
```

5. Press ⬭ under **Select** to choose the message. The display shows the Contact and the message you want to send

```
┌─────────────────────────────┐
│ ⊠ ⊠        🏠          🔋    │
│   ┌─ Compose Msg ─          │
│   To:Jones                  │
│   Mesg:Can you me           │
│                             │
│   View    ▦       Send      │
└─────────────────────────────┘
```

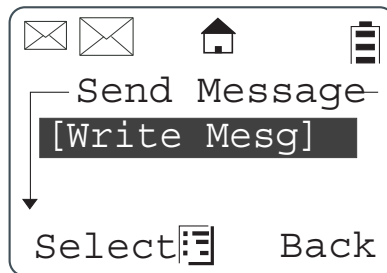6. To change the Contact you are sending to, press ⬭ under **Change**. This returns you to the Contact List. Scroll to select the correct Contact and press ⬭ under **Select**.

7. To view the text messages in the list, scroll to select the message and press ⬭ under **View**. If the message fills more than one screen, scroll to read it.

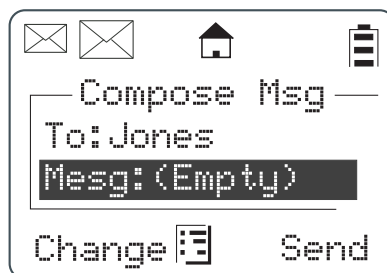8. Press ⬭ under **Send** to send the message.

Composing a Message Using the Mini Keyboard

The mini keyboard can be used to type either new messages or replies.

1. From the Send Message screen, highlight the **[Write Mesg]** option and press ⬭ under **Select**..

```
┌─────────────────────────────┐
│ ⊠ ⊠        🏠          🔋    │
│   ┌─ Send Message ─         │
│   [Write Mesg]              │
│                             │
│                             │
│   Select▦       Back        │
└─────────────────────────────┘
```

2. The Compose Msg screen appears.

```
┌─────────────────────────────┐
│ ⊠ ⊠        🏠          🔋    │
│   ┌─ Compose Msg ─          │
│   To:Jones                  │
│   Mesg:(Empty)              │
│                             │
│   Change▦       Send        │
└─────────────────────────────┘
```

3. To change the Contact you are sending to, press ⬭ under **Change**. This returns you to the Contact List. Scroll to select the correct Contact and press ⬭ under **Select**.

4. Scroll to highlight the **Mesg:** option. Press ⬭ under **Change**.

5. The **Mesg:** screen appears. Use the mini keyboard to enter your message (maximum 80 characters).

```
┌─────────────────────────────┐
│  ✉ ✉        🏠    ᴬ ᴮ 🔋    │
│                  ᶜ          │
│   Mesg:                     │
│   _____  │
│                             │
│   _____  │
│                             │
│   Done    ▦    Delete       │
└─────────────────────────────┘
```

NOTE: The ⬭ under **Delete** can be used to erase characters. Holding ⬭ deletes the entire message.

6. Once the message is completed, press ⬭ under **Done**.

7. Press ⬭ under **Send** to send the message. The display shows a confirmation that the message was sent.

Deleting a Message

1. From the idle screen press ⬭ under **Mesgs** to enter the Message Inbox.

2. Scroll to select a message for deletion.

3. After selecting a message, press 📄 . The Inbox displays the delete selections. If only the one message is to be deleted, highlight **Delete** and press ⬭ under **Select**.

```
┌─────────────────────────────┐
│  ✉          🏠       🔋     │
│      ─── Inbox ───          │
│   ███████                   │
│   Delete                    │
│   Delete All                │
│                             │
│   Select        Back        │
└─────────────────────────────┘
```
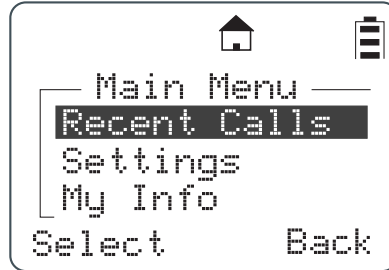
4. If all messages in the Inbox are to be deleted, highlight **Delete All** and press ⬭ under **Select**. A confirmation screen appears.

```
┌─────────────────────────────┐
│  ✉          🏠       🔋     │
│                             │
│      Delete All             │
│       Messages?             │
│                             │
│                             │
│   Yes           No          │
└─────────────────────────────┘
```

5. Press ⬭ under **Yes** to delete all messages.

Accessing the Main Menu

1. Press 📄 to access the Main Menu. The Main Menu appears.

```
                    ⌂              ▐▌

         ┌─── Main Menu ────
         │Recent Calls
         │Settings
         │My Info
         └
          Select          Back
```

2. Scroll through the available menu options. Highlight the desired menu option and press ▭ under **Select**.

Main Menu Navigation Chart

Recent Calls

Main Menu
📄

Settings

My Info

Display

VibraCall

Clock/Alarm

Volume

Ambient Noise

Advanced

Scroll List

Scan

Call Forward

OtaAll Allow

Remote Disable*

Remote Monitor*

Remote Time*

📄 to enter main menu

▲ or ▼ to scroll through list

▭ to select display option

⌂ to exit main menu
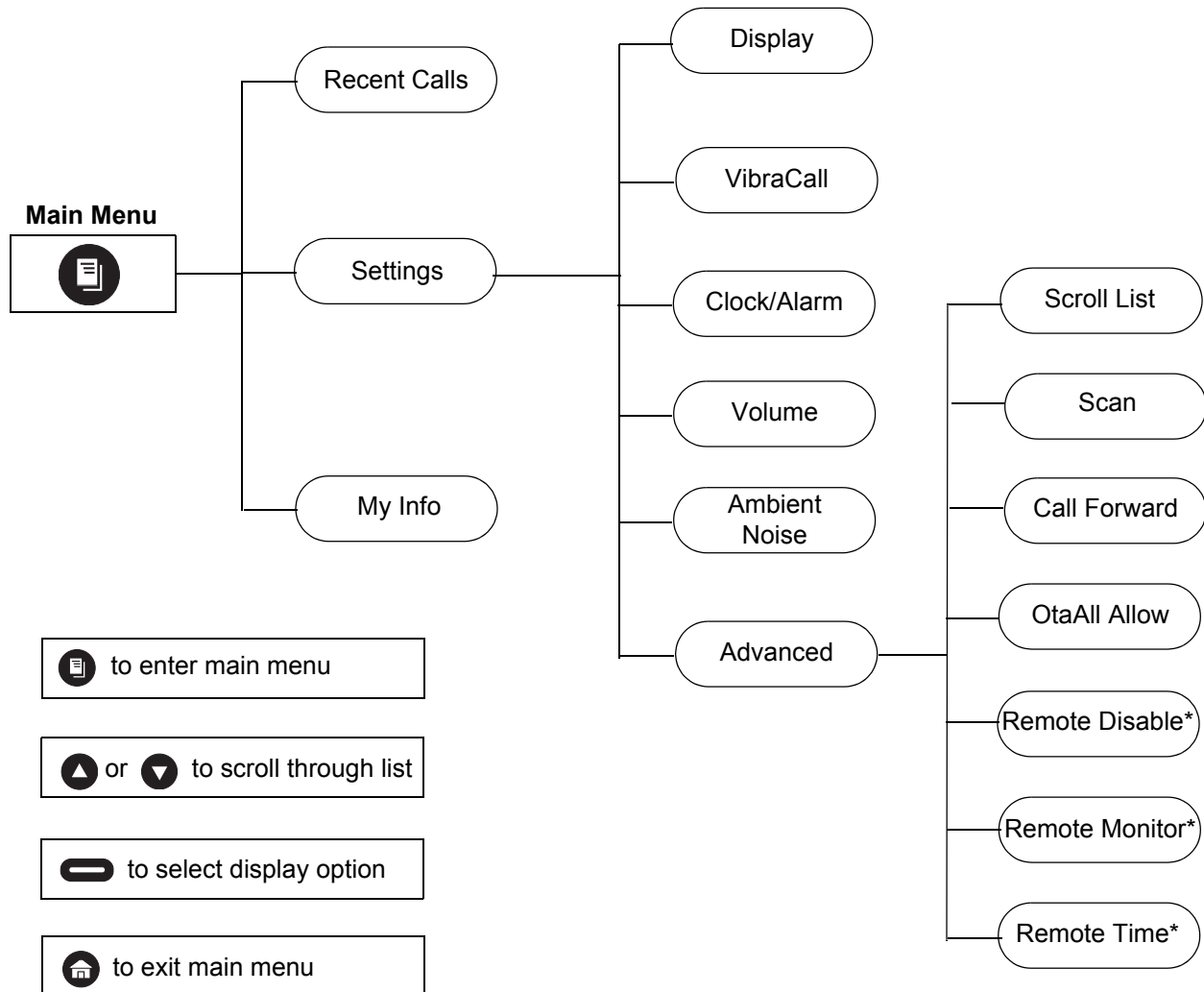
* Menus only appear on the DTR650 radio when Manager Mode is enabled.

Recent Calls

This menu lists recent calls received and allows the user to view, alert or delete the twenty most recent calls on the list. From the Main Menu, scroll to highlight **Recent Calls** and press ⬭ under **Select**.

Viewing a Recent Call

1. Scroll to select a recent call from the list. To view GroupCall details, press ⬭ under **View**. To view PrivateCall details, press 📄 . The Rec. Call Menu appears.

NOTE: The graphic to the left of the user/group name or ID indicates whether the call was received (pointing left) or initiated (pointing right)..

```
 ≡⌀          🏠          🔋
   ┌Recent Calls┐
    ◄Smith
    ►Jones
  ▼ ◄Security      ❚❚
  View          Back
```
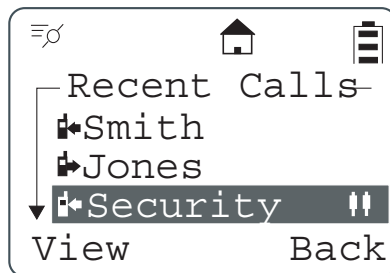
2. Scroll to show call details for the selected call. These include Group Name (if applicable), User Name and ID, time, date, and length of call. Continuing scroll moves you to the next recent call

```
 ≡⌀          🏠          🔋
   ┌Call Details┐
  │ Office
  │ Smith
  ▼ 9:03am 11/22
                Back
```
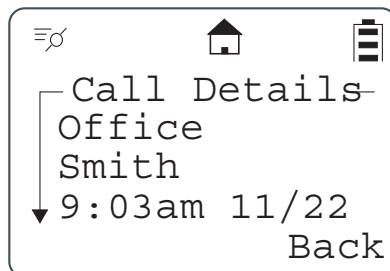
3. Press ⬭ under **Back** to access the previous screen.

Alerting a Recent Caller

NOTE: Only Private contacts can be alerted.

1. Scroll to select a recent call from the list and press ⬭ under **Alert**.

```
 ≡⌀          🏠          🔋
   ┌Recent Calls┐
  │ ◄Smith
  │ ►Jones
  ▼ ◄Security      ❚❚
  Alert  ▤   Back
```
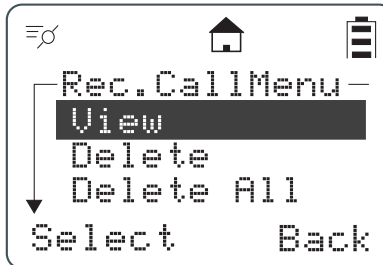
2. Press the PTT button to send the alert.

NOTE: If the alert was successful, a confirmation screen appears. If the alert was not successful, an unsuccessful screen appears.

Deleting Recent Calls

1. Scroll to highlight a recent call from the list.

2. Press ▤ . The Rec. Call Menu appears.

```
⎓̷                 ⌂              ▤
    ┌Rec.CallMenu─
    │View
    │Delete
  ↓ Delete All
    Select        Back
```

**NOTE:** View only appears as a menu option for Private calls.

3. Scroll to highlight **Delete** to remove only the one call or **Delete All** to delete all recent calls and press ▭ under **Select**.

4. Select ▭ under **Yes** or **No**. The display confirms that the call or calls have been deleted and then returns to the Recent Calls list.

```
⎓̷                 ⌂              ▤

        Delete:
         Smith?


    Yes              No
```

Settings

The Settings menu allows you to adjust personal settings that include Display, VibraCall, Clock/Alarm, Volume, and Advanced. The Advance features are for managing your Scroll List, Scan List, Call Forwarding, Remote Disable, Remote Monitor, and Remote Time. Refer to Chapter 3 – Advanced Radio Operations to operate the Advance features.

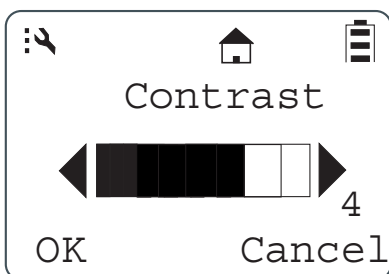From the Main Menu, scroll to highlight **Settings** and press ▭ under **Select**. The Settings menu appears.

```
⚒                 ⌂              ▤
    ┌─Settings ─
    │Display
    │Vibracall:On
  ↓ Clock/Alarm
    Select        Back
```
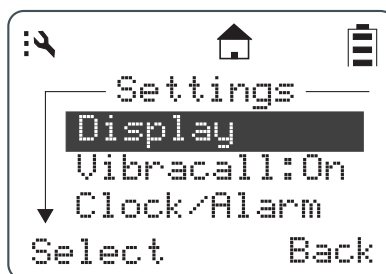
Setting the Display

From the Settings menu, scroll to highlight **Display** and press ⬭ under **Select**. The Display menu appears. From the Display menu, you can adjust the contrast and backlight time.

```
🔧        🏠        🔋
  ┌────Display────┐
  │ Contrast:2    │
  │ Backlight:10  │
  └───────────────┘
  Change      Back
```
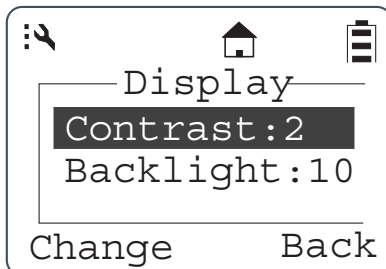
Adjusting the Contrast

1. From the Display menu, scroll to highlight **Contrast** and press ⬭ under **Change**. The Contrast screen appears.

```
🔧        🏠        🔋

      Contrast

  ◀ ████████░░░ ▶
                4
  OK        Cancel
```

2. Use ▲ or ▼ to adjust the Contrast as necessary and then press ⬭ under **OK** to return to the previous menu.

Setting the Backlight

1. From the Display menu, scroll to highlight **Backlight** and press ⬭ under **Change**. The Backlight screen appears. The presently selected value has a check mark on the left side.

```
🔧        🏠        🔋
  ┌───Backlight───┐
  │ Off           │
  │ 5 Seconds     │
  │ 10 Seconds    │
  Select      Back
```
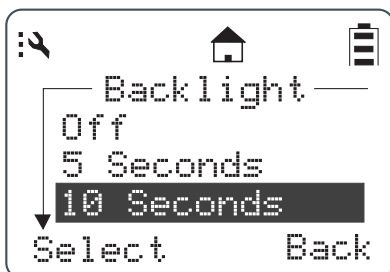
2. Scroll to highlight the desired value. You can set the backlight time to Off, 5, 10, 20, 30, or 90 seconds.

3. Press ⬭ under **Select** to save the setting and return to the previous screen.

Setting VibraCall

VibraCall allows you to set the radio to vibrate with no audio alert tones when text messages or call alerts are received.

NOTE: This does not mute the audio for voice calls.

1. From the Settings menu, scroll to highlight **VibraCall** and press ⬤ under **Select**. The VibraCall screen appears. A checkmark is displayed to the left of the present selection.

```
 :⚒            🏠            🔋

      ___ Vibracall ___
   ┌─────────────────────┐
   │ ✓ On                │
   └─────────────────────┘
        Off

   ↓
   Select            Back
```
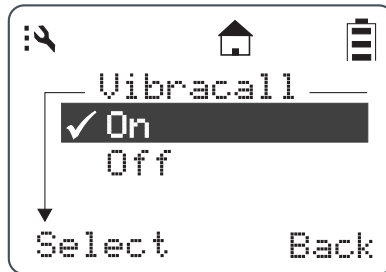
2. Scroll to highlight the desired selection.

3. Press ⬤ under **Select** to save the selection and return to the previous menu.

NOTE: When turning vibrate on, the radio briefly vibrates and 📳 appears on the display.

Clock and Alarm

Your radio requires that the current time and date be set in order to fully utilize the digital features. This can be set manually or by using the Remote Time feature (see page 3-5)

From the Settings menu, scroll to highlight **Clock/Alarm** and press ⬤ under **Select**. The Clock/Alarm menu appears.

```
 :⚒            🏠            🔋

      _ Clock/Alarm _
   ┌─────────────────────┐
   │ Time:10:20am        │
   └─────────────────────┘
     Date:11/22
   ↓ Set Alarm
   Change            Back
```

Setting the Time

1. From the Clock/Alarm Menu scroll to highlight **Time** and press ⬭ under **Change**. The Time screen is displayed.

```
 :⚲            🏠         📲

   Time:
   ⌃
   10:    20am
   ⌄

  ---->           Done
```

2. Scroll to select the desired hour.

NOTE: Press and hold 🔺 or 🔻 to fast scroll.

3. Press ⬭ under **-->** to move to the minutes and scroll to select the desired minutes.

4. Press ⬭ under **-->** to move to am/pm and scroll to select the desired setting.

5. After completing the time setting press ⬭ under **Done** to complete the setting and to return to the previous menu.

Setting the Date

1. From the Clock/Alarm menu, scroll to highlight **Date** and press ⬭ under **Change**. The Date screen is displayed.

```
 :⚲            🏠         📲

   Date:      THU
   ⌃
   03 / 31 / 05
   ⌄

  ---->           Done
```

2. Scroll to select the desired Month.

NOTE: Press and hold 🔺 or 🔻 to fast scroll.

3. Press ⬭ under **-->** to move to the day and scroll to select the day.

4. Press ⬭ under **-->** to move to the Year and scroll to select the Year.

5. After completing the date setting, press ⬭ under **Done** to complete the entry and return to the previous menu.

Setting the Alarm

Your DTR Series radio has an alarm feature that can be set to remind you of a recurring daily event.

From the Clock/Alarm menu, scroll to highlight **Set Alarm** and press ▭ under **Select**. The Set Alarm menu appears.

```
 :⚒              🏠              🔋
       ┌─ Set Alarm ─┐
       │Alarm:Off     │
       │Time:12:00am  │

  Change              Back
```

The Set Alarm menu allows the Alarm to be turned Off or On and to set the Alarm Time.

1. Scroll to highlight **Alarm** and press ▭ under **Change**. The alarm menu is displayed with On and Off listed. A check mark to the left of On or Off indicates the present selection.

```
 :⚒              🏠              🔋
       ┌─ Alarm ─┐
         Off
       ✓On

  Select              Back
```
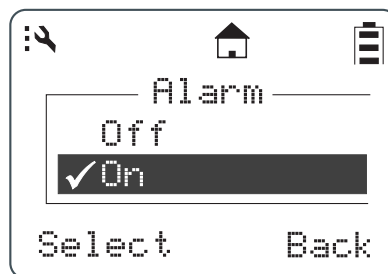
2. Scroll to select the desired condition and press ▭ under **Select**. The display returns to the Set Alarm menu with the new selection indicated.

NOTE: When the Alarm is set to On, the icon ⏰ appears on the display.

3. Scroll to highlight **Time** and press ▭ under **Done**. The alarm time is set using the same procedure as for setting the Time.

```
 :⚒           ⏰🏠              🔋
       Time:
         ^
        10:    20am
         v

  ──>                  Done
```

4. Scroll to select the desired hour.

NOTE: Press and hold ▲ or ▼ to fast scroll.

5. Press ▭ under **-->** to move to the minutes and scroll to select the desired minutes.

6. Press ▭ under **-->** to move to am/pm and scroll to select the desired setting.

7. After completing the time setting press ▭ under **Done** to complete the setting and to return to the previous menu.

Setting the Volume

The functions of the various selections are as follows:

- **Ringer:** volume level for all data status alerts such as Alert Tones and incoming SMS Messages. Turning VibraCall on changes this level to 0.
- **Speaker:** volume level for voice messages.
- **Keypad:** volume level for keypad presses.
- **Alarm:** volume level for the Alarm feature, which is overridden by VibraCall.

   NOTE: Ambient Noise only increase and decrease the mic sensitivity.Alarm:

- **Talk Permit Tone (TPT) Offset Volume:** volume level setting.

   NOTE: For TPT Offset, the volume can only be changed by highlighting TPT Offset and then pressing the Volume Control keys.

From the Settings menu, scroll to highlight **Volume** and press ▭ under **Select**. The Volume menu appears.

NOTE: Highlighting any of the volume choices and pressing the **Volume Control** keys automatically adjusts the volume levels.

NOTE: Pressing the **Volume Control** keys while not in the Volume menu only sets the Speaker Volume.

Setting the Ringer Volume

1. From the Volume menu, scroll to highlight **Ringer** and press ▭ under **Change**. The Ringer screen appears.

   NOTE: The procedure for Ringer is same as for the rest of the volume expect TPT. The Up and Down button has to be used for volume changing.

-18
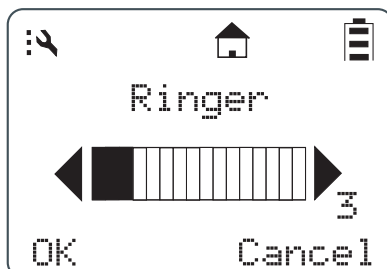
2.   Use the **Volume Control** keys to adjust the Ringer volume as necessary and then press ⬭ under **OK** to save the selection and return to the previous menu.

Setting the Speaker Volume

1.   From the Volume menu, scroll to highlight **Speaker** and press ⬭ under **Change**. The Speaker screen appears.
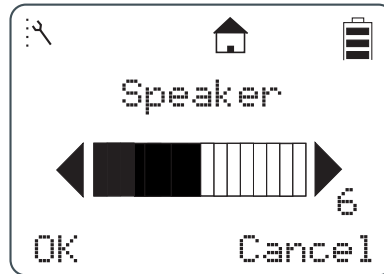
2.   Use the **Volume Control** keys to adjust the Speaker Volume as necessary and then press ⬭ under **OK** to save the selection and return to the previous menu.

Setting the Keypad Volume

1.   From the Volume menu, scroll to highlight **Keypad** and press ⬭ under **Change**. The Keypad screen appears.
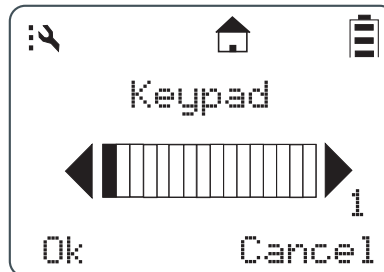
2.   Use the **Volume Control** keys to adjust the Keypad Volume as necessary and then press the **Ok** Option key to save the selection and return to the previous menu.

Setting Ambient Noise Level

Ambient noise is the ambient noise of the environment the radio is being used in. Therefore, if the radio is being used in a very noisy environment, then the ambient noise level should be set to High. This lowers the mic gain on the radio and thus, reduce the noise from the surrounding environment. A low ambient noise level increases the mic gain, and allow the receiver to hear clearer audio.

The microphone sensitivity of DTR Series radios can be adjusted to accommodate varying levels of background noise. The radios' internal microphones and their accessories' microphones can be adjusted independently. Use the **Low** setting to decrease the microphone sensitivity for high levels of background noise, or **High** for quieter environments.

My Info

The My Info screen displays your Unit Name, ID, Channel and Home Group. From the Main Menu, scroll to highlight **My Info** and press ⬭ under **Select**.

NOTE: The Unit Name defaults to Unit ID unless it is customized in programming mode using the mini keyboard.

```
┌─────────────────────┐
│ ▯⋮        🏠      🔋 │
│    ┌──My Info──┐     │
│    │Joe Smith        │
│    │17179869143      │
│    │Channel 1        │
│    └─          Back  │
└─────────────────────┘
```
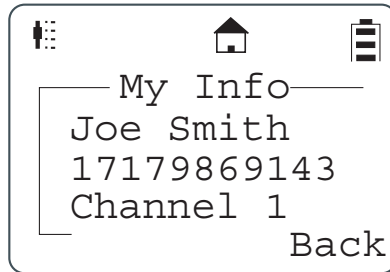
Notes

Chapter 3   Advanced Radio Operations

Accessing the Advanced Menu

The Advanced features are for managing your Scroll List, Call Forwarding, Remote Disable, Remote Monitor, and Remote Time.

NOTE: Remote Disable, Remote Monitor, and Remote Time are not available, unless Manager Mode has been enabled in Programming Mode (DTR650 model only).

From the Settings menu, scroll to highlight **Advanced** and press ⬭ under **Select**. The Advanced screen appears.

```
:�       🏠         🔋
  ┌──── Advanced ────
  │Scroll List
  │Call Forward
  │Remote Disable
▼ Select          Back
```
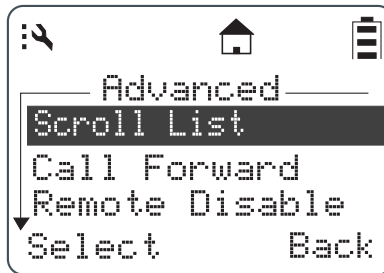
Managing Your Scroll List

The Scroll List is designed to give one-touch communication to frequently used contacts. Any Private or PrivateGroup contact on your channel, or any PublicGroup contact can be added to the Scroll List. Removing them does not remove them from contacts.

1. From the Advanced menu, scroll to highlight **Scroll List** and press ⬭ under **Select**. The Scroll List screen appears.

```
:⚪          🏠         🔋
        Scroll List
    ✓ Joe Smith
    ✓ Jones
       Office         ❚❚
  Remov           Back
```
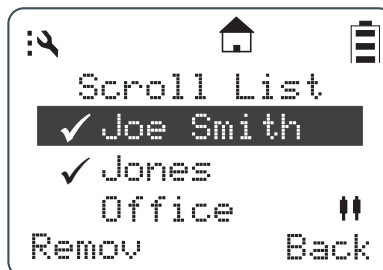
NOTE: A ✓ next to the left of the Group/Private contact indicates that the Group/Private contact is already in the Scroll List. If the highlight is on a selected item, the left ⬭ changes to **Remove**. Pressing ⬭ under **Remove** removes the check mark.
If no check mark is present, the entry has not been selected and does not appear in the Scroll List. The left ⬭ changes to **Add**. Pressing ⬭ under **Add** inserts a check mark.

2. Press ⬭ under **Add** or **Remove**.

Enabling Scan

The Scan feature allows your radio to monitor up to 10 PublicGroups per channel and switch to them when there is activity. Scan is turned On by default, but can be disabled by switching to OFF. When Scan is OFF, you must select a PublicGroup in the Scroll List to hear any activity on it.

> **NOTE:** When Scan is ON, the Scroll List can not be empty to scan for public groups. Private groups are always scanned regardless of Scan ON/OFF setting.

To determine which contacts are scanned, see Scan Lists on page 4-9.

Enabling Call Forwarding

Call Forwarding allows a user to notify anyone contacting them that they are not available and suggest a manager or third party to be contacted in their absence. The user contacting them can then choose to transmit to the third party by simply pressing the PTT button.

NOTE: Your radio must be on and within range to use this feature while you are away.

1. From the Advance menu, scroll to highlight **Call Forwarding** and press ⬭ under **Select**. The Call Forwarding screen appears.

```
 :⚲    ▌1▶      🏠       🔋
       ▌2▶
     ─Call Forward─
    Forwarding:On
    To:Joe Smith
    ▼
    Change         Back
```
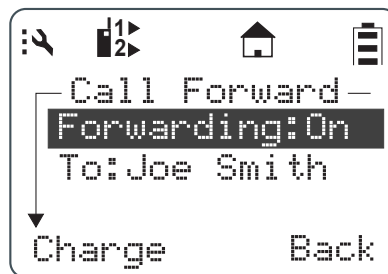
2. Scroll to highlight **Forwarding** and press ⬭ under **Change**. The **Forwarding** screen appears.

3. Scroll to select the desired function and press ⬭ under **Select** to return to the previous screen.

NOTE: When Call Forwarding is enabled, the ▌1▶▌2▶ icon appears on the display

4. To change or select the radio to receive the forwarded calls, scroll to highlight the **To:** function and press ⬭ under **Change**.

```
 :⚲    ▌1▶      🏠       🔋
       ▌2▶
     ─Call Forward─
    Forwarding:On
    To:Joe Smith
    ▼
    Change         Back
```
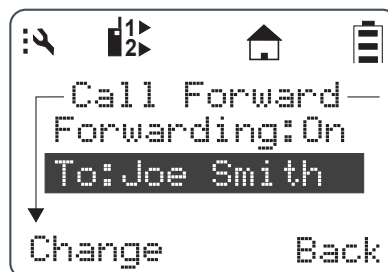
5. Scroll to select the radio name from the list to forward to. Press ⬭ under **Select**.
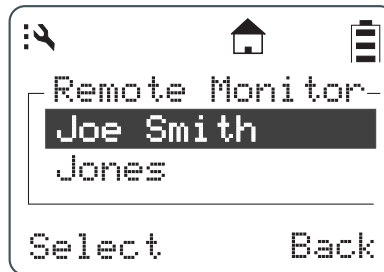
Remote Disabling (DTR410 and DTR650 Models Only)

> **NOTE:** Manager Mode must be enabled in order for a user to use this feature. Refer to page 4-9.

Remote Disabling allows a user to remotely enable or disable another DTR Series radio. The selected radio must be turned on and within range in order to be enabled or disabled.

```
 :⚒              🏠            🔋
   ──Advanced──
 Scroll List
 Call Forward
 Remote Disable
 Select          Back
```
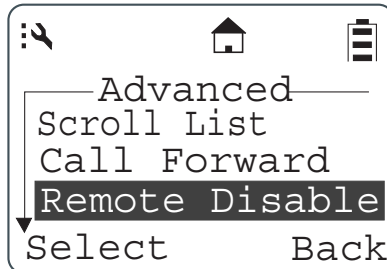
1. From the Advance menu, scroll to highlight **Remote Disable** and press ⬭ under **Select**. The Remote Disable screen appears.

```
 :⚒              🏠            🔋
  ─Remote Disable─
   Joe Smith
   Jones
   Kevin
 Enable 📋 Disable
```
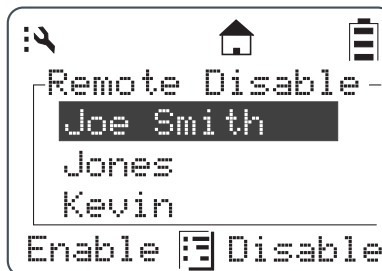
2. Scroll to highlight a radio name from the list. Press ⬭ under either **Enable** or **Disable**. The screen changes to confirm the selection.

> **NOTE:** To cancel out of Remote Disable, press 📄 and press ⬭ under **Select**.

3. To enable or disable the selected radio, press ⬭ under either **Yes** or **No**.

Once the radio is disabled, the display shows "Radio Disabled" and the radio cannot transmit, receive, or access it's contacts.

```
              🏠            🔋

    Joe Smith
   Radio Disabled


```

Remote Monitoring (DTR410 and DTR650 Models Only)

NOTE: Manager Mode must be enabled in order to use this feature. Refer to page 4-9.

Remote Monitoring allows you to monitor a selected radio either for training purposes or if the target radio user is unable to press the PTT button.

1. From the Advance menu, scroll to highlight **Remote Monitor** and press ⬭ under **Select**. The Remote Monitor screen appears.

```
 ⚲                🏠            🔋

      ┌Remote Monitor┐
      │ Joe Smith      │
      │ Jones          │
      └                ┘
      Select        Back
```

2. Scroll to highlight a radio from the list to monitor and press ⬭ under **Select**. The screen changes to show the radio's status.

Remote Time (DTR410 and DTR650 Models Only)

Remote Time synchronizes the date and time to all other radios. It transmits the time on all channels set as contacts in the transmitting radio. Any receiving radio must have the transmitting radio User ID in their contact list to accept the time/date update.

NOTE: Radios must be turned on and within range to receive this broadcast message. The transmitting radio does not receive a confirmation for any failures.

1. From the Advance menu, scroll to highlight **Remote Time** and press ⬭ under **Select**. The screen displays a confirmation to start remote time.

```
 ⚲                🏠            🔋


       Start Remote
          Time?


      Yes            No
```
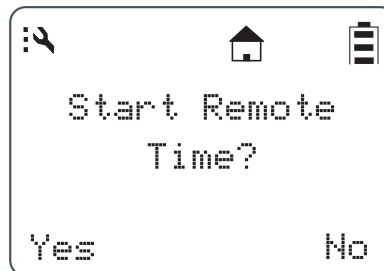
2. Press ⬭ under **Yes**.

NOTE: For more information on DTR products, visit the following website at: <http://www.motorola.com/DTR/>.

Chapter 4   Radio Programming

Program Menu Navigation Chart

Program Menu ── Contacts

Program Menu ── Text Messaging

Program Menu ── Settings ── Display ── Scroll List

Settings ── VibraCall ── Scan Lists

Settings ── Clock/Alarm ── Call Forward

Settings ── Volume ── Radio History

Settings ── Ambient Noise ── Reset Defaults

Settings ── Advanced ── Manager Mode*

Advanced ── See All Groups

Advanced ── OtaALL Allow

Advanced ── Language**

▲ or ▼ to scroll through list

▬ to select display option

⌂ to exit Program menu

* DTR650 radio only.

** Selections are English, French and Spanish

Although factory programmed with default PublicGroups, DTR Series radios require user-specific programming in order to fully benefit from their digital features.

Radios can be programmed using the RVN5080 Programming Software (also requires the 01015950U15 Programming Cable), or in a separate programming mode. The Programming Software is the recommended method for programming DTR Series radios, as it has archive and report capabilities that aid in both initial product configuration and fleet maintenance.

The separate programming mode allows access to modify and add contacts, update existing and add new quick notes, and access manager features (DTR410 and DTR650 only) such as Remote Disable and Remote Monitoring. A mini keyboard, part number NNTN5491 for DTR650 (53967 for DTR410) is used to enter text into contacts and to modify saved text messages.

The Cloning Cable, part number RRDN5378A for DTR550/650 (53968 for DTR410) allows easier programming as one radio can be programmed with all contact information then duplicated in other radios. All PrivateGroups MUST be programmed on a single radio and cloned either over-the-air or with the cloning cable in order to maintain a single GroupID. This is not a requirement of PublicGroups, but they must still be programmed on the same channel to communicate.

New radios should be cloned using serial cloning. After this occurs, the unit ID can be sent to the other radios or added to PrivateGroups via over-the-air or serial cloning.

Entering Programming Mode

The following key sequence must be performed to enter the programming mode.

1. Hold down 🏠 and press the PTT button three times.

2. Press the Right ▭ .

3. Press ▼ .

4. Press the Left ▭ .

5. Hold down 🏠 and press the PTT button three times.

The Program Menu screen appears.

```
             🏠        🔋
       ┌─ Program Menu ─┐
       │ Contacts        
       │ Text Messages   
       ↓ Settings        
         Select    Reset
```
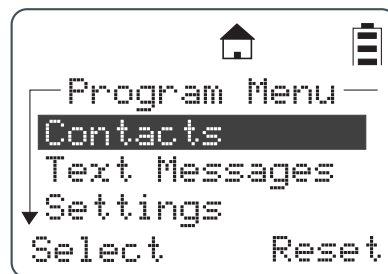
My Info

1. Highlight **Contacts** and press ▭ under **Select**. A ✓ appears to the right of the display.

2. Scroll to select it and press ▭ under **View**. Your unit name, ID, and channel are shown.

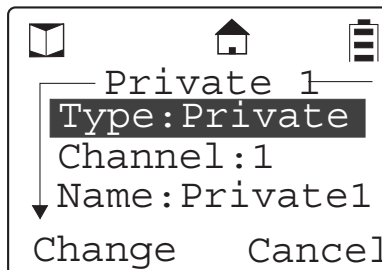3. Press ▭ under **Edit** to change the unit name or channel.

Changing your unit name changes how it appears on your idle display. The Unit ID is transmitted to other radios instead of Unit Name. A receiving radio shows your unit name if your unit ID is in the contact list.

Adding Contacts

1. From the Program Menu, scroll to select **Contacts** and press 〇 under **Select**. The Contacts screen appears.
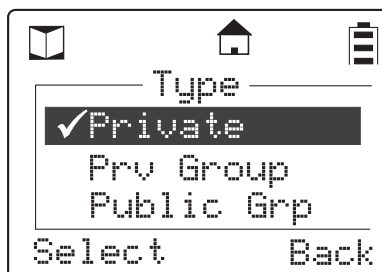
```
┌─────────────────────────┐
│ 📖        🏠        🔋  │
│     ─ Contacts ─        │
│  [New Contact]          │
│  Office          ‼      │
│  Security        ‼      │
│  Select         Back    │
└─────────────────────────┘
```

2. Scroll to select **[New Contact]** and press 〇 under **Select**. The Private screen appears.

```
┌─────────────────────────┐
│ 📖        🏠        🔋  │
│     ─ Private 1 ─       │
│  Type:Private           │
│  Channel:1              │
│  Name:Private1          │
│  Change        Cancel   │
└─────────────────────────┘
```

Call Type

1. From the Private screen, scroll to select **Type** and press 〇 under **Change**. The Type screen appears.

```
┌─────────────────────────┐
│ 📖        🏠        🔋  │
│       ─ Type ─          │
│  ✓Private               │
│   Prv Group             │
│   Public Grp            │
│  Select        Back     │
└─────────────────────────┘
```

NOTE: A ✓ next to an selection indicates the present selection.

2. Scroll to select either a Private call type, PrivateGroup call type, or PublicGroup call type to add to the Contact List. Press 〇 under **Select**.
3. The display returns to the previous screen with the new call Type entered.

Channel

Your radio operates using frequency-hopping spread-spectrum technology. Each "Channel" is a group of 50 frequencies. Your radio can transmit and receive on up to 10 channels, but Group messages are not heard unless users are on the same channel.

> **NOTE:** Each channel can be reused while an established transmission is in progress. All of the radios may remain on the same channel with no unwanted interference because DTR radios are based on digital ID based technology.

The home icon on the display indicates that your current scroll list setting is on your channel. Your radio scans up to 10 groups per channel, plus the Private Groups are received regardless of channel.

1. Scroll to select **Channel** and press ⬤ under **Change**. The Channel screen appears.

```
 ┌─────────────────────────┐
 │  📖         🏠        📶  │
 │      ─Channel 1─        │
 │   ✓ 1                   │
 │     2                   │
 │     3                   │
 │  Select        Back     │
 └─────────────────────────┘
```
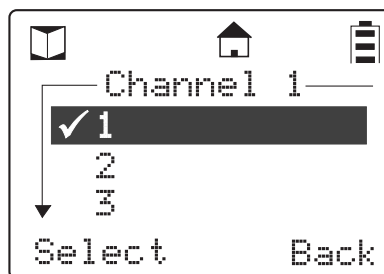
> **NOTE:** The presently selected channel has a ✓ to the left of the channel number. Radios on the same TalkGroup should be set-up on the same channel.

2. Scroll to select a channel and press ⬤ under **Select**. The display returns to the previous screen with the new Channel entered.

Unit Name

Unit ID is transmitted with all voice and text messages. Programming a unique unit name to an ID causes the radio to recognize any incoming calls from that user or group and display their unit name.

> **NOTE:** A mini keyboard, part number NNTN5491 for DTR550/650 (53967 for DTR410) must be connected to the radio to enter alphanumeric characters.

1. Scroll to select **Name** and press ⬤ under **Change**. The Name screen appears.

```
 ┌─────────────────────────┐
 │  📖         🏠        📶  │
 │   Name:                 │
 │   Private 3             │
 │   ───────────           │
 │  Ok    ▤   Delete       │
 └─────────────────────────┘
```

2. Press ⬤ under **Delete** to remove characters one at a time or hold to delete all characters. Use the mini keyboard to enter a new name. After entering the Name, press ⬤ under **Ok** to confirm the entry and to return to the previous screen with the new Name entered.

Programming a Unit ID (Private Calls Only)

The unit ID of a private contact can be read over the air or entered using the mini keyboard.

There are two procedures to enter an PID.

To read it in over the air (as pictured) refer to bullet 1 and follow the on-screen text to transmit the ID from another radio. In addition to the ID, the non-default name, channel, home group, and ringer for Gen3 radio are transmitted. to the receiving radio.

To enter the ID using the mini keyboard, refer to bullet 2.

1. Scroll to select **ID** and press ⬭ under **Read**. The ID screen appears.

```
[book]          [home]        [battery]


On other radio
 press Home 3
times then PTT
                    Cancel
```
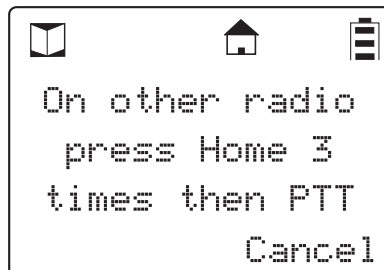
2. Use the mini keyboard to enter an 11 digit ID. When the mini keyboard is connected, the left ⬭ becomes **Change**. After entering the ID, press ⬭ under **Ok** to confirm the entry and to return to the previous screen with the ID entered.

Selecting a Group ID

When programming a new PublicGroup, press ⬭ under **Change** to select a PublicGroup ID from 1-50 for DTR410 or 1-100 for DTR550/650. IDs already in use on your radio are preceded by an "x".

When programming a new PrivateGroup (DTR550 or DTR650 only), the radio selects your GroupID from your contact list. Press ⬭ under **Change** to select another Group ID. Since the default GroupID is dependent upon the contact list of all radios being the same, it is recommended to clone PrivateGroups to other radios.

Entering a Home Group Number

If a Home Group is selected for your radio, then it returns to that Group after 30 seconds of inactivity. This ensures that any transmissions on this channel are not missed. Selecting a Home Group also automatically adds the contact to that PrivateGroup.

1. Scroll to select the **Home Group Number** and press ⬭ under **Change**. The Home Group screen appears.
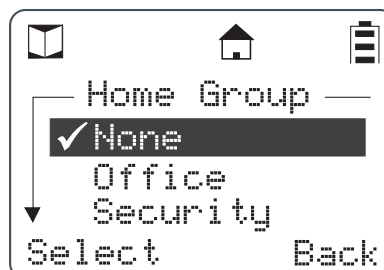
```
[book]          [home]        [battery]

     — Home Group —
  ✓ None
    Office
    Security
 Select          Back
```

NOTE: A ✓ next to a selection indicates the present selection.

2. Scroll to select the desired entry. Press ⬭ under **Select** to select the new item. The display returns to the previous screen with the new Home Group Number entered.

Selecting Group Only

NOTE: Selecting Group Only on a radio prohibits the user from initiating PrivateCalls. Private contact information is still retained by the radio to identify other units, but the user can only return a PrivateCall during hangtime.

1. Scroll to select **Group Only** and press ⬭ under **Change**. The Group Only screen appears.
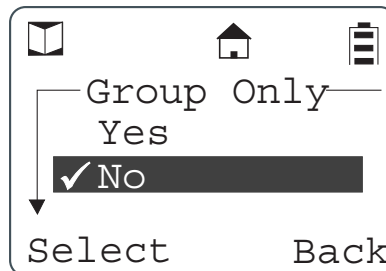
```
 ┌─────────────────────────────┐
 │  📖          🏠          🔋  │
 │     ┌─Group Only──┐          │
 │     │  Yes        │          │
 │   � ✓No         █          │
 │     ▼                        │
 │   Select          Back       │
 └─────────────────────────────┘
```

NOTE: A ✓ next to an selection indicates the present selection.

2. Scroll to select the desired entry and press ⬭ under **Select**. The display returns to the previous screen with the new Group Only entered.

Entering Group Members (PrivateGroup Only for DTR550/650)

1. Scroll to select **Group Members** and press ⬭ under **Change**. The Group Members screen appears.

```
 ┌─────────────────────────────┐
 │  📖          🏠          🔋  │
 │    ┌─Group Members─┐          │
 │    │ ✓Joe Smith    │          │
 │    │  Mike Jones   █          │
 │    │  Bob White    │          │
 │   Add            Done        │
 └─────────────────────────────┘
```
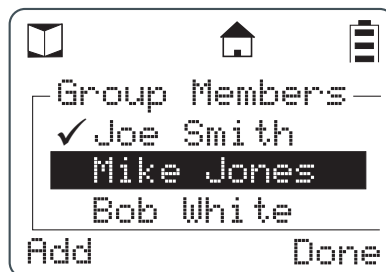
NOTE: A ✓ next to the left of the Group Member indicates that those members are already part of the TalkGroup assigned. If the highlight is on a checked item, the left ⬭ changes to **Remove**. Pressing ⬭ under **Remove** removes the check mark.
If no check mark is present, the entry has not been selected and is not part of the PrivateGroup already assigned. The left ⬭ changes to **Add**. Pressing ⬭ under **Add** inserts a check mark.

2. Scroll through the list of Group Members and press ⬭ under **Add**.

3. When completed, press ⬭ under **Done**. The display returns to the previous screen with the new Group Members entered.

Entering a Ringer Type (Private Calls Only for DTR550/650 or Contacts Only for DTR410)

A unique alert tone can be identified for each radio in your contact list. There are 12 ringer tones that can be selected. When a ringer tone is highlighted, the audio ringer tone sounds to help in making a selection.

1. Scroll to select **Ringer** and press ⬤ under **Change**. The Ringer screen appears.
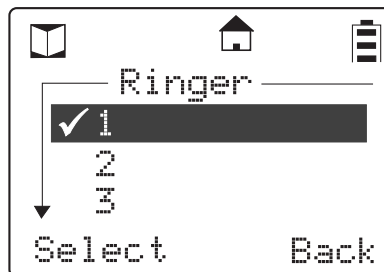
NOTE: A ✓ next to a selection indicates the present selection.

2. Scroll to select the desired ring. Highlighting a tone lets you hear it.

3. Press ⬤ under **Select** to select the new ring. The display returns to the previous screen with the new Ringer entered.

4. Press ⬤ under **Save** to store the new contact after all entries for the new contact have been completed. A confirmation screen appears confirming the saved contact.

5. Press ⬤ to exit Programming mode and return to the Main Menu. Press ⬤ under **Reset**.

Text Messaging

NOTE: Entering or changing the Quick Notes requires the use of the mini keyboard, part number NNTN5491 for DTR550/650 (53967 for DTR410) which must be attached to the connector on the bottom of the radio.

1. From the Program Menu, scroll to select **Text Messages** and press ⬤ under **Select**. The Quick Notes screen appears.
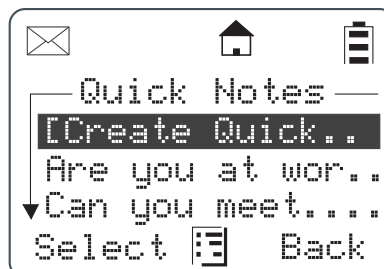
NOTE: If a new message is to be entered, the left ⬤ is **Select**. If a message is selected to be edited, the left ⬤ changes to **Edit**.

2. Scroll to select **[Create Quick.** and press ⬭ **Select**. The Quick Note screen appears.

```
┌─────────────────────────────┐
│  ⊠            🏠  A B   🔋   │
│                  C          │
│   Quick Note:               │
│  ─────────────────────      │
│  ─────────────────────      │
│  ─────────────────────      │
│              ▤  Cancel│     │
└─────────────────────────────┘
```
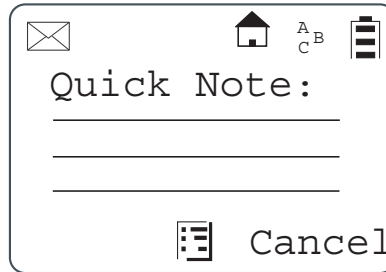
3. Use the mini keyboard to enter the new message. When the first letter is entered, the left ⬭ changes to **Save** and the right ⬭ changes to **Delete**.

4. If an error is made while entering the data, ⬭ under **Delete** can be used to delete characters one at a time.

5. If the new message is correct, press ⬭ under **Save** to store the new message.

6. Scroll to select **Manager Mode** and press ⬭ under **Change**. The Manager Mode screen appears.

```
┌─────────────────────────────┐
│  ⚒            🏠       🔋    │
│   ┌─ Manager Mode ─┐        │
│   │   Off           │        │
│   │ ✓ On            │        │
│   └─────────────────┘        │
│   Select        Back        │
└─────────────────────────────┘
```
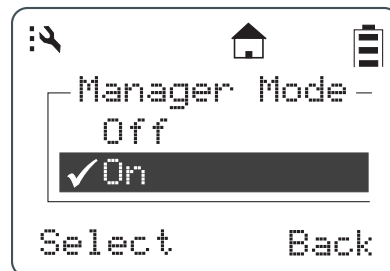
NOTE: A ✓ next to a selection indicates the present selection.

7. Scroll to select **On** and press ⬭ under **Select**. The display returns to the Advanced menu.

Settings

The settings for Display, VibraCall, Clock/Alarm, Volume, Scroll List, and Call Forward can also be utilized through Programming Mode. Refer to Chapters 2 and 3.

Radio History

Radio History maintains a running clock of the amount of time a radio has received, transmitted, and remained idle (turned on). This can be useful in determining actual radio use and battery replacement cycles.

1. From the Program Menu, scroll to select **Settings** and press ⬭ under **Select**.

2. Scroll to select **Advanced** and press ⬭ under **Select**.

3. Scroll to select **Radio History** and press ▭ under **Select**.

```
 ⚒               🏠           ▮
   ┌Radio History─┐
   │Tx:           │
   │Rx:           │
 ↓ │IDL:          │
   Select      Back
```
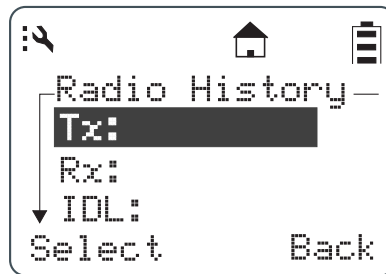
TX is the total amount of transmit time. RX is the total amount of receive time. IDL is the total time the radio has been turned on but not receiving or transmitting.

Reset Defaults

Choosing this option resets your radio back to factory default settings. All settings are reset, and all Contacts in the radio are deleted.

NOTE: :Reset Default is only used to reset a radio completely

From the Program Menu, scroll to select **Reset Default** and press ▭ under Select.

Scan Lists

This menu allows you to scan select PublicGroup contacts. Your radio always scans for PrivateGroup contacts you are a member of and for calls to your Private ID.

The Scan feature is turned On/Off in the Advanced Menu of User Mode.

Your radio can scan up to 10 PublicGroups per channel. Scan can be turned on and off from the **Advanced Settings** menu of User Mode, but what groups are scanned can only be changed in **Programming Mode**.

To access Scan Lists

1. From the Program Menu, scroll to select **Settings** and press ▭ under **Select**.
2. Scroll to select **Advanced** and press ▭ under **Select**.
3. Scroll to **Scan Lists** and press ▭ under **Select**.
4. Select the channel you wish to change the **Scan List** on.
5. A *check mark* indicates which PublicGroups are scanned on that channel.
6. Use the left option key to remove or add groups to your scan list.

Manager Mode

Manager Mode provides access to Remote Disable, Remote Monitor, and Remote Time functions in the User Menu.

The Manager Mode can only be accessed through the Programming Mode. After entering Programming Mode, proceed as follows to access the Manager Mode.

1. From the Program Menu, scroll to select **Settings** and press ▭ under **Select**.
2. Scroll to select **Advanced** and press ▭ under **Select**.

See All Groups

The See All Groups feature displays all PrivateGroup contacts in the Contacts List of User Mode, not just those to which the radio belongs. This allows a user to monitor and talk to these PrivateGroup contacts. However, they arel not scanned unless the user is added to the PrivateGroup contact.

Language

Your DTR Series radio allows English, French-Canadian, or Spanish language prompts.

NOTE: Quick Notes are in English only.

After entering Programming Mode, proceed as follows to change the language.

1. From the Program Menu, scroll to select **Settings** and press ⬭ under **Select**.

2. Scroll to select **Advanced** and press ⬭ under **Select**.

3. Scroll to **Language** and copy the verbiage of "press xxx under **Select."**

4. End user can select their preference of language (English, French-Canadian or Spanish)

For more information on DTR products, visit the following website at: <http://www.motorola.com/DTR/>.

Chapter 5   Programming the Radio with Customer Programming Software (CPS) (DTR410 Only)

The CPS is used to program features and various parameters into your radio. For example, you can program all your contacts in a contact list for Private and PublicGroup calls.

CPS Set-up

1. Install the CPS, if required.
2. Connect the radio to a computer with the CPS cable (part number: 0105950U15).
3. Start the CPS.
4. Press the "Read" button.
5. The following information is displayed on your screen.
*   the radio ID
*   the firmware version, and

*   The codeplug version.

DTR Radio Information

Unit Private ID: 17179773942

Name: XYZ

Firmware Version: R5E.03.05

Codeplug Version: CP03.10.0C

Entering a Name on the Radio

The field "Name" represents the radio ID. This name allows you to associate an easy-to-remember name to your radio, and it is associated with the unique Unit Private ID. You can enter familiar names like "Bill" and "Bob", or names that represent a certain function like "Operations" and "Warehouse".

1. Click on the desired contact in the left tree view.
2. Click on the field "Name".
3. Type in your desired name.

Creating the Private Contacts

You need to enter the contact information for a radio before you can make a Private Call to it. For more details on Private Call, see " Types of Calls" on page 2-3".

1. Right-click *Privates*, on the left of the CPS screen, and choose "Add".
2. Enter the *Unit ID* of the radio you are calling. This is the only field that is required. All other fields below are optional.
3. Enter the *Name* of the radio you are calling. This gives an easier way of remembering the contact, rather than just relying on the numeric Unit ID.
4. Enter the *Channel* where the call takes place.
5. Enter the desired contact (the *Homegroup*) that you want to change to when the call ends, or when the radio is idle for over 30 seconds.
6. Enter the desired *Ringer* tone you want to hear, when receiving a call from this contact.

Creating the PublicGroup Contacts

You need to enter a group's information to make a PublicGroup call to it. For more details on PublicGroup Calls, see Selecting a Group ID.
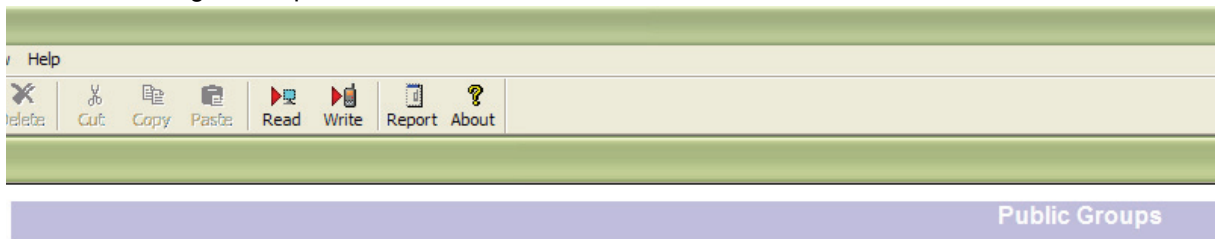
1. Right-click *Public Group*, on the left of the CPS screen, and choose "Add".
2. Enter the *Group ID* of the group you are calling.
3. Enter the *Name* of the group you are calling. This gives an easier way of remembering the contact, rather than just relying on the numeric Group ID.
4. Enter the *Channel* where the call takes place.
5. Choose the radios that belong to this group.
6. Enter the desired contact (the *Homegroup*) that you want to change to when the call ends, or when the radio is idle for over 30 seconds.
7. Enter the desired *Ringer* tone you want to hear, when receiving a call from this contact.

Setting up Scan

To use the Scan feature, you need set up a scan list for each of the radio's channels.
1. Select "Lists->Scan List->Channel x" from the left of the CPS screen.
2. All the PublicGroups on that channel is displayed. Choose the relevant PublicGroup that you want to be included in the channel scan list.
3. Continue the above for all the related channels.
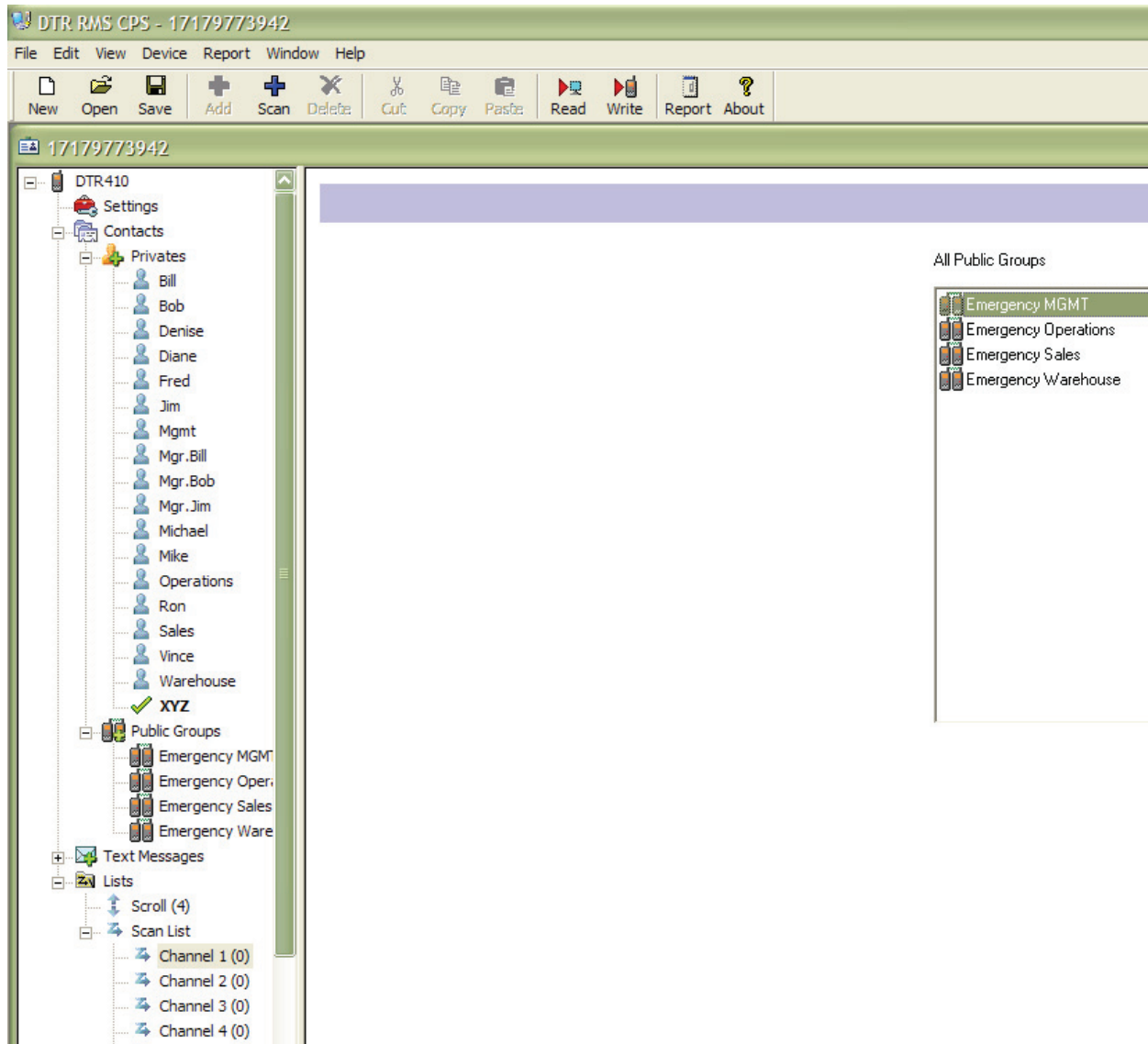
Personalizing your Radio

There are several settings that you can choose at your preference.
1. Check *VibraCall*, if you do want your radio to vibrate, instead of ringing, when receiving a call.
2. Under *Display*, set your preferred display contrast and backlight duration.
3. Under *Clock/Alarm*, set your preferred time/date format, the displayed time and date, and your alarms.
4. Under *Volume*, set your preferred volume settings for the keypad, alarm and earpiece.
5. Under *Advanced*, choose which radio should have manager's privileges.

Setting the Scroll List

You can keep in touch with everyone through Private or PublicGroup options by setting the Scroll List:

1. Select "List->Scroll" on the left of your CPS screen.
2. Select the desired Private contacts and add them to the scroll list. All defined PublicGroups are added automatically into the Scroll list.
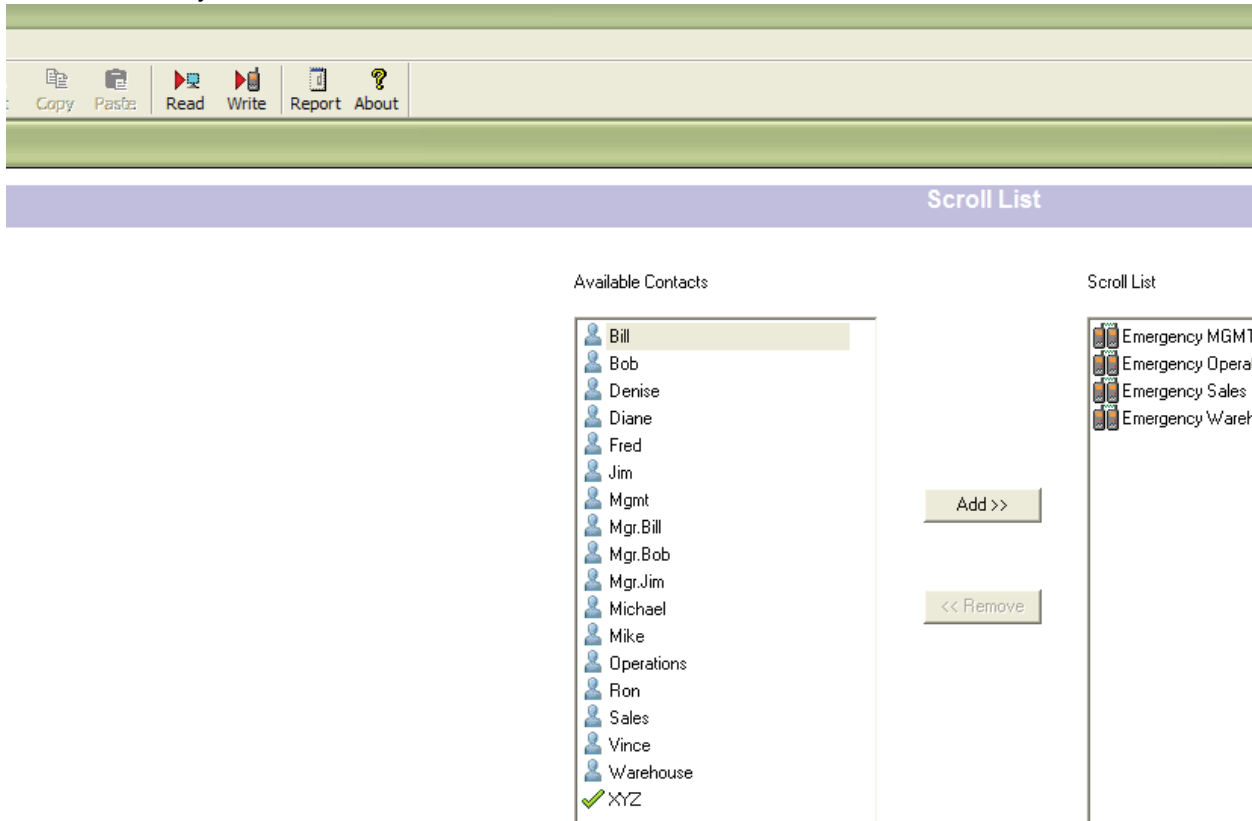
Programming your Radio

For more information on how to program your radio, refer to " Entering Programming Mode" on page 4-2.

1. Press the right button to program the information that has been entered in the CPS to the radio.

Scenario On How To Program A Radio

The following is an example of a scenario on how to set up an organization.

You can program the radio according to the following order:
1. Place all Homegroups under Company name (All Talk) for emergencies and for public announcements.
2. Place All Departments under HomeGroups so that everyone can be contacted. Put different departments in separate categories. For example, "sales", "warehouse", "operations" and "management".
3. Place each manager under a department. Under the department, place the department manager.
4. Place all employees (staff list) under managers.
5. For more information, please see " Entering a Home Group Number" on page 4-5.

```
                          XYZ Company
        ┌──────────────┬──────────────┬──────────┐
      Sales        Warehouse      Operations     Mgmt
    Mgr - Bob      Mgr - Bill      Mgr - Jim    ┌─ Mike
   ┌────┴────┐    ┌────┴────┐    ┌────┴────┐    ├─ Bob
  Fred    Michael Ron     Diane Denise   Vince  ├─ Bill
                                                └─ Jim
```
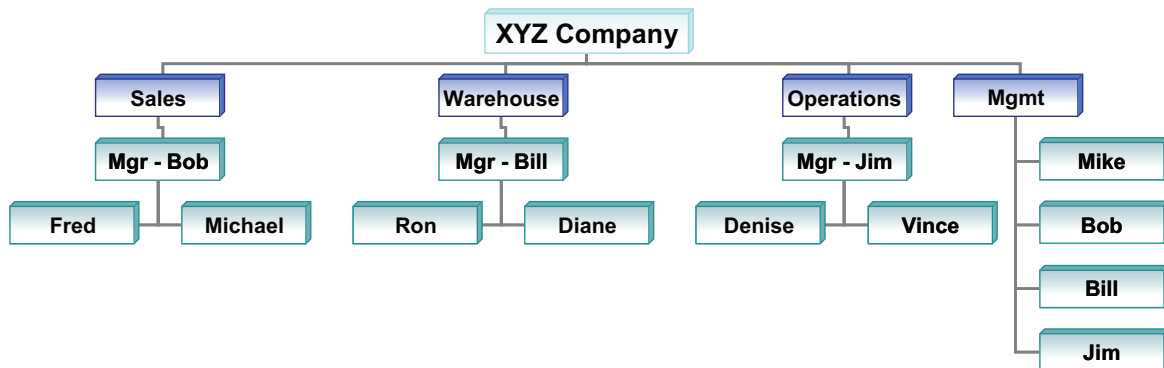
For more information on DTR products, visit the following website at: <http://www.motorola.com/DTR/>.

Chapter 6   Cloning Mode

Cloning mode is used to either add contacts wirelessly to other radios (Private or Groups) or duplicate all radio settings to new radios (using the optional cloning cable).

NOTE: When selecting contacts to clone over the air (OTC) from the contacts, there is an option to select **ALL**. This allows the users to either clone all contacts from one radio to another or to clone to all contacts.

In the DTR410 cloning also allows all radios to maintain a contact list so that User Name is shown rather than User ID when receiving voice and data calls.

ID when receiving voice and data calls.

Entering Cloning Mode

1. Press ⏻ to turn the source radio on.

2. Enter the cloning mode by performing the following steps in sequence:

   a. Hold down 🏠 and press the PTT button three times.

   b. Press the Left ▭ .

   c. Press ▲ .

   d. Press the Right ▭

   e. Hold down 🏠 and press the PTT button three times. The Clone Menu appears.
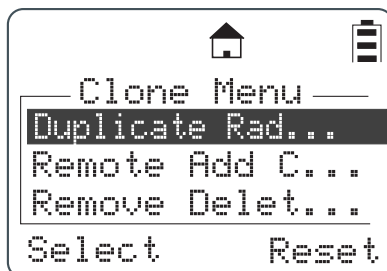
Cloning Using the Cloning Cable

1. From the Clone menu, scroll to select Duplicate Radio and press ⬭ under **Select**. The following screen is displayed indicating the target radio must now be connected to the source radio to be cloned using the cloning cable.

```
       🏠            🔋

   Connect Clone
     Cable and
    Press Clone
 Clone         Back
```
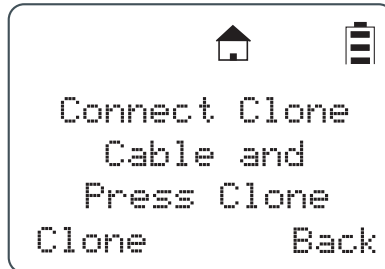
2. Connect the cloning cable to both radios.
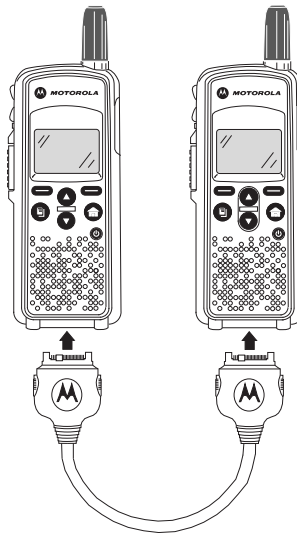
   NOTE: The target radio must be turned on, but does not need to be in cloning mode.

3. Press ⬭ under **Clone** to start the cloning. The "Cloning in Progress" screen is displayed followed by the "Cloning Successful" screen. If a problem occurs the "Cloning Failed" screen appears.

4. After cloning is completed, the target radio displays the following screen.

```
       🏠            🔋

   Radio Cloning
     Completed
 Please Turn Off.
```
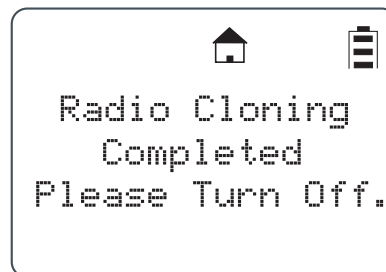
5. Turn target radio off then back on again to use.

6. Press ⬭ under **Reset** to exit the Clone menu.

Adding/Deleting a Contact

These menus are used to add or remove a contact from a Private contact or PrivateGroup contact over the air. This feature is used primarily for fleet maintenance. When adding/deleting a contact to a PrivateGroup contact, the radio attempts to contact all radios within that PrivateGroup and notifies any radios that did not receive the update.
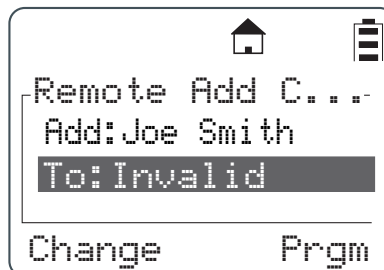
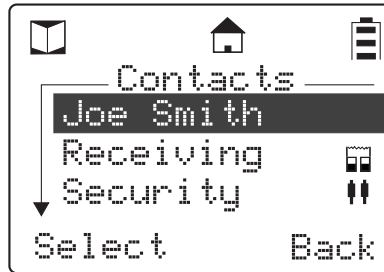1.   From the Clone menu scroll to select Send Contact. Press ⬬ under **Select**.

```
            🏠        🔋
 ┌Remote Add C...─
 │Add:Invalid
 │To:Invalid
 ├──────────────────
 Change         Prgm
```
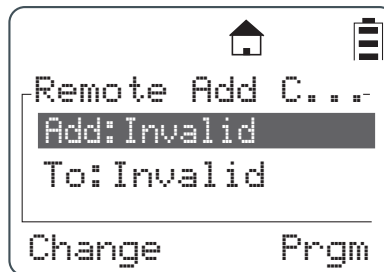
2.   Scroll to select ADD:.

3.   Press ⬬ under **Change** to display the list of contacts.

```
 📖        🏠        🔋
     ─ Contacts ─
 Joe Smith
   Receiving        📖
   Security         ❙❙
 Select         Back
```
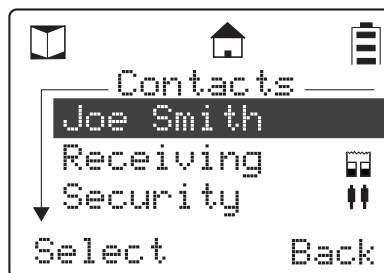
4.   Scroll to the contact to be added.

5.   Press ⬬ under **Select** to select the contact to be added.

6.   Scroll to select To:.

```
            🏠        🔋
 ┌Remote Add C...─
 │Add:Joe Smith
 │To:Invalid
 ├──────────────────
 Change         Prgm
```

7. Press ⬭ under **Change**.

```
 ┌─────────────────────────┐
 │  📖        🏠        🔋  │
 │     ─Contacts─          │
 │  Joe Smith              │
 │  Receiving         ▦    │
 │  Security          ▮▮   │
 │                         │
 │  Select        Back     │
 └─────────────────────────┘
```

8. Scroll to the contact to receive the new contact.

9. Press ⬭ under **Select** to select the contact.

```
 ┌─────────────────────────┐
 │           🏠      🔋     │
 │                         │
 │  ─ Send Contact ─       │
 │  Add:Joe Smith          │
 │  To:Security            │
 │                         │
 │  Change        Prgm     │
 └─────────────────────────┘
```

10. Press ⬭ under **Prgm**. The screen is displayed showing the Add: and To: selections. If these are correct press ⬭ under **Go** to transmit the selection over the air. If the selections are not correct press ⬭ under **Back** to return to the selection menu

> **NOTE:** When selecting contacts to OTA clone from the contacts, there is an option to select **All**. This allows the user to either clone all contacts from one radio to another or to clone to all contacts.

```
 ┌─────────────────────────┐
 │           🏠      🔋     │
 │                         │
 │   Press Go To           │
 │   Add:Joe Smith         │
 │    To:Security          │
 │   Over The Air          │
 │  Go            Back     │
 └─────────────────────────┘
```
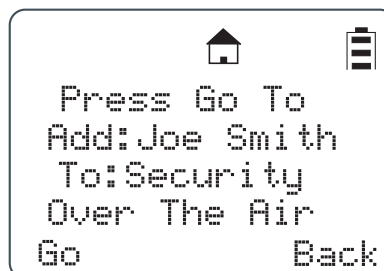
11. The screen displays the message "Clone Sending XXXXXXX". X = the contact you are sending to. If sending a contact to a PrivateGroup, the display shows each target radio individually.

If cloning was successful, both the source and targets radios indicated "Programming Successful". If over-the-cloning to a PrivateGroup fails, the radio displays the failed clone list. The user can attempt cloning again to any members of this list.

For more information on DTR products, visit the following website at: <http://www.motorola.com/DTR/>.

Reset All Contacts

This key sequence deletes all contacts in the radio. This is useful for radio programming and rental radios.

1. Hold down 🏠 and press the PTT button three times.

2. Press ▼ .

3. Press ▲ .

4. Press the Right ▭

5. Hold down 🏠 and press the PTT button three times.

Remote Delete Contact

This key sequence remotely deletes contacts in the radio.

1. Hold down 🏠 and press the PTT button three times.

2. Press the Left ▭

3. Press ▲ .

4. Press the Right ▭

5. Hold down 🏠 and press the PTT button three times.

6. The Clone Menu appears. Select **Remote Delete Contact**.

Notes

Chapter 7   Troubleshooting

Symptom	Try This:
Display shows "User Not Available" when PTT pressed	Target radio is in a call, try again after 30 seconds to determine if call has been completed. Target radio is out of range. At least one radio (Private or Group call) must be turned on and within range to transmit.
No Power	Recharge or replace Li-Ion battery.
Message not transmitted	Make sure Push to Talk is completely pressed while transmitting. Recharge or replace battery. Verify that radio is programmed correctly.
Cannot receive Private calls	Verify that the radio is on your home channel.
Cannot receive Public Group	Make sure that the PublicGroup has the same Channel and PublicGroup ID.
Cannot access Remote Monitor, Time or Remote Disable	Make sure that Manager Mode has been enabled in Programming.
Time Update not received	Private ID of the transmitting radio must be in the Contact List of a receiving radio to accept a Time / Date update.
Limited talk range	Steel and/or concrete structures, heavy foliage, buildings, or vehicles decrease range. Check for clear line of sight to improve range.
Message not received	Confirm radios have been properly programmed. Recharge or replace battery.
Poor audio quality	Radios are too close together. They must be at least 5 feet apart. Radios are too far apart or obstacles are interfering with transmission.
Low batteries	Recharge or replace batteries. Extreme operating temperatures affect battery life.
Cannot see all PrivateGroups in Contact List	Manager Mode must be enabled to see PrivateGroups not on your home channel or of which you are not a member.
Serial Clone failed	Make sure clone cable is properly connected.
Display shows "Please Try Again" when PTT pressed	The radio is busy. Try calling again.
Cannot see any Private contacts in the Contact List	Check to see if the Private contact is set to Group Only. A Private contact that is set to Group Only does not see Private contacts in the Contact List.
Cannot see all Private Groups in Contact List	Manager Mode must be enabled to see Private Groups not on your home channel or of which you are not a member
Cannot add maximum number of PrivateGroups	To increase communications security, PrivateGroups reuse Private IDs in the system. Therefore, the number of PrivateGroups allowed cannot be more than the number of Private contacts in the system. Adding more Private contacts allow more PrivateGroups to be entered, until the maximum is reached.
Display shows "ID Not Available" when trying to add a PrivateGroup	No ID is available because all have already been used to create a PrivateGroup. Adding more Private contacts allow more additional PrivateGroups, until the maximum amount.

Notes

Chapter 8   Motorola Limited Warranty for the United States and Canada

What Does this Warranty Cover?

Subject to the exclusions contained below, Motorola, Inc. warrants its telephones, pagers, and consumer and professional two-way radios (excluding commercial, government or industrial radios) that operate via Family Radio Service or General Mobile Radio Service, Motorola-branded or certified accessories sold for use with these Products ("Accessories") and Motorola software contained on CD-ROMs or other tangible media and sold for use with these Products ("Software") to be free from defects in materials and workmanship under normal consumer usage for the period(s) outlined below. This limited warranty is a consumer's exclusive remedy, and applies as follows to new Motorola Products, Accessories and Software purchased by consumers in the United States, which are accompanied by this written warranty:

Products and Accessories

Products Covered	Length of Coverage
Products and Accessories as defined above, unless otherwise provided for below.	**One (1) year** from the date of purchase by the first consumer purchaser of the product unless otherwise provided for below.
Decorative Accessories and Cases. Decorative covers, bezels, PhoneWrap™ covers and cases.	**Limited lifetime warranty** for the lifetime of ownership by the first consumer purchaser of the product.
Professional Two-way Radio Accessories.	**One (1) year** from the date of purchase by the first consumer purchaser of the product.
Products and Accessories that are Repaired or Replaced.	**The balance of the original warranty or for ninety (90) days** from the date returned to the consumer, whichever is longer.

Exclusions

Normal Wear and Tear. Periodic maintenance, repair and replacement of parts due to normal wear and tear are excluded from coverage.

Batteries. Only batteries whose fully charged capacity falls below 80% of their rated capacity and batteries that leak are covered by this limited warranty.

Abuse & Misuse. Defects or damage that result from: (a) improper operation, storage, misuse or abuse, accident or neglect, such as physical damage (cracks, scratches, etc.) to the surface of the product resulting from misuse; (b) contact with liquid, water, rain, extreme humidity or heavy perspiration, sand, dirt or the like, extreme heat, or food; (c) use of the Products or Accessories for commercial purposes or subjecting the Product or Accessory to abnormal usage or conditions; or (d) other acts which are not the fault of Motorola, are excluded from coverage.

Use of Non-Motorola Products and Accessories. Defects or damage that result from the use of Non-Motorola branded or certified Products, Accessories, Software or other peripheral equipment are excluded from coverage.

Unauthorized Service or Modification. Defects or damages resulting from service, testing, adjustment, installation, maintenance, alteration, or modification in any way by someone other than Motorola, or its authorized service centers, are excluded from coverage.

Altered Products. Products or Accessories with (a) serial numbers or date tags that have been removed, altered or obliterated; (b) broken seals or that show evidence of tampering; (c) mismatched board serial numbers; or (d) nonconforming or non-Motorola housings, or parts, are excluded form coverage.

Communication Services. Defects, damages, or the failure of Products, Accessories or Software due to any communication service or signal you may subscribe to or use with the Products Accessories or Software is excluded from coverage.

Software

Products Covered	Length of Coverage
Software. Applies only to physical defects in the media that embodies the copy of the software (e.g. CD-ROM, or floppy disk).	**Ninety (90) days** from the date of purchase.

Exclusions

Software Embodied in Physical Media. No warranty is made that the software will meet your requirements or will work in combination with any hardware or software applications provided by third parties, that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected.

Software NOT Embodied in Physical Media. Software that is not embodied in physical media (e.g. software that is downloaded from the internet), is provided "as is" and without warranty.

Who is Covered?

This warranty extends only to the first consumer purchaser, and is not transferable.

How to Obtain Warranty Service or Other Information?

Contact your point of purchase.

Software Copyright Notice

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Patent Notice

This product is covered by one or more of the following United States patents.

5896277	5894292	5864752	5699006	5742484	D408396	D399821	D387758
D389158	5894592	5893027	5789098	5734975	5861850	D395882	D383745
D389827	D389139	5929825	5926514	5953640	6071640	D413022	D416252
D416893	D433001						

Export Law Assurances

This product is controlled under the export regulations of the United States of America. The Governments of the United States of America may restrict the exportation or re-exportation of this product to certain destinations. For further information contact the U.S. Department of Commerce.

For more information on DTR products, visit the following website at: <http://www.motorola.com/DTR/>.

Notes

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MOTOROLA

QUICK REFERENCE
DTR SERIES™ PORTABLE RADIO

ENGLISH

Antenna

Volume Controls

Audio Jack
Connect audio accessories

Option Keys
To select display options

Push-to-Talk (PTT) Button

Home Key
Use to exit the current menu and return to the idle screen

Menu Key

Power Button

Speaker

Navigation Keys
Use to scroll menu settings

Plug-in Charging and Connect Data Accessories

Microphone
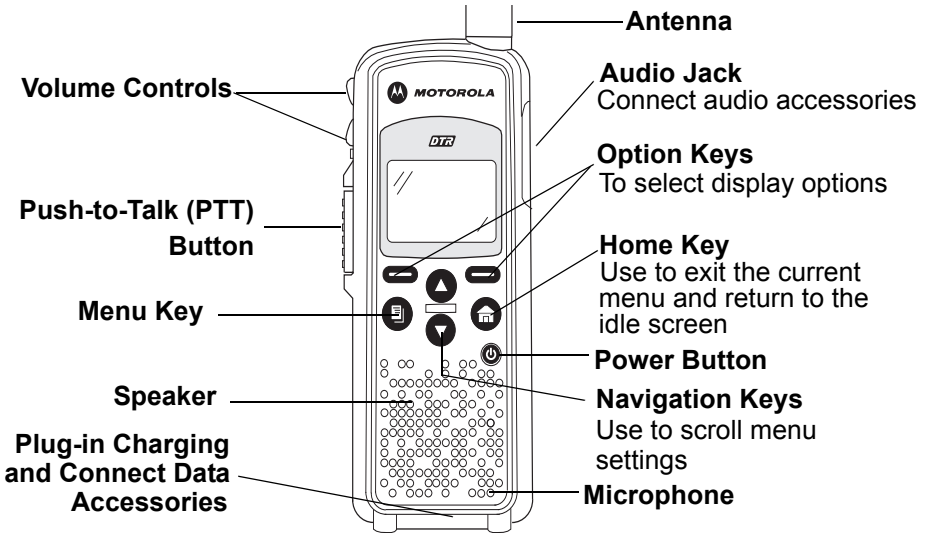
Programming

Your radio is ready to use after a fully-charged battery has been installed.
However, your radio should be programmed to ensure compatibility with existing DTR Series radios and to fully utilize all features.

To enter Programming Mode:

1. Hold down 🏠 and press the PTT button three times.
2. Press the Right ▭ .
3. Press ▼ .
4. Press the Left ▭ .
5. Hold down 🏠 and press the PTT button three times.

```
                          🏠        📶
        ┌─Program Menu─
        │Contacts
        │Text Messages
        ▼Settings
         Select      Reset
```
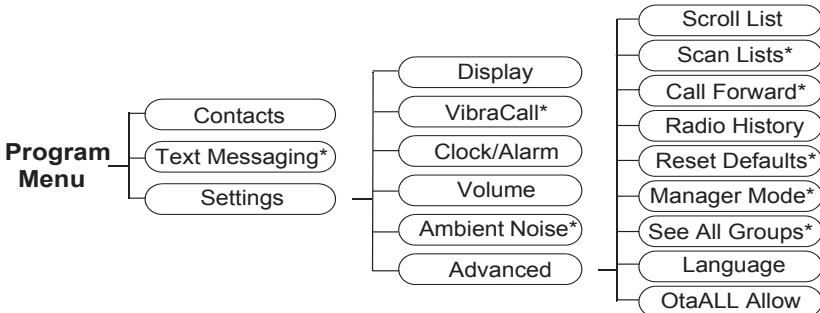
```
Program Menu ── Contacts
             ── Text Messaging*
             ── Settings ── Display
                         ── VibraCall*
                         ── Clock/Alarm
                         ── Volume
                         ── Ambient Noise*
                         ── Advanced ── Scroll List
                                     ── Scan Lists*
                                     ── Call Forward*
                                     ── Radio History
                                     ── Reset Defaults*
                                     ── Manager Mode*
                                     ── See All Groups*
                                     ── Language
                                     ── OtaALL Allow
```

*Select models only.

For further information, refer to your specific product User Guide included on the CD-ROM.

GETTING STARTED

1. INSTALL THE BATTERY
   Slide the lock tab to the left to unlock and push down on the latch at the top of the battery door and lift off the radio. Insert the battery, printed arrows first, into the battery compartment and press down to secure in place. Replace the battery door.
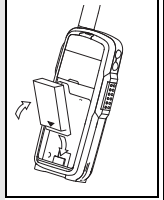
2. CHARGE THE BATTERY
   Connect the charger to the drop-in charging tray and insert the radio using the plug of the plug in charger. The battery meter on the radio display will stop flashing when fully charged.

3. TURN THE RADIO ON
   Press the Power Button (hold to turn off).The radio chirps.

NOTE: Batteries are shipped uncharged from the factory. Always charge a new battery to capacity before initial use, charge time is dependent upon charger type.

SENDING A VOICE CALL

1. Turn the radio on and select the recipient(s) by either:
   • Selecting from the scroll list, using the navigation keys
   • Selecting from Contacts by pressing Menu and using the navigation keys
   • Selecting from Recent Calls by pressing Menu then selecting Recent Calls

2. Press and hold the PTT button on the side of the radio until the talk permit tone is received, then speak clearly into the microphone. If "User Not Available" displays, the recipient is either in another radio call, out of range, or turned off. Try to connect again. When making a group call, at least one member of the group must be available.

   MAN WITH RADIO

3. Release the PTT button to listen.

RECEIVING A VOICE CALL

1. Turn radio on and set volume level.

2. Switch to desired Public Group using the navigation keys

3. When a Private, private Group, or Group call is received, it will be heard at the volume level you have set. Press the PTT to respond.

5480384S84-B