## **Table of Contents**

Your New Radio Radio Diagram  Batteries Rechargeable NiMH Battery Using Rechargeable NiMH Bat  NIMH Chargers Tri-Color LED Charger Charging He NiMH Battery Charging Status Chart Single Color LED Charger	2-3 4 4ttery 4	Features Auto Power Off Display Light Keypad Lock Reset Time-out Timer Channel Scan Scan List Call Tone  Hands Free Use Using VOX Feature	16 16 17 17 17 18 19 19
Charging the NiMH Battery  AA Alkaline Batteries Installing Alkaline Battery Tray Replacing Alkaline Batteries Battery Meter Low Battery Alert	8 9 10 10	Enabling IVOX-T289 Only Setting VOX/IVOX Sensitivity Improving Communication Talk Range Care and Safety Accessories	20 21 22 22 23
Belt Hol ster Using Radio With Holster Before You Can Talk Power Button Setting the Channel Setting the Code Custom Codes-T289 Only	11 12 12 13 13	Troubleshooting  Safety Information Charging Safety Instructions Channel Chart Code Chart Warranty Copyrights	24-25 26-27 28-29 30 31 32-33 34-35
To Communicate Monitor Button Channel Busy Indicator-T289 Volume Control Push-To-Talk Button Alert Tones	14 14 14 15 15	Quick Operation Summary Menu Button Call Tone Light/lock Button Monitor Button Scan Button	36 37 37 33

## **Your New Radio**

Motorola Talkabout radios operate on Family Radio Service (FRS) designated frequencies. This license-free, short range, two-way radio service was established specifically for family and individual recreational use. You can use your radios anywhere within the United States and other areas listed by the FCC.

#### Contact the FCC for more information at:

1-888-CALL-FCC (1-888-225-5322)

Or:

http://www.fcc.gov

LED Indicator Light\_

Indicates radio is on; will be steady red when transmitting.

Battery Meter Indicator

Indicates how much battery charge is left.

Power Button

Turn radio on or off.

Accessory Connector\_

Used for plugging in optional audio accessories.

Scan Button

Scans frequencies for activity.

**Call Button** 

Calls other radio users.

Light/Lock Button\_

Illuminates display for 5 seconds. Locks radio to prevent accidental change of settings.

Microphone .

Picks up audible transmissions.

Scroll Buttons

Changes volume and radio settings.

Monitor Button

Monitors frequency activity.

Push-To-Talk (PTT) Button

Used to transmit messages.

Menu Button

Changes function mode.

Charging Connector\*

Used for charging battery.

\*NiMH Battery Use Only

Figure 1.

ALKABOUT

**IL** 38

M MOTOROLA

 $\odot \odot \odot \odot$ 

2

## **Batteries**

Your Talkabout radio operates with either a Nickel-Metal Hydride (NiMH) rechargeable battery or 3 AA alkaline batteries (battery tray required).

The NiMH rechargeable battery will provide approximately 11 hours of operation with normal use. Normal use for the rechargeable battery is approximately 0.5 hour transmitting, 0.5 hour receiving and 10 hours of standby or monitoring time.

#### **Rechargeable NiMH Battery**

#### Using Rechargeable NiMH Battery:

- 1. Grasp radio firmly at top and slide radio back down to remove. Make sure you are not holding battery door (sides) onto the radio body. Figure 5.
- 2. Place the NiMH battery inside the radio with battery contacts facing down. Figure 6.
- 3. Replace the radio's back by sliding up and onto radio body.
- 4. Push up until secure.

**Stop Sign:** The NiMH battery has a stop sign symbol to remind you to turn the battery over and align holes with pegs before inserting battery into the radio. Figure 7.



Figure 5.

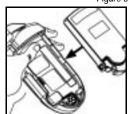


Figure 6.

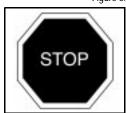


Figure 7.

The NiMH battery kit, alkaline battery kit, and spare NiMH battery are available as accessories (sold separately).

For information, call 1-800-353-2729.

## **NiMH Chargers**

Your radio will use one of the following types of chargers. Follow the instructions below for the charger that shipped with your radio.

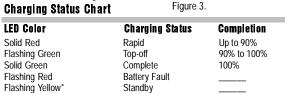
To get maximum use from the battery, charge it for at least five hours before you use it for the first time. After initial charging, your battery will fully charge in about three hours.

## **Tri-Color LED Charger**

#### **Charging the NiMH Battery:**

- 1. Turn the radio off.
- 2. Plug charger into an AC wall outlet. Figure 2.
- Lift charging connector cover on radio (not detachable) and plug charger connector into jack. Figure 3.
- LED Indicator on Battery Charger will flash. (See chart below for complete charging status).





<sup>\*</sup>Battery is not receiving correct voltage. Battery charging temperature must remain between  $0^0$  to  $40^0$  C /  $32^0$  F to  $104^0$  F.

## **Single Color LED Charger**

#### Charging the NiMH Battery:

1. Turn the radio off.

Charging

Light

(LED)

Figure 2.

mili

- 2. Plug charger into an AC wall outlet. Figure 4.
- Lift charging connector cover on radio (not detachable) and plug charger connector into jack. Figure 3.
- The red LED on charger will flash while battery charges. LED will glow continuously when battery is fully charged.

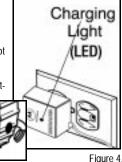


Figure 3.

#### Notes:

- The NiMH battery may be charged outside the radio by plugging the adapter directly into the battery.
- For optimum battery life, battery should not be left charging for extended periods.
- Turn radio off when charging. If radio is on while charging, additional time is required to charge the battery.

## **AA Alkaline Batteries**

To operate Talkabout radios with alkaline batteries you'll need to install the alkaline battery tray. Alkaline batteries will last about 30 hours with normal use. Normal use for alkaline batteries is approximately 1.5 hours transmitting, 1.5 hours receiving and 27 hours of standby or monitoring time.

#### Installing Alkaline Battery Tray:

- Grasp radio firmly at top and slide radio back down to remove. Make sure you are not holding battery door (sides) onto the radio body.
- Insert 3 AA batteries into alkaline tray.
   Make sure you align plus and minus signs on batteries with markings on battery tray. Figure 6.
- 3. Align tabs at top of battery tray with slots on radio before pressing tray into place. Figure 5.
- 4. Replace radio back by sliding up and onto radio body.
- 5. Push up until secure.

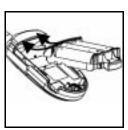


Figure 5.

#### Replacing Alkaline Batteries:

- Insert 3 AA batteries into alkaline tray.
   Make sure you align plus and minus signs on batteries with markings on battery tray. Figure 6.
- 2. Replace radio back by sliding up and onto radio body.
- 3. Push up until secure.

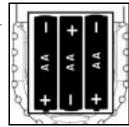


Figure 6

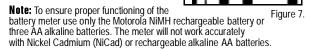
**Note:** When batteries are low, as indicated by battery meter or low battery alert, replace the alkaline batteries immediately to avoid interrupted use.

The NiMH battery kit, alkaline battery kit, and spare NiMH battery are available as accessories (sold separately). For information, call 1-800-353-2729.

g

## **Battery Meter**

The Battery Meter, located on the front display, is divided into three bars. As power is used, the bars will disappear. Figure 7.



#### **Low Battery Alert**

When the battery is low, the radio will beep:

- · 3 to 4 seconds after turning power on
- every 10 minutes in standby mode
- · after releasing Push-To-Talk button
- · after releasing the Call button

**Note:** Remove batteries before storing your radio for extended periods. Batteries may corrode over time and cause permanent damage to your radio.

## **Belt Holster**

Talkabout radios come with a belt holster which can be used with both the NiMH and AA battery doors.

#### Using Radio With Holster:

- 1. Position the base of the radio in bottom portion of holster.
- 2. Push the radio towards the holster until it latches into place. Figure 8.
- To remove radio from holster, pull the top tab on holster away from radio. Figure 9.

**Note:** You may find it easier to clip the holster onto your belt before you insert radio into the holster. Figure 10.

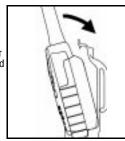


Figure 8.

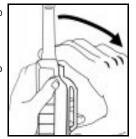


Figure 9.

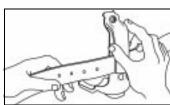


Figure 10.

## **Before You Can Talk**

Read this manual carefully. Make sure you know how to properly operate the radio before use. Talkabout radios have 14 channels and 38 Interference Eliminator Codes. To talk to others, all radios in your group must be set to the same channel and code.

#### **Power Button**

#### **Turning the Radio On:**

- 1. Press orange Power button, radio beeps and LED Indicator Light flashes every 3 seconds to indicate radio is on. Figure 11.
- 2. To turn radio off, press Power button until display clears. Radio beeps to confirm.

**Note:** When you turn the radio on you are in normal operating mode.

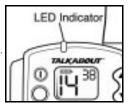


Figure 11.

#### Channels

You can only communicate with radios that are set on the same channel and code. The chart on page 30 shows you channel frequencies on which Motorola Family Radio Service (FRS) two-way radios operate.

#### **Setting the Channel**

#### Changing the Channel:

- 1. With radio on, press Menu button once. CHAN appears and current channel (large number) will flash. Figure 12.
- 2. Use the Scroll buttons to select a new channel.
- 3. Press Push-To-Talk button to set new channel selection.

Current Channel Channel Indicator

Figure 12.

Note: The radio will return to normal operation mode in 10 seconds or after pressing Push-To-Talk button. 12

#### **Interference Eliminator Codes**

Codes filter out static, noise and unwanted messages on radio channels. You can only communicate with radios using the same channel and code. Since radio channels can be monitored, this will not make your conversations private. To avoid congested channels, change the radio's channel/code setting.

# Channel Indicator

**Setting the Code** 

#### Changing the Code

- 1. With radio on, press Menu button twice. The current Code (small number) will flash. Figure 13.
- Figure 13.

Current Code

- 2. Use Scroll buttons to select a new code.
- 3. Press Push-To-Talk button to set new code selection.

#### Notes:

- The channel and code may be set sequentially. Just hit the Menu button after setting a new channel to select a new code.
- The radio will return to normal operation mode in 10 seconds or after pressing Push-To-Talk button.

#### Custom Codes - T289 Only

The T289 has the ability to save a specific code for each channel. This allows you to change channel and codes more easily. To save a specific code for each channel, set the channel and code per the previous instructions. Press the Menu button once from normal operating mode and use the Scroll Buttons to switch between selected channel and code settings.

## **To Communicate**

#### **Monitor Button**

The Monitor button is used to check activity on current channel before transmitting. Check channel activity by pressing the Monitor button, you'll hear static if the channel is clear. Don't transmit if you hear conversation.

#### **Channel Busy Indicator** - T289 Only

The T289 radio has a Channel Busy Indicator to indicate that your current channel is in use. If another user is communicating on your channel and a different code, the flashing CHAN indicator will appear on the display. This visual indicator of channel activity can be used instead of the Monitor button. To avoid interrupted conversation, wait until the channel frequency is clear or switch to another channel.

#### **Volume Control**

#### Adjusting the Volume:

- 1. Turn radio on by pressing the orange Power button.
- 2. Use Scroll buttons to adjust the radio's volume. Figure 14.
- VOL indicator will appear and display will show current volume level (1 to 19).
   Beeps confirm volume level changes as you scroll.
- 4. The radio will return to normal operation mode after 2 seconds.

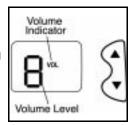


Figure 14.

**Note:** You may adjust volume by using the Scroll buttons as long as the radio is not in Menu or Lock mode.

#### **Push-To-Talk Button**

#### Sending Messages:

- Check channel activity by pressing Monitor button or view Channel Busy-Indicator (T289).
- 2. Press Push-To-Talk button and speak into radio. Figure 15.
- 3. LED Indicator Light glows continuously while transmitting.

# on and speak vs continuously

Figure 15.

#### **Receiving Messages:**

Release the Push-To-Talk button.

Note: To maximize clarity, hold radio 2 to 3 inches from mouth.

#### **Alert Tones**

The Alert Tones (beeps) on the Talkabout radios are set at a fixed volume level and cannot be lowered. However, Alert Tones can be disabled. When Alert Tones are disabled, the radio will receive messages at the volume setting you've selected, but you will not hear beeps when you press control buttons

#### Disabling Alert Tones:

- 1. Hold down the Monitor button while you turn radio on.
- To re-activate Alert Tones, turn the radio off, then on again while holding the Monitor button down.

## **Features**

#### **Auto Power Off**

Your Talkabout can be programmed to turn itself off after a certain period of inactivity. This feature is used to prevent unwanted battery drain.

#### **Enabling Auto Power Off:**

- 1. Press Menu button six times to enter Power Off feature.
- 2. Use the Scroll buttons to set the number of hours, after which, the power shuts down (1-8 hours).

#### Notes:

- The radio will return to normal operation mode after 10 seconds or after you press the Push-To-Talk button. If no buttons are pressed during the selected time interval, the radio will sound a unique tone one minute prior to turning itself off.
- · Minus sign appears on display if Auto Power Off is disabled.

#### **Display Light**

Talkabout radios have a backlit display for use in low-light conditions. Press Light/Lock button to illuminate the display. The light will stay on for approximately five seconds.

Note: Pressing other buttons will extend the time the light stays on.

#### **Keypad Lock**

Lock allows you to disable the Scroll, Menu, and Scan buttons so that the radio settings cannot be changed accidentally.

#### **Activating Lock Feature:**

Press and hold the Light/Lock button until **LOCK** appears on the display.

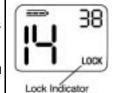


Figure 16.

#### Disabling Lock Feature:

Press and hold Light/Lock button until LOCK disappears.

**Note:** Radio emits audible tone to confirm lock and unlock feature activation. Disabled buttons will beep if pressed (when AlertTones are enabled).

#### Reset

The Reset feature returns all user programmable features back to the original factory settings.

- 1. Hold down both the Monitor and Push-To-Talk buttons.
- 2. Turn the radio on.

#### **Time-out Timer**

The Time-out Timer feature helps extend battery life and prevents you from accidently tying up frequencies. The radio will emit a continuous warning tone if the Push-To-Talk button is pressed for 60 continuous seconds and radio will stop transmitting.

See Pages 36-37 for quick operation summary.

## **Features**

#### **Channel Scan**

Scan allows you to monitor channels and codes of other transmitting radios. When the radio detects channel activity, it stops scanning and locks in on the active channel and code. It allows you to listen and talk to the person(s) transmitting without having to switch channels. To scan for radios without Interference Eliminator Codes, change your code to zero (off) before pressing the Scan button.

#### **Activating Scan Feature:**

- With the radio on, press the Scan button. SCAN appears on the display, flashing.
- 2. When the radio detects channel activity, **SCAN** stops flashing and the active channel and code are displayed.
- To turn off the Scan feature and return to normal operation mode press the Scan button.

#### Pausing on a Channel:

- Press Monitor button to lock or hold your radio to displayed channel and code. CHAN SCAN appears to confirm active settings.
- 2. To begin scanning again, press the Monitor button.

#### Notes:

- If Monitor button is not pressed, radio will begin scanning for active channels 5 seconds after activity ceases.
- · Radios will scan all Codes (38) on all selected channels.

#### **Scan List**

Talkabout TA280 and T289 radios allow you to select which channels are to be scanned by turning them **On** or **OF** (off) in the Scan List

#### Setting the Scan List Menu:

- Press Menu button three times to enter the Scan List menu. SCAN appears and channel number flashes. Figure 17.
- 2. Use Scroll buttons to change channel.
- 3. Press Scan button to add (On) or delete (OF) channels.

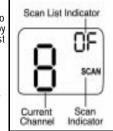


Figure 17.

Note: Channels which are turned OF (Off) will not be scanned.

#### **Call Tone**

Talkabout radios have multiple unique Call Tones to identify sender and alert receiver. The TA280 has 5 call tones, while the T289 has a total of 10. Press the Call button and users on your channel and with your code setting will be alerted with your Call Tone.

#### **Changing and Hearing Call Tones:**

 With radio on, press Menu button four times to enter Cal Tone menu. CALL appears and Call Tone number is displayed. Figure 18.



Figure 18.

2. Use Scroll buttons to change and hear the CalTones.

#### Notes:

- When AlertTones are disabled you will not hear CallTone beeps when transmitting, but you will hear them while receiving.
- The radio will return to normal operation mode in 10 seconds or after pressing Push-To-Talk button.

## **Hands Free Use**

Talkabout radios have built-in Voice Operated Transmission (VOX) capability. This means the sound of your voice activates transmission when the radio is used with VOX accessories (sold separately).

The T289 also has iVOX (Internal Voice Operated Transmission), which allows you to use the radio hands free without an accessory in place. Read the instructions below to activate the iVOX feature.

### **Using VOX Feature**

#### **Enabling VOX:**

- 1. With radio off, plug accessory connector into jack on left side of radio. Figure 19.
- 2. Turn radio on.
- 3. Lower volume with Scroll button before placing accessory on head or in ear. VOX appears on display to indicate VOX is active.
- 4. To transmit, speak into accessory microphone. To receive, stop talking.

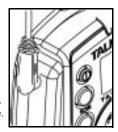


Figure 19.

#### Enabling iVOX - T289 only

- 1. Turn the radio on with the Push-To-Talk depressed to arm the iVOX fea-
- 2. To activate, quickly press the Push-To-Talk button. The VOX indicator will appear on the display to indicate that the iVOX feature is active.
- 3. To transmit, speak into radio microphone. To receive, stop talking.

Note: There will be a brief delay between when you start/stop talking and radio transmission time. If you press the Push-To-Talk button, you will disable the VOX/iVOX feature.

#### Resetting To Push-To-Talk Mode:

- 1. Press Push-To-Talk button once. The **VOX** display will disappear.
- 2. To transmit, press Push-To-Talk button on radio. To receive, release the Push-To-Talk.

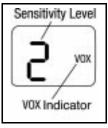
#### Notes:

- · To return to iVOX mode follow instructions above.
- To return to VOX mode, turn the radio off, then on again with the accessory in place.

#### Setting VOX/iVOX Sensitivity

Talkabout radios allow you to adjust VOX sensitivity of radio to compensate for varying levels of background noise.

- 1. With radio on, press Menu button five times to enter VOX sensitivity mode.
- 2. VOX will appear on display along with the current VOX setting. Figure 20.
- 3. Use Scroll buttons to select level.



#### Three Sensitivity Levels:

Figure 20.

- 1 = Low sensitivity for high levels of background noise.
- 2 = Medium sensitivity for use in most applications.
- 3 = High sensitivity for low levels of background noise.

#### Notes:

- The radio will return to operation mode after 10 seconds or after you press the Push-To-Talk button.
- · When using audio accessories, radio volume should be kept at a comfortable listening level. Before you place the audio accessory on your head or in your ear, turn down the volume.
- When using iVOX, sensitivity level 3 is recommended.

20

See Pages 36-37 for quick operation summary.

## **Improving Communication**

#### **Talk Range**

Talkabout radios have been designed to maximize performance and improve transmission range in the field. It is recommended that you do not use the radios closer than 5 feet apart because of heavy interference.

Talk range depends on the terrain. These are line of sight radios and talk range will be affected by concrete structures, heavy foliage and operating radios indoors and in vehicles.



Optimal Range

Talk range in flat, open areas, up to 2 miles.



**Medium Range** 

Range is decreased when buildings and trees are in the way.



**Minimal Range** 

Dense foliage or mountains can limit range.

#### **Care and Safety**

To clean the radio, wipe with a soft cloth dampened with water. Don't use cleaners or solvents on the radio, they can harm the body and leak inside, causing permanent damage. Battery contacts may be wiped with a dry, lint-free cloth.

If the radio gets wet, turn it off and remove batteries immediately. Dry battery compartment with a soft cloth to minimize potential water damage. Leave cover off the battery compartment overnight or until completely dry. Do not use the radio until completely dry.

## **Accessories**

With the audio and carrying accessories (sold separately) available for Talkabout radios, you'll be able to receive incoming messages in privacy with an Earbud or Flexible Ear Receiver. With a Speaker Microphone or an Earbud with Push-To-Talk Microphone, you'll enjoy the convenience of being able to talk and listen without reaching for your radio. Use your radio hands free with a headset with swivel boom mic or an ultra lightweight headset.

We've also got a selection of cases perfect for all your radio transport needs. Whether it's an Arm Pack, Belt Case, or Waterproof Bag, Motorola has a great carrying case for you! For information contact place of purchase or call Motorola at:

#### 1-800-353-2729

**Note:** When using audio accessories, the radio's volume should be kept at a comfortable listening level. Before you place the audio accessory on your head or in your ear, turn down the volume.

# Troubleshooting

No Power	Reposition or replace alkaline batteries.	Heavy Static or	Radios too close. Radios must be at least 5 feet		
	Recharge or replace NiMH battery.	Interference	apart.		
Message Not Transmitted	Make sure the Push-To-Talk button is completely pressed as you transmit.		Radios too far apart. Obstacles interfere with transmission. Talk range is up to 2 miles in clear, unobstructed conditions.		
	Reposition, replace or charge batteries.	Channel/Code Locked	Make sure radio is unlocked. See page 17 for more		
Message Not	Confirm radios have the same Channel and Inter-		information.		
Received	ference Eliminator Code settings.	Low Batteries	Recharge NiMH battery or replace alkaline batter ies. Extreme operating temperatures will affect the life of the battery.		
	Make sure Push-To-Talk is not inadvertently being pressed.				
	Reposition, replace or charge batteries.	Charger LED Double	Charger pin is not properly in place. Check to		
	Obstructions, operating indoors or in vehicles may interfere with communication. Change your location.	Flashing	make sure the charger pin is fully inserted into the radio. If so, allow the radio to charge until the LED glows solid.		
	Check to make sure volume is turned up.		Battery power is very low; double flashing indi- cates that the battery is charging up slowly before it starts to quick charge.		
Hearing Other Noise Or Conversation on a	Confirm Interference Eliminator Code is set, (active settings are 1-38).				
Channel	Shared Channel or Interference Eliminator Code may be in use, try another.	Can not Activate iVOX (T289 only)	Feature not armed. Follow instructions on page 20 to arm and activate iVOX.		
Limited Talk Range	Steel/concrete structures, heavy foliage and use in buildings and in vehicles will decrease range, check for clear line of sight to improve transmission.				
	Wearing radio close to body such as in a pocket or	Motorola Prod	Motorola Product Services		
	on a belt will decrease range, change location of radio.	If the radio still decent u	If the radio still doesn't work properly, contact your place of purchase or call		

Motorola Product Services at: 1-800-353-2729

## **Safety Information**

#### **Exposure To Radio Frequency Energy**

The design of your Motorola two-way radio, which generates radio frequency (RF) electromagnetic energy (EME), is designed to comply with the following national and international standards and guidelines regarding exposure of human beings to radio frequency electromagnetic energy:

- FCC Report and Order FCC 96-326 (August, 1996)
- American National Standards Institute (C95-1 1992)
- · National Council on Radiation Protection and Measurements (NCRP 1986)
- International Commission on Non-Ionizing Radiation Protection (ICNRP 1986)
- European Committee for Electrotechnical Standardization (CENELEC)
   -Env. 50166 1 1995E Human Exposure to Electromagnetic Fields Low Frequency
- -Env. 50166 2 1995E Human Exposure to Electromagnetic Fields High Frequency (10 kHz to 300 kHz)
- -Proceeding of SC211/8 1996 Safety Considerations for Human Exposure to E.M.F's from Mobile Telecommunications Equipment (M.T.E.) in the Frequency Range 30 MHz 6 GHz (E.M.F.-Electromagnetic Fields)

To assure optimal radio performance and to ensure that exposure to RF energy is within the guidelines in the above standards, the following operating procedures should be observed:

- When transmitting with a two-way portable radio, hold radio in a vertical position with its microphone 2-3 inches (5.0 to 7.5 cm) away from your mouth.
- Keep antenna at least 1 inch (2.5 cm) from your head and body.
- If you wear a portable radio on your body, ensure that the antenna is at least one inch (2.5 cm) from your body when transmitting.

#### **Electromagnetic Interference Compatibility**

Nearly every electronic device is susceptible to electromagnetic interference (EMI) if inadequately shielded, designed or otherwise configured for electromagnetic compatibility.

- Turn your radio OFF in any facilities where posted notices instruct you to do so. Hospitals or health care facilities may be using equipment that is sensitive to external RF energy.
- Turn your radio off when on board aircraft when instructed to do so. Any use of the radio must be in accordance with airline regulations or crew instructions.

#### **A** CAUTION

#### Damaged Antennas

Do not use the radio with a damaged antenna. If a damaged antenna comes in contact with the skin, a minor burn may result.

#### Ratterie

All batteries can cause property damage and/or bodily, injury or burns if a conductive material such as jewelry, keys or beaded chains touches exposed terminals. The material may complete an electrical circuit (short circuit) and become quite hot. Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse or other container with metal objects.

#### **A** WARNING

#### For Vehicles With an Air Bag

Do not place a portable radio in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a portable radio is placed in the air bag deployment area and the air bag inflates, the radio may be propelled with great force and cause serious injury to occupants of vehicle.

#### **Potentially Explosive Atmospheres**

Turn your radio OFF when in any area with a potentially explosive atmosphere, unless it is a type especially qualified for such use (for example, Factory Mutual Approved). Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death.

#### **Batteries**

Do not replace or charge batteries in a potentially explosive atmosphere. Contact sparking may occur while installing or removing batteries and cause an explosion.

To avoid possible interference with blasting operations, turn your radio OFF near electrical blasting caps or in a "blasting area" or in areas posted: "Turn off two-way radio". Obey all signs and instructions.

**Note:** Areas with potentially explosive atmospheres are often, but not always, clearly marked. They include fuelling areas such as below deck on boats, fuel or chemical transfer or storage facilities; areas where the air contains chemicals or particles, such as grain, dust, or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.

## **Charging Safety Instructions**

#### **SAVE THESE INSTRUCTIONS**

Before using the battery charger, read all instructions and cautionary markings on,

- (1) the battery,
- (2) battery charger, and
- (3) the radio using the battery.

#### **A** CAUTION

To reduce the risk of injury, charge only the rechargeable batteries listed. Other types of batteries may burst, causing personal injury and damage.

#### Single-Unit Charger

Kit Number	Description		
NTN8871	110V - NiMH Charging Adapter		
NTN9150	110V - NiMH Charging Adapter		

#### **Batteries**

Kit Number	Capacity in milliampere-hour mAH/ Description/Composition
HNN 9720	750 mAH/T289, TA270/280 SLK/NiMH

- 1. Do not expose the charger to rain or snow.
- 2. Do not operate the charger if it has received a sharp blow, or has been dropped or damaged in any way.
- Do not disassemble the charger. If it does not work properly return it to the point of purchase if within 90 days of purchase. Incorrect reassembly may result in a risk of electric shock or fire.
- 4. Never alter the AC cord or plug provided with the unit. If plug will not fit the outlet, have proper outlet installed by a qualified electrician. An improper condition can result in a risk of electric shock.
- 5. To reduce risk of damage to cord or plug, pull by the plug rather than the
- 6. cord when disconnecting charger from AC receptacle.
- 7. To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.
- 8. Use of an attachment not recommended or sold by Motorola may result in a risk of fire, electric shock, or personal injury.
- Make sure that the cord is located so that it will not be stepped on, tripped over, or subjected to damage or stress.
- 10. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and/or electric shock. If an extension cord must be used, make sure:
  - That the pins on the plug of the extension cord are the same
  - · Number, size, and shape as those on the plug of the charger.
  - That the extension cord is properly wired and in good electrical condition and
  - That the cord size is 18 AWG for lengths up to 100 feet, and 16 AWG for lengths up to 150 feet.
- 11. The supply cord of this charger cannot be replaced. If the cord is damaged, the charger should be discarded or returned to the point of purchase if within 90 days of purchase.

Channel Frequency and Interference Eliminator Code Charts

The channel/frequency and Interference Eliminator Code charts on these pages provide frequency and code compatibility information. These charts are useful when using Talkabout two-way radios with other two-way radios.

Channel Frequency Chart					
Channel	MHz	Channel	MHz		
1	462.5625	8	467.5625		
2	462.5875	9	467.5875		
3	462.6125	10	467.6125		
4	462.6375	11	467.6375		
5	462.6625	12	467.6625		
6	462.6875	13	467.6875		
7	462.7125	14	467.7125		

Interference Eliminator Code Chart					
Talkabout Code	Hz Freq	7/7x Code	Talkabout Code	Hz Freq	7/7x Code
1 2	67.0 71.9		20 21	131.8 136.5	G
3 4	74.4 77.0	A	22 23	141.3 146.2	
5	77.0 79.7	A	24	151.4	
6 7	82.5 85.4		25 26	156.7 162.2	
8	88.5	В	27	167.9	
9 10	91.5 94.8		28 29	173.8 179.9	
11 12	97.4 100.0	С	30 31	186.2 192.8	
13	103.5	_	32	203.5	
14 15	107.2 110.9	D	33 34	210.7 218.1	
16	114.8	_	35	225.7	
17 18	118.8 123.0	E	36 37	233.6 241.8	
19	127.3	F	38	250.3	

**Note:** Carrier Squelch (0) disables Interference Eliminator Codes. This allows you to monitor all activity on the channel you are using.

## 1 YEAR LIMITED WARRANTY

Motorola, Inc. warrants the enclosed product against defects in material and workmanship under normal use and service for one (1) year provided it is returned in accordance with this warranty. If defective, the product will be repaired or replaced at Motorola's option, at no charge, with dated proof of purchase. This warranty does not cover defects or damage resulting from: misuse, improper operation, unauthorized modification, liquid, batteries, or normal wear and tear.

MOTOROLA IS NOT LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, FOR ANY INCIDENTAL OR CONSCOUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW. THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. HOWEVER, SOME STATES DO NOT ALLOW LIMITATIONS ON INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU, THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

#### For warranty information and service call 1-800-353-2729.

Copyright Information: The Motorola products described in this manual may include copyrighted Motorola programs stored in semiconductor memories or other media. Laws in the United States and other countries preserve for Motorola, certain exclusive rights for copyrighted computer programs, including the exclusive right to copy or reproduce in any form, the copyrighted Motorola programs. Accordingly, any copyrighted Motorola computer programs contained in the Motorola products described in this manual may not be copied or reproduced in any manner without the express written permission of Motorola. Furthermore, the purchase of Motorola products shall not be deemed to grant either directly or by implication, estoppel, or otherwise, any license under the copyrights, patents or patent applications of Motorola, except for the normal non-exclusive royalty free license to use that arises by operation of law in the sale of a product.

**FCC Licen se Not Required:** FCC Information: 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 in the private land mobile and fixed services as certified by an organization representative of the users of those services. Replacement of any transmitter component (crystal, semiconductor, etc.) not authorized by the FCC equipment authorization for this radio could violate FCC rules.

#### **Computer Software Copyrights**

The Motorola equipment described in this manual may include copyrighted Motorola computer programs stored in semiconductor memories or other media. Laws in the United States and other countries preserve for Motorola certain exclusive rights for copyrighted computer programs, including the exclusive right to copy or reproduce in any form the copyrighted computer program. Accordingly, any copyrighted Motorola computer programs contained in the Motorola equipment described in this manual may not be copied or reproduced in any manner without the express permission of Motorola, Inc. Furthermore, the purchase of Motorola equipment shall not be deemed to grant either directly or by implication, estoppel, or otherwise any license under the copyrights, patents or patent applications of Motorola, except for the normal nonexclusive, royalty free license to use arising by operation of law in the sale of this product.

#### **Patent Notice**

This product is covered by one or more of the following United States Patents:

5894592         5734975         D38374           5894292         5742484         D38775           5893027         5861850         D38982           5864752         D408396         D38915			
5894292         5742484         D38775           5893027         5861850         D38982           5864752         D408396         D38915	5896277	5699006	D399821
5893027 5861850 D38982 5864752 D408396 D38915	5894592	5734975	D383745
5864752 D408396 D38915	5894292	5742484	D387758
	5893027	5861850	D389827
5789098 D395882 D38913	5864752	D408396	D389158
	5789098	D395882	D389139

**Quick Operation Summary**To make it easier for you to learn how to use your two-way radio, we've included this quick reference guide to the button functions of your Talkabout radio(s).

#### **Call Tone Button**



**Function** Press Call Call Tone Alert Once

#### **Menu Button**



Function Press Menu To Change Use Press To Set Channel Selection Once Scroll Buttons Push-To-Talk Code Selection Scroll Buttons Push-To-Talk 2 times Scan List 3 times Scan Button Push-To-Talk Push-To-Talk Call Tone Alert 4 times Scroll Buttons VOX Sensitivity Scroll Buttons Push-To-Talk 5 times Auto Power Off Scroll Buttons Push-To-Talk 6 times

### **Light/Lock Button**



**Function** Press Light/Lock Function Press Light/Lock Press Once Turn Off Light Time Out, 5 seconds Turn On Light Lock Keypad Press and Hold Unlock Keypad Press and Hold

#### **Monitor Button**



**Press Monitor Function** Check Channel Activity Once

### **Scan Button**



Function Press Scan Function Press Scan Turn On Scan Once Turn Off Scan Once

Notes:

Notes:



[14], Motorola and Talkabout are registered trademarks of Motorola, Inc.

40

.