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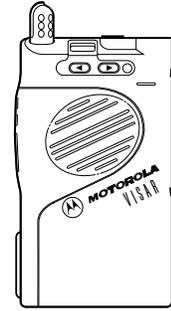
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## Introduction

### Basic Radio Features

Welcome to the Motorola VISAR Portable Radio. The Privacy Plus™ VISAR radio is a sophisticated, state-of-the-art, communication unit. This trunked radio will operate on one to four systems with one to four talkgroups on each system. Pioneering the latest technology in radio electronics, Motorola VISAR radios provide features that were once only available in much larger radios. Intelligent and flexible software increases the radio's capability, decreases the radio's physical size, and permits many of the radio's features to be more easily and quickly customized for your specific needs.

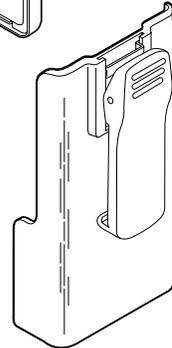
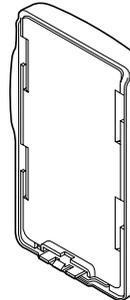


### Inspection and Unpacking

Inspect the shipping carton for any signs of damage. Remove and check the contents to be sure that all ordered items have been enclosed. If items have been damaged during transit, report the damage to the shipping company immediately.

#### Standard Radio Packing Box Contents

- ¥ Radio
- ¥ Antenna
- ¥ Battery (four hour)
- ¥ Carry Holder with Belt Clip
- ¥ Operating Instructions Manual



## Warnings, Cautions, and Notes

Throughout this publication, you will notice the use of warnings, cautions, and notes. These notations are used to emphasize that safety hazards exist, and care must be taken and observed.



### 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 the equipment if not carefully observed.

**Note:**

An operational procedure, practice, or condition, etc., which is important to emphasize.



## Getting Started

### Radio/Antenna Identification

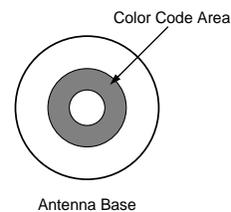
An information label is attached to the back of your radio. A radio model number is identified on this label. A typical model number might be H05UCD6CB1AN. The fourth-position of the model number (in this case U) identifies the operating frequency band of the radio. The following chart lists the fourth-position alpha character and corresponding frequency band.

**Radio Operating Frequency Chart**

Fourth-Position Character	Frequency Band
K	136-178 MHz
R	403-470 MHz
S	450-520 MHz
U	806-866 MHz
W	896-941MHz

Antennas are frequency sensitive and color-coded according to the frequency range of the antenna. The color code indicator is in the insulator of the antenna.

Refer to the **Radio Operating Frequency Chart** above and the **Antenna Identification Chart** (page 4) to ensure that the match between your radio and the antenna is correct.

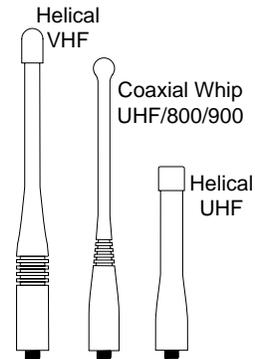


**Antenna Identification Chart**

Antenna Type	Approx. Length		Color Code	Frequency Range	Antenna Kit Number
	in.	mm			
Helical VHF	5.8	147	Yellow	136-151 MHz	NAD6569
	5.3	135	Black	151-162 MHz	NAD6570
	4.9	124	Blue	162-178 MHz	NAD6571
Helical UHF	3.3	83	Red	403-435 MHz	NAE6546
	3.2	80	Green	435-470 MHz	NAE6547
	3.2	79	Black	470-520 MHz	NAE6548
Coaxial Whip UHF Wide Band	5.2	130	Grey	403-520 MHz	NAE6549
Coaxial Whip 800/900MHz 1/4 Wave Stubby	3.3	83	White	806-941 MHz	NAF5042

**Antenna Installation**

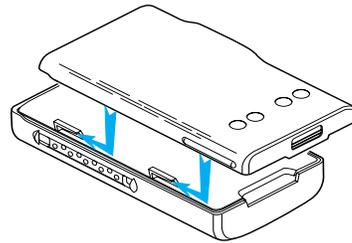
Screw the threaded end of the antenna into the antenna receptacle located on top of the radio. Rotate the antenna clockwise until it is seated firmly against the bushing.



## Battery Installation

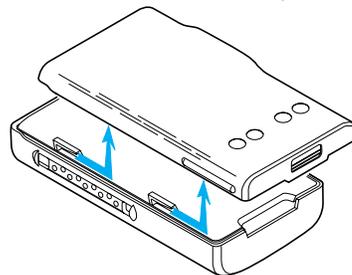
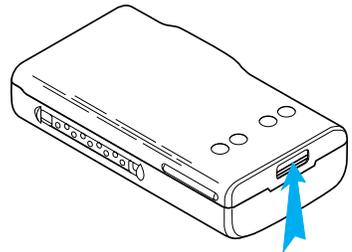
1. Turn off the radio and hold it with the back of the radio facing up.
2. Place the battery against the back of the radio so that the tabs on the radio engage the four openings in the battery.
3. Slide the battery toward the top of the radio until the latch clicks firmly into the recess at the bottom of the radio.

**Note: The battery is shipped uncharged. Batteries must be charged before use. (See Battery Information section.)**



## Battery Removal

1. Turn off the radio. Hold the radio with the front in the palm of your hand.
2. With the thumb of your other hand, slide the latch at the bottom of the battery toward the back of the battery using the finger grooves.
3. While holding the latch up, slide the battery down toward the bottom of the radio.
4. Separate the battery from the radio.



## Factory Mutual Approved Models, Options, and Accessories

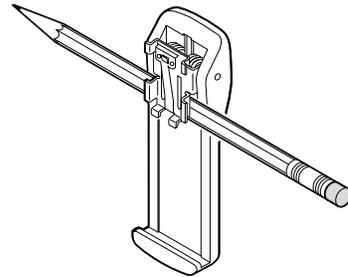
Certain VISAR radios and batteries have been Approved as being intrinsically safe by the Factory Mutual Research Corporation for use in hazardous (classified) locations. For information regarding Factory Mutual Approved models, options, and accessories for the VISAR radio, please refer to the Factory Mutual Approval Manual Supplement 68P81073C69).

## Belt Clip Installation and Removal

**Note:** Installation and removal of the belt clip assembly should be done with the radio removed from the carry holder.

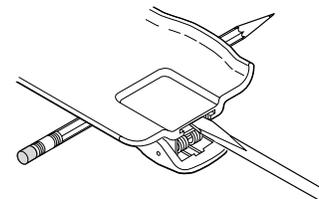
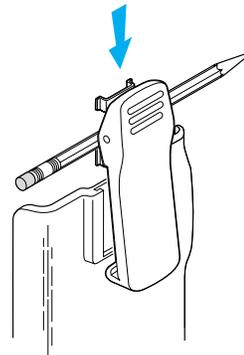
### Installing the Belt Clip

1. Insert a pencil, or equivalent size instrument, between the inside of the belt clip and the metal clip so as to hold the metal clip partially sprung (metal clip should be approximately parallel with the plastic portion of the belt clip).
2. Align the metal tabs of the belt clip with the slots of the carry holder.
3. Slide the belt clip onto the carry holder, pushing firmly until a click is heard.
4. Remove the pencil from the clip.



### Removing the Belt Clip

1. Insert a pencil, or equivalent size instrument, between the inside of the belt clip and the metal clip so as to hold the metal clip partially sprung (metal clip should be approximately parallel with the plastic portion of the belt clip).
2. Push the flat blade of a #2 slotted screwdriver (or like instrument) between the carry holder and the belt clip release tab.
3. While performing step 2, slide the belt clip out and away from the carry holder, and remove the screwdriver.
4. Remove the pencil from the clip.



## Universal Connector Seal Removal



### CAUTION

When not in use, keep the side connector covered using the universal connector seal provided.

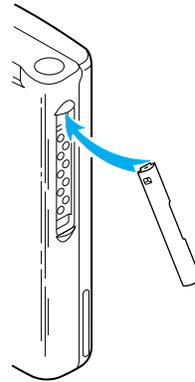
The radio is shipped from the factory with the universal connector seal installed.

*To remove the connector seal:*

1. Pull on the seal overhang, or lip.
2. Lift the seal away from the radio.

*To install the connector seal:*

1. Place the hook on the top or bottom of the seal into the universal connector recess. Be sure the opening at the top of the seal aligns with the noise-cancelling port (as shown).
2. Pivot the seal onto the radio until it snaps onto place.



## Universal Connector Accessories: Installation and Removal

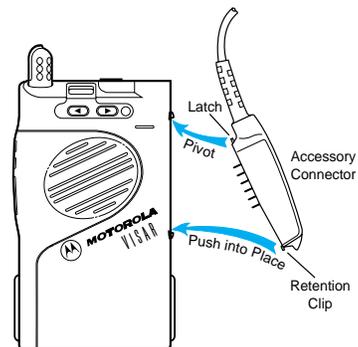
A variety of VISAR accessories mate with the universal connector.

*To install an accessory:*

1. Seat the top tab of the accessory connector into the top recess of the universal connector.
2. Rotate the accessory connector toward the radio while you push up on the connector latch (located on the bottom of the connector).
3. Be sure the accessory connector is completely seated.
4. Release the accessory connector latch.

*To remove an accessory:*

1. Push up on the connector latch to release it from the recess.
2. Pivot and pull the connector away from the radio.
3. Re-install the universal connector seal.



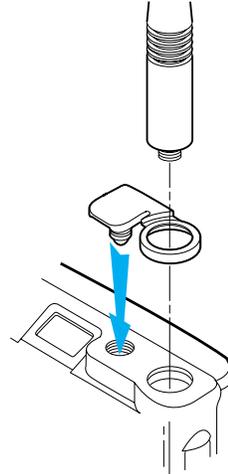
## Accessory Jack Seal



### CAUTION

When not in use, keep the audio jack covered using the accessory jack seal (with the retaining ring for the antenna).

The radio is shipped from the factory with the accessory jack seal installed. To remove the seal, pull its lip toward the back of the radio. The seal is held to the radio by a ring located under the antenna. To install the seal, simply reverse the procedure and snap it into place.



## Audio Jack Accessories: Installation and Removal

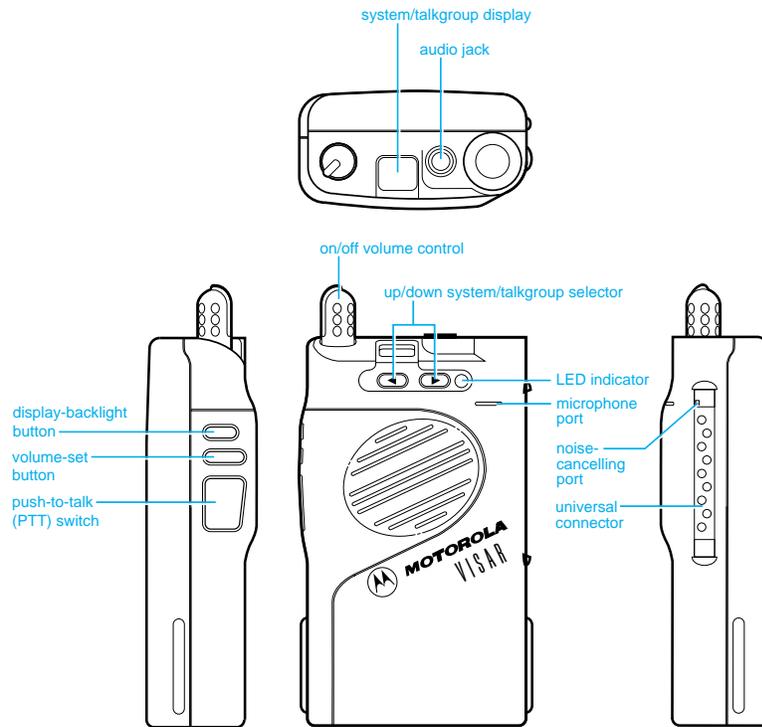
A variety of VISAR accessories mate with the audio jack.

*To install an accessory:*

1. Insert only a 3.5mm audio plug completely into the jack.
2. Push down on the plug while rotating it clockwise to engage its threads.
3. Continue to rotate the plug until it is seated. Hand-tighten only!

*To remove an accessory:*

1. Rotate the audio plug counterclockwise until it is loose.
2. Pull the plug out.
3. Re-install the jack seal.



VHSR Radio - Controls, Switches, Indicators, and Connectors

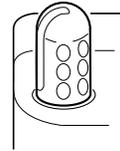


## Basic Radio Operation

### Radio On/Off

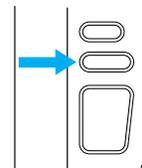
Turn the radio on by rotating the on/off/volume control clockwise. The LED will light green, and a high-pitched power-up tone is generated after about one second, indicating the radio has passed a self-check. If a low-pitched tone, or no alert tone, is heard, turn the radio off, check to be sure the battery is charged and properly installed, and turn the radio back on. If the high-pitched alert tone is still not heard, a problem exists in the radio. Contact a Motorola authorized service shop. Turn the radio off by rotating the volume control fully counterclockwise.

**Note:** The power-up self-check verifies the status of the microprocessor-based systems, but does not check all of the radio-frequency components, and does not check the operation of all customer specific features. Motorola recommends the performance of the radio be periodically checked by an authorized service shop.



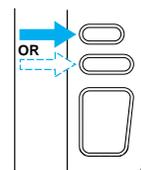
### Volume-Set Level

The volume-set button lets you adjust the radio volume when no transmission is being received. Press the volume-set button on the side of the radio; you will hear the volume-set tone. Now adjust the volume to a comfortable listening level by turning the on/off/volume control clockwise to increase the level, and counterclockwise to decrease it.



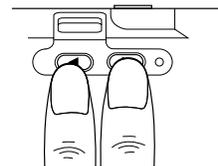
### Lighting the Display

Pressing the display-backlight button will turn on the display light. The light will remain on for five seconds. However, if the system/talkgroup selector buttons are pressed immediately after the display backlight button, the light will stay on longer.



### Inverting the Display

The system/talkgroup display on top of the radio may be inverted for easier reading when you are carrying the radio on your belt. Hold down both system/talkgroup selector buttons at the same time for two seconds and the display will invert.

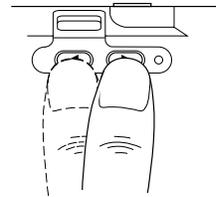


## System/Talkgroup Locking

Optionally, the radio may be programmed using radio service software (RSS) to have a system/talkgroup-locking feature. Hold down the system/talkgroup-selector buttons at the same time for two seconds, and the present system/talkgroup will be locked (preventing accidental system/talkgroup changes). Hold down the buttons again for two seconds to disable this feature. If this feature is enabled, you will not be able to invert the display.

## System/Talkgroup Selector Buttons

The two system/talkgroup-selector buttons are used to scroll up or down through the list of available systems/talkgroups programmed into the radio. The scrolling speed will increase if you hold down one of the buttons for more than two seconds. When you reach the end of the system/talkgroup list, the list will wrap around back to the beginning.



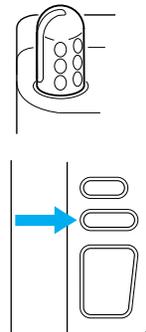
Several alert tone features may be programmed to the system/talkgroup-selector buttons.

1. A good-indicator chirp tone will sound whenever an up/down system/talkgroup-selector button is pressed.
2. You will hear a tone whenever the system/talkgroup listing wraps around.
3. If your radio is not programmed for wrap around, you will hear a tone when you scroll to the beginning of your system/talkgroup list.

## Receiving a Call

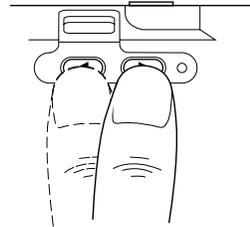
1. Turn the radio on and use the system/talkgroup-selector buttons to scroll to the desired system and talkgroup.
2. Listen for a transmission, or use the volume-set button and adjust the volume control for a comfortable listening level.
3. Your radio is now set to receive calls on the selected frequency.

**Note:** If the radio is placed on an unprogrammed system (blank system), you will hear an "invalid mode" tone until the system/talkgroup selector buttons are scrolled to a programmed (valid) system.



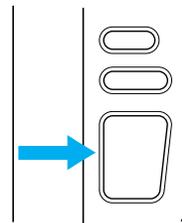
## Transmitting

1. Turn the radio on and scroll using the system/talkgroup selector buttons to the desired system/talkgroup position. Please read page 20 (Safety Standards) before transmitting.
2. Press and hold the push-to-talk switch (PTT) on the side of the radio. Transmit normally by speaking slowly and clearly into the microphone area of the radio. The LED will light  while the radio is transmitting. When you have finished transmitting, release the PTT switch to listen (receive).



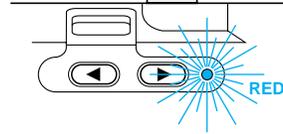
### Notes:

- If you hear a busy signal, release the PTT switch and wait for a call-back tone. When you hear the call-back tone, you will have three seconds to press the PTT switch. This lets you make your call without getting another busy signal.
- If you hear a continuous talk-prohibit tone when you press the PTT switch, you will not be able to transmit. The radio may be out of range.



## Low-Battery Alert

While transmitting, the LED will blink red if the battery falls below a low-voltage level. Also, the radio can be programmed to emit an alert tone (chirp-chirp) to indicate a low-battery condition. The alert tone will sound when the PTT switch is released after transmitting, and when a low-battery condition is detected while receiving or in standby.



If you continue to operate the radio after the alert tone, the radio will eventually turn off and on automatically. The LED will light green, the display will show all LCD segments, and you should hear the high-pitched power-up tone. All subsequent receive and transmit functions will be interrupted.

	<b>CAUTION</b>
<p>You should recharge or replace the battery if you notice the radio reset while transmitting; otherwise, damage to the battery might result.</p>	

## Time-Out Timer

Time-out timer is a feature that limits the amount of time you can continuously transmit on a channel. If you hold down the PTT switch longer than the programmed time, the following situations will occur:

1. A short, pre-alert warning tone will be heard four seconds prior to the end of the transmission to let you know your conversation is about to be cut off.
2. The transmission is terminated and a constant alert tone will be heard until you release the PTT.



## Alert Tones

Type of Tone	Indicates	Action to Take
High-pitched beep. Radio turned on.	Good power-up tone. LED lights green.	You may begin radio operation.
Low-pitch, or no tone. When radio is turned on.	A problem may exist in the radio.	Turn radio off. Check the battery. Turn radio on again. If high-pitched tone is not heard, a problem exists. Contact authorized Motorola service shop.
Volume-set tone. After volume-set button press.	You may adjust the volume to a satisfactory level.	You will begin listening at a more comfortable level.
High-pitched beep. After system/talkgroup selector buttons are pressed.	When list wraps around.	You may view the beginning of the system/talkgroup list.
Call-back tone. release of PTT switch.	Busy signal was heard.	Wait for the call-back tone before you transmit. Press PTT within three seconds to talk.
Low-pitch tone. Upon PTT switch press.	Talk-Prohibit tone. Unable to transmit.	Place the radio within range of receiving unit.
"Chirp-Chirp". Upon release of PTT switch.	Battery low-voltage level.	Radio may reset if you continue operation after the tone. Recharge or replace the battery, if radio resets.
Short, low-pitch tone. While pressing PTT switch.	Time-out timer pre-alert.	Present transmission will end in four seconds. Finish transmitting.



## Battery Information

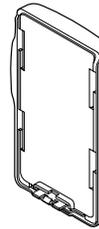
### Nickel-Metal-Hydride Batteries

The VISAR radio receives its power (7.5 Vdc) from a rechargeable nickel-metal-hydride battery. These batteries are a safe, dependable power source for your radio. Proper care of the battery will ensure its effectiveness and allow for peak performance.

Nickel-metal-hydride (NiMH) is an alternative technology to nickel-cadmium (NiCd) for users of rechargeable batteries. The benefits are increased energy density (high capacity) and environmental safety (contains no mercury, lead, and less than 0.025% cadmium). Please adhere to the following operational guidelines in the use and selection of these batteries.

¥ It is recommended that Motorola NiMH batteries be used in chargers manufactured by Motorola. Motorola is not responsible for battery life degradation which may occur unless NiMH batteries are charged with the prescribed accessories.

**Note:** Do not charge nickel-metal-hydride batteries in standard-rate or compact chargers. Although NiMH batteries are compatible with existing product chargers, long-term use of continuous slow or standard rate charging will reduce the useful life and capacity of batteries. To ensure maximum battery life of NiMH batteries, use rapid charging only. Battery life can be optimized if batteries are removed from the rapid charger after the charging cycle is completed. For optimal charger performance, NiMH batteries should be at room temperature 68° - 86°F (20° - 30°C) prior to placement in the charger.



## Charger

Nickel-metal-hydride and nickel-cadmium batteries may be charged using the Motorola VISAR dual-sequential unit charger.

The charger charges the batteries sequentially, taking approximately one hour per battery before the charger switches from rapid charge (the LED lights **Red**) to standard charge (the LED lights **Green**).

**Note:** At this point the battery is charged, but not to its fullest capacity. If you leave the battery in the charger for an additional four hours, it will achieve maximum charge. The first time a new battery is used, it should be charged a minimum of 16 hours.

Nickel-metal-hydride and nickel-cadmium batteries may also be charged using the Motorola VISAR multi-unit charger.

The multi-unit charger takes approximately one hour for a complete battery charge. It can accommodate up to six batteries at one time.

All VISAR chargers are designed for domestic and international operation through the use of interchangeable plug-in line cords.

## Short Circuit

Care should be taken to avoid external short-circuiting of the battery.

	<b>CAUTION</b>
Short-circuiting conditions can result in the battery getting warm. It is recommended that you use the spare battery case when carrying the spare battery.	

## Memory Effect (Reduced Charge Capacity)

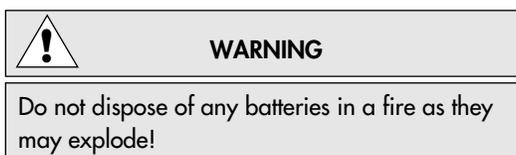
Memory effect was a phenomenon which caused a temporary loss in battery capacity or voltage due to repetitive shallow discharging or long-term overcharging. This memory effect has been virtually eliminated from Motorola batteries through the use of new cell technology.

## Battery Disposal



For disposal, nickel-cadmium sealed rechargeable batteries should be delivered to an authorized metals reclamation dealer.

Nickel-Metal-Hydrate batteries, although they contain no designated toxic metals, are recommended to be disposed of through an authorized metals reclamation dealer.



Alternately, VISAR radios may be powered by a nickel-cadmium rechargeable battery. At the end of its useful life, the battery can be recycled. However, recycling facilities may not be available in all areas. Under various state or local laws, the battery must be recycled or disposed of properly, and cannot be disposed of in landfills or incinerators.

In addition, U.S. Environmental Protection Agency (EPA) regulations classify used nickel-cadmium batteries as hazardous waste, unless certain exemptions apply.

Motorola fully endorses and encourages the recycling of nickel-cadmium batteries. If you are located in the United States, you can ship, postpaid, your used Motorola nickel-cadmium batteries to **INMETCO**, an EPA approved recycling facility, at the address given on the next page. We recommend spent batteries be sent to the nickel-cadmium recycling facility most convenient for you. If you are not located in the United States, you may ship your used Motorola nickel-cadmium batteries to one of the nearest international locations listed on the next page. Should you have any questions, contact the facility first.

Consideration should be given to the methods of collecting, labeling, and shipping used nickel-cadmium batteries. Your federal, state, or local EPA should be consulted for specific requirements and for recycling options in your area.

Motorola, as a responsible corporate citizen, has always been concerned with the protection of the environment. For further information, you may call the Motorola Worldwide System and Aftermarket Products Division, Customer Service Department, toll-free at 1-800-422-4210.

## Nickel-Cadmium Battery Recycling Facilities

### INMETCO, Bin #M1

P.O. Box 720  
245 Portersville Road  
Ellwood City, PA 16117  
Phone: (412) 758-5515  
Fax: (412)758-931

### HANIL METAL RECYCLE CO., LTD.

24-4, Palryong-dong, Changwon-Shi  
Kyongsangnam-Do, Korea  
Phone: 082 551 93 1911  
Fax: 082 551 96 0050

### S.N.A.M.

Rue de la Gareene  
Z.I. Chesnes-Tharabie-BP733  
Saint Quentin fallavier  
3827 La Verpilliere Cedex, France  
Phone: 033 74 94 59 85  
Fax: 033 74 94 13 18

### NIPPON RECYCLE CTR. CORP.

6-13-19, Nishitama, Kita-Ku  
Osaka, 530, Japan  
Phone: 081 6 311 9071  
Fax: 081 6 311 0949



For additional information on  
Motorola's batteries, write to:

Motorola  
Worldwide Energy Products  
Division  
Customer Care Department  
(Room 1107)  
8000 West Sunrise Boulevard  
Fort Lauderdale, FL 33322



## General Information

### Radio Care

#### Cleaning

Clean external surfaces of the radio with a mild detergent and a stiff, non-metallic, short-bristled brush. A suitable detergent solution may be mixed by adding one teaspoon of mild dishwashing detergent to one gallon of water (0.5% solution). Apply the detergent solution sparingly with the brush, being careful not to allow excess detergent to remain entrapped near connectors and controls or in cracks and crevices. Do not submerge the radio in the detergent solution. Dry the radio thoroughly with a soft, lint-free cloth.

Clean all battery contacts with a lint-free cloth to remove dirt, grease, or other foreign material that may prevent good electrical connections.

#### Handling

- ⚠ Avoid physical abuse; do not pound, drop, or throw the radio unnecessarily. Do not carry the radio by the antenna.
- ⚠ Avoid subjecting the radio to an excess of liquids. Never allow the radio to become submerged.
- ⚠ Avoid subjecting the radio to corrosives, solvents, or spirits.



Clean the radio with the recommended solution only. Cleaning the radio with solvents or spirits may be harmful and permanently damage the radio housing.

Do not disassemble the radio in any way. Keep the universal connector seal (and accessory jack seal) in place until you are ready to use either accessory connector. Replace the seal immediately after the accessory has been disconnected.

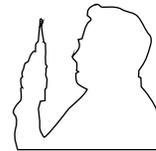
## Safety Standards

The Federal Communications Commission (FCC) has adopted a safety standard for human exposure to radio frequency electromagnetic energy emitted by FCC-regulated equipment. Motorola subscribes to the same safety standard for the use of its products. Proper operation of this radio will result in user exposure substantially below FCC-recommended limits.



### WARNINGS

- ⌘ **Do not** hold the radio with the antenna very close to, or touching, exposed parts of the body, especially the face, ears, or eyes, while transmitting. Hold the radio in a vertical position with the microphone two to three inches away from the lips.
- ⌘ **Do not** allow children to play with any radio equipment containing a transmitter.
- ⌘ **Do not** operate this equipment near electrical blasting caps or in an explosive atmosphere. Under certain conditions, radios can interfere with blasting operations. When you are in the vicinity of construction work, look for, and observe, signs cautioning against radio transmission. If radio transmission is prohibited, you must not transmit until out of the area. Furthermore, *you must turn off* your radio to prevent any accidental transmission.
- ⌘ Do not replace or charge batteries in a hazardous atmosphere. Contact sparking may occur while installing or removing batteries and cause an explosion.



### CAUTIONS

- ⌘ **Do not** hold the push-to-talk (PTT) switch down when not actually desiring to transmit.
- ⌘ Turn radio off when removing or installing a battery.

Anyone intending to use a radio in a hazardous (classified) location is advised to become familiar with the subject of intrinsic safety with Section 70 of the National Fire Code, which is commonly referred to as Article 500 of the National Electric Code. Use of anything but factory-supplied components may affect the approval and safety of the radio. Likewise, it is advised that servicing should be performed by qualified personnel who adhere to the following Factory Mutual (FM) required warnings:



### WARNING

Modification of FM approved intrinsically safe radios will negate Factory Mutual Research Corporation (FMRC) approval.

## Important

FCC Regulations state that:

1. The grantee of a license has the responsibility of assuring that all equipment operated under that license conforms to the specifications of the license.
2. The RF power output of a radio transmitter shall be no more than that required for satisfactory technical operation, considering the area to be covered and local conditions.
3. The frequency stability, deviation, and power of a radio transmitter must be maintained within specified limits. Specifically, FCC Part 90.215 states that the licensee of each station shall employ a suitable procedure to determine that the carrier frequency of each transmitter authorized to operate with an output power in excess of two watts is maintained within the tolerance prescribed in 90.213... It is recommended, therefore, that these three parameters (frequency stability, deviation, and power) be checked before the station is placed in service if modified.

## Service

Proper repair and maintenance procedures will assure efficient operation and long life for this product. A Motorola maintenance agreement will provide expert service to keep this and all other communication equipment in perfect operating condition. A nationwide service organization is provided by Motorola to support maintenance services. Through its maintenance and installation program, Motorola makes available the finest service to those desiring reliable, continuous communications on a contract basis.

**Remember:** The efficiency of the equipment depends upon a good installation. Motorola recommends that adjustments to this equipment be made **ONLY** by a certified technician.

## Service (cont.)

Motorola's Customer Service Division is the largest service organization specializing in mobile communications. It includes over 900 authorized or company-owned stations. In addition, our products are serviced throughout the world by a wide network of company or authorized independent distributor service organizations. For a contract service agreement, please contact your nearest Motorola service representative, authorized Motorola dealer, or Motorola sales representative. If you suspect a radio problem, check the following items before requesting service.

### 1. Radio Checks

- ☒ Be sure the radio is turned on.
- ☒ Be sure to replace or recharge the battery. The first time a new battery is used, it should charge a minimum of 16 hours.
- ☒ Be sure the antenna is threaded on properly; the base flush against radio bushing.
- ☒ Be sure all accessories are properly connected.

### 2. Operating Instructions

Review your operating instructions to ensure proper radio use.

### 3. Problem(s) Not Solved

After following steps 1 and 2, if your radio still exhibits a problem, review your service agreement and call the applicable Motorola service representative.

If you do not have a service agreement on your radio, contact your nearest authorized Motorola service shop for guidance toward a prompt and expedient evaluation and/or repair, or call:

**1-800-247-2346, extension 8615.**

## Product Service Information

If any questions arise, please call Florida Product Services.

1-800-523-4007 or 1-305-475-5269

TELEX: 441464 MOTC UI

FAX: 1-305-475-5984

## Parts Information

7:00 am - 7:00 pm (CST) Monday - Friday (Chicago, U.S.A.)

**Domestic (U.S.A.)** 1-800-422-4210

1-800-826-1913 (Federal Government)

TELEX: 280127

FAX: 1-708-538-8198

FAX: 1-410-712-4991 (Federal Government)

**Domestic (U.S.A.) after hours or weekends**

1-800-925-4357

**International** 1-708-538-8023

TELEX: 403305 MOTO PART SHBU UD

FAX: 1-708-576-3023

TWX: 910-693-0869

**No International weekend service is available.**

## Standard Warranty

All VISAR portable radios are backed by Motorola's one-year parts and labor warranty for protection against defects in material and workmanship.

## 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. 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 that arises by operation of law in the sales of a product.

## Patent Disclosure

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

4,512,035	4,551,856	4,653,117	4,816,774
4,829,594	4,837,853	4,864,252	4,885,550
4,914,321	4,918,403	4,959,617	4,975,650
4,994,768	5,006,730	5,021,754	5,079,526



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