UM525
Marine Radio

Uniden®

Owner's Manual

Maritime Radio Services Operation

Warning! This transmitter will operate on channels/frequencies that have restricted use in the United States. The channel assignments include frequencies assigned for exclusive use of the U.S. Coast Guard, use in Canada, and use in international waters. Operation on these frequencies without proper authorization is strictly forbidden. For frequencies/channels that are currently for use in the U.S. without an individual license, please contact the FCC Call Center at 1-888-CALL-FCC.

For individuals requiring a license, such as commercial users, you should obtain a license application from your nearest FCC field office (for US users) or Industry Canada (for Canadian users).

FCC / Industry Canada Information

Certification ..... FCC Part 80 or RSS-182/188
Output Power ..... 1 Watt (low) and 25 Watts (high)
Emission 16K0F3E, 16K0F2D
Transmitter Frequency Range ..... 156.025 to 157.425 MHz
FCC Identifier AMWUT601
IC Certification Number 513C-UT601

This device complies with the GMDSS provisions with Part 80 of the *FCC Rules*, as well as Part 15 of the *FCC Rules*. Operation is subject to the condition that this device does not cause harmful interference.

Unauthorized changes or modifications to this equipment may void compliance with the *FCC Rules*. Any change or modification must be approved in writing by Uniden Corporation. Changes or modifications not approved by Uniden could void the user's authority to operate the equipment.

The cords on this product and/or accessories contain lead, a chemical known to the State of California to cause birth defects or other reproductive harm. *Wash hands after handling.* Uniden works to reduce lead content in our PVC coated cords in our products and accessories.

Contents

About Digital Selective Calling

The U.S. Coast Guard and other rescue authorities offer radiotelephone service to mariners as part of the Global Maritime Distress and Safety System. This service, known as Digital Selective Calling (DSC), lets mariners instantly send automatically formatted distress alerts to rescue authorities anywhere in the world. Digital selective calling also lets mariners initiate or receive distress, urgency, safety and routine radiotelephone calls to or from any similarly equipped vessel or shore station, without requiring either party to be near a radio loudspeaker. DSC acts like the dial and bell of a telephone, allowing you to “direct dial” and “ring” other radios, or allow others to “ring” you, without having to listen to a speaker.

Your radio's DSC Call feature lets you transmit and receive DSC Calls based on ITU-R M.493-11. You can send a distress message in an emergency situation, send and receive position data to and from other vessels, and set up and use a directory of other vessels with DSC radios.

You can also use the radio's NMEA input and output feature to display and use vessel information. DSC calls your radio can send and receive include distress, individual, individual ack, ALL SHIPS, group, position request, position reply, and position send. DSC calls your radio can receive include distress ack, geographic, distress relay, and distress relay ack.

Introduction

Your Uniden UM-525 Marine Radio combines state-of-the-art technology with rugged durability and ease of use. The radio's all solid-state design and conservatively-rated components and materials make it an ideal choice for harsh marine environments. The radio's large display and backlit control buttons make it easy to use even in extreme lighting and weather conditions.

The radio's memory channel scan feature lets you set it so it quickly scans and tunes only the channels you select. The Triple Watch feature lets you easily scan emergency channels along with any channel you want, and you can tune emergency channels by pressing a single button. The weather alert features let you monitor weather alert broadcasts and even sound an audible alarm if bad weather is reported in an area you specify.

You can connect an optional GPS module to the radio to help keep track of your current location with space-age precision. You can connect and use a wide variety of optional equipment with the radio, including an FMB321 flush mount, hailer horn, GPS module, wireless microphones, and a plotter. You can connect and use WHAM and WHAM x 4 wireless microphones with the radio, making onboard communications as flexible as you need them to be. You can even install an optional scrambler board in the radio and use the radio's scrambler feature, letting you communicate privately with other vessels that have a scrambler installed.

You should read the rest of this Operating Guide thoroughly to acquaint yourself with all of your radio's features and functions. Save your receipt as proof-of-purchase in case you ever need to have warranty service on the radio. Features, specifications, and availability of optional accessories are all subject to change without notice.

Note: Your radio meets the stringent JIS7 waterproof specification. This means that the radio and microphone can be submerged to a depth of 1 meter for up to 30 minutes without incurring damage.

Feature Highlights

General Features

Memory Channel Scan - You can set the radio so it scans only the channels you select.

Triple Watch - The radio lets you scan Coast Guard/Distress/Hailing Channel 16, secondary Coast Guard/Distress/Hailing Channel 9, and the currently selected channel in order.

Memory Channel Step - You can set the radio so it quickly tunes channels saved in the radio's memory.

One-Touch Emergency Channel - You can quickly tune the radio to Coast Guard/Distress/Hailing Channel 16 and secondary Coast Guard/Distress/Hailing Channel 9 by pressing a single button.

Hi/Lo Transmit Power - You can set the radio's transmit power to 25 watts or 1 watt.

Channel Mode - You can set the radio's channel mode to USA, INT (international), or CAN (Canada).

Contrast Adjustment - You can adjust the display's contrast to make it easier to see in extreme conditions.

Display Backlight/Key Light Adjustment - You can adjust the brightness of the display and the keys on the radio to make them easier to see in extreme conditions.

Key Beep Adjustment - You can adjust the volume of the tone you hear when you press a key.

Self Test - The radio automatically tests its hardware and displays the test results.

Channel Tag - Lets you change the channel name that appears when you tune a channel.

Auto Position Reply Disable - You can set the radio so when it receives a position request call, it does not automatically reply with your current position.

Standby - You can set the radio to its unattended mode.

Receive Log - You can set the radio so it records a log of received calls. You can view the receive log, making it easy to see when somebody calls your vessel.

Weather Features

WX Alert Decode Mode - You can set your radio to monitor a selected weather radio channel for weather emergency signals or SAME (Specific Area Message Encoding) alerts for areas you specify. This lets you receive the earliest possible warning when bad weather is in the area or a national, regional, or local emergency has been detected.

FIPS Code Programming - You can program your radio with up to 30 FIPS (Federal Information Processing Standard) codes for the areas you desire. If the radio receives a SAME alert tone, it checks it against the FIPS codes you programmed and alerts you if it finds a match.

DSC Features

DSC Call - You can use the radio to transmit and receive DSC Call information. See “Using the DSC Call Menu” on Page 28 for more information about DSC Call.

DSC Directory - You can set up a directory of other vessels that have a DSC-capable radio with a Maritime Mobile Service Identity (MMSI) number.

Auto Channel Switch Disable - You can set the radio so it does not automatically change the channel when it receives a DSC Call. The radio automatically sends a signal to the calling vessel that shows that your vessel's radio is unattended, and does not tune to the requested channel.

Optional Features

Scrambler - If you install an optional scrambler board in the radio, you can set the radio so it scrambles your voice when you transmit, helping you avoid being overheard by other vessels.

Hailer Features - You can use these features if you connect an optional hail horn to the radio.

- **Loud Hailer** - You can use the radio to talk and listen using the speaker.
- **Fog Horn** - You can use the radio to sound a fog horn. If you connect a GPS receiver to the radio, the radio can even sound the appropriate fog horn sound based on its location and situation.

GPS Features - You can use these features if you connect an optional GPS receiver to the radio.

- **GPS Intuitive** - The radio automatically suggests the correct channel mode based on its current location (USA, International, and Canadian channels).
- **Automatic Local Time Setting** - The radio sets itself to the correct local time.
- **Automatic Fog Horn** - The radio sounds the appropriate fog horn sound based on its location and situation.

- **NMEA Input** - The radio displays information such as your vessel's latitude and longitude, speed and course, and the date and time. You can also send position information and GPS Intuitive data using this feature.
- **NMEA Output** - The radio automatically passes received DSC information to an optional connected chart plotter.

WHAM Input - If you connect an optional 900 MHz analog WHAM microphone to the radio, you can use it to control the radio from almost anywhere aboard your vessel.

WHAM x 4 Input - If you connect an optional 2.4 GHz digital WHAM x 4 microphone to the radio, you can use it to control the radio from almost anywhere aboard your vessel, and each WHAM x 4 user can communicate with each other. You can also use the radio's intercom function to communicate with each WHAM x 4 user. You can even use a second base radio as an intercom.

Understanding Your Radio

About This Manual

The screen displays used in this manual are representations of what might appear when you use your radio. Since what you see depends on the frequencies for your area and the settings you select, you might notice some differences between what is in this manual and what appears on your radio's display. Buttons you press appear in **bold** type and text that appears on the display appears in *italic* type.

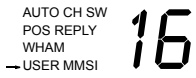
How The Radio's Controls Appear in This Manual

To help navigate the radio's menus, the steps shown in this manual describe the displays you see and the keys you press or control you operate to get a desired result.

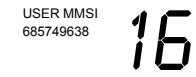
This example shows you how to use the radio's menu to program a user MMSI for the first time. It shows you the control to use (**PUSH/SELECT**) to view a series of choices and the correct option to select (USER MMSI) as you rotate **PUSH/SELECT**. It also instructs you to press **PUSH/SELECT** to select the option.

Important: If you have already set the user MMSI, **do not change it** unless you have received a new user MMSI. After you program a user MMSI for the first time, you can only change it once more. If you try to change the user MMSI a third time, the radio will not accept the change. To change the user MMSI again, you must return the radio to Uniden for reprogramming.

1. Rotate **PUSH/SELECT** to select *USER MMSI*, then press **PUSH/SELECT** to select it.

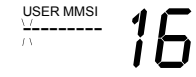


If a user MMSI has already n programmed, you see the following screen. **Stop here**.



If a user MMSI has already been programmed twice, you see the following screen. **Stop here**.

Otherwise, if a user MMSI has not been programmed, you see the following screen.



2. To enter the first digit of the user MMSI, rotate **PUSH/SELECT** until the digit appears, then press **PUSH/SELECT**. The digit you entered appears and the flashing cursor moves to the next position.

3. Repeat Step 2 for each of the user MMSI's digits. When you have entered each of the user MMSI's digits, a confirmation screen appears.

4. If the displayed user MMSI is correct, rotate **PUSH/SELECT** to select *YES*, then press **PUSH/SELECT** to confirm it. The setup menu appears.

   Otherwise, If the displayed user MMSI is not correct, rotate **PUSH/SELECT** to select *NO*, then press **PUSH/SELECT** to confirm it. Then repeat Steps 2 and 3 to enter the correct user MMSI.

If you are new to using a marine radio, be sure to read “About Digital Selective Calling” on Page 6 for a quick background on DSC technology. The first thing you will need to do is connect an antenna and power to the radio. Then you will need to install the radio aboard your vessel. See “Connecting the Antenna” on Page 15, “Connecting Power” on Page 15, and “Installation” on Page 15 if you need any help doing this.

Included With the Radio

illustration - show radio, supplied mic, owners manual, and any other items supplied with the radio in the gift box

Controls and Indicators

Front Panel

(illus - show front panel, with callouts to controls)

Microphone

(illus - show microphone, with callouts to buttons)

Rear Panel Connectors

illustration

(illus - show rear panel, with callouts to controls and jacks)

Setting Up the Radio

Connecting the Antenna

Your UM-525 has been designed to accommodate all of the popular marine VHF antennas. However, the selection and the installation of the antenna is the responsibility of the user or installer. A variety of antennas are available from a number of quality suppliers. In general, we recommend an 8' antenna rated at 6dB for powerboats, and a 4' antenna rated at 3dB for sailboats.

In general, you can increase your communication range by using a high-gain antenna placed as high as possible above the water line. Locate the antenna away from metal objects. Keep coax feed cables as short as practical.

The FCC has determined that excessive radiation poses a health risk to people near radio transmitting antennas. Therefore, the antenna used with this radio should be installed using the following guidelines to ensure a suitable distance between the antenna and persons close by.

- Small whip antennas (3 dB) or smaller should be installed keeping at least 3 feet separation distance between the radiating element and people.
- Larger antennas (6 dB or 9 dB) should be installed keeping at least a 6 feet separation distance.
- No person should touch the antenna or come closer than the separation distance when the radio is transmitting.

To connect the antenna to the radio, screw its connector onto the antenna jack on the back of the radio.

Connecting Power

1. Connect the red wire of the supplied power cord to the positive (+) side of your distribution circuit or battery.
2. Connect the black wire of the supplied power cord to the negative (-) side of your distribution circuit or battery.

   Note: The power cord is equipped with a fuse to protect the radio. Use only a six (6) amp fast blow fuse for replacement.
3. Connect the power cord to the keyed connector on the power “pigtail”.

Installation

Caution: The UM-525 is designed to use a nominal 13.8 volt negative ground battery system for power. Do not use a positive ground battery system to power the UM-525.

Keep in mind the flexibility designed into the UM-525 so that you can most conveniently use it. Features which should be considered are:

- The universal mounting bracket may be installed on either the top or bottom of a shelf, on a bulkhead, or for overhead mounting.
- The remote speaker wires can be used with an auxiliary speaker.
- All connections are “plug-in” type for easy removal of the radio.
- By using an optional WHAM or WHAM x 4 (Wireless Handheld Access Microphone), the UM-525 can be mounted completely out of the way.
- Also optionally available is a flush mount bracket (FMB321).

Choosing a Location

Here are some important factors to consider in selecting the location for your UM-525.

- The UM-525 is completely waterproof, but will last longer if protected from spray and splash.
- Keep the battery leads as short as possible. Direct connection to the battery is most desirable. If direct connection can not be made with the supplied power lead, any extension should be made with #12-14 AWG wire. Long extensions should use larger gauge wire.
- Keep the antenna lead-in wire as short as possible. If you must use a long lead-in wire as in the case of a sailboat masthead antenna installation, we recommend you upgrade your lead-in wire according to the following table:

  RG-58 <20'
  RG-8X <35'
  RG-8U <60'

- Locate your antenna as high as possible and clear from metal objects. The reliable range of coverage is a direct function of the antenna height.
- Select a location that allows free air flow around the heat sink on the rear of the radio.
- Select a location well away from the ship's compass. Auxiliary speakers also should be located away from the compass.

Engine Noise Suppression

Interference from the noise generated by the electrical systems of engines is sometimes a problem with radios. The UM-525 has been designed to be essentially impervious to ignition noise and alternator noise. However, in some installations it may be necessary to take measures to further reduce the effect of noise interference. The UM-525 radio DC battery wires, antenna lead, and accessory cables should be routed away from the engine and engine compartment, and from power cabling carrying high currents.

In severe cases of noise interference, it may be necessary to install a noise suppression kit. Contact the dealer where you purchased the radio for more information.

Installing the Radio

After you have carefully considered the various factors affecting your choice of location, follow these steps to install the radio.

1. Position the radio (with the bracket, microphone, power cord, antenna and any auxiliary cables installed) into the selected location to assure there is no interference with the surrounding items.
2. Mark the location of the mounting bracket.
3. Remove the bracket from the radio and use it as a template to mark the holes to be drilled for the mounting hardware.
4. Drill the holes and mount the bracket with hardware compatible with the material of the mounting surface.

   Note: Do not use mounting knobs other than the ones supplied. Do not insert the knobs without attaching the bracket.

5. Connect all other auxiliary cables and accessories.
6. Install the radio in the mounting bracket and connect all cables and accessories to the appropriate jacks and connectors.

Using a WHAM Microphone With the Radio

To connect a WHAM microphone to the radio, follow the steps listed in “Setting Up a WHAM” on Page 40. Then refer to the owners manual provided with the WHAM microphone for more information about connecting it to the radio.

A Look at the Radio

(illus - show controls on the front of the radio)

VOL - Rotate to adjust the volume.

SQL - Rotate to adjust the squelch.

PUSH/SELECT - Rotate to tune channels and highlight menu items you want to select, then press to select the channel you tuned or the item you selected.

PWR - Press to turn the radio on or off.

16/9 TRI - Press once to quickly tune to EMG Channel 16. Press again to quickly tune to EMG Channel 9. Press again to quickly tune to the previously-tuned channel. Hold down for 2 seconds to set the radio to the Triple Watch mode (see “Using Triple Watch” on Page 26).

STEP/SCAN - Repeatedly press to step through each channel in memory. Hold down for 2 seconds to use the radio's channel scan feature (see “Scanning Memory Channels” on Page 26).

HAIL/INTERCOM - Press to turn on the hailer. Hold down for 2 seconds to use the radio's intercom feature (see “Using the Intercom” on Page 24).

HI/LO/SCRAMBLER - Press to change the radio's output power. Hold down for 2 seconds to turn on the optional scrambler feature (see “Using the Scrambler” on Page 48).

DISTRESS - Press to send a distress call (see “Making a DSC Distress Call” on Page 46).

WX/ALERT - Press to listen to the active weather channel in your area. The currently-tuned weather channel's channel number appears on the display. Hold down for 2 seconds to set the radio to the weather alert mode (see “Using the Weather Function” on Page 48.

MEM/UIC - Press to add or delete the currently-tuned channel from the scan memory. Hold down for 2 seconds to change the channel's mode (USA/CAN/INT).

MENU - Press to use the menu for the DSC Call, Fog Horn, System, and Setup functions.

A Look at the Microphone

PTT - Press to send a transmission.

^/v - Repeatedly press to tune channels and highlight menu items you want to select.

16/9 TRI - Press once to quickly tune to EMG Channel 16. Press again to quickly tune to EMG Channel 9. Press again to quickly tune to the previously-tuned channel.

A Look at the Display

Status Icons

(illus - show a representation of the display with all status icons present)

TX - Appears while the radio is transmitting.

TRI - Appears while the radio is set to its Triple Watch mode.

LO - Appears while the transmit power is set to 1 watt.

HI - Appears while the transmit power is set to 25 watts.

USA - Appears while the radio is set to its USA channel mode.

INT - Appears while the radio is set to its international channel mode.

CAN - Appears while the radio is set to its Canada channel mode.

Note: The radio uses an optional GPS module connected to it to determine if it is set to its USA, international, or Canada channel mode.

MEM - Appears when the currently-tuned channel is in the radio's memory.

WX - Appears while the radio is set to its WX mode.

ALERT - Appears while the radio is set to its WX Alert mode.

Status Messages

Displayed messages appear on the third line of the display. The radio displays multiple messages in turn for 5 seconds each.

GPS OK - Appears when a connected GPS module is working properly.

CHECK GPS - Appears when a connected GPS module is not working properly.

INPUT POS - Appears if the radio has not received valid GPS data for over 1 hour.

WHAM OK - Appears when a connected WHAM or WHAM x 4 microphone is working properly.

Note: *WHAM OK* appears when an optional WHAM microphone is connected to the radio, even if the WHAM microphone cannot communicate with the radio. *WHAM OK* appears when at least one optional WHAM x 4 microphone is connected to the radio, even if any WHAM x 4 microphone cannot communicate with the radio.

CHECK WHAM - Appears when a WHAM or WHAM x 4 microphone is not connected to the radio or is not working properly.

SCRAMBLE ON - Appears when an installed scrambler board is working and the scrambler is turned on.

USA AREA - Appears when the UIC is not set to USA mode, but the vessel is currently in a USA area.

INT AREA - Appears when the UIC is not set to INT mode, but the vessel is currently in an INT area.

CAN AREA - Appears when the UIC is not set to CAN mode, but the vessel is currently in a CAN area.

AUTO FOG - Appears when the radio is set to its automatic fog horn feature.

MANUAL FOG - Appears when the radio is set to its manual fog horn feature.

UNDERWAY FOG - Appears when the radio is set to its under way fog horn feature.

STOP FOG - Appears when the radio is set to its stop fog horn feature.

SAIL FOG - Appears when the radio is set to its sail fog horn feature.

TOW FOG - Appears when the radio is set to its tow fog horn feature.

ANCHOR FOG - Appears when the radio is set to its anchor fog horn feature.

AGROUND FOG - Appears when the radio is set to its aground fog horn feature.

YELP FOG - Appears when the radio is set to its yelp fog horn feature.

BATTERY LOW - Appears when the battery connected to the radio is low.

BATTERY HIGH - Appears when the battery connected to the radio is high.

Basic Operation

Turning the Radio On and Off

Press **PWR** to turn on the radio. The radio sounds a tone and *USER MMSI* and a user MMSI number appear (if you have already set a user MMSI) or *NO USER MMSI* appears (if you have not set a user MMSI).

Notes:

- If the radio is set to EMG (emergency) mode or WX (weather) mode, it automatically tunes to the last channel you selected when you turn it on. Otherwise, if the radio is in Scan mode, it tunes to the first channel in the scan list.
- If the radio is turned on for at least 3 seconds, it remembers the last channel you tuned when you turn it off. Then, it tunes to that channel when you turn it back on.
- If you hold down **MENU** while turning on the radio, the Contrast level screen appears. You can use this screen to set the contrast (see “Adjusting the Contrast” on Page 44).

Press **PWR** again to turn off the radio.

Selecting a Channel

Rotate **PUSH/SELECT** to select a channel. Rotating **PUSH/SELECT** clockwise tunes forward through the channels, while rotating **PUSH/SELECT** counterclockwise tunes backward through the channels. The channel indicator shows the currently-tuned channel.

If the radio is set to MRN (marine) mode, channel numbers appear as two digits. If the radio is set to WX mode, channel numbers appear as one digit.

Notes:

- If *A* appears next to a channel number, this indicates the channel is in the simplex mode on the ship station transmit side of an international duplex channel.
- You cannot use **PUSH/SELECT** to select Channel 70. Channel 70 is used only in DSC mode.

Transmitting and Receiving

To transmit, hold down PTT on the microphone. **TX** appears. Release PTT to receive. **TX** disappears.

Notes:

- If the radio is set to transmit at low power, you can change to high power by pressing **HI/LO/SCRAMBLER** while transmitting.

- If you transmit continuously for longer than 5 minutes, **TX** and the channel number blink and the radio stops transmitting. This warns you that the PTT button might be stuck. To resume transmitting, release the PTT button then press it again.
- The radio cannot transmit on Channel 15 (USA).
- If you hold down **PTT** while turning on the radio, the radio sounds an error tone and **TX** and the channel number blink. No key except **HI/LO/SCRAMBLER** works.
- You cannot transmit while the radio is set to WX mode, Scan mode, or Triple Watch mode. If you press **PTT** while the radio is set to Scan mode or Triple Watch mode, the radio cancels that mode but does not transmit.
- The radio cannot transmit voice data on Channel 70. Only DSC data such as Distress Call can be transmitted on Channel 70.

Adjusting the Transmit Power

Repeatedly press **HI/LO/SCRAMBLER** to adjust the transmit power. If the transmit power on the currently tuned channel is set to Hi (25W), pressing **HI/LO/SCRAMBLER** changes it to Lo (1W), and **LO** appears. If the transmit power on the currently tuned channel is set to Lo, pressing **HI/LO/SCRAMBLER** changes it to Hi, and **HI** appears.

Important: The radio automatically sets itself to low transmit power if you tune to Channels 13, 67, 75, or 76. Although you cannot change the transmit power to high on Channel 75 or Channel 76, you can change the transmit power to high on Channel 13 or Channel 67 by holding down **Hi/Lo/SCRAMBLER** while transmitting on those channels.

Notes:

- You cannot change the transmit power if the radio is set to Scan mode.
- The radio automatically sets itself to high transmit power if you use **PUSH/SELECT** to tune to Channel 16, press **16/9 TRI**, or it receives a distress call. The radio sets itself back to low power if you use **PUSH/SELECT** to select another channel.

Using Scan

The radio has two scan options available; normal scan and Triple Watch scan. Normal scan lets you quickly scan and tune only those channels you select. Triple Watch lets you easily scan emergency channels along with a channel you select.

Note: If you hold down **STEP/SCAN** while the radio is set to WX mode or EMG mode, it cancels that mode and starts memory channel scanning.

Using Normal Scan

To use normal scan, hold down **16/9 TRI** for about 2 seconds if the radio is set to Triple Watch (see “Using Triple Watch” on Page 26). The radio scans any channels you saved to its memory and *SCANNING* appears.

Notes:

- If you use normal scan, the radio does not scan any emergency channels. Use Triple Watch (see “Using Triple Watch” on Page 26) to scan emergency channels.
- You must save at least one channel in the radio's memory to use normal scan. See “Saving Channels in Memory” on Page 26 for more information.

Using Triple Watch Scan

To use Triple Watch scan, hold down **STEP/SCAN** for about 2 seconds. The radio scans emergency Channel 16, Channel 9, and the current memory channel. **TRI** appears.

Note: You must save at least one channel in the radio's memory to use Triple Watch scan. See “Saving Channels in Memory” on Page 26 for more information.

Using Step

Step lets you quickly tune through the channels you saved in the radio's memory.To use step, repeatedly press **STEP/SCAN**. The radio tunes a channel you stored in the memory each time you press **STEP/SCAN**.

Using Channel Mode

Repeatedly press **MEM/UIC** to change the radio mode from USA to INTERNATIONAL to CANADIAN. *USA*, *INT*, or *CAN* appears on the display. The radio saves the current channel mode setting when you turn it off then turn it back on.

Note: Scan mode, WX mode, and EMG mode are cancelled when you press **MEM/UIC**.

Using Hail

Notes:

- You must connect an optional hailer horn to the radio to use the hail feature.
- If the radio receives a DSC call while the radio is set to the hail mode, information about the call appears on the display for about 5 seconds.

To use the hail feature, press **HAIL/INTERCOM** then press **PTT** on the microphone to speak. *HA* and *TALK* appear. Release **PTT** to listen. *LISTEN* appears and you hear any response to your hail through the radio's speaker. To adjust the hail volume, repeatedly press + and - on the microphone or rotate **PUSH/SELECT** on the radio. To exit hail, press **HAIL/INTERCOM** again.

Using the Intercom

The intercom feature lets you call optional WHAM x 4 microphones connected to the radio. You can select and call one microphone, a group of microphones, or each microphone connected to the radio.

Notes:

- WHAM x 4 microphone users can also call each other and the radio.
- WHAM x 4 microphone users cannot receive MRN signals received by the radio.
- If the radio receives a DSC call while the radio is set to the intercom mode, information about the call appears on the display for about 5 seconds.
- If any WHAM x 4 microphone user cannot connect with the radio, intercom does not work and the radio sounds an error tone.
- Intercom mode is cancelled if **16/9 TRI** or **DISTRESS** is pressed.

Follow these steps to use the intercom.

1. Hold down **HAIL/INTERCOM**.
2. Follow one of these steps to select the WHAM x 4 microphone or microphones you want to talk to.

   a. To select one WHAM x 4 microphone, rotate **PUSH/SELECT** until the WHAM x 4 microphone you want to talk to is highlighted, then press **PUSH/SELECT** to select it.

   b. To select a group of WHAM x 4 microphones, rotate **PUSH/SELECT** until *GROUP* is highlighted, then press **PUSH/SELECT** to select it. A screen appears you can use to select the WHAM x 4 microphones you want to talk to. For each WHAM x 4 microphone you want to talk to, rotate **PUSH/SELECT** to select it, then press **PUSH/SELECT**.

   Note: Only those WHAM x 4 microphones or sub radios with which the radio can communicate appear on the display.

   c. To select all connected WHAM x 4 microphones, rotate **PUSH/SELECT** until *ALL* is highlighted, then press **PUSH/SELECT** to select it.
3. Press **PTT** on the microphone to speak. *INTERCOM*, the name of the WHAM x 4 microphone or microphones you selected, and *TALK* appear. Release PTT to listen. *LISTEN* appears and you hear any response from the WHAM x 4 microphone or microphones you selected through the radio's speaker.
4. To exit intercom, press **HAIL/INTERCOM** again.

Using GPS

Your radio can display GPS information if you connect an optional GPS module to it. If the GPS module is properly connected to the radio and is working, *GPS OK* appears on the radio's display. Otherwise, *CHECK GPS* appears.

Press **PUSH/SELECT** to display the current GPS mode, date, time, speed, course, latitude, and longitude. Press **PUSH/SELECT** again to set the radio to its marine mode.

Notes:

- You cannot set the radio to its GPS mode until it receives valid GPS data at least once.
- If the radio is not receiving valid data from the connected GPS module, the GPS data that appears blinks.
- If you press any key except DISTRESS, HAIL/INTERCOM or MENU, the radio sets itself to its MRN mode. If you do not press any key, the radio sets itself to GPS mode.

Using Position Setting Mode

To set the radio to its position setting mode, hold down **PUSH/SELECT** for about 2 seconds or press **PUSH/SELECT** when the radio is set to its MRN mode and does not have a GPS module connected. A screen appears that you can use to set the UTC time, latitude, and longitude used with DSC call.

To save the UTC time, latitude, and longitude you set, hold down **PUSH/SELECT** for about 2 seconds.

Notes:

- When you set the time in position setting mode, be sure to set it to the current UTC time, not local time.
- If the radio doesn't receive valid GPS data at least once, you cannot set it to position setting mode.
- If the radio does not receive valid GPS data, it sounds a tone and INPUT POS appears.
- The radio automatically alerts you if the UIC is currently set to a location but the vessel is actually in another area's territorial waters. For example, the radio alerts you if the UIC is set to USA but the vessel is actually in Canadian waters.

Using Battery Hi/Lo Detect

The radio alerts you if the connected battery is providing too much or not enough power. If the battery is providing more than 16 volts, *BATTERY HIGH* appears. If the battery is providing less than 11 volts, *BATTERY LOW* appears.

Using 16/9 TRI

Press **16/9 TRI** once to quickly tune the radio to Channel 16. Press **16/9 TRI** again to quickly tune the radio to Channel 9. Press **16/9 TRI** a third time to quickly tune the radio to the channel you tuned before you pressed **16/9 TRI**.

Notes:

- Pressing **16/9 TRI** cancels WX mode if the radio is set to WX mode.
- Pressing **16/9 TRI** stops the radio from scanning if the radio is set to Scan mode.
- Pressing **16/9 TRI** cancels Scan mode if the radio is set to EMG mode.
- The radio cancels EMG mode if you press **WX**, hold down **Hi/Lo/SCAN**, or rotate **PUSH/SELECT**.

Using Memory Channel

Saving Channels in Memory

You can save channels you tune in USA, CAN, or INT mode into the radio's memory. This makes it easy to quickly tune the channels again. To save a channel, tune the channel then hold down **SCAN/MEM** for 2 seconds to save it. **MEM** appears. To delete a channel from memory, tune the channel you want to delete then hold down **SCAN/MEM** for 2 seconds. **MEM** disappears.

Notes:

- You cannot save a memory channel in WX mode.
- You must store more than one channel in the memory for memory channel scan to work.

Scanning Memory Channels

You can scan channels you saved in the radio's memory. This lets you quickly access and tune them. To scan memory channels, repeatedly press **SCAN/MEM**. Each channel you saved appears each time you press **SCAN/MEM**.

Using Triple Watch

Triple Watch scans Channel 9 and Channel 16 every 2 seconds. If the radio detects a transmission on Channel 9 or Channel 16 while set to Triple Watch, the channel indicator blinks.

Hold down **16/9 TRI** for about 2 seconds to turn Triple Watch on or off. If Triple Watch is off, *TRI* appears and Triple Watch is turned on. If Triple Watch is on, *TRI* disappears and Triple Watch is turned off.

Notes:

- If Channel 9 is busy, the radio scans EMG Channel 9 and EMG Channel 16 in turn.
- If you turn on Triple Watch and Channel 16 is busy, the radio receives EMG Channel 16.
- If you turn on Triple Watch while the radio is set to EMG mode, the radio scans EMG Channel 16, EMG Channel 9, and the last MRN channel (Channel 16 or Channel 9).
- If you turn on Triple Watch while the radio is set to WX mode, the radio scans EMG Channel 16, EMG Channel 9, and the WX channel.
- Triple Watch resumes if the signal of the channel you tuned is lost for 3 seconds.
- If the radio is scanning EMG Channel 9 or EMG Channel 16, only the CH indicator changes. The channel tag display does not change.

Using the Radio's Menus

To use the radio's menus, press **MENU**. A screen appears containing options you can select to work with the radio's features.

To select an option, rotate **PUSH/SELECT** to highlight the option you want, then press **PUSH/SELECT** to select it. In most cases, one or more additional pages of options appear on the display. To return to the previous menu, press **MENU**. To exit, select *EXIT* or hold down **MENU** for 2 seconds.

- *DSC CALL* - Lets you select and work with DSC Call options. See "Using the DSC Call Menu".
- *FOG HORN* - Lets you select and work with fog horn options. See "Using the Fog Horn Menu" on Page 34.
- *WHAM PAGE* - Lets you select and work with WHAM page options. See "Using the WHAM Page Menu" on Page 36.
- *SYSTEM* - Lets you select and work with system options. See "Using the System Menu" on Page 44.
- *SETUP* - Lets you select and work with setup options. See "Using the Setup Menu" on Page 36.
- *EXIT* - Exits the menu.

Using the DSC Call Menu

The radio's DSC Call feature lets you transmit and receive DSC Calls based on ITU-R M.493-11. The radio supports the following DSC calls.

Call	Receive	Transmit
Distress	Yes	Yes
Distress Ack	Yes	No
Individual	Yes	Yes
Individual Ack	Yes	Yes
ALL SHIPS	Yes	Yes
Group	Yes	Yes
Position Request	Yes	Yes
Position Reply	Yes	Yes
Position Send	Yes	Yes
Geographic	Yes	No
Distress Relay	Yes	No
Distress Relay Ack	Yes	No

To select the DSC Call menu, rotate **PUSH/SELECT** to select *DSC CALL*, then press **PUSH/SELECT** to select it.

Using DSC Individual Call

DSC individual call lets you transmit DSC Calls to an individual station. You can also receive DSC calls from other stations.

1. Rotate **PUSH/SELECT** to select *INDIVIDUAL*, then press **PUSH/SELECT** to select it. A screen showing the stations saved in the directory appears.
2. Follow one of these steps to select the station where you want to send a DSC call.

   a. To select a station by vessel name, rotate **PUSH/SELECT** until the name of the station you want to talk to is highlighted, then press **PUSH/SELECT** to select it.

   b. To select a station by its user MMSI, rotate **PUSH/SELECT** until *MANUAL* is highlighted, then press **PUSH/SELECT** to select it. A screen appears you can use to enter the user MMSI. After you enter the user MMSI, press **PUSH/SELECT**. The channel select screen appears.
3. Rotate **PUSH/SELECT** to select the channel you want to use, then press **PUSH/SELECT** to select it. A confirmation screen appears.
4. To send a DSC call to the station you selected, rotate **PUSH/SELECT** to select SEND, then press **PUSH/SELECT** to select it. DSC appears and the radio transmits the DSC call. Otherwise, to cancel the transmission, rotate **PUSH/SELECT** to select *CANCEL*, then press **PUSH/SELECT** to select it.
5. When you receive an acknowledgement from the station you called and the station is staffed, the radio sounds a tone and the receiving station name or user MMSI, category code, *COMPLETED*, and the channel number appear.

   Otherwise, if you receive an acknowledgement from the station you called and the station is unattended, the radio sounds a tone and the receiving station name or user MMSI, category code, *UNATTENDED*, and the channel number appear. Press any key to turn off the tone.
6. If you receive a DSC call from another radio, the radio sounds a tone.

   a. To reply with an individual acknowledgement, rotate **PUSH/SELECT** until *REPLY* is highlighted, then press **PUSH/SELECT** to select it.

   b. If the radio is in its standby mode, the radio automatically sends an individual acknowledgement. Your radio's station name or user MMSI, category code, *INDIVIDUAL*, and the channel number appear on the display of the calling radio.

Notes:

- The radio automatically sets itself to high power when it sends a DSC call.
- If a DSC call includes channel information and the automatic channel switch feature is turned on, the radio automatically changes the channel.

Using DSC Group Call

DSC group call lets you transmit a DSC call to a group of stations with the same group MMSI. You can also receive DSC group calls from other stations.

Notes:

- You must set a group MMSI before you can use DSC group call. See “Setting Up a Group MMSI” on Page 42 for more information.
- The radio automatically sets itself to low power when it sends a DSC group call.

1. Rotate **PUSH/SELECT** to select *GROUP*, then press **PUSH/SELECT** to select it.
2. Repeat Steps 1-5 under “Using DSC Individual Call” on Page 29 to send a DSC group call.

If you receive a DSC group call from another radio, the radio sounds a tone.

Using DSC ALL SHIPS Call

DSC ALL SHIPS call lets you transmit DSC Calls to all ships. You can also receive DSC ALL SHIPS calls from other stations. DSC ALL SHIPS calls consist of URGENCY and SAFETY calls.

Note: The radio automatically sets itself to high power when it sends a DSC ALL SHIPS call.

1. Rotate **PUSH/SELECT** to select *ALL SHIPS*, then press **PUSH/SELECT** to select it.
2. To select the type of DSC ALL SHIPS call you want to send, rotate **PUSH/SELECT** until *URGENCY* or *SAFETY* is highlighted, then press **PUSH/SELECT** to select it.

To send the DSC ALL SHIPS call you selected, rotate **PUSH/SELECT** to select *SEND*, then press **PUSH/SELECT** to select it.

DSC appears and the radio transmits the DSC call on Channel 70. After the radio sends the DSC ALL SHIPS call, it automatically tunes to emergency Channel 16.

Otherwise, to cancel the transmission, rotate **PUSH/SELECT** to select *CANCEL*, then press **PUSH/SELECT** to select it.

If the radio receives a DSC ALL SHIPS call, the radio sounds a tone.

Your radio and the sending radio automatically tune to Channel 70 until your radio receives all data, then both radios automatically tune to emergency Channel 16 for transmissions and replies.

Using DSC Position Request Call

DSC position request call lets you request the position of another vessel, then saves that position. The radio automatically sets itself to high power when it sends a DSC position request call.

1. Rotate **PUSH/SELECT** to select *POS.REQUEST*, then press **PUSH/SELECT** to select it. A screen showing the stations saved in the radio's directory appears.
2. Follow one of these steps to select the station where you want to send a position request call.

   a. To select a station by vessel name, rotate **PUSH/SELECT** until the name of the station is highlighted, then press **PUSH/SELECT** to select it.

   b. To select a station manually, rotate **PUSH/SELECT** until *MANUAL* is highlighted, then press **PUSH/SELECT** to select it.

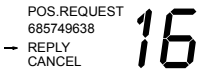
   A screen appears you can use to enter the user MMSI. After you enter the user MMSI, press **PUSH/SELECT**. A screen appears where you can confirm or cancel sending a position request.

3. To send the position request call you selected, rotate **PUSH/SELECT** to select *SEND*, then press **PUSH/SELECT** to select it. The radio transmits the position request call.

   Otherwise, to cancel the transmission, rotate **PUSH/SELECT** to select *CANCEL*, then press **PUSH/SELECT** to select it.

4. If the radio receives a position request call and position reply is set to *AUTO*, the following screen appears.

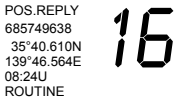
   Otherwise, if position reply is set to *MANUAL*, the following screen appears.



5. To reply to a position request call, rotate **PUSH/SELECT** to select *REPLY*, then press **PUSH/SELECT** to select it. The radio transmits the position request call.

   Otherwise, to not reply to the position request call, rotate **PUSH/SELECT** to select *CANCEL*, then press **PUSH/SELECT** to select it.

If you receive a position request call containing position information from another radio, the following screen appears.



Otherwise, if you receive a position request call with no position information, the following screen appears.

Using Position Send Call

DSC position send call lets you send your position to another vessel. The radio automatically sets itself to high power when it sends a DSC position send call.

1. Rotate **PUSH/SELECT** to select *POS.SEND*, then press **PUSH/SELECT** to select it.
2. Follow one of these steps to select the station where you want to send your position.

   a. To select a station by vessel name, rotate **PUSH/SELECT** until the name of the station is highlighted, then press **PUSH/SELECT** to select it.

   b. To select a station manually, rotate **PUSH/SELECT** until *MANUAL* is highlighted, then press **PUSH/SELECT** to select it.

   A screen appears you can use to enter the user MMSI. After you enter the user MMSI, press **PUSH/SELECT**. A screen appears where you can confirm or cancel sending a position.

3. To send your position, rotate **PUSH/SELECT** to select *SEND*, then press **PUSH/SELECT** to select it. The radio transmits your position.

Otherwise, to cancel the transmission, rotate **PUSH/SELECT** to select *CANCEL*, then press **PUSH/SELECT** to select it.

Using DSC Geographical Call

DSC geographical call lets you receive geographical information from another vessel.

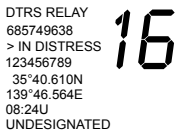
Note: The radio does not transmit geographical information.

If another vessel sends geographical information, a screen similar to the following appears.

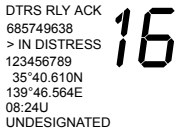
Using DSC Distress Relay Call

DSC distress relay call lets you receive distress information from another vessel. The radio does not transmit distress relay information.

If another vessel sends distress relay information, a screen similar to the following appears.



If the radio successfully received distress relay acknowledgement information, a screen similar to the following appears.



Using DSC Standby Call

DSC standby call lets you place the radio in its unattended mode. Use this feature if the radio will be unattended and no one will answer any calls. If another station calls the radio, it automatically replies *UNATTENDED*.

Rotate **PUSH/SELECT** to select *STANDBY*, then press **PUSH/SELECT** to select it. A screen similar to the following appears.

Press any key to turn off DSC standby call.

Using the DSC Receive Log

The radio saves a list of received calls. The DSC receive log lets you view those calls. The radio saves up to 20 received calls.

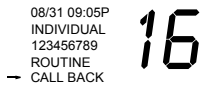
Receive log entries contain the following information.

Type of Call	Information Displayed
Distress	MMSI (or name), position, time, nature code
Distress Ack	MMSI (or name), distress MMSI, position, time, nature code
Individual	MMSI (or name), category code
Individual Ack	MMSI (or name), *COMPLETED* or *UNATTENDED*, category code
Group	MMSI (or name), category code
All Ships	MMSI (or name), category code
Pos Request	MMSI (or name), category code
Pos Reply	MMSI (or name), position, time, category code
Pos Send	MMSI (or name), position, time, category code
Geographical	MMSI (or name), category code
Distress Relay	MMSI (or name), distress MMSI, position, time, nature code
Distress Relay Ack	MMSI (or name), distress MMSI, position, time, nature code

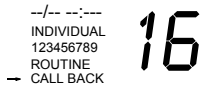
1. Rotate **PUSH/SELECT** to select *RECEIVE LOG*, then press **PUSH/SELECT** to select it.

   The radio places the latest received call at the top of the screen. Information including detailed call information and the date and time it was received appear. If there are any unviewed calls listed, the screen blinks until you view them.

   A screen similar to the following appears if you connected an optional GPS module to the radio.

   Otherwise, a screen similar to the following appears.

2. To view the receive log menu and clear any unviewed calls, press **MENU**.
3. To recall individual calls for a specific vessel, press **PUSH/SELECT**.

Using the Fog Horn Menu

The radio's fog horn feature lets you set up the radio so it sounds the correct fog horn for any condition.

Notes:

- You must connect an optional hailer horn to the radio to use the fog horn feature.
- You must connect an optional GPS module to the radio to select the AUTOMATIC fog horn selection. See “Selecting a Fog Horn Sound” for more information.

To select the fog horn menu, rotate **PUSH/SELECT** to select *FOG HORN*, then press **PUSH/SELECT** to select it.

Selecting a Fog Horn Sound

This option lets you select the type of fog horn you want the radio to sound.

1. Rotate **PUSH/SELECT** to select *FOG HORN*, then press **PUSH/SELECT** to select it. A screen showing the fog horn sounds appears.
2. Rotate **PUSH/SELECT** until the fog horn sound you want to select appears, then press **PUSH/SELECT** to select it. The name of the fog horn sound you selected appears. You can select any of the following fog horn sounds.

Fog Horn Sound	Explanation
AUTOMATIC	Uses information from a connected GPS module to automatically sound the correct fog horn for current conditions.
MANUAL	Sounds the fog horn signal for passing.
UNDERWAY	Sounds the fog horn signal for Power Boat Underway.
STOP	Sounds the fog horn signal for a vessel that is stationary (stopped).
SAIL	Sounds the fog horn signal for a sailboat, fishing boat, or towboat.
TOW	Sounds the fog horn signal for a vessel under tow.
ANCHOR	Sounds the fog horn signal for a vessel at anchor.
AGROUND	Sounds the fog horn signal for any vessel that has run aground.
YELP	Sounds a yelp-type siren similar to that used by police, Fish & Game, and US Coast Guard vessels.

Notes:

- If you select any fog horn sound other than *AUTOMATIC*, *MANUAL*, or *YELP*, the sound you selected sounds every 2 minutes until you turn it off.
- If you select the *AUTOMATIC* fog horn sound, the radio sounds the appropriate fog horn pattern (*UNDERWAY*, *STOP*, or *SAIL*) depending on the information provided to it by a connected optional GPS module, the vessel type setting you set in “Setting the Vessel Type” on Page 35, and whether you are moving or stopped.

- The following table shows the type of fog horn pattern you hear, depending on your status.

	Vessel Type	
Status	*Motor*	*Sail*
Moving	UNDERWAY	SAIL
Stopped	STOP	STOP

- The radio sounds the fog horn every 2 minutes until you turn it off.
- If you select the YELP fog horn sound, the radio sounds a yelp tone only when you press **PTT**.

3. To turn off the fog horn, press **MENU**.

Setting the Fog Horn Frequency

This option lets you adjust the frequency of the fog horn that sounds when the fog horn mode is set to *MANUAL*, *UNDERWAY*, *STOP*, *SAIL*, or *TOW*. You can set the frequency in 50 Hz increments between 200 Hz and 850 Hz.

1. Rotate **PUSH/SELECT** to select *FREQUENCY*, then press **PUSH/SELECT** to select it. A screen showing the fog horn frequency levels appears.
2. Rotate **PUSH/SELECT** clockwise to increase the frequency or counterclockwise to decrease it. When you have set the frequency you want, press **PUSH/SELECT** to select it. A confirmation screen appears.
3. If the frequency you set appears correctly, rotate **PUSH/SELECT** to select *YES*. Otherwise, rotate **PUSH/SELECT** to select *NO*.

Setting the Vessel Type

This option lets you select whether your vessel is a motor vessel or a sailing vessel. This lets you select the correct fog horn settings for your particular vessel.

1. Rotate **PUSH/SELECT** to select *VESSEL TYPE*, then press **PUSH/SELECT** to select it.
2. Rotate **PUSH/SELECT** to select *MOTOR* or *SAIL*. When you have made the selection you want, press **PUSH/SELECT** to select it.

Setting the Fog Horn Volume

This option lets you adjust the fog horn's volume.

1. Rotate **PUSH/SELECT** to select *VOLUME*, then press **PUSH/SELECT** to select it. A screen showing the volume levels appears.
2. Rotate **PUSH/SELECT** clockwise to increase the volume or counterclockwise to decrease it. When you have set the volume level you want, press **PUSH/SELECT** to select it.

Using the WHAM Page Menu

This option lets you page a missing WHAM handset.

1. Rotate **PUSH/SELECT** to select *WHAM PAGE*, then press **PUSH/SELECT** to select it. A screen showing the WHAM handsets used with the radio appears.
2. Rotate **PUSH/SELECT** until the WHAM handset you want to find is selected, then press **PUSH/SELECT** to select it. The WHAM handset beeps for 1 minute or until any key is pressed on the handset.

Using the Setup Menu

The radio's setup menu lets you set up the radio's options. To set the setup options, rotate **PUSH/SELECT** to select *SETUP*, then press **PUSH/SELECT** to select it.

Using the Directory

This option lets you enter the name and MMSI number of up to 50 other vessels into the radio, work with existing entries in the directory, and delete directory entries. This makes it easy to quickly recall and save information about these vessels.

Rotate **PUSH/SELECT** to select *DIRECTORY*, then press **PUSH/SELECT** to select it. A screen showing any vessels previously entered in the directory and *NEW* appears.

To edit an existing directory entry, see "Editing a Directory Entry". To enter a new directory entry, see "Entering a New Directory Entry" on Page 36. To delete a directory entry, see "Deleting a Directory Entry" on Page 37.

Editing a Directory Entry

To edit a directory entry, rotate **PUSH/SELECT** to select *EDIT*, then press **PUSH/SELECT** to select it. A screen appears where you can edit the vessel's information.

Entering a New Directory Entry

1. Rotate **PUSH/SELECT** to select *NEW*, then press **PUSH/SELECT** to select it. A screen appears where you can enter the vessel's information. The cursor moves to the first digit of the vessel's MMSI.
2. Rotate **PUSH/SELECT** clockwise to increase the displayed digit or counterclockwise to decrease it. When the MMSI digit you want appears, press **PUSH/SELECT** to select it. The cursor moves to the next digit.
3. Repeat Step 2 for each of the MMSI's digits. When you have entered all of the MMSI's digits, the cursor moves to the first character of the vessel's name.
4. You can enter a vessel name up to 12 characters in length. Rotate **PUSH/SELECT** clockwise to move forward through the displayed characters or counterclockwise to move backward. When the character you want appears, press **PUSH/SELECT** to select it. The cursor moves to the next character.

5. Repeat Step 4 for each of the vessel name's characters. When you have entered all of the vessel name's characters, a confirmation screen appears.
6. If the MMSI and vessel name you set appears correctly, rotate **PUSH/SELECT** to select *YES.* The radio saves the MMSI and vessel name you input. Otherwise, rotate **PUSH/SELECT** to select *NO*.

Deleting a Directory Entry

1. Rotate **PUSH/SELECT** to select *DELETE*, then press **PUSH/SELECT** to select it. A screen appears where you can delete the vessel's information.
2. If you want to delete the displayed directory entry, rotate **PUSH/SELECT** to select *YES*, then press **PUSH/SELECT** to confirm it. The directory entry is deleted.

   Otherwise, If the displayed directory entry is not the one you want to delete, rotate **PUSH/SELECT** to select *NO*, then press **PUSH/SELECT** to confirm it. The directory entry is not deleted.

Using Channel Tag

This option lets you assign a name to marine channels. This makes it easy to quickly select and work with these channels. You cannot edit weather channel tags.

Rotate **PUSH/SELECT** to select *CH TAG*, then press **PUSH/SELECT** to select it. A screen appears showing the current channel tags.

To edit a channel tag, see "Editing a Channel Tag". To set a channel tag to its default name, see "Setting a Channel Tag to its Default Name" on Page 38.

Editing a Channel Tag

1. Rotate **PUSH/SELECT** to select the channel tag you want to edit, then press **PUSH/SELECT** to select it. A screen appears where you can select what action you want to take.
2. Rotate **PUSH/SELECT** to select *EDIT*, then press **PUSH/SELECT** to select it. The cursor moves to the first character of the channel tag.
3. You can enter a channel tag up to 12 characters in length. Rotate **PUSH/SELECT** clockwise to move forward through the displayed characters or counterclockwise to move backward. When the character you want appears, press **PUSH/SELECT** to select it. The cursor moves to the next character.
4. Repeat Step 3 for each of the channel tag's characters. When you have entered all of the channel tag's characters, hold down **PUSH/SELECT**. When you have entered all of the channel tag's characters, a confirmation screen appears.
5. If the channel tag you set appears correctly, rotate **PUSH/SELECT** to select *YES.* The radio saves the channel tag you input. Otherwise, rotate **PUSH/SELECT** to select *NO*.

Setting a Channel Tag to its Default Name

1. Rotate **PUSH/SELECT** to select the channel tag you want to edit, then press **PUSH/SELECT** to select it. A screen appears where you can select what action you want to take.
2. Rotate **PUSH/SELECT** to select *DEFAULT*, then press **PUSH/SELECT** to select it. A confirmation screen appears.
3. If the channel tag appears correctly, rotate **PUSH/SELECT** to select *YES.* The radio saves the channel tag. Otherwise, rotate **PUSH/SELECT** to select *NO*.

Setting the Local Time

Note: You must connect an optional GPS module to the radio to set the local time.

1. Rotate **PUSH/SELECT** to select *TIME ADJUST*, then press **PUSH/SELECT** to select it. A screen appears showing the currently set local time and *A* (for AM) or *P* (for PM).
2. Rotate **PUSH/SELECT** clockwise to adjust the time forward or counterclockwise to adjust it backward. When the local time you want appears, press **PUSH/SELECT** to select it. A confirmation screen appears.
3. If the local time appears correctly, rotate **PUSH/SELECT** to select *SET.* The radio sets the local time to the time you set. Otherwise, rotate **PUSH/SELECT** to select *CANCEL*.

Setting Daylight Saving Time

1. Rotate **PUSH/SELECT** to select *DAYLITE SAV*, then press **PUSH/SELECT** to select it. *DAYLITE SAVE* and a confirmation screen appear.
2. To set the radio to daylight saving time, rotate **PUSH/SELECT** to select *ON.* The radio adjusts the displayed time for Daylight Saving Time. Otherwise, rotate **PUSH/SELECT** to select *OFF*.

Setting FIPS Codes

This option lets you add FIPS codes that will activate the radio's Specific Area Message Encoding weather alert system. You can program up to 30 FIPS codes into the radio.

Rotate **PUSH/SELECT** to select *FIPS*, then press **PUSH/SELECT** to select it. *FIPS CODES* and a list of the current FIPS codes appears.

To enter a new FIPS code, see "Entering a New FIPS Code". To edit a FIPS code, see "Editing a FIPS Code" on Page 39. To delete a FIPS code, see "Deleting a FIPS Code" on Page 39.

Entering a New FIPS Code

1. Rotate **PUSH/SELECT** to select *NEW*, then press **PUSH/SELECT** to select it. The cursor moves to the first character of the FIPS code.
2. Rotate **PUSH/SELECT** clockwise to move forward through the displayed numbers or counterclockwise to move backward. When the number you want appears, press **PUSH/SELECT** to select it. The cursor moves to the next number.
3. Repeat Step 2 for each of the FIPS code's characters. When you have entered all of the FIPS code's numbers, hold down **PUSH/SELECT**. A confirmation screen appears.
4. If the FIPS code you set appears correctly, rotate **PUSH/SELECT** to select *YES*. The radio saves the FIPS code you input. Otherwise, rotate **PUSH/SELECT** to select *NO*.

Editing a FIPS Code

1. Rotate **PUSH/SELECT** to select the FIPS code you want to edit, then press **PUSH/SELECT** to select it. A screen appears where you can select what action you want to take.
2. Rotate **PUSH/SELECT** to select *EDIT*, then press **PUSH/SELECT** to select it. The cursor moves to the first character of the FIPS code.
3. Rotate **PUSH/SELECT** clockwise to move forward through the displayed numbers or counterclockwise to move backward. When the number you want appears, press **PUSH/SELECT** to select it. The cursor moves to the next number.
4. Repeat Step 3 for each of the FIPS code's numbers. When you have entered all of the FIPS code's numbers, hold down **PUSH/SELECT**. A confirmation screen appears.
5. If the FIPS code you set appears correctly, rotate **PUSH/SELECT** to select *YES*. The radio saves the FIPS code you input. Otherwise, rotate **PUSH/SELECT** to select *NO*.

Deleting a FIPS Code

1. Rotate **PUSH/SELECT** to select *DELETE*, then press **PUSH/SELECT** to select it. A screen appears where you can delete the vessel's information.
2. If you want to delete the displayed FIPS code, rotate **PUSH/SELECT** to select *YES*, then press **PUSH/SELECT** to confirm it. The FIPS code is deleted.

   Otherwise, If the displayed FIPS code is not the one you want to delete, rotate **PUSH/SELECT** to select *NO*, then press **PUSH/SELECT** to confirm it. The FIPS code is not deleted.

Disabling Auto Channel Switch

This option lets you set the radio so it does not automatically change the channel when it receives a DSC call. If the radio receives an individual call when Auto Channel Switch is turned off, the radio replies *UNATTENDED* to the calling radio and does not tune to the channel requested by the calling radio.

1. Rotate **PUSH/SELECT** to select *AUTO CH SW*, then press **PUSH/SELECT** to select it. *AUTO CH SW* and *ON* and *OFF* appear.
2. To turn off auto channel switch, rotate **PUSH/SELECT** to select *OFF*, then press **PUSH/SELECT** to confirm it. Auto channel switch is turned off.

   Otherwise, to turn on auto channel switch, rotate **PUSH/SELECT** to select *ON*, then press **PUSH/SELECT** to confirm it. Auto channel switch is turned on.

Position Reply

This option lets you set the radio so you can transmit an acknowledgement automatically or manually when it receives a Position Request Call.

1. Rotate **PUSH/SELECT** to select *POS REPLY*, then press **PUSH/SELECT** to select it. *AUTO* and *MANUAL* appear.
2. To set the radio to transmit an acknowledgement automatically, rotate **PUSH/SELECT** to select *AUTO*, then press **PUSH/SELECT** to confirm it. Otherwise, rotate **PUSH/SELECT** to select *MANUAL*, then press **PUSH/SELECT** to confirm it.

Setting Up a WHAM

This option lets you set up a WHAM or WHAM x 4 wireless microphone to work with the radio. You must set up a WHAM or WHAM x 4 microphone before it will work with the radio.

Note: Refer to your WHAM microphone's owners manual for more information about connecting it to the radio.

Rotate **PUSH/SELECT** to select *WHAM*, then press **PUSH/SELECT** to select it. If you have already connected a WHAM base unit to the radio, *WHAM SETUP*, *BASE ID*, and *LINK CH* appear. If you haven't connected a WHAM base unit to the radio or connected a WHAM x 4 base unit to the radio, *WHAM SETUP*, *BASE ID*, and *SUB RADIO* appear.

To set up a WHAM Base ID, see "Setting a WHAM Base ID". To set up a WHAM link channel, see "Setting a WHAM Link Channel" on Page 41. To set up a WHAM x 4 Base ID, see "Setting a WHAM x 4 Base ID" on Page 41.

Setting a WHAM Base ID

The WHAM base ID for the radio and the WHAM microphone you are installing must be the same.

1. Rotate **PUSH/SELECT** to select *BASE ID*, then press **PUSH/SELECT** to select it. The cursor moves to the first character of the base ID.
2. Rotate **PUSH/SELECT** clockwise to move forward through the displayed numbers or counterclockwise to move backward. When the number you want appears, press **PUSH/SELECT** to select it. The cursor moves to the next number.
3. Repeat Step 2 for each of the base ID's numbers. When you have entered all of the base ID's numbers, hold down **PUSH/SELECT**. A confirmation screen appears.
4. If the base ID you set appears correctly, rotate **PUSH/SELECT** to select *YES*. The radio saves the base ID you input. Otherwise, rotate **PUSH/SELECT** to select *NO*.
5. Turn the radio off then turn it back on to enable the base ID you set.

Setting a WHAM Link Channel

The link channel between the radio and the WHAM microphone you are installing must be the same. You can select 20 link channels.

1. Rotate **PUSH/SELECT** to select *LINK CH*, then press **PUSH/SELECT** to select it. *LINK CH* and a channel number appear.
2. Rotate **PUSH/SELECT** clockwise to move forward through the displayed numbers or counterclockwise to move backward. When the number you want appears, press **PUSH/SELECT** to select it. A confirmation screen appears.
3. If the channel number you set appears correctly, rotate **PUSH/SELECT** to select *YES*. The radio saves the channel number you input. Otherwise, rotate **PUSH/SELECT** to select *NO*.
4. Turn the radio off then turn it back on to enable the base ID you set.

Setting a WHAM x 4 Base ID

The base ID between the radio and the WHAM x 4 microphone you are installing must be the same.

1. Rotate **PUSH/SELECT** to select *BASE ID*, then press **PUSH/SELECT** to select it. *BASE ID* and a channel number appear.
2. Rotate **PUSH/SELECT** clockwise to move forward through the displayed numbers or counterclockwise to move backward. When the number you want appears, press **PUSH/SELECT** to select it. A confirmation screen appears.

3. If the base ID you set appears correctly, rotate **PUSH/SELECT** to select *YES*. The radio saves the base ID you input. Otherwise, rotate **PUSH/SELECT** to select *NO*.

Setting the WHAM Sub Radio Mode

You can set up the radio so connected WHAM and WHAM x 4 microphones can communicate with each other.

1. Rotate **PUSH/SELECT** to select *SUB RADIO*, then press **PUSH/SELECT** to select it. *SUB RADIO* and *ON* and *OFF* appear.
2. To turn on the sub radio mode, rotate **PUSH/SELECT** to select *ON*, then press **PUSH/SELECT** to confirm it. The sub radio mode is turned on.

   Otherwise, to turn off the sub radio mode, rotate **PUSH/SELECT** to select *OFF*, then press **PUSH/SELECT** to confirm it.

Setting Up a Group MMSI

You can program a group MMSI. A group MMSI is 9 digits in length.

1. Rotate **PUSH/SELECT** to select *GROUP MMSI*, then press **PUSH/SELECT** to select it.

2. To enter the first digit of the group MMSI, rotate **PUSH/SELECT** until the digit appears, then press **PUSH/SELECT**. The digit you entered appears and the flashing cursor moves to the next position.
3. Repeat Step 2 for each of the group MMSI's digits. When you have entered each of the group MMSI's digits, a confirmation screen appears.
4. If the displayed group MMSI is correct, rotate **PUSH/SELECT** to select *YES*, then press **PUSH/SELECT** to confirm it.

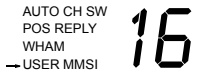
Otherwise, If the displayed group MMSI is not correct, rotate **PUSH/SELECT** to select NO, then press **PUSH/SELECT** to confirm it. Then repeat Steps 2 and 3 to enter the correct group MMSI.

Setting Up a User MMSI

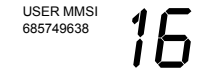
When you first turn on the radio, you must program a user MMSI. A user MMSI is 9 digits in length.

> **Important**: If you have already set the user MMSI, **do not change it** unless you have received a new user MMSI. After you program a user MMSI for the first time, you can only change it once more. If you try to change the user MMSI a third time, the radio will not accept the change. To change the user MMSI again, you must return the radio to Uniden for reprogramming.

1. Rotate **PUSH/SELECT** to select *USER MMSI*, then press **PUSH/SELECT** to select it.

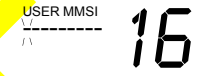


   If a user MMSI has already n programmed, you see the following screen. **Stop here**.

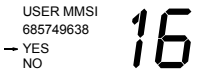


   If a user MMSI has already been programmed twice, you see the following screen. **Stop here**.

   Otherwise, if a user MMSI has not been programmed, you see the following screen.



2. To enter the first digit of the user MMSI, rotate **PUSH/SELECT** until the digit appears, then press **PUSH/SELECT**. The digit you entered appears and the flashing cursor moves to the next position.
3. Repeat Step 2 for each of the user MMSI's digits. When you have entered each of the user MMSI's digits, a confirmation screen appears.



4. If the displayed user MMSI is correct, rotate **PUSH/SELECT** to select *YES*, then press **PUSH/SELECT** to confirm it. The setup menu appears.

   Otherwise, If the displayed user MMSI is not correct, rotate **PUSH/SELECT** to select *NO*, then press **PUSH/SELECT** to confirm it. Then repeat Steps 2 and 3 to enter the correct user MMSI.

Setting a Scrambler Code

You can set the scrambler code to any of 128 different settings.

> Important: You must install an optional scrambler board in the radio to use the scrambler. See “Using the Scrambler” on Page 48 for more information.

1. Rotate **PUSH/SELECT** to select *SCRAMBLE*, then press **PUSH/SELECT** to select it. A screen appears where you can select a scrambler code.
2. Rotate **PUSH/SELECT** until the scrambler code you want (0-127) appears, then press **PUSH/SELECT** to select it. A confirmation screen appears.
3. If the displayed scrambler code is correct, rotate **PUSH/SELECT** to select *YES*, then press **PUSH/SELECT** to confirm it.

   Otherwise, if the displayed scrambler code is not correct, rotate **PUSH/SELECT** to select *NO*, then press **PUSH/SELECT** to confirm it. Then repeat Steps 2 and 3 to enter the correct scrambler code.

Note: You cannot use a WHAM or WHAM x 4 wireless microphone to set user MMSI, WHAM setup, system setup, or self test on the radio. You cannot use a WHAM wireless microphone to use the scrambler, intercom, GPS display, channel tag, or status message display on the radio.

Using the System Menu

The radio's system menu lets you set the radio to your own personal preference.

To set the system options, rotate **PUSH/SELECT** to select *SYSTEM*, then press **PUSH/SELECT** to select it.

Adjusting the Contrast

This option lets you adjust the display's contrast.

1. Rotate **PUSH/SELECT** to select *CONTRAST*, then press **PUSH/SELECT** to select it. A screen showing the contrast levels appears.
2. Rotate **PUSH/SELECT** clockwise to increase the contrast or counterclockwise to decrease it. When you have set the contrast level you want, press **PUSH/SELECT** to select it.

Adjusting the Display and Key Brightness

This option lets you adjust the brightness of the display and keys.

1. Rotate **PUSH/SELECT** to select *LAMP ADJUST*, then press **PUSH/SELECT** to select it. A screen showing the brightness levels appears.
2. Rotate **PUSH/SELECT** to select the brightness level you want. When you have set the brightness level you want, press **PUSH/SELECT** to select it.

Adjusting the Key Beep

This option lets you adjust the key beep volume.

1. Rotate **PUSH/SELECT** to select *KEY BEEP*, then press **PUSH/SELECT** to select it. A screen showing the key beep volume levels appears.
2. Rotate **PUSH/SELECT** clockwise to increase the volume or counterclockwise to decrease it. When you have set the volume level you want, press **PUSH/SELECT** to select it.

Performing a Radio Self Test

Selecting this menu item performs a complete self test on the radio. The self test provides the following information.

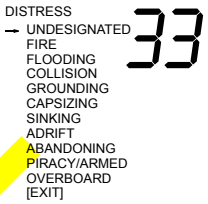
- Antenna Condition (OK, NG)
- Hail Speaker Condition (OK, Open, Bad Condition)
- GPS Condition (OK, Not Connected, No Data Flow, No Support Sentence)
- WHAM Condition (OK, Not Connected)
- Scrambler Board Condition (OK, NG)
- Battery Condition (OK, Too Low, Too High)

To run the self test, select *SELF TEST* then press **PUSH/SELECT**. A screen appears showing the condition of each tested item. If *NG* appears next to the item, the item did not pass the test. For more information about items that did not pass the test, rotate **PUSH/SELECT** to select the item, then press **PUSH/SELECT** to select it.

Note: If the antenna did not pass the self-test, no additional information is available.

Making a DSC Distress Call

1. Lift the protective tab over **DISTRESS** then hold down **DISTRESS** for about 5 seconds. A screen appears where you can select a distress type.



2. To send an undesignated distress call, press **PUSH/SELECT** to select it. Otherwise, to send a designated distress call, rotate **PUSH/SELECT** to select the distress type, then press **PUSH/SELECT** to select it. A confirmation screen appears.

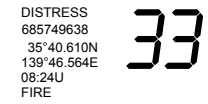
   If the displayed distress call option is correct and you want to send the distress call, rotate **PUSH/SELECT** to select *SEND*, then press **PUSH/SELECT** to confirm it. Otherwise, if the displayed distress call option is not correct, rotate **PUSH/SELECT** to select *CANCEL*, then press **PUSH/SELECT** to confirm it. Then repeat Steps 1 and 2 to enter the correct distress call option.

   The radio checks Channel 70 before sending the distress call and displays the following screen. To cancel the distress call while this screen appears, press **PUSH/SELECT**.

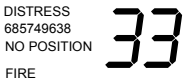
   If the channel is busy, the radio waits until the channel clears, then it sends the distress call and sounds a distress tone. Then, the radio tunes to Channel 16 and Channel 70 and waits between 3 minutes and 30 seconds (210 seconds) and 4 minutes and 30 seconds (270 seconds) for an acknowledgement signal. The radio continues to sound the alarm and listen for an acknowledgement signal until it receives one.

Receiving a DSC Distress Call

If the radio receives a DSC distress call, you see a screen similar to the following, and the radio sounds a distress tone. If the name of the vessel sending the distress call is programmed into the radio, the vessel's name appears. Otherwise, the vessel's MMSI, position, time, and nature code appear. Rotate **PUSH/SELECT** while a distress call is being received to display additional information about the distress call.



If the sending radio does not send position and nature code information with its distress call, you see a screen similar to the following.



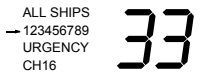
Making an ALL SHIPS Call

You can set the radio so it sends a message to all ships. The radio automatically sets itself to high transmit power when it sends an ALL SHIPS call.

1. Rotate **PUSH/SELECT** to select *DSC CALL*, then press **PUSH/SELECT** to select it.
2. Rotate **PUSH/SELECT** to select *ALL SHIPS*, then press **PUSH/SELECT** to select it. A screen appears where you can select the ALL SHIPS call option (URGENCY or SAFETY) you want to send.
3. Rotate **PUSH/SELECT** to select the ALL SHIPS call option you want (URGENCY or SAFETY), then press **PUSH/SELECT** to select it. A confirmation screen appears.
4. If the displayed ALL SHIPS call option is correct and you want to send the call, rotate **PUSH/SELECT** to select *SEND*, then press **PUSH/SELECT** to confirm it. When the radio transmits the ALL SHIPS call option you selected, it tunes to Channel 16.

   Otherwise, if the displayed ALL SHIPS call option is not correct, rotate **PUSH/SELECT** to select *CANCEL*, then press **PUSH/SELECT** to confirm it. Then repeat Steps 2 and 3 to enter the correct ALL SHIPS call option.

If the radio receives an ALL SHIPS call, you see a screen similar to the following. Both radios automatically tune to Channel 70 until all data is received, then both radios tune to Channel 16 for transmissions and replies.



Other Settings

Using the Weather Function

The FCC (Federal Communications Commission) has allocated channels for use by the National Oceanic and Atmospheric Administration (NOAA). Regulatory agencies in other countries have also allocated channels for use by their weather reporting authorities. NOAA and your local weather reporting authority broadcast your local forecast and regional weather information on one or more of these channels.

To hear your local forecast and regional weather information, press **WX/ALERT**. Your radio scans through the weather band then stops on the first active weather frequency. Rotate **PUSH/SELECT** to select another weather channel. To stop listening to the weather broadcast, press **WX/ALERT** again. The radio returns to the last channel you tuned before you selected the weather channel.

Using Weather Alert

To set the radio so it alerts you if it receives a weather alert, hold down **WX/ALERT** for 2 seconds. *ALERT* appears. If the radio receives a weather alert, it sounds a tone and *ALERT* blinks. You can turn off the tone by pressing any key.

To turn off weather alert, hold down **WX/ALERT** for 2 seconds. *ALERT* disappears.

Using SAME Alert

The National Weather Service precedes each weather alert with a digitally encoded SAME (Specific Area Message Encoding) signal, then a 1050 Hz tone. The SAME signal includes a FIPS (Federal Information Processing Standard) area code, and an event code that corresponds with the type of alert being sent. You can configure your radio to operate in SAME Standby mode, where it monitors a selected weather radio station for SAME alerts for areas you specify. You can program your radio with up to 30 FIPS codes for the areas you desire. The National Weather Service maintains a current list of FIPS codes at http://www.nws.noaa.gov/nwr/.

If the radio receives a SAME alert tone, it checks the tone against any FIPS codes you stored (see “Setting FIPS Codes” on Page 38 for more information). If the radio finds a match, it sounds a tone and *ALERT* flashes. Press any key to turn off the tone

Using the Scrambler

The radio's optional scrambler makes voice transmissions unintelligible to other radios without a scrambler or that are not set to the same scrambler code, and descrambles incoming scrambled voice transmissions if the transmitting radio is set to the same scrambler code. If the scrambler is turned on, the radio can communicate only with other radios set to the same scrambler code.

You must install an optional scrambler board in the radio and set a scrambler code (see “Setting a Scrambler Code” on Page 43) to use the scrambler.

Hold down **HI/LO/SCRAMBLER** for 2 seconds to turn on the scrambler. To turn off the scrambler, hold down **HI/LO/SCRAMBLER** for 2 seconds, press **MENU**, **16/9 TRI**, or **DISTRESS**, or turn the radio off.

Care and Maintenance

Your UM-525 Marine Radio is a precision electronic instrument and you should treat it accordingly. Due to its rugged design, very little maintenance is required. However, a few precautions should be observed.

- If the antenna has been damaged, you should not transmit except in the case of an emergency. A defective antenna may cause damage to your radio.
- You are responsible for continued FCC technical compliance of your radio.
- You are urged to arrange for periodic performance checks with your Uniden Marine dealer.

Frequently Asked Questions

Q: *The radio will not turn on. What should I do?*

A: Check the battery or power source. Make sure the radio is receiving at least 13.8 volts.

Q: *When I press **PTT** on the microphone, TX appears on the display and other vessels hear a click, but they cannot hear me speak. What's wrong?*

A: The microphone might have a bad element. Contact your Uniden marine dealer for more information.

Q: *The radio always stops on one particular channel even though I didn't select it. Why?*

A: There might be a source of noise near that channel's frequency. Choose another frequency.

Q: *The radio is receiving noise on a channel and I cannot eliminate it using the squelch. What's wrong?*

A: An external source might be generating noise on that frequency. Turn off the offending device or choose another frequency.

Specifications

General

Channels
- Transmit 54
- Receive ..... 80 Marine/10 Weather

Channel Display ..... LCD with orange backlight

Dimensions (HWD) ..... 3.07 x 7.24 x 6.61 in.(63 x 160 x 168 mm)

Weight ..... 42.3 oz (1.0 kg)

Supply Voltage ..... 13.8V DC negative ground

Standard Accessories ..... Mounting bracket and hardware, DC power cord, microphone hanger, spare fuse, ACC cable

Antenna Impedance ..... 50 Ohm nominal

Microphone ..... 2 kOhm condenser mic element with coiled cord

Speaker ..... 1.82 in., Mylar cone 8 Ohm

Operating Temperature ..... -4° to 122° F (-20° to 50 °C)

Shock and Vibration ..... Meets or exceeds EIA standards, RS152B and RS204C

FCC Approvals ..... Type accepted under Part 80 of *FCC Rules*; meets Great Lakes Agreement and party boat requirements

Transmitter

Power Output ..... 1 watt or 25 watts (selectable)

Power Requirement (Output)
- 1W..... Not rated
- 25W ..... 5.6A at 13.8V DC

Modulation ..... FM ±5 kHz deviation (FCC designator F3E)

Signal-to-Noise Ratio ..... 45 dB @ 1 kHz with 3 kHz deviation with 1000 Hz modulating frequency (nominal)

Audio Distortion ..... Less than 8% with 3 kHz deviation with 1000 Hz modulating frequency

Spurious Suppression ..... 25 dBm @ Hi, -29 dBm @ Lo

Output Power Stabilization ..... Built-in automatic level control (ALC)

Frequency Range ..... 156 to 158 MHz

Frequency Stability ..... ±5 ppm @ -20°C to + 50°C

Receiver

Frequency Range ..... 156 to 163 MHz
Sensitivity ..... 0.25 V for 12 dB SINAD
Circuit ..... Dual Conversion Super Heterodyne PLL
Squelch Sensitivity ..... 0.5 V Threshold
Spurious Response ..... 65 dB
Adjacent Channel Selectivity ..... 65 dB @ ±25 kHz
Audio Output Power ..... 2.8 watts (10% Distortion)
Power Requirement ..... 200 mA @ 13.8V DC squelched, 0.7A @ 13.8V DC at maximum audio output
IF Frequencies ..... 1st 21.4 MHz, 2nd -455 kHz

Appendix

NMEA Operation

This radio supports NMEA0183 version 3.01.

NMEA Input

The radio supports RMC, GLL, GNS, GGA and ZDA sentences. When these sentences are received, the radio displays latitude/longitude, date, time, course, and speed. Each sentence includes the following information.

RMCGLLGNSGGAZDA
UTC Time?????
Status (Valid/Invalid)????×
Latitude/Longitude????×
Speed?××××
Course?××××
Date?×××?

If some sentences are received (ex. RMC and GLL), the radio uses the information based on the following priority order.

Status:RMC > GLL > GNS > GGA
Latitude/Longitude:RMC > GLL > GNS > GGA
UTC Time :RMC > GLL > GNS > GGA > ZDA
Date:RMC > ZDA
Speed / Course:RMC

Notes:

- For example, if the radio received only a GLL sentence, the radio does not display speed, course, and date.
- For example if both RMC and GLL sentence, the radio will use information of RMC sentence.

Status data is used to check which the GPS data is valid or invalid.

NMEA Output

When the radio receives a DSC Call (Distress, Position Reply, Position Send), it outputs a DSC/DSE sentence from the NMEA output port.

Note: When the radio receives a Distress call, it outputs a sentence in the following format.

$CDDSC,12,3081234000,,07,00,0354013946,0657,,,S,E*6D
$CDDSE,1,1,A,3081234000,00,60875646*13

Reference Information

USA/Canadian/International Channel Frequencies

Ch. No.	USA	CAN	INT	RX	TX	Status	Full Name	12-Character Name
1”A”	X			156.0500	156.0500	Simplex	VESSEL TRAFFIC SYSTEM/ COMMERCIAL	VTS/COMMERCL
3”A”	X			156.1500	156.1500	Simplex	COAST GUARD, GOVT ONLY	CG ONLY
5”A”	X			156.2500	156.2500	Simplex	VESSEL TRAFFIC SYSTEM/ COMMERCIAL	VTS/COMMERCL
6	X			156.3000	156.3000	Simplex	INTER-SHIP SAFETY	SAFETY
7”A”	X			156.3500	156.3500	Simplex	COMMERCIAL	COMMERCIAL
8	X			156.4000	156.4000	Simplex	COMMERCIAL	COMMERCIAL
9	X			156.4500	156.4500	Simplex	NON COMMERCIAL	NON COMMERCL
10	X			156.5000	156.5000	Simplex	COMMERCIAL	COMMERCIAL
11	X			156.5500	156.5500	Simplex	VESSEL TRAFFIC SYSTEM	VSL TRAFFIC
12	X			156.6000	156.6000	Simplex	VESSEL TRAFFIC SYSTEM	VSL TRAFFIC
13	X			156.6500	156.6500	Simplex, 1W	BRIDGE TO BRIDGE	BRDG TO BRDG
14	X			156.7000	156.7000	Simplex	VESSEL TRAFFIC SYSTEM	VSL TRAFFIC
15	X			156.7500	Inhibit	Receive Only	ENVIRONMENTAL	ENVIRONMENTL
16	X			156.8000	156.8000	Simplex	DISTRESS, SAFETY, CALLING	DITRESS
17	X			156.8500	156.8500	Simplex, 1W	GOVT MARITIME CONTROL	GOVERNMENT
18”A”	X			156.9000	156.9000	Simplex	COMMERCIAL	COMMERCIAL
19”A”	X			156.9500	156.9500	Simplex	COMMERCIAL	COMMERCIAL
20”A”	X			157.0000	157.0000	Simplex	PORT OPERATION	PORT OPERATN
21”A”	X			157.0500	157.0500	Simplex	COAST GUARD ONLY	COAST GUARD
22”A”	X			157.1000	157.1000	Simplex	COAST GUARD	COAST GUARD
23”A”	X			157.1500	157.1500	Simplex	COAST GUARD ONLY	COAST GUARD
24	X			161.8000	157.2000	Duplex	MARINE OPERATOR	MAR OPERATOR
25	X			161.8500	157.2500	Duplex	MARINE OPERATOR	MAR OPERATOR
26	X			161.9000	157.3000	Duplex	MARINE OPERATOR	MAR OPERATOR
27	X			161.9500	157.3500	Duplex	MARINE OPERATOR	MAR OPERATOR
28	X			162.0000	157.4000	Duplex	MARINE OPERATOR	MAR OPERATOR
61”A”	X			156.0750	156.0750	Simplex	COAST GUARD	COAST GUARD
63”A”	X			156.1750	156.1750	Simplex	VESSEL TRAFFIC SYSTEM	VSL TRAFFIC
64”A”	X			156.2250	156.2250	Simplex	COMMERCIAL	COMMERCIAL
65”A”	X			156.2750	156.2750	Simplex	PORT OPERATION	PORT OPERATN
66”A”	X			156.3250	156.3250	Simplex	PORT OPERATION	PORT OPERATN
67	X			156.3750	156.3750	Simplex, 1W	BRIDGE TO BRIDGE	BRDG TO BRDG
68	X			156.4250	156.4250	Simplex	NON COMMERCIAL	NON COMMERCL
69	X			156.4750	156.4750	Simplex	NON COMMERCIAL	NON COMMERCL
70	X			156.5250	Inhibit	Receive Only	DIGITAL SELECTIVE CALLING	DSC REC ONLY
71	X			156.5750	156.5750	Simplex	NON COMMERCIAL	NON COMMERCL
72	X			156.6250	156.6250	Simplex	NON COMMERCIAL (SHIP-SHIP)	NON COMMERCL
73	X			156.6750	156.6750	Simplex	PORT OPERATION	PORT OPERATN
74”	X			156.7250	156.7250	Simplex	PORT OPERATION	PORT OPERATN
75	X			156.775	156.775	Simplex, 1W	PORT OPERATION	PORT OPERATN
76	X			156.825	156.825	Simplex, 1W	PORT OPERATION	PORT OPERATN
77	X			156.8750	156.8750	Simplex, 1W	PORT OPERATION (SHIP-SHIP)	PORT OPERATN
78”A”	X			156.9250	156.9250	Simplex	NON COMMERCIAL	NON COMMERCL
79”A”	X			156.9750	156.9750	Simplex	COMMERCIAL	COMMERCL
80”A”	X			157.0250	157.0250	Simplex	COMMERCIAL‘	COMMERCIAL
81”A”	X			157.0750	157.0750	Simplex	COAST GUARD	COAST GUARD
82”A”	X			157.1250	157.1250	Simplex	COAST GUARD	COAST GUARD
83”A”	X			157.1750	157.1750	Simplex	GOVERNMENT	GOVERNMENT
84”	X			161.8250	157.2250	Duplex	MARINE OPERATOR	MAR OPERATOR

Ch. No.	USA	CAN	INT	RX	TX	Status	Full Name	12-Character Name
85	X			161.8750	157.2570	Duplex	MARINE OPERATOR	MAR OPERATOR
86	X			161.9250	157.3250	Duplex	MARINE OPERATOR	MAR OPERATOR
87	X			161.9750	157.3750	Duplex	MARINE OPERATOR	MAR OPERATOR
88	X			162.0250	157.4250	Duplex	MARINE OPERATOR	MAR OPERATOR
88”A”	X			157.4250	157.4250	Simplex	COMMERCIAL (SHIP-SHIP)	COMMERCIAL
1		X		160.6500	156.0500	Duplex	MARINE OPERATOR	MAR OPERATOR
2		X		160.7000	156.1000	Duplex	MARINE OPERATOR	MAR OPERATOR
3		X		160.7500	156.1500	Duplex	MARINE OPERATOR	MAR OPERATOR
4”A”		X		156.2000	156.2000	Simplex	CANADIAN COAST GUARD	COAST GUARD
5”A”		X		156.2500	156.2500	Simplex	VESSEL TRAFFIC SYSTEM	VSL TRAFFIC
6		X		156.3000	156.3000	Simplex	INTER-SHIP SAFETY	SAFETY
7”A”		X		156.3500	156.3500	Simplex	COMMERCIAL	COMMERCIAL
8		X		156.4000	156.4000	Simplex	COMMERCIAL	COMMERCIAL
9		X		156.4500	156.4500	Simplex	BOATER CALLING CHANNEL	CALLING
10		X		156.5000	156.5000	Simplex	COMMERCIAL	COMMERCIAL
11		X		156.5500	156.5500	Simplex	VESSEL TRAFFIC SYSTEM	VSL TRAFFIC
12		X		156.6000	156.6000	Simplex	VESSEL TRAFFIC SYSTEM	VSL TRAFFIC
13		X		156.6500	156.6500	Simplex, 1W	BRIDGE TO BRIDGE	BRDG TO BRDG
14		X		156.7000	156.7000	Simplex	VESSEL TRAFFIC SYSTEM	VSL TRAFFIC
15		X		156.7500	156.7500	Simplex	ENVIRONMENTAL	ENVIRONMENTL
16		X		156.8000	156.8000	Simplex	DISTRESS, SAFETY, CALLING	DITRESS
17		X		156.8500	156.8500	Simplex, 1W	STATE CONTROL	STATE CNTRL
18”A”		X		156.9000	156.9000	Simplex	COMMERCIAL	COMMERCIAL
19”A”		X		156.9500	156.9500	Simplex	CANADIAN COAST GUARD	COAST GUARD
20		X		161.6000	157.0000	Duplex, 1W	PORT OPERATION	PORT OPERATN
21”A”		X		157.0500	157.0500	Simplex	CANADIAN COAST GUARD	COAST GUARD
22”A”		X		157.1000	157.1000	Simplex	CANADIAN COAST GUARD	COAST GUARD
23		X		161.7500	157.1500	Duplex	CANADIAN COAST GUARD	COAST GUARD
24		X		161.8000	157.2000	Duplex	MARINE OPERATOR	MAR OPERATOR
25		X		161.8500	157.2500	Duplex	MARINE OPERATOR	MAR OPERATOR
26		X		161.9000	157.3000	Duplex	MARINE OPERATOR	MAR OPERATOR
27		X		161.9500	157.3500	Duplex	MARINE OPERATOR	MAR OPERATOR
28		X		162.0000	157.4000	Duplex	MARINE OPERATOR	MAR OPERATOR
60		X		160.6250	156.0250	Duplex	MARINE OPERATOR	MAR OPERATOR
61”A”		X		156.0750	156.0750	Simplex	CANADIAN COAST GUARD	COAST GUARD
62”A”		X		156.1250	156.1250	Simplex	CANADIAN COAST GUARD	COAST GUARD
64		X		160.8250	156.2250	Duplex	MARINE OPERATOR	MAR OPERATOR
64”A”		X		156.2250	156.2250	Simplex	MARINE OPERATOR	MAR OPERATOR
65”A”		X		156.2750	156.2750	Simplex	SEARCH AND RESCUE	SRCH RESCUE
66”A”		X		156.3250	156.3250	Simplex, 1W	PORT OPERATION	PORT OPERATN
67		X		156.3750	156.3750	Simplex	BRIDGE TO BRIDGE	BRDG TO BRDG
68		X		156.4250	156.4250	Simplex	NON COMMERCIAL	NON COMMERCL
69		X		156.4750	156.4750	Simplex	NON COMMERCIAL	NON COMMERCL
70		X		156.5250	Inhibit	Receive Only	DIGITAL SELECTIVE CALLING	DSC REC ONLY
71”		X		156.5750	156.5750	Simplex	NON COMMERCIAL	NON COMMERCL
72		X		156.6250	156.6250	Simplex	NON COMMERCIAL	NON COMMERCL
73		X		156.6750	156.6750	Simplex	PORT OPERATION	PORT OPERATN
74		X		156.7250	156.7250	Simplex	PORT OPERATION	PORT OPERATN
77		X		156.8750	156.8750	Simplex, 1W	PORT OPERATION	PORT OPERATN
78”A”		X		156.9250	156.9250	Simplex	INTER SHIP	INTER SHIP
79”A”		X		156.9750	156.9750	Simplex	INTER SHIP	INTER SHIP
80”A”		X		157.0250	157.0250	Simplex	INTER SHIP	INTER SHIP
81”A”		X		157.0750	157.0750	Simplex	CANADIAN COAST GOARD	COAST GUARD
82”A”		X		157.1250	157.1250	Simplex	CANADIAN COAST GUARD	COAST GUARD
83”		X		161.7750	157.1750	Duplex	CANADIAN COAST GOARD	COAST GOARD
83”A”		X		157.1750	157.1750	Simplex	CANADIAN COAST GOARD	COAST GOARD
84		X		161.8250	157.2250	Duplex	MARINE OPERATOR	MAR OPERATOR
85		X		161.8750	157.2750	Duplex	MARINE OPERATOR	MAR OPERATOR
86		X		161.9250	157.3250	Duplex	MARINE OPERATOR	MAR OPERATOR
87		X		161.9750	157.3750	Duplex	MARINE OPERATOR	MAR OPERATOR
88		X		162.0250	157.4250	Duplex	MARINE OPERATOR	MAR OPERATOR

Ch. No.	USA	CAN	INT	RX	TX	Status	Full Name	12-Character Name
1			X	160.6500	156.0500	Duplex	MARINE OPERATOR	MAR OPERATOR
2			X	160.7000	156.1000	Duplex	MARINE OPERATOR	MAR OPERATOR
3			X	160.7500	156.1500	Duplex	MARINE OPERATOR	MAR OPERATOR
4			X	160.8000	156.2000	Duplex	MARINE OPERATOR	MAR OPERATOR
5			X	160.8500	156.2500	Duplex	MARINE OPERATOR	MAR OPERATOR
6			X	156.3000	156.3000	Simplex	INTER-SHIP SAFETY	SAFETY
7			X	160.9500	156.3500	Duplex	MARINE OPERATOR	MAR OPERATOR
8			X	156.4000	156.4000	Simplex	COMMERCIAL (SHIP-SHIP)	COMMERCIAL
9			X	156.4500	156.4500	Simplex	BOATER CALLING CHANNEL	CALLING
10			X	156.5000	156.5000	Simplex	COMMERCIAL	COMMERCIAL
11			X	156.5500	156.5500	Simplex	VESSEL TRAFFIC SYSTEM	VSL TRAFFIC
12			X	156.6000	156.6000	Simplex	VESSEL TRAFFIC SYSTEM	VSL TRAFFIC
13			X	156.6500	156.6500	Simplex	BRIDGE TO BRIDGE	BRDG TO BRDG
14			X	156.7000	156.7000	Simplex	VESSEL TRAFFIC SYSTEM	VSL TRAFFIC
15			X	156.7500	156.7500	Simplex, 1W	ENVIRONMENTAL	ENVIRONMENTL
16			X	156.8000	156.8000	Simplex	DISTRESS, SAFETY, CALLING	DITRESS
17			X	156.8500	156.8500	Simplex, 1W	GOVT MARINE CONTROL	GOVERNMENT
18			X	161.5000	156.9000	Duplex	PORT OPERATION	PORT OPERATN
19			X	161.5500	156.9500	Duplex	COMMERCIAL	COMMERCIAL
20			X	161.6000	157.0000	Duplex	PORT OPERATION	PORT OPERATN
21			X	161.6500	157.0500	Duplex	PORT OPERATION	PORT OPERATN
22			X	161.7000	157.1000	Duplex	PORT OPERATION	PORT OPERATN
23			X	161.7500	157.1500	Duplex	MARINE OPERATOR	MAR OPERATOR
24			X	161.8000	157.2000	Duplex	MARINE OPERATOR	MAR OPERATOR
25			X	161.8500	157.2500	Duplex	MARINE OPERATOR	MAR OPERATOR
26			X	161.9000	157.3000	Duplex	MARINE OPERATOR	MAR OPERATOR
27			X	161.9500	157.3500	Duplex	MARINE OPERATOR	MAR OPERATOR
28			X	162.0000	157.4000	Duplex	MARINE OPERATOR	MAR OPERATOR
60			X	160.6250	156.0250	Duplex	MARINE OPERATOR	MAR OPERATOR
61			X	160.6750	156.0750	Duplex	MARINE OPERATOR	MAR OPERATOR
62			X	160.7250	156.1250	Duplex	MARINE OPERATOR	MAR OPERATOR
63			X	160.7750	156.1750	Duplex	MARINE OPERATOR	MAR OPERATOR
64			X	160.8250	156.2250	Duplex	MARINE OPERATOR	MAR OPERATOR
65			X	160.8750	156.2750	Duplex	MARINE OPERATOR	MAR OPERATOR
66			X	160.9250	156.3250	Duplex	MARINE OPERATOR	MAR OPERATOR
67			X	156.3750	156.3750	Simplex	BRIDGE TO BRIDGE	BRDG TO BRDG
68			X	156.4250	156.4250	Simplex	NON COMMERCIAL	NON COMMERCL
69			X	156.4750	156.4750	Simplex	NON COMMERCIAL	NON COMMERCL
70			X	156.5250	Inhibit	Receive Only	DIGITAL SELECTIVE CALLING	DSC REC ONLY
71			X	156.5750	156.5750	Simplex	NON COMMERCIAL	NON COMMERCL
72			X	156.6250	156.6250	Simplex	NON COMMERCIAL	NON COMMERCL
73			X	156.6750	156.6750	Simplex	PORT OPERATION	PORT OPERATN
74			X	156.7250	156.7250	Simplex	PORT OPERATION	PORT OPERATN
77			X	156.8750	156.8750	Simplex	PORT OPERATION (SHIP-SHIP)	PORT OPERATN
78			X	161.5750	156.9250	Duplex	PORT OPERATION	PORT OPERATN
79			X	161.5750	156.9750	Duplex	PORT OPERATION	PORT OPERATN
80			X	161.6250	157.0250	Duplex	PORT OPERATION	PORT OPERATN
81			X	161.6750	157.0750	Duplex	PORT OPERATION	PORT OPERATN
82			X	161.7250	157.1250	Duplex	PORT OPERATION	PORT OPERATN
83			X	161.7750	157.1750	Duplex	PORT OPERATION	PORT OPERATN
84			X	161.8250	157.2250	Duplex	MARINE OPERATOR	MAR OPERATOR
85			X	161.8750	157.2750	Duplex	MARINE OPERATOR	MAR OPERATOR
86			X	161.9250	157.3250	Duplex	MARINE OPERATOR	MAR OPERATOR
87			X	161.9750	157.3750	Duplex	MARINE OPERATOR	MAR OPERATOR
88			X	162.0250	157.4250	Duplex	MARINE OPERATOR	MAR OPERATOR

Weather Channel Frequencies

Ch. No.	RX Frequency	Description (Receive Only)
WX01	162.5500	Weather Information (
WX02	162.4000	Weather Information (
WX03	162.4750	Weather Information (
WX04	162.4250	Weather Information (
WX05	162.4500	Weather Information (
WX06	162.5000	Weather Information (
WX07	162.5250	Weather Information (
WX08	161.6500	Weather Information (
WX09	161.7750	Weather Information (
WX10	163.2750	Weather Information (

SAME Event Codes

Standard	Event Code	Warning	Watch	Statement	Test	Display
ADR	Administrative Message			X		ADMIN MSG
AVA	Avalanche Watch		X			AVALANCHE
AVW	Avalanche Warning	X				AVALANCHE
BHW	Biological Hazard Warning	X				BIOLOGICAL
BWW	Boil Water Warning	X				BOIL WATER
BZW	Blizzard Warning	X				BLIZZARD
CAE	Child Abduction Emergency			X		CHILD EMG
CDW	Civil Danger Warning	X				CIVIL DANGER
CEM	Civil Emergency Message	X				CIVIL EMG
CFA	Coastal Flood Watch		X			COAST FLOOD
CFW	Coastal Flood Warning	X				COAST FLOOD
CHW	Chemical Hazard Warning	X				CHEMICAL
DBA	Dam Watch		x			DAM BREAK
DBW	Dam Break Warning	X				DAM BREAK
DEW	Contagious Disease Warning	X				CONTAGIOUS
DMO	Practice/Demo				X	SYSTEM DEMO
DSW	Dust Storm Warning	X				DUST STORM
EAN	Emergency Action Notification	X				EMG NOTIFY
EAT	Emergency Action Termination	X		X		EMG END
EQW	Earthquake Warning	X				EARTHQUAKE
EVI	Immediate Evacuation	X				EVACUATION
EVA	Evacuation Watch		X			EVACUATION
FCW	Food Contamination Warning	X				FOOD
FFA	Flash Flood Watch		X			FLASH FLOOD
FFS	Flash Flood Statement			X		FLASH FLOOD
FFW	Flash Flood Warning	X				FLASH FLOOD
FLA	Flood Watch		X			FLOOD
FLS	Flood Statement			X		FLOOD
FLW	Flood Warning	X				FLOOD
FRW	Fire Warning	X				FIRE
FSW	Flash Freeze Warning	X				FLASH FREEZE
FZW	Freeze Warning	X				FREEZE
HLS	Hurricane Statement			X		HURRICANE
HMW	Hazardous Material Warning	X				HAZARDOUS
HUA	Hurricane Watch		X			HURRICANE
HUW	Hurricane Warning	X				HURRICANE
HWA	High Wind Watch		X			HIGH WIND
HWW	High Wind Warning	X				HIGH WIND
IBW	Iceberg Warning	X				ICEBERG
IFW	Industrial Fire Warning	X				INDUST FIRE
LAE	Local Area Emergency			X		LOCAL EMG
LEW	Law Enforcement Warning	X				LAW ENFORCE
LSW	Land Slide Warning	X				LAND SLIDE
NAT	National Audible Test				X	NAT AUDIBLE
NIC	National Information Center			X		NATION INFO
NMN	Network Notification Message			X		Network Message
NPT	National Periodic Test				X	NATIONPERIOD
NST	National Silent Test				X	NATIONSILENT

Standard	Event Code	Warning	Watch	Statement	Test	Display
NUW	Nuclear Power Plant Warning	X				NUCLEAR
POS	Power Outage Advisory			X		POWER OUTAGE
RHW	Radiological Hazard Warning	X				RADIOLOGICAL
RMT	Required Monthly Test				X	MONTHLY
RWT	Required Weekly Test				X	WEEKLY
SMW	Special Marine Warning	X				SPECIAL MRN
SPS	Special Weather Statement			X		SPECIAL WX
SPW	Shelter In-Place Warning	X				SHELTER
SVA	Severe Thunderstorm Watch		X			THUNDERSTORM
SVR	Severe Thunderstorm Warning	X				THUNDERSTORM
SVS	Severe Weather Statement			X		SEVERE WX
TOA	Tornado Watch		X			TORNADO
TOE	911 Telephone Outage Emergency			X		911 OUTAGE
TOR	Tornado Warning	X				TORNADO
TRA	Tropical Storm Watch		X			TROPIC STORM
TRW	Tropical Storm Warning	X				TROPIC STORM
TSA	Tsunami Watch		X			TSUNAMI
TSW	Tsunami Warning	X				TSUNAMI
VOW	Volcano Warning	X				VOLCANO
WFW	Wild Fire Warning	X				WILD FIRE
WFA	Wild Fire Watch		X			WILD FIRE
WSA	Winter Storm Watch		X			WINTER STORM
WSW	Winter Storm Warning	X				WINTER STORM
* * A	Unrecognized Watch		X			UNRECOGNIZED
* * E	Unrecognized Emergency			X		UNRECOGNIZED
* * S	Unrecognized Statement			X		UNRECOGNIZED
* * W	Unrecognized Warning	X				UNRECOGNIZED
TXB	Transmitter Backup On					No event code shown
TXF	Transmitter Carrier On					No event code shown
TXO	Transmitter Carrier Off					No event code shown
TXP	Transmitter Primary On					No event code shown

Initialization Settings

No.	Function	Status
1	Channel	CH16
2	SCAN	OFF
3	TRIPLE WATCH	OFF
4	WX MODE	OFF
5	WX ALERT	OFF
6	9CH/16CH MODE	OFF
7	TX POWER	HI
8	WX CH	CH1
9	Memory Channel	All Channel OFF

Menu - SYSTEM

No.	Function	Status
1	CONTRAST	4-1
2	LAMP ADJUST	HIGH
3	KEY BEEP	6

Menu - SETUP

No.	Function	Status
1	TIME ADJUST	LOCAL TIME +0
2	DAYLITE SAVE	OFF
3	DIRECTORY	NONE
4	FIPS	NONE
5	AUTO CH SW	ON
6	POS REPLY	AUTO
7	CH TAG	See “USA/Canadian/International Channel Frequencies”
8	UIC	USA
9	WHAM	BASE ID: 0001 LINK CH: 05
10	WHAM x 4	BASE ID: 01 SUB MODE: OFF
11	SCRAMBLE CODE	000
12	FOG FREQUENCY	200 Hz
13	VESSEL TYPE	MOTOR
14	FOG VOLUME	6
15	GROUP MMSI	NONE
16	USER MMSI	NONE

Menu - OTHER

No.	Function	Status
1	HAIL VOLUME	6
2	NATURE CODE	UNDESIGNATED
3	KEY BEEP	6

Three Year Limited Warranty

WARRANTOR: UNIDEN AMERICA CORPORATION (“Uniden”)

ELEMENTS OF WARRANTY: Uniden warrants, for three years, to the original retail owner, this Uniden Product to be free from defects in materials and craftsmanship with only the limitations or exclusions set out below.

WARRANTY DURATION: This warranty to the original user shall terminate and be of no further effect 36 months after the date of original retail sale. The warranty is invalid if the Product is (A) damaged or not maintained as reasonable or necessary, (B)
modified, altered, or used as part of any conversion kits, subassemblies, or any configurations not sold by Uniden, (C) improperly installed, (D) serviced or repaired by someone other than an authorized Uniden service center for a defect or malfunction covered by this warranty, (E) used in any conjunction with equipment or parts or as part of any system not manufactured by Uniden, or (F) installed or programmed by anyone other than as detailed by the Operating Guide for this product.

STATEMENT OF REMEDY: In the event that the product does not conform to this warranty at any time while this warranty is in effect, warrantor will repair the defect and return it to you without charge for parts, service, or any other cost (except shipping and handling) incurred by warrantor or its representatives in connection with the performance of this warranty. THE LIMITED WARRANTY SET FORTH ABOVE IS THE SOLE AND ENTIRE WARRANTY PERTAINING TO THE PRODUCT AND IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES OF ANY NATURE WHATSOEVER, WHETHER EXPRESS, IMPLIED OR ARISING BY OPERATION OF LAW, INCLUDING, BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow this exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

LEGAL REMEDIES: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty is void outside the United States of America.

PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: If, after following the instructions in this Operating Guide you are certain that the Product is defective, pack the Product carefully (preferably in its original packaging). Include evidence of original purchase and a note describing the defect that has caused you to return it. The Product should be shipped freight prepaid, by traceable means, or delivered, to warrantor at:

Uniden America Corporation
Parts and Service Division
4700 Amon Carter Blvd.
Ft. Worth, TX 76155
(800) 235-3874, 8 AM to 5 PM Central,
Monday through Friday

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