

WHAMx4

Wireless Handheld Access Microphone



Uniden®

*Owner's
Manual*

FCC Information

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

Important: Changes or modifications to this unit not expressly approved by Uniden could void your authority to operate this unit.

FCC RF Exposure Information

Warning! Read this information before using the radio. In August 1996 the Federal Communications Commission (FCC) of the United States with its action in Report and Order FCC 96-326 adopted an updated safety standard for human exposure to radio frequency electromagnetic energy emitted by FCC regulated transmitters.

Those guidelines are consistent with the safety standard previously set by both U.S. and international standards bodies. The design of the radio complies with the FCC guidelines and these international standards.

Warning! It is up to the user to properly operate this radio transmitter to insure safe operation. Please adhere to the following:

Use only the supplied or an approved antenna. Unauthorized antennas, modifications, or attachments could impair call quality, damage the radio, or result in violation of FCC regulations.



Do not use the radio with a damaged antenna. If a damaged antenna comes into contact with the skin, a minor burn may result. Please contact your local dealer for a replacement antenna.

Body-Worn Operation

This device was tested for typical body-worn operations using the supplied belt-clip.

To maintain compliance with FCC RF exposure requirements, Body-worn operations are restricted to the supplied belt-clip.

For hand-held operation, the radio should be held 1 inch from the user's face. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements and should be avoided.


For more information about RF exposure, please visit the FCC web site at www.fcc.gov.

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The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.
"Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device."

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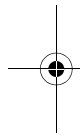
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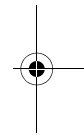
Introduction



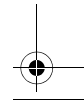
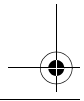
Your Uniden WHAMx4 2.4 GHz Wireless Microphone is the next generation in wireless handheld microphones, and is compatible with new Uniden Marine radios. It combines state-of-the-art technology with rugged durability and ease of use. The microphone's all solid-state design and conservatively-rated components and materials make it an ideal choice for harsh marine environments. The microphone's large display and backlit control buttons make it easy to use even in extreme lighting and weather conditions. You can use up to four WHAMx4 microphones with the same marine radio.



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



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



Feature Highlights

Intercom Input - You can use the microphone to control a 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 use the microphone to call handset-to-handset, handset to radio, handset to multiple stations including the radio, handset to second radio, and radio to individual, group, or all handsets. You can even use a second base radio as an intercom

VOX - You can connect and use a VOX microphone with the microphone.

Outrange Alert - The microphone alerts you if you are moving out of its range.

Auto Handset Registration - The microphone automatically registers itself with your radio.

Handset Paging - You can send a tone to the microphone, to make it easier to find it you it gets lost.

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

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

Battery Level Display - The microphone displays the status of the battery.

Floating Handset - The microphone floats, making it easy to retrieve if you drop it.



Understanding Your Microphone



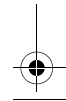
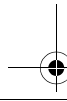
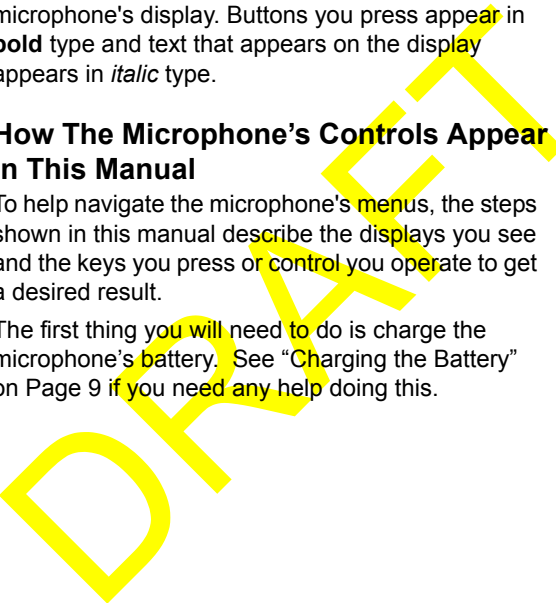
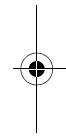
About This Manual

The screen displays used in this manual are representations of what might appear when you use your microphone. 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 microphone's display. Buttons you press appear in **bold** type and text that appears on the display appears in *italic* type.

How The Microphone's Controls Appear in This Manual

To help navigate the microphone'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.

The first thing you **will** need to do is charge the microphone's **battery**. See "Charging the Battery" on Page 9 if you need **any** help doing this.



Setting Up The Microphone

Charging the Battery

Need this information.

Engine Noise Suppression

Interference from the noise generated by the electrical systems of engines is sometimes a problem with microphones. Your microphone 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.

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

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A Look at the Microphone



POWER/VOLUME - Hold down for 2 seconds to turn the microphone on or off. Briefly press to select the volume setting mode.

▲ - Press to scroll up through the channels and menu options. Hold down to increase scrolling speed.



▼ - Press to scroll down through the channels and menu options. Hold down to increase scrolling speed.

MENU HI/LO - Press to enter and exit the menu mode. Hold down to change transmit power from high to low. Hold down again to change transmit power to high.

SELECT/SCRAM - Press in normal channel mode to display the time, date, latitude, longitude, SOG (speed over ground), and COG (course over ground). Press in menu mode to select menu items. Hold down to turn on the Scrambler for the current channel.

16/9/TRIPLE WATCH - Press to tune to Channel 9 and Channel 16 and to use Triple Watch.

HAIL/INTERCOM - Press to turn the hailer on or off. Hold down for 2 seconds to use the radio's intercom feature.

SQUELCH - Press to turn on the squelch setting mode.

STEP/SCAN - Hold down to scan through all channels in memory.

MEM/UIC - Press to place the currently selected channel in memory. Press again to delete a channel from memory. Hold down to change UIC mode.

WX/ALERT - Press to listen to the active weather channel in your area. Hold down in weather alert mode to turn on weather alert.

PTT - Press to transmit.



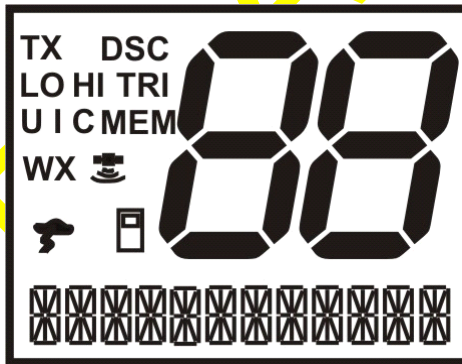
DISTRESS - Hold down for 5 seconds to turn on distress transmit. The microphone counts down during distress. If you release the key before the count-down is finished, distress is automatically cancelled.

LIGHT/LOCK - Press to turn on the display and keypad backlight at its lowest level. Press again to change the backlight to medium level. Press again to change the backlight to high level. Press again to turn off the backlight.

Hold down for 2 seconds to turn on keylock. All keys are locked except **PTT**. To unlock the keypad, hold down **LIGHT/LOCK** for 2 seconds or turn off the microphone then turn it on again.

A Look at the Display

Status Icons



TX - Appears while the microphone is transmitting.



LO - Shows the transmit output power is set to 1 watt on the output channel.

HI - Shows the transmit output power is set to 25 watts on the output channel.

MEM - Indicates if a channel has been placed into channel scanning memory.

TRI - Appears when the microphone is on a working channel and is watching channel 16 and channel 9. Also, additionally if watching the weather channel.

WX - Appears when the microphone is in the weather mode.



- Appears when the weather alert channel watch is active and blinks when the alert is activated.

UIC - Shows the channel mode (USA, INT, or CAN).

DSC - Appears when the microphone is in the DSC mode, including receiving DSC calls. It also shows that the microphone is connected to the main radio (by RF). It blinks when the microphone is close to out of range, or when completely out of range.



GPS is connected to the microphone. The signal wave portions of this icon will blink sequentially to indicate that the GPS data being received is valid.



This icon shows that the microphone is connected to the main radio (by RF). It blinks when the WHAMx4 is close to out of range, or when completely out of range.



Operation

Turning the Microphone On and Off

Hold down **POWER/VOLUME** to turn on the microphone. If the main radio is turned on, the channel displayed will be the current channel selected on the main Radio.

Hold down **POWER/VOLUME** again to turn off the microphone.

Adjusting the Volume

Briefly press **POWER/VOLUME** to adjust the volume, then repeatedly press  to turn the volume up or  to turn the volume down. Briefly press **POWER/VOLUME** again to turn off volume mode.

The microphone remember the last setting selected before you turn it off.

Adjusting the Squelch/ Checking the Battery Level

Pressing this key will activate the Squelch setting mode. When the Squelch setting mode is active, pressing the UP or DOWN keys will adjust the setting. Pressing the Squelch key again will deactivate the Squelch setting mode. Also, the user can press any key (except the UP and DOWN arrow keys) to deactivate the Squelch setting mode. The Squelch control will have 10 settings 0-9. The WHAMx4 will remember the last setting selected before being turned off. The default setting will be set to 4. The following screen shows the Squelch setting mode.

Pressing and holding the Squelch key will activate the battery level display screen. The battery level range will be 0~9 (0 being empty and 9 being full). Any other key will deactivate this screen.

Using Triple Watch

When pressed, this key will immediately tune to channel 16. This will occur no matter what channel the radio is currently tuned to. When the key is pressed a second time from the channel 16 display mode, the WHAMx4 and the radio will instantly tune to channel 9. A third press of the 16/9 key will then go back to the original working channel that the user started from.

The TRIPLE WATCH function will be activated if a user is on a channel other than 16 or 9 and presses and holds the 16/9 key for 2 seconds. The TRI icon will then be displayed and the radio will check channel 16 every 2 seconds and then channel 9 immediately afterward, then return to the original working channel.

NOTE: If the channel other than 16 and 9 is a weather channel, the radio will automatically enter the TRIPLE WATCH mode and will operate the same as the MHS350.

*NOTE: If the weather alert is activated, the radio will also work the same as the MHS350 by going from the channel other than 16 or 9 (working channel) to 9 then 16 then back to the working channel. Every 7 seconds the radio will also check the active weather channel for the weather alert tone.

NOTE: If FIPS codes are assigned and the weather alert is activated, the SAME weather function will



not work in the TRIPLE WATCH mode. The radio will only search for the 1050Hz tone.

Using WX/Alert

Pressing the WX/Alert key will allow the user to listen to the active NOAA weather channel in the local area. Upon pressing the key, the weather channel number that is active will be displayed in the channel display. The WX icon for weather will also be displayed.

*NOTE: The weather channels can be changed by pressing the UP arrow Key (increasing) or pressing the DOWN arrow key (decreasing). The radio will always return to the last weather channel selected. This will even apply if the radio is turned off and then turned back on again.

Pressing and holding the WX/Alert key for 2 seconds will place the radio into the weather alert mode. A flashing WX icon will indicate that the radio is in weather alert mode. If FIPS codes are programmed, the icon will still flash and the nature of the alert will be displayed in the text area of the display.

Using STEP/SCAN

The user will press this key to activate the step operation. Every time this key is pressed, the radio will step to the next channel that has been placed into Memory (see MEM section). Pressing and holding this key for ~2 seconds will activate the channel scan feature and the 2 segment channel numbers will show the channels that are being scanned, starting with the lowest channel number to the high-



est. Any time that the scan is activated, the TRIPLE WATCH function will also be activated and the TRI icon will be displayed. During the scan mode the radio will automatically check channels 16 and 9 every two seconds in the scan operation.

NOTE: The user will be able to press and hold the 16/9 key to take the radio out of TRIPLE watch but still continue to SCAN.

Using MEM/UIC

Pressing this key briefly will place the displayed channel into memory. Once a channel has been programmed into memory, the MEM icon will be displayed each time the channel is shown in the LCD screen. All channels will have the ability to be stored in memory for scanning (except Weather channels). Pressing this key briefly again will remove the channel from memory.

Pressing and holding this key for ~2 seconds will change the radio mode from USA to INTERNATIONAL, to CANADIAN channel modes.

NOTE: The radio needs to remember which channel was last selected in each of U,I,C so that when the radio is switched modes the next time these modes are selected the last channel is displayed. Also, this will apply even if the radio is turned off. The initial default channel for each mode is channel 16.

NOTE: To delete a channel from the memory, the user will tune to the channel that they wish to delete and press the MEM key. At that time the MEM icon will be deactivated.



Using Select/SCRAM

Pressing this key briefly while in the Menu mode will select the menu items. Pressing and holding this key will activate the Scramble mode for the selected channel. Briefly pressing this key during the normal channel operation mode, will activate the following scrolling information : Current Local Time, Current Position (Latitude/Longitude), SOG (Current Speed Over Ground), and COG (Current Course Over Ground). Pressing this key briefly again will deactivate the scrolling information and return the display to show the current channel name.

*NOTE: The channel mode display information will be the priority and will be displayed whenever the radio receives an incoming transmission or when the radio is transmitting. The user can also toggle back and forth between the two displays by pressing the SELECT key from the channel display screen.

Using HAIL/INTERCOM

Pressing this key briefly will activate the Hailer feature. To adjust the outgoing volume, press the UP arrow key to increase and the DOWN arrow key to decrease. To adjust the incoming Hail volume, briefly press the Volume key, then the UP arrow key to increase and the DOWN arrow to decrease. The following screen shows the Hailer mode. Press the Hail key again briefly to exit the Hail mode.

Press the select key or the PTT key to choose the Hailer mode.

Press and hold the Hail key for ~2 seconds to activate the Intercom feature. The user can now choose



the units that they want to talk to: base radio 1, base radio 2, WHAM 2, WHAM 3, WHAM 4, All, Group 1, or Group 2. For which WHAM's will be on the list will depend on which WHAM number the user is using (for the above example, the user is using WHAM 1). There are 2 user programmable Groups for the intercom. The following shows the Intercom select screen.

Pressing the Select key or the PTT key will choose the Intercom mode.

NOTE: The user has to set-up the Group 1 and Group 2 in the Setup menu.

NOTE: Base Radio 2 will only be active in the menu after the WHAMx4 is registered to recognize this radio for Intercom purposes only.

NOTE: To use the PA feature, the user would just install a non-listen-back type of speaker horn.

Using LIGHT/LOC

Press this key briefly to activate the Low backlight setting. Press this key for a second time to select the Medium backlight setting. Press this key a third time to select the High backlight setting. Press this key a fourth time to select the backlight Off setting. Press and hold this key for ~2 seconds to activate the Keylock feature. The only active key while in the keylock mode is the PTT key. Either by pressing the Light/Lock key for ~2 seconds, while in the Keylock mode, or by turning off then on the WHAMx4 will disable the Keylock feature.



Using Distress

This key will be used to send a distress signal. Please refer to the documents previously noted in Section 4 (Documents Required To Build a DSC radio) for more details on this feature.

Using MENU/H/L

Pressing this key briefly will activate the menu. The menu will control the following categories: DSC CALL, SETUP, SYSTEM. Within each of these categories, there will be submenu options that are outlined in the flowchart below. Pressing this key for ~2 seconds will change the transmit output power for the currently selected channel from HI to LO or from LO to HI depending on the current setting. Changing to HI power is dependent on the particular FCC/IC channel power restriction.

Using DSC Call

This section will detail the operation of the DSC functions.

Using Individual Call

This option will allow the user to select a name from their directory and make a call to that one individual. Press the SELECT key and the first name alphabetically will be displayed on the LCD. By pressing the DOWN arrow key, the user will be able to scroll through the names list until the EXIT option is displayed. At this point the user can press the SELECT key to exit the MENU mode. If the user presses the DOWN arrow key again while in this menu, the first name will be displayed again (wrap around feature). When the Individual menu is first entered, pressing

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the UP arrow key will move to the bottom of the names list (wrap around feature). At any time while in this menu, pressing the MENU key will move the display back up to the DSC CALL menu.

By using the UP and DOWN arrow buttons, choose a desired name, then press the SELECT key to send the name of the person that is highlighted and the WHAMX4 will continually scroll from right to left.

This information as well as a loud ringing tone will come from the callers radio until the person who is being called presses their PTT key to reply (or the call times out after 5 minutes) which will disarm the ringing tone from the radio.

NOTE: The Individual call information is setup using the DIRECTORY menu.

NOTE: When the call is first made both the WHAMx4, the main radio, and the called radio will display channel 70 while the signal is received. After all of the data is received, the receiving radio will change channels to the channel that the transmitting radio first sent the transmission out on.

Example: Radio one makes an individual call on channel 17 and radio two is on channel 20. The receiving radio will automatically change to channel 17 once the signal is received. The receiving radio will also display the name of the party that has called and the indicator of INDIVIDUAL.

Using Group

This function will be used to send a message to the group of MMSI numbers.



Starting from the Channel display mode, the user will press the Menu key and the following screen will appear.

Press the SELECT key and use the DOWN / UP keys to display the following screen.

Press the SELECT key to send the GROUP call. Or scroll down to Exit, then press SELECT to exit back to the radio mode. By pressing the MENU key while in this menu will return the radio to the DSC CALL menu. When the GROUP CALL has been sent, the following screen will be displayed until either a radio in the group presses their PTT button or the call times out after 5 minutes.

Using ALL SHIPS

This function will be used to send a message to all ships. There will be three types of transmissions that may be sent, URGENCY, SAFETY, ROUTINE.

Starting from the Channel display mode, the user will press the Menu key.

Press the SELECT key and the DOWN or UP arrow keys until the ALL Ships menu option is displayed .

The user will then use the DOWN or UP keys to select the option call type that they wish to send.

Once the desired option is highlighted, the user will press the SELECT key to send the call. Upon sending the call the WHAMx4 will display the channel mode screen with channel 70 showing. The radio will go to the specified channel above based upon the type of call that is being made. (Either 16 or the channel that the transmission was made from).



NOTE: When sending either an URGENCY or SAFETY message, both radios will automatically move to channel 70 until all of the data is received and then both radios will go to channel 16 for transmissions and replies. The URGENCY transmission will need to send a siren type audio tone while the SAFETY and ROUTINE options may just send a regular calling tone. The ROUTINE transmission will go to channel 70 until all data is transmitted, then the WHAMx4, the main radio, and the called radios will go to the channel that the transmission originated from.

NOTE: The receiving radio will display ALL SHIPS and the name of the sender as illustrated below. This display will occur for any type of ALL SHIPS call.

Using Geographical Call

This option will only be available in the DSC call section of the menu if there is an external GPS module attached to the NMEA0183 jack. This operation will work exactly the same as an INDIVIDUAL call except that the receiving radio will display the following screen.

Position Request

This function will be used to request the position of another DSC radio.

Starting from the Channel display mode, the user will press the Menu key and the following screen will appear.

Using the Down and Up key to scroll to the desired name, then press the Select key to transmit the

Operation



Position Request command. The following screen will be displayed while the WHAMx4 is waiting for the called radio to answer.

When the called radio answers, and contains position information, the information appears on the microphone's display.

Position Send

The feature will allow the WHAMx4 to send the current radio position (Lat/Long/Time/Date) if both, the radio is connected to a GPS and is receiving valid position information. The following explains the operation of this feature starting with the normal channel screen.

When the WHAMx4 receives a position send request from another radio, the WHAMx4 will either, automatically send the position/time/date information, display the confirmation, and alert the user by ringing the radio (press any key to disable the ringing).

Using Standby

The WHAMx4 will allow the user to place the radio in an unattended mode. This will not allow an incoming DSC call. The user will need to place the radio in this mode if they will be away from the radio and not wish to answer any calls. The following screens illustrate how this function is activated.

Starting from the Channel display mode, the user will press the Menu key and the following screen will appear.

Press the Down or Up arrow keys to display the Standby feature.

Operation

NOTE: The user can press any key on the WHAMx4 or the PTT key to deactivate this feature. When this mode is activated the WHAMx4 will receive quick beep tones indicating that a call is coming in. The WHAMx4 will automatically reply to the call on channel 70 and then return to the working channel with the screen shown directly above.

Using Call Waiting

This feature allows the user to view a list of received calls that came into the WHAMX4 while either in STANDBY mode or if a call timed out after 5 minutes and went into the Call Wait log.

Starting from the Channel display mode, the user will press the Menu key and the following screen will appear.

Press the Down or Up arrow keys to display the CALL WAIT option. The following screen will be displayed.

Press the Select key and the following screen will give the user three options to view the logged messages, DISTRESS, INDIVIDUAL, or the EXIT option. By using the DOWN and UP arrow keys, the WHAMx4 will display the desired choice.

From this screen, the user can press the SELECT key and use the DOWN and UP arrow keys to scroll through the logged calls.

The user can then press the SELECT key to get further information about the call that came in.

NOTE: If the call that is being viewed in the log came in without GPS information, the user will press in on the SELECT key.



The user can either choose to select SEND by pressing the SELECT key or can use the DOWN or UP arrow to display the EXIT option.

Choosing the Send option will act as just like an INDIVIDUAL call.

Choosing the EXIT option will take the user back one level to the list of names. The user can use the DOWN or UP arrow keys scroll to the bottom of the list of names and choose the EXIT option and continue to back out of the menu options one level at a time.

NOTE: In the CALL WAIT log, the DISTRESS category must be able to store the last 20 calls that came in purging and deleting the oldest of the 20 to receive the new incoming. The INDIVIDUAL category must be able to store the last 50 incoming calls that came in purging and deleting the oldest of the 50 to receive the new incoming.

This screen will display the callers' date and time that the call was received. The user will be able to send a DSC call back to the waiting message by pressing the SELECT key, or the user may select EXIT by using the DOWN or UP arrow keys and back up one level in the CALL WAIT menu.

NOTE: If a call comes in and is not received, a call in absence indicator will be displayed. If the receiving radio is in STANDBY mode, the screen will show the following (the entire scrolling text will be blinking).

Using Fog Horn

This feature allows the user to generate fog horn sounds from the optional hailer horn/horns attached

Operation



to the main radio. There are fixed sounds depending on the following conditions.

AUTOMATIC – (Automatic) Fog horn from the following list depending on GPS (stopped, moving, powerboat, etc...)

MANUAL - (Manual) Use of the horn signal for passing.

UNDERWAY – (Automatic) Fog signal for Power Boat underway.

STOP – (Automatic) Fog signal for vessel that is stationary (stopped).

SAIL – (Automatic) Fog signal for sailboat, fishboat, towboat.

TOW – (Automatic) Fog signal for vessels under tow.

ANCHOR – (Automatic) Fog signals for any vessel at anchor.

AGROUND – (Automatic) Fog signals for any vessel aground.

YELP – (Manual) Yelp type siren for Police, Fish & Game, US Coast Guard.

From the Menu, use the UP and DOWN arrow keys to highlight the fog horn feature and press the Select key.

For all selections, except automatic, after selecting an option the WHAMx4 will return to the main menu. For the Automatic setting, the following screen will be displayed.



Setting Up the Microphone

This portion of the menu system deals with features that the user may wish to change, however, these features are mostly adjusted on the initial setup of the radio or WHAMx4. Most of these features are not changed as commonly as the items in the system section of the menu.

The user will press the MENU key and use the DOWN or UP arrow keys to display the SETUP option. By pressing the SELECT key, the WHAMx4 will enter the SETUP mode. By pressing the DOWN or UP arrow keys and then the SELECT key, the following System options are entered.

Using the Directory

This feature in the setup menu will allow the user to set up a directory of other boaters with DSC capable radios that have an MMSI. The following screens will allow the user to setup an alphanumeric identity as well as the corresponding MMSI number. The following screens and commands will illustrate the operation of this feature.

Press the SELECT key.

Use the UP and DOWN arrows to move through the alphabet until the desired letter/number is reached (example "A"). At that time the user will press the SELECT key and the next space will start flashing.

The same process will be repeated until the alpha tag is complete. Once completed, the second space after MMSI will start flashing and the same process will be used to program in the MMSI number.



Pressing the SELECT key will return to the Directory menu. If there are already entries in the directory, pressing the UP and DOWN arrow keys will scroll through the names alphabetically. Also, the UP and DOWN arrow keys will wrap around once the end of the directory has been reached.

Located at the last positions of the Directory are NEW, MODIFY, DELETE, and EXIT.

*NOTE: Please see the following as a list of the alpha characters that will be available for programming:

ABCDEFGHIJKLMN OPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz1234567890.,/' :+& and (BLANK).

1.15.2 Channel Tag (Name)

This item in the Setup menu will allow the user to change the normal channel tags (names). This is necessary when the user needs to change the channel tag depending what the channel's authorized use is for that area. From the SETUP Menu, press the DOWN or UP arrow keys until the following screen is displayed.

NOTE: The user will need to place the WHAMx4 onto the desired channel before they can change the channel tag for that channel.

Pressing the UP or DOWN arrow keys will scroll through a list of preprogrammed channel names. Pressing the SELECT key will select one of these names. OR, from the Channel Name screen, pressing select twice will highlight the first character of the channel name and using the UP and DOWN arrow



keys will select a new first character. After choosing the first character, pressing the SELECT key will flash the second character. Repeating this process for a maximum of a 12 character channel name.

Pressing the SELECT key again will return the radio to the Setup mode.

Adjusting the Local Time

This feature will allow the user to fine tune the Local Time for any location in North America. This feature allows adjustment to the Local Time by +/- 1 hour.

From the SETUP Menu, press the DOWN or UP arrow keys.

Pressing the Select key will now allow the user to adjust the local time.

Turning Daylight Saving On or Off

This feature allows the user to select the automatic daylight savings for the Clock feature. From the SETUP Menu, press the DOWN or UP arrow keys until the following screen is displayed.

Pressing the SELECT key will accept this setting and return the radio to the System menu.

Programming a FIPS Code

This option from the menu system will allow the user the ability to add FIPS codes in order to activate the Specific Area Message Encoding (S.A.M.E.) weather alert system. The following screens will be used to program FIPS codes and to activate the weather alert.

Press the SELECT key and use the DOWN or UP keys desired location of the FIPS code that the user



wants to enter then press the SELECT key. If a FIPS code has not yet been entered to the location, the number 0 will be flashing in the first location. If a FIPS code has already been programmed into the location, the first digit of that code will be blinking. To increase the number, press the UP arrow key. Press the DOWN arrow key to decrease. Below are the screens and commands to program a FIPS code.

Press the SELECT key. The first zero will be blinking and the user will Press the UP arrow key to show a 5. The user will then press the SELECT key to move to the next blinking zero.

This process will be repeated for all 6 digits of the FIPS code. When the final digit is programmed, pressing the DOWN or UP arrow key will move to the next location. This process can be used to input up to all 30 FIPS codes. To exit the FIPS code programming screen, the user will press the MENU key. Upon pressing the Menu key, the user will come back to the following screen.

Note : There will be a minimum of 20 FIPS memory locations.

Using Auto Channel Switch

This item in the Setup menu will allow the user turn on or off the automatic channel change during a DSC call. This is necessary when the user is using the radio, and because of safety reasons, does not want the radio to switch channels.

Pressing the SELECT key will accept this setting and return the radio to the Setup menu.



Using Position Reply

This item in the Setup menu will allow the user turn on or off the automatic Position Reply when another DSC radio asks for the users position. This is necessary when the user does not want other radios know his position. From the SETUP Menu, press the DOWN or UP arrow keys until the following screen is displayed.

Using a Group MMSI

This feature allows the user to setup an MMSI number so that they can make a single call to a group of boats. Below are the operational screens for programming the group MMSI number.

Press the SELECT key to show the MMSI programming screen.

The first zero will be flashing. The user will use the UP or DOWN arrow keys to increase or decrease the zero to a number such as 6. Pressing the UP arrow key will increase the number; pressing the DOWN arrow key will make the number decrease. Once the correct number is displayed, the user will press the SELECT key to confirm and the next zero will blink. This process will be repeated until all 9 digits are confirmed. (See Below)

After the final digit is selected, pressing the SELECT key will confirm the MMSI entry and the Display will show the following screen. If the user presses the MENU key while in the MMSI entry screen, the radio will exit the MENU mode without retaining the MMSI number.



The user can now use the DOWN and UP arrow keys to display and SELECT to exit the Menu.

Using the Scrambler

This option requires the user to install the optional Scramble PC board into the main radio. If the optional PC board is not installed, the WHAMx4 will display the following message indicating that this feature is not available.

Pressing the select key will activate the next screen.

After the 3 digit scramble code has been entered, the WHAMx4 will return to the Setup menu screen.

Exiting a Menu

This option will allow the user to quickly exit the menu options screen and return back to the channel display screen. This option is found in the DCS CALL, SYSTEM, and SETUP sections of the menu system. A user will move to the EXIT option (using the DOWN and UP arrow keys) and pressing the SELECT key in order to exit the menu system and return to the channel display mode.

Setting Up the System

This portion of the menu system deals with options that the user may wish to adjust based upon conditions or preferences. The user will press the MENU key and use the DOWN or UP arrow keys to display the SYSTEM option. By pressing the SELECT key, the radio will enter the SYSTEM mode.

Adjusting the Contrast

This option will allow the user to change the contrast levels of the WHAMx4 LCD. Setting this feature



when, using the WHAMX4 DOES NOT affect the contrast setting on the main radio or other WHAMX4 units that may be operational on the system. This feature will use the DOWN and UP arrow keys to change the contrast level on the LCD screen. The contrast will change on the LCD will be shown in the channel area of the display. Pressing the UP arrow key will increase the contrast. Pressing the DOWN arrow key will decrease the amount of contrast. Once the contrast level appears to the users' satisfaction, the SELECT key will be pressed and the radio will return to the channel display screen. Upon returning to the channel display screen all information will be the same as it was before the user entered the menu system.

NOTE: This function needs to have a reset in case the LCD screen becomes unreadable due to environmental changes. The default setting should be level four of seven on the LCD. To reset all of the features to the factory settings the user will hold in the Menu key while turning the radio on. **THIS WILL NOT RESET THE MMSI.**

Adjusting the Key Beep

This feature will allow the user to turn on or off the key beep tones. From the SETUP Menu, press the DOWN or UP arrow keys until the following screen is displayed.

Pressing the SELECT key will accept this setting and return the radio to the System menu.



DSC Alarm Level

This menu option enable the user to select the type of alarm that will be used when receiving a DSC alert or call. The idea is that normally the alert or ring is a fixed level. This option will allow the user to choose a fixed type of alarm or a slowly increasing alarm. The slowly increasing alarm would allow the user to “any key” shut off the alarm before the alarm level gets loud.

Pressing the Select key will activate the next screen.

By using the UP or DOWN arrows, the user can display the alarm choice and then press the Select key. If the Menu key is pressed, then no change in alarm type will be entered. Pressing the Select key will save the alarm choice and return to the System menu.

Adjusting the WX Alarm Level

This menu option will enable the user to select the type of alarm sound they will hear when there is an Emergency/Weather alert. From the System menu, Select the WX Alarm Level option.

By pressing the Select key, the following options are available.

By using the UP or DOWN arrows, the user can display the alarm choice and then press the Select key. If the Menu key is pressed, then no change in alarm type will be entered. Pressing the Select key will save the alarm choice and return to the System menu.



Using Self Test

This menu item will activate, through the WHAMx4, a self test of the main radio. The main radio constantly monitors these items, but there are time when a user may want to run a diagnostic on the main radio. This test will include the current WHAMx4 link signal condition, by reading the RSSI level. The self test will include the following items. These items will be displayed one-by-one until all items have been displayed. Any items that have problems detected will continue to scroll after the test is complete. To cancel showing the failed items, either press the menu or select keys to return to the System menu.

- Antenna Condition (OK, Open, Shorted)
- GPS Condition (OK, No Data Flow, Not Connected)
- WHAM (OK, Poor Signal)
- Battery (OK, Too Low, Too High)

Adjusting the VOX Sensitivity Level

This menu option will allow the user to adjust the VOX sensitivity level for the environment they are using the optional headset.

From the System menu, use the UP and DOWN arrow keys to activate the next screen.

Press the Select key to activate the next screen.

Press the UP and Down arrow keys to choose the VOX sensitivity level (Of, 1, 2, 3) and press the Select key to save or the Menu key to exit. Either way the System menu is Selected.



Using Handset Paging

The menu item is used to find a misplaced WHAMx4 Handset. This feature will allow the user to find any one of, or all handsets (upto 3 from any WHAMx4). From the Main Menu, use the UP or Down arrow keys to display the next screen.

Press the Select key to activate the next screen.

By using the UP and DOWN arrow key, the user can choose which handset or all handsets (2, 3, 4, AL) (assuming for this example that we are using handset number 1 to find a missing handset). Pressing the Select key will activate the handset page and the missing handset should start beeping (the handset should beep for 1 minute unless any key is pressed on that handset. If either the Select key or the Menu key is pressed, the Main menu screen is selected.

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Care and Maintenance

Your WHAMx4 Wireless Microphone 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 microphone.
- You are responsible for continued FCC technical compliance of your microphone.
- You are urged to arrange for periodic performance checks with your Uniden Marine dealer.

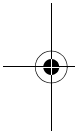
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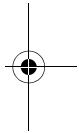
Specifications



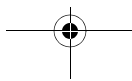
NEED THESE



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Specifications



Appendix

Reference Information

USA/Canadian/International Channel Frequencies

Ch. No.	US	CAN	INT	RX	TX	Status	Full Name	TX Character Name	
1A	X				156.0500	156.0500	Simplex	VESSEL TRAFFIC SYSTEM/COMMERCIAL	VTS/COMMERCIAL
3A	X				156.1500	156.1500	Simplex	COAST GUARD, GOVT ONLY	CG ONLY
5A	X				156.2500	156.2500	Simplex	VESSEL TRAFFIC SYSTEM/COMMERCIAL	VTS/COMMERCIAL
6	X				156.3000	156.3000	Simplex	INTER-SHIP SAFETY	SAFETY
7A	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 COMMERCIAL
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	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
18A	X				156.9000	156.9000	Simplex	COMMERCIAL	COMMERCIAL
19A	X				156.9500	156.9500	Simplex	COMMERCIAL	COMMERCIAL
20A	X				157.0000	157.0000	Simplex	PORT OPERATION	PORT OPERATN
21A	X				157.0500	157.0500	Simplex	COAST GUARD ONLY	COAST GUARD
22A	X				157.1000	157.1000	Simplex	COAST GUARD	COAST GUARD
23A	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
61A	X				156.0750	156.0750	Simplex	COAST GUARD	COAST GUARD
63A	X				156.1750	156.1750	Simplex	VESSEL TRAFFIC SYSTEM	VSL TRAFFIC
64A	X				156.2250	156.2250	Simplex	COMMERCIAL	COMMERCIAL
65A	X				156.2750	156.2750	Simplex	PORT OPERATION	PORT OPERATN
66A	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 COMMERCIAL
69	X				156.4750	156.4750	Simplex	NON COMMERCIAL	NON COMMERCIAL
70	X				156.5250		Inhibit	DIGITAL SELECTIVE CALLING	DSC REC ONLY
71	X				156.5750	156.5750	Simplex	NON COMMERCIAL	NON COMMERCIAL
72	X				156.6250	156.6250	Simplex	NON COMMERCIAL (SHIP-SHIP)	NON COMMERCIAL
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
78A	X				156.9250	156.9250	Simplex	NON COMMERCIAL	NON COMMERCIAL
79A	X				156.9750	156.9750	Simplex	COMMERCIAL	COMMERCIAL
80A	X				157.0250	157.0250	Simplex	COMMERCIAL	COMMERCIAL
81A	X				157.0750	157.0750	Simplex	COAST GUARD	COAST GUARD
82A	X				157.1250	157.1250	Simplex	COAST GUARD	COAST GUARD
83A	X				157.1750	157.1750	Simplex	GOVERNMENT	GOVERNMENT
84	X				161.8250	157.2250	Duplex	MARINE OPERATOR	MAR OPERATOR
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

Ch. No.	US	CAN	INT	RX	TX	Status	Full Name	YZ-Character Name
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	SYSTEM 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 GUARD	COAST GUARD
82'A	X			157.1250	157.1250	Simplex	CANADIAN COAST GUARD	COAST GUARD
83'	X			161.7750	157.1750	Duplex	CANADIAN COAST GUARD	COAST GOARD
83'A	X			157.1750	157.1750	Simplex	CANADIAN COAST GUARD	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.	US	CAN	INT	RX	TX	Status	Full Name	YZ-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	CALLING
10	X			156.5000	156.5000	Simplex	CHANNEL 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	ENVIRONMENTAL	ENVIRONMENTL
16	X			156.8000	156.8000	Simplex	1W DISTRESS, SAFETY, CALLING	DITRESS
17	X			156.8500	156.8500	Simplex	GOVT MARINE CONTROL	GOVERNMENT
18	X			161.5000	156.9000	Duplex	1W 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	DIGITAL SELECTIVE	DSC REC ONLY
71	X			156.5750	156.5750	Simplex	Only CALLING	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 (

Limited Three-Year 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

Three Year Limited Warranty

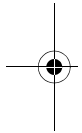
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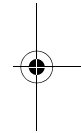
PURPOSE. THIS WARRANTY DOES NOT COVER OR PROVIDE FOR THE REIMBURSEMENT OR PAYMENT OF INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow this exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

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.

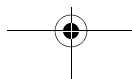
PROCEDURE FOR OBTAINING PERFORMANCE OF WARRANTY: If, after following the instructions in this Operating Guide you are certain that the Product is defective, pack the Product carefully (preferably in its original packaging). Include evidence of original purchase and a note describing the defect that has 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

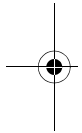


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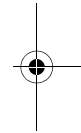


Three Year Limited Warranty

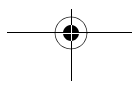


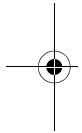


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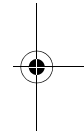


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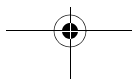




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May be covered under one or more of the following U.S. patents.

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5,199,109 5,408,692 5,428,826 5,438,688 5,448,256

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