Uniden® A World Without Wires®

MHS450

OWNER'S MANUAL

Marine Band
2.5 Watts
USA Memory
Alert Locked
DISTRESS
16

SUBMERSIBLE

16/9
TRI

MENU

ENTER

WX
ALERT

SCAN
MEM

1/2.5/5W

MHS450

MIC

Table of Contents

A Quick Start Guide for the MHS450

Follow these steps to get going!

1. Rotate **VOLUME** until the display lights. The Power On tone sounds. The default display shows channel 16 in the US marine band, a 5 watt level and the purpose of the channel such as *DISTRESS* at the bottom edge.
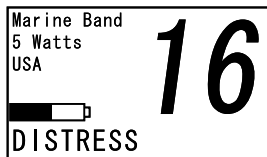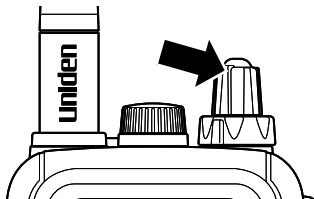

```
Marine Band
5 Watts
USA           16
DISTRESS
```

2. Press ▲ or ▼ to change channels. The marine channels begin at 01 and continue, in a closed loop, through 88A.


```
  06  Safety
  05A VTS/Com
  03A CG Only
  01A VTS/Com    01
  88A Commerc      A
  88  Mar Opr
  87  Mar Opr
```
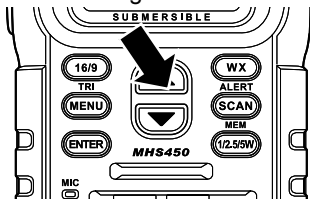
3. To listen to your local NOAA weather channel, press **WX/ALERT.** One channel of the 10 available will be best. Press **WX/ALERT** to return to marine channels.


```
Weather Band
        01
162.5500 MHz
```
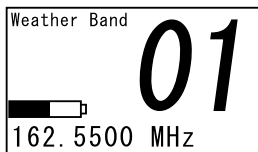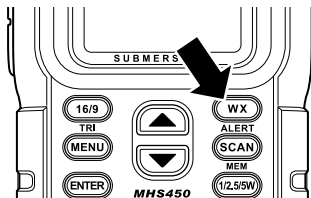
4. To transmit, repeated press **1/2.5/5W** to select a power level. Then, press ▲ or ▼ to select a channel.

5. Press PTT. The display confirms transmitting at the bottom of the screen and your power level as well.


```
Marine Band
5 Watts
USA
        88 A
TRANSMITTING
```
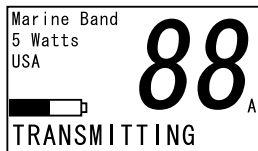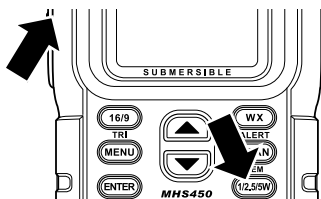
Storing a Channel in Memory

The MHS450 radio can scan channels you have stored in memory. You can store marine channels for later scanning. To store a channel in memory, follow these steps:

1. Use ▲ or ▼ until you reach a channel you want to store.

2. Press and hold **SCAN/MEM** to store the channel in memory. A double beep sounds to confirm your action.

3. *CHANNEL STORED* appears at the bottom of the display.

4. If you take no further action, the screen returns to the standard marine screen in 3-seconds.

Now that you have several channels stored in memory, you can choose to scan them in three separate methods, Normal Scanning, Dual Watch Scanning, and Triple Watch Scanning.

Normal Scanning

Normal Scanning lets you scan all the channels you store in memory using the steps in the section preceeding this one.

To activate Normal Scan mode, momentarily press

```
Marine Band
5 Watts
USA    Memory
Alert
        88  A
CHANNEL SCAN
```

SCAN/MEM. The radio scans all the channels stored in memory from lowest to highest. The display shows *CHANNEL SCAN* at the bottom.

Channel Scan of 8 Channels Stored in Memory
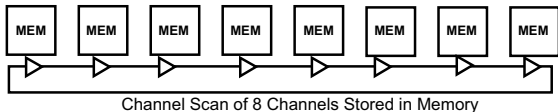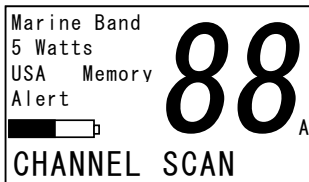
When you scan those channels, each channel is checked in order and the scan sequence repeats until you interupt it.

DualWatch Scanning

Marine channel 9 is reserved as a backup hailing, calling channel for areas of high marine traffic. Channel 16 is the reserved Coast Guard Distress, hailing channel.

Press and hold **16/9/TRI**. If you have set DualWatch as your default mode using the *RADIO MENU* options (see page 28), the radio begins to include a check of Channel 16 along with any other stored channels.
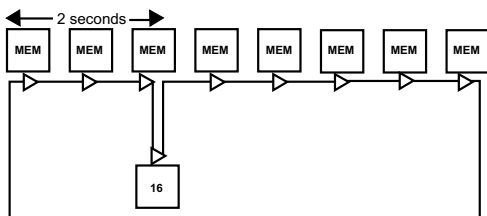
TripleWatch Scanning

Using the option in the *RADIO MENU* choices (see page 28), you can choose to have the radio not only scan the channels you stored and Channel 16, but also Channel 9, the backup hailing, calling channel.

When you press and hold **16/9/TRI**, the radio scans according to the sequence shown below. In this case, the radio is set to marine channel 25 and TripleWatch has been selected from the *RADIO MENU*.
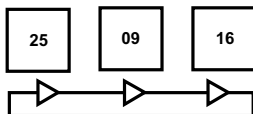
TripleWatch Scan of Marine Ch. 25,
Hailing Ch. 9, and Distress Ch. 16

Weather Channel, Stored Channels, and Dual/TripleWatch Scanning

You can store your NOAA weather channel in memory in the same manner as any other marine channel using the steps on page 5.

For this example, you have stored 8 marine channels. You have pressed **WX/ALERT** to display one weather channel. You have selected the TripleWatch option using the RADIO MENU setup. Now you press **SCAN/MEM**. Scanning takes place in the order shown below. Every 2 seconds, during the scanning of the 8 marine channels, the radio checks channels 9 and 16. Then, approximately every 7 seconds, the radio checks the selected weather channel and then channels 9 and 16.

$\triangleright$ = **Channel Check**   Scan Sequence of Stored Channels, TripleWatch, and TripleWatch with WX
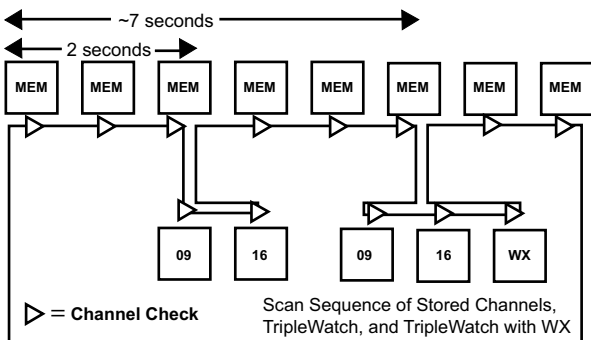
To learn about other sections which contain details dealing with General Setup, Battery Operation and Charging, Menu Options, Storing Channels, Scanning Channels, and using the special features of either Triple or DualWatch, consult the Table of Contents which immediately preceeds these Quick Start pages.

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 (1-888-225-5322).

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 5W

Emission 16K0F3E, 16K0F2D

Transmitter Frequency Range 156.025 to 157.425 MHz

This device complies 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. Changes or modifications not approved by Uniden could void the user's authority to operate the equipment.

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.

Never allow children to operate the radio without adult supervision and the knowledge of the following guidelines.

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 website at www.fcc.gov

Lithium Ion Battery Pack Warning

- This equipment contains a rechargeable Lithium Ion battery.

- The rechargeable Lithium Ion battery contained in this equipment may explode if disposed of in a fire.

- Do not short-circuit the Battery Pack.

- Do not charge the rechargeable Lithium Ion battery used in this equipment in any charger other than the one designed to charge this battery as specified in the owner's manual. Using another charger may damage the battery or cause the Battery Pack to explode.

Lithium Ion batteries must be recycled or disposed of properly.

Avoid exposing the Lithium Ion battery, attached or unattached to the radio, in direct sunlight, heated cars, or in areas with temperatures below -4°F (-20°C) or above +140°F (+60°C). Exposing the chemical contained within the battery pack to temperatures above +140°F (+60°C) may cause the battery to rupture, fail, or reduce performance.

In case of exposure to the cell contents, wash the affected area thoroughly, and seek medical attention.

What's Included

MHS450 Radio

AC550
AC Adapter

ANT450
Antenna

RSC550
Charging Cradle
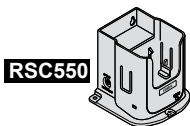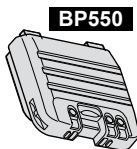
BP550
Lithium Ion Battery Pack

DC550
DC Adapter
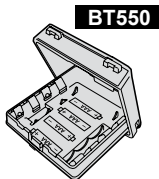
BT550
Alkaline Battery Case
(batteries not included)

Mounting Hardware
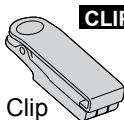
CLIP550
Belt Clip

Accessory ID numbers such as **CLIP550** **are provided to help you order replacements should that be neccessary.**

OWNERS MANUAL

Wrist Strap

Owners Manuals and Other Printed Materials

If any of these items are missing from the box, contact Uniden or call 1-800-554-3988.

Uniden MHS450
Introduction

Your Uniden MHS450 represents the latest in marine radio technology in a conveniently sized and rugged package. It has features you'll come to count on for day in and day out use. The product combines size, value, and performance that makes it a good choice for an all around marine communications radio.

Features

The MHS450 brings the following key features to make marine radio useful and easy:

- **Complete Marine VHF channels (USA-1A to 88A) for the U.S., Canada, and International waters** — let you communicate with standard marine radio operators.

- **National Oceanic and Atmospheric Administration (NOAA) Weather channels** — let you listen to the local operational channel of the ten available.

- **NOAA Weather Alert** — provides a siren tone warning of a serious impending weather event and emergency weather warnings, broadcast by NOAA.

- **Emergency CH 16 (Coast Guard/Distress Hailing) and CH9 (Calling/Hail Secondary) operation**

- **Memory Scan** — lets you store a channel (frequency) into memory for scanning at another time using Dual or Triple Watch or the standard Scan feature.

- **Triple and DualWatch Operation** — In TripleWatch operation, the radio monitors the current channel, then the Coast Guard/Distress/Hailing channels 16 and 9. In DualWatch, the radio monitors the channel in use (standard or weather) then channel 16 in that order.

- **Transmitter Power Level Select** — lets you select an output power settings of 1, 2.5, and 5 watts except for certain restricted channels.

- **Channel Select Keys** — let you easily navigate up and down the channel list to the desired channel. They also let you quickly choose all desired Radio Menu options.

- **Submersible —** The radio is JIS7 compliant. This means it remains watertight if submerged in 1 meter of water for 30 minutes.

- **Battery Power Level Display and Tone** — clearly indicates five levels of battery power. Sounds an alert tone when battery power reaches a level before complete failure to operate.

- **Battery Save** — during specific transmit, operations, the radio powers down to extend battery life.

- **Key Lock ON/OFF** — lets you enable a keypad lock to prevent accidental changes while powered on. The feature becomes unlocked when powered off and on again. You can also quickly disable the feature by pressing and holding down this key.

MHS450 Controls

Display shows:
Marine Band
2.5 Watts
USA Memory
Alert Locked

88

COMMERCIAL

SUBMERSIBLE

1. **Antenna** — Removable, and flexible for convenience. Watertight connector for reliability.

2. **Watertight Ext. Speaker/Mic Jack** — Unscrew the cap and insert an approved mic/speaker to maintain submersability.

3. **Volume-Power ON/OFF Control** - Rotate to turn on power and set volume to a comfortable listening level.

4. **Squelch Control** — Rotate clockwise until the signal is heard but not the noise.

5. **Wrist Strap Anchor** — Thread and loop the supplied wrist strap to conveniently carry the radio.

6. **WX/ALERT** — Press to change the mode to Weather Channel reception. Press and hold to activate the Weather Alert feature.

7. **SCAN/MEM** — Press to set Memory Channel SCAN on or off. Press and hold to store the current channel into memory.

8. **1/2.5/5w** — Press to select the output power unless fixed by regulations.

9. **16/9/TRI** — Press to switch immediately to the Coast Guard/Distress/Hailing channel 16 or the secondary Calling Hailing channel 9. Press and hold to enable Triple Watch or Dual Watch monitoring.

10. **MENU** — Press to display the user-settable menu options.

11. **ENTER** — Press to select or store a chosen menu option.

12. **▲▼** — Press to select channels above or below your currently selected channel. Press and hold to change channels rapidly. Press to scroll through Radio Menu options.

13. **Belt Clip** —Squeeze and attach to your belt for convenient carrying.

14. **PTT** — Press to transmit.

15. **Light/Lock** — Press to activate the Backlight. Press and hold to lock the Keypad.

16. **Battery Connection Area** and **Battery Recharging Contacts**— Install the supplied Lithium Ion Rechargeable Battery being sure to position the pack as shown in the section **Batteries**. To recharge the installed Lithium Ion battery, place the MHS450 into the Charger Cradle. The contacts at the bottom edge of the radio receive the required voltage and current from the cradle to completely recharge the battery in about 4 hours.

17. **Battery Latch** — Lift the latch to remove and replace the Lithium-Ion battery or to install the Alkaline Battery case.

18. **MIC** — Speak clearly into the microphone aperture when transmitting for best results. Position the mic at least 4 inches from your mouth.

Radio Charger Cradle

19. **Front Charging Indicator** — Lights during battery charging and goes off when the battery is fully charged. If a fully charged battery is placed in the cradle, the LED does not light and no charging takes place. While you can monitor incoming calls while the radio is in the charger, **do not attempt to transmit while it is in the cradle**.

20. **DC Input Jack** — Connect the AC adapter then plug the adapter into a standard 120/240V AC outlet. The DC adapter connects to a vessel's 12V socket and this jack.

21. **Charging Latch** — Holds the radio in place when you insert it into the cradle.

LCD Display

```
Marine Band
5 Watts
USA          16
▮▭
DISTRESS
```
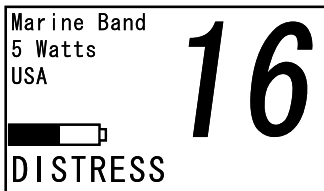
1 Watt or 2.5 Watts or 5 Watts — indicates present transmit power. Not displayed when receiving weather frequencies. Not displayed for those channels on which transmitting is prohibited. The initial setting is 5W.

USA or **INT** or **CAN (UIC)** — indicates the frequency band in use for marine operation.

Memory — displayed when the radio displays a channel stored in memory.

Alert — displays when weather alert is enabled.

SCAN — displays when the radio is set to scan mode.

TRIWATCH or **DUALWATCH** — displayed when either mode is active.

Locked — displayed when the keypad is locked.

Battery Level Icon — displays one of five different indicators to show the battery power level.

MODE Indicator Line — the bottom of the screen shows the selected mode such as Standard Marine Channels, Weather, Dual or Triple Watch, Transmitting, and more. For full details, refer to the specific section of the manual.

CHANNEL — shows the currently selected channel number. See the USA, Canadian, and International channel charts in the back of this manual.

Owner Manual Conventions

To indicate a key, button, knob or other physical control, we print the label in **BOLD UPPER CASE.** To indicate an LCD (display) label, option, or selection, we use *UPPER* or *Lower Case* italic labels such as *MENU*, *5 Seconds*, etc.

You will also occasionally see an option labeled as (default). This means that the option is set in the manner indicated at the factory and is the setting when you first apply power. If you choose not to alter it, the default is the setting used by the radio.

Indicator Sounds

The radio sounds several tones designed to convey important information. Become familiar with them to use the radio more effectively.

Power On — a rapidly rising tone sounds to confirm that power is applied.

Keypad Touch Single Tone — sounds to confirm you have pressed a single key

Keypad Touch Double Tone — sounds to confirm you pressed and held down a key for 2 seconds.

Error Tone — sounds to indicate an invalid key press or operation.

PTT Error Tone — sounds to indicate an invalid press of the **PTT** switch.

WX ALERT Tone — a rising and falling tone sounds when a weather alert is received and decoded.

PTT Time Out Tone (PTT Error Tone) — sounds when your continuous transmitting time exceeds 5 minutes. Also sounds if you attempt to transmit with low power battery. If the battery icon continues to blink once you stop pressing the **PTT** key, you must recharge/replace the currently installed battery(s)

Batteries

Your Uniden MHS450 comes equipped with a Lithium Ion battery which snaps into the back of the radio and secures with a latch. The battery has a minimal charge when shipped. Before use, place the radio in the Charging Cradle and charge the battery for four hours. Note that unlike some other types of rechargeable batteries, a Lithium Ion battery can be "topped-off" as needed with no degradation of performance.

Installing the Lithium Ion Battery Pack

1. To install the Lithium Ion Battery Pack, insert the upper contacts on the lower edge of the battery area on the radio back as shown in the first illustration.

2. Lower the pack until it is flat in the chamber

3. Bring the locking latch up and lock it into place to secure the pack.
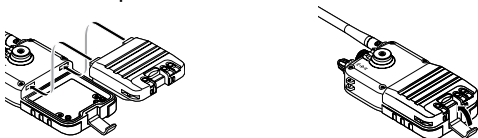
Using the Alkaline Battery Pack

The radio is supplied with a battery pack that can hold four AAA type alkaline batteries (not supplied). For longest useful life we suggest using an extra strength battery such as Duracell Ultra ® batteries.

Note: When powering the radio by alkaline batteries, transmit power is limited to a maximum of 2.5 watts.

To install the four AAA batteries in the alkaline battery pack, refer to the illustrations and the following steps.

1. Hold the lower part of the pack and with the other hand, lift the cover to reveal the contacts in the chamber. Note the polarity markings.

2. Position the alkaline batteries according to the + and - terminals and snap each into place.

3. Close the cover as shown.
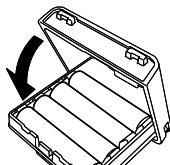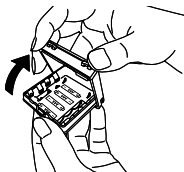
Using alkaline batteries let you continue to use the radio until you have an opportunity to fully recharge your primary Lithium Ion Battery pack. Be sure to dispose of the alkaline batteries properly according to their package information.

Warning - although the design of the case prevents accidental charging of installed alkaline batteries, for safety, never attempt to recharge alkaline batteries by defeating the case design or recharging outside of the case.

Power AutoSave and Battery Life Indication

A special circuit conserves power when constant power is not required. The battery powers down during receiving unless squelch is operating. However, the save feature does not function during transmitting, weather alert settings or TripleWatch where power is always required. The Battery Level icon has 5 levels to indicate the voltage. When the battery is almost dead, *BATTERY LOW* appears and the Battery Level icon blinks.

Note: During the time you press **PTT** to transmit, you may notice the power level indicator drop to a lower level and then return to a higher level once you stop transmitting. This is normal and merely indicates that additional power is required to transmit compared to that used during reception.

Alkaline Batteries and Radio Performance

If you use alkaline batteries for emergency purposes, note that the transmitting power output may suffer as the alkaline batteries become weak and near the end of their useful life. In such cases, you might not be able to transmit with a full 2.5 watts of power. Replace the batteries with known fresh batteries to be sure, or switch to a fully charged Lithium Ion battery pack.

When the ⬚ appears (Low Battery), or you hear the Low Battery alert tone sound, be sure to replace all alkaline batteries in use. Doing so removes any chance of degraded radio performance and operation that can occur toward the end of the batteries' useful life.

Mounting the Charging Cradle

You must charge the Lithium Ion Battery Pack before you use the radio for the first time. To facilitate convenient charging we suggest mounting the charger cradle to either a counter top or wall. Use the AC Adapter at home and the DC Adapter on your boat.

To Mount the Cradle on a Counter Top

Locate the three holes provided in the flange surrounding the cradle. Using the holes as a template, mark the surface. Center punch and drill three holes to accommodate the provided screws and washers.
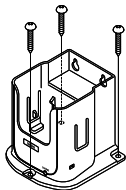
Mounting on a Wall
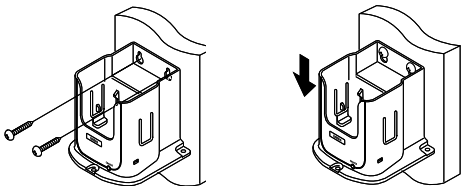
Using the keyholes in the rear of the cradle as a template, confirm that the area on the wall has solid backing such as a wooden beam. Then drill holes and use the screws and washers provided. Otherwise, select other mounting hardware (not supplied) that is appropriate for the mounting material.

Attaching the Belt Clip

To conveniently carry the radio, attach the provided belt clip as follows.

• Align the clip mounting hole with the mounting post as shown. Place the clip on the post and slide it in the direction of the arrow until you hear a click.

• To remove the clip, rotate the clip so the indentation is toward the bottom of the radio. Move the clip in the direction of the arrow and lift it off the post.
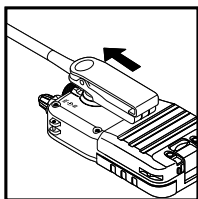
Attach
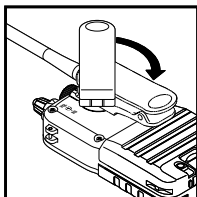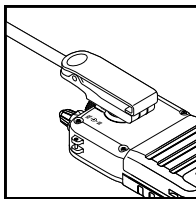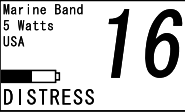
Remove
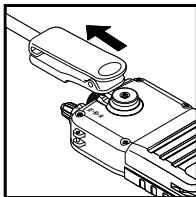
Getting Started

To start using your MHS450, follow the steps below.

1. Rotate **VOLUME** until the display lights and the Power On tone sounds. The Uniden animated 'splash' screen displays followed by the model number. Set the volume to a comfortable listening level. The display shows channel 16 (default) in the US marine band, a 5 watt level and the label *DISTRESS* at the bottom edge. Press ▲ or ▼ to change channels. The marine channels begin at 01 and continue, in a closed loop, through 88A. Using either key you can manually select a channel to use.

2. Press **WX** to switch to the weather channels. Ten channels are designated as weather channels. All carry the same information. One will provide the best reception for your particular area. Use ▲ or ▼ to cycle through the ten channels until you locate the one with the best reception. Press **WX** to return to marine channels 1 to 88A.

Selecting a Channel

To receive transmissions and transmit signals, select a working channel. When you first apply power, the screen displays the default band (Marine USA), the default power setting (5W), and the battery power level icon.

To change the channel, press ▲ or ▼. The default channel names appear next to the channel numbers along the left border of the screen.

To cycle rapidly through the channels, press and hold either ▲ or ▼ for about one-half second.

Transmitting Power Level

You can select the transmitting power for all channels except those designated as Receive Only or Low Power Channels (see the Status column of the Frequency Charts for more details).

Repeatedly press **1/2.5/5W**. Each time you press the button, the power output level changes and the corresponding icon appears on the display.

Note: for those channels designated as 1W maximum, even though you have set the power level to either 2.5 or 5W, 1W is displayed and used. Channels 13,17,67, and 77 in the US are an exception. Normally these channels are also designated for normal operation as 1W channels. However, in emergency, if you press and hold the **PTT** switch and at the same time you momentarily press **1/2.5/5W,** the power level changes from 1 to 5W with the Li-Ion battery or 1 to 2.5W with alkaline batteries installed.

You cannot override the 1W power level setting for channels 75 and 76.

Transmitting

To transmit, follow the steps below.

1. Press ▲ or ▼ to select a channel. The selected channel number appears on the display along with the country label, and the selected power setting.

2. Press the **PTT** switch. *TRANSMITTING* appears at the bottom of the screen and remains displayed as long as you hold down the **PTT** switch.
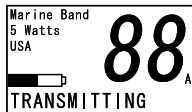
Note:

- You cannot transmit on the weather frequencies. They are designated 'receive' only. An error tones sounds when you press the **PTT** switch and a weather channel is selected. The displayed weather channel number flashes, and *RELEASE PTT KEY* is displayed to remind you that you cannot transmit on the selected channel.

- You cannot transmit on channel 70, and 15 in the USA. "Channel 70 is reserved for digital data only while channel 15 is reserved for receive only." If you attempt to transmit, you see *RELEASE PTT KEY* on the bottom of the screen.

- Do not hold down the **PTT** switch while turning on the radio. An error tone sounds and the same message appears.

- Pressing **PTT** disables Scanning, TripleWatch checking and DualWatch checking. If the channel has no carrier, the first press of **PTT** takes the radio out of scan mode. Press **PTT** to activate transmitting.

- Continuous transmitting is limited to 5 minutes by regulations. After this time, an error tone sounds and *RELEASE PTT KEY* displays. After you release **PTT**, pressing **PTT** restarts the 5-minute time interval again.

Using the Radio Menu Options

The MHS450 lets you select options that personalize your use of the radio and makes using it more convenient.

Press **MENU** to access the multi-choice radio menu. *RADIO MENU* appears at the top of the screen. Press **MENU** again to return to the default marine mode or use ▲ or ▼ to move and highlight the desired menu option.

Note: if during any of the following operations you fail to press a key or make a selection in more than 30 seconds, the radio returns to standard marine mode.

USA/CAN/INT (U.I.C.) — Settings

The radio is set as a factory default to the USA channel frequencies. To change to either Canadian [*CAN*] or International [*INT*] channels follow these steps.

1. Press **MENU** and highlight *USA/ CAN/INT*. Press **ENTER**.

2. Press either ▲ or ▼ until the country Mode is highlighted. Press **ENTER** to select it.

```
    UIC CHANNELS
 ▲USA Mode
   Canadian Mode
 ▼Intl Mode
  Exit
```

3. Highlight *EXIT* to exit the menu then press **ENTER** to return to radio operation.
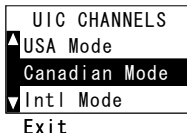
Note: the radio remembers the last selection setting you make when powered down.

Lamp (Backlight) Adjust

The backlight that provides convenient illumination of the keys and the LCD has three settings.

```
    LAMP ADJUST
 ▲Always Off
   Timer        ▶
 ▼Always On
  Exit
```

1. Press ▲ or ▼ to scroll to *Lamp Adjust*. Press **ENTER**. *LAMP ADJUST* appears at the top of the screen. Highlight either *Always Off*, *Always On,* or *Timer*.

2. Press **ENTER** to select your choice.

3. To set the on-time duration of the backlight, select *Timer* then highlight either *5 seconds* (default), *30 seconds*, *1 minute,* or *5 minutes* then press **ENTER**. A double beep sounds to confirm your selection.

4. Scroll to *EXIT* and press **ENTER** to return to the *RADIO MENU* menu screen.
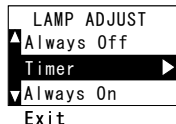
Adjusting Display Contrast

You can adjust the contrast setting of the LCD for various viewing conditions.

```
Contrast
Adjust
      01
```

1. Press ▲ or ▼ from the RADIO *MENU* screen to highlight *Contrast*. Press **ENTER**.

2. Press ▲ or ▼ to increase or decrease the level which is indicated by the number displayed (01 to 10) and the thermometer bar. You see the screen contrast change as you change the setting from 01 to 10.

3. Press **ENTER** to save your selection. The display returns to the *RADIO MENU* screen.

Setting Dual or TriWatch

There are two specialty channels, 16, and 9. Channel 16 is the primary distress/ Coast Guard/Hailing channel while Channel 9 is typically the backup hailing/calling channel for areas where there is higher

```
Dual/Tri Watch
16/9 TriWatch
16 DualWatch
Exit
```

level of marine traffic. Depending on your location, you can choose to monitor both distress channel 16, the extra hailing channel 9 as well as the radio channel you are otherwise using (TRIWATCH), or you can choose to only monitor channel 16 and your regular channel (DUALWATCH) which lets the radio check each channel more frequently.
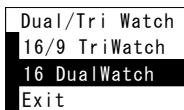
1. From the *RADIO MENU* screen, use ▲ or ▼ to reach the *Dual/ TriWatch* option. Press **ENTER**.

```
Marine Band
5 Watts
USA
      16
TRIWATCH
```

2. Press either ▲ or ▼ to reach either *16/9 TriWatch* (default) or *16 DualWatch*. Press **ENTER** to select it. A double beep sounds and the radio returns to the *RADIO MENU* screen.

3. Press **MENU** again to return to the marine mode.

Setting the Key Beep

Your MHS450 confirms a key press by sounding a short single or double beep (default). You can disable this sound.

```
        KEY BEEP
 On
 Off
 Exit
```
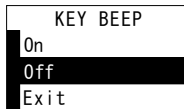
1. From the *RADIO MENU* screen, press ▲ or ▼ to highlight the *KEY BEEP* option. Press **ENTER** to select it.

2. Press ▲ or ▼ to select *On* or *Off or Exit* . Press **ENTER** to save your selection. The display returns to the *RADIO MENU* screen.

Setting the Key Lock

To prevent keys from being accidentally operated, set the Key Lock. Hold down **LIGHT/LOCK** for 2-seconds. *KEYPAD LOCKED* appears on the display bottom for 3-seconds then returns to

```
Marine Band
5 Watts        88
USA
      Locked
KEYPAD LOCKED
```

the standard screen. *Locked* remains next to the channel number to remind you that the locked option is enabled.
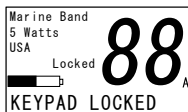
During Key Lock mode, you can adjust only the following controls:

- PTT switch
- Light/Lock key
- Volume
- Squelch
- 1/2.5/5W (Only while pressing and holding **PTT**.)

If any other control is used, an error tone sounds.

To disable the keypad lock, press and hold **LIGHT/LOCK** for about 2-seconds or turn power off then on. *KEYPAD UNLOCKED* appears on the display using **LIGHT/LOCK**.

Note: if the radio receives either a weather alert or decodes a severe weather S.A.M.E. code transmission, the keypad automatically unlocks.

Manually Selecting Coast Guard/Distress/ Hailing Channels

In addition to using Triple or Dual Watch to monitor the Coast Guard/Distress/Hailing channels, you can manually select them at any time.

To select your Coast Guard/Distress/Hailing channel, repeatedly press **16/9/TRI**. At the first press, the radio switches to channel 16, the primary Coast Guard/Distress/Hailing channel. 16 appears on the screen. Press the button again to switch to channel 9, the backup calling channel. 9 appears and *NON COMMERCIAL* appears at the bottom. Press again to return to the standard marine channels.

```
Marine Band
5 Watts
USA
          16
DISTRESS
```
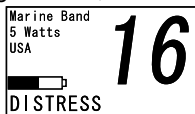
If you are listening to a weather (WX) channel and you press **16/9/TRI**, the radio drops out of weather mode and switches to channel 16 and displays 16. If you are also set to TriWatch, the radio begin to check 9, then 16 then the marine channel in use prior to selecting the weather mode.

Storing a Channel in Memory

Once you have stored channels in memory, you can set the radio to scan those channels for activity. To select and store a channel follow these steps.
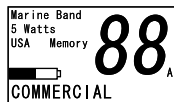
```
Marine Band
5 Watts
USA   Memory
          88
COMMERCIAL
```

1. Use ▲ or ▼ until you reach a channel you want to store.

2. Press and hold **SCAN/MEM** to store the channel in memory. A double beep sounds to confirm your action.

3. *CHANNEL STORED* appears at the bottom of the display.

4. If you take no further action, the screen returns to the standard marine screen in 3-seconds.

5. To remove a channel from memory, with the stored channel displayed, press and hold **SCAN/MEM**.

6. To scan stored memory channels see page 37.

Using the Weather Channels

The radio receives ten National Oceanic and Atmospheric Administration weather channels. Although the radio receives all ten, one channel will be received best due to your geographic location.

1. Press **WX/ALERT** to activate the weather band. The screen displays *Weather Band* at the upper left and the channel number. The frequency of that channel number appears at the bottom of the screen. You can find a complete listing of the weather channels in the Reference pages.
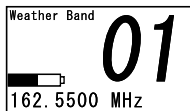
   Use ▲ or ▼ to change between WX channels. You will receive one channel in your area better than all others.

Note: the radio's memory retains the channel that appears when you switch to WX mode in memory when you turn off the radio.

2. To switch to the *Alert* mode, press and hold down **WX/ALERT** for about 2 seconds. *WEATHER ALERT MODE ENABLED* scrolls along the bottom of the display.
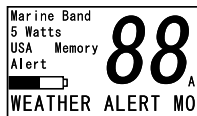
If the radio receives a weather alert by means of either a S.A.M.E by decoding the entered FIPS code or if the radio is in the marine channel mode, detecting the 1050Hz tone, the radio sounds an alarm and displays an alert message at the bottom of the screen, such as *HURRICANE WARNING*.

Note: if the event code is longer than 16 characters, the display label scrolls across the display bottom then changes to the abbreviated format. Thus, *HURRICANE WARNING* (17 spaces) becomes *HURRICANE WARN...* and remains.

3. To verify if the radio is in the ALERT mode, press and hold **WX/ALERT** for about 2 seconds. If ALERT is active, *WEATHER ALERT MODE ENABLE* scrolls along the screen bottom. This message appears for about 3 seconds then returns to the marine standard screen.

If the radio is set to alert mode and you press and hold **WX/ALERT** for about 2 seconds, the radio exits alert mode, and the screen scrolls *WEATHER ALERT MODE DISABLED*.

For a listing of the full and abbreviated S.A.M.E. codes, see the chart following the NOAA Channel Chart in the reference section of this manual.

Adding FIPS Codes

To effectively use the Specific Area Message Encoding feature (S.A.M.E.) entering the code specific to your geographic location is required. This system is known as FIPS or Federal Information Processing Standards codes

```
FIPS CODES
023456      ▶
Add         ▶
Exit
```

(FIPS codes). They are a standardized set of numeric codes issued by the National Institute of Standards and Technology (NIST) to ensure uniform identification of geographic entities through all federal government agencies. The entities covered include: states and statistically equivalent entities, counties and statistically equivalent entities, named populated and related location entities (such as, places and county subdivisions), and American Indian and Alaska Native areas.
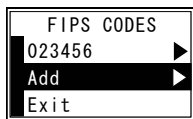
1. Press **MENU**. From the *RADIO MENU screen*, use ▲ or ▼ to select the *FIPS* option. The screen displays *FIPS Codes* and lets you select *Add or Exit*.

Note: You can find your area FIPS codes from http://www.nws.noaa.gov/nwr/indexnw.htm.

2. Once you locate the code for your county or area, use ▲ or ▼ until the correct number appears on the screen then press **ENTER** to select it.

3. Enter all the codes you wish, then move to *EXIT* and **ENTER** to select it. The radio returns to the *RADIO MENU* screen.

4. Press **MENU** again to return to the marine mode.

Changing Channel Names

Each channel has a default name which you can change. When a channel is allocated to a specific service, changing the name on your radio can help make identification faster and easier. Or you

```
   Channel Name
▲ 01A VTS/Com    ▶
  03A CG Only    ▶
▼ 05A VTS/Com    ▶
```

can change the name to a member of your boating family such as *MOMS CHANNEL*. You can use up to 16 characters.
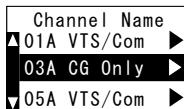
1. From the *RADIO MENU*, press ▲ or ▼ to highlight *Channel Name*.

2. Press **ENTER**. Use ▲ or ▼ to scroll to the desired channel you wish to rename. Press **ENTER**. Then choose *Rename , Default,* or *Exit.* and select it.

```
   Channel 03A
COAST GUARD ONLY
▲ Rename         ▶
▼ Default        ▶
```
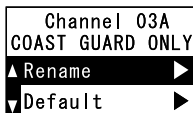
3. If you choose *Rename*, press either ▲ or ▼ until the first letter or number of the new name appears. Press **ENTER** to select it and move to the next character.

```
Press the UP or DOWN
arrow keys to select
the character then
press the enter key

█ OAST GUARD ONLY
```
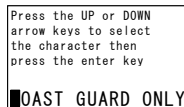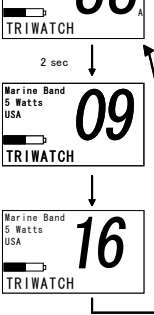
4. When the name is complete, repeatedly press **ENTER** until the cursor reaches the right end of the line. Then press **ENTER** again. A double beep sounds confirming the change and the display returns to the *Channel Name* menu. Use ▲ or ▼ to *Exit* and press **ENTER**.

Restoring Default Names

1. If you want to restore all the factory default names, use ▲ or ▼ to highlight *Default All* located between channel 88A and *Exit*. Use ▲ or ▼to highlight *Yes* then press **ENTER** to restore all the original names. A double beep sounds to confirm the action.

2. To restore only one name to default, highlight the channel by using ▲ or ▼then press **ENTER.** Then use ▲ or ▼ to next highlight *Default*.

Using the TripleWatch or DualWatch Mode

During setup of your MHS450, you have selected Triple or DualWatch mode. The following shows you how to use this valuable feature.

```
Marine Band
5 Watts
USA  Memory   88 A
▬▬▭
TRIWATCH
```

1. To activate TripleWatch, from the main marine screen, press and hold **16/9/TRI** for about 2 seconds. The screen displays *TRIWATCH* at the bottom and the radio begins to check two additional channels in rapid sequence every 2 seconds: the currently selected marine channel, the backup calling channel 9, then the Coast Guard/Distress/Hailing channel 16, before starting with the current channel again.

```
2 sec

Marine Band
5 Watts
USA          09
▬▬▭
TRIWATCH
```

```
Marine Band
5 Watts
USA          16
▬▬▭
TRIWATCH
```

2. If you selected DualWatch during setup, when activated, the radio first checks the current channel then it checks channel 16 before returning to the current marine channel. *DUALWATCH* appears on the display bottom during this cycle.

3. To exit either mode, press and hold **16/9/TRI** for about 2 seconds.

Note:

- If you enable TripleWatch or DualWatch from a Weather Channel, the same watch cycle occurs. When the radio checks the selected weather channel, the screen displays *Weather Band* in the upper left corner. When the radio checks Channel 9, Channel 16, or both, the screen briefly displays *Marine Band* at the upper left.

- If you momentarily press **SCAN/MEM**, the TripleWatch or DualWatch functions as described above. Channels stored in memory are also scanned. If you want to change the channels being scanned, momentarily press **SCAN/MEM** again, or press **WX** or **PTT,** to exit scanning (TripleWatch or DualWatch continues). Then use ▲ or ▼ to manually select another marine channel and store it. Momentarily press **SCAN/MEM** to resume scanning.

- In scan mode, the radio pauses on an active channel and resumes scanning 2 seconds after the channel activity ceases.

Using Scan with Triple Watch, Dual Watch, or Weather Alert

Triple Watch and Dual Watch Only

To activate normal channel SCAN mode, momentarily press **SCAN/MEM**. The radio scans all the channels stored in memory from lowest to highest. The display shows *CHANNEL SCAN* at the bottom.

To initialize TripleWatch scanning, press and hold **16/9/TRI.** Now *TRIWATCH* appears at the bottom while the scanning changes to the following sequence: The memory channels are scanned then the radio checks channel 9 then channel 16 every 2-seconds. If you have set Dual Watch as your default mode, using the RADIO MENU, channel 9 is not checked and *DUALWATCH SCAN* appears on the display.
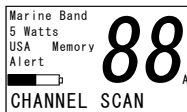
To disable Triple or Dual Watch and revert to scanning only stored channels, press and hold **16/9/TRI** for 2 seconds. Channel 16 and 9 are no longer checked. The radio continues to scan only stored memory channels. *CHANNEL SCAN* appears on the bottom and each channel number is displayed in sequence.

Both Watches and Weather Channel

If both the Weather Alert and the TripleWatch features are enabled when you press **SCAN/MEM**, the radio starts checking the memory channels in ascending order. Then it checks channel 9 and 16 every 2-seconds and finally, it checks the active weather channel approximately every 7 seconds, looking for the alert tone (1050Hz). The radio then repeats the cycle. If the radio detects a weather alert tone during the check cycle, it remains on the weather channel until you disable the weather mode. See the flow graphic.

Note:

- During SCAN mode, if the radio detects a signal, it stops scanning and remains on the detected channel for 2 seconds after the activity ends before resumption of scanning.

- During scanning, you can press **SCAN/MEM**, **16/9/TRI**, or **WX/ALERT** to exit the scanning mode and return directly to the marine channel display mode.

- All channels, except CH70, and the weather channels, can be stored in memory. When you turn off the radio, all memory stored channels are retained so that upon turning the radio on again, they are immediately available.

Using the External Speaker/Mic Jack

You can connect an optional external speaker-mic to this watertight jack. Unscrew the cap which is held by the rubber cap-keeper to prevent loss. Insert the special gasketed plug and screw down the shell which assures prevention of water entering the jack. Two available units are **HHSPM Speaker Mic** and **VOX100 Headset Mic**. For details, consult your Uniden dealer or call 1-800-BOATING.

Resetting the MHS450

- It is possible to completely reset the radio and restore all the factory default settings. Should you choose to do this, you must be aware that once you clear memory, **there is no undo.**

- However, if you desire to clear all your channels stored in memory, reset all the renamed channels and restore the scan settings to the factory default (as if you first opened the new box), carefully follow the steps below.

   1. With power off, press and hold down ▲ and **1/2.5/5W** at the same time.

   2. While holding both keys down, turn on power.

   3. Release both keys.

   4. Press **ENTER**. Press and hold **16/9/TRI** for 2 seconds. *MEMORY CLEAR* appears.

   5. Turn power off then on, to complete the operation.

Troubleshooting

If you missing parts or accesoories, call Parts & Service at 1-800-554-3988.

In the event that the radio fails to perform, try the following remedies. If you have still problems, visit our customer support website at: www.uniden.com or call our customer care specialists at 1-800-586-0409.

SYMPTOM	CAUSE	REMEDY
Won't power On.	Low or Discharged battery pack.	Recharge Lithium Ion battery. Replace battery. Use alkaline batteries temporarily.
When the PTT is pressed - Tx icon comes on and another radio can hear a "click" but no audio is heard.	Bad microphone element.	Send in for repair.
While scanning, the radio stops on a particular channel all of the time.	A source of noise is nearby.	Turn Squelch clockwise to reduce noise so that scan function skips channel.
There is noise on the receiver that the squelch will not eliminate.	An external noise is being generated by some device.	Either turn off the offending device or contact that Mfg. Regarding FCC part 15 "unintentional radiator".
You have arranged to communicate with another VHF radio user on a specific channel, and you can not hear them.	You and the other user are using different Country Modes.	Make sure that you are both using the same Country mode (USA, International, or Canadian). Several channels have the same numeric designation, but are either on different frequencies or the channels are used for different purpose. Channel 16, the Distress, Safety, and Calling channel, is the same on all three bands.

SYMPTOM	CAUSE	REMEDY
You can not change the transmit power setting.	You are on a channel which is limited to 1 watt transmit power (e.g. Ch. 13) or you are on a "receive only" channel (e.g. WX).	Change to an unrestricted TX/RX channel.
The SCAN key does not start the scan function.	CAUSE 1: No channels are in the scan memory. CAUSE 2: Squelch is not adjusted correctly.	REMEDY 1: Use the MEM/SCAN key to enter desired channels into the scan memory. REMEDY 2: Adjust the squelch to the point that background noise just disappears.
You can hear transmissions, but the other radio cannot hear you.	The transmit power is set to low.	Use the 1/2.5/5W key to select a higher transmit power setting.

Specifications

General		
Channels	Transmit	54 US/International/Canada
	Receive	89 US/International/Canada
	Weather	10
Freq. Control		PLL
Freq. Tol.	Transmit	1.5 PPM (at 25°C)
	Receive	1.5 PPM (at 25°C)
Oper. Temp.		-4°F (-20°C) to
		+122°F(+50°C)
Antenna		Flexible Whip
Microphone		Built-in Electret type
Display		Liquid Crystal Display
Speaker		8Ω 0.7 Watt
Power Source		Rechargeable Lithium Ion Battery Pack
		7.4V 1400 mAh
Size (without antenna)		4.4 (H) x 2.6 (W) x 1.4 (D) inch
		111 (H) x 65 (W) x 34 (D) mm
Weight (w/battery & antenna)		11.9 oz (340g)

Transmitter	
Frequency Range	156~158 MHz
Frequency Stability	±10 PPM
Power Output	1.0 W & 2.5W & 5W (Lithium Ion)
	1.0W & 2.5W (Alkaline)
Spurious Emissions	70 dBc (5W)
Current Drain	1400mA (5W)

Receiver		
Receiver Type		Double Conversion Super
		Heterodyne Phase
		Locked Loop system for Local Oscillator
Frequency Range		156~164 MHz
Sensitivity		0.2 µV for 12dB SINAD
Squelch Sensitivity		Threshold 0.1µV
Audio		±6 dB 500 to 2000Hz
Frequency Response		
Adjacent Channel		70 dB @ ±25 kHz
Selectivity		
Hum & Noise Ratio		40 dB
Audio Output Power		0.4 W @ 10 % THD
Current Drain	Squelched	60mA
	Max. Audio	210mA

Specifications shown are typical and subject to change without notice.

Care and Maintenance

Your MHS450 is a precision of electronic equipment and you should treat it accordingly. Due to the 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 yourradio.

If you missing parts or accesoories, call Parts & Service at 1-800-554-3988.

In the event that the radio fails to perform, try the following remedies. If you have still problems, visit our customer support website at: www.uniden.com or call our customer care specialists at 1-800-586-0409.

USA Channel Frequencies

Ch No.	RX Freq TX Freq	Status	Full Name	16 Char Name
1 "A"	156.0500 156.0500	Simplex	VESSEL TRAFFIC SYSTEM/ COMMERCIAL	VTS/ COMMERCIAL
3 "A"	156.1500 156.1500	Simplex	COAST GUARD,GOVT ONLY	COAST GUARD ONLY
5 "A"	156.2500 156.2500	Simplex	VESSEL TRAFFIC SYSTEM/COMMER CIAL	VTS/ COMMERCIAL
6	156.3000 156.3000	Simplex	INTER-SHIP SAFETY	SAFETY
7 "A"	156.3500 156.3500	Simplex	COMMERCIAL	COMMERCIAL
8	156.4000 156.4000	Simplex	COMMERCIAL	COMMERCIAL
9	156.4500 156.4500	Simplex	NON COMMERCIAL	NON COMMERCIAL
10	156.5000 156.5000	Simplex	COMMERCIAL	COMMERCIAL
11	156.5500 156.5500	Simplex	VESSEL TRAFFIC SYSTEM	VESSEL TRAFFIC
12	156.6000 156.6000	Simplex	VESSEL TRAFFIC SYSTEM	VESSEL TRAFFIC
13	156.6500 156.6500	Simplex, 1W	BRIDGE TO BRIDGE	BRIDGE TO BRIDGE
14	156.7000 156.7000	Simplex	VESSEL TRAFFIC SYSTEM	VESSEL TRAFFIC
15	156.7500 *Inhibit*	Receive Only	ENVIRONMENTAL	ENVIRONMENTAL
16	156.8000 156.8000	Simplex	DISTRESS, SAFETY, CALLING	DISTRESS
17	156.8500 156.8500	Simplex, 1W	GOVT MARITIME CONTROL	GOVERNMENT
18 "A"	156.9000 156.9000	Simplex	COMMERCIAL	COMMERCIAL
19 "A"	156.9500 156.9500	Simplex	COMMERCIAL	COMMERCIAL
20	161.6000 157.0000	Duplex	PORT OPERATION	PORT OPERATION
20 "A"	157.0000 157.0000	Simplex	PORT OPERATION	PORT OPERATION
21 "A"	157.0500 157.0500	Simplex	COAST GUARD ONLY	COAST GUARD ONLY
22 "A"	157.1000 157.1000	Simplex	COAST GUARD	COAST GUARD
23 "A"	157.1500 157.1500	Simplex	COAST GUARD ONLY	COAST GUARD ONLY
24	161.8000 157.2000	Duplex	MARINE OPERATOR	MARINE OPERATOR
25	161.8500 157.2500	Duplex	MARINE OPERATOR	MARINE OPERATOR
26	161.9000 157.3000	Duplex	MARINE OPERATOR	MARINE OPERATOR
27	161.9500 157.3500	Duplex	MARINE OPERATOR	MARINE OPERATOR
28	162.0000 157.4000	Duplex	MARINE OPERATOR	MARINE OPERATOR

USA Channel Frequencies

Ch No.	RX Freq. TX Freq.	Status	Full Name	16 Char Name
61 "A"	156.0750 156.0750	Simplex	COAST GUARD	COAST GUARD
63 "A"	156.1750 156.1750	Simplex	VESSEL TRAFFIC SYSTEM	VESSEL TRAFFIC
64 "A"	156.2250 156.2250	Simplex	COMMERCIAL	COMMERCIAL
65 "A"	156.2750 156.2750	Simplex	PORT OPERATION	PORT OPERATION
66 "A"	156.3250 156.3250	Simplex	PORT OPERATION	PORT OPERATION
67	156.3750 156.3750	Simplex, 1W	BRIDGE TO BRIDGE	BRIDGE TO BRIDGE
68	156.4250 156.4250	Simplex	NON COMMERCIAL	NON COMMERCIAL
69	156.4750 156.4750	Simplex	NON COMMERCIAL	NON COMMERCIAL
70	156.5250 *Inhibit*	Receive Only	DIGITAL SELECTIVE CALLING	DSC RECEIVE ONLY
71	156.5750 156.5750	Simplex	NON COMMERCIAL	NON COMMERCIAL
72	156.6250 156.6250	Simplex	NON COMMERCIAL (SHIP-SHIP)	NON COMMERCIAL
73	156.6750 156.6750	Simplex	PORT OPERATION	PORT OPERATION
74	156.7250 156.7250	Simplex	PORT OPERATION	PORT OPERATION
75	156.7750 156.7750	Simplex, 1W	PORT OPERATION	PORT OPERATION
76	156.8250 156.8250	Simplex, 1W	PORT OPERATION	PORT OPERATION
77	156.8750 156.8750	Simplex, 1W	PORT OPERATION (SHIP-SHIP)	PORT OPERATION
78 "A"	156.9250 156.9250	Simplex	NON COMMERCIAL	NON COMMERCIAL
79 "A"	156.9750 156.9750	Simplex	COMMERCIAL	COMMERCIAL
80 "A"	157.0250 157.0250	Simplex	COMMERCIAL	COMMERCIAL
81 "A"	157.0750 157.0750	Simplex	COAST GUARD	COAST GUARD
82 "A"	157.1250 157.1250	Simplex	COAST GUARD	COAST GUARD
83 "A"	157.1750 157.1750	Simplex	GOVERNMENT	GOVERNMENT
84	161.8250 157.2250	Duplex	MARINE OPERATOR	MARINE OPERATOR
85	161.8750 157.2750	Duplex	MARINE OPERATOR	MARINE OPERATOR
86	161.9250 157.3250	Duplex	MARINE OPERATOR	MARINE OPERATOR
87	161.9750 157.3750	Duplex	MARINE OPERATOR	MARINE OPERATOR
88	162.0250 157.4250	Duplex	MARINE OPERATOR	MARINE OPERATOR
88 "A"	157.4250 157.4250	Simplex	COMMERCIAL (SHIP-SHIP)	COMMERCIAL

Canadian Channel Frequencies

Ch No.	RX Freq TX Freq	Status	Full Name	16 Char Name
1	160.6500 156.0500	Duplex	MARINE OPERATOR	MARINE OPERATOR
2	160.7000 156.1000	Duplex	MARINE OPERATOR	MARINE OPERATOR
3	160.7500 156.1500	Duplex	MARINE OPERATOR	MARINE OPERATOR
4 "A"	156.2000 156.2000	Simplex	CANADIAN COAST GUARD	COAST GUARD
5 "A"	156.2500 156.2500	Simplex	VESSEL TRAFFIC SYSTEM	VESSEL TRAFFIC
6	156.3000 156.3000	Simplex	INTER-SHIP SAFETY	SAFETY
7 "A"	156.3500 156.3500	Simplex	COMMERCIAL	COMMERCIAL
8	156.4000 156.4000	Simplex	COMMERCIAL	COMMERCIAL
9	156.4500 156.4500	Simplex	BOATER CALLING CHANNEL	CALLING
10	156.5000 156.5000	Simplex	COMMERCIAL	COMMERCIAL
11	156.5500 156.5500	Simplex	VESSEL TRAFFIC SYSTEM	VESSEL TRAFFIC
12	156.6000 156.6000	Simplex	VESSEL TRAFFIC SYSTEM	VESSEL TRAFFIC
13	156.6500 156.6500	Simplex, 1W	BRIDGE TO BRIDGE	BRIDGE TO BRIDGE
14	156.7000 156.7000	Simplex	VESSEL TRAFFIC SYSTEM	VESSEL TRAFFIC
15	156.7500 156.7500	Simplex	ENVIRONMENTAL	ENVIRONMENTAL
16	156.8000 156.8000	Simplex	DISTRESS, SAFETY, CALLING	DISTRESS
17	156.8500 156.8500	Simplex, 1W	STATE CONTROL	STATE CONTROL
18 "A"	156.9000 156.9000	Simplex	COMMERCIAL	COMMERCIAL
19 "A"	156.9500 156.9500	Simplex	CANADIAN COAST GUARD	COAST GUARD
20	161.6000 157.0000	Duplex, 1W	PORT OPERATION	PORT OPERATION
21 "A"	157.0500 157.0500	Simplex	CANADIAN COAST GUARD	COAST GUARD
22 "A"	157.1000 157.1000	Simplex	CANADIAN COAST GUARD	COAST GUARD
23	161.7500 157.1500	Duplex	CANADIAN COAST GUARD	COAST GUARD
24	161.8000 157.2000	Duplex	MARINE OPERATOR	MARINE OPERATOR
25	161.8500 157.2500	Duplex	MARINE OPERATOR	MARINE OPERATOR
26	161.9000 157.3000	Duplex	MARINE OPERATOR	MARINE OPERATOR
27	161.9500 157.3500	Duplex	MARINE OPERATOR	MARINE OPERATOR
28	162.0000 157.4000	Duplex	MARINE OPERATOR	MARINE OPERATOR
60	160.6250 156.0250	Duplex	MARINE OPERATOR	MARINE OPERATOR
61 "A"	156.0750 156.0750	Simplex	CANADIAN COAST GUARD	COAST GUARD
62 "A"	156.1250 156.1250	Simplex	CANADIAN COAST GUARD	COAST GUARD
64	160.8250 156.2250	Duplex	MARINE OPERATOR	MARINE OPERATOR

Canadian Channel Frequencies

Ch No.	RX Freq TX Freq	Status	Full Name	16 Char Name
64 "A"	156.2250 156.2250	Simplex	MARINE OPERATOR	MARINE OPERATOR
65 "A"	156.2750 156.2750	Simplex	SEARCH AND RESCUE	SEARCH & RESCUE
66 "A"	156.3250 156.3250	Simplex, 1W	PORT OPERATION	PORT OPERATION
67	156.3750 156.3750	Simplex	BRIDGE TO BRIDGE	BRIDGE TO BRIDGE
68	156.4250 156.4250	Simplex	NON COMMERCIAL	NON COMMERCIAL
69	156.4750 156.4750	Simplex	NON COMMERCIAL	NON COMMERCIAL
70	156.5250 *Inhibit*	Receive Only	DIGITAL SELECTIVE CALLING	DSC RECEIVE ONLY
71	156.5750 156.5750	Simplex	NON COMMERCIAL	NON COMMERCIAL
72	156.6250 156.6250	Simplex	NON COMMERCIAL	NON COMMERCIAL
73	156.6750 156.6750	Simplex	PORT OPERATION	PORT OPERATION
74	156.7250 156.7250	Simplex	PORT OPERATION	PORT OPERATION
75	156.775 156.775	Simplex, 1W	PORT OPERATION	PORT OPERATION
76	156.825 156.825	Simplex, 1W	PORT OPERATION	PORT OPERATION
77	156.8750 156.8750	Simplex, 1W	PORT OPERATION	PORT OPERATION
78 "A"	156.9250 156.9250	Simplex	INTER SHIP	INTER SHIP
79 "A"	156.9750 156.9750	Simplex	INTER SHIP	INTER SHIP
80 "A"	157.0250 157.0250	Simplex	INTER SHIP	INTER SHIP
81 "A"	157.0750 157.0750	Simplex	CANADIAN COAST GUARD	COAST GUARD
82 "A"	157.1250 157.1250	Simplex	CANADIAN COAST GUARD	COAST GUARD
83	161.7750 157.1750	Duplex	CANADIAN COST GUARD	COAST GUARD
83 "A"	157.1750 157.1750	Simplex	CANADIAN COAST GUARD	COAST GUARD
84	161.8250 157.2250	Duplex	MARINE OPERATOR	MARINE OPERATOR
85	161.8750 157.2750	Duplex	MARINE OPERATOR	MARINE OPERATOR
86	161.9250 157.3250	Duplex	MARINE OPERATOR	MARINE OPERATOR
87	161.9750 157.3750	Duplex	MARINE OPERATOR	MARINE OPERATOR
88	162.0250 157.4250	Duplex	MARINE OPERATOR	MARINE OPERATOR

International Channel Frequencies

Ch No.	RX Freq TX Freq	Status	Full Name	16 Char Name
1	160.6500 156.0500	Duplex	MARINE OPERATOR	MARINE OPERATOR
2	160.7000 156.1000	Duplex	MARINE OPERATOR	MARINE OPERATOR
3	160.7500 156.1500	Duplex	MARINE OPERATOR	MARINE OPERATOR
4	160.8000 156.2000	Duplex	MARINE OPERATOR	MARINE OPERATOR
5	160.8500 156.2500	Duplex	MARINE OPERATOR	MARINE OPERATOR
6	156.3000 156.3000	Simplex	INTER-SHIP SAFETY	SAFETY
7	160.9500 156.3500	Duplex	MARINE OPERATOR	MARINE OPERATOR
8	156.4000 156.4000	Simplex	COMMERCIAL (SHIP-SHIP)	COMMERCIAL
9	156.4500 156.4500	Simplex	BOATER CALLING CHANNEL	CALLING
10	156.5000 156.5000	Simplex	COMMERCIAL	COMMERCIAL
11	156.5500 156.5500	Simplex	VESSEL TRAFFIC SYSTEM	VESSEL TRAFFIC
12	156.6000 156.6000	Simplex	VESSEL TRAFFIC SYSTEM	VESSEL TRAFFIC
13	156.6500 156.6500	Simplex	BRIDGE TO BRIDGE	BRIDGE TO BRIDGE
14	156.7000 156.7000	Simplex	VESSEL TRAFFIC SYSTEM	VESSEL TRAFFIC
15	156.7500 156.7500	Simplex, 1W	ENVIRONMENTAL	ENVIRONMENTAL
16	156.8000 156.8000	Simplex	DISTRESS, SAFETY, CALLING	DISTRESS
17	156.8500 156.8500	Simplex, 1W	DOV MATIME CONTROL	GOVERNMENT
18	161.5000 156.9000	Duplex	PORT OPERATION	PORT OPERATION
19	161.5500 156.9500	Duplex	COMMERCIAL	COMMERCIAL
20	161.6000 157.0000	Duplex	PORT OPERATION	PORT OPERATION
21	161.6500 157.0500	Duplex	PORT OPERATION	PORT OPERATION
22	161.7000 157.1000	Duplex	PORT OPERATION	PORT OPERATION
23	161.7500 157.1500	Duplex	MARINE OPERATOR	MARINE OPERATOR
24	161.8000 157.2000	Duplex	MARINE OPERATOR	MARINE OPERATOR
25	161.8500 157.2500	Duplex	MARINE OPERATOR	MARINE OPERATOR
26	161.9000 157.3000	Duplex	MARINE OPERATOR	MARINE OPERATOR
27	161.9500 157.3500	Duplex	MARINE OPERATOR	MARINE OPERATOR
28	162.0000 157.4000	Duplex	MARINE OPERATOR	MARINE OPERATOR
60	160.6250 156.0250	Duplex	MARINE OPERATOR	MARINE OPERATOR
61	160.6750 156.0750	Duplex	MARINE OPERATOR	MARINE OPERATOR
62	160.7250 156.1250	Duplex	MARINE OPERATOR	MARINE OPERATOR
63	160.7750 156.1750	Duplex	MARINE OPERATOR	MARINE OPERATOR
64	160.8250 156.2250	Duplex	MARINE OPERATOR	MARINE OPERATOR

International Channel Frequencies

CH No.	RX Freq TX Freq	Status	Full Name	16 Char Name
65	160.8750 156.2750	Duplex	MARINE OPERATOR	MARINE OPERATOR
66	160.9250 156.3250	Duplex	MARINE OPERATOR	MARINE OPERATOR
67	156.3750 156.3750	Simplex	BRIDGE TO BRIDGE	BRIDGE TO BRIDGE
68	156.4250 156.4250	Simplex	NON COMMERCIAL	NON COMMERCIAL
69	156.4750 156.4750	Simplex	NON COMMERCIAL	NON COMMERCIAL
70	156.5250 *Inhibit*	Receive Only	DIGITAL SELECTIVE CALLING	DSC RECEIVE ONLY
71	156.5750 156.5750	Simplex	NON COMMERCIAL	NON COMMERCIAL
72	156.6250 156.6250	Simplex	NON COMMERCIAL	NON COMMERCIAL
73	156.6750 156.6750	Simplex	PORT OPERATION	PORT OPERATION
74	156.7250 156.7250	Simplex	PORT OPERATION	PORT OPERATION
75	156.775 156.775	Simplex, 1W	PORT OPERATION	PORT OPERATION
76	156.825 156.825	Simplex, 1W	PORT OPERATION	PORT OPERATION
77	156.8750 156.8750	Simplex	PORT OPERATION (SHIP-SHIP)	PORT OPERATION
78	161.5750 156.9250	Duplex	PORT OPERATION	PORT OPERATION
79	161.5750 156.9750	Duplex	PORT OPERATION	PORT OPERATION
80	161.6250 157.0250	Duplex	PORT OPERATION	PORT OPERATION
31	161.6750 157.0750	Duplex	PORT OPERATION	PORT OPERATION
82	161.7250 157.1250	Duplex	PORT OPERATION	PORT OPERATION
83	161.7750 157.1750	Duplex	PORT OPERATION	PORT OPERATION
84	161.8250 157.2250	Duplex	MARINE OPERATOR	MARINE OPERATOR
85	161.8750 157.2750	Duplex	MARINE OPERATOR	MARINE OPERATOR
86	161.9250 157.3250	Duplex	MARINE OPERATOR	MARINE OPERATOR
87	161.9750 157.3750	Duplex	MARINE OPERATOR	MARINE OPERATOR
88	162.0250 157.4250	Duplex	MARINE OPERATOR	MARINE OPERATOR

NOAA Weather
Channels and Frequencies

Channel	RX Frequency
WX01	162.5500
WX02	162.4000
WX03	162.4750
WX04	162.4250
WX05	162.4500
WX06	162.5000
WX07	162.5250
WX08	161.6500
WX09	161.7750
WX10	163.2750

NOAA Weather
SAME Event Codes

Standard Code Received	Event Code (Scrolling Name)	Display (16 Character Name)
ADR	ADMINISTRATIVE MESSAGE	ADMIN MESSAGE
AVA	AVALANCHE WATCH	AVALANCHE WATCH
AVW	AVALANCHE WARNING	AVALANCHE WARN
BHW	BIOLOGICAL HAZARD WARNING	BIOLOGICAL WARN
BWW	BOIL WATER WARNING	BOIL WATER WARN
BZW	BLIZZARD WARNING	BLIZZARD WARNING
CAE	CHILD ABDUCTION EMERGENCY	CHILD EMERGENCY

Standard Code Received	Event Code (Scrolling Name)	Display (16 Character Name)
CDW	CIVIL DANGER WARNING	CIVIL DANGER
CEM	CIVIL EMERGENCY MESSAGE	CIVIL EMERGENCY
CFA	COASTAL FLOOD WATCH	COASTAL FLOOD
CFW	COASTAL FLOOD WARNING	COASTAL FLOOD
CHW	CHEMICAL HAZARD WARNING	CHEMICAL HAZARD
DBA	DAM WATCH	DAM BREAK WATCH
DBW	DAM BREAK WARNING	DAM BREAK WARN
DEW	CONTAGIOUS DESEASE WARNING	CONTAGIOUS WARN
DMO	PRACTICE/DEMO	SYSTEM DEMO
DSW	DUST STORM WARNING	DUST STORM WARN
EAN	EMERGENCY ACTION NOTIFICATION	EMERGENCY NOTIFY
EAT	EMERGENCY ACTION TERMINATION	EMERGENCY END
EQW	EARTHQUAKE WARNING	EARTHQUAKE WARN
EVI	IMMEDIATE EVACUATION	IMMED EVACUATION
EVA	EVACUATION WATCH	EVACUATION
FCW	FOOD CONTAMINATION WARNING	FOOD CONTAMIN
FFA	FLASH FLOOD WATCH	FLASH FLOOD WARN
FFS	FLASH FLOOD STATEMENT	FLASH FLOOD WARN
FFW	FLASH FLOOD WARNING	FLASH FLOOD WARN

Standard Code Received	Event Code (Scrolling Name)	Display (16 Character Name)
FLA	FLOOD WATCH	FLOOD WATCH
FLS	FLOOD STATEMENT	FLOOD STATEMENT
FLW	FLOOD WARNING	FLOOD WARNING
FRW	FIRE WARNING	FIRE WARNING
FSW	FLASH FREEZE WARNING	FLASH FREEZE
FZW	FREEZE WARNING	FREEZE WARNING
HLS	HURRICANE STATEMENT	HURRICANE
HMW	HAZARDOUS MATERIAL WARNING	HAZARDOUS WARN
HUW	HURRICANE WATCH	HURRICANE WATCH
HWA	HIGH WIND WATCH	HIGH WIND WATCH
HWW	HIGH WIND WARNING	HIGH WIND WARN
IBW	ICEBERG WARNING	ICEBERG
IFW	INDUSTRIAL FIRE WARNING	INDUSTRIAL FIRE
LAE	LOCAL AREA EMERGENCY	LOCAL EMERGENCY
LEW	LAW ENFORCMENT WARNING	LAW ENFORCE WARN
LSW	LAND SLIDE WARNING	LAND SLIDE WARN
NAT	NATIONAL AUDIBLE TEST	NATIONAL AUDIBLE
NIC	NATIONAL INFORMATION CENTER	NATIONAL INFORM
NMN	NETWORK NOTIFICATION MESSAGE	NETWORK MESSAGE
NPT	NATIONAL PERIODIC TEST	NATIONAL PERIODIC

Standard Code Received	Event Code (Scrolling Name)	Display (16 Character Name)
NST	NATIONAL SILENT TEST	NATIONAL SILENT
NUW	NUCLEAR POWER PLANT WARNING	NUCLEAR WARNING
POS	POWER OUTAGE ADVISORY	POWER OUTAGE ADV
RHW	RADIOLOGICAL HAZARD	RADIOLOGICAL
RMT	REQUIRED MONTHLY TEST	REQ MONTHLY TEST
RWT	REQUIRED WEEKLY TEST	REQ WEEKLY TEST
SMW	SPECIAL MARINE WARNING	SPECIAL MRN WARN
SPS	SPECIAL WEATHER STATEMENT	SPECIAL WEATHER
SPW	SHELTER IN-PLACE WARNING	SHELTER IN-PLACE
SVA	SEVERE THUNDERSTORM WATCH	THUNDERSTORM
SVR	SEVERE THUNDERSTORM WARNING	THUNDERSTORM
SVS	SEVERE WEATHER STATEMENT	SEVERE WEATHER
TOA	TORNADO WATCH	TORNADO WATCH
TOE	911 TELEPHONE OUTAGE EMERGENCY	911 OUTAGE
TOR	TORNADO WARNING	TORNADO WARN
TRA	TROPICAL STORM WATCH	TROPIC STORM
TRW	TROPICAL STORM WARNING	TROPIC STORM
TSA	TSUNAMI WATCH	TSUNAMI WATCH

Standard Code Received	Event Code (Scrolling Name)	Display (16 Character Name)
TSW	TSUNAMI WARNING	TSUNAMI WARNING
VOW	VOLCANO WARNING	VOLCANO WARNING
WFW	WILD FIRE WARNING	WILD FIRE WARN
WFA	WILD FIRE WATCH	WILD FIRE WATCH
WSA	WINTER STORM WATCH	WINTER STORM
WSW	WINTER STORM WARNING	WINTER STORM
* * A	UNRECOGNIZED WATCH	UNRECOGNIZED
* * E	UNRECOGNIZED EMERGENCY	UNRECOGNIZED
* * S	UNRECOGNIZED STATEMENT	UNRECOGNIZED
* * W	UNRECOGNIZED WARNING	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

Uniden MHS450 Radio Owner's Manual

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 either, at its option, repair or replace the defective unit 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. Warrantor, at its option, may replace the unit with a new or refur-bished unit. 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 Boulevard
Fort Worth, TX 76155
(800) 554-3988, 7:00 a.m. to 7:00 p.m., Central,
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