☷ West Marine®

VHF160

Floating Two-Way Marine Radio
Radio maritime bidirectionnelle flottante

Owner's Manual
Guide d'utilisation

Model / Modèle 14078562

Making a Distress Call

Speak slowly - clearly - calmly.

For future reference, write your boat's name & call sign here:

1. Make sure your radio is on.
2. On the radio, press the *16/9-Tri* button to switch to Channel 16 (156.8 MHz). (If the corner of the display does not show 16, press the *16/9-Tri* button again until it does.)
3. Press the *push to talk* button and say: **"MAYDAY -- MAYDAY -- MAYDAY."**
4. Say "**THIS IS** *{name of your boat (three times) and call sign/boat registration number (once)}."*
5. Say "**MAYDAY** *{name or call sign of your boat}.*"
6. Tell where you are: (what navigational aids or landmarks are near, or read the latitude and longitude from your GPS).
7. State the nature of your distress, (e.g. are you sinking, medical emergency, man overboard, on fire, adrift, etc.
8. State the type of assistance you need (medical, towing, pumps, etc.).
9. Give number of persons aboard and conditions of any injured persons.
10. Estimate present seaworthiness of your ship (e.g. how immediate is the danger due to flooding or fire or proximity to shore).
11. Briefly describe your ship, giving the ship name (e.g. "Blue Duck is 32 foot cabin cruiser, white hull, blue deck house").
12. Say: **"I WILL BE LISTENING ON CHANNEL 16."**
13. End message by saying "**THIS IS** *{name or call sign of your boat}*, **OVER**."
14. Release the *push to talk* button and listen.

If you do not get an answer after 30 seconds, repeat your call, beginning at step 3, above.

Faire un appel de détresse

Faire un appel de détresse vocal
Parlez lentement – clairement – calmement.

Pour toute référence ultérieure, transcrivez ci-dessous le nom et l'indicatif d'appel de votre bateau :

1. Vérifiez si votre radio est en marche.
2. Appuyez sur la touche **16/9-Tri** de la radio afin de commuter au canal 16 (156,8 MHz). (Si le canal 16 n'apparaît pas à l'affichage, appuyez de nouveau sur la touche **16/9-Tri** jusqu'à ce qu'il soit affiché.)
3. Appuyez sur le bouton de microphone **push to talk** et dites :"**MAYDAY - MAYDAY – MAYDAY**".
4. Donnez l'identité de votre navire en disant : "**ICI** {nom de votre bateau (trois fois) ou indicatif d'appel et le numéro d'identification de votre bateau (une fois)}".
5. Dites "MAYDAY {nom ou indicatif d'appel de votre bateau} une fois".
6. Donnez votre position : (quels sont les points de repère ou aides à la navigation près de vous ou lisez les coordonnées de longitude et de latitude apparaissant sur votre dispositif GPS).
7. Révélez la nature de votre détresse (par exemple, nous sommes en train de couler, urgence médicale, un homme à la mer, un incendie, nous sommes à la dérive, etc.
8. Révélez la nature de l'assistance désirée (médicale, remorquage, essence, etc.)
9. Donnez le nombre de personnes à bord et les conditions des blessés, s'il y en a.
10. Donnez la condition de navigabilité actuelle de votre navire, tel que le degré de l'urgence par rapport à l'inondation, à l'incendie ou à votre proximité de la côte.
11. Donnez une brève description de votre navire en donnant le nom du bateau (par exemple, "Blue Duck est un yacht de croisière de 32 pieds, avec une coque blanche et un rouffle bleu.").
12. Dites : "**JE VAIS ÉCOUTER SUR LE CANAL 16**".
13. Terminez le message en disant "**ICI** {nom ou indicatif d'appel de votre bateau}, **À VOUS**".
14. Relâchez le bouton **push to talk** du microphone et écoutez.

Si vous n'obtenez pas de réponse après 30 secondes, répétez l'appel en commençant à l'étape 3 ci-dessus.

Table of Contents

Introduction

Features

Your radio provides the following key features:

* **Submersible design.** Complies with floating JIS8/IPX8 water-resistant standards, which means the radio can be submerged in 1.5 meters of water for 1 hour without damage.

✎ **Notes:**

The radio will only meet this rating if fully assembled and all rubber seals and sealing plugs are well maintained and correctly fitted. This means that the speaker microphone is attached or the sealing plug is fitted, and the battery pack (or tray) and antenna are attached and securely fastened.

After your radio is submerged in water, you might notice that the sound is distorted. This is because

there is still water remaining in and around the speaker and microphone. Just shake the radio to clear excess water, and the sound will return to normal.

If your radio is exposed to salt water, clean it thoroughly with fresh water and dry it before turning it on.

The charger is not waterproof.

+ **Memory Scan mode.** Lets you save channels to memory and monitor them in quick succession.
+ **Transmitter power level select/Boost.** Lets you boost the transmitter power from 1W to 2.5W or 6W for added transmission distance.
+ **Battery level display and low battery alert.**
+ **Dual and Triple Watch operation.** These different Watch modes let you monitor up to one Coast Guard Distress/Hailing channel and one weather channel along with one regular marine channel.
+ **All marine VHF channels for the U.S., Canada, and international waters.**
+ **Battery Save.** The Battery Save feature automatically turns off RX power at regular intervals to save battery power.
+ **National Oceanic and Atmospheric Administration (NOAA) Weather Channel watch.** Sounds a warning tone when a hazard alert is issued.
+ **SOS Strobe/Flashlight**. A high intensity strobe LED can be set to blink an SOS pattern or to be steady on.
+ **Emergency 16/9 Channel monitoring**. Set unit to scan one or both of these emergency channels regularly within normal scanning cycles.

- ◆ **Key Lock**. Locks keys to prevent accidentally changing channels or entering data.
- ◆ **Nine** weather channels.
- ◆ Selectable Volume (0 - 9) and Squelch (0 - 3) levels.

Getting Started

What's Included

Antenna

Charging Cradle

VHF160 Radio
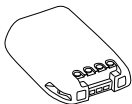
Lithium Ion Poly Battery

Alkaline Battery Tray (batteries not included)

DC Charging Adapter

AC-DC Charging Adapter

Screws for Charging Cradle

Wrist Strap

Belt Clip

If any pieces are missing or damaged, contact West Marine (see back cover for contact information).

Parts of the VHF160

Front view

Antenna

External speaker and microphone

LCD display

Wrist strap anchor

Power button

Channel up button

Push to talk button

Boost button

L/M/H button

16/9-Tri (16/9- triple watch) button

LOCK/UIC button

Mem (memory) *SOS* button

Channel down button

WX-Alert (weather-alert) button

Volume/Squelch button

Scan/Dual (scan-dual watch) button

Strobe SOS light

Speaker

Microphone

Back view

Battery latch

Battery charging contacts

Battery

Belt clip

Button	Press to...	Press and hold to...
Power	NA	Turn the radio on or off.
PTT (Push to Talk)	NA	Talk/transmit on a channel.
Boost	NA	Transmit with a higher power level.
16/9/TRI	1st press: Go to channel 16. 2nd press: Go to channel 9. 3rd press: Go back to the starting channel.	Turn Triple Watch on and off.
MEM/SOS	Save a channel into memory or delete a channel from memory.	Turn on the SOS signal. Press and hold again to turn on flashlight. Press and hold again to turn off the LED light.
WX/ALERT	Places radio into Weather mode so you can listen to the weather channels.	Turn Weather Alert Watch on and off.
Channel Up	Move up one channel or squelch/volume step at a time.	Move quickly up the channels/ squelch/volume steps.
L/M/H	Change the transmit power (see page E-9).	NA
LOCK/UIC	Lock the keys; press and hold again to unlock.	Switch from US to Canadian or International channels.
Channel Down	Move down one channel or squelch/volume step at a time.	Move quickly down the channels/squelch/volume steps.

Button	Press to...	Press and hold to...
SCAN/ DUAL	Start scanning channels saved in memory.	Turn Dual Watch on and off.
VOL/SQ	Increase or decrease the volume.	Increase or decrease the squelch level.

Charger

Charging contacts

Power jack [cigarette (DC) or wall (AC) plug]

Charging latches

Screw holes for mounting

CHARGE LED
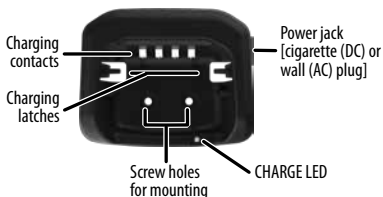
Reading the Display

The LCD display shows different information depending on what you are doing. This sample screen shows some of this information. The following table shows all the possible icons and what they mean.

Transmit power level

The radio is transmitting

Battery status icon

UIC channel mode

Key lock is on

Watch mode

The radio is in scan mode

Current channel number

Weather Alert Watch is on.

This channel is stored in memory.
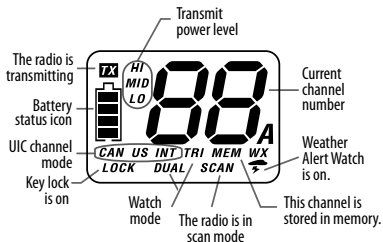
Display icons and what they mean

Icon	What it means
TX	You are currently transmitting.
LO, MID, HI	The transmitter power is set to L (Low - 1W), M (Mid - 2.5W), or H (HIGH - 6W).
LOCK	The keys are locked.
US, CAN, or INT	Indicates if the radio is set for US channels, CANadian channels, or INTernational channels.
TRI or DUAL	TRIple Watch or DUAL Watch is turned on.
MEM	The current channel is saved in memory.
SCAN	The radio is in Scan mode.
WX	The radio is in Weather mode
⚡	Weather Alert Watch is turned on.
🔋🔋🔋🔋🔋	The battery is fully charged, mostly charged, half charged, mostly empty, or completely empty.
88A	Current channel number

How It Works

Your radio has three main operation modes: Normal, Scan, and Weather.

Mode	What it does	Use it when you want to...	To turn it on/off
Normal	Monitors a single marine channel and lets you talk on that channel.	Monitor a channel or talk to another radio.	(default mode)
Scan	Monitors all the channels you save into memory.	Check a small group of regularly-used channels for traffic.	Press *SCAN/DUAL*.
Weather	Monitors the selected NOAA weather channel.	Hear the current or forecasted weather.	Press *WX/ALERT*.

In addition to the three operation modes, your radio provides three different watch modes which you can activate during any operation mode. In the watch modes, the radio briefly checks for activity on a specific channel, then returns to its previous operation.

Watch mode	What it does	To turn it on/off
Weather Alert Watch	Checks the last-used weather channel for hazard alerts every 7 seconds.	Press and hold *WX/ALERT* for 2 seconds.
Dual Watch	Checks channel 16 for activity every 2 seconds.	Press and hold *SCAN/DUAL* for 2 seconds.
Triple Watch	Checks channels 16 and 9 for activity every 2 seconds.	Press and hold *16/9/TRI* for 2 seconds.

☞ **Private boats must monitor channel 16 whenever they are underway. Water-going vessels should have either Triple Watch or Dual Watch on at all times.**

Normal Mode Operation

- To transmit, remove the radio from the charger, then press and hold *Push to Talk*. Release the button when you are finished talking.
- For the best sound quality, hold the microphone about two inches from your mouth while you're talking.
- Press *Channel up* to move up one channel at a time. Press and hold the button to scroll quickly up the channels.
- Press *Channel down* to move down one channel at a time. Press and hold the button to scroll quickly down the channels.
- To change the transmit power, press *L/M/H*. The transmit power switches to the next transmit power each time you press this button.

Normal mode with Weather Alert Watch

If you activate Weather Alert Watch while operating in Normal mode, the radio checks the most recently used weather channel every few seconds. If it detects a weather or other hazard alert, it will switch to that weather channel. (If you are actively transmitting, the radio waits until you finish your transmission before checking the weather channel.)

Monitoring Channel 25

Every few seconds, the radio checks the last-used weather channel.

WX
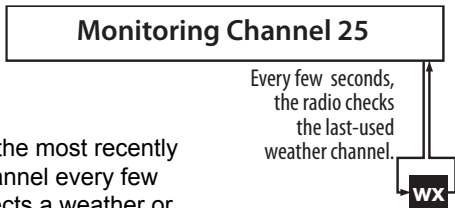
WX Alert Watch on

Normal mode with Triple Watch or Dual Watch

If you activate Triple Watch while operating in Normal mode, the radio checks channels 9 or 16 every two seconds; with Dual Watch turned on, the radio only checks channel 16. The radio will not check channels 9 or 16 while you are actively transmitting; it waits until your transmission is finished and then checks the channels.

Monitoring Channel 25

09 **16**   **09** **16**   **09** **16**

Every 2 seconds, the radio
checks channels 9 & 16.
Triple Watch on
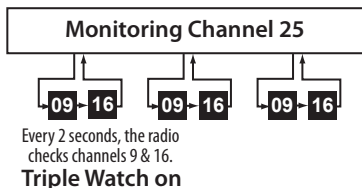
Scan Mode Operation

You can save channels into memory and then use Scan mode to monitor those channels from lowest to highest. If the radio detects a signal on a channel, it stays on that channel as long as the signal is received; when the signal stops, the radio continues scanning.

When it detects a signal, the radio stays
on the channel until you press the
Channel Up button or the signal stops.

Resume
scan

08 **10** **11** **12** **13** **14** **15** **17**

The radio scans about
5 channels in 0.5 seconds.

Using the radio in Scan mode

- To activate Scan mode, press *SCAN/DUAL*.
- You must have at least two channels in memory to start a scan. However, you cannot save marine channel 70 or Weather channels.
- You cannot transmit while in Scan mode.
- To save a channel into memory, select the channel, then press *MEM/SOS*. The *MEM* icon displays whenever you tune to that channel.
- To remove a channel from memory, set the radio to that channel, then press *MEM/SOS*. The *MEM* icon no longer displays.
- When the radio stays on a channel, press *Channel Up* to leave that channel and resume scanning.
- To end the scan, press the *SCAN/DUAL* button again; the radio remains on the last scanned channel.

Scan mode with Weather Alert Watch

If you activate Weather Alert Watch while in Scan mode, the radio checks the most recently/used weather channel every seven seconds, then continues scanning the next channel in memory:

Memory Channel Scan

Every 7 seconds, the radio checks the last-used weather channel, then scans the next channel.
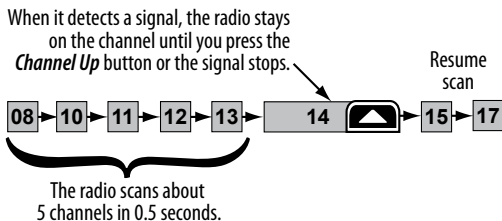
WX Alert Watch on
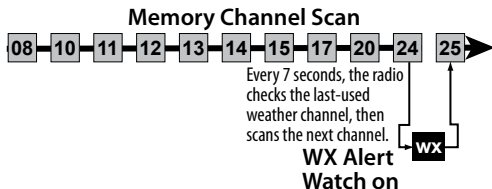
Scan mode with Triple Watch or Dual Watch

If you activate Triple Watch while operating in Scan mode, the radio checks channels 9 or 16 every two seconds, then goes on to scan the next channel; with Dual Watch turned on, the radio only checks channel 16:

Memory Channel Scan

Every 2 seconds, the radio checks channels 9 & 16, then scans the next channel.

Triple Watch on
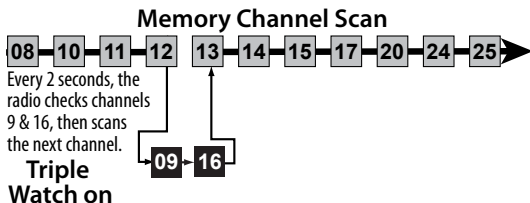
Both Weather Alert and Triple/Dual Watch in Scan mode

You can activate Weather Alert Watch and Triple/Dual Watch at the same time. The radio performs both checks at their scheduled time:

Memory Channel Scan

Every 2 seconds, the radio checks channels 9 & 16, then scans the next channel.

Triple Watch on

Every 7 seconds, the radio checks the last-used weather channel, then scans the next channel.

WX Alert Watch on

Weather Mode

The NOAA weather channels cooperate with the FCC to alert you of other hazards besides weather (child abduction alerts, nuclear, biological, etc.). In Weather mode, the radio monitors one of the nine NOAA weather channels. If any type of alert is received, the radio sounds an alert tone and the display blinks.

Using the radio in weather mode

Press the *WX/ALERT* button to access Weather mode. WX displays. Press to scroll through the weather channels.To cancel Weather and return to the previous marine channel, press the *WX/ALERT* button again. The last active weather channel displays the next time you access Weather mode.

✎ **You cannot transmit while in Weather mode.**

When the radio detects a WX Alert signal, it sounds a siren tone three times. Press any button to turn off the tone.

Weather mode with Weather Alert Watch

Because Weather mode already monitors the weather channels, you don't need Weather Alert Watch to check the weather channel every seven seconds. If you activate Weather Alert Watch while operating in Weather mode, it operates as a type of "sleep mode;" the radio stays on the weather channel and mutes the speaker. If an alert is detected, the radio sounds an alert tone and turns the speaker back on. This mode is very useful when you are anchoring for the night but want to keep informed of hazards.
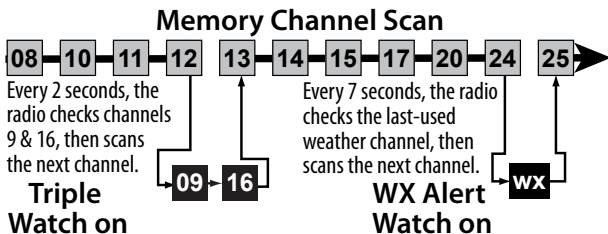
Weather mode with Triple Watch or Dual Watch

If you activate Triple Watch while operating in Weather mode, the radio checks channels 9 and 16 every two seconds; with Dual Watch turned on, the radio only checks channel 16.

Monitoring Weather Channel WX08

09 16   **09 16**   **09 16**

Every 2 seconds, the radio checks
channel 9, then channel 16
with Triple Watch on
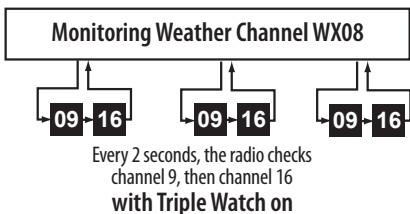
Setting Up the Hardware

Attaching the Antenna

The antenna detaches from the radio for easy shipping or storage. To attach the antenna to your radio, screw it tightly onto the anchor post at the top of the radio.

Installing the Battery

Your radio comes with a rechargeable Li-Ion Polymer battery; for shipping safety, the battery is not installed at the factory. The empty alkaline battery tray is installed as a placeholder.

1) Insert the tabs on the battery into the notches at the top of the battery compartment.

✎ **Each time you remove the battery, check the rubber seal around the battery compartment. Make sure the seal is seated in the groove and there is no dirt or debris on it. If the seal looks worn or damaged, contact customer service to order a replacement (see back cover page for contact information).**

2) Lower the battery until it rests flat in the compartment.
3) Bring the battery latch up and snap it into place.

Using the Alkaline Battery Tray

The radio also comes with an alkaline battery tray that holds four AAA-type alkaline batteries (not included). You can use alkaline batteries as a backup for the Li-Ion Polymer battery so you can still use your radio while your Li-Ion Polymer battery is recharging.

CAUTION: If you are using your radio in a cold-weather environment, West Marine recommends using non-rechargeable Lithium batteries.

✎ **When using alkaline batteries, transmit power is limited to a maximum of 2.5W.**

Follow these steps to use the alkaline battery tray:

1) Hold the lower part of the tray in one hand with the three battery contacts facing down. Use your thumb to hold the notch on the lower part of the tray.
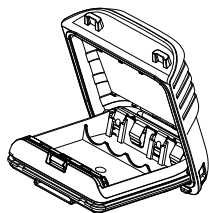
2) With your other hand, grip the upper part of the tray and lift the cover open.

3) Align the batteries' positive and negative terminals with the drawing on the tray and snap each battery into place.

4) Insert the two hooks on the lower part of the tray into the notches on the cover; close the cover. (The cover fits snugly but you should not have to force it closed.)

5) Install the alkaline battery tray in your radio just as you do the Li-Ion Polymer battery (see page E-15).
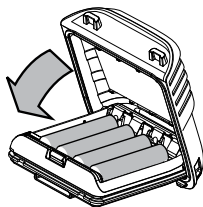
WARNING! The tray is designed to prevent the accidental charging of alkaline batteries. Never use alkaline batteries in the radio without the alkaline battery tray. Do not attempt to modify the battery tray design.

Mounting the Charger

You can mount the charger on any flat surface.

1) Use the two holes at the base of the charger as a template to mark the drill holes.
2) Using a 1/8-inch (or 3 mm) drill bit, drill two holes 1/2 inch (13mm) deep.
3) Use the provided screws to attach the charger to the surface.
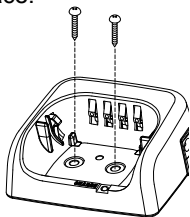
Charging the Battery

Your radio includes a charger and a rechargeable battery pack. Place your radio in the charger with the display facing forward. Make sure that the CHARGE LED on the charger turns orange.

Cautions:

◆ **Use only the battery and charger supplied with this radio. Using a different charger or battery can damage the radio and create a risk of fire or shock.**

◆ **The charger is not waterproof. If the charger falls into the water, unplug it before attempting to remove it from the water. After you remove the charger from the water, please contact West Marine directly (see back cover for contact information).**

◆ **Wipe off dirt or shake water from your radio before placing in the charger if your radio gets dirty or wet.**

Important notes on charging the battery

- Charge the battery fully before using the radio. When the battery is completely charged, the CHARGE LED turns green.
- Don't use the charger when the ambient temperature is below 0° C (32° F) or above 45° C (113° F).
- If the radio is powered down, the battery can charge in about seven hours. (If the radio is powered on, the battery takes longer to charge.)

Attaching the Belt Clip

To attach the belt clip:

1) Rotate the belt clip so that the finger indentation is towards the top of the radio.

2) Align the center of the clip with the anchor post.

3) Place the clip on the post and slide the clip upwards until it clicks into place.

To remove the belt clip:

1) Rotate the clip so that the finger indentation is towards the bottom of the radio.

2) Slide the clip up until it comes free of the anchor post.

Using Your Radio

Turning It On
Press and hold *POWER* for at least two seconds to turn the radio on. Press and hold *POWER* again to turn the unit off.

Setting It Up
Even though you can change your radio's settings at any time, you will probably want to establish initial settings after you have turned it on for the first time. You will adjust some of these settings on an as-needed basis, but some settings might only need to be set once.

Changing the volume
To change the speaker volume, press *VOL/SQ* to enter Volume Setting mode. 0 (for volume level 0 - 9) displays. Press *CHANNEL UP* or *CHANNEL DOWN* to increase or decrease the volume levels. Press *VOL/SQ* to save.

Setting the Squelch level
The VHF160 recognizes signals as transmissions if they exceed a signal strength threshold.
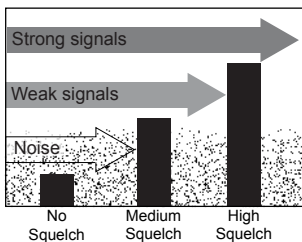
Adjusting the squelch sets this threshold level. Increasing squelch requires a signal to be stronger to be seen as a transmission. If you set the squelch too high, you will risk not receiving transmissions that are lower than that threshold. Reducing the squelch allows weaker signals to be accepted. However, if you lower the squelch too much, you will hear white noise all the time

While listening to a channel, press and hold *VOL/SQ* to enter Squelch Setting mode. The *SQUELCH Level* (𝟝𝟘)number displays on the LCD. Press *CHANNEL UP* or *CHANNEL DOWN* to increase or decrease the squelch levels (0 - 3). Press *VOL/SQ* to save the setting.

✎ **Note: Setting the squelch level too high may prevent you from hearing weaker transmissions. If you are having difficulty hearing a transmission, try setting the squelch level lower.**

Reading volume and squelch level on battery icon

When you adjust the volume or squelch levels, the 4 bars on the battery icon display according to the volume and squelch levels. For example, two bars display for VOL levels 3 and 4, and Squelch level 2.
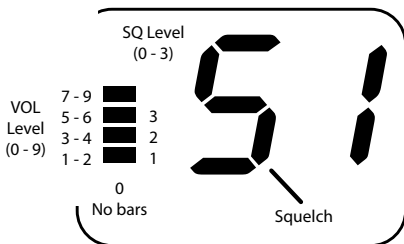
Setting the UIC channel mode (USA/CAN/INT)

You can select marine channels for the USA, Canada, or International waters. Press and hold *LOCK/UIC* to scroll through USA, CANada, or INTernational channel options.

Using the WX Mode

Press *WX/ALERT* to switch to WX mode; you can then listen to one of the 9 weather channels. Press and hold *WX/ALERT* to turn on Weather Alert mode. The radio then monitors the current weather channel and alerts you to any broadcast weather alerts or notifications. The ☂ icon displays to indicate that WX Alert is on.

Making a Transmission

Selecting a channel

Press *Channel Up* and *Channel Down* briefly to scroll through the channels one channel at a time. Press and hold *Channel Up* or *Channel Down* to quickly scroll through the channels.

Making a transmission

Press and hold *Push to Talk*. *TX* displays while you are transmitting. Release *Push to Talk* when you're finished talking to let the other party respond.

- To prevent stuck microphone problems or situations where *Push to Talk* is pushed accidentally, the radio limits your talk time to 5 minutes in a single transmission.
- For the best sound quality, hold the microphone about two inches away from your mouth.

- Some marine channels and Weather mode channels are Receive Only. See page E-27 for a list of receive-only channels.

📶 **There is a 5 minute limit for continuous transmission. After 5 minutes the unit goes into a PTT error condition; the timeout tone sounds, TX displays, and the channel indicators blink.**

Boosting the transmission power

In most situations, 1W transmission power is all you need. If you find yourself far away from other stations and have trouble getting a response, you may need to boost the transmission power from 1W to 2.5W or 6W.

📶 **Alkaline battery boost is limited to 2.5W**

📶 **Channels 75 and 76 are 1W only and do not have power override capability.**

1) Select the channel you want to transmit on.
2) Press *L/M/H* to switch to the next transmission power level (for example, from 1W to 2.5W; from 2.5W to 6W, or from 6W back to 1W).
3) The display shows the new transmission power. The transmit power remains at the new setting until you change it again.

📶 **Don't forget to change the transmission setting back to 1W when you move close to other stations.**

- Some channels (for example, channels 13 and 67) limit the transmission power to 1W. When you tune to a limited-power channel, the radio automatically switches to 1W. See page E-27 for a list of power-restricted channels.

Saving Channels to Memory

If you find a channel you like and want to listen to it again, save it to memory. Press *MEM/SOS*; the active channel is stored in memory and *MEM* displays. Press *SCAN DUAL* to scan the channels in memory.

✎ **You must have at least 2 channels in memory in order to use Scan mode. Channel 70 and WX channels cannot be stored into memory.**

Press *SCAN/DUAL* again to remove the channel from memory.

Special Features

Using the Strobe SOS Light/Flashlight

You can use this radio in an emergency. If you turn on the strobe SOS high-intensity LED light on your radio, your radio will blink "S O S" in international Morse Code. This will make it easier for rescuers to find you faster.

✎ **Your radio operates normally when the SOS LED strobe is activated.**

With the SOS LED in this state -	Do This -	For this -
OFF	Press and hold *Mem/SOS* for 2 seconds.	SOS LED signals SOS in Morse code.
SOS	Press and hold *Mem/SOS* for 2 seconds.	SOS LED remains on continuously. (Flashlight mode)
Continuous	Press and hold *Mem/SOS* for 2 seconds.	SOS LED turns off.

Turning the key beep on and off

Key beep is the tone that sounds when you press a key or a button. You cannot change the key beep volume.

To turn key beep on or off, press and hold *Channel up* or *Channel down* while turning on the radio. You may need to turn off the radio first.

Setting Key Lock

You can lock and unlock the keypad by pressing *LOCK/UIC*. If Key Lock is on, only PTT, Boost, and power on/off will operate. Key Lock remains in memory when the radio is turned off.

Key Lock will automatically turn off if a WX Alert signal is received.

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 prevents water from entering the jack.

For details, consult your dealer or contact West Marine directly (see back cover for contact information).

Using the Battery Save feature

The Battery Save feature automatically turns off receive power at regular intervals to save battery power. Battery Save turns of when receiving transmissions or transmitting a response. It reactivates after 3 seconds of no activity (transmit or receive).

✎ **Battery Save does not work while in Scan mode or in Triple/Dual watch, and while WX alert is active.**

Maintenance and Troubleshooting

Due to its rugged design, your radio requires very little maintenance. However, it is a precision electronic instrument, so you should follow a few precautions:

- If the antenna has been damaged, do not transmit except in an emergency situation. Transmitting with a defective antenna may cause further radio damage.
- You are responsible for continued FCC technical compliance of your radio.

Common Questions

Problem	Things to Try
The radio won't turn on.	Charge the radio.
The power LED on the charger doesn't turn on.	– Don't use the charger when the ambient temperature is below 0° C (32° F) or above 45° C (113° F). – Make sure the charging contacts on the radio and charger are clean. – Replace the battery.
The radio won't transmit.	Make sure you are not in Weather or Scan mode. Make sure you are not trying to transmit on a receive-only channel or transmit at the wrong power level for this channel (see the channel lists starting on page E-27). Check the battery power level; if it's low, charge the battery before trying to transmit. Make sure the duration of each transmission is less than 5 minutes.

Problem	Things to Try
I can't hear anything from the speaker.	Adjust the squelch level; it is probably too high.
The sound is muffled or the volume is low.	Clear water from the speaker grill.
Noise comes out of the speaker all the time.	Adjust the squelch level; it is probably too low.
I can transmit, but no one can hear me.	Check your UIC channel settings: does the area you are in use different channel assignments?
I'm not getting hazard alerts.	Make sure Weather Alert Watch is turned on.
The display flashes, and I don't know why.	The channel number on the display will flash if the radio is in a Watch mode or in Scan mode. Try turning off scanning, Weather Alert Watch, Triple Watch, or Dual Watch (see page E-8).
Where can I find my radio's serial number?	The serial number is on a plate inside the battery compartment.

Specifications

General	
Channels	All US/International/Canada marine channels
	9 Weather channels
Freq. Control	PLL
Freq. Tol.	Transmit: 0.5 PPM (at 25°C) nominal
	Receive: 0.5 PPM (at 25°C) nominal
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 1.0 Watt
Power Source	Rechargeable Lithium Ion Battery 7.4V 1160 mAh
Size (without antenna)	5.95 (H) x 2.40 (W) x 1.69 (D) inch
	142 (H) x 61 (W) x 43 (D) mm
Weight	9.9 oz (281g) (w/battery and antenna)
Transmitter	
Frequency Range	156~158 MHz
Frequency Stability	±3 PPM (nominal)
Power Output	1.0 W & 2.5W & 6W
Spurious Emissions	70 dBm
Current Drain	1400 mA (6W) nominal
Receiver	
Type	Double Conversion Super Heterodyne
	Phase Locked Loop system for Local Oscillator
Frequency Range	156~164 MHz
Sensitivity	0.22 μV for 12dB SINAD (nominal)

Squelch Sensitivity	Threshold 0.18 µV (nominal)
Audio Frequency Response	+5.0 dB @ 500 Hz; -6 dB @ 2000Hz (nominal)
Adjacent Channel Selectivity	80 dB @ ±25 kHz (nominal)
Audio Output Power	1.0 W @10% THD (nominal)
Current Drain	Squelched: 38 mA; Max. Audio: 230 mA (nominal)

Channels and Frequencies (MHz)

US Channel Frequencies and Names

Ch	RX Freq	TX Freq	Status	Name
US Marine Channels				
1A	156.050	156.050	Simplex	Vessel traffic system/commercial
5A	156.250	156.250	Simplex	Vessel traffic system/commercial
6	156.300	156.300	Simplex	Inter-ship safety
7A	156.350	156.350	Simplex	Commercial
8	156.400	156.400	Simplex	Commercial
9	156.450	156.450	Simplex	Non commercial
10	156.500	156.500	Simplex	Commercial
11	156.550	156.550	Simplex	Vessel traffic system
12	156.600	156.600	Simplex	Vessel traffic system
13	156.650	156.650	Simplex, 1W	Bridge to bridge
14	156.700	156.700	Simplex	Vessel traffic system
15	156.750	Inhibit	Receive only	Environmental
16	156.800	156.800	Simplex	Distress, safety, and calling
17	156.850	156.850	Simplex, 1W	Govt maritime control
18A	156.900	156.900	Simplex	Commercial
19A	156.950	156.950	Simplex	Commercial
20	161.600	157.000	Duplex	Port operation
20A	157.000	157.000	Simplex	Port operation
21A	157.050	157.050	Simplex	Coast guard only
22A	157.100	157.100	Simplex	Coast guard
23A	157.150	157.150	Simplex	Coast guard only
24	161.800	157.200	Duplex	Marine operator
25	161.850	157.250	Duplex	Marine operator
26	161.900	157.300	Duplex	Marine operator
27	161.950	157.350	Duplex	Marine operator
28	162.000	157.400	Duplex	Marine operator
63A	156.175	156.175	Simplex	Vessel traffic system

US Marine Channels				
Ch	RX Freq	TX Freq	Status	Name
65A	156.275	156.275	Simplex	Port operation
66A	156.325	156.325	Simplex	Port operation
67	156.375	156.375	Simplex, 1W	Bridge To Bridge
68	156.425	156.425	Simplex	Non Commercial
69	156.475	156.475	Simplex	Non Commercial
70	156.525	Inhibit	Receive only	Digital Selective Calling
71	156.575	156.575	Simplex	Non Commercial
72	156.625	156.625	Simplex	Non Commercial (Ship-Ship)
73	156.675	156.675	Simplex	Port Operation
74	156.725	156.725	Simplex	Port Operation
75	156.775	156.775	Simplex, 1W	Port Operation
76	156.825	156.825	Simplex, 1W	Port Operation
77	156.875	156.875	Simplex, 1W	Port Operation (Ship-Ship)
78A	156.925	156.925	Simplex	Non Commercial
79A	156.975	156.975	Simplex	Commercial
80A	157.025	157.025	Simplex	Commercial
81A	157.075	157.075	Simplex	Coast Guard
82A	157.125	157.125	Simplex	Coast Guard
83A	157.175	157.175	Simplex	Government
84	161.825	157.225	Duplex	Marine Operator
85	161.875	157.275	Duplex	Marine Operator
86	161.925	157.325	Duplex	Marine Operator
87	157.375	157.375	Simplex	Marine Operator
88	157.425	157.425	Simplex	Commercial (Ship-Ship)

Canadian Channel Frequencies and Names

Canadian Marine Channels			
Ch	RX Freq	TX Freq	Status	Name
1	160.650	156.050	Duplex	Marine Operator

Canadian Marine Channels				
Ch	RX Freq	TX Freq	Status	Name
2	160.700	156.100	Duplex	Marine Operator
3	160.750	156.150	Duplex	Marine Operator
4A	156.200	156.200	Simplex	Canadian Coast Guard
5A	156.250	156.250	Simplex	Vessel Traffic System
6	156.300	156.300	Simplex	Inter-Ship Safety
7A	156.350	156.350	Simplex	Commercial
8	156.400	156.400	Simplex	Commercial
9	156.450	156.450	Simplex	Boater Calling Channel
10	156.500	156.500	Simplex	Commercial
11	156.550	156.550	Simplex	Vessel Traffic System
12	156.600	156.600	Simplex	Vessel Traffic System
13	156.650	156.650	Simplex, 1W	Bridge To Bridge
14	156.700	156.700	Simplex	Vessel Traffic System
15	156.750	156.750	Simplex, 1W	Environmental
16	156.800	156.800	Simplex	Distress, safety, calling
17	156.850	156.850	Simplex, 1W	State Control
18A	156.900	156.900	Simplex	Commercial
19A	156.950	156.950	Simplex	Canadian Coast Guard
20	161.600	157.000	Duplex, 1W	Port Operation
21A	157.050	157.050	Simplex	Canadian Coast Guard
22A	157.100	157.100	Simplex	Canadian Coast Guard
23	161.750	157.150	Duplex	Canadian Coast Guard
24	161.800	157.200	Duplex	Marine Operator
25	161.850	157.250	Duplex	Marine Operator
26	161.900	157.300	Duplex	Marine Operator
27	161.950	157.350	Duplex	Marine Operator
28	162.000	157.400	Duplex	Marine Operator
60	160.625	156.025	Duplex	Marine Operator
61A	156.075	156.075	Simplex	Canadian Coast Guard
62A	156.125	156.125	Simplex	Canadian Coast Guard
63A	156.175	156.175	Simplex	Port Operation

Canadian Marine Channels				
Ch	RX Freq	TX Freq	Status	Name
64	160.825	156.225	Duplex	Marine Operator
64A	156.225	156.225	Simplex	Port Operation
65A	156.275	156.275	Simplex	Port Operation
66A	156.325	156.325	Simplex, 1W	Port Operation
67	156.375	156.375	Simplex	Bridge To Bridge
68	156.425	156.425	Simplex	Non Commercial
69	156.475	156.475	Simplex	Non Commercial
70	156.525	Inhibit	Receive only	Digital Selective Calling
71	156.575	156.575	Simplex	Non Commercial
72	156.625	156.625	Simplex	Non Commercial
73	156.675	156.675	Simplex	Port Operation
74	156.725	156.725	Simplex	Port Operation
75	156.775	156.775	Simplex, 1W	Port Operation
76	156.825	156.825	Simplex, 1W	Port Operation
77	156.875	156.875	Simplex, 1W	Port Operation
78A	156.925	156.925	Simplex	Inter Ship
79A	156.975	156.975	Simplex	Inter Ship
80A	157.025	157.025	Simplex	Inter Ship
81A	157.075	157.075	Simplex	Canadian Coast Guard
82A	157.125	157.125	Simplex	Canadian Coast Guard
83	161.775	157.175	Duplex	Canadian Coast Guard
83A	157.175	157.175	Simplex	Canadian Coast Guard
84	161.825	157.225	Duplex	Marine Operator
85	161.875	157.275	Duplex	Marine Operator
86	161.925	157.325	Duplex	Marine Operator
87	157.375	157.375	Simplex	Port Operation
88	157.425	157.425	Simplex	Port Operation

International Channel Frequencies and Names

Ch	RX Freq	TX Freq	Status	Name
			International Marine Channels	
1	160.650	156.050	Duplex	Marine operator
2	160.700	156.100	Duplex	Marine operator
3	160.750	156.150	Duplex	Marine operator
4	160.800	156.200	Duplex	Marine operator
5	160.850	156.250	Duplex	Marine operator
6	156.300	156.300	Simplex	Inter-ship safety
7	160.950	156.350	Duplex	Marine operator
8	156.400	156.400	Simplex	Commercial (ship-ship)
9	156.450	156.450	Simplex	Boater calling channel
10	156.500	156.500	Simplex	Commercial
11	156.550	156.550	Simplex	Vessel traffic system
12	156.600	156.600	Simplex	Vessel traffic system
13	156.650	156.650	Simplex	Bridge to bridge
14	156.700	156.700	Simplex	Vessel traffic system
15	156.750	156.750	Simplex, 1W	Environmental
16	156.800	156.800	Simplex	Distress, safety, calling
17	156.850	156.850	Simplex, 1W	Govt maritime control
18	161.500	156.900	Duplex	Port operation
19	161.550	156.950	Duplex	Commercial
20	161.600	157.000	Duplex	Port operation
21	161.650	157.050	Duplex	Port operation
22	161.700	157.100	Duplex	Port operation
23	161.750	157.150	Duplex	Marine operator
24	161.800	157.200	Duplex	Marine operator
25	161.850	157.250	Duplex	Marine operator
26	161.900	157.300	Duplex	Marine operator
27	161.950	157.350	Duplex	Marine operator
28	162.000	157.400	Duplex	Marine operator
60	160.625	156.025	Duplex	Marine operator
61	160.675	156.075	Duplex	Marine operator

International Marine Channels				
Ch	RX Freq	TX Freq	Status	Name
62	160.725	156.125	Duplex	Marine operator
63	160.775	156.175	Duplex	Marine operator
64	160.825	156.225	Duplex	Marine operator
65	160.875	156.275	Duplex	Marine operator
66	160.925	156.325	Duplex	Marine operator
67	156.375	156.375	Simplex	Bridge to bridge
68	156.425	156.425	Simplex	Non commercial
69	156.475	156.475	Simplex	Non commercial
70	156.525	Inhibit	Receive only	Digital Selective Calling
71	156.575	156.575	Simplex	Non commercial
72	156.625	156.625	Simplex	Non commercial
73	156.675	156.675	Simplex	Port operation
74	156.725	156.725	Simplex	Port operation
75	156.775	156.775	Simplex, 1W	Port operation
76	156.825	156.825	Simplex, 1W	Port operation
77	156.875	156.875	Simplex	Port operation (ship-ship)
78	161.525	156.925	Duplex	Port operation
79	161.575	156.975	Duplex	Port operation
80	161.625	157.025	Duplex	Port operation
81	161.675	157.075	Duplex	Port operation
82	161.725	157.125	Duplex	Port operation
83	161.775	157.175	Duplex	Port operation
84	161.825	157.225	Duplex	Marine operator
85	161.875	157.275	Duplex	Marine operator
86	161.925	157.325	Duplex	Marine operator
87	157.375	157.375	Simplex	Marine operator
88	157.425	157.425	Simplex	Marine operator

Weather Channel Frequencies and Names

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

Regulations and Safety Warnings

WARNING! Read this information before
using the radio.

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. See page E-31 for tables of the available channels and their uses. If you are still not certain which channels to use, see the FCC maritime radio page at the FCC website (**http://wireless.fcc.gov/marine/**) or contact the FCC Call Center at 1-888-CALL-FCC. For individuals requiring a license, such as commercial users, you should obtain a license application from your nearest FCC field office (for US users) or Industry Canada (for Canadian users).

Basic Radio Guidelines

You should familiarize yourself with the rules on marine radios and be aware of which rules apply to your boat. Complete guidelines for all ship and marine radio types can be found at the US Coast Guard website under the topic Radio Info for Boaters (the direct link is **http://www.navcen.uscg.gov/marcomms/boater.htm**). Here are a few guidelines that affect nearly all boaters.

If you have a VHF radio on your boat, you must maintain a watch on channel 16 (156.800 MHz) whenever the radio is not being used to communicate. Starting in 2004, if a radio is carried, it must be on and set to channel 16. Whenever your boat is underway.

If you hear a distress call, wait a few minutes to let a shore station or Coast Guard vessel respond. If no other station has responded after 5 minutes, you must respond to the distress call.

Do not make false mayday or distress calls as a prank or to test your radio. (This is essentially like making a false 9-1-1 call; you may be subject to fines.)

FCC/Industry Canada Information

Certification: FCC Part 80 or RSS-182

Output Power: 6W

Emission: 16K0F3E

Transmitter Frequency Range: 156.025-157.425 MHz

This device complies with 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

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 violate 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 Polymer Battery Warning

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

Do not short-circuit the battery.

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

NOTE: Li-Ion Polymer batteries must be recycled or disposed of properly.

Avoid exposing the battery (whether attached to the radio or not) to direct sunlight, heated cars, or 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.

RBRC INFORMATION

As part of our commitment to protect the environment and conserve natural resources, Uniden voluntarily participates in an RBRC® industry program to collect and recycle used Li-Ion Polymer batteries within the US.

Please call 1-800-8-BATTERY for information on Li-Ion Polymer battery recycling in your area.

(RBRC® is a registered trademark of the Rechargeable Battery Recycling Corporation.)

WEST MARINE LIMITED WARRANTY

What Does This Limited Warranty Cover?

West Marine warrants to the original retail purchaser of the West Marine product, where the purchase is made in the United States, that the product will be free from defects in materials and craftsmanship with only the limitations or exclusions set out below.

How Long Does This Limited Warranty Last?

This limited warranty is valid for 36 months from the date of the original retail purchase from West Marine within the United States (the "Limited Warranty Term").

The warranty period is not extended if we repair or replace a warranted product or any parts. West Marine reserves the right to change the availability of limited warranties, at its discretion, but any changes will not be retroactive and will only apply to subsequent purchases.

What Does This Limited Warranty Not Cover?

This limited warranty does not cover:

- ・ Software.
- ・ Commercial or industrial use or operation.
- ・ Normal maintenance items or normal wear and tear.

- Problems resulting from fire or submergence in water or other liquids [DELETE IF PRODUCT OF WATER PROOF].
- If the product was damaged, modified or altered by you.
- If the product was used as part of any conversion kits, subassemblies, or any configurations not appropriate or contemplated for this product or its use.
- If damage or loss occurring during return shipment of the product to West Marine or its authorized service representative.
- If the product was subject to improper service, repair, installation, storage, maintenance, alteration or application.
- Problems that result from accident, neglect, abuse, misuse or issues with electrical power.
- Problems caused by accessories, parts or components added to the product that are not appropriate for this product or its use.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE (OR JURISDICTION TO JURISDICTION). WEST MARINE'S RESPONSIBILITY FOR MALFUNCTIONS AND DEFECTS IN HARDWARE IS LIMITED TO REPAIR OR REPLACEMENT AS SET FORTH IN THIS WARRANTY STATEMENT. ALL EXPRESS AND IMPLIED WARRANTIES FOR THE PRODUCT INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN TIME TO THE LIMITED WARRANTY TERM (AS SPECIFIED ABOVE). NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THE LIMITED WARRANTY TERM HAS EXPIRED. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

WE DO NOT ACCEPT LIABILITY BEYOND THE REMEDIES PROVIDED FOR IN THIS LIMITED WARRANTY OR FOR CONSEQUENTIAL OR

INCIDENTAL DAMAGES INCLUDING, WITHOUT LIMITATION, ANY
LIABILITY FOR THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES,
FOR PRODUCTS NOT BEING AVAILABLE FOR USE, FOR PERSONAL
INJURY AND/OR FOR LOST PROPERTY, DATA OR SOFTWARE.
OUR LIABILITY AND THE MAXIMUM AMOUNT FOR WHICH WE
ARE RESPONSIBLE WILL BE NO MORE THAN THE AMOUNT YOU
PAID FOR THE PRODUCT THAT IS THE SUBJECT OF A CLAIM.
SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION
OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE
LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

What Must I Do To Keep the Warranty in Effect?

- You must keep your receipt or other appropriate
  documentation as proof of the date of sale and purchase.
- You must keep your serial number or order number for
  the product. This is found on the product itself or on your
  receipt.
- You must not do any of the things that will make
  the warranty invalid as provided for in this warranty
  statement.
- You must use, install, maintain and operate the product in
  accordance with published specifications and the user's
  manual.

What Do I Do If I Need Warranty Service?

- Before the warranty expires, please call us at
  1-800-BOATING. Please also have your West Marine
  serial number or order number available.
- When you contact us, we will issue a Return Material
  Authorization Number for you to include with your return.
  We will also provide you the address of where to ship the
  product.
- You must return the product to us in its original or
  equivalent packaging, prepay shipping charges, and
  insure the shipment or accept the risk if the product is lost
  or damaged in shipment.

What Will West Marine Do?

During the Limited Warranty Term, if the product you return to us proves to be defective in materials or workmanship and not for the reasons which would otherwise disqualify it (as explained above), we will:

- Repair the product or, if we are unable to repair it, replace it with a comparable product that is new or refurbished;
- Or, as an alternative, at West Marine's option, we will refund you the original purchase price;
- If we repair or replace the product, we will return the repaired or replacement product to you; and
- Pay to ship the repaired or replacement product to you if you use an address in the United States (excluding Puerto Rico and U.S. possessions and territories). Otherwise, we will ship the product to you freight collect.

If we determine that the problem is not covered under this warranty, we will notify you of this when we return your product to you to the address you provide us in the United States (excluding Puerto Rico and U.S. possessions and territories).

We use new and refurbished parts made by various manufacturers in performing warranty repairs and in building replacement parts and systems. Refurbished parts and systems are parts or systems that have been returned to West Marine, some of which were never used by a customer. Replacement parts and systems are covered for the remaining time left in the Limited Warranty Term for the product you bought. West Marine owns all parts removed from repaired products.

Maintenance is the Owner's Responsibility

Cleaning, polishing, lubricating, replacing filters, tuning, replacing worn parts, using your purchased product according to the user's manual, and regularly maintaining your purchased product is your responsibility.

What if I purchased a Plus Protection Plan?

Service will be provided to you under the terms of the Plus Protection Plan contract. Please refer to that contract for details on how to obtain service.

How State Law Relates to the Warranty.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

West Marine®
www.westmarine.com
1-800-BOATING

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