

Owner's Manual Guide d'utilisation

FLOATING TWO-WAY MARINE RADIO
RADIO MARITIME BIDIRECTIONNELLE FLOTTANTE
MODEL / MODÈLE : 15155781

Printed in Vietnam / Imprimé au Vietnam

MAKING A DISTRESS CALL

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

Speak slowly - clearly - calmly.

- 1. Make sure your radio is on.
- Press the 16/9-TRI key to switch to Channel 16 (156.8 MHz). (If the corner of the display does not show 16, press the 16/9-TRI key again until it does.)
- Press the *Push to Talk* key and say: "MAYDAY -- MAYDAY -- MAYDAY."
- 4. Say "THIS IS {name of your boat (three times) and call sign/boat registration number (once)}."
- 5. Repeat "MAYDAY {name of your boat}" once.
- 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. sinking, medical emergency, man overboard, on fire, adrift, etc.).
- 8. State the type of assistance you need (medical, towing, pumps, etc.).
- 9. Give the number of persons aboard and describe the condition of any injured persons.
- Estimate present seaworthiness of your ship (e.g. how immediate is the danger due to flooding or fire).
- 11. Briefly describe your ship, giving ship name (i.e., "Blue Duck is 32 foot cabin cruiser, white hull, blue deck house").
- 12. Say: "I WILL BE LISTENING ON CHANNEL 16."
- End the message by saying "THIS IS {name or call sign of your boat}, OVER."
- 14. Release the *Push to Talk* key 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

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

Parlez lentement - clairement - calmement.

- 1. Vérifiez si votre radio est en marche.
- Appuyez sur la touche 16/9-TRI 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 iusqu'à ce qu'il soit affiché.)
- Appuyez sur le bouton de microphone Push to Talk et dites: "MAYDAY".
 MAYDAY -- MAYDAY".
- 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".
- 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).
- 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'aide désirée (médicale, remorquage, essence, etc.)
- 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 une inondation, et une incendie.
- 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.).
- Dites: "JE VAIS ÉCOUTER SUR LE CANAL 16".
- 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 encommençant à l'étape 3 ci-dessus.

CÓMO HACER UNA LLAMADA DE APURO

Para acordarse en el futuro, escriba el nombre y la señal de su nave aquí:

Hable despacio -- claro -- y con calma.

- 1. Asegúrese de que la radio está encendida.
- En la radio, oprima el botón 16/9-TRI para cambiar al canal 16 (156.8 MHz). (Si la esquina de la pantalla no muestra 16, oprima el botón 16/9-TRI otra vez hasta que lo haga.)
- Oprima el botón PUSH-TO-TALK (Oprima para hablar) en el micrófono y diga: "MAYDAY --- MAYDAY."
- Diga "ESTE ES {nombre de su nave (tres veces) y la señal/ número de registración de la nave (una vez)}."
- 5. Diga "MAYDAY (nombre o señal de su nave)" una vez.
- Describa donde se encuentra: (ayudas de navegación o marcas destacadas cercanas, o lea la latitud y la longitud en su GPS).
- Describa la clase de su apuro, ej., se está hundiendo, emergencia médica, hombre al agua, hay fuego, está a la deriva, etc.
- 8. Decriba el tipo de asistencia que necesita (atención médica, remolque, bombas, etc.).
- Describa la cantidad de personas abordo y las condiciones de cualquier persona lesionada.
- Estime la navegabilidad actual de su nave, ej., cuanto de inmediato es el peligro de inundación o de incendio o proximidad a la costa.
- 11. Describa brevemente su nave (ej., "Blue Duck es un yate de 32 pies, casco blanco, cabina azul").
- 12. Diga: "ESTARÉ ESCUCHANDO EN EL CANAL 16."
- 13. Termine el mensaje diciendo: "ESTE ES {nombre o señal de su nave}, OVER."
- 14. Suelte el botón **PUSH-TO-TALK** y escuche.

Si no recibe una contestacion dentro de 30 segundos, repita su llamada, comenzando con el paso 3, descrito arriba.

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INTRODUCTION

Features

· Memory scan mode

Lets you save channels to memory and monitor them in quick succession.

· Transmitter power level select

Lets you boost the transmitter power from L (Low = 1 Watt) to M (Medium = 2.5 Watts) or H (High = 6) Watts for added transmission distance.

- · Battery level display.
- · Battery Save

Unit turns off RX power after 3 seconds without RX or TX.

· Dual and Triple operation

These different watch modes let you monitor up to two Coast Guard Distress/Hailing channels along with one regular marine channel.

- All marine VHF channels for the U.S., Canada, and international waters
- National Oceanic and Atmospheric Administration (NOAA) Weather Channel watch

Sounds a warning tone when a hazard alert is issued.

· Keylock On/Off

Locks the keys to prevent accidental input.

· 9 built-in weather channels.

Waterproof Specifications

The VHF75 is a submersible radio, complying with floating JIS7/IPX7 water-resistant standards. The radio can be submerged in 1.0 meters of water for 30 minutes without damage.

CAUTION! The radio will only meet this rating if fully assembled and all rubber seals are well maintained and

correctly fitted. This means that the battery and casing must be 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 should return to normal.

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

The charger is not waterproof.

GETTING STARTED

What's included



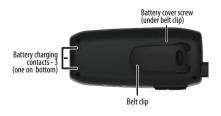
If any pieces are missing or damaged, contact West Marine Customer Service (see back cover for contact information). For information on available accessories, visit www.westmarine.com.

Parts of the VHF75:

Front view



Back view



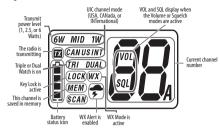
Key	Press to	Press and hold to
Channel Up/Channel Down	Move up or down one channel at a time.	Move quickly up or down the channels.
Push to talk	NA	Transmit on a channel
6W/BOOST	NA	Boost transmission power to 6W.
16/9-Tri	1st press: Go to channel 16. 2nd press: Go to channel 9. 3rd press: Go back to the starting channel. Turn Triple Watch on and off.	
L/M/H-MEM Change the transmit power (see page E-14).		Save a channel into memory or delete a channel from memory.
WX ALERT Listen to the weather channels.		Turn Weather Alert Watch on and off.
Volume- Squelch Volume- Squelch		Up and Channel Down to raise and lower the squelch settings (Levels
Power	NA	Turn the radio on and off.
SCAN DUAL	Start scanning the channels saved in memory.	Turn Dual Watch on and off.
Lock-UIC	Lock the keys; press again to unlock.	Switch between US, Canadian, or international channels.

Charger



Reading the display

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



Display icons and what they mean

213pray 100113 and triat they mean		
Icon	What it means	
6W , MID , or 1 W	The transmitter power is set to 6 Watts, MID (2.5 Watts), or 1 Watt.	
TX	You are currently transmitting.	
CAN, US, or INT	The radio is set to use CANadian channels, US channels, or INTernational channels.	
TRI or DUAL	TRIple Watch or DUAL Watch is turned on.	
LOCK	The keys are locked (Key Lock function is on).	
WX	The radio is in Weather mode.	
MEM	The current channel is saved in memory.	
SCAN	The radio is in Scan mode.	
7	Weather Alert Watch is turned on.	
	The battery is fully charged, mostly charged, half charged, mostly empty, or completely empty.	
VOL	Displays when Volume mode is turned on.	
SQL	Displays when Squelch mode is turned on.	

HOW THE RADIO 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 four 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 9 and 16 for activity every 2 seconds.	Press and hold 16/9-Tri for 2 seconds.

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

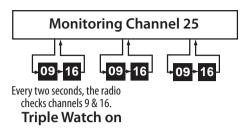
Normal mode with Weather Alert Watch

If you activate Weather Alert Watch while operating in normal mode, the radio **Monitoring Channel 25** checks the most recently used Every seven seconds, the weather channel radio checks the last-used every seven seconds. weather channel. If it detects a weather or other hazard alert. WX Alert it will switch to that Watch on weather channel. (If

you are actively transmitting, the radio waits until you finish your transmission before checking the weather channel.)

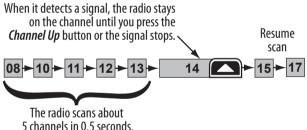
Normal mode with Triple Watch or Dual Watch

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



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.



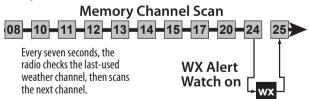
5 channels in 0.5 seconds.

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.
- You cannot transmit while in scan mode. If you press *PTT*, you will stop scanning but you will not be able to transmit on that channel. Press SCAN DUAL to halt scanning, then find the channel you want to transmit on.
- To save a channel into memory, select the channel, then press and hold the *L/M/H MEM* key. The *MEM* icon displays whenever you tune to that channel.
- To remove a channel from memory, set the radio to that channel, then press and hold the *L/M/H MEM* key. 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 key again; the radio remains on the last scanned channel.

Scan mode with Weather Alert Watch

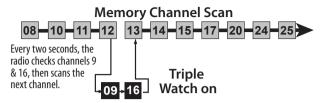
If you activate Weather Alert Watch while in scan mode, the radio checks the most recently-used weather channel every seven seconds, then continues scanning the next channel in memory:



Scan mode with Triple Watch or Dual Watch

If you activate Triple Watch while operating in scan mode, the radio checks channels 9 and 16 every two seconds, then

goes on to scan the next channel; with Dual Watch turned on, the radio only checks channel 16:



Weather mode

The NOAA weather channels now 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

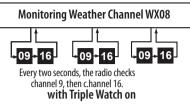
- You cannot transmit while in weather mode.
- To enter weather mode, press the WX ALERT key.
- To turn off the radio's alert tone, press any key.
- To cancel weather mode and return to the previous marine channel, press the WX ALERT key again.

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.



SETTING UP THE HARDWARE

Install the Battery Pack

Your radio uses the supplied Lithium Ion battery pack. To install the Lithium Ion battery pack:

- 1. Remove the belt clip if installed.
- Use a screwdriver to turn the battery compartment screw counterclockwise and then lift up and remove the battery cover.
- 3. Line up the battery's connector with the jack inside the battery compartment (the connector only fits one way).
- 4. Push the connector in firmly. Tug on the battery wires gently to make sure you have a good connection.
- Before replacing the battery cover, check the rubber seal located on the under side of the cover; make sure that the seal is set in the groove and that there is no foreign matter under the seal.
- Note: If the rubber seal appears warn, nicked, or dried out, you must replace it. New seals are available through the Parts Department (see the cover page for contact information).
- Replace the battery compartment cover. Tighten the screw securely.

Mounting the Charger

You can mount the charger on any flat, dry area.

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.



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 Customer Service (see the back cover page for contact information).
- Dry and clean your radio before placing in the charger.

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 41° F (5° C) or above 104° F (40° C).

 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.)

Installing and Removing the Belt Clip

To install the belt clip:

Slide the belt clip down over the latch until you hear it click.

To remove the belt clip:

- 1. Lift the flat latch.
- 2. Slide the clip up until it comes free of the latch.

USING YOUR RADIO

Changing the Volume

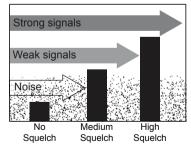
To increase the speaker volume, press the *VOL SQL* key. The screen displays *VOL* and a volume level number. Use the *Channel Up* and *Channel Down* keys to raise or lower the volume. Press the *VOL SQL* key again to set the volume level and return to the main display. There are 16 volume levels - 0 (mute) to 15.

Setting the Squelch Level

The squelch feature reduces static on the speaker by filtering out any background channel noise. At the lowest squelch level, the speaker plays all signals, including any channel noise.

Setting the squelch

Setting the squelch level higher filters out noise and lets only



actual radio transmissions through.

To adjust the squelch level, press and hold the **VOL SQL** key. The screen displays *SQL* and a SQUELCH level number (0 - 3). Use the **Channel Up** and **Channel Down** keys to adjust the squelch level. Press and hold the **VOL SQL** key again to set the squelch level and return to the main display.

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.

Changing the Channel

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

Making a Transmission

Select the channel you want to transmit on, then press and hold the *Push to Talk* key. Release the *Push to Talk* key when you're finished talking to let the other party respond.

- To prevent stuck microphone problems or situations where the *Push to Talk* key 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.
- See the channel lists starting on page E-19 for a list of receive-only channels.

Boosting the transmission power

In most situations, the 1 Watt transmission power is all you need. Operating at 1W will prolong battery life. If you find yourself far away from other stations and have trouble getting a response, you may need to boost the transmission power from 1 Watt to 2.5 Watts or 6 Watts:

1. Select the channel you want to transmit on.

- Press the L/M/H MEM key to switch to the next transmission power level (for example, from 6 Watt to 2.5 Watts; from 2.5 Watts to 1 Watt, or from 1 Watt back around to 6 Watts).
- 3. The display shows the new transmission power in the lower left hand corner. The transmit power remains at the new setting until you change it again.
- Note: Don't forget to change the transmission setting back to 1 Watt when you move close to other stations.
 - Some channels (for example, channels 13 and 67) limit the transmission power to 1 Watt. When you tune to a limited-power channel, the radio automatically switches to 1 Watt. See the channel lists starting on page E-19 for a list of power-restricted channels.
 - In an emergency, if you press and hold the *Push to Talk* switch while briefly pressing the *L/M/H MEM* key, the power level changes from 1W to 6W.

Setting Key Lock

Press the *LOCK UIC* key to lock the radio's keys to prevent accidental entry. *LOCK* displays when Key Lock is active. Press *LOCK UIC* again to unlock the keys.

Note: When Key Lock is active, only PTT, Boost, and Power keys are operational.

Setting the UIC Channel Mode

The radio comes preset to use the channels assigned for the US. If your current area uses Canadian or international channel assignments, press and hold the *LOCK UIC* key to rotate through the US, Canadian, and international channels.

Turning the Key Beep On and Off

Key Beep is the tone that sounds when you press a key. To turn Key Beep on or off, press and hold the *Channel Up* or *Channel Down* key while turning the radio on.

Saving a Channel to Memory

When you find a channel you'd like to keep, press and hold *L/M/H MEM*. Whenever you are on that channel, *MEM* displays. Press and hold *L/M/H MEM* again to remove that channel from memory.

Scanning Channels in Memory

Press **SCAN DUAL** to begin scanning the channels stored in memory. Press **SCAN DUAL** or **WX Alert** to stop scanning.

Battery Save Feature

The Battery Save feature is an automatic feature that turns off the RX power if there has been no RX or TX activity for 3 seconds. RX power turns back on whenever there is activity.

Note: Battery Save feature does not work while the radio is in Scan mode.

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.
- Periodically test your radio's performance.

Common Questions

Problem	Things to Try
The radio won't turn	Charge the radio.
on.	Charge the radio.

Problem	Things to Try
The power LED on the charger doesn't turn on.	 Don't use the charger when the ambient temperature is below 41° F (5° C) or above 104° F (40° C). 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-19). 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.
I can't hear anything from the speaker.	Adjust the squelch level; it is probably too high.
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-6).

Problem	Things to Try
	The serial number is on a plate
radio's serial number?	inside the battery compartment.

SPECIFICATIONS

General		
Channels	All US/International/Canada marine channels	
	9 Weather channels	
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 +131°F(+55°C)	
Antenna	Flexible Whip	
Microphone	Built-in Electret type	
Display	Liquid Crystal Display	
Speaker	8Ω 1 Watt	
Power Source	Rechargeable Lithium Ion Battery 7.4V 1100 mAh	
Size (without antenna)	5.35 (H) x 2.44 (W) x 1.53 (D) inch 136 (H) x 62 (W) x 39 (D) mm	
Weight	8.46 oz (240g) (w/battery and antenna)	
Transmitter		
Frequency Range	156.05~162.550 MHz	
Frequency Stability	±10 PPM	
Power Output	1.0 W & 2.5W & 6W	
Spurious Emissions	70 dBc	
Current Drain	1500 mA (6W)	

Receiver			
	Direct Conversion Super Heterodyne		
Туре	Phase Locked Loop system for Local Oscillator		
Frequency Range	156~164 MHz		
Sensitivity	0.20 μV for 12dB SINAD		
Squelch Sensitivity	Threshold 0.2µV		
Audio Frequency Response	+5.5 dB @ 500 Hz; -6.5 dB @ 2000Hz		
Adjacent Channel Selectivity	75 dB @ ±25 kHz		
Audio Output Power	0.7 W @10% THD		
Current Drain	Squelched: 60 mA; Max. Audio: 430 mA		

Channels and Frequencies (MHz)

US channel frequencies and names

	US Marine Channels					
Ch	RX Freq	TX Freq	Status	Name		
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		

	US Marine Channels					
Ch	RX Freq	TX Freq	Status	Name		
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		
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		

	US Marine Channels					
Ch	RX Freq	TX Freq	Status	Name		
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			
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			

	Canadian Marine Channels					
Ch	RX Freq	TX Freq	Status	Name		
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		
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		

	Canadian Marine Channels						
Ch	RX Freq	TX Freq	Status	Name			
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

	International Marine Channels					
Ch	RX Freq	TX Freq	Status	Name		
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		

	International Marine Channels					
Ch	RX Freq	TX Freq	Status	Name		
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		
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		

	International Marine Channels					
Ch	RX Freq	TX Freq	Status	Name		
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	
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	

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 pages E-23 through E-29 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: 6WEmission: 16K0F3F

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 West Marine. Changes or modifications not approved by West Marine 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 Do not use the radio with a damaged antenna. If a damaged antenna comes into contact with the skin, a minor burn may result.

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 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.

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-lon 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, West Marine 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.)

THREE YEAR LIMITED WARRANTY STATEMENT

This Limited Warranty is Void outside the United States of America and Canada

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 or Canada, that for thirty-six (36) months from date of original retail purchase said 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 thirty-six (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 is invalid where and does not cover:

- · Software.
- Commercial or industrial use or operation.
- Normal maintenance items or normal wear and tear.
- Problems resulting from fire or exposure to caustic liquids.

- The product was damaged, modified or altered.
- The product was used as part of any conversion kits, subassemblies, or any configurations not appropriate or contemplated for this product or its use.
- Damage or loss occurring during return shipment of the product to West Marine or its authorized service representative.
- 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 WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE (OR JURISDIC-TION TO JURISDICTION). WEST MARINE'S RESPONSI-BILITY FOR MALFUNCTIONS AND DEFECTS IN HARD-WARE IS LIMITED TO REPAIR OR REPLACEMENT AS SET FORTH IN THIS WARRANTY STATEMENT, ALL EX-PRESS AND IMPLIED WARRANTIES FOR THE PROD-**UCT. INCLUDING BUT NOT LIMITED TO ANY IMPLIED** WARRANTIES AND CONDITIONS OF MERCHANTABIL-ITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN TIME TO THE TERM OF THIS LIMITED WAR-RANTY (AS SPECIFIED ABOVE), NO WARRANTIES. WHETHER EXPRESS OR IMPLIED, WILL APPLY AF-TER THE LIMITED WARRANTY PERIOD 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, IN-

CLUDING, WITHOUT LIMITATION, ANY LIABILITY FOR THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES, FOR PRODUCTS NOT BEING AVAILABLE FOR USE, OR FOR LOST DATA OR LOST SOFTWARE. OUR LIABILITY WILL BE NO MORE THAN THE AMOUNT YOU PAID FOR THE PRODUCT THAT IS THE SUBJECT OF A CLAIM. THIS IS THE MAXIMUM AMOUNT FOR WHICH WE ARE RESPONSIBLE. 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-BOAT-ING (1-800-262-8464). Please also have your 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 here), then we will:

- At West Marine's option, we will repair the product or, if we are unable to repair it, we will 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 (whatever time remains in the twelve months since purchase). 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.

QUESTIONS?

Contact your local West Marine store. Call 1-800-BOATING Visit our website at www.westmarine.com

QUESTIONS?

Contactez votre magasin West Marine local. Appelez 1-800-BOATING Contactez-nous au www.westmarine.com

West MarineWatsonville, CA

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