HM380 SeriesUser Manual

RF Radiation Information

RF Radiation Profile

Your radio is designed and tested to comply with a number of national and international standards and guidelines (listed below) regarding human exposure to radio frequency electromagnetic energy. This radio complies with the IEEE and ICNIRP exposure limits for occupational/controlled RF exposure environment at operating duty factors of up to 50% transmitting .In terms of measuring RF energy for compliance with the FCC exposure guidelines, your radio radiates measurable RF energy only while it is transmitting (during talking in PTT mode), not when it is receiving (listening) or in standby mode.
The device complies with SAR and/or RF field strength limits of RSS-102 requirement

RF Radiation Safety

In order to ensure user health, experts from relevant industries including science, engineering, medicine and health work with international organizations to develop standards for safe exposure to RF radiation.

These standards consist of:

United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J;
American National Standards Institute (ANSI)/Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992;
Institute of Electrical and Electronic Engineers (IEEE) C95. 1 – 1999;
International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998;

FCC Regulations

Federal Communication Commission (FCC) requires that all radio communication products should meet the requirements set forth in the above standards before they can be marketed in the U.S, and the manufacturer sHAIL post a RF label on the product to inform users of operational instructions, so as to enhance their occupational health against exposure to RF energy.

Part 15 Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. Note:“Changes or modifications to

this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment."

Radiation Exposure Statement:
To comply with RF exposure requirements, the minimum permissible distance is 150cm required between the antenna and the body of the user or near by persons.

EU Regulatory Conformance

As certified by the qualified laboratory, the product is in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC. Please note that the above information is applicable to EU countries only.

Warning- Limitations On Use

This HM380 Series product contains simple chart, only as an aid to navigation for reference. Only Official Government Charts and Notice to Mariners contain all the current information needed for safe navigation. This products feature cannot be relied on as complete or accurate and may vary depending on location. It's the captain's responsibility to use official government charts, notices to mariners, caution, sound judgment and proper navigational skills when operating their boat using this product.

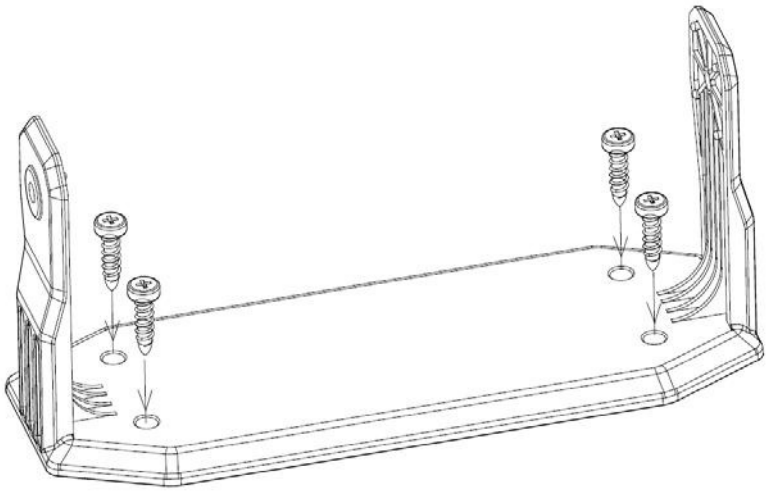
Contents

1 .Installation 1
2. Front Panel/Back Panel/Wiring diagram.....3
3.LCD Display 6
4. Main Menu Operation on Screen 7
DSC Menu.....7
MY MMSI ID setup 8
Individual Call/Position Request/Group Call/Test call.....9
All Ship Call.....11
Receive Call Log.....12
Send Call Log 13
Phone Book 14
DSC Setup.....14
Main Menu 15
VHF Operation.....16
GPS Setup 18
ATIS Operation 20
DSC Operation 20
System Config.....21
Distress Menu & Send the Distress Message 22
5.Key Operation 24
Power on/off & rotate to get up/down function 24
Special Function of DISTRESS key & Real-time DSC.....24
VOL.....24
TRIW/HAIL (Tri Watch/Hailer).....25
Squelch/MOB Key.....25
DW/ FOG (Dual Watch/Foghorn).....25
MEM Key 25
Scan Key 26
Hi/Lo.....26
Up/Down Key 26
LOC/DX.....26
16/9 Key.....27
Select second priority channel.....27
CALL/MENU 27
Back Light.....27
CH/*/WX 27
6.Other Features and Solutions..... 28
Special function keys.....28
TX Time Out.....28

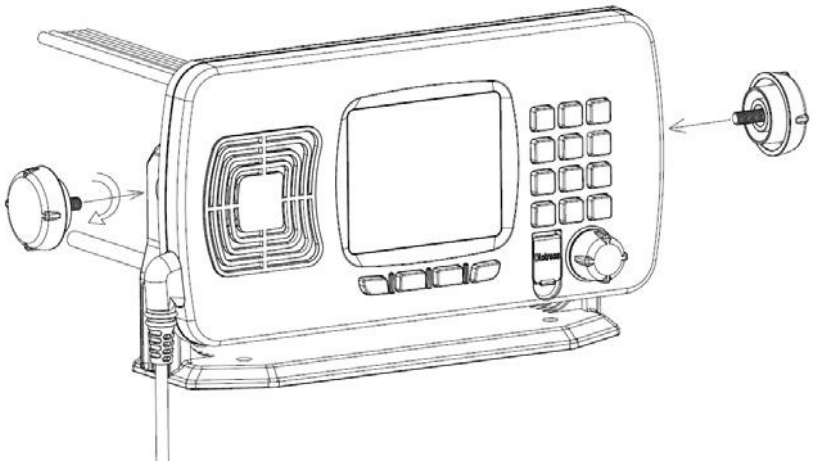
The Local Time & Date on Screen: 28
NMEA 0183 and NMEA 2000 29
Appendix B – Channel List 30
International Marine VHF Channels & Frequencies 30
U.S. Marine VHF Channels and Frequencies 32
Notes: 33
Specification 38

1 .Installation

The first installation solution



1.Place and fasten the mounting bracket on the console by 4 screws;

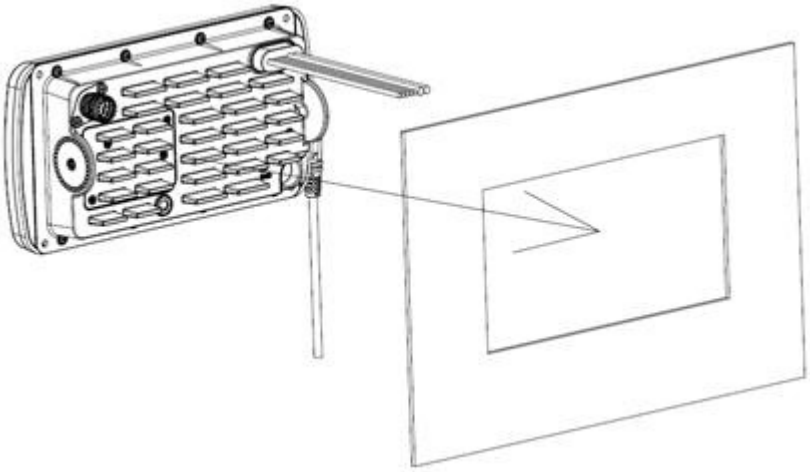


2. Mount the base station onto the bracket;

3. Attach the supplied mounting knobs from two sides of the bracket to fix the base station securely (as shown above).

The second installation solution:

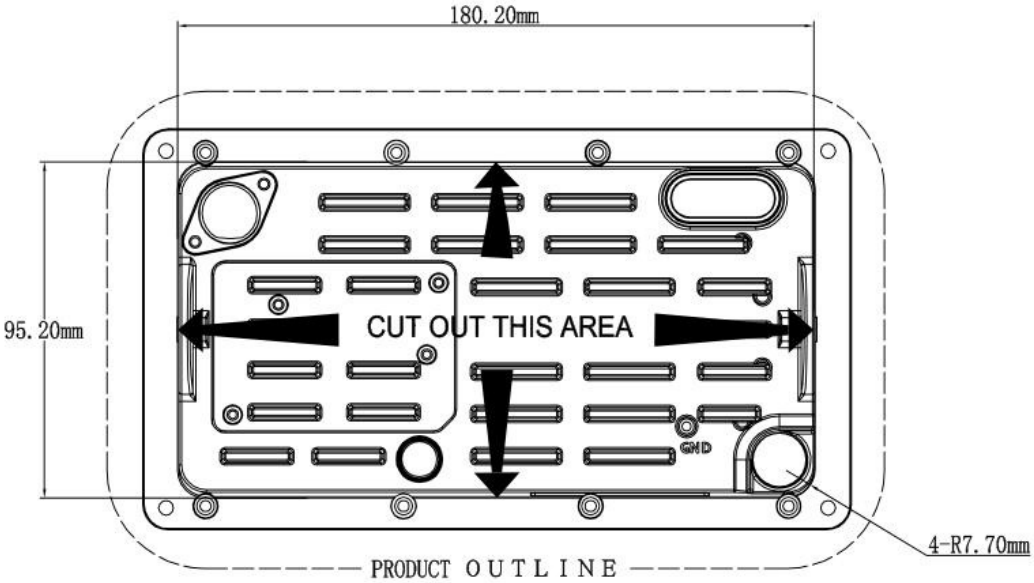
1 Slide the fixed mount VHF through the corresponding hole on the instrument panel or anywhere you plan to install this VHF. As the below picture shown



2 Use screwdriver respectively tighten the screws on either side of the small mental bracket (as A screw of the below picture shown), make the small metal bracket fit tightly on the aluminum chassis

3 Similarly, use screwdriver respectively tighten the screws on either side of the small metal bracket (as B screw of the below picture shown), that will firmly against the inside of the instrument panel.

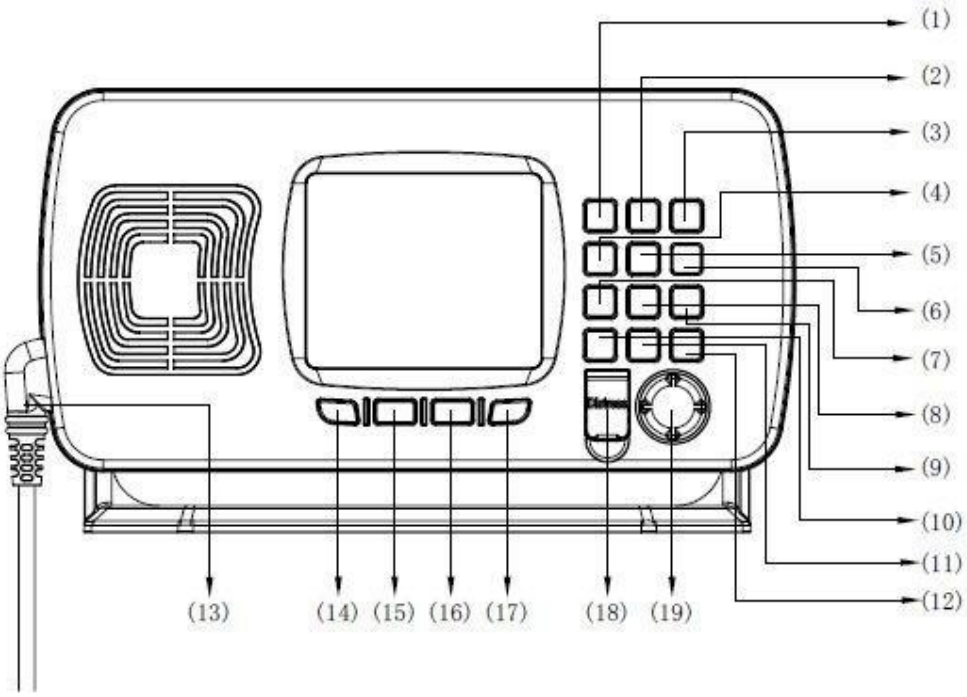
HM380 Mounting Template



NOTE:
The paper have been expanded or contracted slightly .
Please confirm dimensions before use.

2. Front Panel/Back Panel/Wiring diagram

Front Panel



(1) CH/*/WX—short press to enter private channel, long press to enter weather channel（only available in US）.

(2)Back Light On/Off—short press to back light On/Off.

(3)Call/MENU—short press to enter “DSC Menu”, long press to enter “Main Menu”.

(4)16/9—short press to enter channel 16 or press this button to quit all other modes and back to the priority channel quickly, long press will get second-priority channel 09 or any channel that you’ve set as second-priority channel.

(5)LOC/DX—short press to get conversion between local and distance mode (DX allows normal receive sensitivity; and “LOCAL” eliminates receiver noise, but degrades receiver sensitivity meanwhile “LOCAL” icon display on LCD).

(6)HI/LO—short press to toggle between 25watt and 1 watt output. “HI” or “LO” icon appears on LCD display to indicate setting.

(7)SCAN—short press to enter all scan/all memory scan, long press to enter priority all/memory

scan.

(8)MEM—short press to enter memory mode, long press to save/delete memory channel.

(9)DW/FOG—short press to enter Dual Watch Mode, long press to enter “Foghorn Menu”.

(10)SQL/MOB—short press to get SQL setting, long press to get MOB activated.

(11)TRIW/HAIL—short press to enter Tri Watch Mode, long press to enter “HAILER LISTEN MODE” and set volume as you wish.

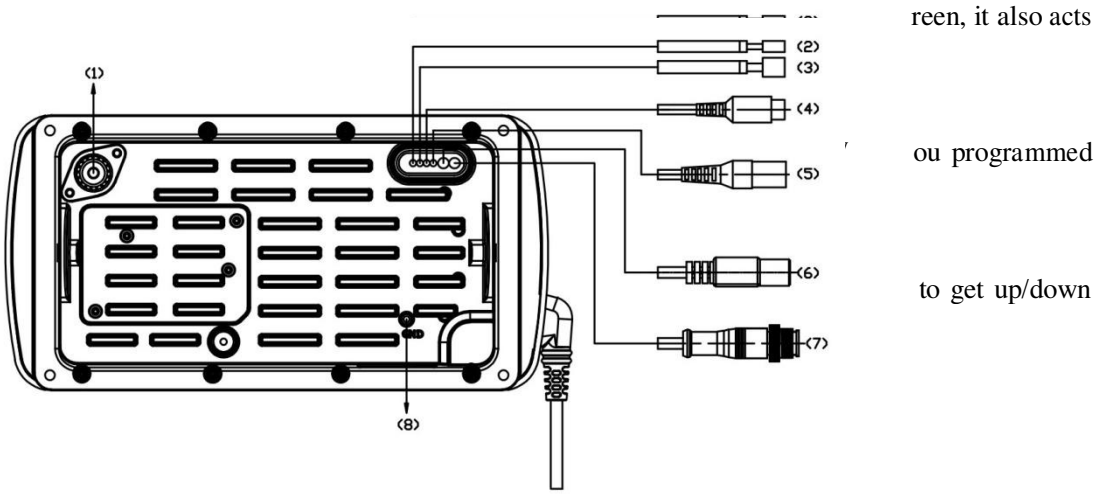
(12) VOL—short press to enter volume set.

(13) Handset connector.

(14)Generally it acts exit function as “Exit” icon show on screen. At initial screen, it also acts UP key function;

(15) Soft key--short press to get channel up, long press to make channel up much faster.

(16) Soft key--short press to get channel down, long press to make channel down much faster.



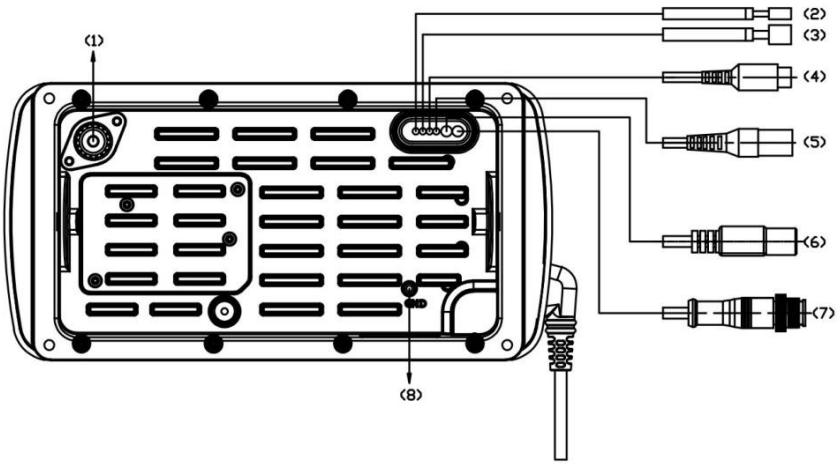
reen, it also acts

ou programmed

to get up/down

Wiring diagram

1、HM380/HM380S/HM380C



(1) RF antenna

(2) Power +

(3) Power -

(4) Hailer

(5)external speaker jack

(6)NMEA 0183

(7)NMEA 2000(only for **HM380S/HM380C**)

(8)GND hole

The details please check the below table

Serial Number	General Description	Function Description	Different Color Description	
(1)	RF antenna connector	connect with antenna	\	\

(2)	red&black power	Power supply	Red	Power+ +13.8V
(3)			Black	Power- GND
(4)	Black Phone Jack	Hailer	White	HAILER+
			Black	HAILER-
(5)	Black 3.5 mm Jack	External Speaker	Red	AUDIO+
			Black	GND
(6)	Mini-DIN in Black	NMEA0183 & USB Green USBTX	Red	USBRX
			Green	USBTX
			Yellow	0183_IN-
			Black	0183_OUT+
			Brown	0183_OUT-
			Orange	0183_IN+
			Bare	GND
(7)	C connector	NMEA2000	Bare	Shield
			Red	+12V
			Black	GND
			White	CANH
			Blue	CANL
(8)	GND connection hole	\	\	\

Only use the power cable with fuse supplied:

3.LCD Display

DSC	**INT**
25W	
P-CH	**16**
SQL:5	
VOL:3	**DISTRESS**
	12:07:38
	02 MAY 2014 Fri
	CH ▲ CH▼

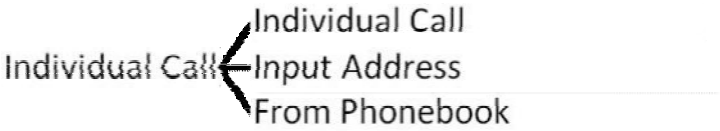
4. Main Menu Operation on Screen

DSC Menu

Short press the CALL/MENU key will be displayed as below on LCD:

DSC Menu
Individual Call
Position Request
All Ship Call
Group Call
Test Call
Receive Call Log
Send Call Log
Phone Book
DSC Setup
My MMSI ID
EXIT ▲ ▼ ENTER

Detailed entrance for each catalogue as shown below:



Position Request
- Position Request
- Input Address
- From Phonebook

All Ship Call
- All Ship Call
- Safety
- Urgency

Group Call
- Group Call
- Input Address
- From Phonebook

Test Call
- Test Call
- Input Address
- From Phonebook

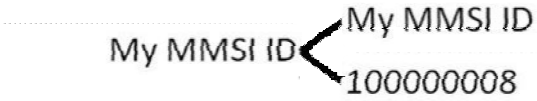
Receive Call Log
- Receive Call Log
- Distress Call
- Others Call

Send Call Log
- Send Call Log
- Distress Call
- MOB Call
- Others Call

Phone Book
- Phone Book
- Buddy List
- Group List

\

DSC Setup
- DSC Setup
- Position Input
- Auto Ch Change
- Position Reply
- Test Ack



MY MMSI ID setup

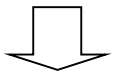
Firstly, long press CALL/MENU key to enter “Main Menu”.
Secondly, select “DSC Operation” to enter “MY MMSI ID”.
Then you can set up your related MMSI ID as below, generally you need to double confirm the MMSI ID. Once confirmed, your MMSI ID will be locked by this radio.

My	MMSI ID
	123456789
EXIT	

When input 9 digits, UP/DOWN key used for choosing the number from 1 to 9. You need to input all numbers from the left to right one by one until all finished. Once fulfilled 9 digits, then press “ENTER” to confirm.

My MMSI ID
Input MMSI
123------

EXIT ▲ ▼ ▶



My MMSI ID

123456789

EXIT

Individual Call/Position Request/Group Call/Test call

Press the "CALL/MENU" key and choose"Individual Call", then choose "Input Address" or "From Phonebook".
Take individual call as example—
Firstly you selected the "Input Address", then input 9 digits manually such as 100000000 for your address as below:

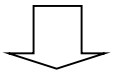
Input Address
Input 9 digits
0----------

EXIT ▲ ▼ ▶

Then select the type of individual call such as **Routine**

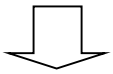
Individual Call
Routine

Exit ▲▼ Enter

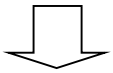


Next select the preferred channel such as 01 port operation and confirm to call

Individual Call
Select Channel:
01 port ops/vts
03 unauth orized
05 port ops/vts
06 inter ship
07 commercial
08 commercial
Exit ▲▼ Enter



Individual Call
To: 100000000
Safety
Telephony by
Channel 01
Exit Call



Then the individual call is sent as below shown

DSC USA
LO
SQL:5 01 A
PORT OPERAT/UTS
Elapsed 00 : 12
Exit

All Ship Call

Select the All Ship item

```
   DSC     Menu
Individual   Call
Position     Request
All   Ship   Call
Group     Call
Test        Call
Receive   Call Log
Send   Call   log
Phone Book
DSC     Setup
My   MMSI   ID
Exit  ▲▼  Enter
```

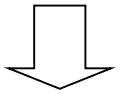
```
All Ship   Call
 Safety
 Urgency


Exit  ▲▼      Enter
```

```
   Safety
   Select   Channel:
   01 port ops/vts
   02 unauthorized
   03 port ops/vts
   04 inter ship
   05 commercial
   06 commercial
  Exit  ▲▼  Enter
```

All Ship Call
To : All Ship
Urgency
Telephony by
Channel 07

Exit Call



DSC USA
LO

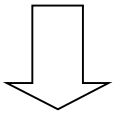
SQL:5 07 A
COMMERCIAL
Elapsed 00 : 04
Exit

The All Ship Call is sent.

Receive Call Log

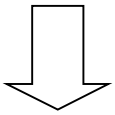
When received DSC, you can check those messages from the “Distress Menu” and see the exact message.

DSC Menu
Individual Cal
Position Request
All Ship Call
Group Call
Test Call
Receive Call Log
Send Call Log
Phone Book
DSC Setup
My MMSI ID
Exit Enter



Receive call log
Distress call
Others call

Exit ▲▼ Enter

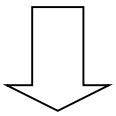


Received DSC
Distress call
Undesignated
From: 123456789
GPS POS; Unknown
88: 88 UTC
Exit Delete

Send Call Log

Press “CALL/MENU” key to choose “Send Call Log” item and see previous distress call, MOB call and other call that you have sent.

DSC Menu
Individual Call
Position Request
All Ship Call
Group Call
Test Call
Receive Call Log
Send Call Log
Phone Book
DSC Setup
My MMSI ID
EXIT ▲ ▼ ENTER



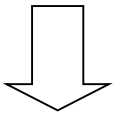
Send Call Log
Distress Call
MOB Call
Others Call

EXIT ▲ ▼ ENTER

Phone Book

Press “CALL/MENU” key to choose “Phone Book” item and can check the contacted ship by “Buddy List” and “Group List”

DSC Menu
Individual Call
Position Request
All Ship Call
Group Call
Test Call
Receive Call Log
Send Call Log
Phone Book
DSC Setup
My MMSI ID
EXIT ▲ ▼ ENTER

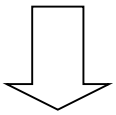


Phone Book
Buddy List
Group List

EXIT ▲ ▼ ENTER

DSC Setup

DSC Menu
Individual Call
Position Request
All Ship Call
Group Call
Test Call
Receive Call Log
Send Call Log
Phone Book
DSC Setup
My MMSI ID
EXIT ▲ ▼ ENTER



DSC Setup
Position Input
Auto Ch Change
Position Reply
Test Ack

EXIT ▲ ▼ ENTER

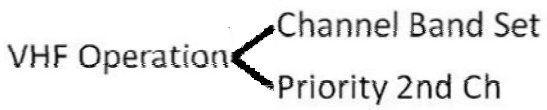
Main Menu

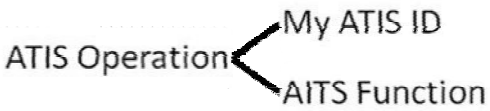
Long press the CALL/MENU key will display as below:

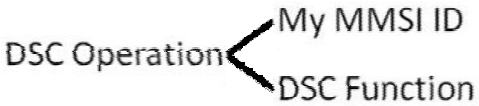
Main Menu
VHF Operation
GPS Setup
ATIS Operation
DSC Operation
System config

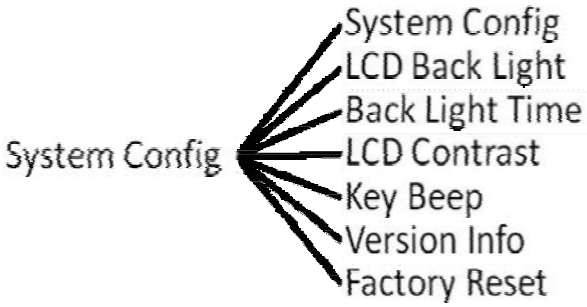
EXIT ▲ ▼ ENTER

Detailed entrance for each catalogue as shown below:





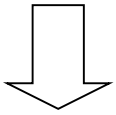




VHF Operation

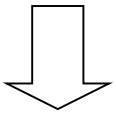
Long press the CALL/MENU key to enter "VHF Operation" item as below for setup:

Main Menu
VHF Operation
GPS Setup
ATIS Operation
DSC Operation
System config
EXIT ▲ ▼ ENTER



VHF Operation
Channel Band Set
Priority 2nd Ch

EXIT ▲ ▼ ENTER



For VHF Operation, you can choose your preferred channel from below three options USA, INT and CAN.

Channel Band Set
√USA
INT
CAN

Exit ▲▼ Enter

For priority 2nd Ch, you can select your preferred channel from below as your priority second channel.

Priority 2 n d Ch
Select Channel:
01 telephony
04 sar
05 port ops/ vts
06 inter ship
07 commercial
08 commercial
Exit ▲▼ Enter

GPS Setup

Long press the CALL/MENU key to enter “GPS Setup” item for setup as below shown.

Main Menu
VHF Operation
GPS Setup
ATIS Operation
DSC Operation
System config

EXIT ▲ ▼ ENTER

GPS Setup
GPS Setting
NMEA Output

EXIT ▲ ▼ ENTER

GPS Setting
Time display
Time offset
COG/SOG Display
Speed unit

EXIT ▲ ▼ **ENTER**

NMEA Output
Enable
Disable

EXIT ▲ ▼ ENTER

Follow like this, you can setup your priority as you wish.

TCPA/ CPA Alarm enable
Disable
Enable
Choose "Disable" or "Enable" item to enter disable or enable TCPA/ CPA alarm, then press "ENTER" key to confirm.

CPA (Closest point of approach)Alarm distance setup
CPA
Input digits
03.0 NM
Press UP/ DOWN key to input digital one by one, after you have done this, press "ENTER" key to confirm, the maximum input range is 25.0NM, if the input value over than 25.0NM, than this operation is invalid, the system will ask for re-enter, the default CPA value is 3.0 NM.

TCPA(Time closest point of approach)Alarm distance setup
Input digits
10:00 Min
Press UP/ DOWN key to input digital one by one, after you have done this, press "ENTER" key to confirm, the maximum input range is 30 minutes, if the input value is over than 30 minutes,the input is invalid, then the system will ask for re-enter, the default CPA value is 10:00 Min.

ATIS Operation

Long press the CALL/MENU key to enter “ATIS Operation” for setup.

Main Menu
VHF Operation
GPS Setup
ATIS Operation
DSC Operation
System config

EXIT ▲ ▼ ENTER

ATIS Operation
My ATIS ID
ATIS Function

EXIT ▲ ▼ ENTER

Choose to press for setup or more function as you wish.

DSC Operation

Long press the CALL/MENU key to enter “DSC Operation” for setup.

Main Menu
VHF Operation
GPS Setup
ATIS Operation
DSC Operation
System config

EXIT ▲ ▼ ENTER

DSC Operation
My MMSI ID
DSC Function

EXIT ▲ ▼ ENTER

(My MMSI ID setup have been explained in previous chapter, please see Page**)

System Config

Long press the CALL/MENU key to enter “system config” for setup.

Main Menu
VHF Operation
GPS Setup
ATIS Operation
DSC Operation
System config

EXIT ▲ ▼ ENTER

System Config
Back Light Time
LCD Contrast
Key Beep
Version Info
Factory Reset

Exit ▰ Enter

Choose to press for setup or more function as you wish.

Distress Menu & Send the Distress Message

Pull the DISTRESS red cover and press the DISTRESS key. Then below “Distress Menu” will be displayed on LCD.

Distress Menu
Undesignated
Fire, Explosion
Flooding
Collision
Grounding
Capsizing
Sinking
Adrift
Abandoning
Piracy
Man Overboard
Exit

Choose one distress item such as “sinking”, press and hold this for more than 3 seconds for transmitting sinking message out.

Distress Menu
Undesignated
Fire, Explosion
Flooding
Collision
Grounding
Capsizing
Sinking
Exit ▰

DSC USA

HI

SQL:5 16

DISTRESS

Resend in 4:09

Exit Pause Send

You can also choose to resend, pause or exit after this message was sent.

From the ship info menu, you have three options: List mode, plotter mode, TCPA/CPA alarm list mode.

If you choose option ‘ ship info list’ and press ‘enter’, you will open the list mode.

NO.ERG RANGE MMIS 01/13

01 079°6825.77nm 566981045

02 079°6831.99nm 41347203

03 079°6831.98nm 41347206

04 079°6825.80nm 56698100

05 --------- 41397699

06 079°6825.32nm 40350600

Exit ▲ ▼ Enter

If you choose option ’All ship plotter’ and press ‘enter’, you will open the plotter mode.

No. RANGE 03/04

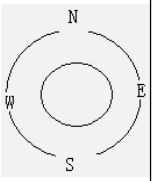
00 6826.53nM

01 6832.07nM

02 6832.08nM

03 6825.87nM

04 6831.75Nm



Exit ▲ ▼ Enter

If you choose option 'TCPA CPA Alarm List' and press enter, you will open the TCPA/ CPA alarm list mode.

```
NO.ERG  RANGE  MMIS     01/13
01 079°6825.77nm 566981045
02 079°6831.99nm 41347203
03 079°6831.98nm 41347206
04 079°6825.80nm 56698100
05 ---------     41397699
06 079°6825.32nm 40350600
Exit     ▲     ▼     Enter
```

From either mode, you can choose a target with UP/DOWN, then press enter to display the target details.

```
Ship's Info detail
MMIS :566981045
Latitude:22°35,409'N
Longitude:113°42,698'E
Bearing:079°
Distance:6826.47nM
SOG:13.7KIS
COG:156.3°
True Heading:157.0°
Rot:R 314.9°/min
Exit     ▲     ▼     Enter
```

5.Key Operation

Power on/off & rotate to get up/down function

Short press to turn it on, long press to turn it off. Rotate knob to get up/down function when radio stay powered on.

Special Function of DISTRESS key & Real-time DSC

When sending distress message:

Pull the Distress key cover and press the Red key into “Distress Menu” selection. Select current distress situation such as “Flooding”, then press and hold for 3 seconds, the selected DSC message will be send. And this message will be resend within 4 minutes--

Press the “PAUSE” key to pause or resume the resend.

Press “SEND” to resend immediately.

Press the soft key below “Exit” icon to exit the current menu and shortly cancelation option of selected DSC alerting will be given for confirmation.

When receiving distress message:

HM380 model has two receivers, one receiver used for receiving/transmit voice and another receiver used to continually monitor 70 channels. The DSC function of HM380 is operated in separate way which means any arriving DSC message will not be ignored even if you are using HM380 for transmitting or receiving. If you want to check those messages, please press “CALL/MENU” to enter “Receive Call Log” for checking all received DSC messages.

VOL

Short press “VOL” key and “VOL” icon will be shown on LCD, then press Up/Down key or rotate “POWER” key to toggle as you wish.

TRIW/HAIL (Tri Watch/Hailer)

Short press “TRIW/HAIL” key can activate the TRI WATCH mode. Monitor CH16, current channel and one programmed channels in cycle.

Long press “TRIW/HAIL” and enter “HAILER LISTEN MODE” for setup as you wish. Sounds received through the horn can be heard through the radio speaker. Press and hold the PTT key and speak your announcement. Release the PTT key to listen. (Hailer operation is only available on the HM380S)

Squelch/MOB Key

Short press “SQL/MOB” key and “SQL” icon will be shown on LCD, then press Up/Down key or rotate “POWER” key to toggle as you wish.

Long press “SQL/MOB” key will display this “please press 3 seconds Distress key to send MOB distress call" on VHF, then Press Distress for 3 seconds, Distress call with nature MOB is sent.

MOB mark is output by NMEA.Meanwhile a MOB mark is immediately sent to the chart plotter to have a position as accurate as possible.

DW/ FOG (Dual Watch/Foghorn)

At the normal mode, short press "DW/FOG" key to activate the DUAL WATCH mode. Monitor the current channel and Ch 16 in cycle. Whenever weather alert is activated, the WX Alert channel will be monitored once every 4 seconds.

Long press "DW/FOG" key and enter "Foghorn Menu", then select preferred item from list. Sounds received through the horn can be heard through the radio speaker. Press PTT key on the microphone or handset to sound the horn. The horn will stop when you release the PTT key.

MEM Key

Enter /Exit the memory mode:

Short press MEM key to enter the memory mode, the memory channel will be marked and "M" icon show on the right side next to channel number. At the left side of the current channel will mark a "MEM "icon which means already entered the user memory mode.

At the Memory mode, short press the MEM key to exit the memory mode. The "M" icon and "MEM" icon will disappear.

Adding/Deleting memory CH:

1. At the normal mode, use the "UP/DOWN" key to select desired channel for programming.
2. Long press the MEM key to store up the channel as memory channel.
3. "M" icon will be shown on LCD to indicate the current CH has been saved in the memory.
4. No limitation for saving memory channels.
5. For USA, International, and Canadian Frequency can be saved separately.
6. At the normal mode, use the "UP/DOWN" key to select the memory channel to be deleted.
7. Long press the "MEM" key to delete the selected channel from the memory mode.

Scan Key

Short press "Scan" key is to activate the scan function which is searching for currently all working channels.

All scanning: CH1-CH2-CH3-.....-CH88-CH1...

Memory scanning: M1 — M2 — M3 - ... M10 — M1- ...

When a signal is detected, the scan pauses until the signal disappears. Long press the Scan Key, to activate the Priority Scan.

Priority memory scanning: M1 — CH 16 — M2 — CH 16 - ... CH 16 — M1 ...

Priority all scanning: CH1-CH16-CH2-CH16-CH3-CH16-…..CH88-CH16-L1-CH16-

Hi/Lo

Short press the Hi/Lo key will toggle the TX power from Hi to Lo or vice versa. The corresponding "25W/1W" icon will be displayed on the LCD.

Some of the channels (such as channel 16 initially set for high power/channel13&67 initially set for low power) have been initially set to be low power or high power, but can be reprogrammed manually to high power or low power. Thus, the software needs to check against the channel setting stored in the EEPROM

Up/Down Key

At the normal mode, they act as Channel Up/Down key. When it presses > 0.5 sec, the channels will change in a quick way. It returns to normal mode when key press is released.

LOC/DX

short press to get conversion between local and distance mode (DX allows normal receive sensitivity; and "LOCAL" eliminates receiver noise, but degrades receiver sensitivity meanwhile "LOCAL" icon display on LCD)

16/9 Key

At the normal mode, pressing the 16 / 9 Key (short press to jump to priority CH16 at High Power and long press to jump to priority CH9 at High Power) if the current channel is not the priority channel.

After the channel is tuned to the priority channel, "P-CH" or "P-2nd"icon is lit to indicate the priority CH16 or CH9 has been reached. UP/Down key functions normally.

Select second priority channel

Solution 1: Select the second priority channel by "16/9" key: the second priority channel is set as channel 9 by default. At the normal mode, long press "16/9" key, "P-2nd"will be displayed as the second priority channel on LCD, then long press "16/9" key again, "set P-2nd CH" will be displayed on LCD,and the displayed channel will keep on flashing, then press "UP/Down" key to choose your preferred channel as new second priority channel. Finally long press "16/9" key again to save and confirm it.

Solution 2: Select the second priority channel by "CALL/Menu" key: long press **"CALL/Menu"** key to select "VHF operation" option, and press to select the "Priority 2nd Ch", then press and select your preferred channel by "Up/Down" key and confirm it.

CALL/MENU

Short press to enter "DSC Menu", long press to enter "Main Menu" (detailed operation please see 3. Main Menu Operation on Screen)

Back Light

Short press to switch the Back light On and Off. Short Press 'Backlight' key the light will keep turning on.Press it again,it'll turn off. If the backlight setting is off, press any key will turn on the backlight except the PTT key. The backlight should be remaining for 5 seconds if no any keys pressed. The time out will be reset if any key pressed within the time frame.

CH/*/WX

Short press “CH/*/WX” key will trigger Private channel if there are private channels in EEPROM. Press “Up/Down” key will change private channel.

Long press “CH/*/WX” key will enter WX mode in USA or CAN Band. Press “Up/Down” key to change WX channel. The “WX” icon will be displayed on the screen.

Weather Alert Operation: (US Band only)

At the weather mode, Long press the “CH/*/WX” key enable switch on the weather alert function. Toggling the Weather Alert function ON/OFF will toggle the icon “WAT” accordingly. When Weather Alert function is enabled, every 4 seconds the last used weather channel should be checked for weather alert tone when the radio is tuned to working channel. With Weather Alert Function enable, once the alert tone is detected, the “WX” and “WAT” symbols should flash and a short alarm tone will be sounded. The radio would automatically tune to the current monitor WX channel where the weather alert has been detected. The alert should be detected in all the modes of Dual/Tri-watch, Scan and Standby operation etc.

6.Other Features and Solutions

Special function keys

First press and hold “DISTRESS” key for more than 3 seconds, then press Power key, you can enter the up grade mode directly. LCD display as below:

The software’s
Upgrading by PC
Please wait----

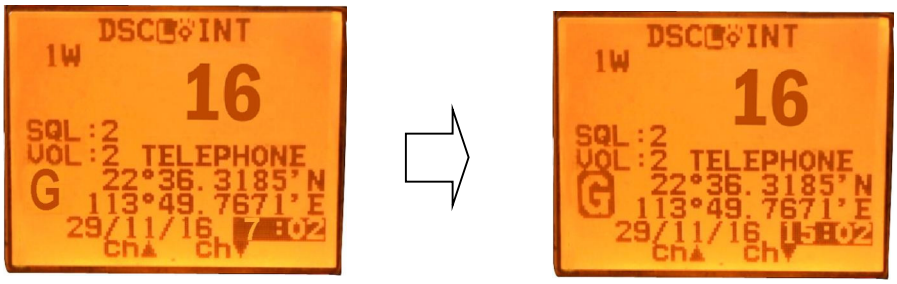
First press and hold PTT key on the fist microphone for more than 3 seconds, then press Power key, later you can enter the writing channel mode directly. LCD display as below:

The Private
Channels are
Cloning by PC
Please wait---

TX Time Out

The transmission will be automatically turned off after PTT key pressed over 5 consecutive minutes. The TX mode will be terminated and back to Rx mode. Once the PTT key is released, the TX time out timer will be reset. PTT key will back to work normally.

The Local Time & Date on Screen:



UTC TIME LOCAL TIM

When HM380 cannot receive the GPS signal to display the current position, screen will automatic display the time and date. When radio received the GPS signal, screen will show the current GPS location, related UTC time and date will be shown below the GPS location mark.

Long press "Call/Menu" and enter "GPS Setup" to select the "Time offset" item for setting user's local time based on UTC time. Then press "enter" to confirm. User need to pass the entire item from hour-minute-second then able to see enter option to click and confirm.

In other words, the process is the same as you setup your local time on your computer.

NMEA 0183 and NMEA 2000

HM380 only can be connected to NMEA0183 network, and HM380C as well as HM380S can be connected to both NMEA0183 and NMEA2000 network. When you connect your radio to a NMEA 0183 network or a NMEA2000 network, the following data can be transferred; the radio can receive GPS position. GPS position can be displayed on the screen and is transmitted with DSC calls. When GPS data is not present, the radio will signal for you to enter your position manually every four hours.

Because only HM380C and HM380S are NMEA 0183 & NMEA 2000--compatible, this setting is only available on those units. This setting indicates whether you are connected to a NMEA 0183 or NMEA 2000 network; the radio can communicate over two networks at the same time.

Appendix A

List of Abbreviations

AE	Auxiliary Equipment
CE	Conducted Emissions
EMC	Electromagnetic Compatibility
EN	European Norm
EUT	Equipment Under Test
FTB	Fast Transient Burst
MED	Marine Equipment Directive
QP	Quasi Peak

Appendix B – Channel List

International Marine VHF Channels & Frequencies

CH No.	XMIT Freq	RCVFreq	Single	Freq Use
01	156.050	160.650		Public Correspondence, Port Operations andShipMovement
02	156.100	160.700		Public Correspondence, Port Operations and Ship Movement
03	156.150	160.750		Public Correspondence, Port Operations and Ship Movement
04	156.200	160.800		Public Correspondence, Port Operations and Ship Movement
05	156.250	160.850		Public Correspondence, Port Operations and Ship Movement
06	156.300	156.300	x	Intership 1
07	156.350	160.950		Public Correspondence, Port Operations and Ship Movement
08	156.400	156.400	x	Intership
09	156.450	156.450	x	Intership, Port Operations and Ship Movement
10	156.500	156.500	x	Interships, Port Operations and Ship Movement 2
11	156.550	156.550	x	Port Operations and Ship Movement
12	156.600	156.600	x	Port Operations and Ship Movement
13	156.650	156.650	x	intership Safety, Port Operations and Ship Movement 3
14	156.700	156.700	x	Port Operations and Ship Movement
15	156.750	156.750	x	Intership and On-board Communications at 1W only 4
16	156.800	156.800	x	Distress, Safety and Calling
17	156.850	156.850	x	Intership and On-board Communications at 1W only 4
18	156.900	161.500		Public Correspondence, Port Operations and Ship Movement
19	156.950	161.550		Public Correspondence, Port Operations and Ship Movement
20	157.000	161.600		Public Correspondence, Port Operations and Ship Movement
21	157.050	161.650		Public Correspondence, Port Operations and Ship Movement
22	157.100	161.700		Public Correspondence, Port Operations and Ship Movement
23	157.150	161.750		Public Correspondence, Port Operations and Ship Movement
24	157.200	161.800		Public Correspondence, Port Operations and Ship Movement
25	157.250	161.850		Public Correspondence, Port Operations and Ship Movement
26	157.300	161.900		Public Correspondence, Port Operations and Ship Movement
27	157.350	161.950		Public Correspondence, Port Operations and Ship Movement
28	157.400	162.000		Public Correspondence, Port Operations and Ship Movement
60	156.025	160.625		Public Correspondence, Port Operations and Ship Movement
61	156.075	160.675		Public Correspondence, Port Operations and Ship Movement
62	156.125	160.725		Public Correspondence, Port Operations and Ship Movement
63	156.175	160.775		Public Correspondence, Port Operations and Ship Movement
64	156.225	160.825		Public Correspondence, Port Operations and Ship Movement

	156.275	160.875		Public Correspondence, Port Operations and Ship Movement
66	156.325	160.925		Public Correspondence, Port Operations and Ship Movement
67	156.375	156.375	x	Intership, Port Operations and Ship Movement 2
68	156.425	156.425	x	Port Operations and Ship Movement
69	156.475	156.475	x	Intership, Port Operations and Ship Movement
71	156.575	156.575	x	Port Operations and Ship Movement
72	156.625	156.625	x	Intership
73	156.675	156.675	x	Intership 2
74	156.725	156.725	x	Port operations and Ship movement
75	156.775	156.775	x	See Note 5
76	156.825	156.825	x	See Note 5
77	156.875	156.875	x	Intership
78	156.925	161.525		Public correspondence, Port Operations and Ship Movement
79	156.975	161.575		Public correspondence, Port Operations and Ship Movement
80	157.025	161.625		Public correspondence, Port Operations and Ship Movement
81	157.075	161.675		Public correspondence, Port Operations and Ship Movement
82	157.125	161.725		Public correspondence, Port Operations and Ship Movement
83	157.175	161.775		Public correspondence, Port Operations and Ship Movement
84	157.225	161.825		Public correspondence, Port Operations and Ship Movement
85	157.275	161.875		Public correspondence, Port Operations and Ship Movement
86	157.325	161.925		Public correspondence, Port Operations and Ship Movement
87	157.375	157.375	x	Port Operations and Ship Movement
88	157.425	157.425	x	Port Operations and Ship Movement

• Intership channels are for communications between ship stations. Intership communications should be restricted to Channels 6, 8, 72 and 77. If these are not available, the other channels marked for Intership may be used.

• Channel 70 is used exclusively for Digital Selective Calling (DSC) and is not available for regular voice communications.

Notes:

1. Channel 06 may also be used for communications between ship stations and aircraft engaged incoordinated search and rescue operations. Ship stations should avoid harmful interference to such communications on channel 06 as well as to communications between aircraft stations, ice breakers and assisted ships during ice seasons.
2. Within the European Maritime Area and in Canada, channels 10, 67 and 73 may also be used by the individual administrations concerned for communication between ship stations, aircraft stations and participating land stations engaged in coordinated search and rescue and anti-pollution operations in local areas. Channels 10 or 73 (depending on location) are also used for the broadcast of Marine Safety Information by the Maritime and Coast Guard Agency in the UK only.
3. Channel 13 is designated for use on a worldwide basis as a navigation safety communication channel, primarily for intership navigation safety communications.
4. Channels 15 and 17 may also be used for on-board communications provided the effective

radiated power does not exceed 1 Watt.

5. The use of Channels 75 and 76 should be restricted to navigation related communication only and all precautions should be taken to avoid harmful interference to channel 16. Transmit power is limited to 1 Watt.

U.S. Marine VHF Channels and Frequencies

CH.	No XMIT Freq	RCV Freq	Single	Freq Use
01A	156.050	156.050	x	Port Operations and Commercial, VTS. Available only in New Orleans / Lower Mississippi area. 1
03A	156.150	156.150	x	U.S. Government only
05A	156.250	156.250	x	Port Operations or VTS in the Houston, New Orleans and Seattle areas.
06	156.300	156.300	x	Intership Safety
07A	156.350	156.350	x	Commercial
08	156.400	156.400	x	Commercial (Intership only)
09	156.450	156.450	x	Boater Calling. Commercial and Non-Commercial.
10	156.500	156.500	x	Commercial
11	156.550	156.550	x	Commercial. VTS in selected areas.
12	156.600	156.600	x	Port Operations. VTS in selected areas.
13	156.650	156.650	x	Intership Navigation Safety (Bridge-to-bridge). Ships >20meters in length maintain a listening watch on this channel in US waters. 2, 6
14	156.700	156.700	x	Port Operations. VTS in selected areas.
15	–	156.750	x	Environmental (Receive only). Used by Class 'C' EPIRBs.3
16	156.800	156.800	x	International Distress, Safety and Calling. Ships required to carry radio, USCG, and most coast stations maintain a listening watch on this channel. 4
17	156.850	156.850	x	State Control 5
18A	156.900	156.900	x	Commercial
19A	156.950	156.950	x	Commercial
20	157.000	161.600		Port Operations (duplex)
20A	157.000	157.000	x	Port Operations
21A	157.050	157.050	x	U.S. Coast Guard only
22A	157.100	157.100	x	Coast Guard Liaison and Maritime Safety Information Broadcasts.Broadcasts announced on channel 16.
23A	157.150	157.150	x	U.S. Coast Guard only
24	157.200	161.800		Public Correspondence (Marine Operator)
25	157.250	161.850		Public Correspondence (Marine Operator)
26	157.300	161.900		Public Correspondence (Marine Operator)
27	157.350	161.950		Public Correspondence (Marine Operator)
28	157.400	162.000		Public Correspondence (Marine Operator)

61A	156.075	156.075	x	U.S. Government only
63A	156.175	156.175	x	Port Operations and Commercial, VTS. Available only in New Orleans / Lower Mississippi area.
64A	156.225	156.225	x	U.S. Coast Guard only
65A	156.275	156.275	x	Port Operations
66A	156.325	156.325	x	Port Operations
67	156.375	156.375	x	Commercial. Used for Bridge-to-bridge communications in lower Mississippi River. Intership only. 6
68	156.425	156.425	x	Non-Commercial
69	156.475	156.475	x	Non-Commercial
71	156.575	156.575	x	Non-Commercial
72	156.625	156.625	x	Non-Commercial (Intership only)
73	156.675	156.675	x	Port Operations
74	156.725	156.725	x	Port Operations
77	156.875	156.875	x	Port Operations (Intership only) 5
78A	156.925	156.925	x	Non-Commercial
79A	156.975	156.975	x	Commercial. Non-Commercial in Great Lakes only.
80A	157.025	157.025	x	Commercial. Non-Commercial in Great Lakes only
81A	157.075	157.075	x	U.S.Government only – Environmental protection operations.
82A	157.125	157.125	x	U.S. Government only
83A	157.175	157.175	x	U.S. Coast Guard only
84	157.225	161.825		Public Correspondence (Marine Operator)
85	157.275	161.875		Public Correspondence (Marine Operator)
86	157.325	161.925		Public Correspondence (Marine Operator)
87	157.375	161.975		Public Correspondence Marine Operator)
88	157.425	162.025		Public Correspondence only near Canadian border
88A	157.425	157.425	x	Commercial, Intership only

• Recreational boaters normally use channels listed as Non-Commercial: 68, 69, 71, 72, 78A.

• Channel 70 is used exclusively for Digital Selective Calling (DSC) and is not available for regular voice communications.

• Channels 75 and 76 are reserved as guard bands for Channel 16 and are not available for regular voice communications.

Notes:

1. The letter "A" following a channel number indicates simplex use of the ship station transmit side of an international semi-duplex channel. Operations are different from that of international operations on that channel.
2. Channel 13 should be used to contact a ship when there is danger of collision. All ships of length 20 meters or greater are required to guard VHF channel 13, in addition to VHF channel 16, when operating within U.S. territorial waters.
3. Channel is Receive Only.
4. Channel 16 is used for calling other stations or for distress alerting.
5. Output power is fixed at 1 watt only.

6. Output power is initially set to 1 watt. User can temporarily override this restriction to transmit at high power.

Canadian Marine VHF Channels and Frequencies

CH No.	XMIT Freq	RCV Freq	Area of Operation Use
01	156.050	160.650	PC Public Correspondence
02	156.100	160.700	PC Public Correspondence
03	156.150	160.750	PC Public Correspondence
04A	156.200	156.200	PC Intership, Ship/Shore and Safety: Canadian Coast Guard S&R
04A	156.200	156.200	EC Intership, Ship/Shore and Commercial: Commercial fishing only
05A	156.250	156.250	Ship Movement
06	156.300	156.300	All areas Intership, Commercial, Non-commercial and Safety: May be used for search and rescue communications between ships and aircraft.
07A	156.350	156.350	All areas Intership, Ship/Shore, Commercial
08	156.400	156.400	WC, EC Intership, Commercial and Safety: Also assigned for operations in the Lake Winnipeg area.
09	156.450	156.450	AC Intership, Ship/Shore, Commercial, Non-commercial and Ship Movement: May be used to communicate with aircraft and helicopters in predominantly maritime support operations.
10	156.500	156.500	AC, GL Intership, Ship/Shore, Commercial, Non-commercial, Safety and Ship Movement: May also be used for communications with aircraft engaged in coordinated search and rescue and antipollution operations.
11	156.550	156.550	PC, AC, GL Intership, Ship/Shore, Commercial, Non-commercial and Ship Movement: Also used for pilotage purposes.
12	156.600	156.600	WC, AC, GL Intership, Ship/Shore, Commercial, Non-commercial and Ship Movement: Port operations and pilot information and messages.
13	156.650	156.650	All areas Intership, Commercial, Non-commercial and Ship Movement:Exclusively for bridge-to-bridge navigational traffic. Limited to 1-watt maximum power.
14	156.700	156.700	AC, GL Intership, Ship/Shore, Commercial, Non-commercial and Ship Movement: Port operations and pilot information and messages.
15	156.750	156.750	All areas Intership, Ship/Shore, Commercial, Non-commercial and Ship Movement: All operations limited to 1-watt maximum power. May also be used for on-board communications.
16	156.800	156.800	All areas International Distress, Safety and Calling2

17	156.850	156.850	All areas Intership, Ship/Shore, Commercial, Non-commercial and Ship Movement: All operations limited to 1-watt maximum power. May also be used for on-board communications.
18A	156.900	156.900	All areas Intership, Ship/Shore and Commercial: Towing on the Pacific Coast.
19A	156.950	156.950	All areas except PC Intership and Ship/Shore: Canadian Coast Guard only.
19A	156.950	156.950	PC Intership and Ship/Shore: Various Government departments
20	157.000	161.600	All areas Ship/Shore, Safety and Ship Movement: Port operatio
21A	157.050	157.050	All areas Intership and Ship/Shore: Canadian Coast Guard only.
21B	-	161.650	All areas Safety: Continuous Marine Broadcast (CMB) service.3
22A	157.100	157.100	All areas Intership, Ship/Shore, Commercial and Non-commercial: For communications between Canadian Coast Guard and non-Canadian Coast Guard stations only.
23	157.150	161.750	PC Ship/Shore and Public Correspondence: Also in the inland waters of British Columbia and the Yukon.
24	157.200	161.800	All areas Ship/Shore and Public Correspondence
25	157.250	161.850	PC Ship/Shore and Public Correspondence: Also assigned for operations in the Lake Winnipeg area.
25B	-	161.850	AC Safety: Continuous Marine Broadcast (CMB) service.
26	157.300	161.900	All areas Ship/Shore, Safety and Public Correspondence
27	157.350	161.950	AC, GL, PC Ship/Shore and Public Correspondence
28	157.400	162.000	PC Ship/Shore, Safety and Public Correspondence
28B	-	162.000	AC Safety: Continuous Marine Broadcast (CMB) service.
60	156.025	160.625	PC Ship/Shore and Public Correspondence
61	156.075	160.675	PC Intership and Ship/Shore: Canadian Coast Guard only.
61A	156.075	156.075	EC Intership, Ship/Shore and Commercial: Commercial fishing only.
62	156.125	160.725	PC Intership and Ship/Shore: Canadian Coast Guard only.
62A	156.125	156.125	EC Intership, Ship/Shore and Commercial: Commercial fishing only.
64	156.225	160.825	PC Ship/Shore and Public Correspondence
64A	156.225	156.225	EC Intership, Ship/Shore and Commercial: Commercial fishing only.
65A	156.275	156.275	Intership, Ship/Shore, Commercial, Non-commercial, Safety: Search & rescue and antipollution operations on the Great Lakes. Towing on the Pacific Coast. Port operations only in the St. Lawrence River areas with 1W maximum power. Pleasure craft in the inland waters of Alberta, Saskatchewan and Manitoba (excluding Lake Winnipeg and the Red River).
66A	156.325	156.325	Intership, Ship/Shore, Commercial, Non-commercial, Safety

			and Ship Movement: Port operations only in the St.Lawrence River/Great Lakes Areas with 1-watt maximum power.
67	156.375	156.375	EC Intership, Ship/Shore and Commercial: Commercial fishing only.
67	156.375	156.375	All areas except EC Intership, Ship/Shore, Commercial, Non-commercial,Safety: May also be used for communications with aircraft engaged in coordinated search and rescue and antipollution operations.
68	156.425	156.425	All areas Intership, Ship/Shore and Non-commercial: For marinas and yacht clubs.
69	156.475	156.475	All areas except EC Intership, Ship/Shore, Commercial and Non-commercial
69	156.475	156.475	EC Intership, Ship/Shore and Commercial: Commercial fishing only.
71	156.575	156.575	PC Intership, Ship/Shore, Commercial, Non-commercial, Safety and Ship Movement
71	156.575	156.575	Intership, Ship/Shore and Non-commercial: For marinas and yacht clubs on the East Coast and on Lake Winnipeg.
72	156.625	156.625	EC, PC Intership, Commercial and Non-commercial: May be used to communicate with aircraft and helicopters in predominantly maritime support operations.
73	156.675	156.675	EC Intership, Ship/Shore and Commercial: Commercial fishing only
73	156.675	156.675	All areas except EC Intership, Ship/Shore, Commercial, Non-commercial,Safety: May also be used for communications with aircraft engaged in coordinated search and rescue and antipollution operations.
74	156.725	156.725	EC, PC Intership, Ship/Shore, Commercial, Non-commercial and Ship Movement.
77	156.875	156.875	Intership, Ship/Shore, Safety and Ship Movement: Pilotage on Pacific Coast. Port operations only in the St. Lawrence River/Great Lakes areas with 1W maximum power.
78A	156.925	156.925	EC, PC Intership, Ship/Shore and Commercial
79A	156.975	156.975	EC, PC Intership, Ship/Shore and Commercial
80A	157.025	157.025	EC, PC Intership, Ship/Shore and Commercial
81A	157.075	157.075	Intership and Ship/Shore: Canadian Coast Guard use only in the St. Lawrence River/Great Lakes areas.
81A	157.075	157.075	PC Intership, Ship/Shore and Safety: Canadian Coast Guard antipollution.
82A	157.125	157.125	PC Intership, Ship/Shore and Safety: Canadian Coast Guard use only.
82A	157.125	157.125	Intership and Ship/Shore: Canadian Coast Guard use only in the St. Lawrence River/Great Lakes areas.
83	157.175	161.775	PC Ship/Shore and Safety: Canadian Coast Guard use only.

83A	157.175	157.175	EC Intership and Ship/Shore: Canadian Coast Guard and other Government agencies.
83B	-	161.775	AC, GL Safety: Continuous Marine Broadcast (CMB) Service.
84	157.225	161.825	PC Ship/Shore and Public Correspondence
85	157.275	161.875	AC, GL, NL Ship/Shore and Public Correspondence
86	157.325	161.925	PC Ship/Shore and Public Correspondence
87	157.375	161.975	AC, GL, NL Ship/Shore and Public Correspondence
88	157.425	162.025	AC, GL, NL Ship/Shore and Public Correspondence

AC: Atlantic Coast, Gulf and St. Lawrence River up to and including Montreal

EC (East Coast): includes NL, AC, GL and Eastern Arctic areas

GL: Great Lakes (including St. Lawrence above Montreal)

NL: Newfoundland and Labrador

PC: Pacific Coast

WC (West Coast): Pacific Coast, Western Arctic and Athabasca-Mackenzie Watershed areas

All areas: includes East and West Coast areas

Notes:

1. An "A" following a channel number indicates simplex use of the ship station transmit side of an international duplex channel. Operations are different from that of international operations on that channel.
2. Channel 16 is used for calling other stations or for distress alerting.
3. The letter "B" following a channel number indicates simplex use of the coast station transmit side of an international duplex channel. That is, the channel is Receive Only.
4. Channel 70 is used exclusively for Digital Selective Calling (DSC) and is not available for regular voice communications.
5. Channels 75 and 76 are reserved as guard bands for Channel 16 and are not available for regular voice communications.

European Private Channels and Frequencies

In addition to the channels listed above in the International Marine VHF Channels & Frequencies table, your radio may also include some of the following private channels. Which channels are included depend upon the country in which the radio is to be operated and whether you possess the appropriate licensing

Country	CH No.	XMIT Freq	RCV Freq	Freq Use
Belgium	96	162.425	162.425	Marina
Denmark	L1	155.500	155.500	Leisure
	L2	155.525	155.525	Leisure
Denmark, Finland,	F1	155.625	155.625	Fishing

Norway & Sweden	**F2**	**155.775**	**155.775**	**Fishing**
	F3	**155.825**	**155.825**	**Fishing**
Finland, Norway&Sweden	**L1**	**155.500**	**155.500**	**Leisure**
	L2	**155.525**	**155.525**	**Leisure**
	L3	**155.650**	**155.650**	**Leisure**
Netherlands	**31**	**157.550**	**162.150**	**Marina**
	37	**157.850**	**157.850**	**Leisure**
UK	**M1**	**157.850**	**157.850**	**Marina**
	M2	**161.425**	**161.425**	**Marina**

Specification

---VHF radio

TX Frequency…….156.025-157.425 MHz

RX Frequency……. 156.050-162.025MHz.

Channels……..All INT Channels

All USA Channels

Modulation mode…… FM (16K0G3E) /DSC (16K0G2B)

Antenna impedance……50Ω (nominal)

Power supply…….. 13.8V DC

Sensitivity at 12dB SINAD…… ≤-5 dBμV (EMF)

Spurious Resp Rej……70dB

Adjacent Channel Rejection……...70 dB

Audio output power…… 5W @ 4Ohm

Audio Distortion……5%

RF Output power……High:25 W / Low:1W

Harmonic Emissions……0.25μW

-----**Mechanism**

Fixed unit Dimensions

(LWH)……224*114*50mm

Fixed unit Weight…… 1500g