

RO6700/RO6700N2K/RO6800AIS User 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 SHALL 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.”

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 RO6800AIS 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.

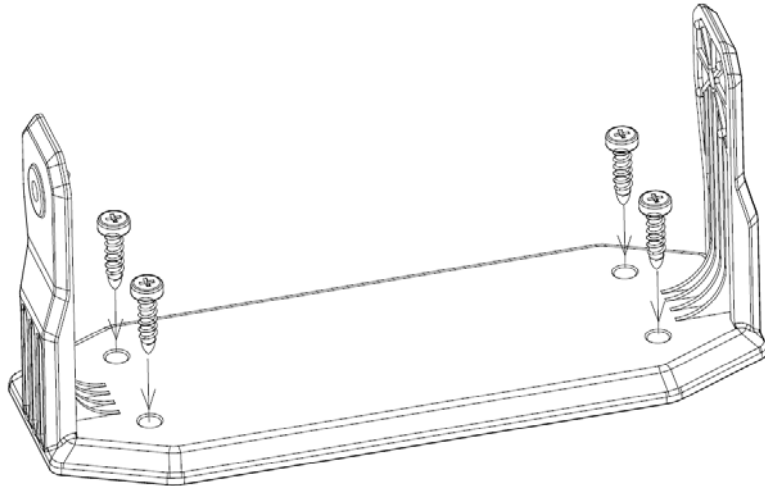
Contents

| | |
|---|-----------|
| 1 .Installation | 1 |
| 2. Front Panel/Back Panel/Wiring diagram..... | 3 |
| 3.LCD Display | 7 |
| 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..... | 15 |
| Main Menu | 15 |
| VHF Operation..... | 16 |
| GPS Setup | 18 |
| AIS Setup(Only RO6800AIS)..... | 19 |
| ATIS Operation | 20 |
| DSC Operation | 21 |
| System Config..... | 21 |
| Distress Menu & Send the Distress Message | 22 |
| AIS Operation (Only RO6800AIS)..... | 23 |
| 5.Key Operation | 24 |
| Power on/off & rotate to get up/down function | 24 |
| Special Function of DISTRESS key & Real-time DSC..... | 24 |
| VOL/AIS Control | 25 |
| TRIW/HAIL (Tri Watch/Hailer)..... | 25 |
| Squelch/MOB Key..... | 25 |
| DW/ FOG (Dual Watch/Foghorn)..... | 26 |
| MEM Key | 26 |
| Scan Key | 26 |
| Hi/Lo..... | 26 |
| Up/Down Key..... | 27 |
| LOC/DX..... | 27 |
| 16/9 Key..... | 27 |
| Select second priority channel..... | 27 |
| CALL/MENU | 27 |
| Back Light..... | 28 |
| CH*/WX | 28 |
| 6.Other Features and Solutions..... | 28 |
| Special function keys..... | 28 |
| TX Time Out..... | 29 |

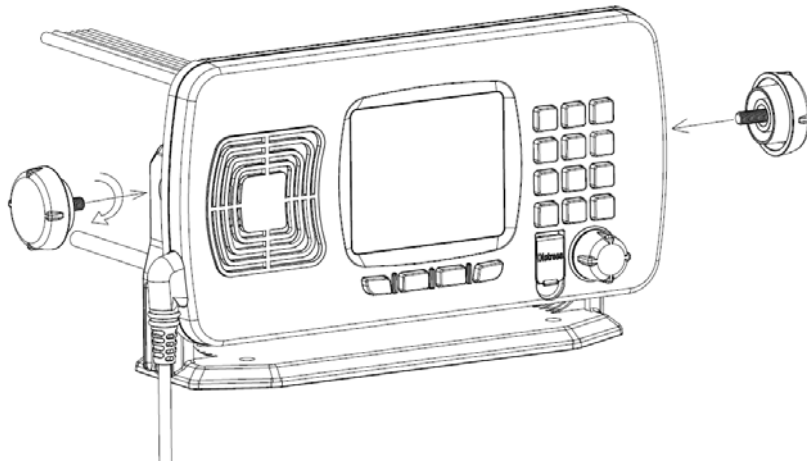
| | |
|--|----|
| The Local Time & Date on Screen: | 29 |
| NMEA 0183 and NMEA 2000 | 29 |
| Appendix B – Channel List | 30 |
| International Marine VHF Channels & Frequencies | 30 |
| U.S. Marine VHF Channels and Frequencies | 32 |
| Notes: | 34 |
| Specification | 38 |

1 .Installation

The first installation solution



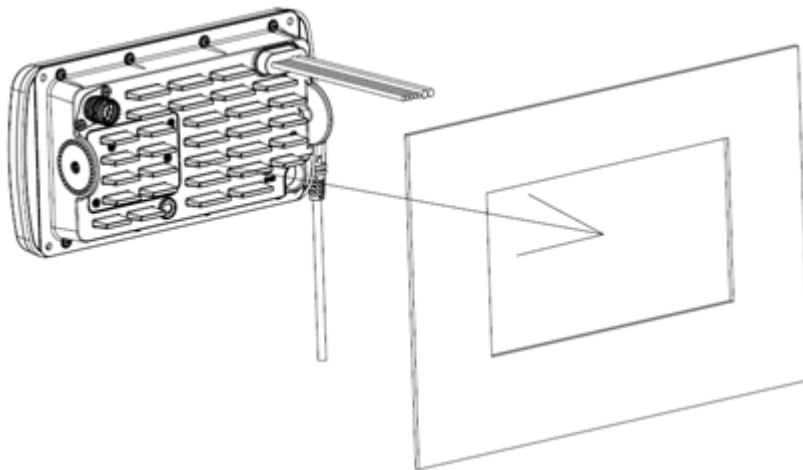
1.Place and fasten the mounting bracket on the console by 4 screws;



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).

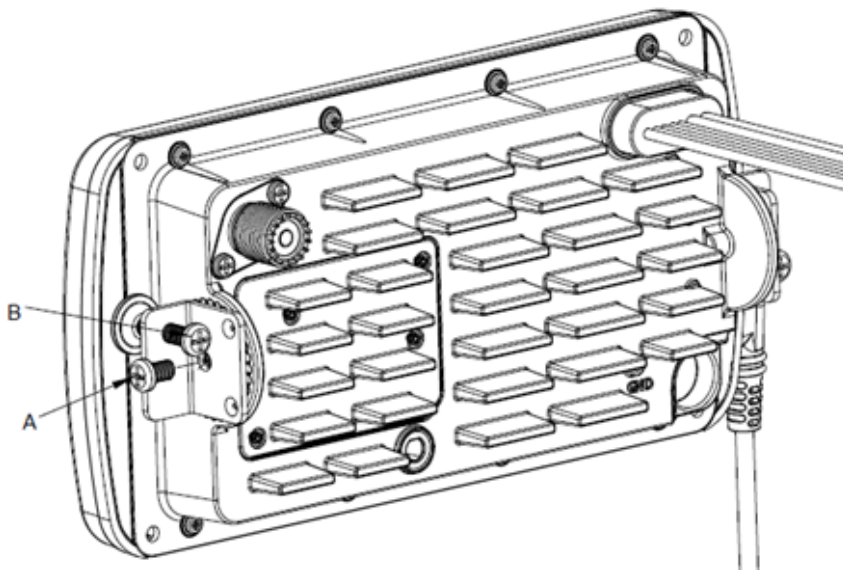
The second installation solution:

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



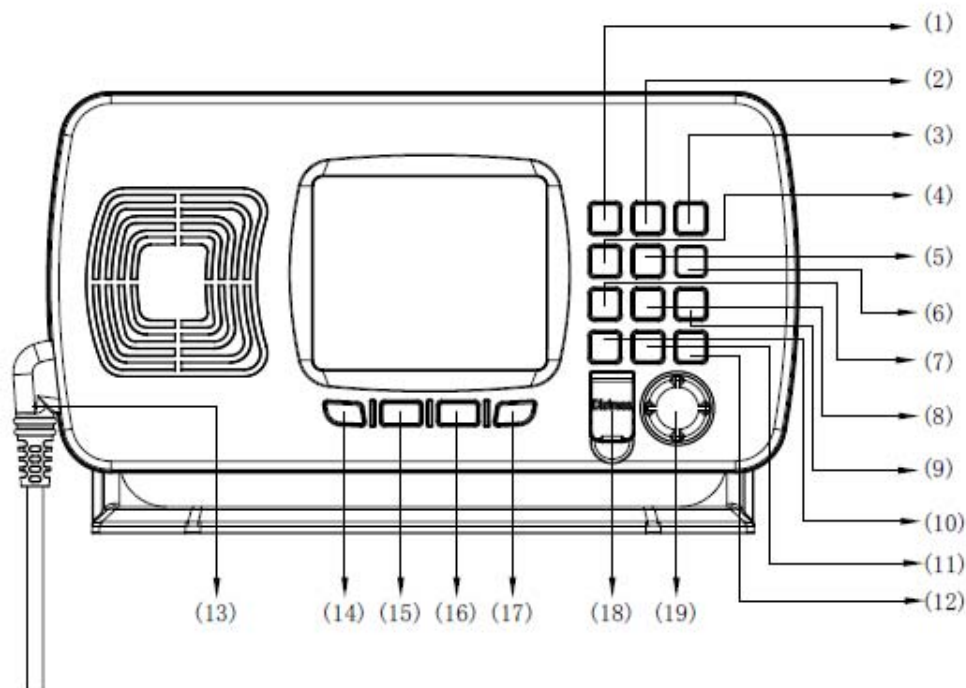
2 Use screwdriver respectively tighten the screws on either side of the small metal bracket (as A screw of the below picture shown), make the small metal bracket fit tightly on the aluminum chassis

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.



2. Front Panel/Back Panel/Wiring diagram

Front Panel



□ 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/AIS—short press to enter volume set, long press to enter AIS (Automatically Identification System RO6800AIS only).

(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.

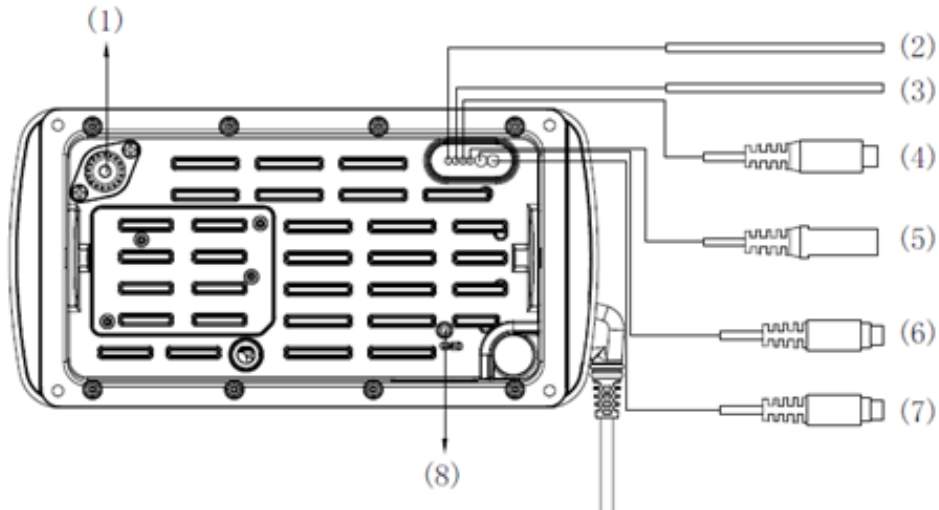
(16) Soft key--short press to get channel down, long press to make channel down much faster.

(17)Generally it acts enter function as “Enter” icon show on screen. At INITIAL screen, it also acts Down key function;

(18)DISTRESS—Pull up key cover and press to start Distress Alert Calling if you programmed your radio with an MMSI number.

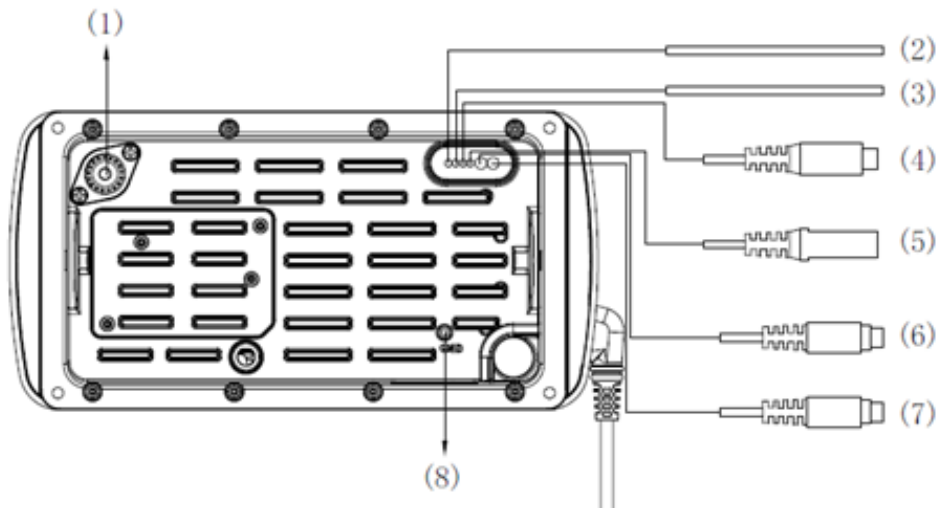
(19)Power on/off—short press to turn it on, long press to turn it off. Rotate knob to get up/down function when radio is on.

Back Panel



- (1) RF antenna
- (2) Power +
- (3) Power -
- (4) Hailer
- (5) external speaker jack
- (6) NMEA 0183/2000
- (7) Test & USB
- (8) GND hole

Wiring diagram

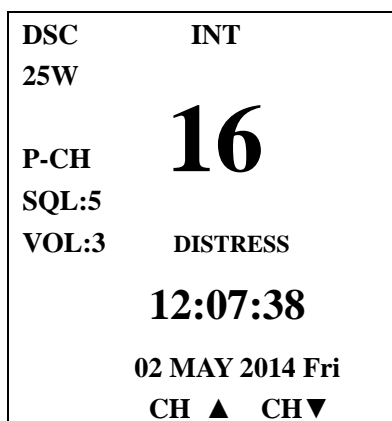


As above show, the “number in picture” correspond to “wiring number” also correspond to “the number in the below table”

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) | audio connector in red | Hailer | white | HAILER+ |
| | | | black | HAILER- |
| (5) | audio connector in white | External Speaker | Red | AUDIO+ |
| | | | white | AUDIO- |
| | | | Bare | GND |
| (6) | Mouse cable A | NMEA0183 & NMEA2000 | Orange | 0183_IN+ |
| | | | Yellow | 0183_IN- |
| | | | Black | 0183_OUT+ |
| | | | Red | 0183_OUT- |
| | | | Brown | CANL |
| | | | Green | CANH |
| (7) | Mouse cable B | TEST & USB | Bare | GND |
| | | | Yellow | NC |
| | | | Orange | Speaker |
| | | | Black | Mic |
| | | | Red | USB_RX |
| | | | Green | USB_TX |
| (8) | GND connection hole | \ | \ | \ |

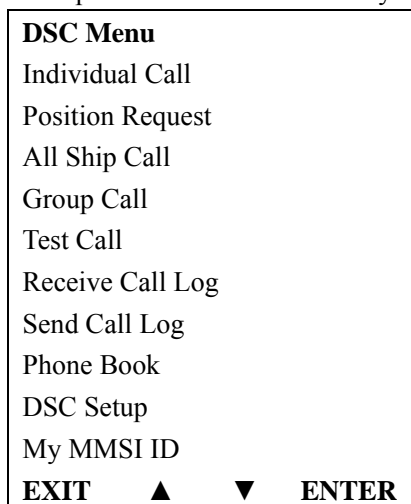
3. LCD Display



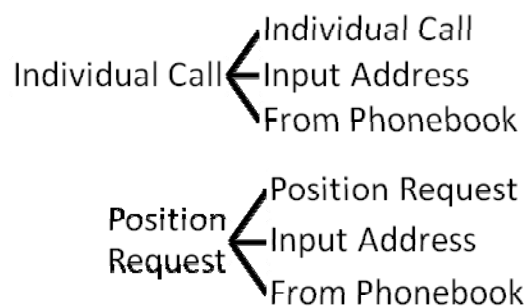
4. Main Menu Operation on Screen

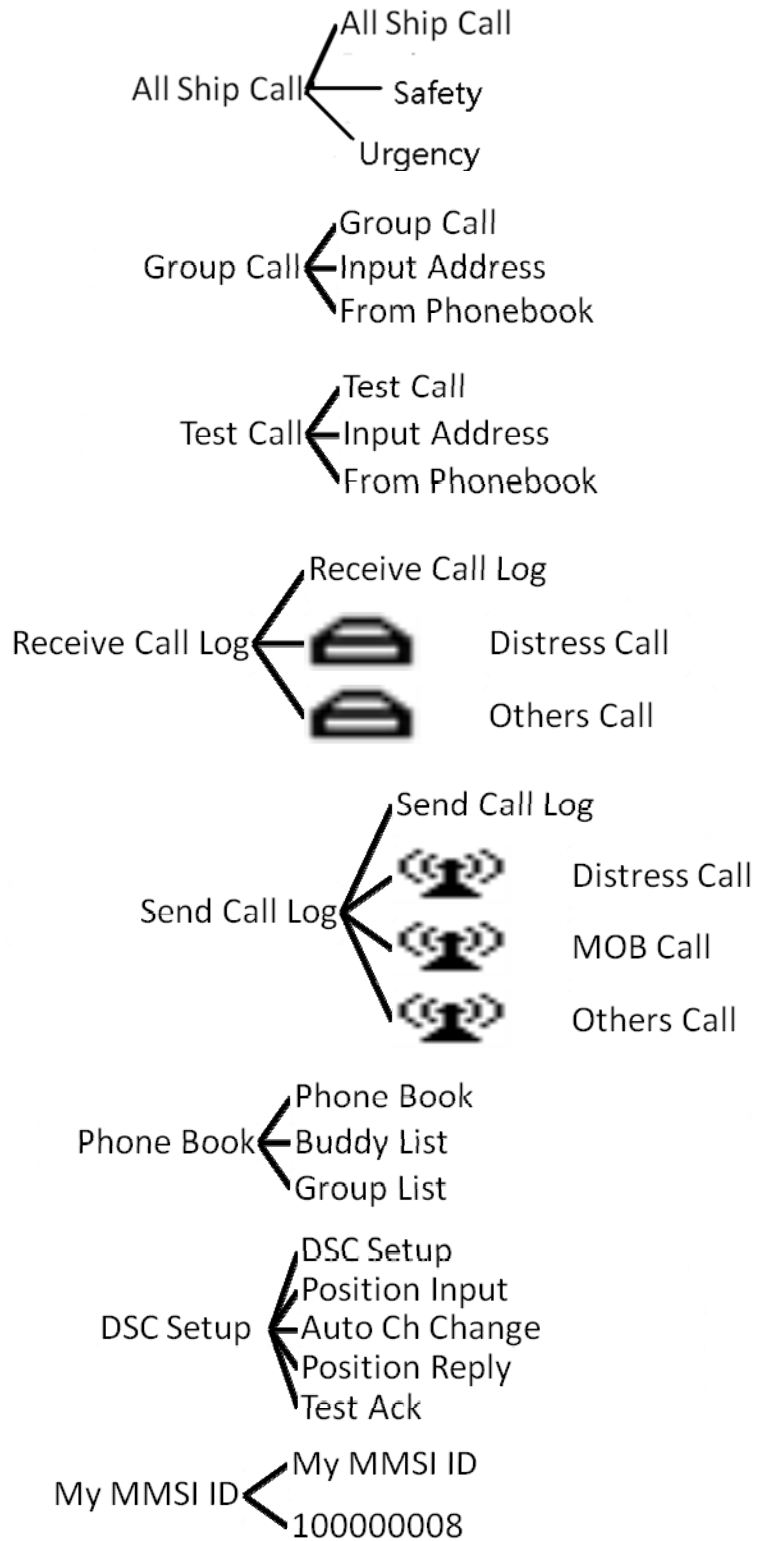
DSC Menu

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



Detailed entrance for each catalogue as shown below:





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.

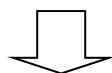
My MMSI ID
123456789

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”.

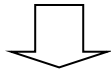
Take individual call as example—

Firstly you selected the “Input Address”, then input 9 digits manually such as 10000000 for your address as below:

Input Address
Input 9 digits
0-----
EXIT ▲ ▼ ▶

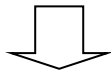
Then select the type of individual call such as **Routine**

Individual Call
Routine
Exit ▲▼ Enter

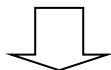


Next select the preferred channel such as 01 port operation and confirm to call

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: 10000000
Safety
Telephony by
Channel 01
Exit **Call**



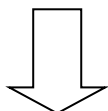
Then the individual call is sent as below shown

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

All Ship Call

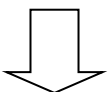
Select the All Ship item

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

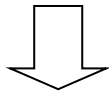


All Ship Call
Safety
Urgency

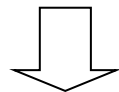
Exit ▲▼ Enter



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



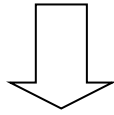
DSC USA
LO
SQL:5 **07**_A
COMMERCIAL
Elapsed 00: 04
Exit

The All Ship Call is sent.

Receive Call Log

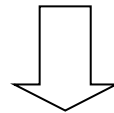
When received DSC, you can check those messages from the “Distress Menu” and see the exact message.

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

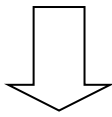


Received DSC
Distress call
Undesignated
From: 123456789
GPS POS; Unknown
88: 88 UTC
Exit Delete

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**

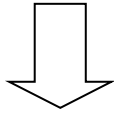


Send Call Log
☎ Distress Call
☎ MOB Call
☎ Others Call
EXIT ▲ ▼ **ENTER**

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**



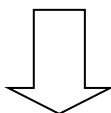
Phone Book
Buddy List
Group List

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

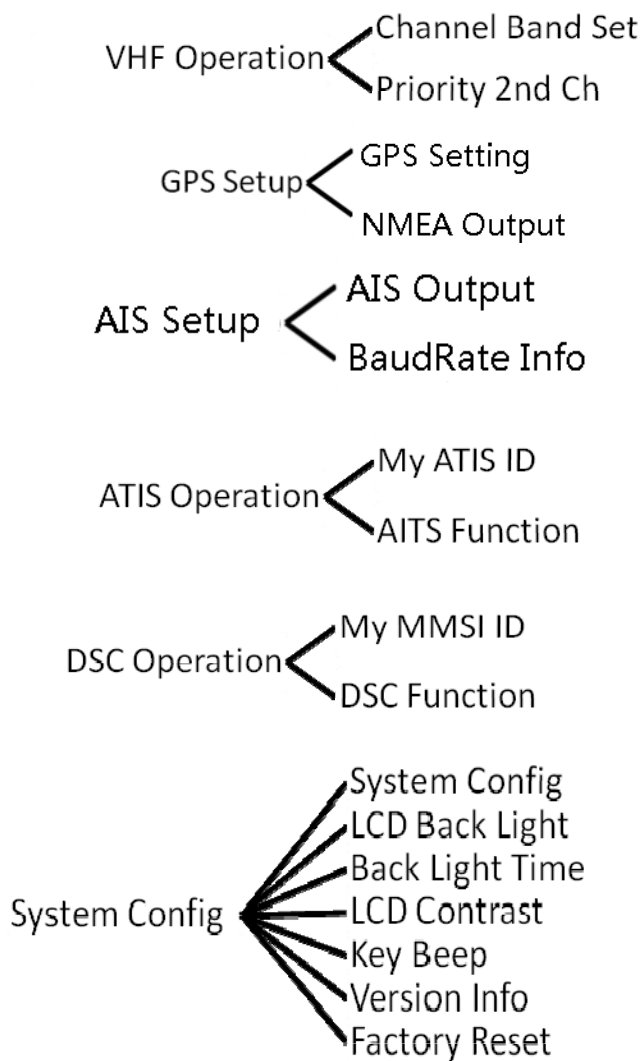
Long press the CALL/MENU key will display as below:

Main Menu

- VHF Operation
- GPS Setup
- AIS Setup
- ATIS Operation
- DSC Operation
- System config

EXIT ▲ ▼ ENTER

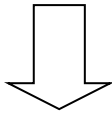
Detailed entrance for each catalogue as shown below:



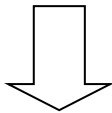
VHF Operation

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

Main Menu
VHF Operation
GPS Setup
AIS 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

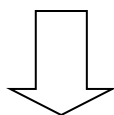
channel.

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

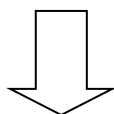
GPS Setup

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

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

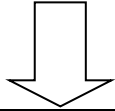


| |
|-----------------------|
| GPS Setup |
| GPS Setting |
| NMEA Output |
| EXIT ▲ ▼ ENTER |



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

EXIT ▲ ▼ ENTER



NMEA Output
Enable
Disable

EXIT ▲ ▼ ENTER

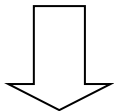
Follow like this, you can setup your priority as you wish.

AIS Setup (Only RO6800AIS)

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

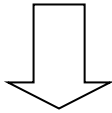
Main Menu
VHF Operation
GPS Setup
AIS Setup
ATIS Operation
DSC Operation
System config

EXIT ▲ ▼ ENTER



AIS Setup
AIS Output
BaudRate Info

EXIT ▲ ▼ ENTER



AIS Output
All Off
RS485
NMEA2000
RS485+NMEA2000

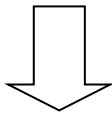
EXIT ▲ ▼ ENTER

ATIS Operation

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

Main Menu
VHF Operation
GPS Setup
AIS Output
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.

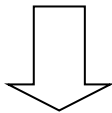
DSC Operation

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

Main Menu

VHF Operation
GPS Setup
AIS 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**)

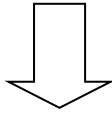
System Config

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

Main Menu

VHF Operation
GPS Setup
AIS 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.

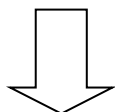
Distress Menu

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.

AIS Operation (Only RO6800AIS)

Long press the 'VOL/AIS' key to enter this interface.

```
AIS ship info menu
AIS ship info List
AIS Ship plotter

Exit ▲ ▼ Enter
```

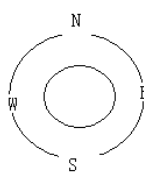
From the AIS ship info menu, you have two options: List mode or plotter mode.

If you choose option 'AIS 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 | 413472037 | |
| 03 | 079° | 6831.98nm | 413472060 | |
| 04 | 079° | 6825.80nm | 566981000 | |
| 05 | ----- | | 413976997 | |
| 06 | 079° | 6825.32nm | 403506000 | |
| 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 | | |



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:

RO6700 model has two receivers, one receiver used for receiving/transmit voice and another receiver used to continually monitor 70 channels. The DSC function of RO6700 is operated in separate way which means any arriving DSC message will not be ignored even if you are using RO6700 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/AIS Control

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

Long press “VOL/AIS” key and enter AIS (Automatic Identification System) mode (option for RO6800AIS only). The radio has built-in AIS receiver to meet the demands for vessels to know the position, details and navigational intentions of other vessels within VHF range for improved safety and collision avoidance.

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 RO6800AIS)

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----

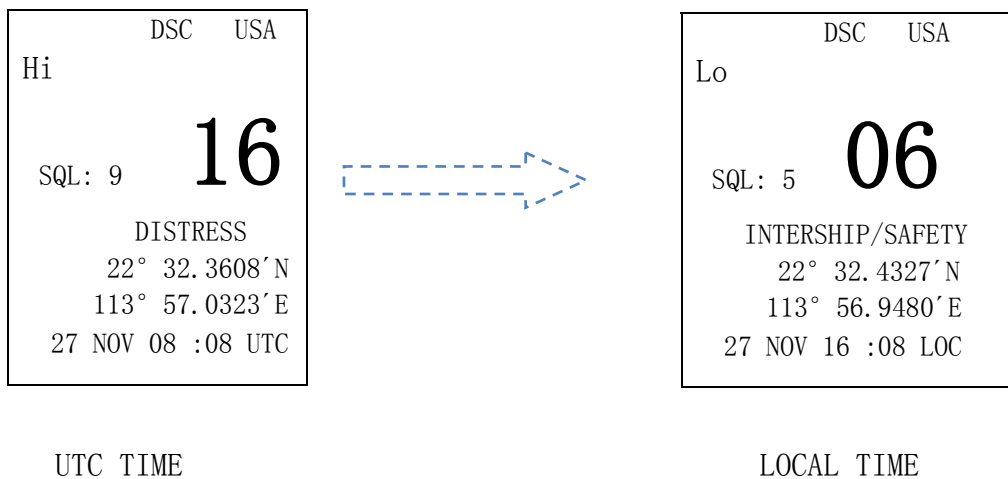
First press and hold PTT key on the fist microphone for more than 3 seconds, then press Power key, later you can enter the writing channel mode directly. LCD display as below:

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:



When RO6700 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

RO6700 only can be connected to NMEA0183 network, and RO6700N2K as well as RO6800AIS 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 RO6700N2K and RO6800AIS 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 and Ship Movement |
| 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 |
| 65 | 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 | Internship, Port Operations and Ship Movement 2 |
| 68 | 156.425 | 156.425 | x | Port Operations and Ship Movement |
| 69 | 156.475 | 156.475 | x | Internship, Port Operations and Ship Movement |
| 71 | 156.575 | 156.575 | x | Port Operations and Ship Movement |
| 72 | 156.625 | 156.625 | x | Internship |
| 73 | 156.675 | 156.675 | x | Internship 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 | Internship |
| 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 |

• Internship channels are for communications between ship stations. Internship communications should be restricted to Channels 6, 8, 72 and 77. If these are not available, the other channels marked for Internship 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 in uncoordinated 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 Calling ² |
| 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 operations |
| 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, Norway & Sweden | F1 | 155.625 | 155.625 | Fishing |
| | 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 |

Note: A license may be required to operate the radio on the private channels. It is your responsibility to obtain the proper license to operate the radio on these frequencies.

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..... | 70 dB |
| 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

----AIS Receiver (only RO6800AIS)

Frequency161.9750MHz/162.025MHz
 Number of Channels.....2
 Local Oscillator mode..... PLL
 RO6800AIS-ambient temperature.....-15°C to +55°C

----Mechanism

| Fixed | unit | Dimensions |
|------------------------|--------------|------------|
| (LWH)..... | 224*114*50mm | |
| Fixed unit Weight..... | | 1500g |