

6.13 RESET

This feature resets every setting to the factory defaults, except USER MMSI and GROUP MMSI, ATIS MMSI. And Buddy list.

- 1) Select RESET, press CH button, the radios asks for confirmation
- 2) Select yes, press CH button to reset the radio and return to the menu.



7 AUTOMATIC IDENTIFICATION SYSTEM (AIS) RECEIVER

DISCLAIMER

This product is designed to aid navigation and should be used to augment normal navigational procedures and practices. It is the users responsibility to use this product prudently.

Neither Furuno nor their distributors or dealers accept responsibility or liability either to the product user or their estate for any accident, loss, injury or damage whatsoever arising out of the use or of liability to use this product.

7.1 WHAT IS AIS?

AIS permit the non-verbal exchange of navigation information between vessels and shore-side vessel traffic centers. AIS uses digital radio signals to broadcast information about the vessel to other ships and shore based stations via dedicated VHF frequencies in the maritime band.

AIS will not replace radar because it is unable to detect landmasses and navigational beacons, but it can be used as a significant enhancement to currently available technology.

7.2 CLASSES OF AIS

Your Furuno radio RO4800 is a receive-only unit that will receive messages from vessels carrying Class A or Class B transceivers.

Class A

A Class A transceiver transmits and receives AIS signals. It is currently compulsory on all commercial vessels that exceed 300 tons that also travel internationally Information transmitted

The following information can be transmitted by a Class A AIS system:

Static data

This includes information such as Ship's name, type, MMSI number, call sign, IMO number, length and beam and GPS antenna location.

Voyage related data

This includes information such as draft, cargo, destination, ETA and other relevant information.

Dynamic data

This includes information such as time (UTC), ship's position, COG, SOG, heading, rate of turn and navigational status.

Dynamic reports

These are ship's speed and status.

Messages

These are alarms and safety messages.

You should remember that not all vessels would transmit all of the information.

Class B - (Recr eational vessels not covered by suitable Class A)

Class B transceiver's are suitable to vessels under 65 feet in length and is not compulsory.

You should NOT assume that any class of AIS receiver is displaying all/any smaller vessels within your range.

Note: All messages contain the Ships individual MMSI number for unique reference identification purposes along with the data in the following table. Every vessel necessarily transmits not all the information in the following table.

Data details	Class A	Class B
Static Data		
. Ship's name	V	V
. Type	V	V
. Call sign	V	
. IMO number	V	
. Length and beam	V	V
. GPS Antenna location	V	V
Voyage Related Data		
. Draft	V	
. Cargo information	V	V
. Destination	V	
. ETA	V	
. Other relevant information	V	V
Dynamic Data		
. Time	V	V
. Ship's position	V	V
. COG	V	V
. SOG	V	V
. Gyro heading	V	V
. Rate of turn	V	V
. Navigational status	V	

Dynamic Reports		
. Ship's speed	V	V
. Ship's status	V	V
Messages		
. Alarm	V	V
. Safety	V	V

7.3

STATIC AND DYNAMIC INFORMATION

Defined transmit rates for Class A vessels shown below are provided for reference purposes only. The frequency of messages received (using the AIS250 receive-only unit) will vary due to a number of factors including but not limited to such factors as antenna height, gain and signal interference.

- Static information is either broadcast every 6 minutes, when data has been amended, or upon request.
- Dynamic information is broadcast depending on speed and course alteration based on the following tables

Ships Dynamic Conditions	Normal reporting interval
At anchor or moored	3 Minutes
0 –14 knots	10 Seconds
0 –14 Knots and changing course	3 1/3 Seconds
14 –23 knots	6 Seconds
14 – 23 Knots and changing course	2 Seconds
Ship faster than 23 knots	2 Seconds
Ship faster than 23 Knots and changing course	2 Seconds

Platforms condition	Normal reporting interval
Class B Shipborne mobile equipment not moving faster than 2 Knots	3 Minutes
Class B Shipborne mobile equipment moving 2-14 Knots	30 Seconds
Class B Shipborne mobile equipment moving 14-23 Knots	15 Seconds
Class B Shipborne mobile equipment moving faster than 23 Knots	5 Seconds
Search and Rescue aircraft (airborne mobile equipment)	10 Seconds
Aids to Navigation	3 Minutes
AIS base station	10 Seconds

Source of information for above tables 1-1, 1-2: (ITU recommendations technical document: ITU-R M.1371-1)

7.4 AIS INFORMATION AND DISPLAY

FURUNO radio can display AIS data for navigation on LCD, As well as output the AIS data to other NMEA compatible multifunction plotter or PC.

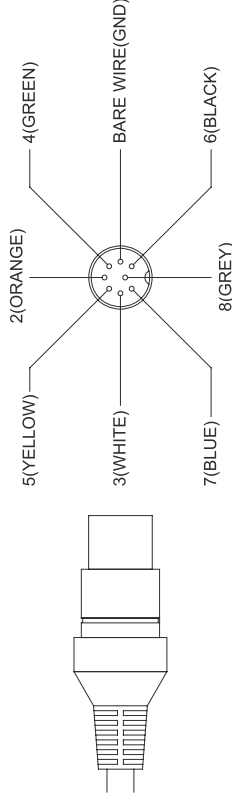
7.4.1 AIS DATA OUTPUT TO OTHER DEVICES

There are 2 choices for serial ports, one presenting NMEA (RS422) format and the other RS232 format, which is selected in AIS setup submenu of setup menu:



The default setting is RS232

The output data is a NMEA data sentence (VDM) string at 38.4K baud rate.



Wiring of RS232

Pin of cable	Cable Color	Signal Name
7	Blue	TX RS232
8	Grey	
Bare wire	/	Grounding

Wiring of RS422

Pin of cable	Cable Color	Signal Name
7	Blue	+NEMA OUTPUT RS422
8	Grey	-NEMA OUTPUT RS422

7.4.2 AIS DATA DISPLAYED IN MARINE RADIO

AIS data also can be displayed on your marine radio, to aid navigation with monitoring the position, details and navigational intentions of other vessels within VHF range