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Introduction:

The AIS-MULTI is designed to enable AIS reception, with the minimum of installation by sharing your existing VHF antenna with the AIS receiver. The unit comprises of a Dual Channel Parallel Receiver, Antenna Splitter and Interfaces for NMEA In and Out together with USB, in one enclosure.

Installation:

The AIS-MULTI Receiver is not waterproof and should be located in a dry location. The unit can be secured by the 4 mounting holes in the end flanges. Ideally it should be located within 1m of your VHF radio, otherwise you will need to extend the cable fitted to the AIS-MULTI.

Antenna Connection:

Firstly remove the VHF antenna plug from your VHF Radio and plug it into the socket marked VHF Radio on the AIS-MULTI. Take the 1m VHF radio cable from the AIS-MULTI and plug it into the antenna socket on the VHF Radio.

Power Connection:

Operation is from the boats DC supply of 12-24 Volts. Connect the 2 core power cable to the boats DC supply, ideally from the same source as the existing VHF Radio.

RED **Positive +**
BLACK **Negative –**

NMEA Connection:

The NMEA 0183 In and Out is connected via the 4 core cable. The NMEA Output can be connected to a suitable Chart Plotter to display AIS targets. The output Baud rate is set to 38,400, if you wish to change this to 4800 baud, disconnect the power, unscrew the two screws to release the front cover and move the jumper located to the left to the 4800 position.

YELLOW **NMEA Output Positive +**
GREEN **NMEA Output Negative –**

An external NMEA GPS may be connected to the NMEA Input, which will multiplex the data with the AIS VDM NMEA sentences. The unit will only accept data input at 4800 Baud.

RED **NMEA Input Positive +**
BLUE **NMEA Input Negative –**

USB Connection:

The AIS-MULTI will also output NMEA 0183 data via the USB connector. You will need to install the drivers on the CD supplied before the unit will operate correctly. The unit is not powered by the USB port so to operate correctly the DC power must be connected.

Operation:

On applying power the Green LED will light and the two Channel Red LEDs will come on continuously for approximately 10 seconds then extinguish.

If you are within range of vessels transmitting AIS data the two channel Red LEDs will flash intermittently indicating reception of an AIS message, this data will be sent out on the NMEA connection to the Chart Plotter, and simultaneously on the USB connection to a PC.

Your VHF radio will continue to receive as normal together with the AIS-MULTI. When transmitting on the VHF Radio the AIS reception will stop and resume automatically when you stop transmitting. If the AIS-MULTI is not switched on, your VHF Radio will continue to operate as normal.

Limited Warranty:

Comar Systems Ltd warrants this product to be free from defects in materials and manufacture for one year from the date of purchase. Comar Systems Ltd will, at its sole option, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts and labour. The customer is, however, responsible for any transportation costs incurred in returning the unit to Comar Systems Ltd.

This warranty does not cover failures due to abuse, misuse, accident or unauthorized alteration or repairs.

The above does not affect the statutory rights of the consumer.

Note: Every effort has been made to ensure that all information contained in this manual is accurate at the time of going to press. However AIS is a new technology and the legislation is subject to change. We therefore cannot take any responsibility for the content of this manual and advise that you take normal steps to ensure that the information is at its most current when you are reading this manual.

Product Support

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Troubleshooting:

No green Power LED is displayed

- Check the power supply and that the unit is connected correctly to a 12 or 24 volt DC supply
- Check the polarity of the supply is correct (red is positive and black is negative).

Channel A and Channel B lights do not flash

- Check that the VHF antenna is correctly connected.
- Are you in a suitable location to visibly 'see' vessels.

Channel A and Channel B lights flash but no data is received

- If the red channel lights flash then data is being received from nearby vessels.
- Check that NMEA connections to the Chart Plotter are correct.
- Check on the PC application that the correct com port is selected and the correct baud rate is setup.

I can receive ships on my display but no names are shown.

- Remember that the names of ships as well as other static information is only sent every 6 minutes or when requested by another station.

Specification:

Dimensions Overall:	120 x 86 x 37
Power:	9-30 VDC
Current:	110mA @ 12VDC
Output:	NMEA 0183
Message type:	VDM
Baud Rate:	38400 (4800 by internal link)
Receiver:	Dual Channel Parallel
Frequency:	161.975 and 162.025MHz
Sensitivity:	-112dBm
Insertion loss:	<3dB
Connections:	Power 2 core 1m cable NMEA 4 core 1m cable USB Socket Type B
Antenna:	SO239 Socket 50 Ohm
VHF Radio:	PL259 Plug 1m cable

Installation and Quick Reference Guide

AIS-MULTI Receiver/ Splitter



