

## **Contents:**

- AIS-2-2000 unit
- 1m NMEA2000 cable
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## **Introduction:**

The AIS-2-2000 is a high performance, dual channel AIS receiver, designed for integration into boats using a NMEA 2000 network. Supplied with a NMEA 2000 drop cable for power and data the unit is quick and easy to install into a new or existing NMEA 2000 network.

## **Installation:**

The AIS-2-2000 Receiver is not waterproof and should be located in a dry location. The unit can be secured by suitable screws in the 4 mounting holes on the end flanges.

## **Antenna Connection:**

The AIS-2-2000 requires connection to an external VHF antenna to receive data from other vessels.

The AIS VHF antenna should be mounted as high as possible to achieve the maximum range of reception. If mounted at the masthead then it should be located the other side of the mast to the VHF Radio antenna and stood off as far as possible. You will need a BNC plug, 50 Ohm, to connect the antenna to the AIS-2-2000 unit.

Alternatively purchase our ASR100 Antenna Splitter which allows you to share your existing VHF Radio Antenna with the AIS-2-2000

## **Power Connection:**

The DC power for the AIS-2-2000 is supplied by the NMEA 2000 powered network. This supply should be in the range 9.0 to 16.0 VDC. The Load Equivalent Number (LEN) for this receiver is 4.

## **Operation:**

The AIS-2-2000 reads and decodes all AIS messages that are specified and transmitted by other AIS vessels and stations. These messages are converted to the equivalent NMEA 2000 PGN format and sent out on the network.

On plugging the AIS-2-2000 into the NMEA 2000 network and applying power the Green LED will light and the two Channel Red LEDs will come on continuously for approximately 5 seconds then extinguish.

Once the unit has logged onto the Network the Green Data LED at the rear of the unit will flash to confirm correct operation.

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 2000 Network for display on AIS compatible Chart Plotters, Radars, etc.

## AIS Messages and equivalent NMEA 2000 format

AIS Message type	NMEA 2000 PGN
1,2,3 Class A Position reports	129038
4 Base Station report	129793
5 Class A Static Data	129794
6 Binary addressed message	129795
7 Acknowledgement of 6	129796
8 Binary broadcast message	129797
9 SAR Position report	129798
10 Request UTC and date	129800
11 Response to 10	N/A
12 Addressed Safety related message	129801
13 Acknowledgement of 12	N/A
14 Safety related broadcast	129802
15 Request for specific message	129803
16 Assignment by Base Station	129804
17 GNSS correction from Base Station	129792
18 Class B Position report (old)	129039
19 Extended Class B as 18 (old)	129040
20 Data link management	129805
21 A to N	N/A
22 Channel management	129806
23 Group assignment from Base	129807
24A Class B Name (current)	129809
24B Class B Static Data (current)	129810

## 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:

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### No green Power LED is displayed

- Check that power is connected to the NMEA 2000 Network, this should be in the range of 9-16 VDC

### 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 the Chart Plotter is setup to receive AIS data.

### I can receive ships on my display but some of the data is missing.

- Check that your Chart Plotter can decode the NMEA 2000 AIS PGN messages containing the relevant AIS data.

## Specification:

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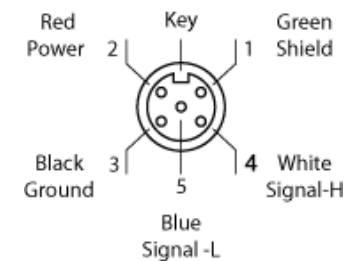
Dimensions Overall: 120 x 86 x 37  
Power: 9.0 - 16.0 VDC  
Current: 200mA @ 12VDC

Output: NMEA 2000

Receiver: Dual Channel Parallel  
Channel A: 161.975MHz  
Channel B: 162.025MHz  
Channel spacing: 25KHz  
Sensitivity: -112dBm

Connector: 5 Pin NMEA 2000  
Antenna: BNC 50Ohm

AIS-2-2000 Connector



# *Installation and Quick Reference Guide*

## **AIS-2-2000** NMEA 2000 AIS Receiver

