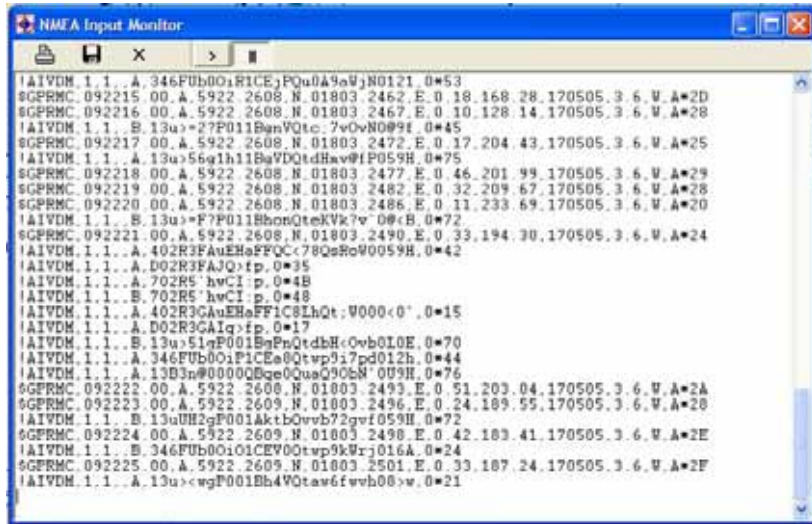


When you your port is set to receive data as described above you shall be able to see NMEA data for AIS called VDM according to the example below that follows normal NMEA structure.



**viii. Data cables**

Computers that connects to a AIS RX YACHT with a pin to pin 9 pin D-sub (9DB) male on the receiver side and a the equivalent on the PC side, female . Each pin should be connected as follows:

Male	Female
1	1
2	2-----Data output
3	3-----Data input.
4	4
5	5-----Signal ground
6	6
7	7
8	8
9	9

**Quick installation guide for AIS RX YACHT**

This quick installation guide describes the most basic information you need to install your AIS RX YACHT receiver. You should read the complete manual to get a full understanding how to install and operate AIS RX YACHT. Please visit our webpage ([www.trueheading.se](http://www.trueheading.se)) for updates on manuals etc.

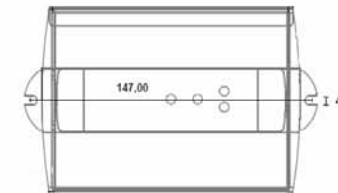
If you want your AIS RX YACHT to operate with e.g. monitor software, your plotter or a PC based software please act as follows:

**i. Checking your material**

Check that you have received all the equipment with your AIS RX YACHT and also that the delivered equipment has not been damaged during delivery. If the equipment has been damaged, please contact your reseller or our support.

**ii. Installing your receiver**

AIS RX YACHT is made to be installed in a protected environment (in door) and shall therefore be placed where its well protected from humidity and water. AIS RX YACHT shall not either be placed close to generators or compressors from e.g. refrigerators since they can interfere with the reception. AIS RX YACHT is easy to mount on the bulkhead or panels with included screws.



Picture 1 Measurements for installation of AIS RX YACHT (mm).

**iii. Antenna installation**

The antenna cabling should be installed the shortest possible way and cable type selected depending on cable length to avoid losses. All connectors should be properly connected to avoid losses and thoroughly sealed with self amalgamating rubber tape to avoid humidity in the connectors and thereby reduced functionality.

#### Quick guide for cable selection

Lenght	Cable type
< 10 m cables	RG58C/U
> 10 m cables	RG213/U

#### iv. GPS antenna

GPS antennas shall be of active types with built in amplifier (LNA). AIS RX YACHT provides the built in antenna amplifier with power through the antenna cable. The power supply to the antenna is 3V DC.

It shall be noted that the GPS antenna shall be placed with free line of sight towards the sky. Do not place the antenna close to metal objects that can cause reflections or disturb the reception of the satellite signals. Connect the antenna cable to the AIS RX YACHT's left coaxial connector (TNC).

#### v. VHF antenna

The VHF antenna is necessary for the AIS receiver to work properly.

##### Antenna separation

The AIS receiver uses frequencies in the upper part of the maritime band. Normally channel 87B, AIS 1 (161.975 MHz) and channel 88B, AIS 2 (162.025 MHz). AIS frequencies are situated in the duplex band close to coastal stations transmit channels. To avoid interference the AIS RX YACHT antenna shall be separated as much as possible from the ordinary VHF antenna. The best separation will be accomplished if the antennas are placed on different heights or placed on different sides off the mast or boat. True Headings VHF splitter can also be used as an effective solution to the antenna placing.

##### Line of sight

To have the best possible reception for the AIS RX YACHT the antenna shall be placed with free line of sight around the full horizon. Larger objects can stop the signals from certain directions.

##### Antenna height


AIS uses frequencies in the maritime VHF band. The area of coverage in this frequency band is almost the same as line of sight. This means that the higher you put your antenna the longer range you will obtain.


The VHF antenna shall be of a standard marine type for full functionality off the AIS RX YACHT.

The VHF antenna to the AIS RX YACHT shall be placed as high as possible and with proper separation to other transmitting antenna equipment onboard. The VHF antenna connection shall be connected to the right connector (BNC) on the AIS RX YACHT.

#### vi. Power

Connect the AIS RX YACHT to 12 V DC via a 0,5A fuse. The AIS RX YACHT comes with a power cable already fitted with a fuse and with a 2 pole DC connector that locks automatically when fitted.

Black and white cable is plus 

Black cable is minud 

When AIS RX YACHT is connected to 12 VDC the PWR (POWER) led indicator shall be green.



Picture 2 Power and antenna connections.

#### vii. Connection to PC

Use the included serial cable for RS232 format. Connect the cable to the connector on the AIS RX YACHT and then to the PC, network or plotter port. If your PC do not have a serial port a Serial to USB converter can be used. (If another serial cable is used than the included it shall be a pin to pin connection as 2-2, 3-3, 5-5)

Start your navigation system or plotter and set the baud rate to 38400 bit/s on the serial port where you connect your AIS RX YACHT.

*Note: If you don't have any AIS software you can use the Hyperlink program supplied with Windows. This can be found by pressing the Start button -> programs ->Accessories->Communications->HyperTerminal*

*Set the com port for:  
Baud rate: 38400  
Data bit: 8  
Parity: None  
Stop bits: 1*