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# Installation & Quick Start Guide


## AISnet Internet Base Station AIS Receiver

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## 1. Introduction

Congratulations on the purchase of your AISnet Internet Base Station AIS Receiver. It is recommended that your receiver is installed by a professional installer. The AISnet requires connection to the internet via a local area network (LAN) and it is recommended that this is carried out by someone with suitable IT experience and knowledge of ethernet networks.

** Before operating the unit you should familiarise yourself with this Quick Start manual and the manual for your PC and network router.**

## 2. Before you start

You will need the following items and tools to complete the installation:

- The AISnet Receiver
- Dedicated AIS/VHF antenna or existing VHF antenna and splitter
- RJ45 Cat 5 cable to connect between the AISnet and your ethernet network
- Access to a 110v/240v AC mains supply where the unit is to be installed.
- M3 or M4 screws or other fixings appropriate to the mounting location.

To display the AIS targets and data you will need:

- Suitable PC Navigation software running on a PC with Microsoft Windows XP®/Windows 2000® or Windows Vista®/Windows 7® with a free USB of RS232 serial port.
- Or a suitable dedicated chart plotter that can read and display AIS data via NMEA0183


## 3. Installation

Before starting installation select a suitable location for the AISnet Receiver. The unit is designed for mounting at home or in an office and is not water resistant. It should be installed in a cool, dry location and can be mounted on a vertical or horizontal surface. When locating the unit you should consider:

- Routing of power and antenna cables to the unit.
- Provision of sufficient space around the unit for cable connections.
- Routing of USB data connections to a PC from the unit (if necessary).
- Maintaining the compass safe distance of 0.5m.

### Installation Step 1

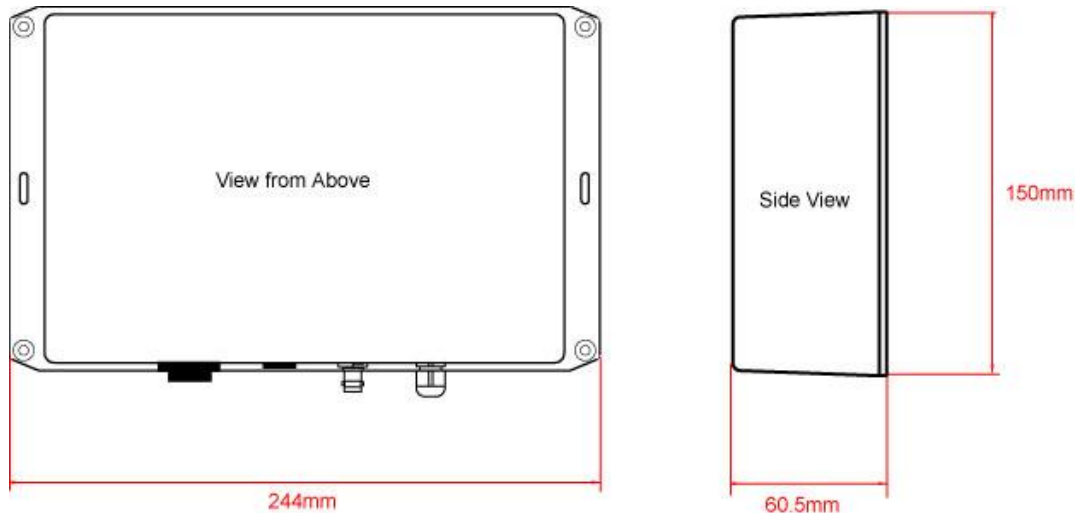
- Siting of the VHF antenna is critical for good AIS reception. The aerial needs to be outside and as high as possible. Most antennas are tuned and matched to their coax cable, so do not lengthen or shorten the supplied cable unless the aerial manufacturer states that this is OK.
- Care should be taken in cutting and rejoining the cable to ensure that good connectivity is maintained, that the inner and outer coax connections are isolated and that the connections are protected from physical and environmental damage.
- Run the VHF co-axial cables to the AIS Receiver and terminate with the correct BNC connector (Bayonet).
- Run the USB interface cable from the AIS Receiver to a suitable PC computer.
- Do not make any connections yet.

** The USB Interface Standard specifies that USB cables should be no longer than 5m without using a special powered USB extender cable – ensure that the total USB cable length from the AIS Receiver to the PC is < 5m.**

## Installation Step 2

- Use suitable fixings (not supplied) to fix the AISnet to a flat surface – using the dimensions and details shown in the drawing below. Note that the unit may be installed in any orientation.

### Dimension drawing



- Once the unit is secured, connect the AIS/VHF antenna. Ensure the connection is fully made; should feel a slight click as the BNC locks.

## Installation Step 3

- The supplied mains adaptor has suitable plug fittings for Europe, USA and the United Kingdom. Select and fit the plug required for your location. If the AC Mains socket has a switch, ensure the switch is OFF and then plug the adaptor in to the AC Mains socket. If the AC mains socket does not have a switch do not plug in the adaptor yet.
- Plug in the 12v DC Jack plug (2.1mm centre pin positive) into the power socket on the AISnet.
- Plug one end of the RJ45 Cat 5 network cable (not supplied) in to the AISnet and the other end in to a spare network socket on your ethernet network. On small home/office wireless networks, you will probably have to plug straight in to the back of the wireless router.

## Installation Step 4

- In order to setup the network settings on the AISnet or if you wish to display the AIS data that you are collecting locally on a PC, you will need to plug the USB connector in to a PC. Before you do this though please insert the Digital Yacht Software and Drivers CD in to the PC's CD drive
- When you plug in the AISnet USB connector to your PC for the first time (even with the 12v adaptor turned off), Windows should detect the new hardware and install the drivers automatically from the CD. With some older WinXP systems, it may be necessary to guide the found new hardware wizard to the correct folder on the CD, which is the "USB Driver for AIS Units" folder.
- If the found new hardware wizard fails for any reason, you will need to consult the Digital Yacht Tech Note No.00001-2010 "USB Adaptor Drivers" which is available in the Downloads section of our website.

- Assuming that the found new hardware wizard installs everything correctly, Windows will allocate a COM Port number to the adaptor (COM1, COM2, COM3, etc.) and it is this COM Port number that you have to setup in the SmarterTrack Lite software or whatever other Navigation software you are using. To find out what this COM port number is, go in to the Windows Device Manager and check in the “Ports (COM & LPT)” section where you will find an entry called “USB Serial Port (COM?)”, where the question mark is the port number allocated.
- Now you must run SmarterTrack Lite or the other navigation software that you are using and go in to the relevant configuration/setup menu and tell the software port the AIS is connected to and also that the data baud rate is 38,400 Baud – the standard speed for AIS data. The instruction manual supplied with your software should explain how this is configured.

## Installation Step 4

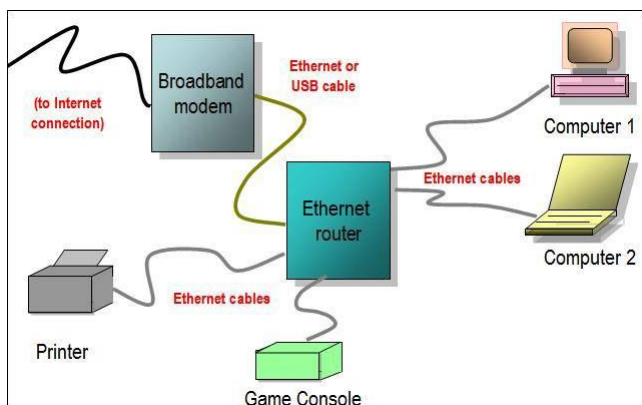
- Apply power to the AISnet by switching on the AC mains socket or plugging the AC adaptor in.
- If there are AIS targets present in your current location, you should now start to see these on SmarterTrack Lite or the navigation software you are using.
- If you are not receiving any AIS targets, you can use Digital Yachts NMEA Data Display Program to check if there is any raw NMEA 0183 data coming out of the AISnet. This free diagnostics program is available for download from our website.
- Once you are receiving AIS data on your PC, the installation is complete and you need to start the network configuration procedure.

## 4. Network Configuration

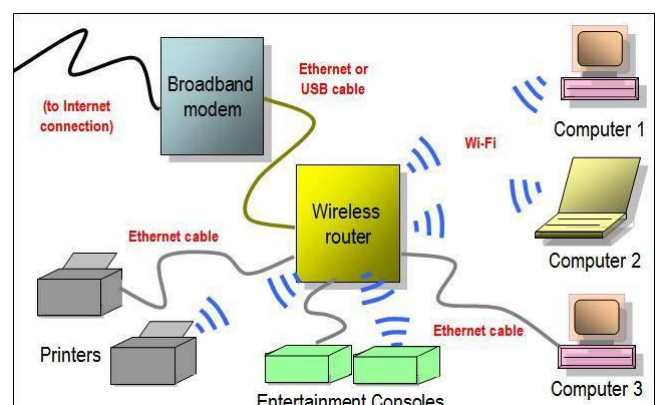
This Quick Start Guide assumes that the reader has some experience of setting up a PC network. If you have an unusual network configuration or you need further assistance in setting up your AIS Base Station please contact;

[paul.sumpner@digitalyacht.co.uk](mailto:paul.sumpner@digitalyacht.co.uk).

Most home or small office networks will be of the two types shown below;



Wired Network



Wireless Network

The above diagrams show a separate “Broadband Modem”, which could be built-in to the router in some installations, and this refers generically to any of the common broadband internet connections i.e. cable modem, ADSL, DSL, ISDN, 3G or even satellite connection.

The most common setup is for the Router to assign IP addresses to the devices that connect to it using DHCP. If this is how your network router operates, then the settings detailed in this document will work. If your network has static IPs, then you will need to allocate an unused IP address for the Base Station.

## Configuring the AISnet Network Settings

Download and install the latest AISnet Configuration Tool (from the Digital Yacht website). When you run this program, you should see the window shown in Fig 1. Click the “search” icon and the program will search for the AIS Base Station. After the search is complete, you should see the Mac Address of the Base Station in the top of the Board List – see Fig 2.

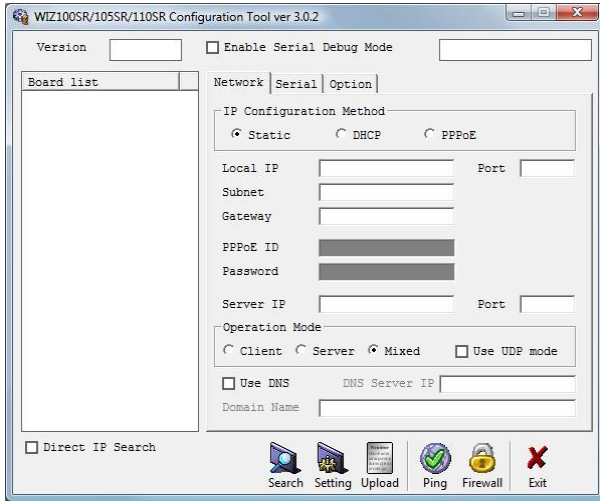


Figure 2

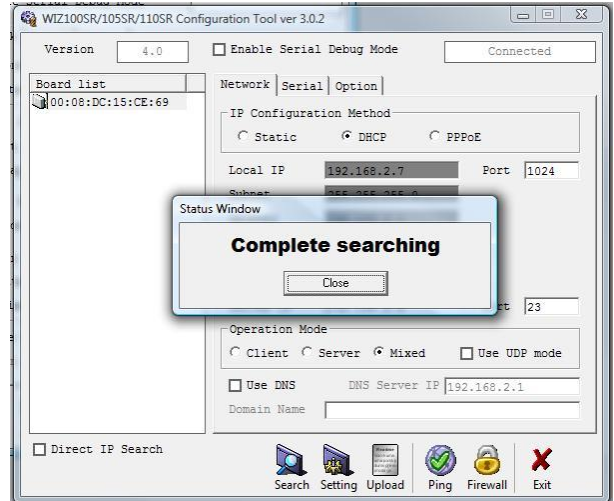


Figure 1

Click “Close” and ensure the IP Configuration Method is set to “DHCP”, operation mode is set to “Mixed” and that the IP address and Port given to you by the On-Line AIS service are correctly set in the Server IP and Port boxes. Refer to Fig 3 for guidance but your IP addresses and Port numbers will probably be different.

Once you are sure that all of the settings have been set correctly, click the “Setting” icon and your settings will be copied in to the AIS Base Station memory.

Now check the website of the on-line AIS service that you wish to send AIS data to. The example below is for Marine Traffic but each service should have a page where you can check that your data is being received.

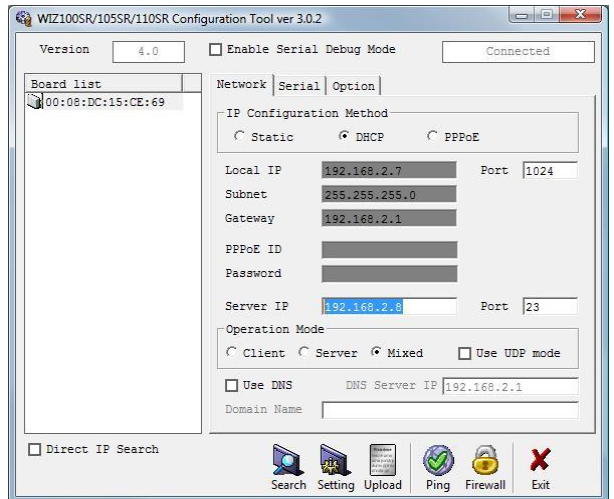


Figure 3

