



AIS – Automatic Identification System

AIS is an automatic vessel tracking system for collision avoidance on sea and for traffic monitoring by the vessel traffic services. The standard was implemented 2000 and binding since 2004 for all merchant ships and vessels longer than 20 m or with more than 50 passengers on board. Since 2008, all vessels with more than **500 BRZ**.

The transceivers on board automatically broadcast this information via VHF. Vessels transmit their unique static (IMO number, vessel name, etc.) and position information (position, course and speed) every few seconds.

They send on two frequencies.

- **Class A** 161,975 MHz (AIS1 87B) for merchant ships and all binding vessels
- **Class B** 162,025 MHz (AIS2 88B) for all other vessels like fishing vessels and pleasure crafts

The distance from ship to ship is at sea normally **20 nm**.

Devices & Hardware

Our AIS receivers are receiving only units, no voice radio certificate is required. The AIS station kit includes the following main components with all cables and accessories.

Antenna Cable

Mounting Bracket

AIS Receiver

Interchangeable Power Plug (US/EU/UK/AU)

Serial-To-IP-Converter



AIS Antenna

Network Cable

Serial Cable

Interchangeable Power Plug (US/EU)

AIS ANTENNA

- optimized for AIS reception 160-164 MHz
- Fibre glass antenna
- 1,26 m length, 0,51 kg
- RG58 antenna cable and tape
- UHF female
- Antenna cable in different lengths avlb.

AIS RECEIVER

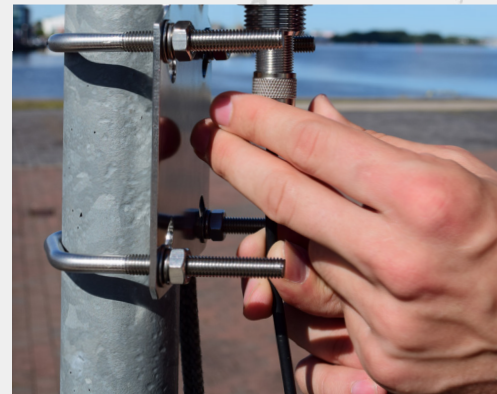
- receiving unit
- Two channel AIS Class A and B reception
- Power input 10 – 16V DC, 50mA
- BNC antenna connector
- includes power supply (110-240V) with adaptors and serial cable
- 102mm x 100mm x 27mm

SERIAL TO IP CONVERTER

- configured for sending the AIS data to FleetMon.com
- includes power supply (110-240V) with adaptors and network cable
- 10Base T Ethernet
- Power input 7,5 – 15V DC, 300mA 7,5V
- 100mm x 72mm x 25mm

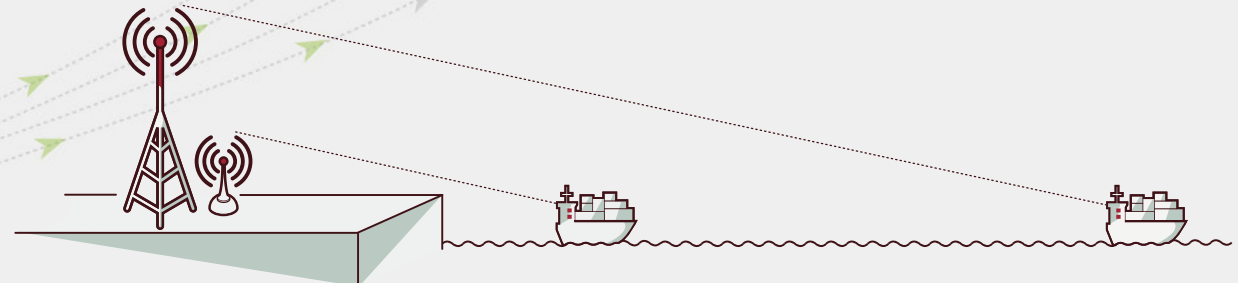
Installation Instructions For AIS Receiver

Mount the antenna with the delivered mounting bracket outside the house on the wall or a pole, with visual sight to the sea and connect the cable through the antenna. Secure the cable against wind or other weather elements when possible. Cover the connection with black tape (included in the package). Please remove the clear backing on the tape before applying.



NOTE

The higher the antenna above sea level, the better the range.

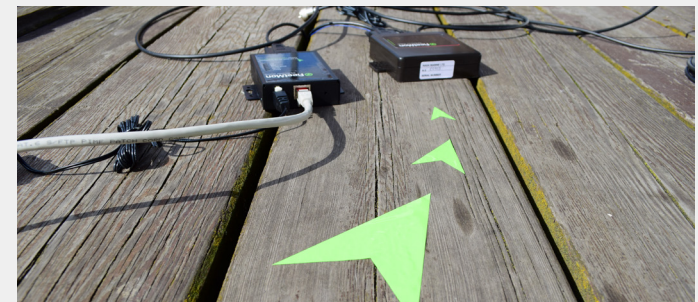


Installation Instructions

Place the AIS receiver and the serial-to-IP-converter indoors and **safe from moisture**. This device is not weather-proof.

Connect the antenna cable with the BNC connector and the power supply to the AIS receiver.

Link the AIS receiver with the serial cable to the serial-to-IP-converter and secure the plug with the screws. Connect the power supply to your power connection and the network cable to your internet connection (either switch or router) and be sure that the cable is securely plugged in. The power supply plug adapter is interchangeable and compatible with different countries (adapters included).



Checking The Devices

On the bottom of the **AIS receiver**, you will find a red and green LED light.
The red LED (POWER) shows that the device is on. If no red light appears, recheck the power connection cable.

The green LED (DATA) blinks from time to time when it receives AIS data. If the green LED does not blink irregularly, check the antenna and the cable connections again.
 Its indicate that we receive no AIS data.



On the front side of the Serial-to-IP-converter you will find **5 LED** lights:

POWER	<ul style="list-style-type: none"> ➤ constant red = ON ➤ If it does not light up, check power connection
READY	<ul style="list-style-type: none"> ➤ The LED only lights when the red data/consol button on the bottom of the device is point on data and is only needed for programing the device ➤ blink green = wait for network connection ➤ constant green, ready for programming
SERIAL Rx/tx	<ul style="list-style-type: none"> ➤ The green LED blinks at the same time as the green data LED on the AIS receiver ➤ If it does not blink, but the AIS receiver blinks, please check the serial cable between AIS receiver and IP converter
LINK	<ul style="list-style-type: none"> ➤ constant green = network cable is connected ➤ If it does not light up, check network connection or change network cable
ACT	<ul style="list-style-type: none"> ➤ Blinking orange = network connection works and is ready to send data ➤ If it does not light up, check network connection or change cable



Checking The Station

Are you sending Fleetmon any AIS data?

In exchange for your station, FleetMon has upgraded you to the AIS partner status and connected your station to your profile. At www.fleetmon.com, you can login to your account and can monitor your stats for the station.

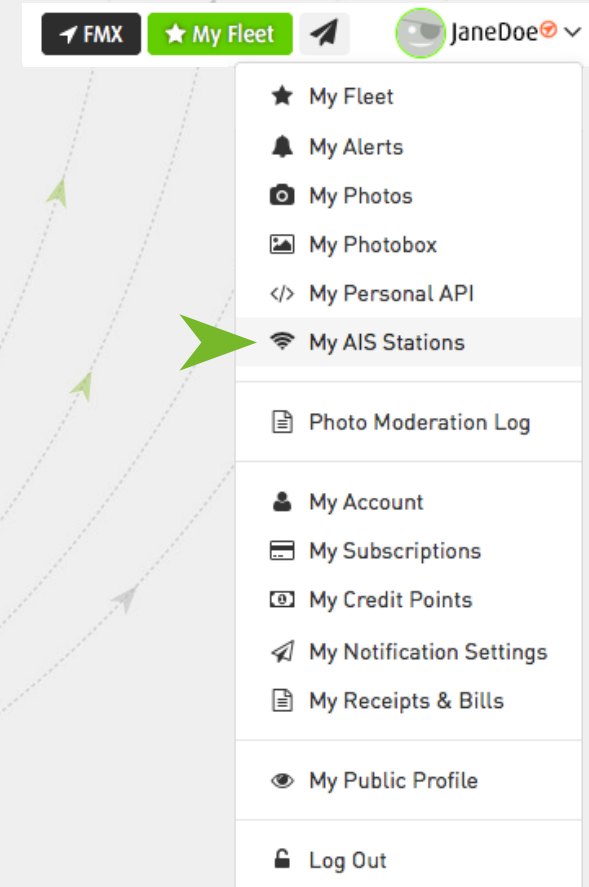
Log in trough your account at www.fleetmon.com and go to „**My AIS Stations**“. Now you can see different stats for the AIS station. If there is no station connected to your profile, please Contact FleetMon support: support@fleetmon.com.

A key stat is the „one day“ statistic where you can see when FleetMon actually receives the data. There is a short delay between receiving the data and the display in the stats, so you may have to wait a few minutes.

If you still do not see any statistics, please check the internet connection and the network cable. Diconnect the power supply from the Serial-to-IP-converter, wait for **20 seconds** and connect it again.

The serial-to-IP-coverter sends the AIS data via TCP to our IP address **148.251.96.197**, and your individual port number. Please make sure that you dont have any restrictions in your firewall.

Please check the statics again. If you cannot solve the problem, please contact Fleetmon support: support@fleetmon.com.



The screenshot shows the top navigation bar of the FleetMon website. It includes a 'FMX' button, a 'My Fleet' button with a star icon, and a user profile for 'JaneDoe'. A dropdown menu is open, listing various user options. The 'My AIS Stations' option is highlighted with a green arrow pointing to it from the left. Other options include 'My Alerts', 'My Photos', 'My Photobox', 'My Personal API', 'Photo Moderation Log', 'My Account', 'My Subscriptions', 'My Credit Points', 'My Notification Settings', 'My Receipts & Bills', 'My Public Profile', and 'Log Out'.

- FMX
- ★ My Fleet
- JaneDoe
- ★ My Fleet
- 🔔 My Alerts
- 📷 My Photos
- 🖼️ My Photobox
- </> My Personal API
- 📶 My AIS Stations
- 📄 Photo Moderation Log
- 👤 My Account
- 📅 My Subscriptions
- 💰 My Credit Points
- 🔔 My Notification Settings
- 📄 My Receipts & Bills
- 👁️ My Public Profile
- 🔒 Log Out

Questions

HOW MUCH DATA DOES THE AIS STATION SEND?

The AIS station sends approximately **10MB** a day, when you are located near a major vessels traffic area.

CAN THE STATION ALSO TRANSMIT DATA?

No. The AIS station is a receiving only device and no voice radio certificate is required.