flightradar24
LIVE AIR TRAFFIC

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Installation Guide

Flightradar24 AB

www.flightradar24.com

Thank You

Thank you for agreeing to host a Flightradar24.com Mode-S receiver and be part of our team of data providers.

We're now arranging shipment of the equipment which may take between 1 and 4 weeks to arrive. For some remote destinations it could take longer.

We will confirm shipment as soon as it's been dispatched. We may have to send some equipment separately. We will let you know the shipment and tracking details.

For customs purposes the consignment is sent with documents stating:

"Reason for Export: Loan – goods remain the property of Flightradar24 AB. Free sample for testing purposes."

The invoice value is shown as Euros 68.70.

Equipment

The equipment remains the property of Flightradar24 AB and we will cover the cost of returning it should the need arise.

Please check the contents of the parcel as soon as it arrives to confirm everything is included.

The consignment(s) will include:

Item	Description	Dimensions
Mode-S Receiver	**Flightradar24 Mark II** *SMA antenna connector* *SMB GPS antenna connector* *Ethernet RJ45 connector* *Power Socket*	100x60x30mm
Power Adapter	To power the receiver *Country adapter supplied*	Line voltage 100v to 240v AC 10 watts
Ethernet Cable	To connect the receiver to the router	5 metres cable
GPS Antenna & Cable	Connected to the receiver and placed outside	5 metres cable
External Antenna	Mode-S Antenna with Mounting Bracket & Pole Clamps	Length 38cm Weight 325g
Antenna Cable	Low loss H155 coax with SMA/N-type male connectors	6mm diameter 5 or 10 metres long

Figure 1 - Receiver Pack, Excluding Coax and Antenna

Figure 2 – Flightradar24 Receiver

Figure 3 – Mode-S Antenna and bracket

Figure 4 – GPS Antenna

Figure 5 – H155 Coax cable

Figure 6 - Receiver Power Supply

Figure 7 - Ethernet Cable

Setting Up

Please make sure you have received everything listed above and send us an email to confirm it has arrived safely. Please quote your application reference and email Support@FR24.com.

If anything is missing or damaged please let us know immediately.

You should set up everything as soon as possible. If you can't do this within 7 days, please let us know.

The Mode-S antenna needs to be positioned externally as high as possible with an unobstructed view of the sky in all directions. You may need to use self-amalgamating tape to weather proof any exposed connections.

Connect the N-type coax cable to the antenna and bring it indoors to where you will place the Flightradar24 receiver. Connect the SMA end to the receiver.

Connect the GPS antenna to the receiver and place the antenna outside and in view of minimum of half the sky. A window sill should be OK in most situations.

Connect the power supply to the receiver and your wall socket. The power consumption is just 5 Watts.

You must only use the 5 volt power adapter supplied by us.

Connect the receiver to your router using the Ethernet cable.

Turn on the power and let us know when you have done so.

We will then confirm that we're receiving your data.

At the front of the receiver are three LEDs, clearly marked.

Figure 8 – LEDs

Power Steady **Green**

Mode-S Should flicker non periodic in **red** when aircraft data is received. It also blinks each second in order to indicate a heartbeat. If it does not flicker and you are sure there is air traffic around, something is wrong with your antenna.

GPS Should flicker once per second. **Green** is OK, **red** may indicate a problem. Occasionally the LED may turn red if the GPS synchronization is slightly off. This is normal but if the LED flashes red continuously there may be a problem with the GPS antenna.

Figure 9 - Rear of Receiver

Figure 10 - Connections

Feeding Data

Everything is pre-installed and pre-configured. Just connect the receiver to your router and it should immediately start sending us data.

You do not need a computer or use additional software.

There is no need to use the Flightradar24 feeder software.

Depending on your local traffic, the receiver will typically upload 40MB per 24 hours to the Flightradar24.com servers.

In locations where MLAT plotting is more prevalent, the uploaded data can be higher, averaging up to 300MB per 24 hours. MLAT will be more prevalent in dense traffic areas where aircraft don't transmit positional data. For example, in or near larger cities in the USA and close to major airports in Europe. Please bear this in mind if you have a monthly Internet upload limit.

Hardly any data will be downloaded.

The Flightradar24 receiver is an advanced and proven product. However, there may be times when it stops functioning and may need a restart. What's more likely is a local power outage, Internet disruption or the router assigning a new local IP address range. We constantly monitor the data upload and will let you know if the connection has been down for more than 6 hours. You may need to access the installation to diagnose any issues so please bear this in mind.

You can easily check the receiver's performance in your free ***Premium*** account under **Your Feeds -> More Info**. Here you can also view the receiver's range and uptime performance.

We will provide on-going technical support and will continuously work with you to ensure your receiver delivers the optimum range and data.

We expect you to run the receiver 24x7x365 and ask that you notify as soon as possible if, for any reason, this can't be achieved.

By accepting our equipment you agree to **NOT** feed data to other aircraft tracking providers.

In return we will provide you with a free subscription to Flightradar24.com ***Premium*** for as long as you continue to upload your local data.

Should either of us choose to cancel the arrangement, we will cover the cost of shipping all the equipment back to Flightradar24.com or another address.

The equipment remains the property of Flightradar24 AB trading as Flightradar24.com

Firewall

In case you are behind a Firewall, you need to open the following **Outgoing Ports** in order for us to receive data. Your receiver will appear offline to us and we won't receive any data if you are behind a Firewall and the mentioned ports are not opened.

80 TCP, 22 TCP, 443 TCP, 19788 UDP/TCP, 8099 UDP/TCP, 53 UDP/TCP

Note:
Please note that the receiver will not appear online the moment you switch on and connect it to the internet. It could take up to a few hours before you see it online. So, if you think that you have connected everything properly, then please wait till your receiver is activated.

Check List

1. Parcel contains all items (see Page 1)? ☐

   Mode-S antenna, coax cable, receiver, power supply, GPS antenna, Ethernet cable?

2. Mode-S antenna placed **outside** in optimum position as high as possible? ☐

3. Coax cable connected to antenna and weather proofed? ☐

4. Coax cable attached to the receiver? ☐

5. GPS antenna cable connected to the receiver? ☐

6. GPS antenna placed **outside** with a view of a minimum of half the sky? ☐

7. Ethernet cable attached to the receiver and your router/modem? ☐

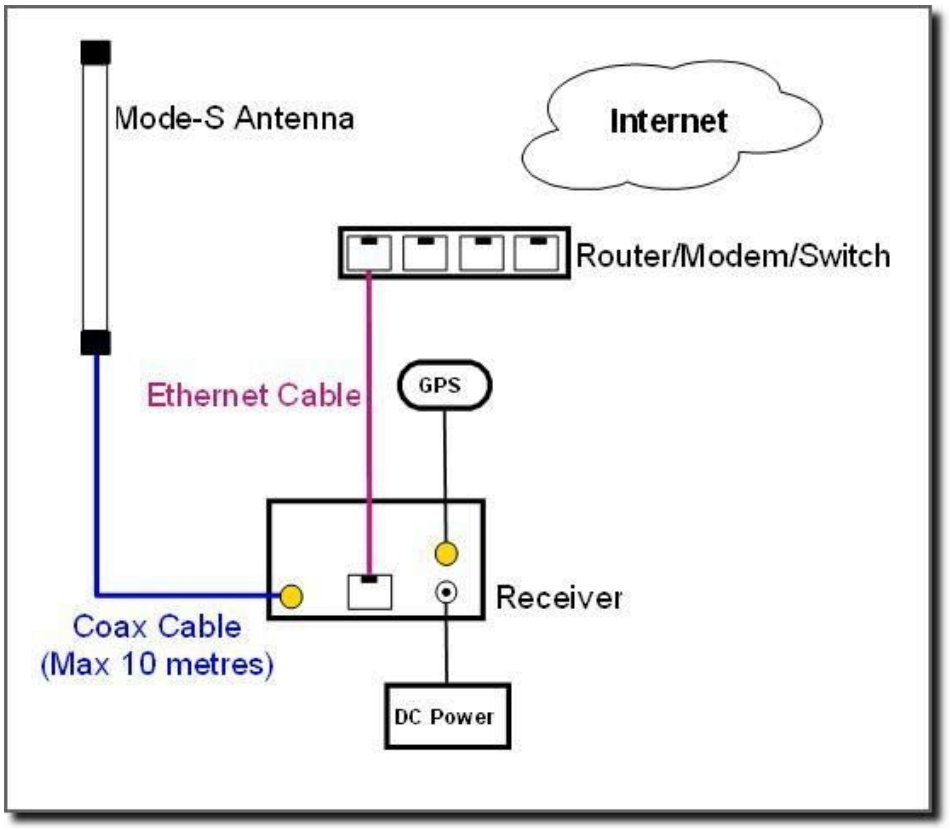
8. Receiver powered up using the supplied power adapter? ☐

9. Check LED lights – Mode-S blinking red, GPS blinking green? ☐

10. Contact Flightradar24 Support to check your data is being received? ☐

If you have any questions or need help please email:

Support@FR24.com


Mode-S Antenna
Internet
Router/Modem/Switch
Ethernet Cable
GPS
Receiver
Coax Cable
(Max 10 metres)
DC Power