



flightradar24
LIVE AIR TRAFFIC



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The Flightradar24.com Receiver

Flightradar24 AB

www.flightradar24.com



Flightradar24 offers a free receiver pack for locations that can significantly add extra coverage.

Our pack includes:

- The Flightradar24 Mode-S/ADS-B receiver and power supply
- External Mode-S antenna, 38cm long with pole clamp
- Low loss coaxial cable from antenna to receiver
- Ethernet cable from the receiver to your router/modem
- GPS antenna and cable for precision data

Our receiver decodes the aircraft data and transmits it to the Flightradar24 servers without using a local computer. This allows the receiver to be online 24 hours a day, 365 days a year.

Things to Consider

Your Experience

Although not essential, if you've used amateur radio or are interested in aviation this will be an advantage. A good level of PC knowledge will be helpful although our receivers are self-contained and don't need a PC to operate.

Your Location

The UHF Mode-S 1090MHz frequency is “line of sight” and the best installation is far away from buildings, trees or high ground that could block the aircraft signals.

Geographical location is important too. Those near airports will contribute more data as they will pick up signals from arriving and departing aircraft as well as those transiting at higher altitudes.

Siting the Mode-S Antenna

The higher the antenna, the better the reception. If the receiver can be located close to the antenna, there will be less signal degradation from the coax cable which loses data over a long cable run. We don't recommend a coax length of more than 10 metres.

Placing the antenna outside, as high as possible is essential. An internally positioned antenna will not produce good results.

Some landlords or local authorities may prohibit the installation of an external antenna. Please check before completing the application form.

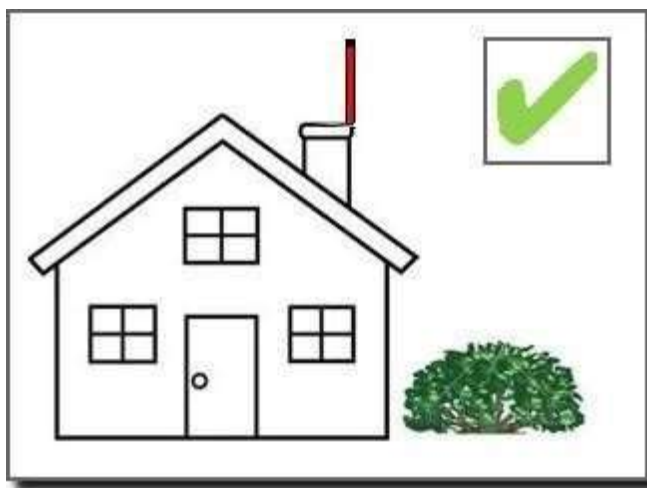


Figure 1 - Good Position



Figure 2 - Bad Position. Roofline and Trees Block Data

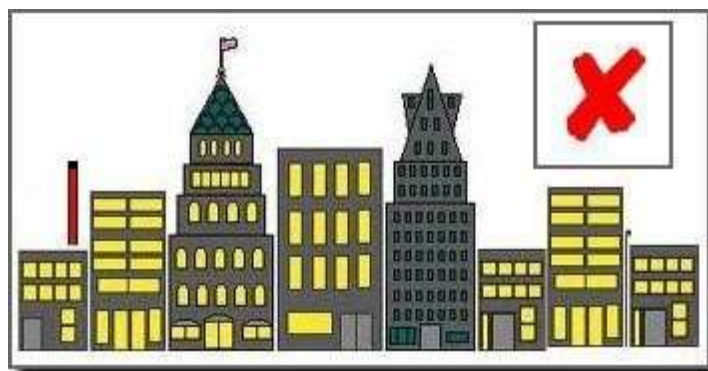


Figure 3 - Bad Position. Buildings Block Data

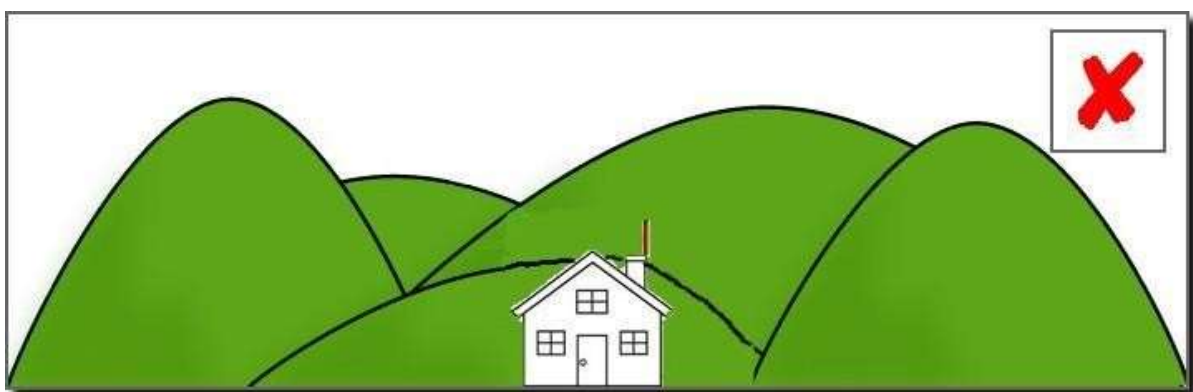


Figure 4 - Bad Position. Hills Block Data

The Flightradar24 Receiver

Our receiver has been developed to our own specification and has many unique features. It should be placed inside or within a weather-proof enclosure and kept online 24x7.

Everything is pre-installed and pre-configured.

No computer or additional software is needed.

Mode-S Antenna

We supply an external antenna, 38cm long, for mounting on a pole or to a wall using the supplied bracket. Our low-loss coax cable is supplied to an agreed length of 5 or 10 metres. A short cable length is best and 10 metres is the maximum for optimum performance. The cable is 6mm in diameter with an N-type connector for the antenna which should be weather sealed with self-amalgamating tape. The other end is connected to the SMA connector on the receiver.

Please consider how you will bring the 6mm coax cable inside. You may need to drill a hole.

GPS Antenna

The receiver includes an external GPS antenna which must also be placed outside and in view of at least half the sky. The antenna has 5 metres of thin RG174 style cable.

Internet Connection and Power Supply

The Flightradar24 receiver is connected via Ethernet cable to your Internet router/modem or access point.

The receiver will need a nearby power outlet for the supplied adapter. It must be left powered and connected to the Internet 24x7. Power consumption is just 5 Watts.

You must only use the supplied adapter.

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.

Downtime

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 or 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.

Our Agreement

If we approve your application we'll arrange to ship all the required equipment to you as soon as possible, insured at our cost and tracked. We will send you shipping details with tracking and you will be required to sign for the parcel.

Typically we would expect you to be uploading data within 7 calendar days following delivery.

We will provide on-going technical support and will continuously work with you to ensure your receiver delivers the optimum available 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 **NOT** to feed the receiver data to other aircraft tracking providers.

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

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

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

Our Receiver Pack

The receiver pack includes everything you need to get up and running.

Item	Description	Dimensions
Mode-S Receiver	Flightradar24 Mark I <i>SMA antenna connector</i> <i>SMB GPS connector</i> <i>Ethernet RJ45 connector</i> <i>Power Socket</i>	100x60x30mm
Power Adapter	To power the receiver <i>With country specific plug</i>	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 and Pole Clamps <i>1090 MHz</i>	Length 38cm Weight 325g
Antenna Cable	Low loss H155 coax with SMA/N-type male connectors	6mm diameter 5 or 10 metres long

Images



Figure 5 – Flightradar24 Receiver



Figure 6 – Mode-S Antenna



Figure 7 - Ethernet Cable



Figure 8 - H155 Coax Cable



Figure 9 - GPS Antenna



Figure 10 - Receiver Power Supply

