

Freesat Dish with Quad LNB complete with Installation Kit

The kit comprises of:

43cm Freesat satellite dish complete with wall mounting bracket.
Quad LNB to connect up to two HD PVR freesat satellite receivers that have twin tuners, or four SD freesat satellite receivers or a combination of both. Also used with Sky satellite receivers.

(LNB has pull down cover to protect F connections)

4 off satellite dish wall fixings
25metres of double screened high quality twin WF65 satellite cable
Box of cable clips
4 x Screw on F Plugs



Method

You should align the dish carefully onto the Astra 2/Eurobird satellites that carry all the freesat TV and radio channels. These are the same satellites that are used to receive Sky TV. The freesat dish will need to be correctly aligned to an accuracy of better than half a degree!

The satellites are located between 28.2 - 28.5 degrees east of due south. Use a compass to assist you and with the needle pointing due south (180 degrees) note the direction you are standing with the compass in front of you.



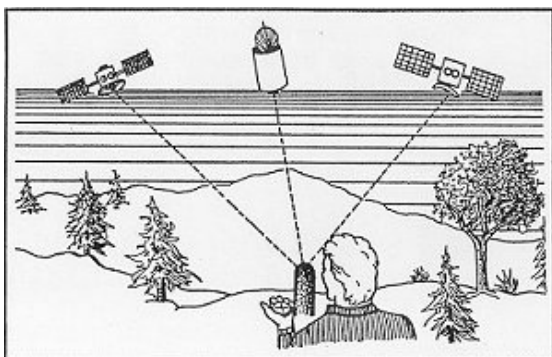
Now re-adjust the compass setting to 150 degrees. Turn your body around to this new position. You are now standing at an approximate direction (30 degrees east of due south) to the satellites we require.

For the techies amongst you this is known as the azimuth direction. Bear in mind that this is a magnetic direction which may be several degrees out in practice. But it's fine for the moment.



The Elevation up to these particular satellites is the other angle we need to know. In the south of England this is around 25 degrees up from horizontal, in Scotland around 20 degrees. All TV satellites are located above the equator.

The nearer you live to that region the higher the angle of your satellite dish.



Now you know the approximate angle and compass bearing to the satellite you can make sure there are no obstructions in the way.

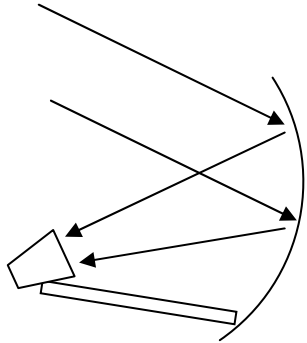
There must be a complete clear line of sight to the satellites.

Use a simple protractor to look up in the direction of the satellites (borrow one from the kids). No tree branches or anything in the way.

In practice the dish can be fitted at any height even in a flower bed - yes we've done that - even sprayed them green! (Non metallic paint please).

The important point - **nothing** in the way up to the satellite.

The signals from the freesat satellite are beaming down to us on earth at an angle of between 20° and 25° (depending where you live) 20 degrees in Scotland and around 25 degrees in southern England



Side view of offset dish which shows the reflector only a few degrees from vertical

Signals from satellite 23,000 miles above equator

Quad LNB (4 outputs)
To connect up to 2 HD PVR freesat satellite receivers or 4 SD satellite receivers



'Offset' satellite dish. Most common type in use today

The satellite dishes used are what are known as the Offset type. The LNB (Low Noise Block) is not in the middle of the reflector as with a prime focus dish but at an offset angle. What this means in practice is that to the eye, the dish reflector will appear to be looking at a very low angle (2 or 3 degrees) whilst in fact the offset angle of the LNB will cause the dish to look at a greater angle say 25 degrees (for the south of England).

The dish must be firmly fixed - not swinging on a pole in the wind - you will lose the satellite signal! Looking at your neighbours Sky satellite dish position will give you an idea of the compass bearing to the satellites.

Use a spirit level placed at right angles on the LNB arm. This will help you during installation to make sure the satellite dish and wall bracket, or pole, are level. This is important and helps in the alignment of the LNB with regards to its skew angle - see below.

Aligning the satellite dish

You could bring the telly and satellite receiver outside and place near the dish as you try and adjust it to get a picture - but not a very safe or accurate way of doing it.

We suggest either employ the services of an expert with a satellite meter to align it for you, or purchase the meter shown on the product page. One last point the LNB on the end of the dish arm can be turned and should be adjusted for the right 'skew'. This will make sure that the vertically and horizontally polarized signals from the satellites are received in the correct plain.



To help with setting the Skew angle of the LNB there are numbers engraved on its feed horn. The LNB can be turned in its holder. Set as follows:

Most of UK, Northern Ireland, most of Scotland Position 3 (as shown)
Cornwall and Southern Ireland Position 2
Eastern side of Scotland north from Aberdeen Position 4

The F connectors are protected from the weather by a pull down cover at the bottom of the LNB. This prevents having to use self amalgamating tape or rubber boots.

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