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New Zealand's Leading Supplier of Digital Television Equipment

Basic DIY Dish Alignment Guide Using the SF95 Meter



This guide is only a basic outline of the steps required. If you feel the aligning of your satellite dish requires a skilled professional please contact your local installer.

Whilst much of what is written here applies also to C Band dish installation, C Band dishes are much harder to install correctly and this brief guide is not specifically for C Band installations. Primarily this guide covers aligning a newly installed dish for Freeview. It will also be useful if your dish has moved in the wind and needs realigning.

1. This step begins after you have installed your satellite dish and fitted the LNB. Set the LNB so the F connector faces the 8 o'clock position if you were looking into the dish like a clock face. This means you are looking at the back of the LNB with the F connector (where the cable connects) at 8 o'clock. Tighten the LNB holder.
Make a rough adjustment of the dish by using a compass to align it to the compass setting required for your area. Also set the elevation using the scale on the dish or using an inclinometer. The compass setting and elevation for the satellite Freeview uses is in the table on page 2. Just use your nearest town.

2. The SF95 meter comes with a short length of coax cable with F connectors fitted. Connect this cable between the LNB and the 'LNB' connection on the SF95 meter.

3. Make sure your satellite receiver is turned off, and then connect the cable from your satellite receiver to the 'REC' connection on the SF95 meter. You now have your SF95 meter beside your dish, connected in the cable line between the dish and your receiver. Turn your satellite receiver on and choose a channel that you know is on the satellite you wish to receive. For example if you are aligning your dish for Freeview select TVOne.

Please note that using the SF95 meter for dish alignment requires that your satellite receiver is already tuned to the service you wish to receive. If your receiver is new and untuned, simply take it to your friend or neighbour, connect it up and tune it in, before completing your installation.

4. Set the dB control knob on the SF95 meter so that the meter reads about halfway. The scale on the meter does not directly refer to any professional dB level reading. The SF95 meter is a peak meter, allowing you to find the strongest signal with your dish. This is sufficient to set your dish up correctly. Stay to one side of or behind your dish so as not to block the signal, just reach your arm out to adjust the meter when needed.
5. Make fine adjustments of your dish from side to side to find the peak of signal. You will not need to move it much as you have already aligned it with your compass. Keep the bolts of the dish finger tight to stop the dish moving by its own weight. Remember that a tiny movement of the dish is big movement of the arm that the LNB is on. Also make slight adjustments up and down to peak the signal.
6. Once you have a signal peak, have someone check on your TV to see if you have the correct satellite. You should have the channel that you selected. If you do, turn the dB knob down until the meter reads halfway again and redo your adjustments, very carefully and finely, to ensure you have the strongest signal. Then tighten up all the bolts.
7. If you are having trouble finding the satellite at all it is often best to start fresh and reset the dish using the compass and elevation as in step 1.
8. Once you have a good signal peak on the correct satellite you now need to fine tune the LNB. As per step one you have already set your LNB to the 8 o'clock position. Now loosen the LNB holder screw just enough so you can rotate the LNB. Adjust your meter to read halfway on the scale. Now rotate the LNB anti-clockwise until the meter drops. Now rotate it clockwise until the signal drops. Find the middle peak and tighten up the screw.
9. Check that you have good signal on your satellite receiver. Turn it off. Double check that all the dish bolts are tight. Disconnect the SF95 meter and cable. Connect the cable from your satellite receiver directly to the LNB.

If you are replacing a faulty LNB on your satellite dish you will only need to follow steps 2, 3, 8 and 9. Do not adjust the dish itself as it will still be correctly aligned.

Area	Compass	Elevation
Kaitaia	319.3	46.8
Whangarei	317.6	45.8
Auckland	316.9	44.4
Thames	315.6	43.9
Hamilton	316.0	43.4
Rotorua	314.5	42.7
Gisborne	311.8	41.4
Hastings	313.5	40.9
Palmerston North	315.2	40.6
Lower Hutt	316.1	40.0
Wellington	316.3	39.9

Area	Compass	Elevation
Picton	317.4	40.2
Blenheim	317.5	39.9
Westport	321.0	40.3
Arthur's Pass	320.5	39.1
Christchurch	318.8	38.2
Timaru	319.9	37.5
Oamaru	320.7	36.9
Dunedin	321.0	36.2
Invercargill	323.9	36.0
Bluff	323.8	35.7
Stewart Island	324.1	35.4