

USER GUIDE

LNB Installation Guide



Please read and understand the contents of this instruction **before** attempting to connect or use the system!

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1. Description

This Mounting instruction is written to help you to avoid some trap one can fall in to during installation of an LNB. Please, read carefully to understand all important things to consider about.



Fig. 1 LNB Input DC Voltage

NOTE! Make sure that the DC Voltage is minimum 12 VDC at the LNB input. Please consider voltage drop in a long cable.

2. Safety

WARNING!

Make sure that the antenna system is grounded to earth to avoid potential voltage that can be discharged through the LNB.

WARNING!

Avoid to install the coaxial cable to the LNB along cable ladders with high voltage cables to minimize the risk of induced voltage into the LNB cable.

NOTE! If 230 VAC cable and LNB cable are close up along a cable ladder there can be hazardous voltage for the LNB!

WARNING!

Read carefully the datasheet and on label about DC voltage to the LNB. Both too Low or too High voltage can affect the functionality. (Fig 1).

NOTE! Too High Voltage can damage the LNB.

WARNING!

There are no customer serviceable parts inside, refer service to the SMW factory.

3. Installation instructions

Unpacking

Please check the contents of your shipment upon receipt towards the packing list supplied and notify us immediately if you feel that something is missing.

Mounting

Always use the attached screws and O-ring when mounting the LNB to the antenna feed system, any other means of mounting may void the warranty, Fig 2.

The system components are weatherproofed and designed for operation in temperatures between, -40 to +80°C but to avoid water impact to the coaxial cable connector we recommend to protect with rubber seal tape, see Fig. 3.

LNB waveguide input is not waterproof ie **MUST BE** protected from moisture and water in the feed. Protection can be achieved by use of a pressure window.

NOTE! If the LNB has more than one connector and the other connector(s) are not used, the weather protecting covers on the LNB shall not be removed before installation and unused connector(s) shall be remained protected with cover(s) (Fig. 4).

However, for extreme environments such as close to corrosive salt/sea water or elevated installation in antenna towers where IP67 class protection can be deemed insufficient, it is recommended that appropriate action is taken to ensure reliable operation and longevity.

NOTE! Never mount waveguides with gasket flanges to each other! See Fig. 5. If this is done, there will be water leakage and that will damage the LNB.

Application assistance

Your first line of technical support would be to take advantage of SMWs vast knowledge and experience. Please feel free to contact us at an early stage for free advise on your application before you place an order. You'll find our contact details on the back of this User Guide. We welcome your enquiries.

- DC-power sizing:
Although we recommend that you use power supplies as recommended in our quotations, a detailed calculation to help you with your choice of power supply rating and voltage drop over distance.
Please contact us for information.



Fig. 2 Mounting screws and O-ring



Fig. 3 LNB with N connector and rubber sealed.



Fig. 4 Weather protection cover.

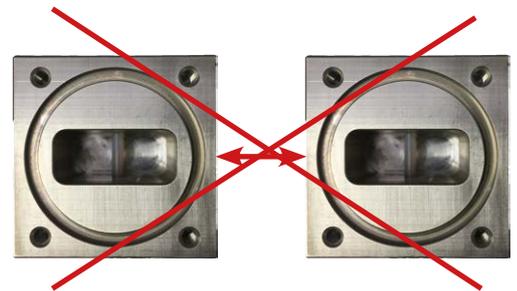


Fig. 5 Waveguide gasket flanges with O-ring.

Service

There are no user serviceable parts inside.
For factory service, contact SMW for an RMA number before returning any material, send an email to info@smw.se
Materials returned without an RMA number will be refused.
Standard warranty is 36 months.

4. Troubleshooting

First of all, make sure that the LNB input has correct DC voltage. If there is a long cable feeding the LNB with power that give as an result that DC has dropped under the critical value, it may happen that the LNB will be unstable or not work at all. As an example a WDL LNB can work on the "Low band" output but not on the "High band" output if the DC Voltage is too low.

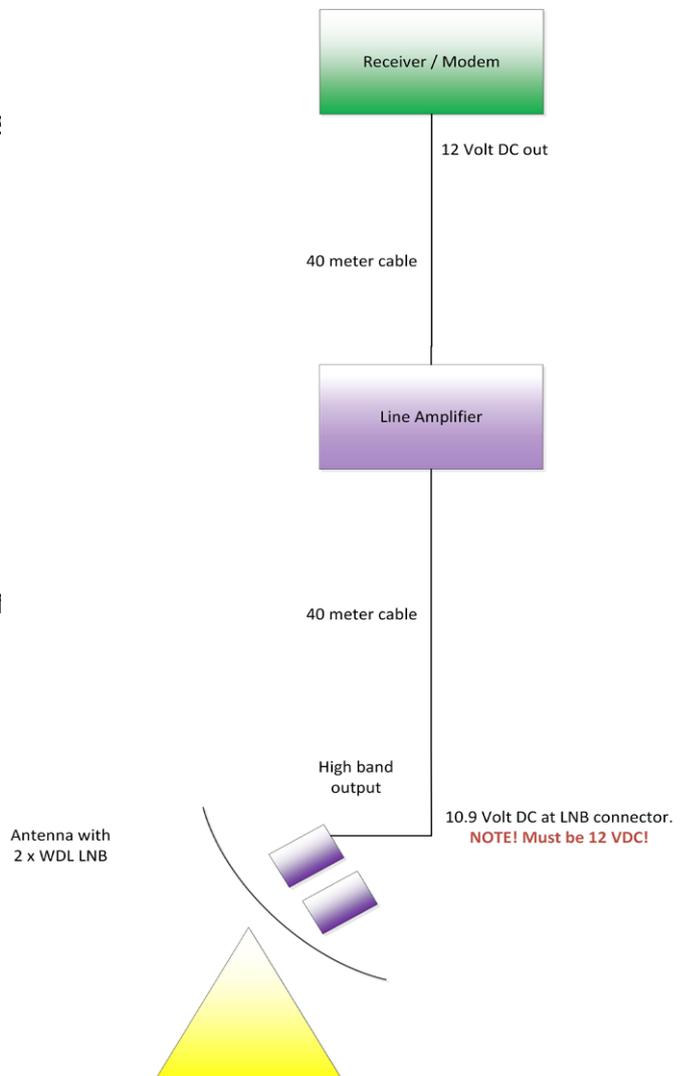
If the DC Voltage is OK but still a problem with the received signal, then check if there is any line amplifiers or other products installed between the receiver and the LNE and make a pass through of the signal to eliminate that the problem has not to do with those items.

If the LNB is a switchable LNB (2-band or Q-PLL), make sure that switching voltage has correct level at the LNB input and if switching with 22 kHz tone is used, that there is nothing in between the receiver and the LNB that can affect the 22 kHz tone in a negative way.

Next thing is if the LNB is installed in a large antenna (>1,7 meter) and is a DRO type, the LNB can be saturated and will then not give the calculated output level or a distorted signal out. As a rule of thumb one can say that antennas larger than 1,7 meter shall be used together with a PLL LNB. It is also important to consider the gain of the LNB as big antennas may need a LNB with low gain.

Please contact us for assistance or for help with calculate the link budget.

Installation example





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