NZSAT®
Mini-AUTO

NZSAT Mini-AUTO

User Manual

1 Introduction

1.1 Safety Information

Please read the user manual carefully before you start the installation. If you have already installed similar products, the procedure may not be the same as for this product.

- Improper handling can cause serious damage to this device. Those responsible may also be held responsible for any resulting further damage to the equipment.
- Please check the correct operating voltage of your power supply before commissioning. Please refer to the specification in this user manual for the operating voltage of the device.
- The (IDU-In Door Unit) must not be exposed to dripping water, splashing water or other liquids.
- Do not let children play with foils or other packaging materials, there is a danger of suffocation.

1.2 Items included in box.

- 1 x NZSAT Mini-Auto Dish, (ODU-Out Door Unit)
- 1 x Control unit with power cable (IDU-In Door Unit)
- 1 x Coaxial cable (1M)
- 1 x Coaxial cable (10M)
- 1 x Roof cable entry plate
- 1 x User manual

1.3 System components

[!] Warning

Only use the baseplate to lift the main unit out of the box.

Open the carton and remove the (IDU-In Door Unit), connection cable, and packing material. Lift the NZSAT Mini-Auto Dish straight up out of the box. Never turn the system upside down.

- NZSAT Mini-Auto Dish (ODU-Out Door Unit)

  The high-performance dish and the elevation angle of 15 to 62° allows the best possible operation.

- NZSAT Mini-Auto Dish (IDU-In Door Unit)

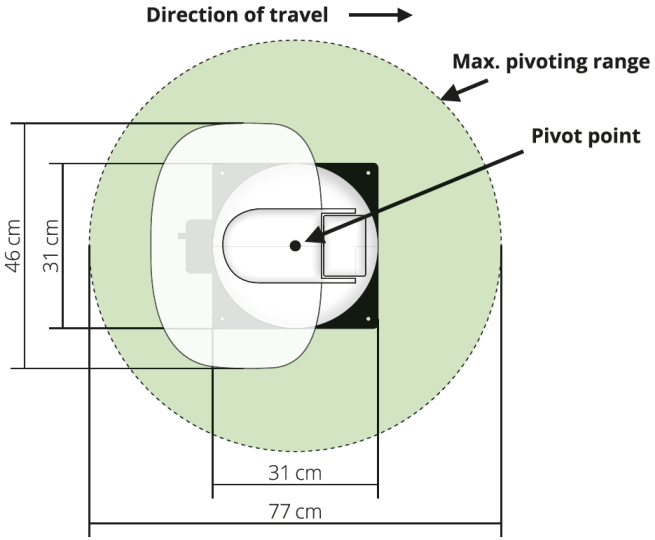
  This IDU control unit is used for satellite selection and control. It is connected between the Dish and TV or Decoder and supplies the dish with power. After successful alignment, the (IDU=In Door Unit) can be switched off.

2 Installation

2.1 Installation on the roof

As a matter of principle, the installation should be carried out by a specialist dealer or specialist workshop. Please also note that the vehicle height changes due to the NZSAT Mini-Auto Dish. Please strictly adhere to this point of the installation instructions.

Mounting Dimension



General information

Provide a suitable workplace, a garage is better than an outdoor place. The ambient temperature for installation must be between 5℃~25℃. Do not work directly in the sun. Observe the work regulations when handling chemical products. Ensure the necessary work hygiene.

Preparation

① Make sure that the roof over your vehicle is sufficiently stable. If the roof stability is insufficient or doubtful, attach an approximately 2mm thick sheet metal plate measuring approximately 440 x 440mm to the outer skin of the roof. Please ask your vehicle manufacturer for more information.

② Check that all parts are present.

③ Place the NZSAT Mini-Auto Dish on the mounting place and align it so that the dish and the LNB point towards the rear of the vehicle. Ensure that the mounting surface is level and flat and no structures are in the way. Please check the mounting dimensions in this user manual. Make sure the area is clear enough for the full rotation of the dish.

④ Clean the mounting surface with a suitable cleaner to remove dirt and impurities. Then Mark the NZSAT Mini-Auto Dish base with a pen.

⑤ Slightly roughen inside the drawn surfaces and feet with sandpaper and clean the surface again with the cleaner and allow the cleaner to evaporate off for about 10 minutes.

⑥ Mount the roof cable entry plate (this should face backwards) on the vehicle roof. Make sure that the penetration of water and moisture into the drill hole is avoided. Make sure that the cables are not bent too much to avoid signal loss and damage to the cable.

2.2 Gluing Instructions

① Prepare the adhesive for mounting.

② Now apply the adhesive to the underside of the NZSAT Mini-Auto Dish baseplate in serpentine lines so that the adhesive cures well all the way inside.

③ Now immediately place the NZSAT Mini-Auto Dish on the marked field. Press the foot lightly and evenly and fix the NZSAT Mini-Auto Dish so that it does not slip, e.g., with adhesive tape. There must still be at least 2 mm of adhesive between the NZSAT Mini-Auto Dish foot and the surface after pressing on.

④ Remove any leaked adhesive immediately with a spatula or similar and clean the surfaces.

⑤ For safety reasons, we recommend a mechanical fixing as well.

⑥ After the hardening of the adhesive, a silicone joint can be drawn around the edge of the metal baseplate only.

2.3 Indoor Installation

① The coaxial cable is laid inside the vehicle.

② When choosing the location for the (IDU-In Door Unit) and the STB/Decoder, ensure that both devices stay dry and protected.

③ Do not place the (IDU-In Door Unit) and satellite receiver near heat sources and ensure sufficient ventilation.

④ The basic connection options for the NZSAT Mini-Auto Dish are shown below;

Connect the power supply for the (IDU-In Door Unit) to your RV battery via a fuse to prevent cable fire in the event of a short circuit. The yellow cable (optional) is connected to the Ignition positive of the vehicle and is also protected by a 7amp fuse. The remaining black cable is connected to the corresponding negative pole of the Ignition system.

Connect a coax cable from the NZSAT Mini-Auto Dish to the ANT input on the (IDU-In Door Unit).

Connect the TV or STB/Decoder via a coax cable to the STB connection on the (IDU-In Door Unit).

2.4 Connection of the components

Ignition positive (optional)

The NZSAT Mini-Auto Dish moves to the retracted position as soon as the Ignition key is turned. This function only operates if the control unit is switched on and cable 4 is connected to the negative pole and cable 5 is connected to the Ignition positive of the vehicle.

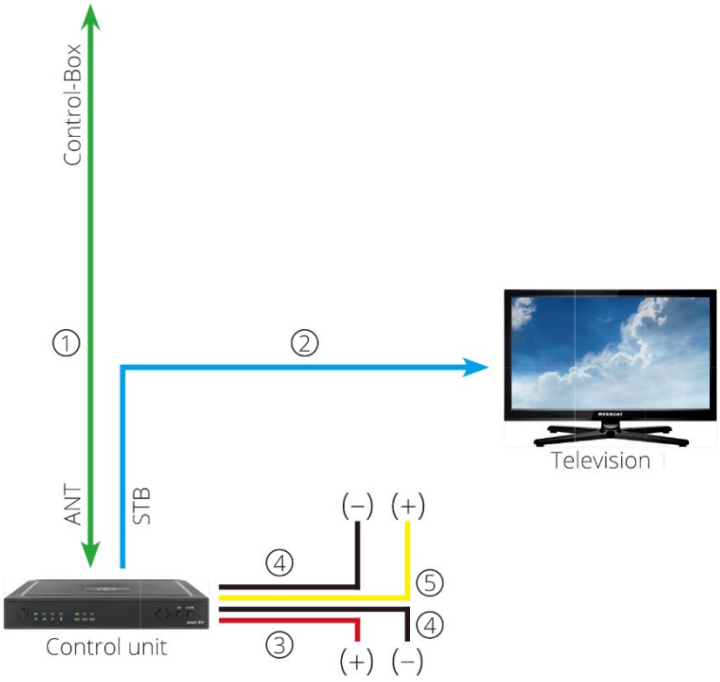
[!] Warning

Always connect the (IDU-In Door Unit). via a 7amp fused cable of at least 2.5mm² thickness. Never connect to any battery without a fuse.

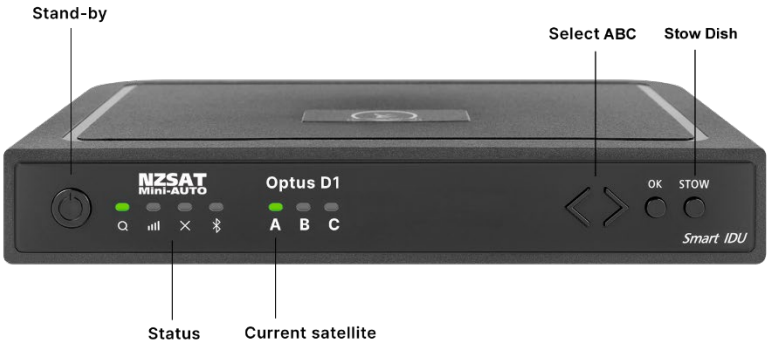
Power supply

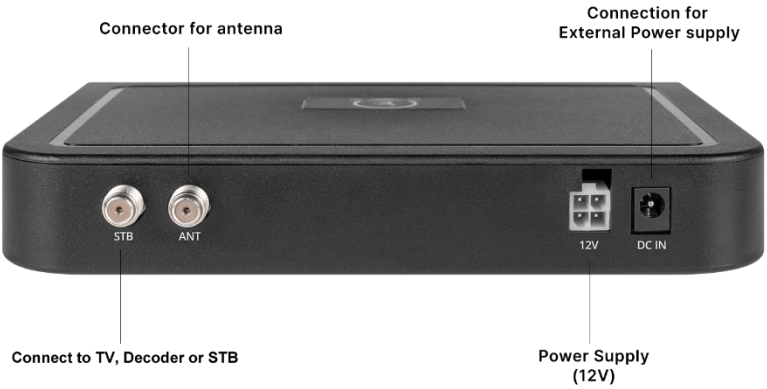
DC 12V via battery or optional 220V/12V DC power supply. Make sure that a current of at least 5amps is required.

① Coax cable 10 m
② Coax cable 1 m
③ Positive pole
④ Negative pole
⑤ Ignition plus



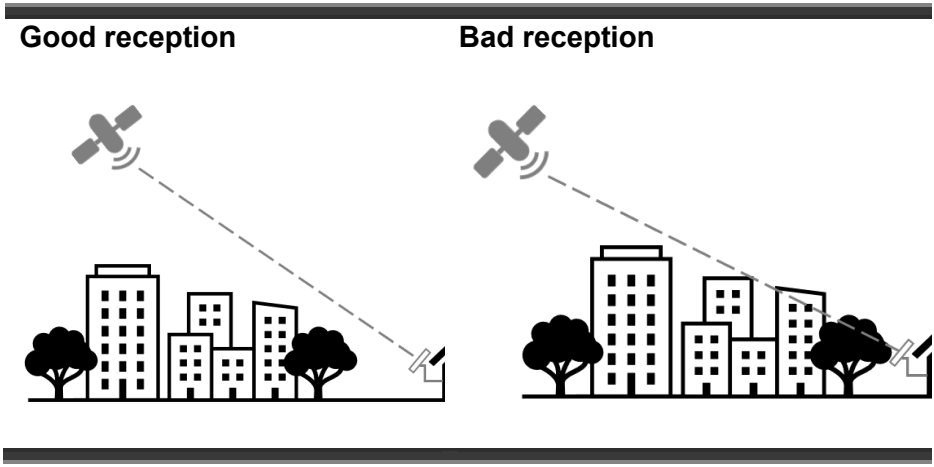
2.5 The IDU (In Door Unit)





2.6 Satellite Transmission

All NZSAT Mini-Auto Dish requires a clear view of the satellite to maximize the signal reception & performance



Obstacles like tall buildings, bridges, trees, heavy rain, snow, ice, and cloud can block this view and can cause a loss of signal/picture.

3 Satellite search with the IDU control unit

3.1 Designation of the respective LEDs and keys

IDU unit ON/OFF Button

Searching LED

Reception LED

Error LED

Bluetooth LED

OPTUS D1 Searching Frequency LED

Changing A,B,C Frequency Button

Confirms selection

The button to move the NZSAT Mini-Auto to the home position

3.2 Satellite search

Turn on the (IDU=In Door Unit).

“Search LED” on during the searching process.

The frequency LED of the last used is selected.

To change the frequency, you must change the frequency with the arrow button within approx. 3-5 seconds while LEDs are flashing. Later changing is only possible if the dish has found a satellite before.

Confirm the frequency selection.

If the NZSAT Mini-Auto found OPTUS D1, the reception LED will be on.

If the NZSAT Mini-Auto couldn’t find OPTUS D1 with the selected frequency, then the “Error LED” will be on.

After a successful search, you can switch off the (IDU=In Door Unit).

3.3 Retract the dish to the home position.

If necessary, turn on the (IDU=In Door Unit).

Press the stow button to retract to the home position.

4 Satellite Search Firmware update

① Visit the site http:// ~ for update the antenna firmware with your mobile device.

② Click update

③ Select the device to pairing NZSAT Mini-AUTO.

④ Automatic Update

5 Troubleshooting

① No satellite signals.

Obstacles like tall buildings, bridges, trees, heavy rain, snow, ice, and cloud can block this view and can cause a loss of signal/picture.

② Is there dirt on the dish?

Heavy dirt on the dish can cause reception problems.

③ Is everything correctly connected and switched on?

Make sure that the TV and the receiver are connected correctly, and that the receiver is correctly set for satellite reception.
Are all cables connected correctly and are the connections screwed tightly onto the coaxial cable? Also, check the cables don't have kinks.

④ Footprint of the satellite

Satellites are in fixed positions above the equator in orbit. In order to receive the TV signal, the receiving location must be within the footprint. Use the diagram to check whether your location is within the satellite's footprint. In the peripheral areas of the footprint, reception interference may occur.

⑤ Satellite frequency of a TV channel was changed.

TV stations change their frequency sporadically, which then no longer matches the frequency in the receiver. Ask for the current frequency of the channel.

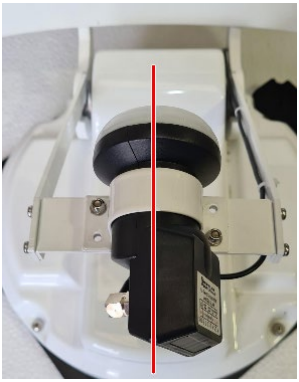
⑥ The firmware of the control unit is outdated.

If transponders on the satellite are changed, the antenna may no longer be able to find the satellite. Update the firmware of the control unit to get the latest transponder information.

⑦ The firmware update via mobile does not connect to the control unit.

Make sure that Bluetooth on your mobile devices is switched on and that you are in the direct vicinity of the control unit.

6 Setting values for the skew



For best reception, you should tune the LNB skew angle. Please set the LNB skew as like picture.

7 Footprint

Footprint of this antenna (minimum EIRP: 49 dBW)

8 Take off the antenna

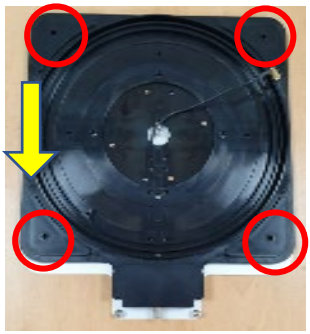
When you want to take off the antenna, please follow as below;

The antenna base is composed of two parts - Mount feet and Base plate.

As Mount feet is attached to the roof with glue, you should disassemble Base plate.

First, Un-screw M6 socket-head, 4 points.

Next, slide Base plate down like picture.



9 Specification

- Antenna type: Off-Set-dish
- LNB type: LO Freq 10.75
- Maximum number of participants: 1
- Frequency band: Ku-band
- Input frequency range: 10.7 GHz - 12.75 GHz
- Polarization: V/H
- Signal amplification: 33 dBi@ 12.7 GHz
- Minimum EIRP (footprint): 49 dBW
- Elevation (inclination): 15° - 62
- Azimuth (rotation): 360
- 2-axes DC motor
- Control unit with Bluetooth® module (Firmware updates via a mobile device)
- Free app for iOS and Android
- Temperature range: -25° C to +70° C
- Power supply: DC 12 Volt
- Dish size: 460 x 320 mm (W/H)

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