

# 1.2m Ka band terminal Installation Manual

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# 1 About This Manual

This installation manual is intended for Kacific customers. It provides the instructions and guidelines to install and commission a 1.2m Ka band terminal in its standard configuration, with a 3W transceiver and a MDM2510 modem.

Version History:

The following table gives a summarizing overview of the history of this document:

Version	Date	Reason of new version
version 1.1	June 25, 2019	Creation
version 1.2	September 30, 2019	Updated new information
version 1.3	November 28, 2019	Updated new information
Version 2	February 18, 2020	Complement use of Point&Play application
Version 2.1	February 23, 2020	Annex 1: beam map
Version 2.2	March 09,2020	Reformatting
Version 2.3	May, 2020	Page 7 - Alignment of Dish with the Satellite Page 9 - Length of pipe requirement Page 15 - Waterproofing connectors
Version 2.4	Jun, 2020	Page 26 - Certification process added
Version 2.5	Aug, 2020	Page 26 - Certification process removed Annex: updated beam list and map to reflect beam swap.
Version 2.6	Oct, 2020	Page 26 - Certification process added Annex 2: Certification process via Laptop/PC

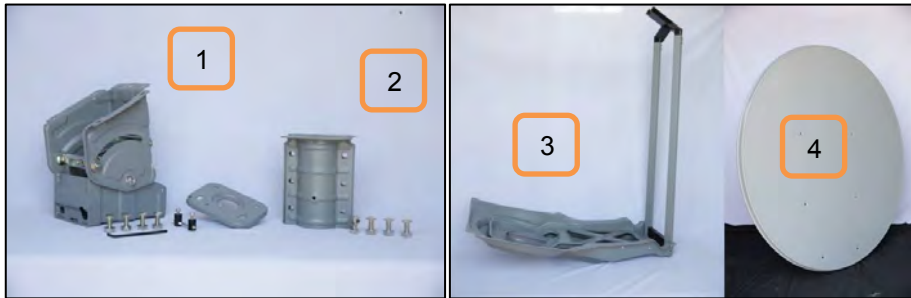
## 2 General

### 2.1 Terminal overview

A Ka band terminal of composed of 6 main components:

#### 2.1.1 Ka band 1.2m metal antenna

Manufactured by AzureShine (delivered in 4 pieces – see pictures below):



1. The Azimuth Elevation mount structure
2. The mast brackets
3. The feed support arm
4. The dish reflector

#### 2.1.2 Satellite modem MDM 2510

Manufactured by ST Engineering iDirect (formerly Newtec). Delivered with its AC power adaptor.



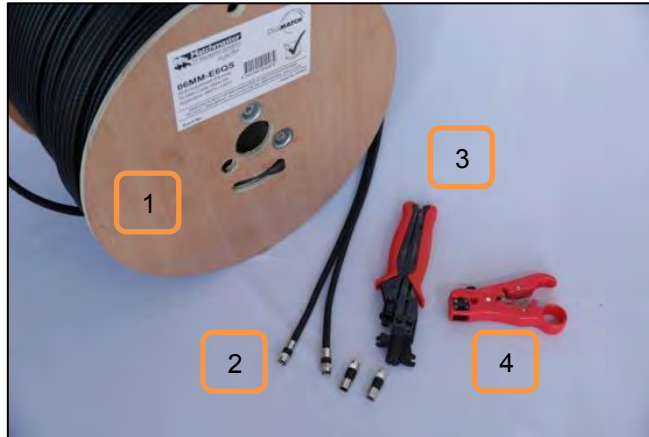
**Note:** the modem power adaptor is delivered with a standard Australian power plug. Kacific does *not* recommend using an adaptor. Instead, users should get a local power plug.

#### 2.1.3 3W Transceiver TRX 0121

Manufactured by ST Engineering iDirect (formerly Newtec).



### 2.1.4 Coaxial cable and connectors



1. 150 m twin coaxial cable roll (for a minimum of 5 sites)
2. F coaxial connectors
3. Compression tool
4. Stripping tool

### 2.1.5 Auxiliary Systems

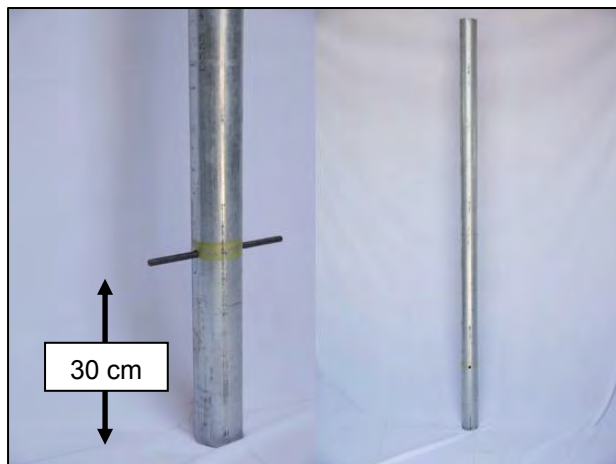
Onsite electrical power and cabling to modem. Electrical power and grounding provided at the site. Cabling and conduits installed as needed.

### 2.1.6 Antenna mounting

Ka band terminals require a rigid antenna fixation so that the antenna remains well pointed to the satellite even during windy conditions. The pipe shall not be too long in order to prevent vibrations or flexibility.

Kacific recommends an easy and cheap ground installation that requires only a hot galvanized pipe and some cement.

As an option, Kacific can provide the standard pipe for the ground installation.



Mast specification:

1. Hot galvanized steel or Aluminum
2. Max length 178cm with 89mm above ground
3. Diameter 76mm or 3 inches
4. Thickness 2mm or greater.

**Note:** In urban areas, where ground installation may not be possible, specific roof mounting structures can be used provided the roof is stable and able to support the antenna weight. For illustration:

- the first 2 pictures below show the structure to be used on sloped roof.
- the 2 others show the structure to be used on a terrace roof, either screwed in concrete or with ballast.



## 2.2 Additional required tools, equipment, mobile applications & websites

### 2.2.1 Tools & equipment

- Pole as described in 2.1.6 (can be provided by Kacific, on demand)
- Crowbar, pickaxe, spade or shovel, post hole digger
- Large bucket, water, 3 to 5 x 20 kg bags of cement (quick set preferably)
- A long level (to check the verticality of the pole)
- Wire cutters
- Pliers
- Allen keys (with at least M6 - 5 mm, SAE 3/16 and M8 - 6 mm, SAE 7/32)
- Spanners set (with at least M8 - 12 mm, SAE 1/2 and M10 - 17 mm, SAE 11/16)
- Socket set
- Screw drivers
- Conduit saddles
- Self-amalgamating or rubber butyl tape (for dry safe TX/RX cable end-points and marking cables)
- Cable ties
- Electric multimeter (in case you need to check the DC voltages at the TX/RX cable end-points)
- Cover metal tray or plastic pipe (long enough to protect your cables between the dish and the modem)
- Copper ground cable (long enough to be connected to the site ground, depending on your antenna location)
- 10m ethernet cable (if your modem is to be far from the dish during the installation - see 3.7.2 below)
- Access Point (AP Mode)
- Modern mobile phone, with the usual applications listed in 2.1
- Portable Power supply (if no 110/220V AC is available on site – see 3.7.2 below)
- Laptop with LAN port (for trouble-shooting via Team-viewer, Access Terminal GUI, Tracer Commands, error logs, terminal testing at the end of the installation, etc.)
- Permanent marker (to mark final elevation & azimuth after fine tuning)

### 2.2.2 Applications

- The Newtec Point&Play®
- GPS data (to get the exact location of your dish after installation)
- [www.dishpointer.com](http://www.dishpointer.com) (if needed - see 2.1 below)



### 3 Installation Procedure

#### 3.1 Alignment of Dish with Kacific 1 Satellite located at 150° East.

- A variety of equipment, Apps and methods can be used to align the Dish with the Satellite. The standard Kacific practice is to use a free Newtec **Point and Play** App, which does not require any other devices except a Wi-Fi router and a smartphone.
- Some installers prefer to use a **Spectrum Analyzer**, which is apparently easy to use and time saving for the overall installation. But it comes with a price, so the decision whether or not to use a Spectrum Analyzer is for the installer to make.

The Newtec Point & Play® mobile application is used to:

- Visualize the position of the satellite in space,
- Select the terminal position,
- Check the satellite azimuth and elevation at the site of installation.

Point&Play®	Supported versions	Available at
<b>Android</b>	as of version Android 4.0.3	Google Play Store
<b>iOS</b>	as of version iOS 8.0	Apple App Store

**Note:** the mobile phone used must be modern and equipped with the usual following applications:

- GPS sensor
- Compass
- Gyroscope
- Accelerometer
- Minimum screen size: 4.3"
- Minimum resolution: 480x800 pixels

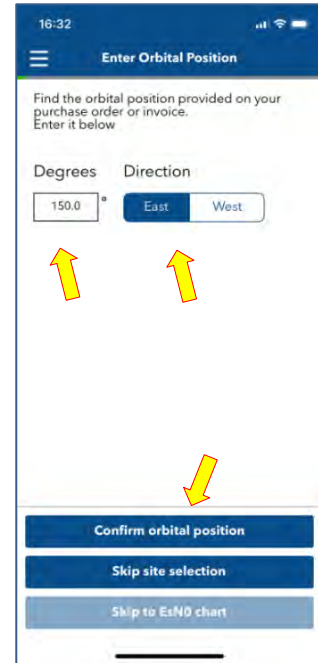
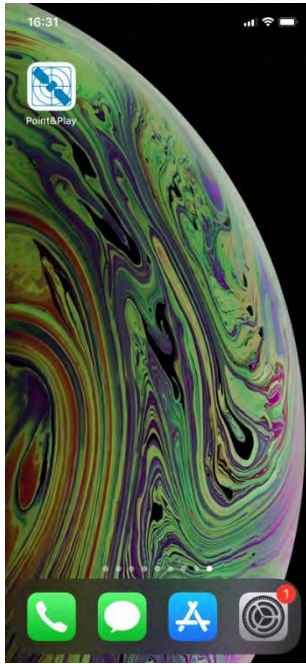


**Note:** If there is no local mobile telecom network coverage at the intended antenna location, you can get the satellite azimuth & elevation beforehand, when you are still connected, with Satellite pointer smartphone application or [www.dishpointer.com](http://www.dishpointer.com).



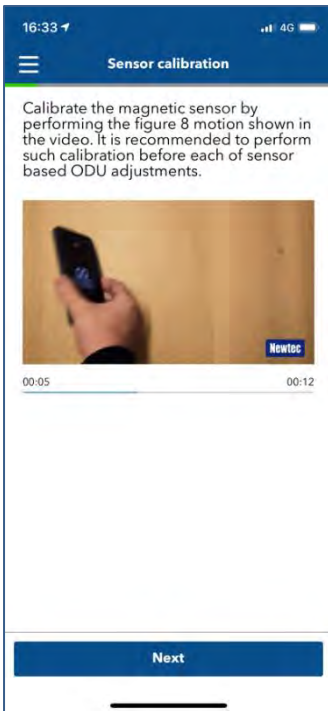
**Note:** We recommend downloading all mobile applications before going on the field to install.

### 3.2 Using Point & Play App to find direction of Satellite



**Step 1:** Download Point&Play (before going to the field).  
Open the app.

**Step 2:** Type 150, select East, click “done” and confirm orbital position.



**Step 3:** calibrate your phone as per application instruction.

**Step 4:** Scan the sky until you find the direction of the satellite.  
Position your terminal ensuring you have no obstacle to the satellite.  
Leave the application for the moment (you'll come back to it later).  
**Step 5:** use a GPS app to note the longitude & latitude of the terminal location.



### 3.3 Antenna pole installation

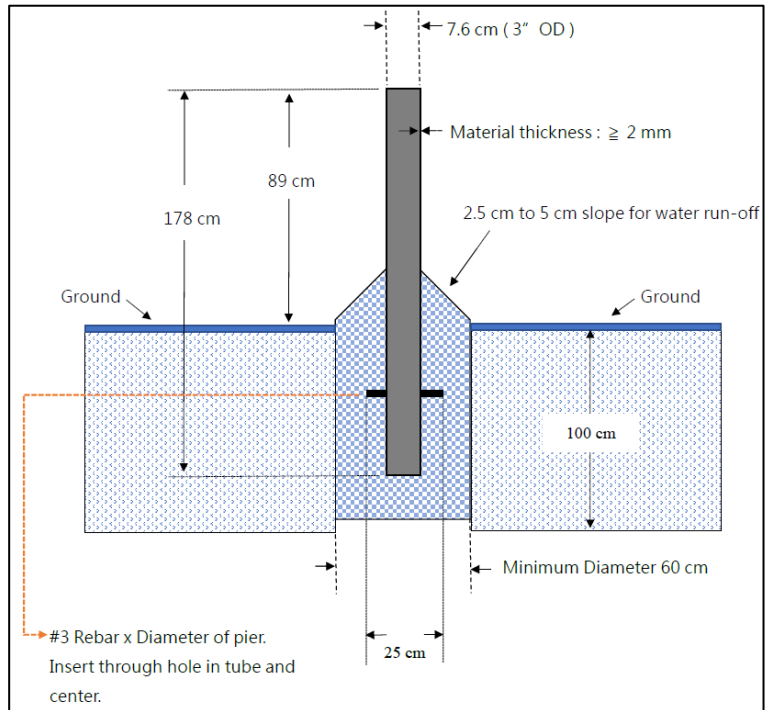
This chapter applies for ground installation only.



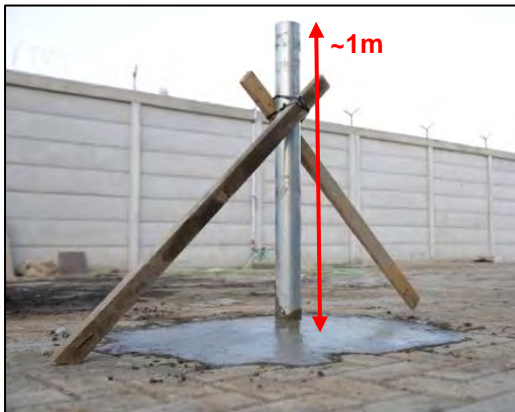
**Step 6:** Dig a hole at proper dimensions:

- minimum depth of 80 cm,
- minimum diameter of 40 cm.

**Note:** The dimensions of the diagram on the right are given as order of magnitude. The hole diameter can be reduced when the soil is compact.



**Step 7:** Set the pipe vertical into the hole and start pouring the concrete. Regularly check the verticality of the pipe while pouring the concrete.



**Note:** You need between 0.15 and 0.3 m<sup>3</sup> of concrete. It requires 3 to 5 x 20 kg bags of cement.

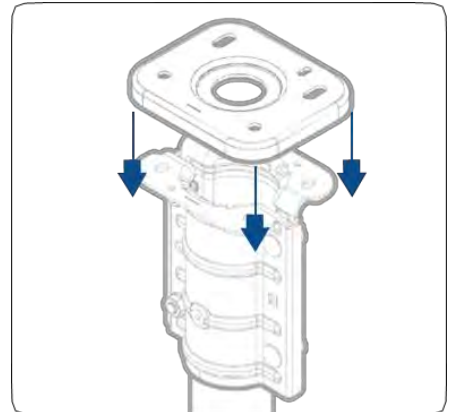
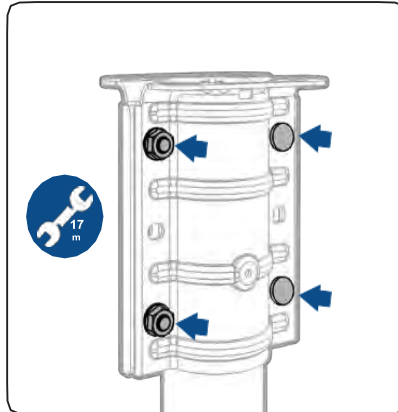
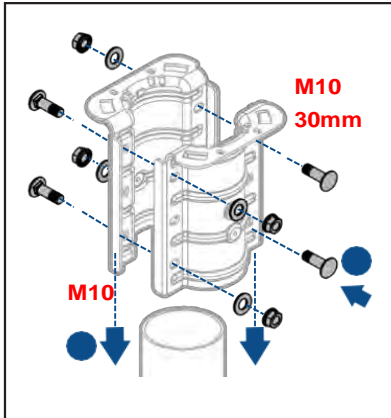
**Step 8:** Let the concrete dry for at least one day (depending on weather and humidity).



**Note:** Ensure that the length of the pipe (as measured from the concrete ground up) is approximately 1m, and not more. This is to ensure that the dish is not mounted too high up, where wind can cause movement to the dish and affect the signal.

### 3.4 Antenna assembly

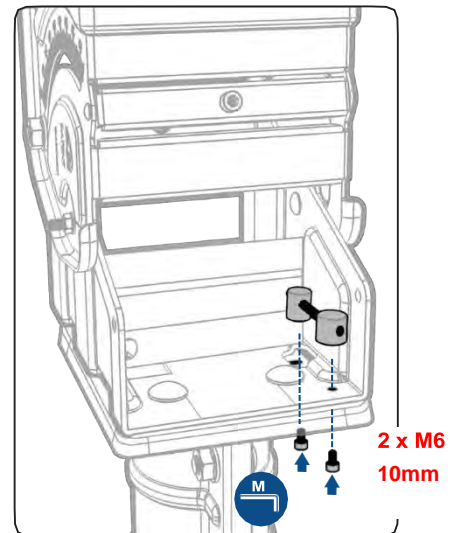
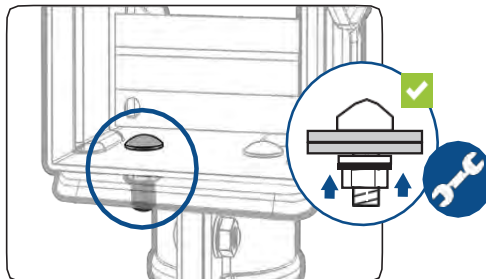
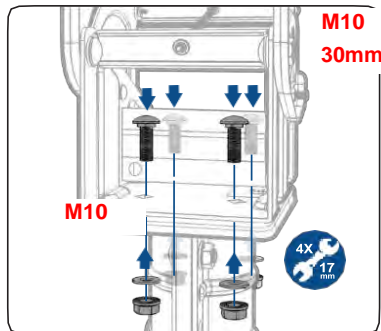
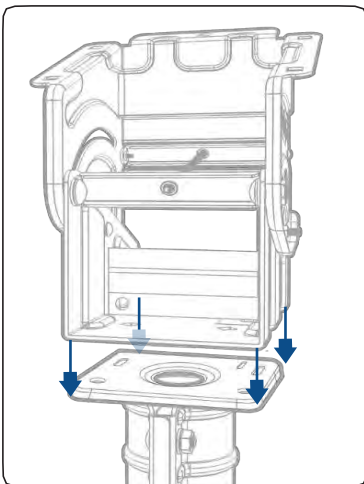
#### 3.4.1 Install mast bracket



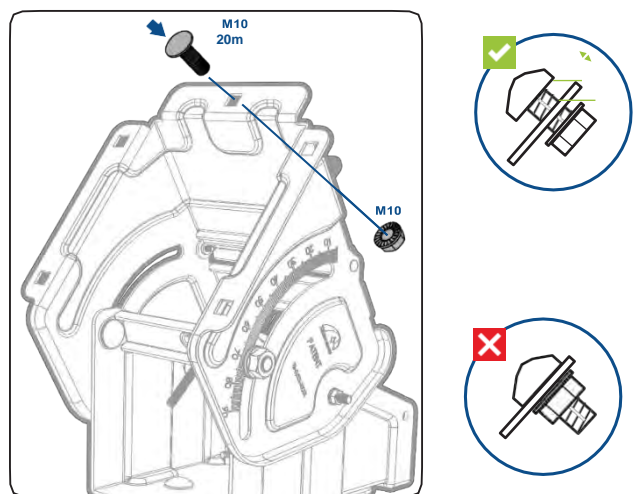
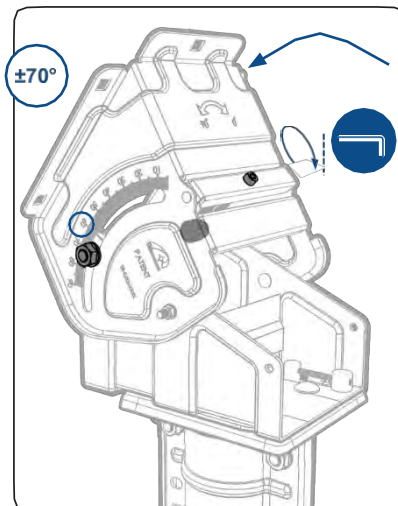
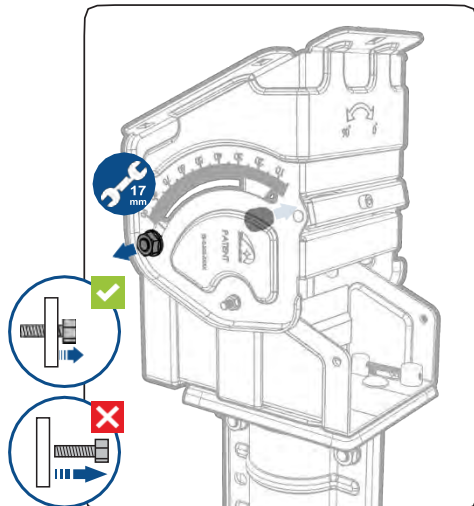
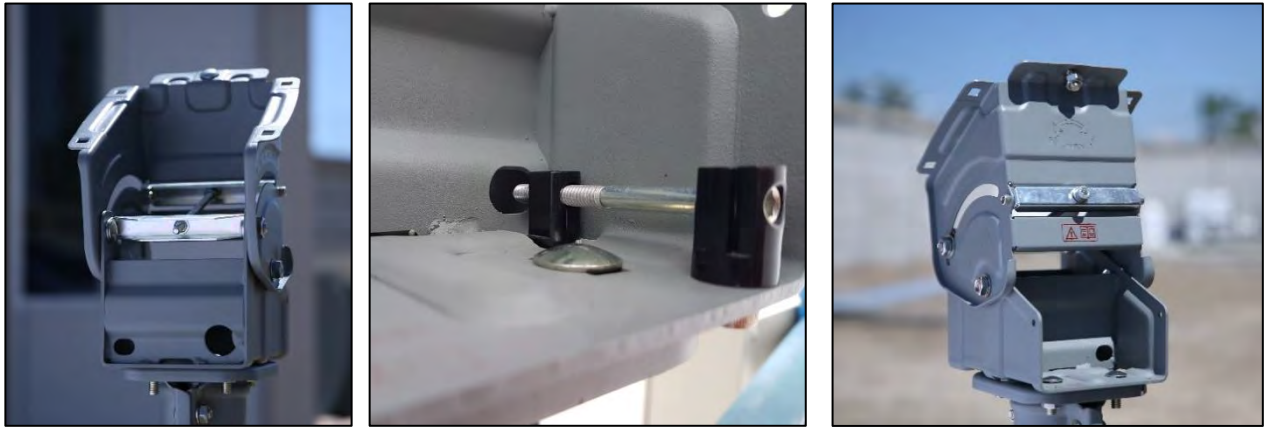
**Step 9:** Assembly the brackets on the mast as demonstrated above and on the right.



#### 3.4.2 Install the Az/EI mount

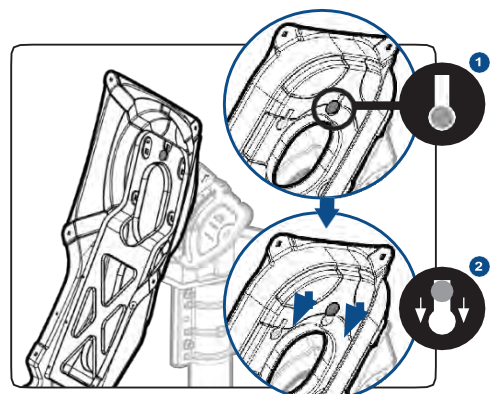
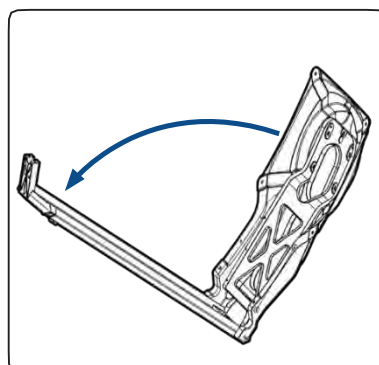


**Step 10:** Install the Az/EI mount on the brackets as demonstrated above and on the pictures below.



**3.4.3 Mount the feed support arm to the AZ/EL mount structure.**

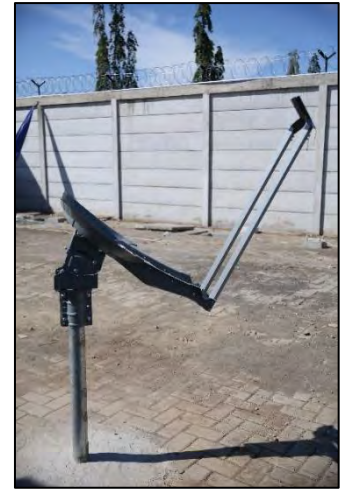
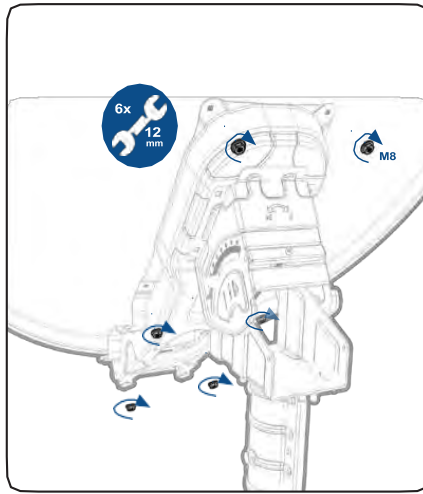
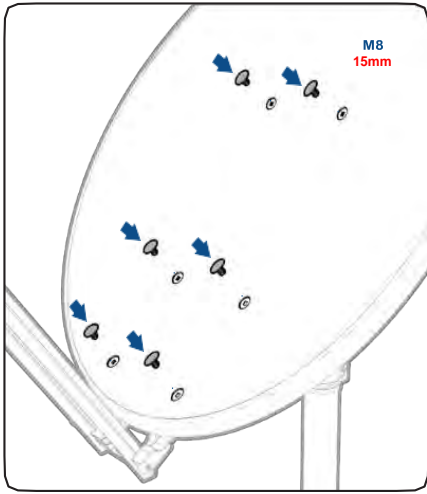
**Step 11:** Install the feed support as demonstrated on the diagrams on the right.



### 3.4.4 Mount the reflector to the feed support arm structure



**Note:** Check the dish has not been damaged during its transport and that there is no visible dent.



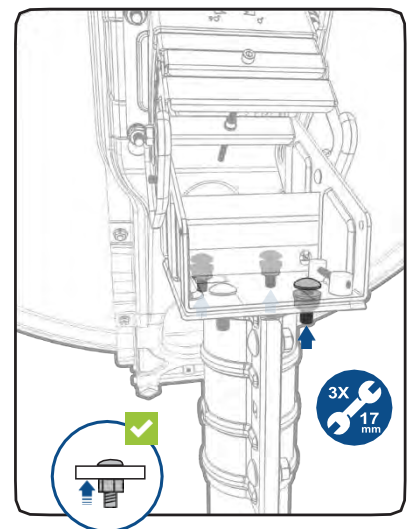
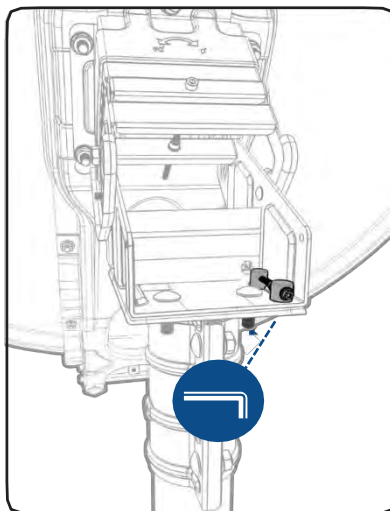
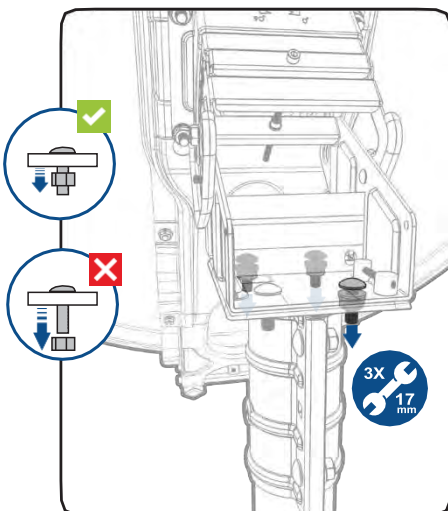
**Step 12:** Mount the reflector as demonstrated on the diagrams & pictures.



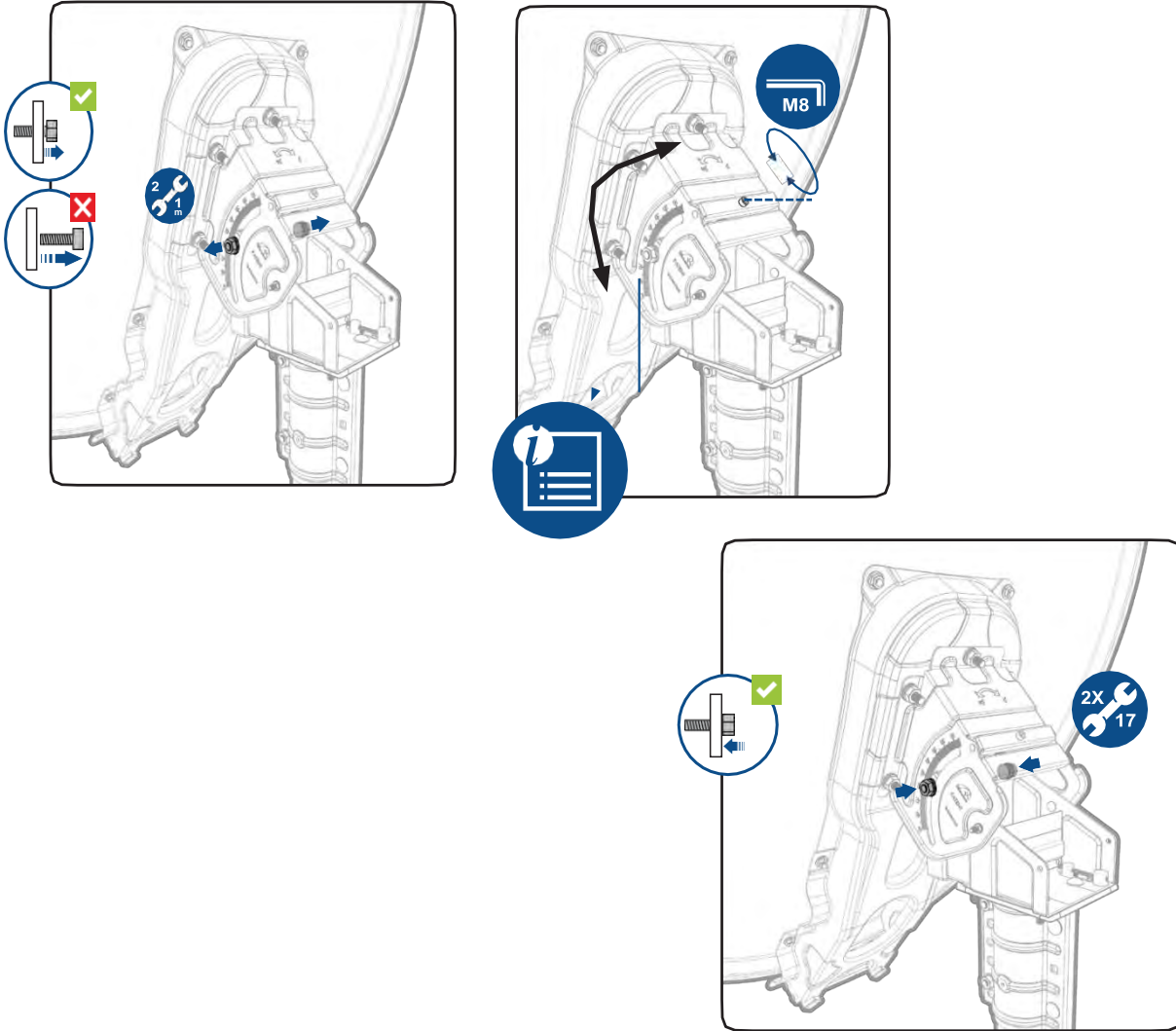
### 3.4.5 Antenna Fine pointing mechanism

**Step 13:** Fine point the dish as demonstrated on the diagrams below.

- Azimuth fine pointing adjustments.



- Elevation fine pointing adjustment.

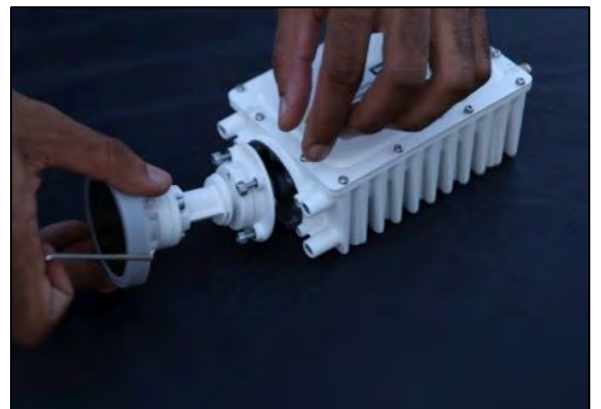
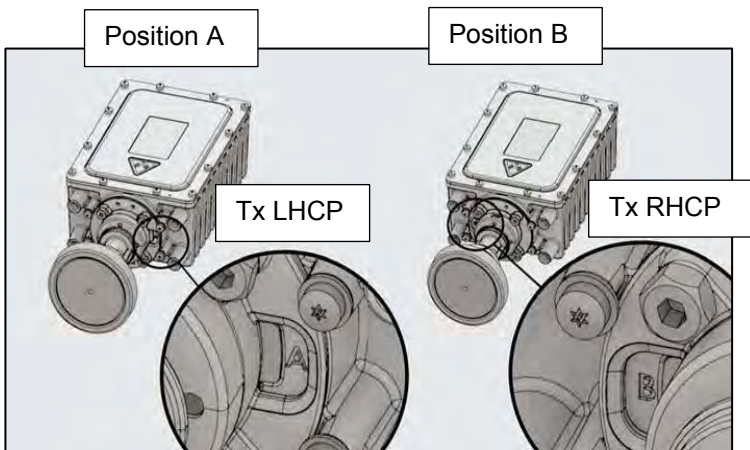


### 3.5 Transceiver installation

#### 3.5.1 Adjust the transceiver polarization (if needed)

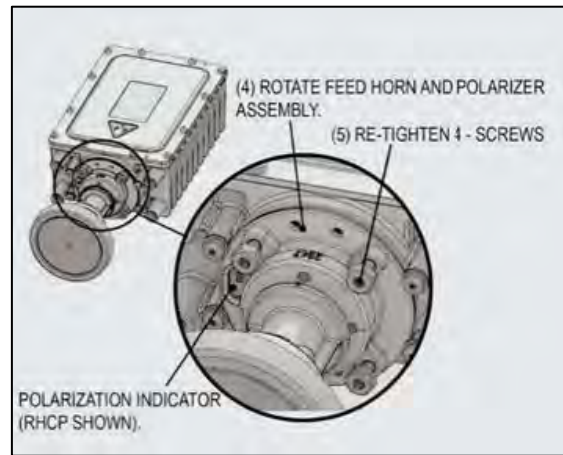
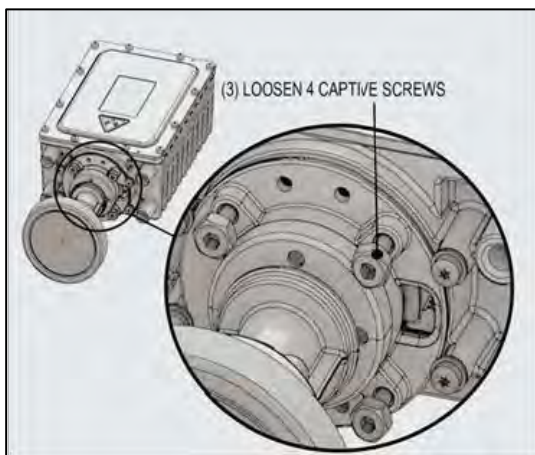
**Step 14:** Refer to polarization/beam table in Annex 1.

*If needed, adjust the transceiver to the right polarization (see Note, diagrams & photo below to do so).*



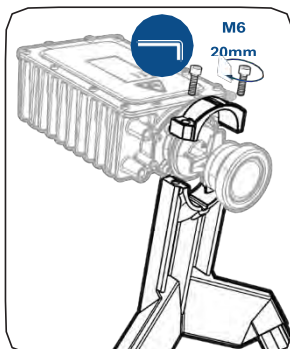
**Note:**

1. As supplied, the transceiver is either set up for Tx LHCP (polarizer position A), or Tx RHCP (polarizer position B) as indicated in the above illustrations. If it is necessary to convert from LHCP to RHCP (or vice versa) in the field, the following procedure should be adopted.
2. Remove the complete transceiver assembly from the antenna, if already fitted.
3. Using a 3mm hex wrench, loosen the four captive screws on the polarizer adaptor plate as shown in the below illustration. Do not remove these screws, just loosen them until the complete feed horn and polariser assembly can rotate. There is no need to remove the feed horn and polarizer assembly from the transceiver.
4. Rotate the complete feed horn and polarizer assembly 180 degrees until the adaptor plate aligns with the corresponding polarization indicator (B is shown in the below illustration corresponding with RHCP).
5. Using a 3mm hex wrench, re-tighten the four captive screws shown.



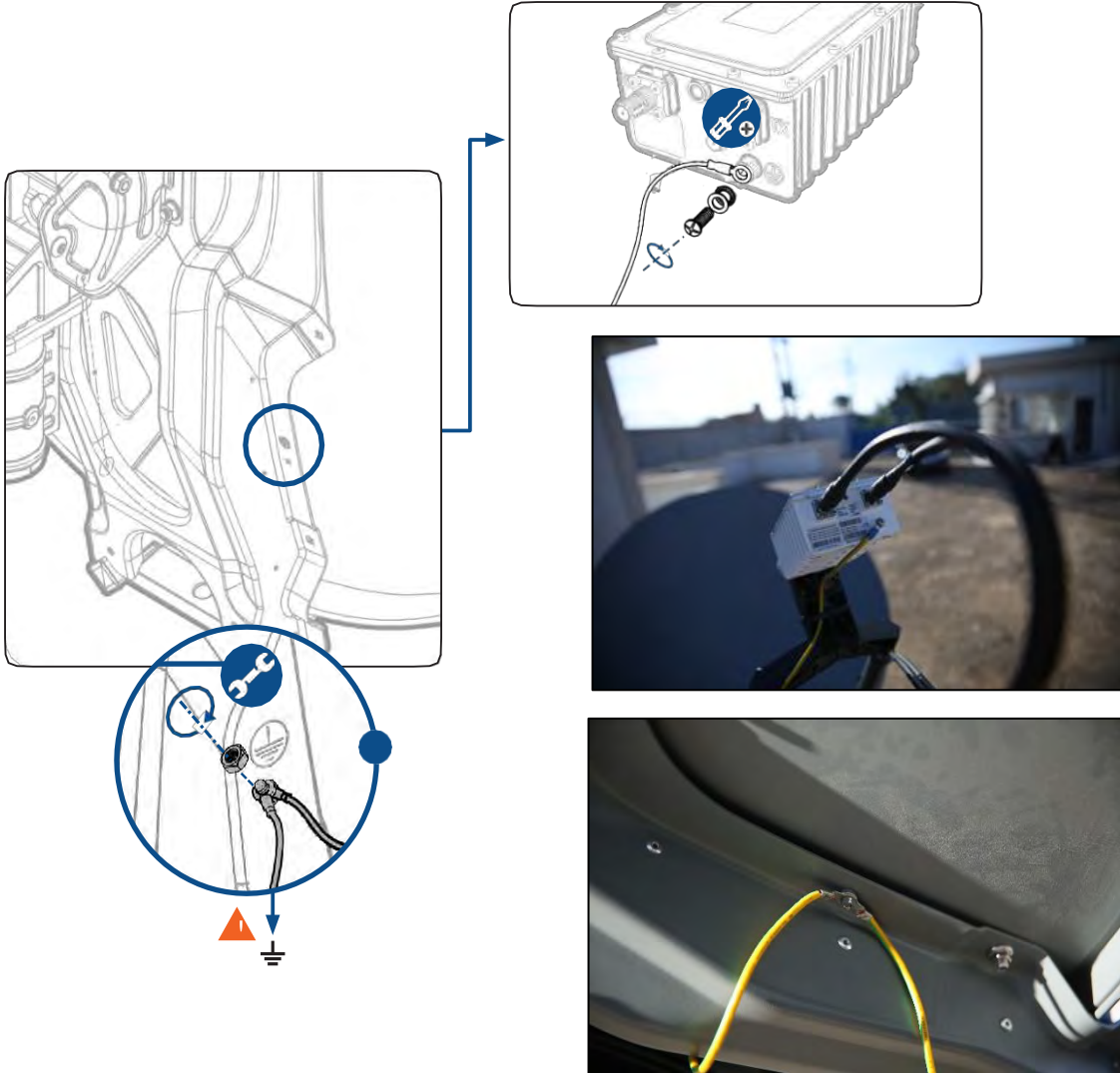
**3.5.2 Mount the transceiver on the feed bracket**

**Step 15:** Mount the transceiver on the feed bracket, as shown in the pictures below.



### 3.5.3 Wire the transceiver

**Step 16:** Wire the transceiver to dish and to the copper grounding rod, as shown in the pictures below. Connect the copper wire to the site ground.



**Note:** Ensure both connectors are sealed with self-amalgamating tape to prevent water ingress.

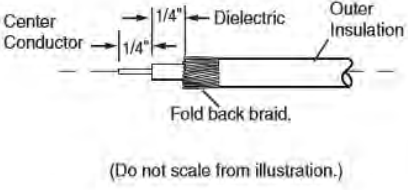
### 3.6 Coaxial cable installation between modem and transceiver

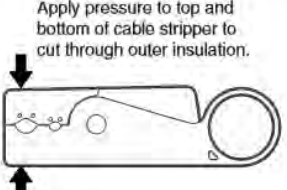
#### 3.6.1 Cable and connectors preparation

**Step 17:** Follow instructions and pictures below.

**Preparing the Cable**

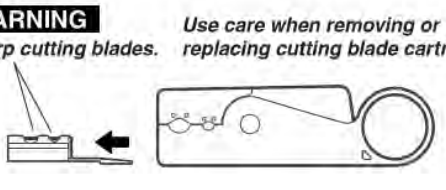
1. Insert the cable into the proper sized hole in the cable stripper and line up the cable end flush with the side of the tool.
2. Rotate the tool several times. Apply pressure if necessary, but do not over cut the braids.
3. Pull the cable out of the tool with the tool still closed.





**WARNING**  
Sharp cutting blades.

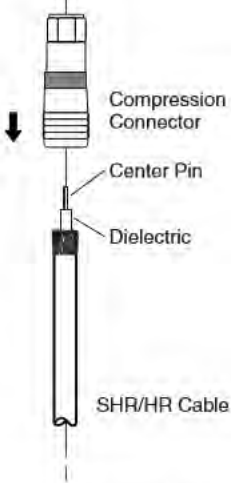
*Use care when removing or replacing cutting blade cartridge.*





**Cable with F-type connectors**

1. Push the compression connector onto the cable until the dielectric is flush with the inner ring of the connector. The center pin should stand out slightly from the front ring.
2. Select and place the correct adapter into the compression tool. Use the gold adapter for gold connectors and the silver adapter for nickel connectors.
3. Place the cable and connector in the opened compression tool.
4. Compress the cable and connector together, as shown on the other side of this card (closed).





#### 3.6.2 Cable path

Kacific supplies a twin coaxial cable for the Tx/Rx connection between the transceiver and the modem.

This twin cable must be protected:

- either inside a covered cable tray (1)
- or within a plastic/metal pipe (2)





**Note:** to avoid mixing the connectors up between the modem and the transceiver, we recommend marking the cables on their 2 ends with stickers (Tx or Rx) at the beginning of the operation.

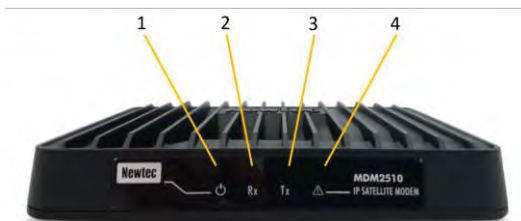


**Note:** The length of the cable shall not be more than 30 meters.  
Kacific does not approve installations with more than 30 meters of L-Band cable.

**Step 18:** Pass the twin cable in its protection between the transceiver & the modem, as shown above. Connect the cable to the transceiver (but not to the modem at this stage as you will have to manipulate it in following steps – see 2.7.3).

### 3.7 Modem installation

#### 3.7.1 Modem Front Panel



Nr	What	Description
1	Power LED	White continuous - when powered up.
2	RX indicator LED	White continuous - forward satellite signaling receiving.
3	TX indicator LED	White blinking / continuous - traffic transmitting via the satellite link.
4	Warning LED	Yellow continuous - when the terminal is not logged on to the satellite network.

#### 3.7.2 Modem Back Panel



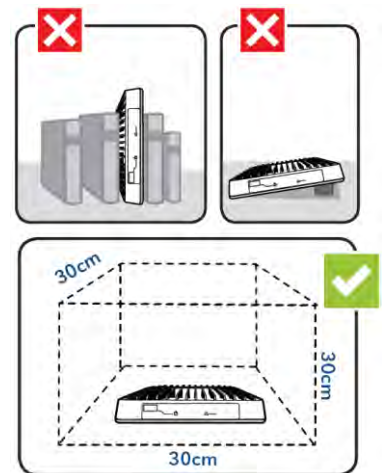
Nr	What	Description
----	------	-------------

1	Power connect	24 Volt DC Power connector.
2	Reset button	Multi-functional button: <ul style="list-style-type: none"> <li>Press once briefly (hold less than 5 seconds) to reboot the modem.</li> <li>Press and hold for more than 5 seconds to perform a Factory Reset. This will reboot the modem and change all IP-settings back to the default factory settings.</li> </ul>
3	TX connector	Indoor connection for the transmit coax cable. RG-6 maximum 30m.
4	Earthing	Technical earth connection; used when the modem is installed within a rack to ensure that all equipment chassis fixed within a rack are at the same technical earth potential. <i>Note: The grounding thread of the device must be connected according to the local regulations.</i>
5	RX connector	Indoor connection for the receive coax cable. RG-6 maximum 30m.
6	Micro SD slot	Not used in current release
7	Gigabit Ethernet cable connectors	Connection for the LAN, type RJ-45 (Ethernet cable). <ul style="list-style-type: none"> <li>Left LED (orange continuous): Link layer status.</li> <li>Right LED (orange blinking): Ethernet frames are received or transmitted.</li> </ul>

### 3.7.3 Indoor installation

**Notes:**

- The modem shall be installed in a clean room, in horizontal position
- The length of the cable between the modem & the transceiver shall not be more than 30 meters
- For heat dissipation purpose, a 30x30x30 cm volume shall be kept free around the modem



### 3.7.4 Power modem

**Step 19:** Connect the power cord to the modem power supply.  
 Connect the power supply to the modem 24V DC (taking note of the pins).



Modem power supply



Final connection (arrow indicator on top)



**Step 20: Power the modem up.**

Check that the LED are lit on both the power supply and the modem.



### 3.8 Terminal commissioning and qualification

#### 3.8.1 Load Point&Play application

See 2.1 above

#### 3.8.2 Wifi router installation

You need to link your smartphone to the modem via a Wifi connection.

**Notes:** The procedure below is given for a TP LINK Wifi router. Any other Wifi router could be used provided it can be adjusted as an Access Point (AP) and cabled to a RJ45 port.

**Step 21: Connect the router to the power using the USB cable.**



**Note:** if no 110/220V AC is available, use a Portable Power supply (for TPLink router) as shown below:

- Insert 4 AA batteries into the portable power supply according to the correct polarity.
- Push the switch to USB position to power ON,
- Connect the router to the power supply.



**Step 22:** Set the router to AP mode (Wifi access point).



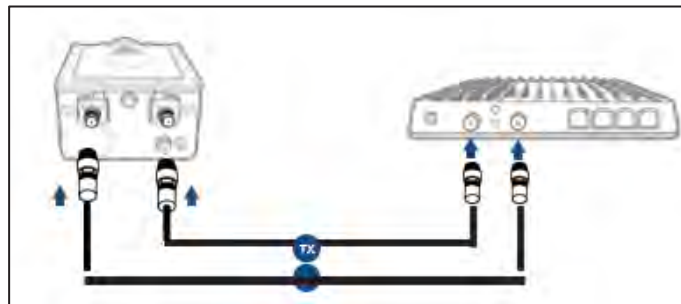
**Step 23:** Connect the router to any ethernet port of the Newtec Modem with the 10-meter ethernet cable.



**Note:** A 10m ethernet cable is recommended in order to allow you to place the TP link router closer to the antenna, providing a better Wi-Fi signal in case the modem is far from the antenna.

### 3.8.3 Transceiver and modem connections

**Step 24:** connect the Tx and Rx connectors in the modem and the transceiver, as shown below.



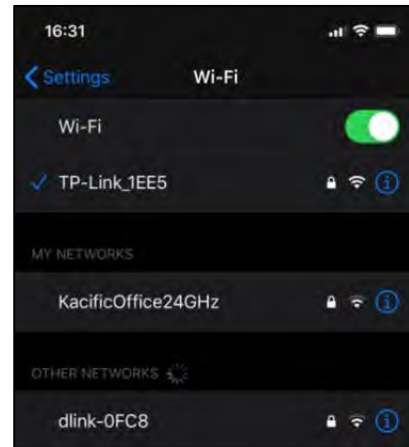
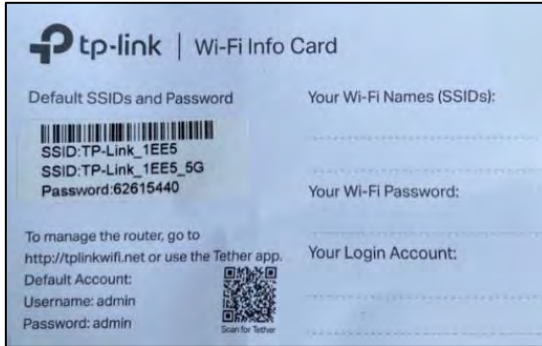
**Step 25:** Check again the modem, router & portable power supply (if you use one) are ON with LED indicators lighted up.

### 3.8.4 Point&Play application connection

**Step 26:** Connect your smartphone to the wifi router (info card provided with TPLink wifi SSID & password).

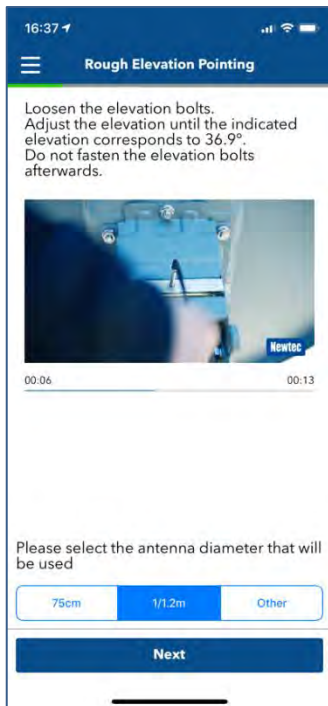


**Note:** Ensure you are connected to the wifi router and not to any other Wifi network.



### 3.8.5 Point the antenna

**Step 27:** Re-open Point&Play on your smartphone *connected to the modem via the Wifi router (in AP mode)*.  
 Select 1.2m antenna.  
 Select the transceiver (3W TRX0121).  
 Select beam number (see table in Annex).



- Elevation adjustment

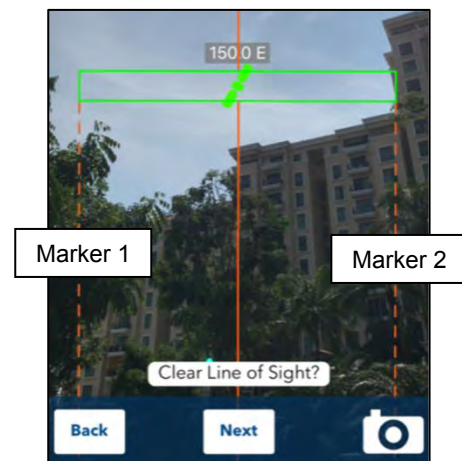
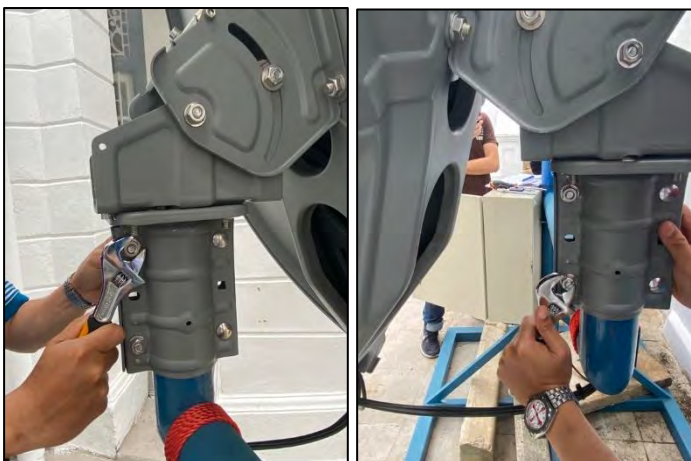


**Step 28:** Loosen the dish elevation bolts & adjust roughly the elevation to point to the satellite.

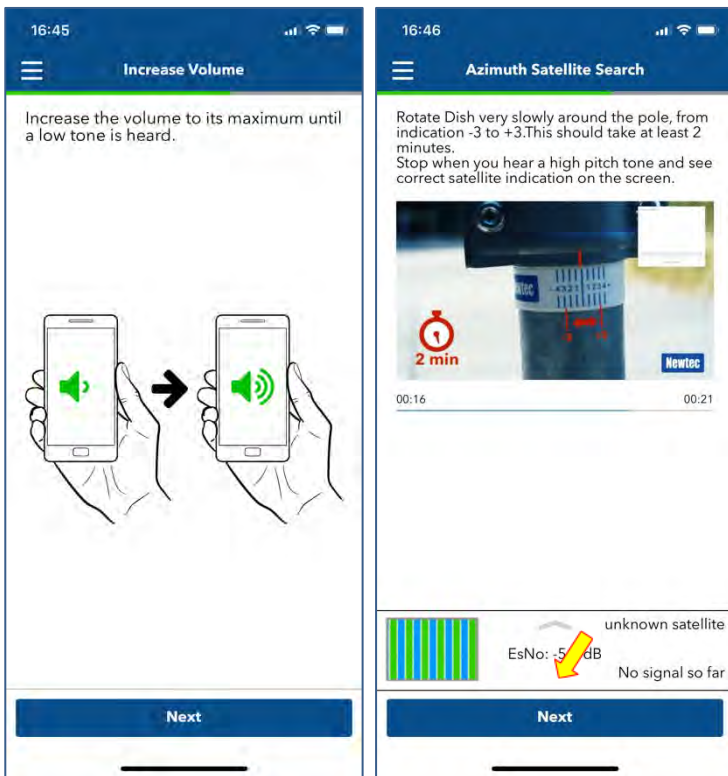
**Step 29:** Hold the long edge of the smartphone on the line printed on the rear side of the antenna. Adjust the elevation by hand, slowly ( $\pm 0.5^\circ$  each time), until the red line becomes green. The elevation is then correct.

- Azimuth adjustment

**Step 30:** Go behind the antenna, loosen the rough azimuth bolts just enough to rotate around the pole. Rotate the dish until it is pointed between marker 1 and marker 2.

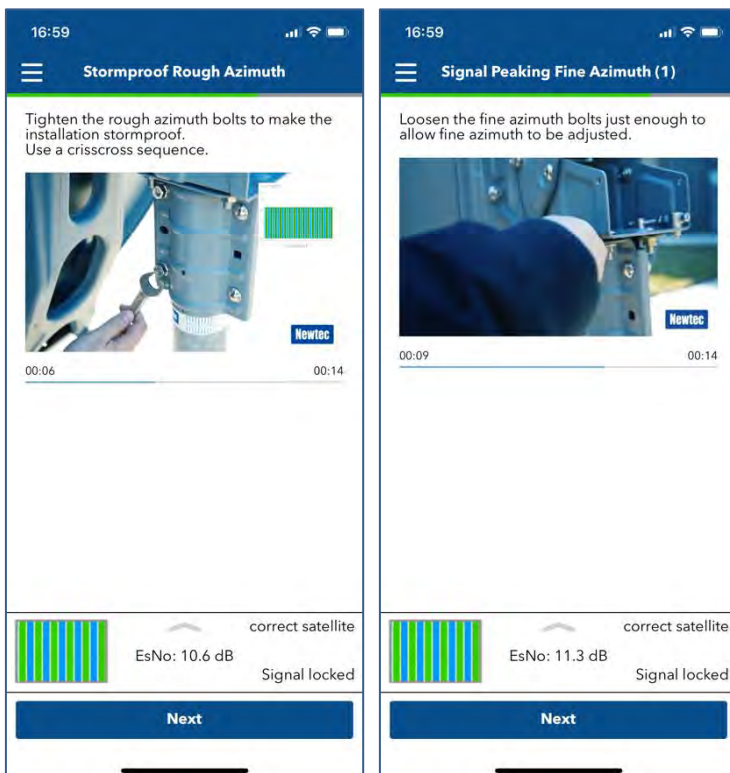


**Step 31:** Increase volume of your smartphone to hear a tone proportional to the received signal level. Click on EsNo:5.0db to open the signal chart. Rotate the dish slowly by hand, by small steps. Stop and wait few seconds after each step to see if the tone and the satellite indication (EsNo) increase or decrease. Stop when you reach the maximum.



**Step 32: Tighten the rough azimuth bolts on the pole.**

*Loosen 3 fine azimuth bolts enough to allow fine azimuth to be adjusted. 1 bolt should stay tightened.*

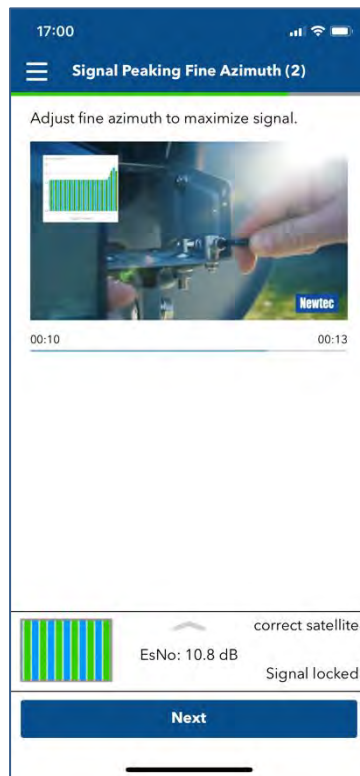
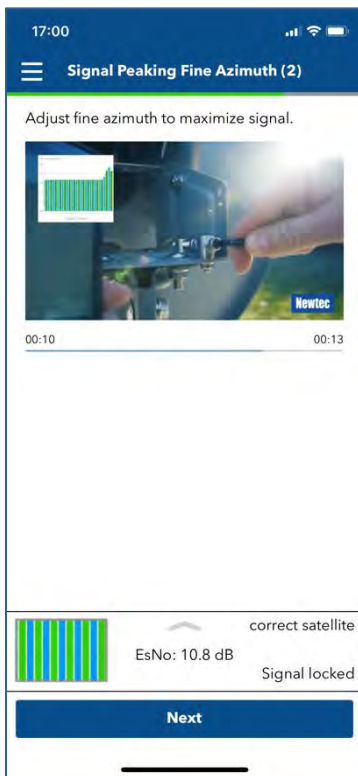


Fine azimuth bolts

Rough azimuth bolts

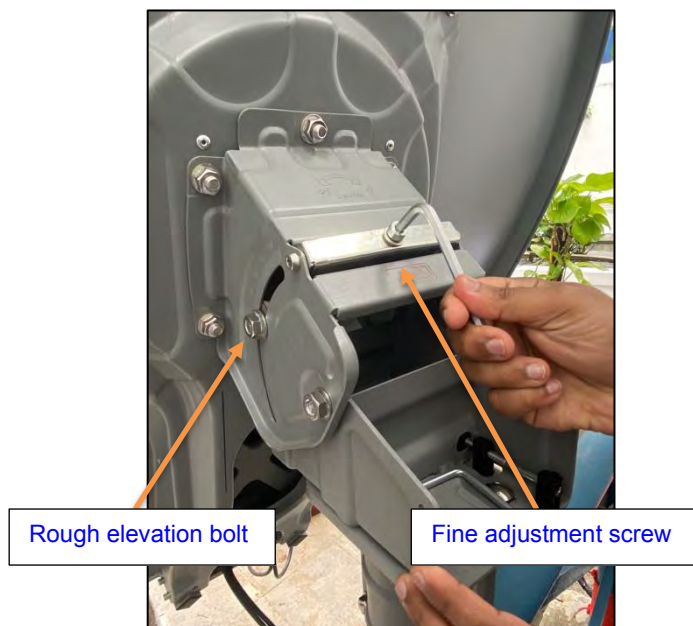
This bolt should stay tightened

**Step 33:** Adjust fine adjustment, with the handle, slowly, in small steps.  
Wait for few seconds each time to stabilize the received signal.



- Fine elevation adjustment

**Step 34:** Loosen the 2 rough elevation bolts by ¼ turn.  
If the elevation fine adjustment screw does not actuate properly, loosen the elevation bolts slightly more.  
Adjust elevation with the fine adjustment screw to maximize the EsNo value displayed on the application.

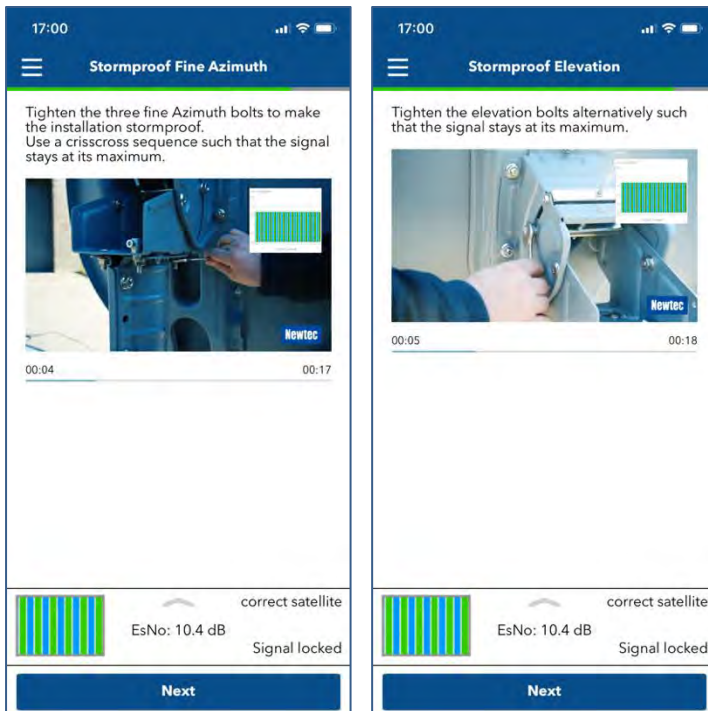




- Final tightening

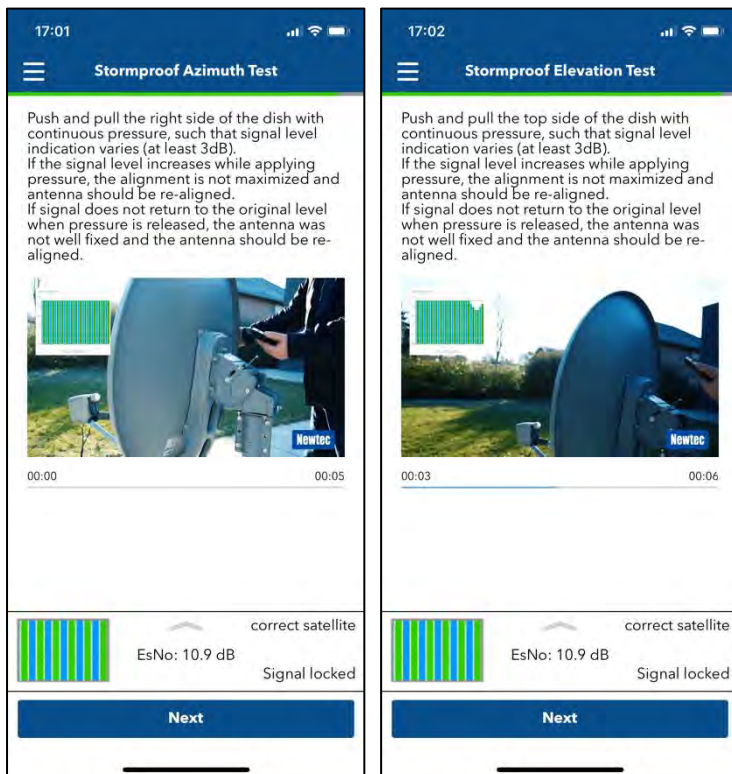
**Step 35:** When the maximum signal is reached for both Azimuth and Elevation:

- tighten the rough elevation bolts alternatively so that the signal stays at its maximum,
- tighten the 3 fine Azimuth bolts alternatively so that the signal stays at its maximum.



**Step 36:** Check the rigidity of the antenna fixing by pushing & pulling gently the right & top sides of the dish.

- If the signal level increases while applying pressure, the alignment is not maximized,
  - If the signal does not return to its original level, the antenna screws were not tightened properly.
- In both cases the antenna should be re-aligned.

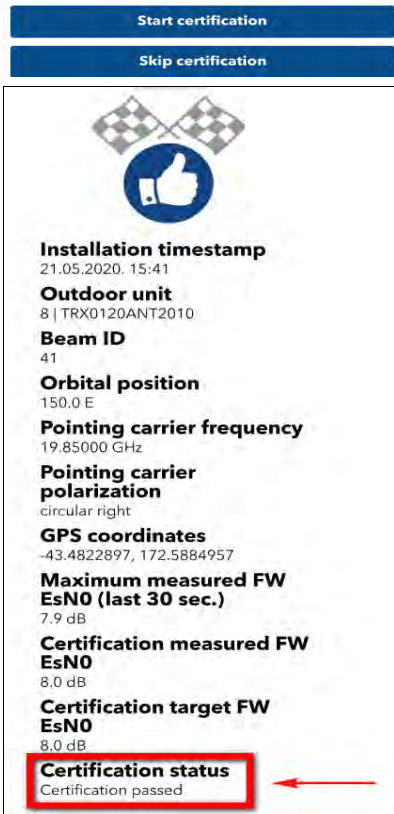
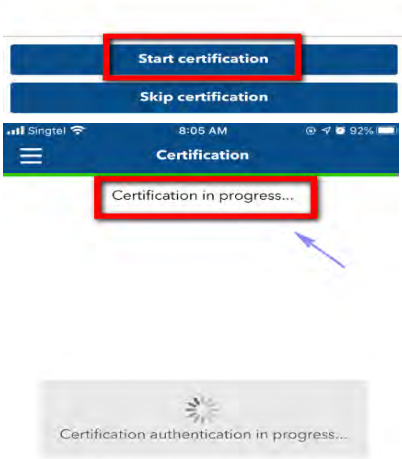


The antenna is now well pointed, and the modem signal is locked. Click NEXT.



**Note:** With effect 19 October 2020, certification process is turned on to ensure that the antenna is properly aligned to the satellite before it can come online.

**Step 37:** Start the certification process. Refer to annex 2 if you are using a laptop to do the certification.

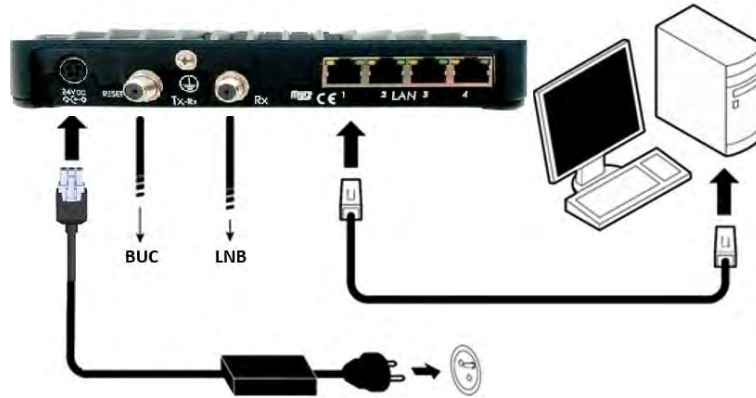


**Step 38:** Once the certification is successful, you will see the message “Certification passed”. If certification fails, return to step 32 onwards to fine tune the azimuth and elevation to obtain a better EsNo.

## 4 Terminal testing

**Step 39:** Connect your laptop to the modem with the ethernet cable.

Check your laptop IP setting is set to DHCP to be able to receive an IP address form the modem.



**Step 40:** Type the modem address 192.168.1.1 in the address bar of the browser to be directed to the terminal status page.

The screenshot shows a web browser displaying the Newtec terminal status page. The browser address bar shows the URL `http://192.168.1.1/`. The page header includes the Newtec logo and the tagline "SHAPING THE FUTURE OF SATELLITE COMMUNICATIONS". Below the header, there is a status bar showing the Air MAC Address: 00:08:39:8b:2a:28 and a Reboot button. The main content area is divided into a left sidebar menu and a main content area. The sidebar menu includes options like Terminal Status, Terminal Installation, Terminal Configuration, Ethernet Interface, Satellite Interface, Antenna Controlling, Outdoor Unit, Multicast, Device Info, Diagnostics, Logging, and Test. The main content area displays the Terminal Status page, which includes an Overview section with details for Ethernet, Satellite, and Software. Below the Overview is an Interface Statistics table.

Interface	Volume	Packets	Errors	Dropped
Ethernet Interface	RX	10.92 GB	19 764 351	0
	TX	511.37 MB	3 223 164	0
Satellite Interface	RX	4.68 MB	33 150	0
	TX	1.63 GB	1 066 539	11 650

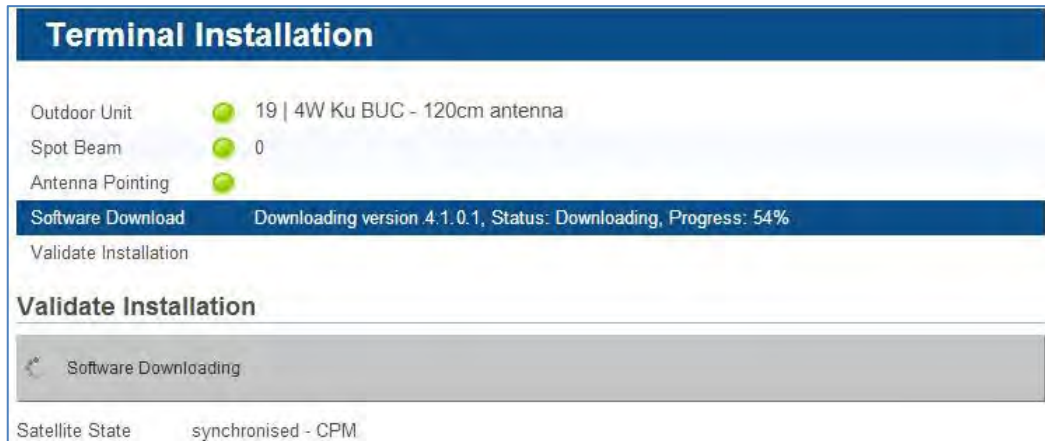
A – Banner: contains the Air MAC address and the languages in which the GUI can be displayed.

B - Status bar: always shows the most important status LEDs. This information will be specified in the body of the Status page.

C - Menu structure: Click an item to select it.

D - Body: contains the actual content of the web interface. It shows the page title and one or more content blocks or forms.

**Step 41:** Let the modem confirm it has the latest version or (automatically) download it and reboot to activate the new software. Otherwise, go to step 41 directly.



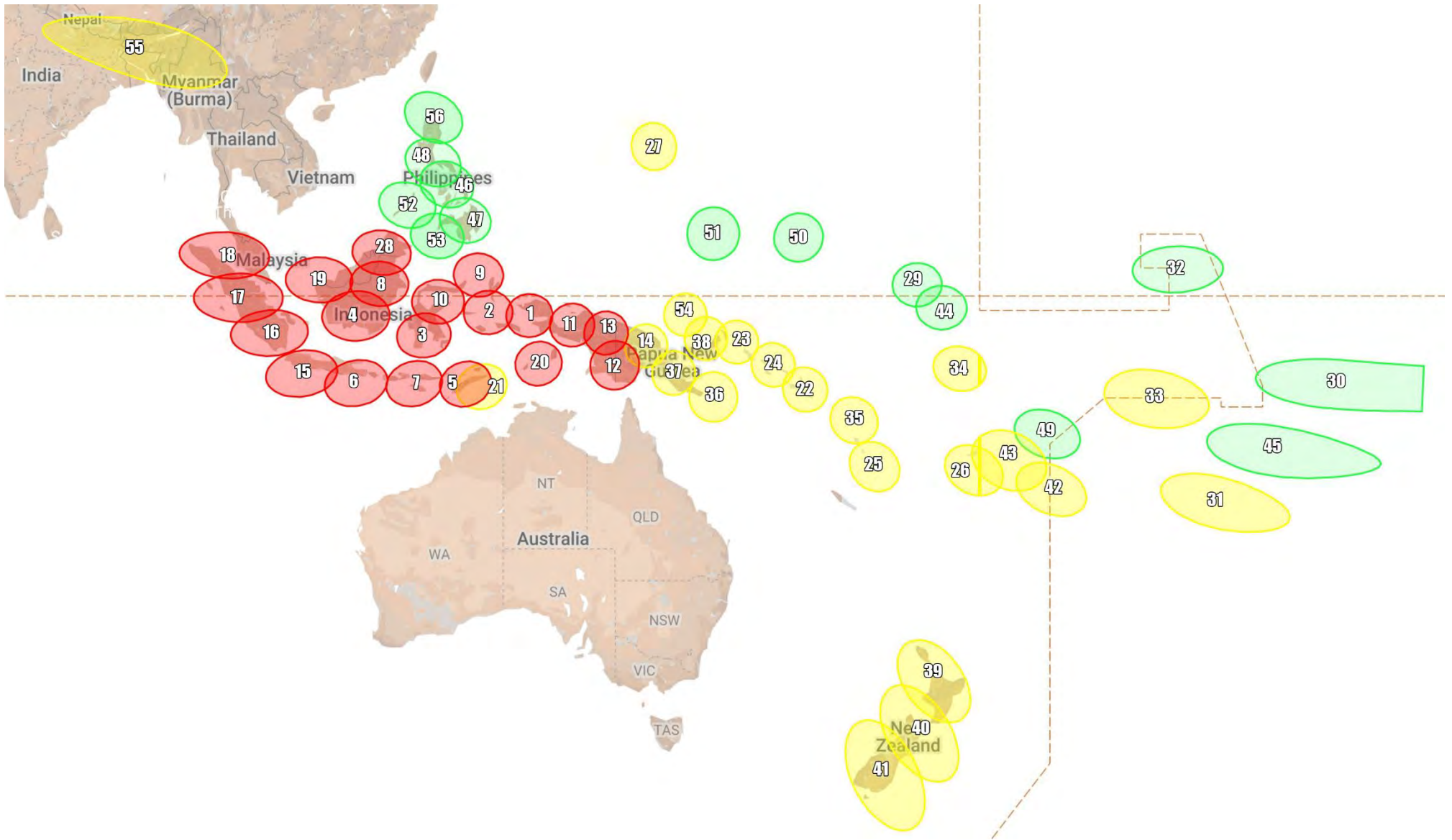
**Step 42:** Launch the Ping Test by = `ping -t 8.8.8.8`  
Test the download and upload speed by connecting your computer to Kacific speed-test server:  
<https://172.18.2.10/speedtest>.

The site is connected to the Kacific 1 network and you can start getting Kacific service.  
**CONGRATULATIONS!**

**Step 43:** Please take a photo of your installation and send it to Kacific Service Center ([ksc@kacific.com](mailto:ksc@kacific.com)) together with the name and coordinate of the site.

## Annex 1: List of beams and polarization

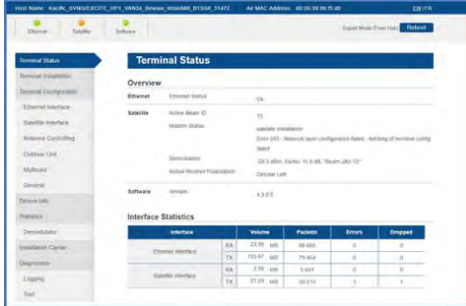
RFP Beam	Beam Name	Downlink polarization	Transceiver polar adjustment
#			
1	Papua	LHCP	B
2	Moluccas	RHCP	A
3	Sulawesi	LHCP	B
4	East Kalimantan	LHCP	B
5	East Nusa Tenggara	RHCP	A
6	West Nusa Tenggara	RHCP	A
7	Middle Nusa Tenggara	RHCP	A
8	North Kalimantan	RHCP	A
9	North Sulawesi	RHCP	A
10	Mid Sulawesi	LHCP	B
11	West Papua	RHCP	A
12	Highlands	LHCP	B
13	Highlands2	LHCP	B
14	Highlands3	RHCP	A
15	Java + Indonesian Teleport	RHCP	A
16	South Sumatra	RHCP	A
17	Mid Sumatra	RHCP	A
18	North Sumatra	RHCP	A
19	Rikit / Borneo	LHCP	B
20	Maluku	RHCP	A
21	Timor	LHCP	B
22	Solomon	RHCP	A
23	Bougainville	RHCP	A
24	North Solomon	LHCP	B
25	Mid Vanuatu	RHCP	A
26	Fiji	RHCP	A
27	Marshall1 / CNMI	LHCP	B
28	Majuro / Sabah	RHCP	A
29	Tarawa	RHCP	A
30	Marquisas	LHCP	B
31	Tubuai	LHCP	B
32	Line Islands	RHCP	A
33	Tautua	LHCP	B
34	Tuvalu	LHCP	B
35	Vanuatu North	LHCP	B
36	PNG East	RHCP	A
37	PoM	LHCP	B
38	New Britain	LHCP	B
39	Auckland	LHCP	B
40	Christchurch	RHCP	A
41	NZ South Island	RHCP	A
42	Niue	LHCP	B
43	Rotuma	LHCP	B
44	Gilbert	RHCP	A
45	Papeete	LHCP	B
46	Central Philippines	RHCP	A
47	Davao	LHCP	B
48	Manila	RHCP	A
49	Am Samoa	RHCP	A
50	Kosae	LHCP	B
51	Chuuk	RHCP	A
52	Palawan	LHCP	B
53	Sulu	LHCP	B
54	Manus	RHCP	A
55	Bangladesh	LHCP	B
56	Batanes	LHCP	B



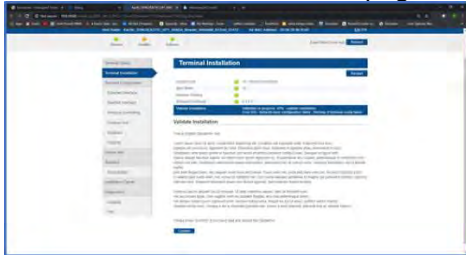
## Annex 2: Certification through Laptop/PC

Follow the steps below when doing certification via a laptop/PC.

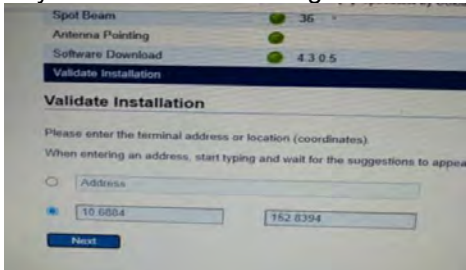
- 1) Ensure the correct beam and ODU unit are chosen.  
 ODU UNIT – 10| TRX0121ANT2035 (For 1.2m Dish)  
 ODU UNIT – 9| TRX0120ANT2025 (For 75 cm Dish)
- 2) The below screenshot is what you would see once you are locked on to the satellite.



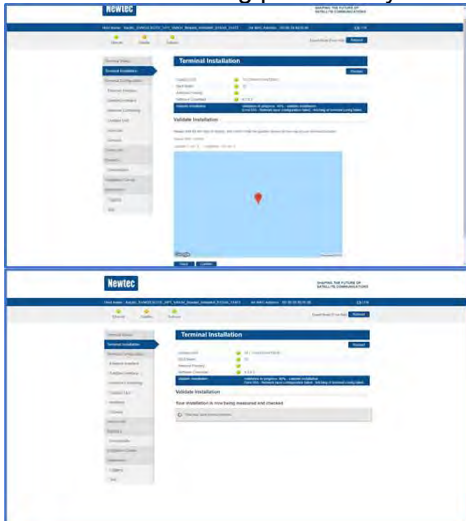
- 3) Select the terminal installation page from the left tool bar (2nd page) and press the confirm button.



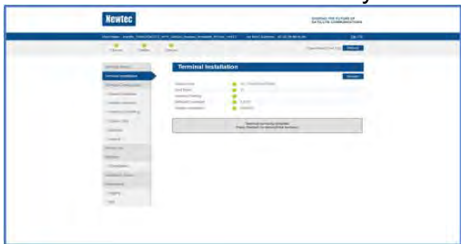
- 4) Key in the correct Lat/Long of the terminal and after which, click on next.



- 5) Confirm the Lat/Long provided by clicking on the confirm button.



6) The below screenshot is what you would see once the certification is successful.



7) Go back to the terminal status page to verify that the terminal is now operational.

