

Chapter 4 Installation Instructions

Inspecting the parts

Make sure you have all parts listed in the shipment box before beginning the installation; you should have the following parts:

1. Hughes 9502 IDU
2. Flat panel ODU
3. 10m RF coaxial cable terminating in N(M) connections at both ends
4. An N to TNC adapter is included in the cable bag.

Optional installation items:

1. Basic Fix Mount Kit (P/N 3004066-0002)
2. Azimuth elevation bracket (P/N 1022994-0022)
3. IDU Strap (P/N 3500617-0001)

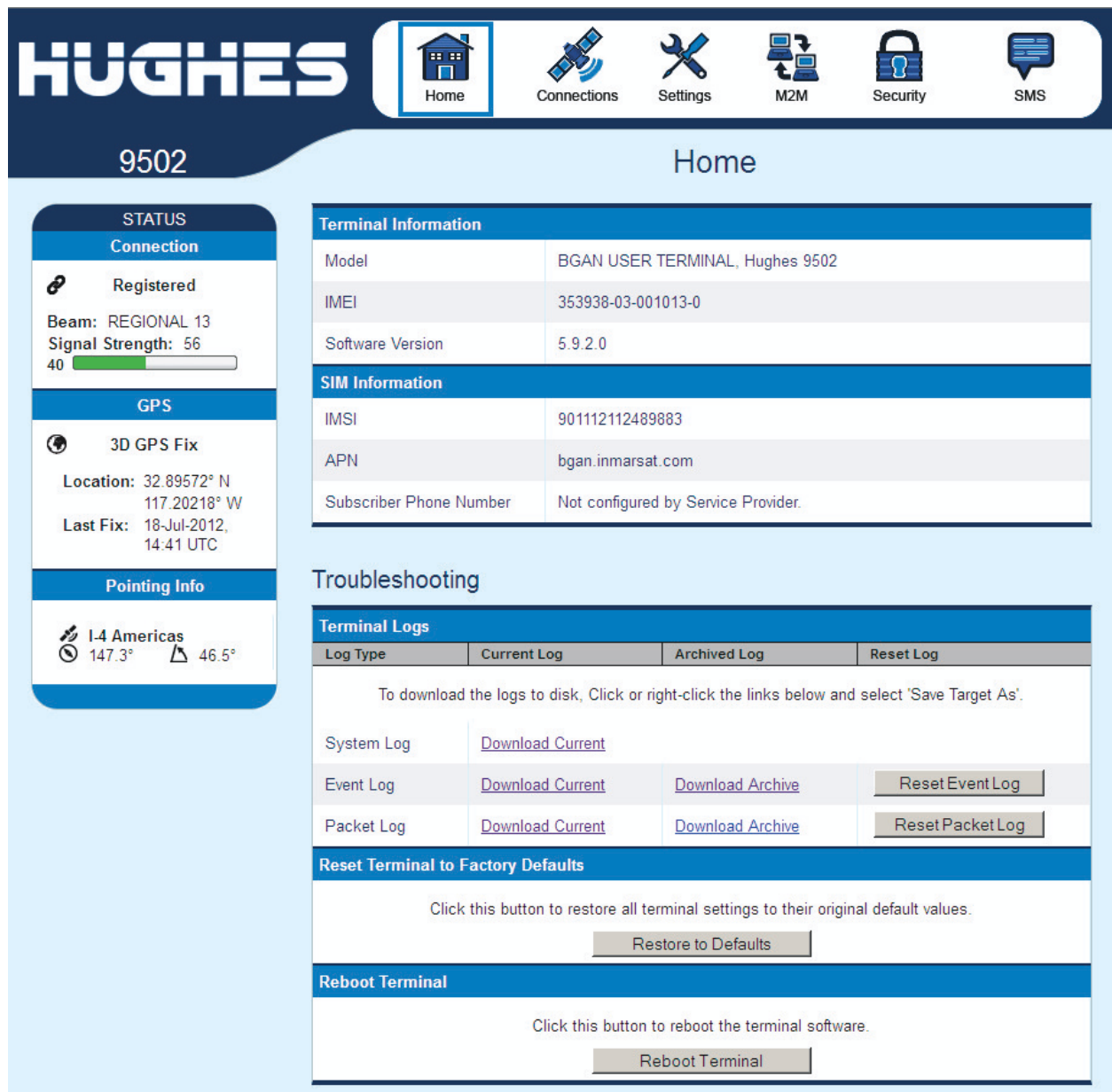
Determining where to install the ODU

In order for your terminal to work correctly, the antenna or ODU must be installed in a location that provides a clear, unobstructed, line of sight to the satellite. Any objects such as building structures or trees may degrade the quality of the satellite signal. To determine where to install the ODU, you need to determine that you have both a clear unobstructed line of sight to the satellite and that your fixed mount is aimed in the approximate direction to the satellite.

To determine the direction from your location to the satellite follow the steps below:

1. Determine the latitude and longitude of the site and enter them into the Location Spreadsheet that is available on the Hughes BGAN support page: <http://www.bgan.hughes.com>. This will give you the compass direction and the elevation angle to point the ODU. Alternatively, it can be done by powering up the UT, allowing it to get a GPS fix and then checking the pointing information on the Web UI Home page.

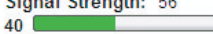
2. Unbox the Hughes 9502 and remove the ODU and cable assembly.
3. Determine the location of both the IDU and ODU before starting to make sure that the IDU and ODU can be installed within the 10M cable length.
4. Install the ODU with the installation hardware that you have chosen by following the instructions that follow.



The screenshot shows the Hughes 9502 Home Page. At the top, there is a navigation bar with icons for Home, Connections, Settings, M2M, Security, and SMS. The main header displays '9502' and 'Home'.

STATUS



Connection

- Registered
- Beam: REGIONAL 13
- Signal Strength: 56
- 40 

GPS

- 3D GPS Fix
- Location: 32.89572° N, 117.20218° W
- Last Fix: 18-Jul-2012, 14:41 UTC

Pointing Info

- 1.4 Americas
- 147.3°  46.5° 

Terminal Information

Model	BGAN USER TERMINAL, Hughes 9502
IMEI	353938-03-001013-0
Software Version	5.9.2.0

SIM Information

IMSI	901112112489883
APN	bgan.inmarsat.com
Subscriber Phone Number	Not configured by Service Provider.

Troubleshooting

Terminal Logs

Log Type	Current Log	Archived Log	Reset Log
System Log	Download Current		
Event Log	Download Current	Download Archive	<input type="button" value="Reset Event Log"/>
Packet Log	Download Current	Download Archive	<input type="button" value="Reset Packet Log"/>

Reset Terminal to Factory Defaults

Click this button to restore all terminal settings to their original default values.

Reboot Terminal

Click this button to reboot the terminal software.

Figure 4-1 – Home Page showing pointing information

ODU installation using the basic fix mount kit; (P/N 3004066-0002)

⚠ CAUTION

You may install the fixed mount on any structurally sound surface; either on a horizontal, or vertical, or a sloped surface such as a roof or wall.

1. The pole has a 1.66” (4.2164cm) outer diameter (schedule 40 metal).
2. The pole mount is 2lbs/0.9Kg. The azimuth/elevation bracket is 1 lb/0.45Kg.
3. The wall mounting pattern has four bolts in a 6” x 3 3/4” (15.24cm x 9.525cm) rectangle.

The pole is shipped attached to the base bracket. Mount the base bracket of this assembly to the structure with the appropriate hardware (not included). Consult local building codes if needed. Once the base bracket is mounted, perform the following steps (refer to Figure 4-2 – Base Bracket and bubble level and Figure 4-3 – Pole Assembly):

1. Insert the bubble level into the end of the pole (pipe) opposite the base bracket. The bubble level fits inside the pole.
2. Loosen the pole attachment fasteners at the base bracket so the pole can swivel.
3. Swivel the pole until the end of the pole where the ODU will be installed is vertical. Adjust the pipe position until the bubble is centered inside the circles on the top surface of the bubble level.
4. Tighten the pole attachment fasteners on the base bracket.

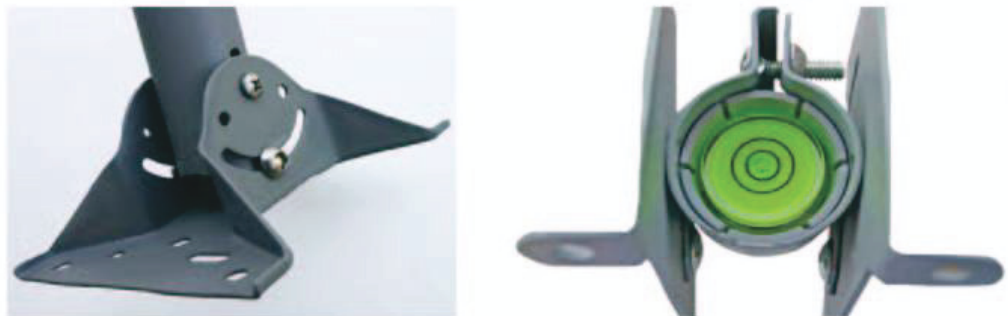


Figure 4-2 – Base Bracket and bubble level



Figure 4-3 – Pole Assembly

Mounting the azimuth elevation bracket

Mount the azimuth elevation bracket to the back of the ODU using four washers/nuts (see Figure 4-4 – Azimuth elevation bracket). The N-type RF connector should be on the left or right side of the azimuth elevation bracket if installed correctly.

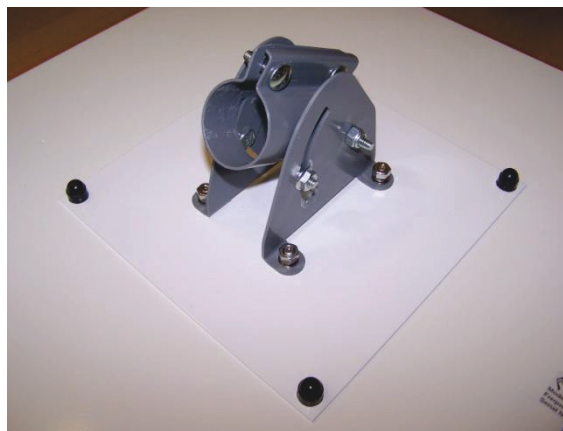


Figure 4-4 – Azimuth elevation bracket