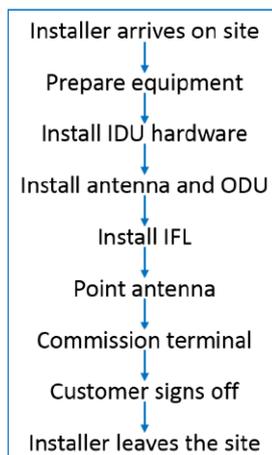


# Hughes Jupiter Install & Activation Guide



## The HT2000 Satellite Modem



This guide is intended as a quick reference for those already familiar with Hughes modem installations. Any more in-depth information can be provided upon request.

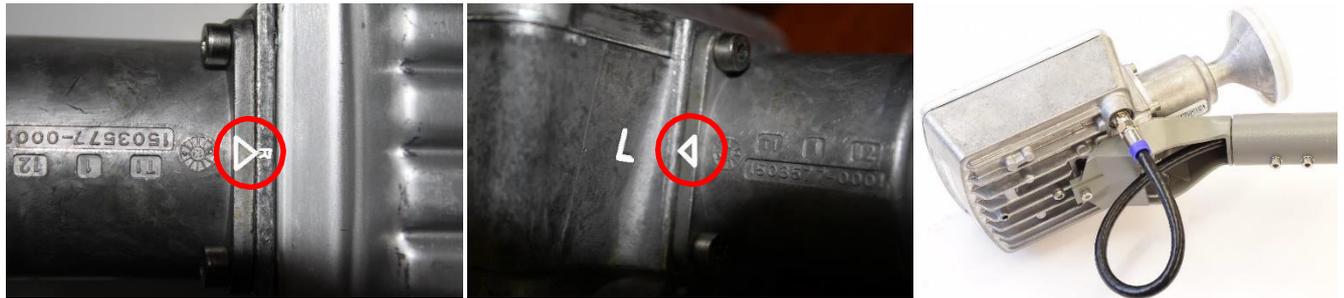
Jupiter systems are all single feed, so you will require a single cable TRIA. If you only have a dual feed setup, you will need to contact us for a dish conversion bracket. This will allow you to use a new style TRIA with an older dish.

These systems are intended to be easier to install – They do not require manual configuration, instead pulling all configuration from the hub, with the aid of a single registration pin and the GPS location, which the customer/installer will input themselves.

If you need to upload the latest **sbc.cfg** file prior to installation, click the **Upload SBC Config** link under the **Advanced** menu (This is accessible by clicking the slightly obscured, darker grey 'i' circular button next to the language drop down box). Make sure you have the most up-to-date configuration file, as you may not otherwise see the correct Beam that you will need to lock onto, or the correct BUC.

**Before you start - Equipment Preparation**

- Install earth cabling. As dishes are generally installed at height, they pose a risk. You can use any standard earth wire, but it is important to ground the equipment in case of lightning strikes.
- The beam you are on will dictate the polarisation. This must be checked before aligning the dish. Not setting this correctly will result in no visible signal lock.



- RF satellite cable: Many problematic installations can be traced back to shoddy cabling. **RG6/WF100** foam fill, copper cored cabling is to be used for both transmit and receive.

Installations using more than **50metres/100ft** should use **WF125** and above **65metres/165ft**, **WF165** should be considered especially for underground runs. Step down F-connectors will be required for these due to the thicker gauge. Leave a single drip loop at the rear of the dish once finished.

It is important that the right quality cable is used in order to achieve the right signal levels. Satellite TV cable (intended for receive only) will not be suitable and transmit issues will likely occur. Good quality cabling will have both a braid and film shielding. Examples below;



Bad – Low loss TV coax cable, insufficient shielding

Bad – Steel core/braid RG6, not suited to sat internet

Good - Quality WF100 Foam Fill



Bad-CT100 (Air Spaced) vs. Good-WF100 (Foam Fill)



Fitting connector – How braid should be trailed/trimmed.



**Before proceeding with the alignment/installation you must load the provided SBC file.**

Go to the Advanced Page>Installation>Install>Advanced>'Upload SBC Config'

\*You will firstly have to select the 'Enter Latitude/Longitude Info' box for the below to appear. At this stage, make sure that you select the correct beam – We will provide this. In some regions multiple beams cover the same area BUT with differing signal strengths. Picking the wrong beam may result in you failing to get the 'Target' signal. If you do not get this, you will not be allowed into the network.

Should you enter the wrong GPS, you may be targeting an unachievable or unrealistic signal level - the Hughes systems determines this according to your location within the satellite footprint. So do make sure you are correct to within 10/15miles.

>The setup start screen – Enter modem GPS and appropriate satellite beam for installation. We will provide the latter.

### Pointing with the modem tool

A SQF value of 31 or greater indicates a lock to the correct satellite beam. You will be told which level you need to reach before activation and this is explained above. Once you are happy with the levels, click next and you will be presented with the following pages.

*\*We would always recommend using a satellite meter for pointing as it is easier to fine-tune – But the below tool can be used instead.*

Satellite Name	EchoStar-19-NAD
Azimuth	189.589°
Elevation	46.598°
Antenna Tilt	8.026°
Uplink Pol	Right-Hand (RH)
Beam Selected	14
Outroute Num	16
Target SQF (System)	220
Estimated Target SQF (Local)	180



SBC State: 22.2.2 (Pointing in progress - outroute locked)

Satellite Name	EchoStar-19-NAD	MAX SQF	Current SQF
Azimuth	189.589°	<b>250</b>	<b>190</b>
Elevation	46.598°		
Antenna Tilt	8.026°		
Uplink Pol	Right-Hand (RH)		
Beam Selected	14		
Outroute Num	16		



1. Install Parameter  
2. Pointing  
3. Registration

[RE-INSTALL](#) [RE-REGISTER](#)

<b>SBC State: 22.3.2 (Registration in progress)</b>		
<b>Range Rate</b>		
Minimum / Target(dB)		/
<b>Ranging Sessions</b>		
Initial / Final EsNo(dB)		/
✓ Ranging Successful		Done
⌛ Registering with Network	[0 registration requests sent]	In Progress
⌛ Associating with Network	[ Trying ALB26HNSWGW0101 ]	In Progress



1. Install Parameter  
2. Pointing  
3. Registration

[RE-INSTALL](#) [RE-REGISTER](#)

<b>SBC State: 0.0.0 (Fully operational)</b>		
<b>Range Rate</b>		OQPSK 512K 1/2
Minimum / Target(dB)		5.1 / 5.8
<b>Ranging Sessions</b>		3
Initial / Final EsNo(dB)		18 / 5.8
✓ Ranging Successful		Done
✓ Registration Successful		Done
✓ Associated with Network	[ ALB14HNSIGW11A001 ]	Done
✓ Configuration Downloaded		Done
✓ Installation Completed!!!	[SAI 12685]	Done

You can now head back to the main modem homepage <http://192.168.0.1/> and Click System Status. We are looking to see all green ticks for a working internet connection.

■ System Status    ■ System Information    English ▾    ⓘ

SAN: --                      ESN: 12000207                      Diagnostic Code: Not Available

**System Summary**

State Code	0.0.0 -- Fully operational	✓✓
Summary Operational State	Up	✓
Data Allowance Remaining	1.799 GB	✓

**System Status**

Satellite Receive Status	Up	✓
Satellite Transmit Status	Up	✓
LAN Status	Up 1G FD	✓
IP Gateway Association State	Associated (Data IPGW - ALB14HNSIGW11A001)	✓
TCP Acceleration	Up	✓
Web Acceleration	Up	✓
Suspension State	Not Suspended	✓
Software Download Status	Up to date	✓

At this point you should be able to browse within a few minutes. If you have no connection after this, do give us a call and we can check further.



**POWER** – indicates if the modem is receiving power.

Red indicates overheating.

**SYSTEM** – indicates if the modem is in the installation process or if it is ready.

**RECEIVE** – indicates if the modem has good signal quality or has a problem with the signal.

**TRANSMIT** – indicates if the modem is transmitting data or is able to transmit data.

**LAN** – indicates if the LAN port of the computer is ready.

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### Support

Online Ticket System  
Bentley Walker Support

<http://helpdesk.bentleywalker.com/>  
[support@bentleywalker.com](mailto:support@bentleywalker.com)  
+44 23 9231 1118

[www.freedomsat.com/support](http://www.freedomsat.com/support)

### Product Documentation

Setup Video

<https://vimeo.com/213917731>

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