

5 Land Mobile or Vehicular Installation

5.1 OW10HV Installation

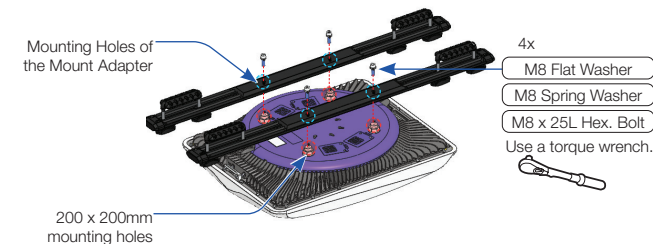
The Land Mobile Mount Adapter Kit (OW-6031) consist of two mount adapter rails and all associated hardware. This kit is available for separate purchase and is compatible with both OW10HV and OW11FV. Intellian's Land Mobile Mount Adapter complies to shock and vibration requirements as defined in ETS 300-019. This mount adapter can be used in conjunction with vehicle roof crossbars.

5.2 Attaching the Antenna to Mount Adapter

Attach the Land Mobile Mount Adapter to the base on the antenna using the provided hardware.

- Turn the antenna upside down.
- Ensure the 200 x 200mm mounting holes on the antenna and land mobile mount adapter are aligned as shown below. Putting the mount adapters in line with the antenna will lead to difficulty installing them on the vehicle.

OW10HV



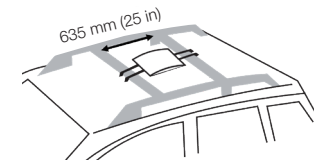
- Insert the four M8x25L hex socket bolts and washers into the mounting holes of the Land Mobile Mount Adapter, then lightly tighten them.
- After installing all 4 bolts, fully tighten the bolts using a torque wrench (Tightening Torque: 27 Nm (20 lb-ft.)).

5.2 Attaching to Vehicle Crossbars

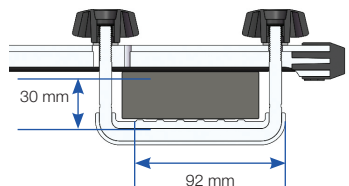
5.2.1 Installing and Positioning the Crossbar

Ensure your vehicle has a crossbar system installed.

- Position the crossbars 635 mm (25") apart at the inside edge.



- Maximum cross sectional dimension for cross bar: 30 x 92 mm (1 3/16 x 3 5/8 in)



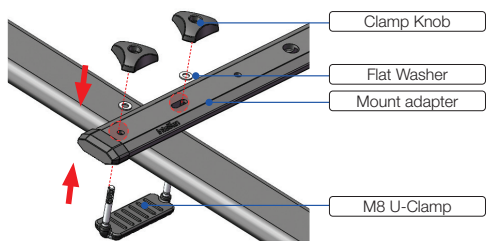
- Avoid interference with items like radio antennas or sunroofs.
- Refer to your owner's manual for detailed instructions.

5.2.2 Attaching the Antenna to Crossbar

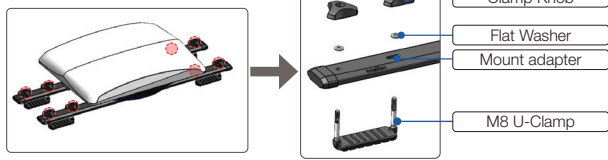
- Loosen all clamp knobs (8 ea) of the Land Mobile Mount Adapter by turning them counter clockwise in order to detach the following components: Flat washer (8set), M8 U-Clamp (4ea) with clamp knob.



- Place the antenna and mount adapter onto the vehicles cross bars, ensuring the coaxial port faces the rear of the vehicle.
- Place the M8 U-Clamp under the crossbar and insert it into the mount hole on the mount adapter. Align the Land Mobile Mount Adapter pieces with the vehicle.
- Feed the lock washer and clamp knob in order on the M8 U-Clamp.



- Fully tighten the clamp knobs by rotating them clockwise to securely attach the Land Mobile Mount Adapter.
- Repeat steps 2 through 4 for each remaining assembly.



- Secure the coax cable to prevent movement while the vehicle is in motion.

1 Important Information

This guide provides basic installation instructions for Intellian OW10HL/OW10HM/OW10HV.  
The detailed installation and operation user guide can be accessed from our Partner Portal website at [intelliantech.com/en/partners/](https://go.intelliantech.com/en/partners/).  
If you need any assistance, please contact Intellian Technical Support ([support@intelliantech.com](mailto:support@intelliantech.com)).

2 Planning Installation

2.1 Downloading Mobile Application

This Quick Installation Guide provides basic installation instructions for Intellian OW10HL/OW10HM/OW10HV LEO User Terminal. A mobile app for step-by-step installation, troubleshooting, and monitoring is available on Google Play and the Apple App store via these custom links:



2.2 Unboxing

Intellian OW10HL/OW10HM/OW10HV LEO User Terminal consists of an indoor unit (IDU) and outdoor unit (ODU) packaged in separate boxes. The outdoor unit package includes the following items.

- OW10HL

Item	Q'ty	Description
ODU Unit	1	User terminal
Quick Installation Guide (QIG)	1	Quick Install Guide
Coax Cable (RG 6)	1	F-type, For CNX Power & Data connection
External SMA Cap	1	External SMA Cap
Grounding cable	1	Flexible Grounding cable
Adjustable Mount Adapter	1	Land Fixed Mount Adapter
M6X12 Hex-S Bolt	2	
Spring Washer	4	Grounding Screw
Flat Washer	4	
M6x12 Hex Bolt	4	
Spring Washer	4	Bolt Kit for Mount Assembly
Flat Washer	4	
RF Hazard Sticker	1	Radiation Safety Distance Label

- OW10HM/OW10HV

Item	Q'ty	Description
ODU Unit	1	User terminal
Quick Installation Guide (QIG)	1	Quick Install Guide
Coax Cable (RG 6)	1	F-type, For CNX Power & Data connection
External SMA Cap	1	External SMA Cap
RF Hazard Sticker	1	Radiation Safety Distance Label

NOTE

The RF Hazard sticker must be placed on the underside or mount of the UT assembly, ensuring that it does not impact RF performance.

2.3 Additional Tools Needed (not included)

- 6 mm hex key
- 10 mm wrench
- 12 mm wrench or deep well socket
- Torque wrench

3 Land Fixed Installation

3.1 OW10HL Installation

Choose the mount that works best for your environment. Intellian offers a Non-Penetrating Mount (NPM) (OW-NPM5-1074-RM), a TriMast Mount (OW-6046), and a QuadPod Mount (OW-6048). For detailed assembly instructions, select the appropriate mount type from the installation and operations guide. Access the guide using the QR code at the top of this page.

3.2 Mounting Antenna Using Adjustable Mount Adapter

Common to all fixed mount solutions is the Adjustable Mount Adapter (OW-6017). This is suitable for a 60mm pole diameter.

OW10HL  
OW10HM  
OW10HV

Eutelsat OneWeb LEO  
User Terminal

Scan the QR code to  
review the User Guide.



[https://go.intelliantech.com/  
OW10HX\\_User\\_Manual](https://go.intelliantech.com/OW10HX_User_Manual)

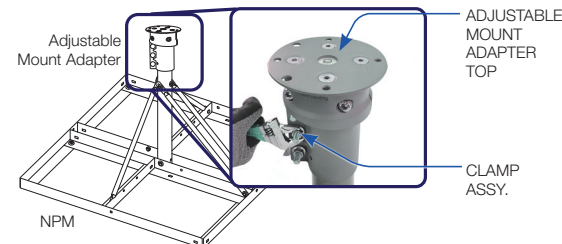
Quick Installation Guide

3.2.1 Attaching Adjustable Mount Adapter to Pole

NOTE

**The Adjustable Mount Adapter must be used only for land fixed installation.**

- Select the appropriate pole mount. (NPM mount used in this example).
- Place the adjustable mount adapter onto the pole.
- Tighten the three bolts of the Clamp Assy using a 12 mm wrench or socket wrench.



3.2.2 Levelling the Adjustable Mount Adapter

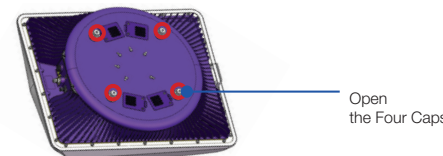
Check if the adjustable mount adapter is level by viewing the bubble level. If the bubble is in the center, then it is level. If it is not, proceed to adjust the top in the following steps.

- Loosen the bolts on the adjustable mount adapter using a 6mm hex key as shown in figure.
- Rotate the top of the Adjustable Mount Adapter until parallel to the ground using the built in leveling tool. Verify that the bubble is aligned within the circle guide.

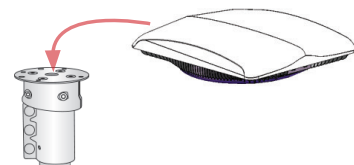


3.2.3 Mounting Antenna on Adjustable Mount Adapter

- With the antenna upside down, open the four caps for the 75 x 75mm mounting holes on the antenna.

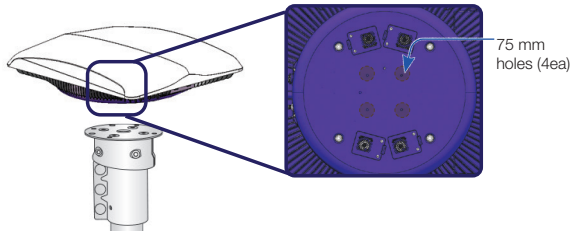


- Move the antenna above the adjustable mount adapter and carefully lower toward the adjustable mount adapter.

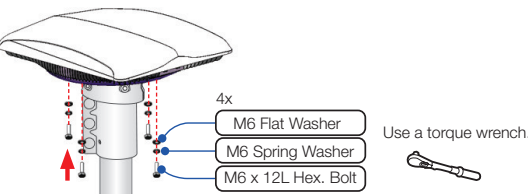




- Align the 75 mm holes on the antenna with the mounting holes on the adjustable mount adapter.



- Find the M6x12L Hex. Bolt M6 Spring and Flat washer (4 ea) from the OW10HL package.
- Insert the bolts and washers from under the adjustable mount adapter into the threaded holes on the bottom of the Antenna, and then tighten them.



- After installing all 4 bolts, fully tighten them using a torque wrench.
- NOTE**
- Make sure the following is completed before installing system cables.
    - All cables with connectors need to be fully secured and protected from physical damage.
    - Do not use any cabling which has been bent beyond recommended tolerance.

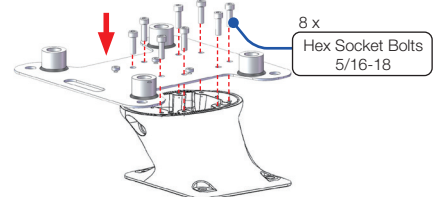
## 4 Maritime Installation

### 4.1 OW10HM Installation

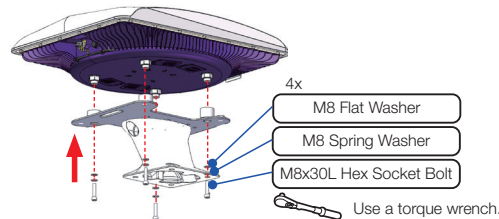
Choose the mount that works best for your environment. Intellian offers a Maritime Mount Adapter Plate (OW-6019\_A) and a Maritime Pole Mount Adapter (OW-6034) for purchase. For detailed assembly instructions, select the appropriate instructions from the user guide. Access the guide using the QR code on the first page.

### 4.2 Attaching Antenna to a Pedestal

- Align the Maritime Mount Adapter Plate with the pedestal holes.
- Apply Loctite #242 to the 5/16-18 bolts (8 ea), insert them from above the adapter plate, and hand-tighten.
- Fully tighten the bolts using a 6 mm (0.25") hex key.



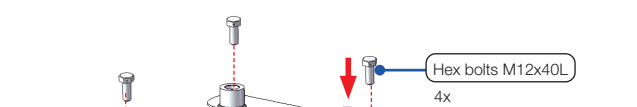
- Attach the antenna to the Maritime Mount Adapter using M8x30L bolts (4 ea) and washers, ensuring not to block the fans, and hand-tighten.



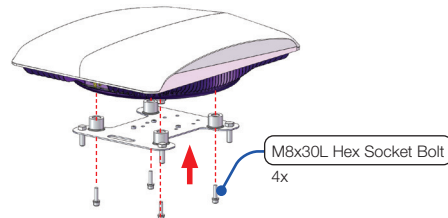
- Fully tighten all bolts using a torque wrench.

### 4.3 Attaching Antenna to a Mast

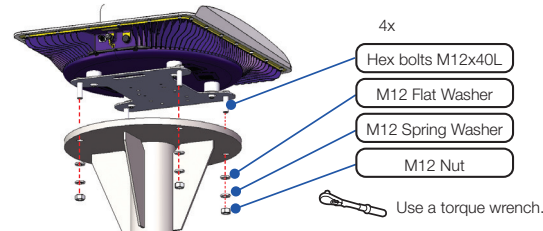
- Gather the M12x40L bolts (4 ea), M8x30L bolts (4 ea), washers, and spring washers from the Maritime Mount Adapter Kit.
- Apply Loctite #242 to all bolt threads before installation.
- Insert M12x40L bolts (4 ea) into the corner holes of the Maritime Mount Adapter Plate and secure temporarily with tape.



- Attach the antenna to the adapter using M8x30L bolts (4 ea) and washers, ensuring not to block the fans, and hand-tighten.



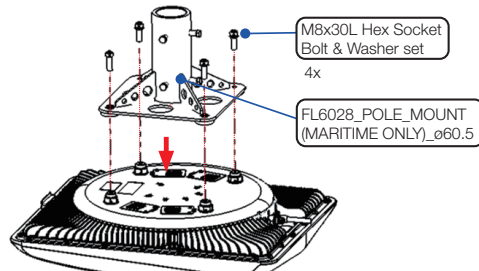
- Fully tighten the M8 bolts using a torque wrench.
- Align the M12x40L bolts with the mast plate holes, secure with washers and nuts, and fully tighten using a torque wrench.



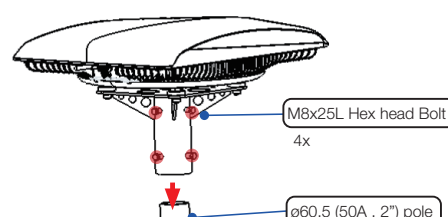
- NOTE**
- Add washers between the adapter plate and mast if leveling is required.

### 4.3 Attaching Antenna to a Mast

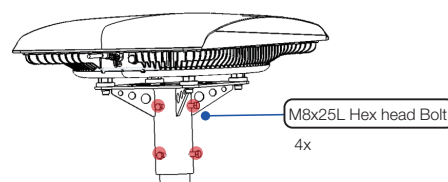
- For the maritime pole mount install, ensure that the 60mm pole is used for the installation. Prior to the install, prepare all relevant bolts and washers included in the (OW-6034) package.
- Prepare the ODU and turn the antenna upside down and align the Maritime Pole Mount Adapter with the 4 mounting points
- Fixate the maritime pole mount adapter and the ODU using the M8x30L hex socket bolts & washer set (4 ea).



- Once ODU and the pole mount is secured, assemble it onto the 60mm pole and push in to the end of the adapter hole.



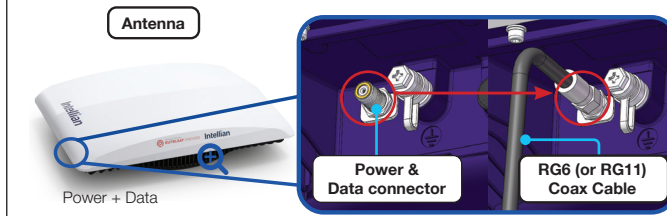
- Secure the pole and the pole adapter using M8x25 hex socket bolts (4ea). Tighten the four bolts to securely push the pole surface back with inner pole mount surface.



## 6 Cable Connection

### 6.1 Connecting Cable to the Antenna Power & Data Port

- Terminate the M(Male) connector on both ends of the coaxial cable.
- Connect the coaxial cable to the Power & Data (F-port) connector on the antenna.



- CAUTION**
- Do not over-tighten the F-type connector or handle it improperly during installation.** It may cause damage to the F-type ports on the CNX and ODU. All installers must ensure that no more than 1 Nm (limit for current design: 2.26 Nm or 20 in.lbf) of torque is applied during the installation process.

### 6.2 Installing the Cold shrink Tube on the Cable

- WARNING**
- Unstable cable connections can cause intermittent contact, which may negatively affect communication and lead to electrical issues n the UT. Always secure connection firmly.

To prevent cable damage, use the supplied cold shrink tube when wrapping the cable and connector by following the steps below.

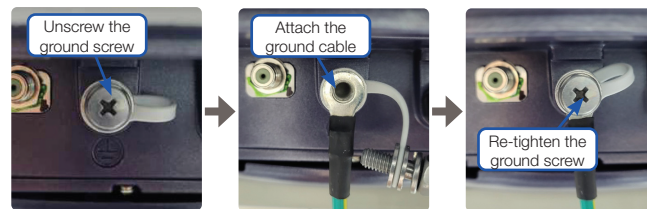
#### Note for Installation

- Ensure there are no sharp or acute edge on the cable part where the cold shrink tube is to be installed.
- Be careful not to damage the cold shrink tube with sharp objects when taking it out of the PE bag.



### 6.3 Connecting Ground Cable for Land Fixed (OW10HL)

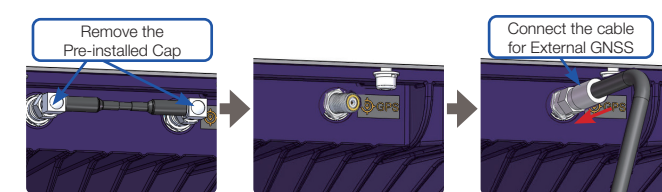
- Find the ground cable and M6 x 12L bolt from the installation kit box.
- Unscrew the ground connector screw.
- Attach the ground cable's ring connector to the ground connector and tighten the screw.



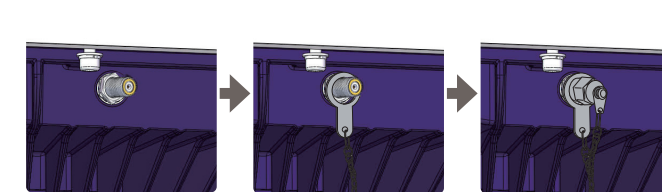
- Secure the other end of the ground cable to the marked grounding point using the M6 x 12L bolt.

### 6.3 Connecting External GNSS (Optional)

- Purchase an external GNSS (sold separately).
- Remove the cap from the SMA connector on the antenna.
- Connect the external GNSS cable to the SMA connector.



- Close the unused connector with the supplied SMA cap.



## 7 CNX (Customer Network Exchange)

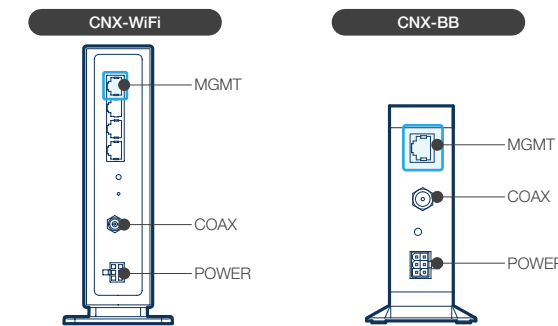
The User Terminal is made available with a range on CNX solutions to suit every environment.

### 7.1 Installing CNX-WIFI / CNX-BB

The CNX-WIFI should be placed vertically, and both the CNX-WIFI and CNX-BB should be in a clean, dry area.

Ensure there is adequate space around the CNX-WIFI / CNX-BB to allow for proper ventilation and prevent overheating.

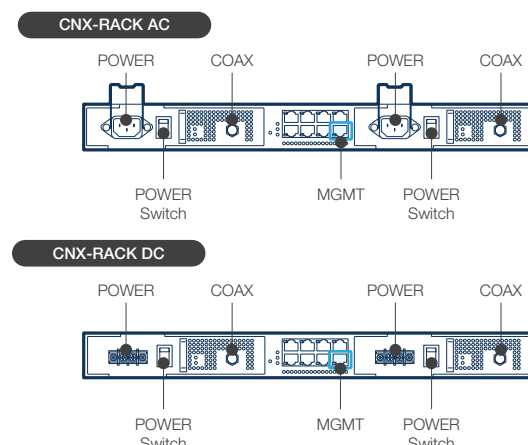
- Coaxial Cable:** Connect the coaxial cable from the antenna to the **COAX** port.
- Power Cable:**
  - AC-DC Adapter: Plug the power cable into the power adapter. Then, connect the power adapter cable to the **POWER** port and plug the other end into the power outlet.
  - DC-DC Converter: Connect the 6-pin power connector from the DC-DC converter to the **POWER** port, and plug the remaining connectors into the power outlet.
- LAN Cable:** Connect the LAN cable to the **MGMT** port to configure the antenna.



### 7.2 Installing CNX-Rack

The CNX-Rack should be in a clean, dry area where it can be placed horizontally in a 19" rack using the rack mounting brackets that are included in the CNX-Rack package.

- Coaxial Cable:** Connect the coaxial cable from the antenna to the **COAX** port.
- Power Cable:** Connect the power cable to the **POWER** port and plug the other end into the power outlet. Then, turn on the power switch to activate the antenna.
- LAN Cable:** Connect the LAN cable to the **MGMT** port to configure the antenna.



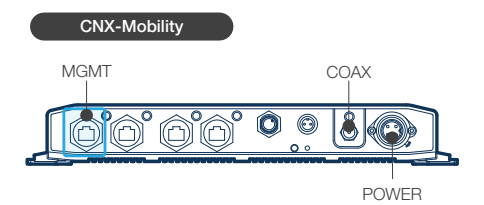
### 7.3 Installing CNX-Mobility

The CNX-Mobility should be placed in a fixed location. For the mounting of the CNX-Mobility, 4 feet with mounting holes and mounting hardware are provided, as well as an optional 19" rack mount adapter kit.

- Coaxial Cable:** Connect the coaxial cable from the antenna to the **COAX** port.
- Power Cable:**
  - AC-DC Adapter: Plug the power cable into the power adapter. Then, connect the power adapter cable to the **POWER** port and plug the other end into the power outlet.
  - DC-DC Converter: Connect the power connector from the DC-DC

- converter to the **POWER** port, and plug the remaining connectors into the power outlet.

- LAN Cable:** Connect the LAN cable to the **MGMT** port to configure the antenna.



## 8 Commissioning

The LUI (web browser based Local User Interface) or the mobile app will guide you through the installation process.

### 8.1 What is an Ephemeris File

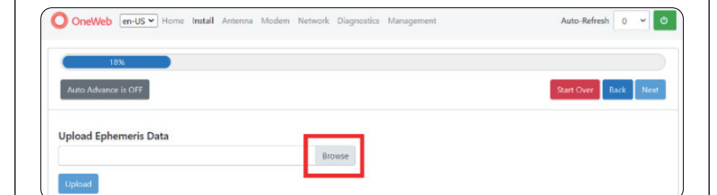
Ephemeris Data contains current information about the orbits of the satellites in the OneWeb constellation. The User Terminal uses ephemeris data to determine the positions of the satellites in the sky at any given time.

Ensure the use of an ephemeris file that is no older than 30 days.

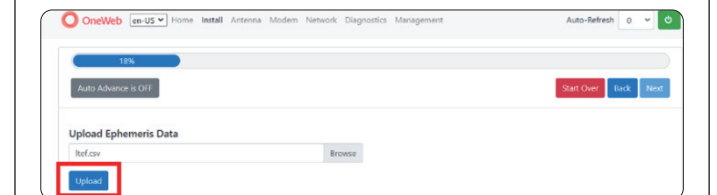
- From a web browser, navigate to <https://ephemeris.oneweb.net/>.
- Select the **Itetf/ directory**.
- Select the **Itetf.csv** file to download.

### 8.2 Installation with the LUI

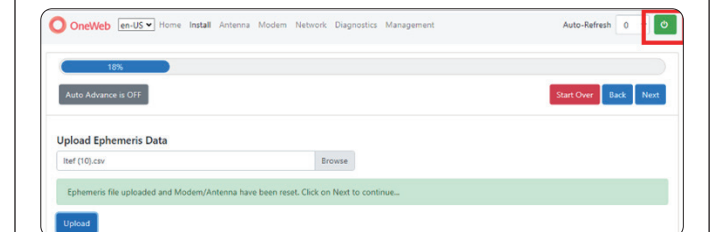
- Ensure you have a computer connected to the MGMT (management) port of the CNX.
- Open a browser and access the LUI main page by typing 192.168.100.1 in the address bar. Select **Install** from the menu.
- Select the **Next** button on the Begin Your Installation page.
- Select the **Next** button on the Upload Software Bundle page.
- Select the **Browse** button on the Upload Ephemeris page.



- Select the **Itetf.csv** file downloaded earlier and click **Open**.
- Select the **Upload** button.



- When the upload has completed, a message will display that it has been reset.



Once the ephemeris is initially updates, the file will be updated automatically. Verify operation by checking the main page of the LUI. The Operating Mode will be **Online**.

