



TRI-GLOBAL
TECHNOLOGIES



TECHNICAL SUPPORT DOCUMENTATION

Introduction to the Asteri GNSS Receiver

A Comprehensive Guide to the Asteri X1 through X4



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Related Resources

[Asteri Warranty Policy](#)

SUPPORT EMAIL
support@triglobal.net

PHONE
+1 706-410-2372

WEBSITE
triglobal.net

DOCUMENT REF
SUP-GUI-AST-002



Classic Models: Asteri X1 - X4

Product Overview & Identification: X1 - X4

Serial Number

To access the serial number, detach the battery compartment cover from the backside of the unit and remove the battery. The serial number is located immediately below the barcode within the battery bay.

Standard identifiers utilize a prefix such as TGH, TGT, TGU, or TGK followed by a nine-digit numeric sequence (e.g., TGT123456789).

Note: Units with the TG9P prefix utilize an eight-digit numeric sequence (e.g., TG9P12345678).

BLE vs. MFi

Classic Asteri receivers (X1-X4) will be one of two models: the Asteri MFi or the Asteri BLE. Identifying your specific model is a critical first step for troubleshooting Bluetooth connectivity and determining software compatibility.

Identification Methods

1. **Label Color:** The most direct way to distinguish models is the front label.
 - a. MFi models feature a **GOLD** label
 - b. BLE models feature a **BLACK** label.
2. **Serial Number:** If the label is missing, the model can be identified via the serial number located underneath the battery. Please contact a Tri-Global support technician to confirm the hardware version. For information on determining your Asteri serial number, see the section titled [Serial Number](#).



	Asteri BLE	Asteri MFi
Label Color	Black	Gold
		

Physical Interface: Asteri X1 - X4

Power

The power switch for Asteri X1-X4 receivers is located underneath the rubber dust cover on the bottom of the receiver. To power the device on or off, flip the switch toward the desired labeled function.

Port Guide

In addition to the power switch, there are two cable ports underneath the rubber dust cover on the bottom of all Asteri X1-X4 receivers.

1. Charging Port (Left)
2. Antenna Port (Right)

Battery & Charging: Asteri X1 - X4

Battery Level Indicator

The battery level indicator can be found at the bottom front of Asteri models X1-X4. The battery level is represented by 4 LED lights.

- 4 LEDs: 100% battery remaining.



- 3 LEDs: 51-99% battery remaining.
- 2 LEDs: 26-50% battery remaining.
- 1 LED: 11-25% battery remaining.
- 1 LED, Flashing: 10% or less battery remaining.

Charging Your Asteri

CAUTION: Tri-Global does not recommend charging an Asteri BLE model while the device is powered on. Charging Asteri BLE receivers while the device is powered on may result in power surges that damage the receiver. To determine which Asteri model you have, please refer to the section titled [Product Overview & Identification: Asteri X1 - X4](#).

To charge your Asteri X1-X4, you'll need to connect your AC adapter to the LEMO to AC adapter. The AC adapter is the cable that plugs into the wall while the LEMO to AC adapter plugs into the Asteri receiver.



Proper Charger Insertion & Disconnection

It's important to take proper precaution when inserting and disconnecting the LEMO to AC adapter into and from the Asteri receiver.



- **To connect** your Asteri properly, align the red dot on the cable with the indentation on the Asteri's charging port.
- **To disconnect** your Asteri properly, pull back on the flange of the cable before pulling the cable out.

Vehicle Charging

CAUTION: Tri-Global does not recommend charging any Asteri battery in an environment that is not temperature controlled.

There are two methods of charging an Asteri with a vehicle charger.

1. [Asteri Vehicle Charger](#) and [External Charging Dock](#).
 - a. Connect the charger to the external charging dock. Remove the battery from the Asteri receiver and place it in the charging dock.
2. Asteri Vehicle Charger and LEMO to AC adapter.
 - a. Connect the vehicle charger to the LEMO to AC adapter. Plug the LEMO to AC adapter into the Asteri receiver.

Battery

Inserting and Removing the Battery

To insert or remove a battery from an Asteri, you will need to remove the battery door on the backside of the receiver.

- Lift the tab and twist it counterclockwise to remove the door.
- Insert or remove the battery as you wish.
- Replace the battery door and twist the tab clockwise to secure it.

LED Status Indicators: Asteri X1 - X4

LED Status Indicators: Asteri X1 - X2

On the Asteri X1 and X2, there are two status indicator lights located on the top front of the receiver.



1. Power Indicator (Left)

- a. When the Asteri device is powered on, the leftmost LED light will be on.
- b. When the Asteri device is powered off, the leftmost LED light will be off.

2. Bluetooth Indicator (Right)

- a. When your Asteri device is connected to another device via Bluetooth, the rightmost light will be ON.
- b. When your Asteri device is not connected to another device via Bluetooth, the rightmost light will be OFF.

LED Status Indicators: Asteri X3 - X4

On the Asteri X3 and X4, there are three status indicator lights located on the top front of the receiver.

1. Power Indicator (Left)

- a. When the Asteri device is powered on, the leftmost LED light will be on.
- b. When the Asteri device is powered off, the leftmost LED light will be off.

2. GPS Satellite Indicator (Middle)

- a. **Connected to Satellites:** When connected to satellites, the middle light will flash the same number of times as the number of satellites currently tracked, followed by a 5 second pause. It will then repeat.
- b. **No Satellites Detected:** When the receiver cannot communicate with any satellites, the middle light will flash once followed by a 5-second pause. It will then repeat this pattern.
- c. **Satellites Detected but Position Unknown:** When the receiver is communicating with satellites but has not calculated your position, the middle light will flash rapidly nonstop.
 - i. This is usually observed after powering the device on from a cold start and may take 3-4 seconds to obtain a satellite fix.



3. Bluetooth Indicator (Right)

- a. When your Asteri device is connected to another device via Bluetooth, the rightmost light will be ON.
- b. When your Asteri device is not connected to another device via Bluetooth, the rightmost light will be OFF.