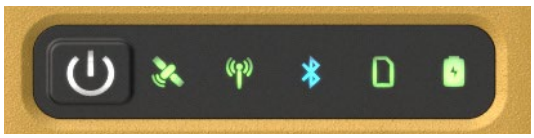
QG-HiPer XR Quick RTK Guide

Using the XR Power button and its functions LED patterns and Receiver Resets



1 2 3 4 5 6

1. Power Button /Multifunction
2. Satellite Condition LED
3. Radio Modem LED
4. Bluetooth LED
5. Recording LED
6. Battery Capacity LED

The front **display** panel is referred as the **MINTER** in the manuals for Topcon this MINTER describes the status and operations being done by the receiver.

The Power Button Multifunction's

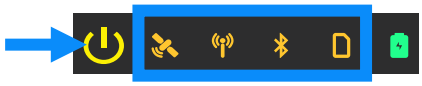
- **Battery status** while the receiver is off:
  One single press to check the **battery level**.

  The Battery LED will flash the current battery charge status.

  Green = **More** than **50%**

  Yellow = **Less** than **50%** more than **15%**,

  Red = **Less** than **15%**

- **Power On:** 

  Press and hold the power button pass 2 seconds **until** all the **LEDs** turn to the color **Amber** **(orange, yellow)**.

- **Logging Data:**

  To start or stop logging static data, press and release the power button **3 times within 2 seconds.** The SD card Memory LED will start flashing.

HiPer XR Resets

From time to time, you may need to reset the GNSS receiver to clear almanacs and/or settings from previous connections or tasks.

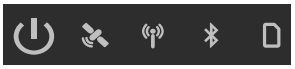
Reset Parameters:

- **Press and hold** the **power button** for 15 to 20 seconds **until all LEDs are Yellow**.
  - This Resets receiver tracking, port settings, and communication parameters**.**

Factory reset:

- **Press and hold** the **power button** for 30 to 35 seconds **until all LEDs turn Red**.
  - This process completely restores the receiver to its factory settings, erasing settings configurations, GNSS ephemeris, and almanac data.
  - IP address or Wi-Fi password will be reset to factory defaults.
  - Raw GNSS data recorded such as static files are saved.
  - The receiver will need to re-collect the almanac which will take about 15 minutes to collect.

Emergency shutdown:



- Only use this if Reset Parameters and a Factory reset has been performed, the receiver is still unresponsive and **will not power off**, press and hold the power button for more than **60 seconds until all LEDs are Off.** Release when all LEDs are off.

HiPer XR LED RTK Indicators

The HiPer XR LED is different than previous receivers in that the LED pattern displays the positioning status instead of the of the constellations and number of tracked satellites.

Flashing Red indicates **No Satellites** are being tracked.

Solid Red indicates **Satellites** are being tracked but **no position** is available.

Solid Yellow indicates **Satellites are being tracked** but no fix solution has not been obtained also known as **Floating**.

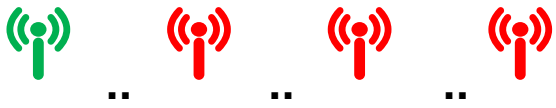
Solid Green indicates **Satellites** are being tracked and used. An **RTK Fixed solution** has been obtained.

Flashing Red, **Green** and **Yellow** indicates that **OAF file is required.**

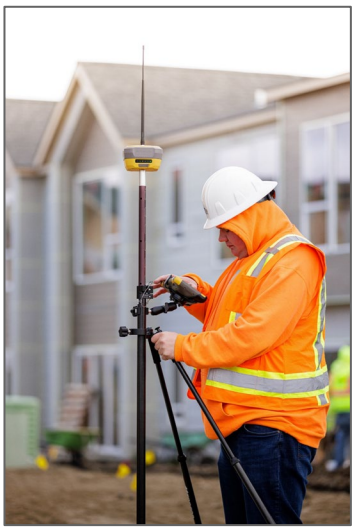
(**O**ptions **A**uthorization **F**ile) is expired or invalid.

HiPer XR Radio LED Signal indicator

The Base radio modem LED appears Solid Green and blinks Red. It will blink at the interval of the radio setting.



The Rover radio modem LED will be solid green with yellow blinks at the radio interval when the signal is received.



Network Rover RTK also known NTRIP RTK, the GNSS Rover radio **LED will be OFF.**

Caution HiPer XR Radio LED Low Battery

The Base: In the case of the internal battery capacity of the Base drops to 5%, The modem will be turned off automatically.

During this process, the HiPer XR **Base Radio LED will flash Red** rapidly, and the **battery LED** will be **Solid Red.**

This keeps the internal battery pack capacity above zero and lets the receiver do a safe shutdown. This saves recorded data and the receiver configuration.

The Rover status will change from RTK Fixed to Float and then Autonomous. The RTK age indicator will steadily increase indicating that the rover is no longer receiving RTK corrections.

This is an indicator that the HiPer XR base should be connected to external power immediately to restore corrections. Once the HiPer XR's battery is above 5%, the HiPer XR will resume its previous activity.

Base Radio LED
Flashing rapidly

Yellow satellite LED,
Solid green radio LED

TOPCON