

# R750

## GNSS RECEIVER



**CAUTION** – Before operating this product, please read the safety warnings and information. Go to <https://receiverhelp.trimble.com/r750-gnss>.

## ACCESSORIES AVAILABLE FOR PURCHASE

Please contact your Trimble dealer.

### AC power kits

- ▶ International (P/N GNSS-AC-INT)
- ▶ China ( P/N GNSS-AC-CHN)
- ▶ Japan ( P/N GNSS-AC-JPN)
- ▶ USB-C Wall charger with cable (P/N GNSS-AC-USB)

### Cables

Recommended cable combinations for LEMO and DB26 connectors on the receiver using a DC power source

- ▶ LEMO: for external lead acid battery:
  - P/N 46125-20: Cable - Power, 3 m (10 ft), LMO to battery clips
- ▶ LEMO: combination 3.3 m, external lead acid battery, COM1:
  - P/N 59044-10: Cable - Data/Power, 1.5 m, DB9(F) to OS/7P/M to SAE
  - P/N 83223-02-HH: Cable - Power, 1.8 m, SAE to battery clips
- ▶ DB26: combination 2.3 m, external lead acid battery, COM1/2/3/4, ETH, 1PPS:
  - P/N 78235-10: Cable - Data/Power, 0.5 m, DB26(F) to DB9(F)/DB9(M)/RJ45(F)/BNC/SAE
  - P/N 83223-02-HH: Cable - Power, 1.8 m, SAE to battery clips
- ▶ 2.7 m DC extension cable for cable options #2 and #3 above:
  - P/N 51862-00-HH: Cable - SAE to SAE, power cable, 2.7 m (9 ft)
- ▶ USB-C: cable for external 15 V USB-PD powerpack or wall charger
  - P/N 121920-01-HH: Cable - 2 m, USB-C to USB-C power/data, R750

### R750 receiver to an external UHF radio

- ▶ P/N 66656-10: TDL 450/HPB450 radio (OS/1S Lemo; SAE power) – Cable ships with TDL 450H kits.
- ▶ P/N 59044-10: Data/Power, 1.5 m, DB9(F) to OS/7P/M to SAE – Used to connect with third-party radio cables.




## UPGRADES AVAILABLE FOR PURCHASE

- ▶ Precise Rover
- ▶ Precise Base
- ▶ BeiDou tracking (B1, B1C, B2, B2A, B2B, B3)
- ▶ Galileo tracking (E1, E5-A, E5-B, E5-AltBOC, E6)
- ▶ Premium Precise Rover (Precise Rover + BeiDou + Galileo)
- ▶ Premium Precise Base (Precise Base + BeiDou + Galileo)
- ▶ Premium Precise Base and Rover (Precise Base + Precise Rover + BeiDou + Galileo)

Please contact your Trimble dealer.

# 1

## INSTALL THE NANO-SIM CARD – OPTIONAL

1. Ensure the receiver is turned off.
2. Remove the cover on the bottom of the receiver to access the SIM card slot.
3. Insert the Nano-SIM card.
4. Reattach the cover over the SIM card slot.
5. Activate the Nano-SIM card. Press   . Select **LTE Modem**. Enter the APN and enable.



# 2

## CHARGE THE INTERNAL BATTERY

1. Connect the USB-C PD power adapter (P/N 121928-01) and cable (P/N 121920-01) to the USB-C port on the receiver.
2. The receiver display shows the current charge status.
3. It takes up to 5.5 hours to fully charge the battery.

When the R750 receiver with the UHF radio is transmitting at 2 W, the battery lasts for about 4 hours at room temperature.

Adding a USB-PD powerpack (30,000 mAh) to a fully charged internal battery provides about 13.9 hours of power.



**TIP** – Alternatively, use the Trimble power supply (P/N 107000) with a DB26 adapter (e.g. P/N 57168) or a lemo cable with DC input (e.g. P/N 59044) to charge the internal battery.

# 3

## ACTIVATE WARRANTIES, INSTALL OPTIONS AND RADIO SETTINGS, AND UPDATE THE RECEIVER FIRMWARE

1. Install Trimble Installation Manager.  
Go to [www.trimble.com/installationmanager](http://www.trimble.com/installationmanager).
2. Connect the receiver to your computer using a USB-C or serial cable.
3. Start Trimble Installation Manager.
4. Select the **Receiver** tab and click **Connect**.

For information on updating the receiver firmware, go to <https://receiverhelp.trimble.com/r750-gnss>.



# 4

## CONNECT THE GNSS ANTENNA

Connect the GNSS antenna cable (e.g. P/N 58957-02) to the TNC connector on the receiver back panel. Do not overtighten.



# 5

## CONNECT THE RADIO ANTENNA

Connect the UHF radio antenna (P/N 123588) or external UHF antenna cable to the RP-TNC connector on the receiver back panel. Do not overtighten.



**NOTE** – If you are using a standard polarity 450 MHz external UHF antenna cable, a reverse polarity TNC adapter (P/N 119128) is required. Do not use an adapter with a standard polarity whip antenna (e.g. P/N 44085-60) as this could negatively affect the performance of the radio.

# 6




## CONNECT THE ETHERNET CABLE

1. Connect a Trimble DB26 adapter with an RJ45 socket (e.g. P/N 57168), to the DB26 connector on the receiver rear panel.
2. Connect an RJ45 cable to the socket on the DB26 adapter.



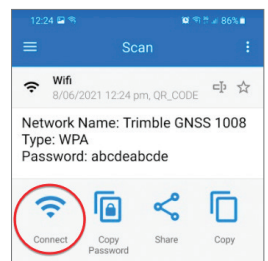
# 7

## CONNECT TO THE RECEIVER WEB INTERFACE

1. 
  2. Do one of the following:
    - a.   Scan the QR code.  
The SSID (network name) and password are displayed on your smartphone.
    - b. Find the receiver access point SSID under the available Wi-Fi networks on your smartphone or computer.
- The default SSID is **Trimble GNSS xxxx**, where xxxx represents the last four digits of the receiver serial number.
3. Tap **Connect** to connect to the receiver access point.  
The default network password is **abcdeabcde**.
  4. On your smartphone or computer:
    - a. Open a web browser and enter the IP address:  
**http://192.168.142.1**
    - b. Log into the web interface. The default login details are:



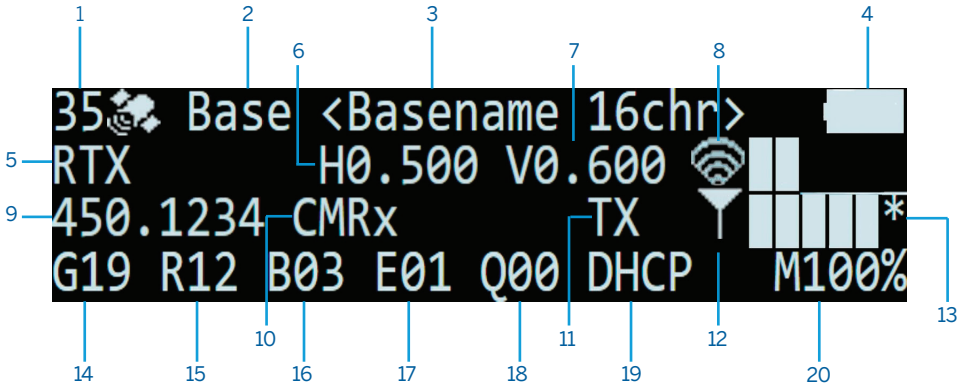
iPhone



Android smartphone

# SCREENS

## Home screen



- 1 Number of tracked satellites
- 2 Operation mode
- 3 Base station name and code
- 4 Internal battery state
- 5 Position solution
- 6 Horizontal precision estimate
- 7 Vertical precision estimate
- 8 Wi-Fi reception (RSSI):  
\* = Internet connection (Wi-Fi).  
A = Access Point mode enabled.
- 9 UHF transmit frequency/channel
- 10 Output correction type
- 11 **TX** flashes when corrections are transmitted
- 12 LTE reception (RSSI)
- 13 \* = Internet connection (LTE).
- 14 Number of tracked GPS satellites (G)
- 15 Number of tracked GLONASS satellites (R)
- 16 Number of tracked BeiDou satellites (B)
- 17 Number of tracked Galileo satellites (E)
- 18 Number of tracked QZSS satellites (Q)
- 19 Wired Ethernet connection mode
- 20 Available internal memory (Logging)

## Status screens



## Configuration screens



## FURTHER INFORMATION

For more information about using the receiver, go to <https://receiverhelp.trimble.com/r750-gnss>. Help is also available in the receiver web interface.

# REGULATORY INFORMATION

For full legal and regulatory information, please go to <https://receiverhelp.trimble.com/r750-gnss>.

## Australia and New Zealand

This product conforms with the regulatory requirements of the Australian Communications and Media Authority (ACMA) Radiocommunications Act, thus satisfying the requirements for RCM Marking and sale within Australia and New Zealand.



## Canada

This device contains licence-exempt transmitter(s)/ receiver(s) that comply with Innovation, Sciences and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference, including interference that may cause undesired operation of the device.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage;
- (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be chosen so that the equivalent isotropically radiated power (EIRP) is not more than that required for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (PIRE) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This apparatus complies with Canadian RSS-GEN, RS-102, RSS-247, RSS-130/132/133/139/199.

Cet appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-130/132/133/139 et CNR-199 du Canada.

## Europe

Hereby, Trimble Inc., declares that the R750 GNSS receiver complies with the following directives:

- EN 300 113, EN 300 328, EN 301 908, EN 303 413, EN IEC 62368-1
- RED 2014/53/EU
- RoHS Directive 2011/65/EU
- WEEE Directive 2012/19/EU

## CE marking

The products covered by this guide may be operated in all EU member countries (BE, BG, CZ, DK, DE, EE, IE, EL, ES, FR, HR, IT, CY, LV, LT, LU, HU, MT, NL, AT, PL, PT, RO, SI, SK, FI, SE, UK), Great Britain (England, Wales, Scotland), Norway and Switzerland. Products been tested and found to comply with the requirements for a Radio Equipment device pursuant to European Council Directive 2014/53/EU on EMC, thereby satisfying the requirements for CE Marking and sale within the European Economic Area (EEA). Contains a Bluetooth radio module. These requirements are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential or commercial environment.



## Recycling

For product recycling instructions and more information, go to [www.trimble.com/Corporate/Environmental\\_Compliance.aspx](http://www.trimble.com/Corporate/Environmental_Compliance.aspx).

## Supplier's Declaration of Conformity

47 CFR 2.1077 Compliance Information

UNIQUE IDENTIFIER: R750

RESPONSIBLE PARTY  
Trimble Inc.  
10368 Westmoor Drive  
Westminster CO 80021  
USA



## USA

### FCC Compliance Statement

Model Numbers: R750/MPS566/9410-AUT-90,  
R750/MPS566/9410-AUT-60

FCC IDs: JUPR750M566-90,  
JUPR750M566-60

FCC Class B - Notice to Users. This device complies  
with part 15 of the FCC rules.



RESPONSIBLE PARTY:

Trimble Inc.  
10368 Westmoor Drive  
Westminster CO 80021  
USA

[www.trimble.com/Corporate/Contacts.aspx](http://www.trimble.com/Corporate/Contacts.aspx)

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications made to this equipment not expressly  
approved by Trimble Inc may void the FCC authorization to  
operate this equipment.

### FCC Certified Modular Transceiver

The TRM900 (902.0 MHz to 928.0 MHz) Limited Singular-  
Modular Transceiver is only approved for use by Trimble in its  
own GNSS Receiver products and not intended for sale to third  
parties. This module is not intended for OEM integrators or end  
users.

As a Limited Single Module, additional compliance evaluation is  
required for use in each of the GNSS Receiver host.

The antenna listed below is allowed to be used with this  
transmitter module:

- A monopole antenna peak gain of 5.0 dBi (868 MHz to 928 MHz), 3.6 dBi (410 MHz to 473 MHz). The connector type is TNC.

The TD1450i Singular-Modular Transceiver (403.0 MHz to 473.0 MHz) is approved for use with the same antenna listed above. The connector type is also TNC.

