

# LTE Cat1 / 4G GPS Gateway

## Operating Manual

WG-E690

### Noted

- The upper cover (LED side) should face the sky and do not be covered with metal or metallic paint.
- Need USB to RS-485 cable for programming settings.
- Standard cable length 30cm or 200cm.

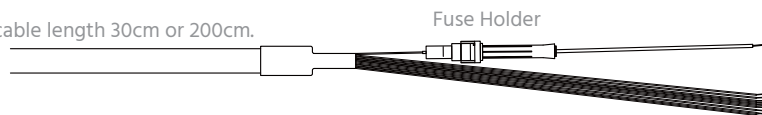
### Installation Guide

1. Install SIM card inside.
2. Connect to car battery or power source.
3. Configure and setting everything you need.
4. Make sure the indicate turn to green and flash three times.
5. After your server can collect tracker information, please install tracker into your car.



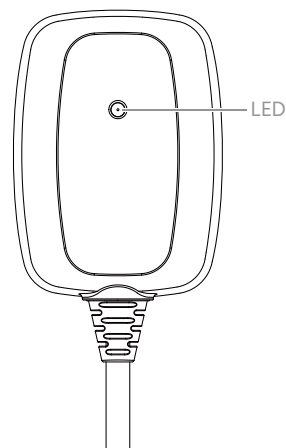
### Pin Define

Standard cable length 30cm or 200cm.



Fuse Holder

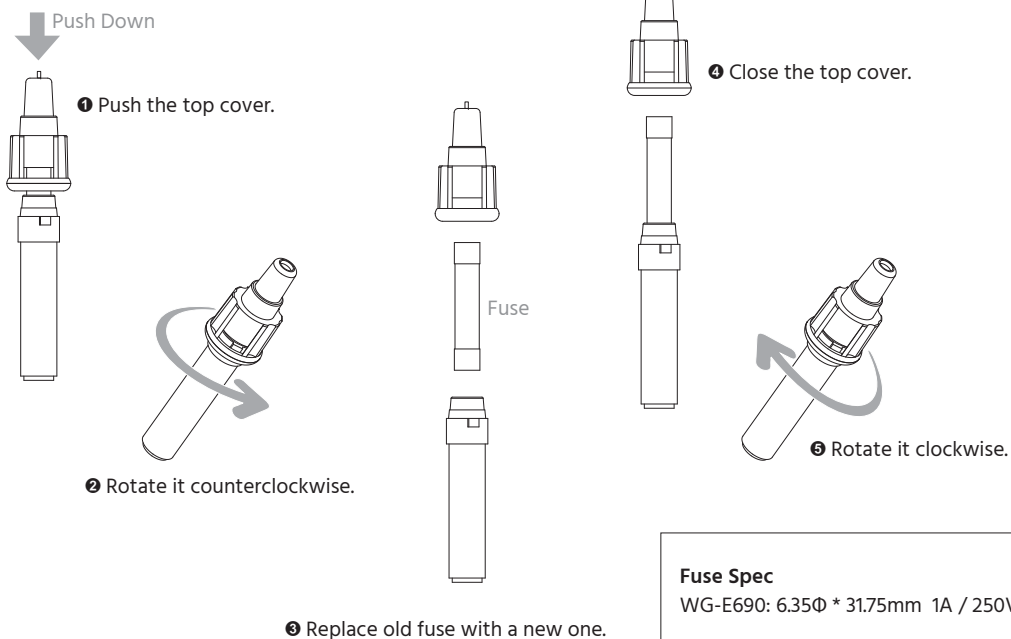
DC IN+_ Red Wire	DC 10~36V
DC IN_- Black Wire	GND
RS-485 A_Green Wire	Non-isolator differential interface, Data -
RS-485 B_White Wire	Non-isolator differential interface, Data +
TRIGGER1_ Purple Wire	Signal level 10~33V, Triggered by status changed
TRIGGER2_ Blue Wire	Reserve
TRIGGER3_ Light Blue Wire	Signal level 10~33V, Triggered by status changed
DI / O INPUT_ Yellow Wire	Signal level 10~33V, Analog Input Support 0~10V / 0~20mA / 4~20mA / ADC (0~10V), Digital Input support High / Low
DI / O OUTPUT_ Brown Wire	Open drain, ON / OFF function
DI / O GROUND_ Gray Wire	Digital input / Digital output / TRIGGER / IGNITION GROUND



### LED Indicate

- **Yellow Light Stay On**  
Entry test mode and self-testing.
- **Green Light Stay On**  
Ready and test finish, entry to standby mode.
- **After Standby Mode**  
[ Green Light Flashing Once Per Second ] SIM ready.  
[ Green Light Flashing Twice Per Second ] SIM ready + Server is connected.  
[ Green Light Flashing Three Times Per Second ] SIM ready + Server is connected + GPS working.
- **Red Light Flashing**  
[ In Test Mode ] SIM or GPS error.  
[ In Standby Mode ] NO SIM card inside.
- **Red Light Stay On**  
Other errors.
- **Green + Yellow Flashing**  
Entry configuration mode.
- **Yellow Light Flashing**  
Entry boot mode, firmware update only.
- **LED Off**  
If you stay in silence mode, LED will turn off after test mode.

### Replace Fuse

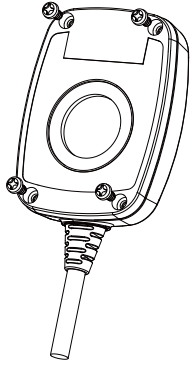


#### Fuse Spec

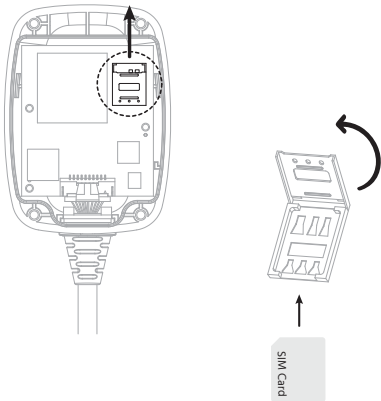
WG-E690: 6.35Φ \* 31.75mm 1A / 250V

## Install NANO SIM Card

- 1 Remove the four screws from the lower cover and open the lower cover.



- 2 Open SIM card holder, insert SIM card and lock holder.



- 3 Put the lower cover back and reinstall the four screws to the lower cover.

## Specification

Cellular Protocol	LTE-Cat1
Internet Protocol	TCP / UDP / MQTT / MQTTS / Line Notify
Operating LTE Bands	Band 1 / Band 3 / Band 5 / Band 7 / Band 8 / Band 28
LTE Transmit RF Power	Maximum 23 dBm
Cellular Data Rate	LTE-Cat1 (10 Mbps / DL, 5 Mbps / UL)
GNSS Receiver Type	16-Channel, C/A Code, GPS / GLONASS / BeiDou
GNSS Sensitivity	Hot Start: -159 dBm, Cold Start: -148 dBm
GNSS Antenna Type	Built in Patch Antenna
GNSS Protocol	NMEA0183
GNSS Accuracy	2.5m CEP50
GNSS Acquisition Time (Average)	Cold Start / 35 sec, Hot Start / 1 sec
Interface	RS-485 / Digital Output / Digital or Analog Input x 1 / Trigger Detect x 2
Indicator	GPS / LTE Status Indicator
RS-485 Baud Rate	1200bps / 2400bps / 4800bps / 9600bps / 19200bps / 38400bps / 57600bps / 115200bps / 230400bps
Digital Output	Support ON / OFF
Operating Temperature	-40°C ~ 85°C
Main Unit Dimensions	70 x 53 x 20 mm
Waterproof	IP 67
Input Power Supply	DC 10 ~ 36 V (±5%)
Special Specification	Flame Retardant

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