

# GPS Tracker

## Operating Manual

WG-E690 / WG-E69D

WG-G690 / WG-G69D

### Noted

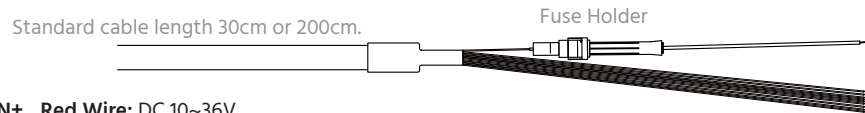
- The upper cover (LED side) should face the sky and do not be covered with metal or metallic paint.
- Need USB to RS-485 cable for programming settings.
- Standard cable length 30cm or 200cm.

### 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

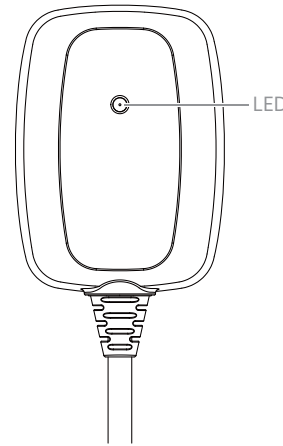


WG-E690  
WG-G690

- 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
- IGNITION\_Light Blue Wire: Signal level 10~33V, Ignition signal detect (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

WG-E69D  
WG-G69D

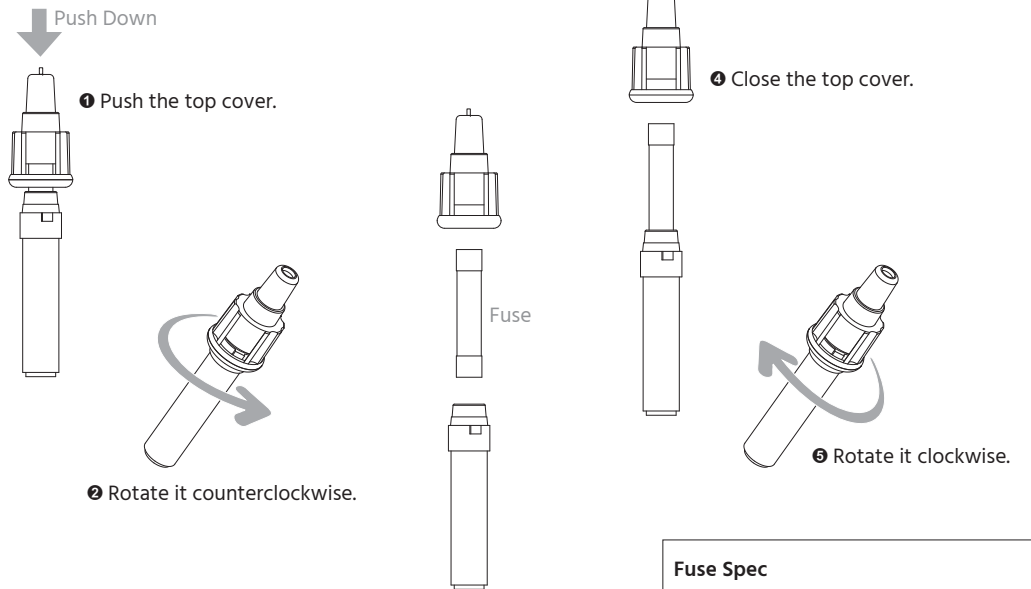
- DC IN+\_ Red Wire: DC 40~60V
- DC IN\_ Black Wire: GND
- RS-485 A\_Green Wire: Non-isolator differential interface, Data -
- RS-485 B\_White Wire: Non-isolator differential interface, Data +
- SMBUS CLK\_Gray Wire: Signal level 3.3V, SMBUS CLOCK
- SMBUS DAT\_Yellow Wire: Signal level 3.3V, SMBUS DATA
- IGNITION\_Purple Wire: signal level 40~58V, Ignition signal detect (Triggered by status changed)
- SMBUS GROUND\_Brown: SMBUS reference ground
- DI / O OUTPUT\_Light Blue Wire: Open drain, ON / OFF function
- DI / O GROUND\_Blue Wire: Digital output / SMBUS / 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

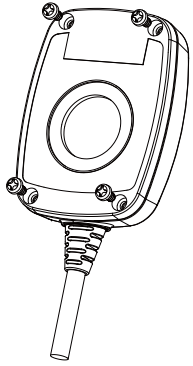


### Fuse Spec

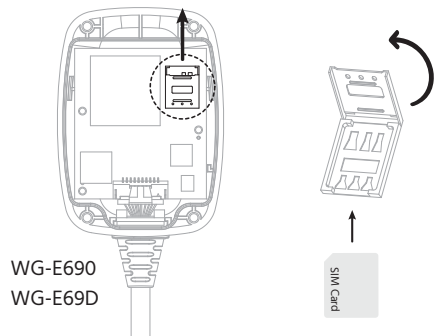
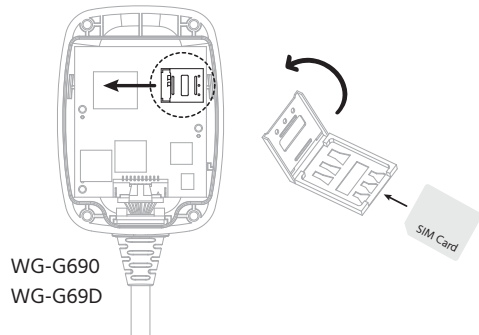
WG-E69X: 6.35Φ \* 31.75mm 1A / 250V  
WG-G69X: 6.35Φ \* 31.75mm 0.5A / 250V

## Install NANO SIM Card

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



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



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

## Specification

	WG-E690	WG-E69D
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)		Hot Star: 1 sec / Cold Start: 35 sec
Interface	RS-485 / Digital Output / Digital or Analog Input Ignition Detect / Trigger Detect	RS-485 / Digital Output Ignition Detect / SMBUS
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		-20°C ~ 70°C
Main Unit Dimensions		70 x 53 x 20 mm
Waterproof		IP 67
Input Power Supply	DC 10 ~ 36 V (±5%)	DC 40 ~ 60V (±3%)
Special Specification		Flame Retardant

	WG-G690	WG-G69D
Cellular Protocol		LTE-Cat M1 / NB-IoT
Internet Protocol		TCP / UDP / MQTT / MQTTS / Line Notify
Operating LTE Bands	Band 1 / Band 2 / Band 3 / Band 4 / Band 5 / Band 8 / Band 12 / Band 13 / Band 14 (M1 only) / Band 18 / Band 19 Band 20 / Band 25 / Band 26 / Band 27 (M1 only) / Band 28 / Band 66 / Band 71 (NB-IoT only) / Band 85	
LTE Transmit RF Power		Maximum 20 dBm
Cellular Data Rate		LTE-Cat M1 (589 Kbps / DL, 119 Kbps / UL) / NB-IoT (136 Kbps / DL, 150 Kbps / UL)
GNSS Receiver Type		16-Channel, C / A Code, GPS / GLONASS / BeiDou / Galileo
GNSS Sensitivity		Hot Start: -159 dBm / Cold Start: -148.5 dBm
GNSS Antenna Type		Built in Patch Antenna
GNSS Protocol		NMEA0183
GNSS Accuracy		0.74m CEP50
GNSS Acquisition Time (Average)		Hot Start: 1 sec / Cold Start: 30 sec
Interface	RS-485 / Digital Output / Digital or Analog Input Ignition Detect / Trigger Detect	RS-485 / Digital Output Ignition Detect / SMBUS
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		-20°C ~ 70°C
Main Unit Dimensions		70 x 53 x 20 mm
Waterproof		IP 67
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