

UL212/UL212-E Quick Guide

Bluetooth(BLE5.0) All-in-one Ultrasonic Fuel Level Sensor



Indoor Test

1. Indoor Test Prepare

- 1) Mineral Water Bottle (flar cap)
- 2) UL212/UL212-E Kits
- 3) Android or iOS Phone
- 4) 12/24V Power Bank/Jump Starter/Power Supply

2. Indoor Test Steps

- 1) Power On UL212/UL212-E. RED LED flashes.
- 2) Search & Install "UL212" from IOS APP Store or Google Play
- 3) Search Bluetooth Device ID in APP and connect "UL212 FUEL"



- 4) Paste 0.5-1mm thickness Silicone Gel or Couplant on top of the probe



- 5) Make sure water bottle has more than 3cm height water inside, and put on the probe



- 6) Check Real Time Mobile APP data in Smart Phone.

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UL212 Outdoor On-Site Installation Quick Guide

Outdoor Installation Prepare

- 1) **Make sure fuel tank has at least 1/2 fuel inside**
- 2) Make sure there is flat zone on the bottom of tank to fix probe
- 3) UL212/UL212-E Kits
- 4) Android or iOS Phone
- 5) 12/24V Power Bank/Jump Starter or Portable Battery



- 6) Slot Type Screw Driver
- 7) AB Epoxy Glue :
AB Epoxy Glue for Metal&Plastic with 3-5 minutes Curing Time



Key Steps for Outdoor Fuel Tank Installation



1. Power on Sensor & Connect Mobile APP "UL212 FUEL"

- 1) Power On UL212/UL212-E. RED LED flashes, and connect the UL212 Mobile APP via Bluetooth



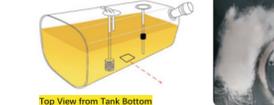
- 2) Search Bluetooth Device ID in APP and connect "UL212 FUEL"

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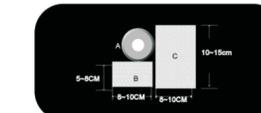


2. Clean the target zone around the middle of tank bottom

Top View from Tank Bottom



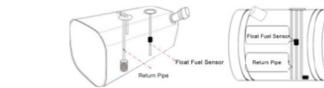
Top View from Tank Bottom



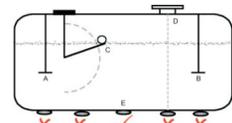
- A. Tank Original Screw to drop fuel (do not touch or clean)
- B. Target Zone to Clean
- C. Target Zone to Clean

How to Clean?

- 1) Clean all dust, black paint, rust, oil, asphalt, etc. to see original metal material
- 2) After step 1), must use Sand Paper to polish for 2-3 minutes to make the zone as flat and smooth as possible.
- 3) Please make sure get rid of the original tank float sensor and return pipe



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- A,B. Original Tank Compartment
- C. Original Tank Fuel Tube Float Range (Circle)
- D. Relieving Port
- E. Best Position for installation

3. Take notes of Vehicle Original Fuel Gauge and Measure Tank Height

- 1) Fuel Gauge: ___1/4 ___1/2 ___3/4 ___4/4
- 2) TANK Maximum Height: _____mm
- 3) Inside Diesel/Gasoline Height: _____mm



4. Find Best Installation Position

- 1) After clean zone B & C, use Silicone Gel/Car grease/Couplant on top of the probe.



- 2) Then hold the probe to the tank bottom and move slowly in zone B & C
- 3) Make remark with mark pen or sticker to remember this position

IMPORTANT: There must be NO air between probe and tank when finding best signal position

Standard for best installation position

- A. Probe Show stable GREEN Light (if flash red, you need hold and recheck other position)
- B. Mobile APP meets the following status:



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- Real Time & Smooth Value are stable & close to real height
- Signal Strength more than 30 or stable (maximum 99)
- Valid Signal Quantity is stable, more than 30 (maximum 40)
- Tilt Angle is less than 11 Degrees (best 1-5 degrees)

After finding best signal position, you **MUST Clean All Gel** from Probe & Tank Surface, and then use Glue in step 5

5. Fix the probe to the bottom of tank for Metal/Steel Tank

- 1) Prepare AB Epoxy Glue (Suggested Araldite with 3-5 minutes Curing Time)
- 2) Inject the AB Epoxy Glue on the probe, and Mix AB glue for 20-30 seconds to make sure glue color has changed.



- 3) Hold the probe with hand or Manual Jack/Lift for 10-15 minutes. LED must show Stable GREEN



- 4) **Verify the installation**
After step 3), remove your hand or Manual Jack/Lift, and use Mobile APP to check again to be sure the same as to complete the installation
- 5) Fasten the probe with Stainless steel Strap across the 3M sticker on back

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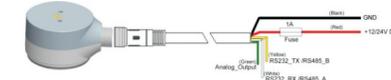


6. Wiring Diagram

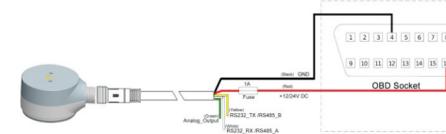
Power Input: 9-36V DC

It is Mandatory to use an external Automotive 1 A Fuse

Recommended



Optional for LCV Vehicles



- Heavy Duty Vehicle or Some Old Truck/Bus, Construction Vehicle, Generator: Power Stabilizer will be applied.

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