1. **What is Current Solution for Fuel Sensor?**

Challenges: 🙁
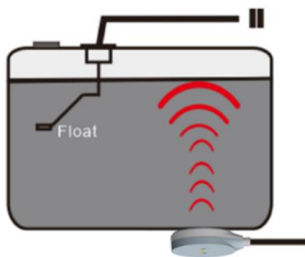
*Draw Hole in Tank
*Different Signal Range
    10~180ohm
    10~90ohm
    240~33ohm.....
*Different Tank Height
*Difficult to Match Fuel Guage Signal

2. **What is New Universal Solution for Fuel Sensor?**

Model: UL212-F

Ultrasonic Fuel Level Sensor with Programmable Ohm Signal output

Float

BLE

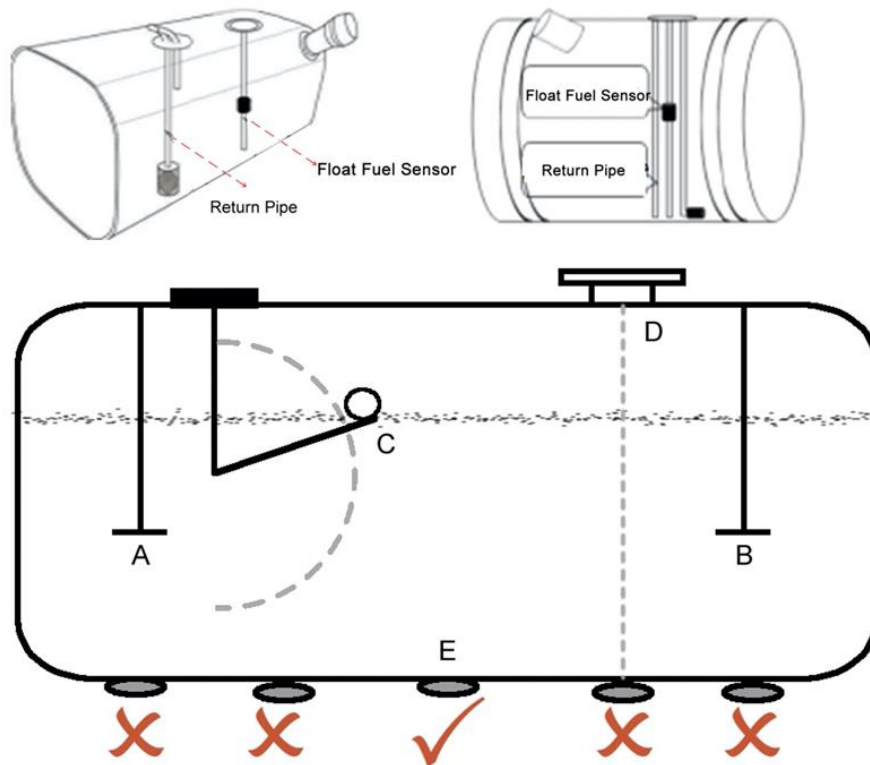Programmable ohm signal output

All brands of fuel gauge

Features:
*Programmable Ohm Signal Output
*Non-Contact Installation Ultrasonic Technology
*No need draw holes, No need cut tube
*Universal for all type of tanks & fuel gauge
*IOS/Android APP Diagnostic & Configuration via Bluetooth

👍

Application:

3. How to Install Ultrasonic Fuel Level Sensor?

Float Fuel Sensor

Return Pipe

Float Fuel Sensor

Return Pipe
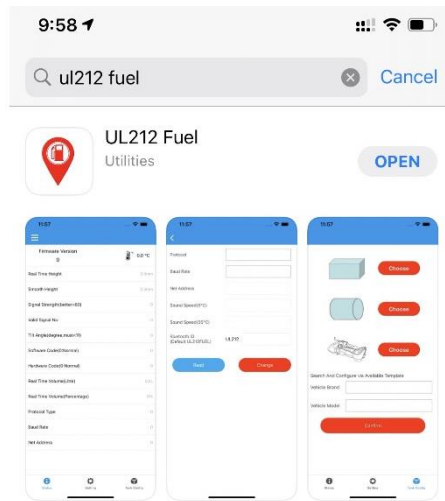
D

C

A

B

E

✗ ✗ ✓ ✗ ✗

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

Inject the AB Epoxy Glue on the probe, and mix AB glue for 20~30 second

Before Mix

After Mix 20~30 Seconds

4. How to Approve an Installation & Diagnostic?

⚠️ <u>**Standard for best installation position**</u>

    A. Probe Show stable <u>**GREEN**</u> Light

       (if flash red, you need hold and recheck other position)

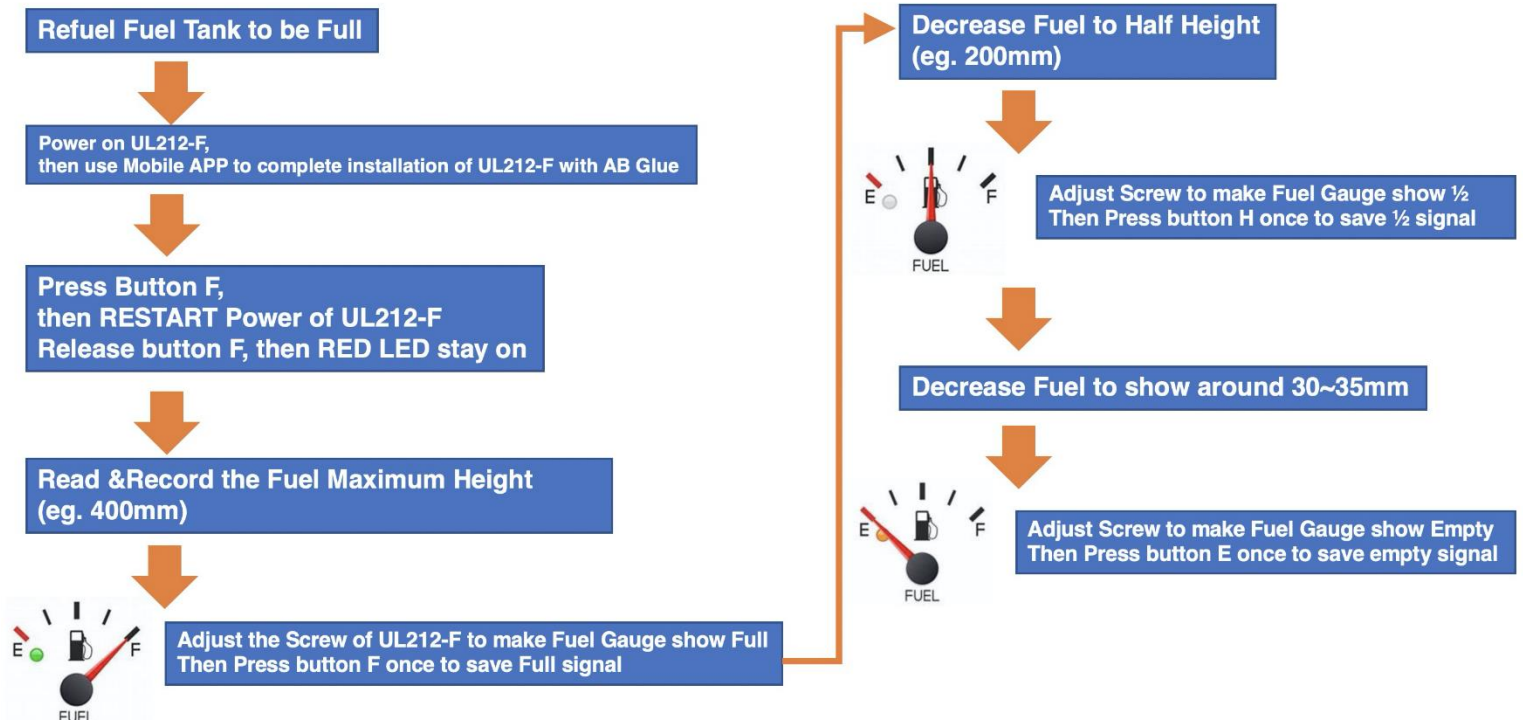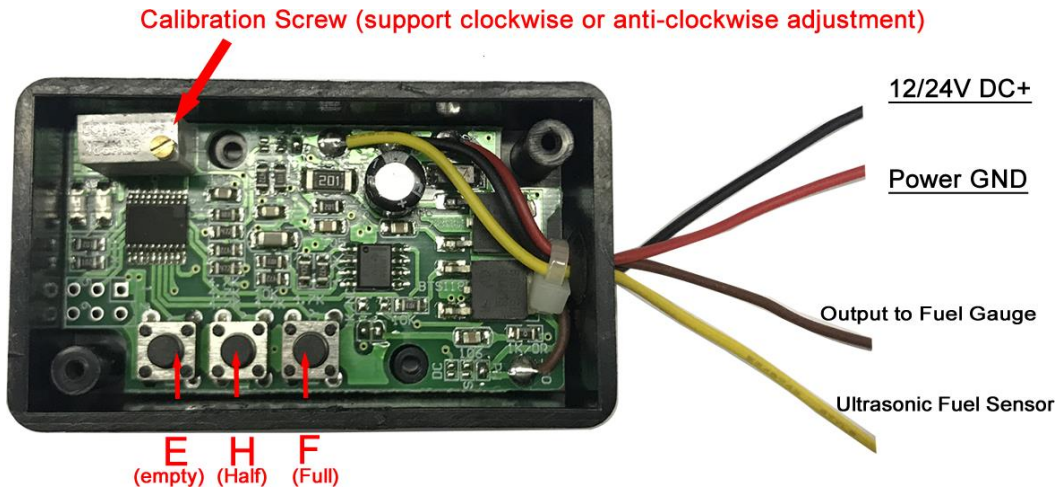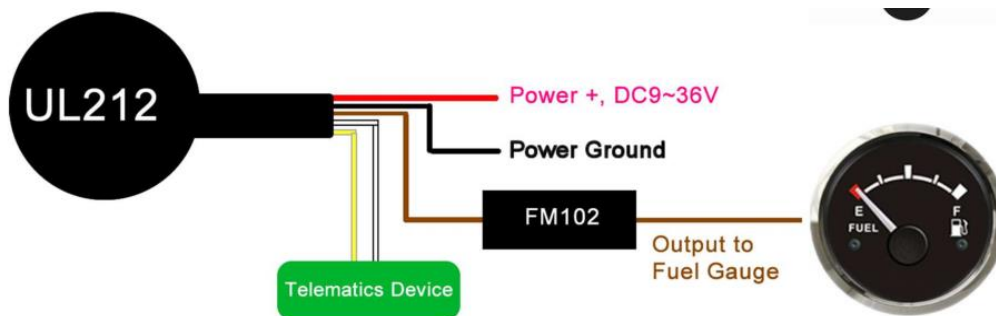   B. Mobile APP meets the following status:

- **Real Time & Smooth Value are stable & close to real height**
- **Signal Strength more than 10 or stable**
- **Valid Signal Quantity is stable, more than 20**
- **Tilt Angle is less than 11 Degrees**

5. How to Program Ohm Signal Output to fit Original Fuel Gauge?

Calibration Screw (support clockwise or anti-clockwise adjustment)

12/24V DC+

Power GND

Output to Fuel Gauge

Ultrasonic Fuel Sensor

E (empty)   H (Half)   F (Full)

Refuel Fuel Tank to be Full

Power on UL212-F,
then use Mobile APP to complete installation of UL212-F with AB Glue

Press Button F,
then RESTART Power of UL212-F
Release button F, then RED LED stay on

Read &Record the Fuel Maximum Height
(eg. 400mm)

Adjust the Screw of UL212-F to make Fuel Gauge show Full
Then Press button F once to save Full signal

Decrease Fuel to Half Height
(eg. 200mm)

Adjust Screw to make Fuel Gauge show ½
Then Press button H once to save ½ signal

Decrease Fuel to show around 30~35mm

Adjust Screw to make Fuel Gauge show Empty
Then Press button E once to save empty signal

6. Cable Connection:

UL212

Power +, DC9~36V

Power Ground

FM102

Output to Fuel Gauge

Telematics Device

7. Features

- No Drilling Holes in Tank, Easy Installation
- Support Any Liquid: Diesel, Gasoline, Water, etc.
- Support Any Material Tank: Metal/Aluminum/Stainless Steel /Fiber/Plastic
- **Support All Brands of Fuel Gauge**
- **Resolution:** 0.1mm
- **Accuracy**: 99.5%
- **Maximum Measuring Range:** 100cm
- **Lowest Detection Height (Blind Area):** 3cm
- **Maximum Tank Thickness:** 8~12mm
- **Mobile App configuration &Calibration**
- **Built-in AI Algorithm to filter abnormal signal**
- **IP68 waterproof**

8. Specification

Parameter	Description
Power Supply	9~36V DC
Max Power Consumption	0.7W @12V DC
Measuring Range	3~250cm
Resolution	0.1mm
Accuracy	99.5%　(0# Diesel or 95# Gasoline, 25℃)
Maximum Tank Thickness	<12mm
Extension Cable	9 meters
Working Temperature	-40~85℃　(@1 ATM)
Working Humid	5~99%
Explosion-proof Class	Exd II CT5
Waterproof	IP68