



FUEL LEVEL INDICATOR CAPS



TECH
0210-2015

GEAR DRIVE
0210-2014

CAFE
0210-2013

TRACKER
0210-2016

VINTAGE
0210-2017

PRODUCT DESCRIPTION

1996-2012 MODELS WITH LEFT SIDE FUEL LEVEL GAUGE.

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- 0210-2014 GEAR DRIVE
- 0210-2015 TECH
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- 0210-2017 VINTAGE

1. Turn the motorcycle off and place securely on a lift or on the sidestand.
2. Disconnect the battery.
3. Drain the fuel from the fuel tank and remove or raise the front of the tank to expose the wiring harness.
4. Locate and disconnect the fuel level gauge wiring harness connector. Clip the fuel level gauge wires or remove the wire pins from the connector. **Note: A small paper clip can be used to release the pins.**



5. Once the wires are disconnected remove the factory fuel level gauge from the tank.



6. Install the RSD fuel level gauge wires through the hole in the fuel tank. Do not completely install the RSD fuel level gauge into the tank yet, additional calibration is required. The RSD fuel level gauge has 4 wires listed below.

- Orange: +12V fused keyed power
- Yellow: Fuel sender
- Gray: Fuel sender voltage output (used only on 2004 & later HD models, see Step 8)
- Black: Ground

7. Connect the corresponding orange, yellow, and black wires on the RSD fuel level gauge to the factory harness plug.

Note: cutting and soldering the original pinned wire ends will allow easy installation back into the factory plug. Use heat shrink tubing on all connections.



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8. **Gray Wire:** The gray wire from the RSD fuel level gauge will only be used on 2004 and later models. If you are installing the gauge on a 2003 and earlier model cut and cap the unused gray wire at the back of the gauge. For 2004 and later models, the gray wire must be routed to the back of the speedometer and connected to the Yellow/White wire at pin 9 of the speedometer. Cut and cap the wire that runs back into the factory wiring harness, then attach the gray wire to the Yellow/White wire that runs only to the speedometer. This gray wire simulates a fuel level voltage that will prevent the low fuel light on the gauge from turning on and also prevents the gauge from setting diagnostic trouble codes B1004 and B1005 which indicate the fuel sender is out of voltage.

Note: Yellow/White wire connected to the speedometer shown below must be connected to the gray wire from the RSD fuel level gauge on 2004-later models.



9. Once all the wires are connected, your new RSD fuel level gauge can be calibrated.

10. The first step is to set the "turn on point" or "warning point" which is fully adjustable and warns the operator when the fuel level is at the desired low level. This is done by filling the fuel tank to the level at which you want the low fuel warning light to come on. Once at the desired fuel level, with the key on, press and hold the button on the back of the RSD fuel level gauge until the light starts to flash, release the switch and the unit will flash a few more times saving the level and then remain on indicating a low fuel condition. The warning point can be reset at any time and the warning point is saved in memory so the battery can be disconnected without affecting the gauge setting.



11. Once all the wires are connected, your new RSD fuel level gauge can be installed into the tank and calibrated. To install into the tank make sure the led light is at the 12 o'clock position. When installing the RSD fuel gauge into the tank make sure the ribs on the plastic base line up with the small round guides in the fuel tank. Push RSD fuel level gauge in until the rubber o-ring touches the tank.



SMALL BUMPS/GUIDES

12. Go for a ride!

Note: Remember to set the "warning point"/"turn on point" with the motorcycle level in the upright riding condition so fuel level is not higher in one half of the tank. This will insure a more accurate fuel level reading.

Normal operation on startup:

Once properly installed and calibrated the light will flash briefly on power up and then go out (assuming there is enough fuel in the tank).

Normal operation when fuel level is low:

Once the user set warning point is reached the light will illuminate to indicate a low fuel condition.

There is a delay in the low fuel light to prevent the light from turning on prematurely if the fuel level is getting close to the warning point and fuel is sloshing from cornering or stop and go riding.

Trouble Shooting:

There are several error conditions built into the unit that are displayed by the flashing LED light.

A) Two short flashes and then remaining on for a short time, then repeating is an open send error.
Solution: Check sensor connections.

B) Two short flashes and then turning off for a short time, then repeating is a sender wiring short.
Solution: Check wiring and verify sender operation

C) The unit also does a brief flash when power is first applied. If you are not seeing this flash, double check power and ground connections. If the light remains lit, the warning point is set incorrectly.
Solution: Try resetting at the desired fuel level.