

# 09-100-0010-1

Installation Instructions 41L Tank BMW R850/ 1100/ 1150 GS

#### Contains:

- 1 x Tank 41Liter
- 1 x Float lever rod
- 1 x Fuel line with quick disconnect
- 2 x Crimp clamp 11-13mm
- 2 x Barbed fuel fitting (cross over hose)
- 2 x O-Ring VITON 8x1.5
- 6 x Counter sunk screw M5x12
- 6 x Washer M5
- 2 x Zip tie 130mm
- 1. Begin by having as little fuel as possible in the stock tank. This will save you time and effort later in this procedure.
- 2. Place the bike on the center stand and remove both seats.
- 3. On the right side, remove the black plastic side cover.
- 4. Also on the right side, locate the two smaller diameter black rubber vent hoses. Mark them so they are not crossed during reassembly, then disconnect from the plastic coupler. Leave the lower lines attached to the frame.
- 5. Next (still on the right), disconnect the black multi-pin electrical connector.
- 6. Clamp the upper fuel line closed, then disconnect. If you haven't already drained the tank, this is the time to do so. At this time there will be about a gallon of fuel in the tank you cannot easily drain. When finished be sure to clamp the line securely.
- 7. Disconnect the lower fuel line. Be prepared for a small amount of fuel to drain.
- 8. Remove the tank mounting bolt on the rear right side of the tank.
- 9. Carefully remove the tank. (Good time to install 100-0108 quick disconnects!)

There are few different R1100GS variations of the rubber seal between the beak and the tank. The correct seal for the R1100GS is approx. 10mm long and from 1994 model (part number 16 11 2 324 980 and 16 11 2 324 979). Even these may need to be slightly cut for a good fit.

The R1150GS original seal needs to be cut slightly under the top flap as show in the picture 1 to allow it fit between new tank and beak.

There are at least three slighty different R1100GS frames and one R1150GS frame. Make sure to check that the tank rear attachment bolt by the seat to the frame matches. Otherwise the attachment point needs to be modified eventually by welding a new one. It is rare that the attachment point does Not fit though.

10. Position the tank so there is access to the fuel pump assembly. THERE WILL BE A SMALL AMOUNT OF GAS REMAINING INSIDE.

11. Use a pen or tape to mark the original position of the pump (in relation to the six hole pattern). Remove the six screws and pullout the fuel pump assembly. (FOLLOWING APPLIES ONLY IF 100-0014 PUMP EXTENSION IS **NOT** USED: When reinstalling the pump you will **rotate the pump** one bolt hole counterclockwise from the original position. This will allow the pump inlet to dip lower into the tank). Please see the photo of correct alignment for the 41L tank on page 3.







These instructions are at our present level of knowledge.
Legal requirements do not exist.
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- 12. Pull fuel pump assembly out of the tank about 2 inches.
- 13. Find the two small vent hoses that are held in with clamps. Using needlenose pliers carefully remove the lines WITH THE CLAMPS IN PLACE. This is a matter of using leverage to push the lines and clamps off. Mark one line for future reassembly.
- 14. Remove the fuel pump assembly from the tank. Be careful to not bend the float lever rod.
- 15. Using the size 25 Torx bit, remove the gas cap assembly.
- \* At this point please refer to pump extension 100-0014 instructions if it is being installed.

Preparation of the fuel level sending unit:

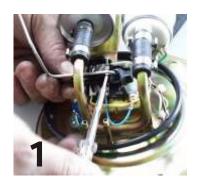
Push a flat head screw driver between the float rod and the plastic guide on the fuel pump as shown in the top photo 1 and carefully wiggle the rod out.

Next file the crimped end of the rod and remove the floater.

Put the floater on the new rod on the notched end and secure it with the washer and with the tiny e-clip (middle photo 2).

Now the unit can be attached on the fuel pump again (Bottom photo 3).

- 16. Place new o-ring in the slot of the filler cap of the new tank.
- 17. Reinstall the gold inner assembly, with vent hoses oriented to the right side of the new 41 Liter tank.
- 18. Place locking cap on and reattach the Torx connectors. Place the tank on the ground; pump hole up.
- 19. Reroute the vent hoses through the fuel pump assembly hole
- 20. Put o-ring in groove on fuel pump assembly
- 21. Keeping the vent hoses out, carefully re-fit the fuel pump into the new tank.
- 22. Grease the end of the metal nipple attachment for the vent hoses and slide the vent hoses complete with clamps back on.
- 23. Re-install the fuel pump in the original position using supplied bolts and washers (**IF** 100-0014 pump extension is **NOT** used **rotate the pump** one bolt hole counterclockwise from the original position. This will allow the pump inlet to dip lower into the tank). Tighten the pump carefully in criss-cross pattern, making sure the o-ring sits and seals properly.
- 24. Snip the zip tie on the multi-pin connector on the exterior of the fuel pump assembly to allow for more working room.
- 25. Attach the brass fuel fittings to the bottom of the tank. Tighten just until the o-ring begins to compress.
- 26. Attach 2 provided fuel lines with quick disconnect mounts to the brass fittings.







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#### Installation Instructions 41L Tank BMW R850/ 1100/ 1150 GS



LEFT:
POSITION OF FUEL PUMP <u>WITHOUT</u>
100-0014 PUMP EXTENSION!
<u>USE ORIGINAL PUMP POSITION IF THE</u>
100-0014 EXTENSION IS INSTALLED!!

- 27. Crimp clamps onto brass fittings. Route the lines across the front of the bike and connect BELOW THE TELELEVER ASSEMBLY.
- 28. Remove upper fuel line (closest to the gas cap) and replace with supplies hose and clamp.
- 29. Attach vent hose with xxxxx printed on one side to the forward vent (this is the water drain).
- 30. Attach fuel tank vent line to the rear vent attachment. Attach brass fuel fittings to the bottom of the tank, tightening just until the o-ring begin to compress.
- 31. Transfer rubber rear mounting bushings from stock tank to the new one.
- 32. Carefully mount the tank on bike.
- 33. Before you set the tank all the way on you must reconnect the multi-plug wire.
- 34. Attach new fuel hose and clamp to top fuel line and install clamp.
- 35. Add 1/2 gallon of fuel and check bottom crossover fittings for leaks.
- 36. Bolt on tank.
- 37. Reattach vent hoses and zip tie to frame.
- 38. Reinstall seat.

**Prepping and painting** of new 41 L nylon (polyamide) tank.

WE ADVISE NOT TO PAINT AROUND THE FUEL PUMP HOLE TO

#### AVOID POSSIBLE LEAKS DUE TO CHIPPING PAINT AT LATER POINT.

- 1. Plastic adhesion promoter PPG product # DPX 801
- 2. DP sealer various #'s 90,40,48
- 3. Wet sand to smooth imperfections
- 4. DP sealer second coat
- 5. Base coat/ Clear coat system or single depending on color and application

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