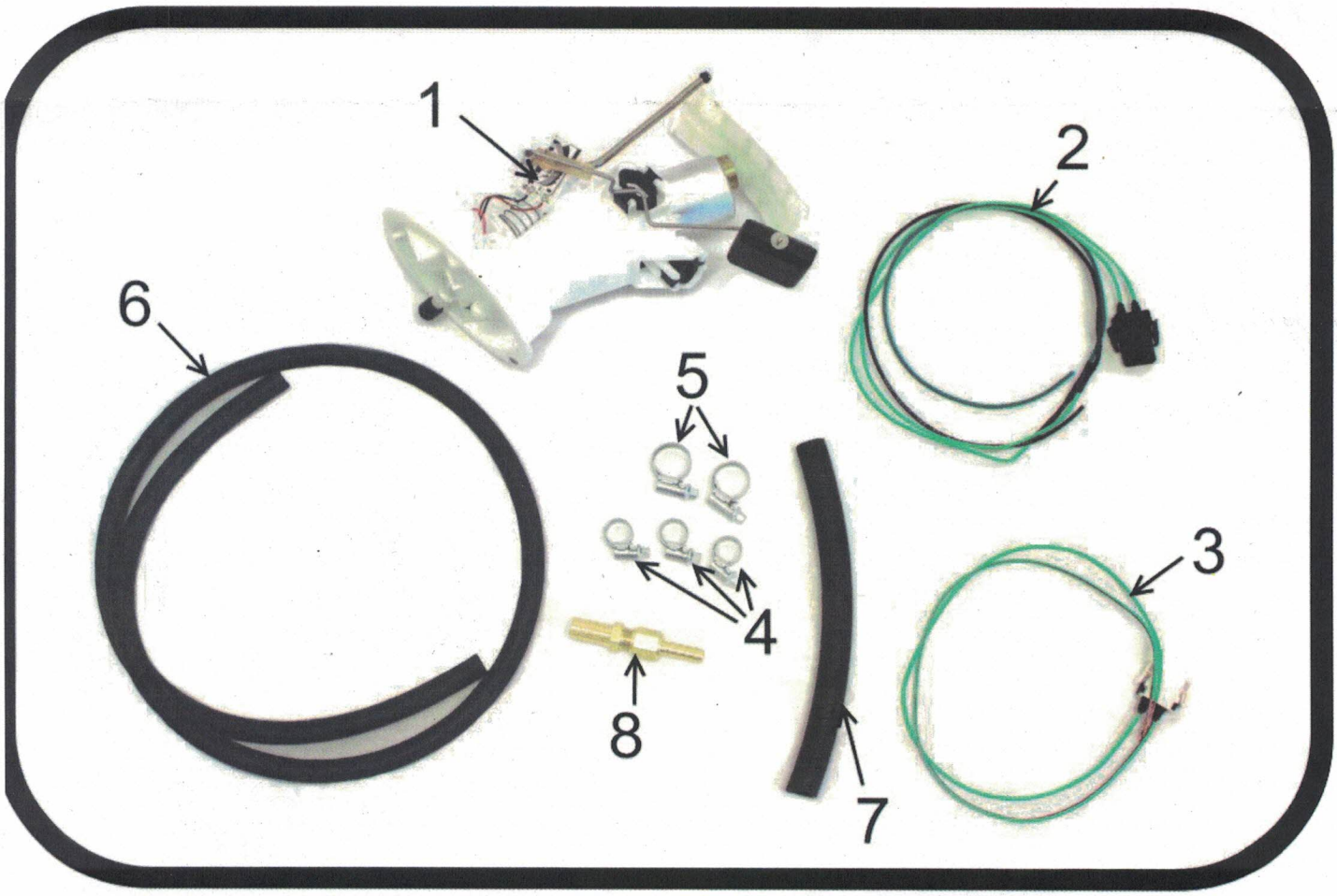
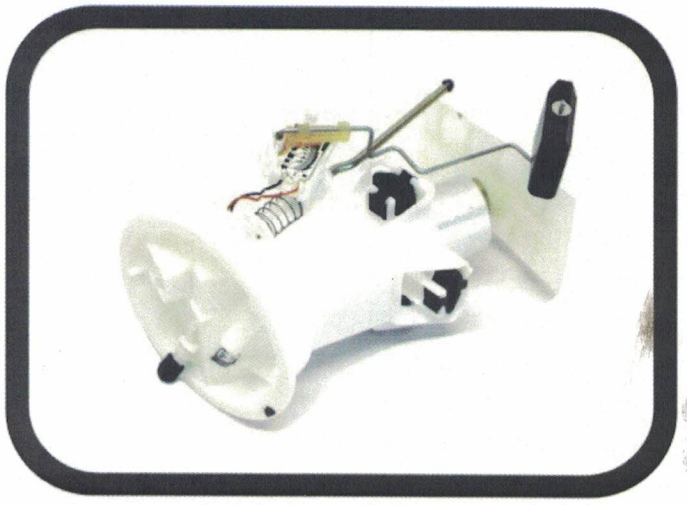
E46 Fuel Starvation Kit Installation Instructions

Part No.	Part Name	Quantity
1	Fuel Pump Assembly	1
2	Wiring Harness (36 Inches Long)	1
3	Wiring Harness (36 Inches Long)	1
4	Hose Clamps (8-12 mm)	3
5	Hose Clamps (12-20 mm)	2
5	8 mm Fuel Hose	1 Meter
7	12 mm Fuel Hose	0.25 Meters
3	Hose size reducer	1

BimmerWorld recommends you use Bentley Publisher's service manual for your specific model whenever attempting a complex service or part replacement project—Bentley Service Manuals are available from BimmerWorld!





BE MINDFUL OF SAFETY HAZARDS! WORK IN WELL-VENTILATED AREA AWAY FROM SPARKS, OPEN FLAMES, OR OTHER SOURCES OF IGNITION. BE PREPARED WITH FIRE EXTINGUISHER!

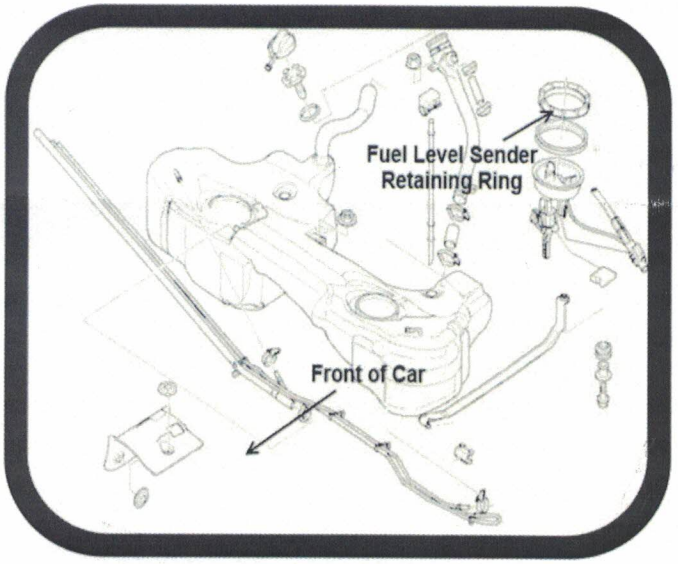
AVOID USING 120V WORKLIGHTS. WORKLIGHTS HAVE BEEN KNOWN TO CREATE SPARKS UPON STARTUP.

WEAR SAFETY GOGGLES AND NIRTILE GLOVES!

Depressurize fuel system:

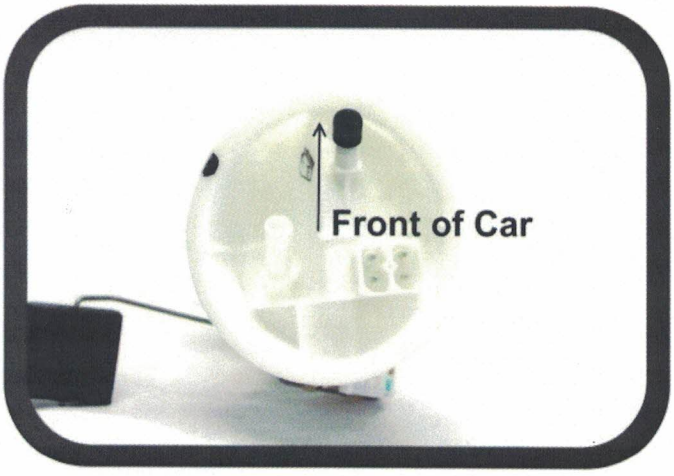
1) Start vehicle
2) Remove fuel pump fuse (see owner's manual)
3) Wait for car to die (this takes time)
4) Turn off ignition and re-install pump fuse.

1



Gain access to fuel tank access ports by removing bottom seat cushion. Consult Bentley manual if necessary. Remove both fuel tank access port caps by removing the eight 10 mm nuts.

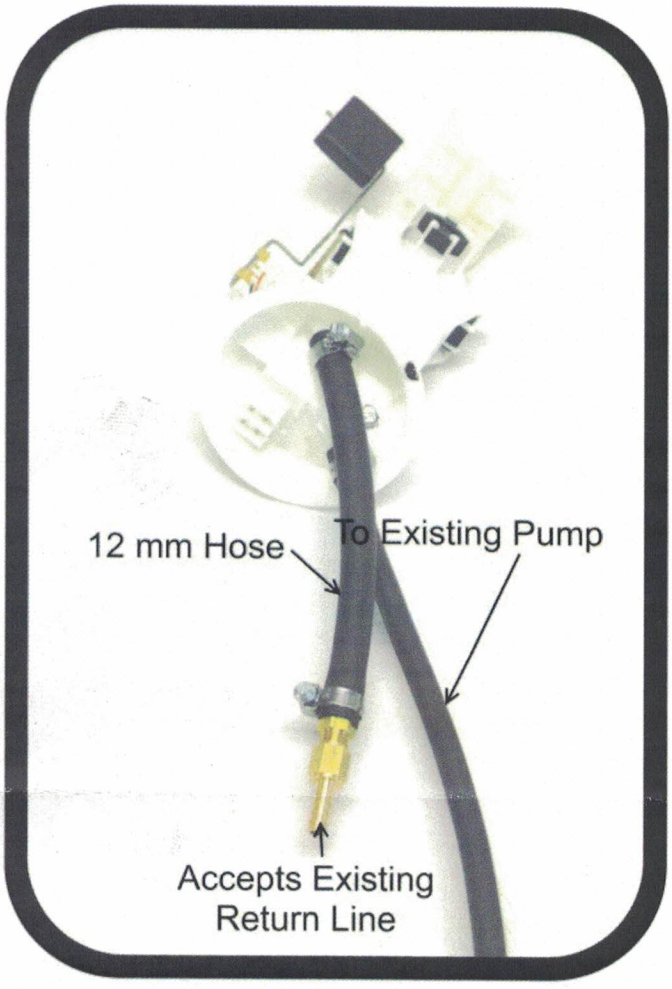
Remove stock fuel level sender unit from driver's side of fuel tank. This requires loosening the large threaded ring retaining the sender unit. Use a screwdriver and hammer to tap against ring to rotate counter-clockwise to loosen. Disconnect fuel return line from sender and secure out of the way for later re-connection.



Remove the factory suction jet system from the fuel tank. You can either remove the passenger-side pump and disconnect it from inside the tank OR pull really hard from the driver side and it will eventually pop free. Once free, pull the line from the driver side and discard.

Install new pump unit into tank, taking note of new unit's orientation in the car (see photo to the left). Secure using threaded retaining ring. Be sure the float moves freely.

2



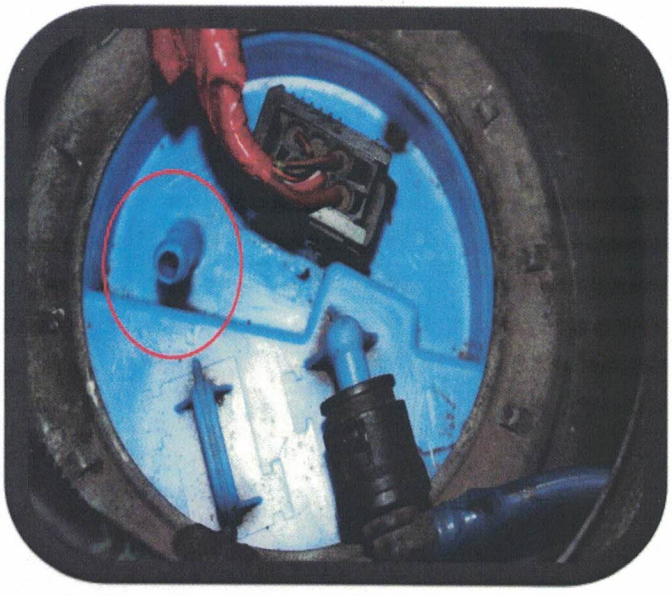
PICTURES ARE TAKEN WITH PUMP OUT OF CAR FOR CLARITY. ALL WORK IN THE FOLLOWING STEPS WILL BE DONE WITH NEW PUMP ALREADY INSTALLED IN CAR!

Install **8 mm fuel hose** over 8 mm (small) nipple on new fuel pump. Use **8-12 mm hose clamp** to secure hose in place.

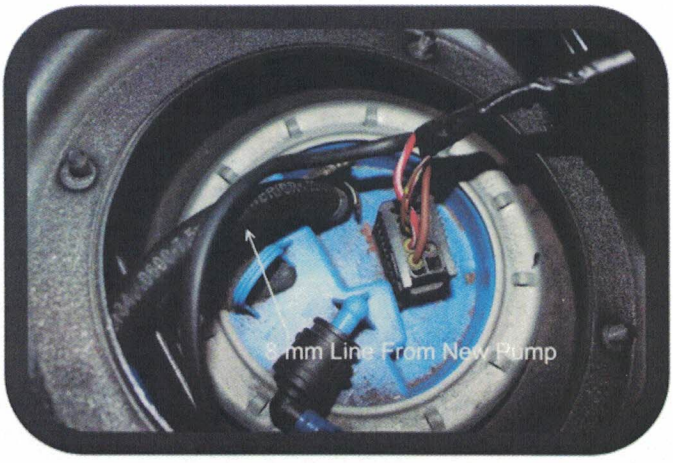
Install **12 mm fuel hose** over larger nipple, securing with **12-20 mm hose clamp**. Insert **hose size reducer** into opposite end of 12 mm fuel hose, securing with additional 12-20 mm hose clamp. Lubricate barbs on reducer with a small amount of petroleum jelly to facilitate assembly.

NOTE: REDUCER COMES PRE-ASSEMBLED WITH THREAD SEALANT. DO NOT ATTEMPT TO TIGHTEN TWO BARB ENDS!

3



On existing fuel pump, locate unused nipple and carefully create a new hole in its tip (see photo). Use a sharp drill bit and drill slowly to avoid damaging tip or dropping plastic shavings into fuel pump. Grease applied to your drill bit acts as an extra measure to prevent shavings from entering tank.



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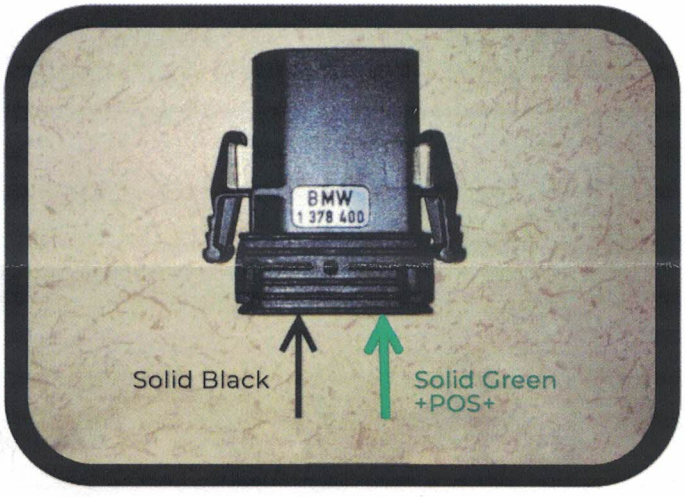
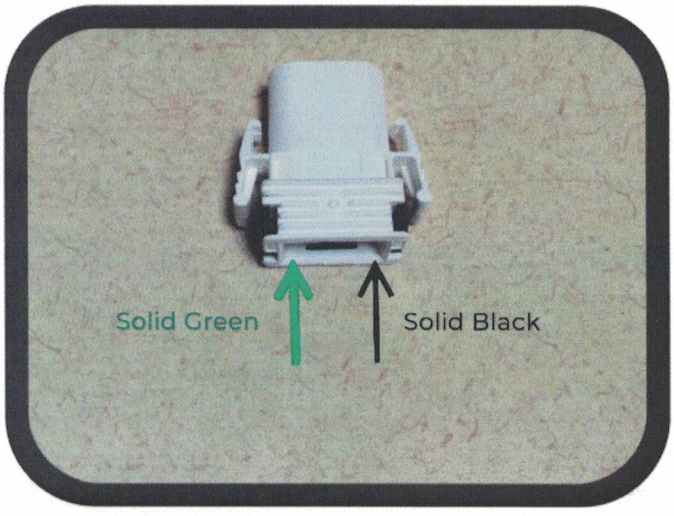


Route 8 mm fuel line installed in step 2 from new pump to existing pump by fishing line underneath the sheet metal of the seat. Slide end of hose over the nipple created in the previous step and secure with 8-12 mm hose clamp.

Return to new driver's side fuel pump. Connect existing 8 mm fuel return line (set aside in step one) to small end of hose size reducer (See photo from step 2). Secure with remaining 8-12 mm hose clamp.

Check supplied wiring harnesses against photos to the left to ensure proper orientation prior to splicing into car's wiring harness (Step 5).



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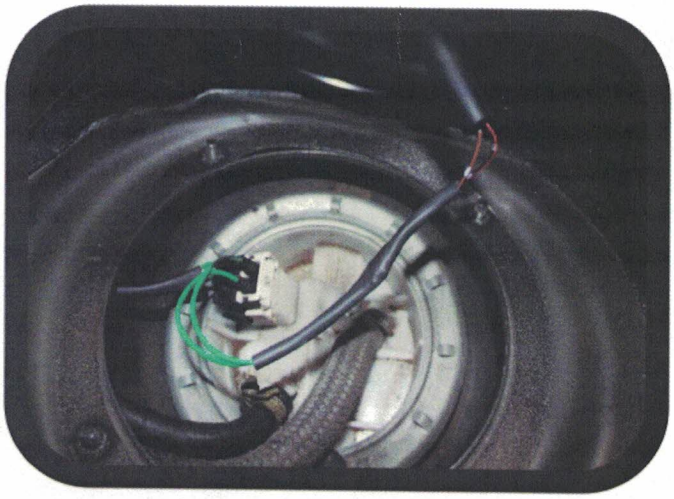
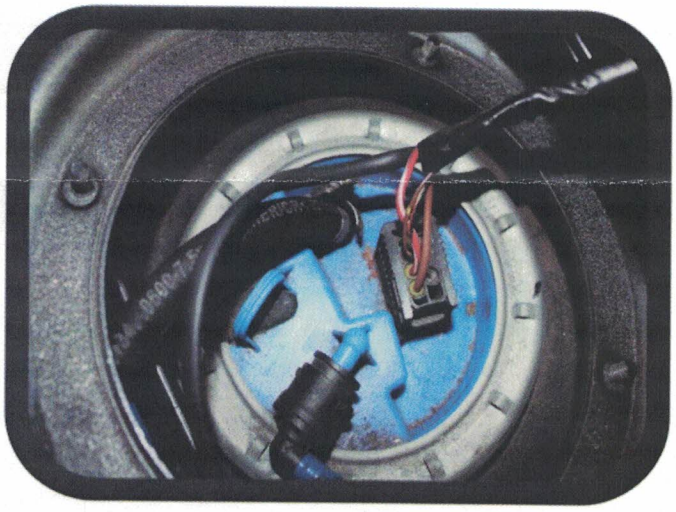


Insert **wiring harness (36 inches long—white connector)** into driver's side connection on new fuel pump. Splice solid green wire into black/red wire. Splice solid black wire on harness into brown/black wire. This re-connects the fuel level sensor.

NOTE: WE RECOMMEND SOLDERING ALL CONNECTIONS. CRIMP CONNECTORS TEND TO COME LOOSE AFTER A PERIOD OF TIME. ALWAYS USE HEAT SHRINK TUBING TO SEAL CONNECTIONS FROM THE ELEMENTS!

6



Connect **wiring harness (36 inch—black connector)** to other connector on new fuel pump. Route wires underneath seat in similar fashion to the 8 mm fuel house routed earlier. Cut power supply wires (See Bentley manual for wiring diagram) going to existing pump about 3 inches from top surface of old fuel pump.

Connect dark green harness wire to red/white (or blue/white on E46 non M) power using soldered Y Splice (red/white wire is re-connected to itself while new green wire is spliced into the connection). Seal connection using heat-shrink tubing. Connect black harness wire to brown ground also using soldered Y splice. Seal using heat-shrink tubing. This connects power to the new fuel pump.

Bundle wires together and wrap with electrical tape. Re-install cover plates and upholstery. Installation is complete. Re-starting car will take extra cranking time as a result of emptying fuel lines in step 1.