

Flow Sensor Replacement

Models: WH17, WH27, WH36, AE115, AE125



BOSCH

Introduction



WARNING

ELECTRICITY IS EXTREMELY DANGEROUS.
TAKE EXTRA PRECAUTIONS AND ENSURE ALL
CIRCUIT BREAKERS ARE OFF BEFORE
PERFORMING ANY WORK ON THE HEATER

Tools Required

- ▶ Phillips head screwdriver (magnetic bit)
- ▶ Plumbing wrenches
- ▶ Silicone grease
- ▶ Drainage bucket
- ▶ Digital multimeter



Replacement of the flow sensor will be easier if you can work in front or slightly above the unit.

Preparation

1. Turn off all electrical circuit breakers supplying power to the water heater. Confirm power is off with multimeter.
2. Remove the four cover screws and retain, lift off the cover and store safely.
3. Turn off the water supply, open a hot faucet to relieve the pressure. Place a bucket under the inlet to catch any draining water and disconnect the inlet pipe work.

Removal of inlet brass fitting

1. Remove the two screws and lock washers holding the inlet brass fitting to the bottom flange of the water heater. Retain these for reassembly. (Figure 1)
2. Hold / support the flow sensor in the bottom inlet of the right hand vessel and pull the inlet fitting down and off the sensor. (Figs 2 & 3)

Fig. 1



Fig. 2

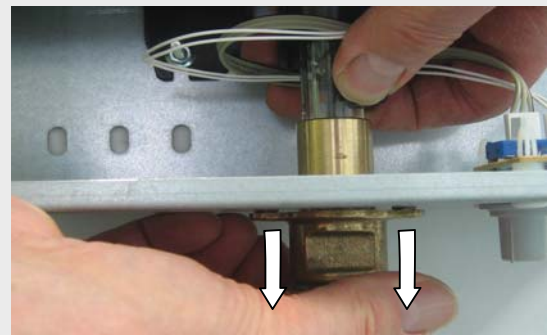
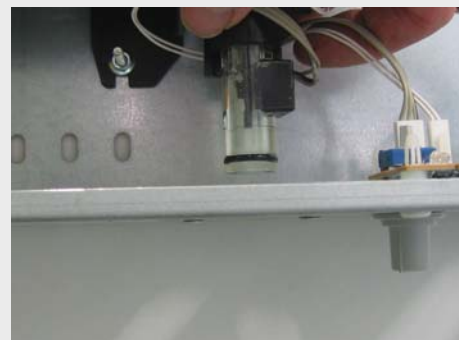
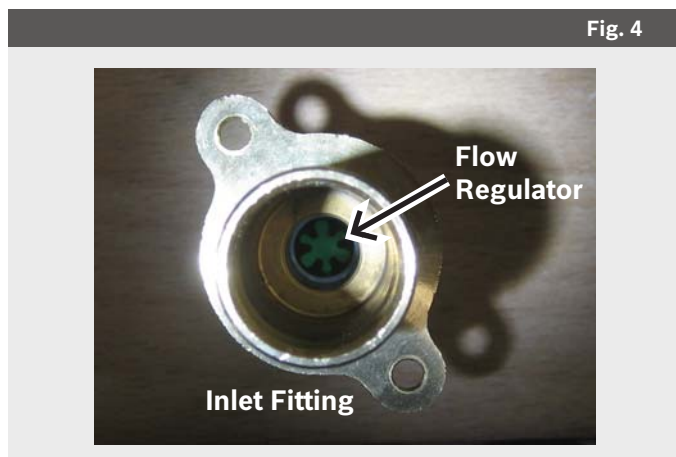


Fig. 3



3. Check the inlet fitting for blockage and clean the filter screen if necessary while disassembled. The inlet fitting is fitted with a flow regulator and this should not be confused with a blockage. (Figure 4)

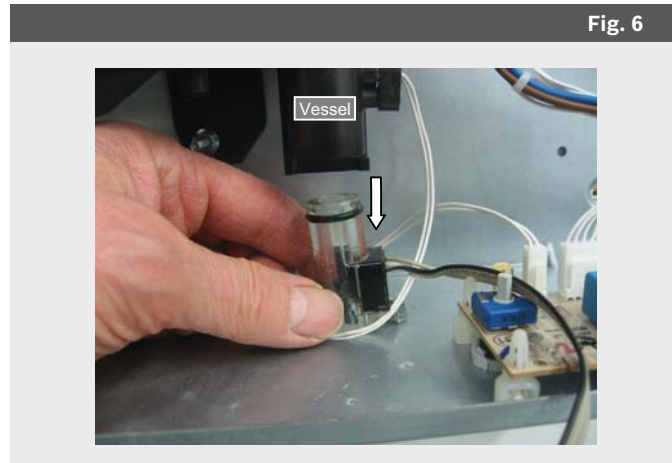


Removing the flow sensor

1. Remove the flow sensor ribbon cable connection to the control printed circuit board as follows. Gently bend the locking tab away from the connector and pull it off the printed circuit board. (Figure 5)



2. Pull the flow sensor downwards and out of the vessel inlet and dispose of in accordance with local environmental laws. (Fig. 6).

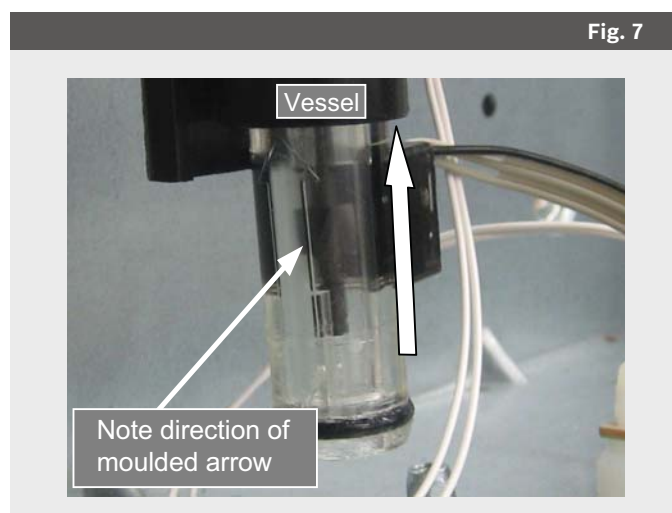


Installing new flow sensor

1. Wipe both rubber seals on the new flow sensor with a light coating of silicone grease.

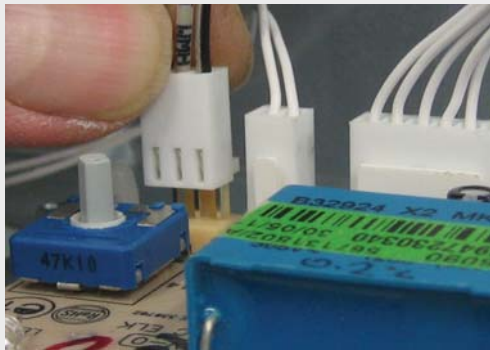
i Do not get any grease inside the sensor as this may impair its function.

2. Insert into the vessel inlet using light force and ensuring that the moulded arrow on the flow sensor exterior is pointing towards the vessel inlet. (Figure 7)



3. Reconnect the sensor to the control printed circuit board with the ribbon cable. (Figure 8)

Fig. 8



3. Reconnect the inlet pipes; turn on the water supply to fill the unit with water. Ensure all outlet faucets have flowing water from them before turning them off.

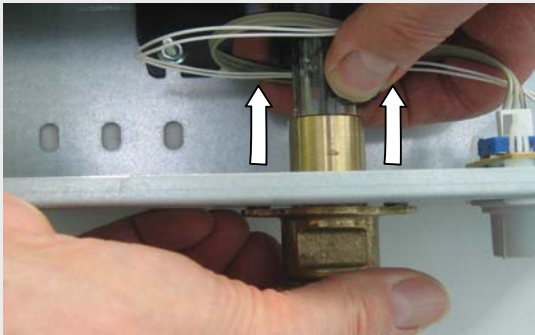
Refitting the cover

1. Before refitting the cover perform a once over check:
 - ▶ Is the sensor connected to the control printed circuit board?
 - ▶ Is the arrow moulded on the sensor pointing into the black vessel (the correct direction of flow)?
 - ▶ Is the metal work around the flow sensor dry? If not, dry off any spillage and check for leaks.
2. Refit the cover using the 4 screws ensuring that no wires are trapped and that the red clip-in lens is not knocked out.
3. Check that the unit is filled with water and follow the commissioning routine in the installation manual. Ensure you have a continuous flow of water from all the hot water faucets **before** resetting the breakers.

Reconnecting the inlet fitting

1. Align the inlet fitting to the hole in the bottom flange of the water heater and push onto the bottom of the flow sensor. (Figure 9)

Fig. 9



2. Rotate the inlet fitting to align the holes with the nuts in the bottom flange and fit the two screws with lock washers. (Figure 10)



WARNING

DO NOT TURN ON THE ELECTRICITY UNTIL THE UNIT IS FULL OF WATER AS THIS WILL DAMAGE THE UNIT.



It is easier to engage both screws before fully tightening.

Fig. 10



BOSCH

Bosch Thermotechnology Corp.
50 Wentworth Avenue
Londonderry, NH 03053

Tel: 1-800-798-8161
Fax: 1-603-965-7581
www.bosch-climate.us