

REPLACING FUEL INJECTORS ON A FIAT BRAVA

PREFACE

Details of Fiat Brava 16v 1599cc engines vary considerably depending on the year of manufacture and the chassis number. The following procedure applies to a year 1999 model with a Schrader valve at the end of the fuel rail to release fuel pressure.

The replacement injector is a manufacturer supplied part according to Fiat and costs about £100. Once you have one and are certain of the part number, when another is required, it is worth checking other sources such as eBay, as new ones have been advertised there for £58.

DIAGNOSTICS

If the engine is misfiring, and the spray pattern light illuminates on the dashboard then the Fiat garage will be able to specify exactly which injector/s, if any, are faulty by using electronic diagnostics. The test will cost over £30. To replace each injector in turn is not possible due to their location.

However it is possible to remove the lead from each spark plug in turn, check the difference this makes to the tick over, and the one that makes no difference, is supplied by the faulty injector. If there is any doubt at all then consult the Fiat garage.

REPLACEMENT PROCEDURE

Note: It will be necessary to get underneath the vehicle. Ramps are the ideal solution as the car is very low to the ground in any case.

- 1 Release pressure in the fuel system by opening the petrol cap and replacing. Then unscrew the plastic cap at the end of the fuel rail, place a cloth underneath, then press in the pin of the Schrader valve, until there is no pressure forcing petrol out. Replace the plastic cover.
- 2 Disconnect the injectors' electrical supply plug which is near to the Schrader valve
- 3 Remove the plastic air inlet duct; detach it from the rubber connecting tube (to the air filter) and place to one side.
- 4 Remove the two rubber pipes entering the oil filler tube. Unscrew the two bolts holding the tube and the one for dip stick holder fixing, and pull the tube out of the engine location. Place to one side.
- 5 Remove the dip stick. Unscrew the lower bolt for the holder (note the other attached bracket) and place to one side.
- 6 The plastic upper manifold needs to be loosened. Remove the two bolts holding the upper section in place. At the upper left hand rear of the engine compartment disengage the quick release coupling in the fuel line (be careful of spillage). Also unscrew the bracket bolt to allow the rubber fuel tube freedom of movement

- 7 The lower inlet manifold must be removed completely. Gradually release and extract the four Torx bolts holding the lower to the upper manifold, and bolts holding the plug shield on the right hand side.
- 8 Release the underside studbolts, and nuts but first three nuts holding a plastic retaining tube to the studbolts must be removed. There are slots in the casting for the studs at each end.
- 9 Before finally removing the lower manifold, remove the two Philips head screws holding the fuel rail assembly to the inlet manifold.
- 10 Remove the lower manifold and pull the fuel rail assembly including injectors from the engine. There will be some fuel spillage – have a cloth ready
- 11 Movement of the fuel rail assembly will be restricted by the fuel pipe. Gently lift the upper manifold to allow an additional length of rubber fuel pipe to be drawn through, (make sure this is properly relocated during reassembly).
- 12 Now the faulty injector/s can be pulled out from the rail by pulling off the retaining clip and unplugging the electrical connection.
- 13 Replacing all ‘O’ seals and gaskets disturbed in the procedure, is recommended by the manufacturer. They should at least be checked. The ‘O’ seals on the fuel injectors may be lubricated with light oil to assist re-insertion.



Figure 1 Fuel Injector Fiat Part 0071718998



Figure 2 Removing the Lower Manifold exposing the detached fuel rail



Figure 3 Fuel rail with injectors available for replacement

