



Original Equipment New

Fuel Pump

***EnDuraLast* FP-231Kit**

- ✔ Fits BMW R1100 (not S) , R1150 (not R) 1993-2004
- ✔ Fits BMW K1100 -- verify diameter (not K1200 1998-2004)
- ✔ Replaces BMW 43mm diameter fuel pump
- ✔ Equivalent to BMW Part Reference # 16 14 1 341 231
- ✔ Can also replace Bosch 52mm pump by ordering foam spacer
 - Equivalent to BMW Part Reference # 16 12 14 61 576
 - Use Part # FP-576FOAM ,
 - a 52mm foam tube that fits over the 37mm pump

Complete kit includes the following components --

- Negative and positive wire leads for easy wiring conversion
- New filter screen
- Hose clamps
- Foam adapter to convert 37mm to 43mm
- New fuel hose for connecting to fuel pump frame bracket
- New vibration damper base
- OE Quality-Manufactured by OEM supplier
- Designed and manufactured to modern OEM specifications

***EnDuraLast* OE Quality-Manufactured by OEM supplier.**

Fuel Pump Part # : FP-231KIT

The installation of this fuel pump system assumes the installing technician has basic mechanical and electrical skills. Please understand the intricacies of working on modern fuel-injected vehicles may require additional work to the wiring and fitment of this kit not specifically covered in the installation guidelines. Due to the various different models this kit can be fitted to, it is not possible to cover all the potential mounting options. Please read the below general fitment instructions and refer to them as guidelines to your specific make and model year. Proceed with a plan prior to initiating your retrofitment .

EnDuraLast
Fuel Pump
Original Equipment New
Part # : FP-231KIT
Regular Price \$139.00



Installation Guidelines

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Thank you for your purchase !

This kit, when properly fitted, is extremely reliable and efficient . Please read the installation guidelines carefully.

General Installation Preparation :

Please note that when replacing any fuel pump, that the fuel supply lines and fuel tank are clean of ALL debris, contaminants, water, etc. Ensure that the fuel supply plumbing is flushed clean with fresh gasoline. A new fuel filter is recommended and proper new clean screen installation is required. It is possible that dirt in the fuel supply system may have caused the original pump to fail, and NOT removing the root cause of failure may cause another similar failure.

Warranty will not be honored for fuel contamination failure.

NOTE worth repeating:

The installation of this fuel pump system assumes the installing technician has basic mechanical and electrical skills. Please understand the intricacies of working on modern fuel-injected vehicles may require additional work to the wiring and fitment of this kit not specifically covered in the instructions. Due to the various different models this kit can be fitted to, it is not possible to cover all the potential mounting and wiring options. Please read the below general fitment instructions and refer to them as guidelines to your specific make and model year.

Proceed with a plan prior to initiating your fuel pump retrofitment.

For more information, refer to the BMW or other repair manuals.

NOTE: Electrical sparks and gasoline vapors can ignite. However, within the fuel tank, electricity will NOT cause the fuel to due to the mixture being too rich.

- 1) Disconnect electrical power to vehicle by one of the following;
 - ❑ Remove fuse to fuel pump circuit or fuel pump relay, or
 - ❑ Disconnect battery. It will be a good idea to clean up both connections, prior to reinstallation / reconnection.
- 2) Remove fuel tank; this will be easier with an empty tank. Drain gasoline as necessary.
- 3) Disconnect wire harness plug to fuel pump.
- 4) Loosen hose clamps and remove fuel feed and fuel return hoses.
- 5) Remove gas tank filler cap.
- 6) Remove fuel pump frame bracket assembly from gas tank, carefully pulling it out so as not to disturb or bend the fuel level gauge float arm.
- 7) Loosen hose clamps on fuel line from pump to bracket. Remove hose connecting fuel pump to frame. This may require cutting (slitting length wise) the hose since it usually very stiff and stuck to the outlet pipe. A new fuel hose is supplied.
- 8) **NOTE :** Please note polarity of original wire connections (this may differ by model) :
 - ❑ Brown is Negative / Earth (-) with larger eyelet stud on pump side and small (.187 or smaller) male spade on bracket side.
 - ❑ The new pump has the smaller 0.187 male spade for the Negative / Earth (-) .
 - ❑ Green or Red is Positive (+) with smaller eyelet stud on pump side and (.125 or smaller) male spade on bracket side.
 - ❑ The new pump has the larger 0.25 male spade Positive (+) .
- 9) Remove nuts holding down wires on pump.
- 10) Remove old pump.
- 11) Note the size of spade terminals on wires and pump connection
 1. Pump connection :
 - i. larger 0.25" spade is Positive (+)
 - ii. smaller 0.187 spade is Negative (-)
- 12) Trial-fit new pump with rubber damper noting wire length requirements. It may be necessary to cut nylon tie wraps for additional useable length and / or re-routing of wires to connect to new pump. Additional wires, butt and spade connectors and nylon tie wraps are included for your convenience to ;
 - a) Lengthen wire(s) with new butt connector only, or with butt connector and new wire(s)
 - If using butt or parallel connector, use proper crimping tool
 - Slide vinyl tubing over completed connection for added insulative protection (slitting the vinyl tubing will help), or
 - ❑ Replace with new longer wires provided –
 - **Black 7.0 inch should be used for Negative (-) where the old Brown wire was used**

- this wire has 0.25 female disconnects fitting over the male spade on pump and on bracket connection
- Red 8.0 inch should be used for Positive (+) where the old Green or Red wire was used
 - This wire has 0.187 female disconnects fitting over the male spade on pump and on bracket connection
- Note the size of spade terminals on wires and pump connection
- Use the spade terminals on the bracket connection side, or by soldering
- If soldering on bracket connections, remove solder from spades on fuel pump bracket frame with solder gun or with a small file or grind tool. The purpose is to provide the connecting wires a smooth flat surface for the female disconnect to slide on to.
- Soldering heat must be used sparingly as not NOT damage the plastic seals on the pump holding bracket
- NOTE: Careful with gasoline and / or fume hazard from potential sparks.
- Soldering must be done in well ventilated area, due to potential fuel and fume hazard !
- ▣ Wires should be routed in similar fashion as original.
- ▣ Use tie wraps to keep wires from potentially fouling movement of fuel gauge float arm.

- 13) Slide new fuel hose and hose clamps on to bracket and pump, twisting pump so that everything is in proper alignment.
- 14) Install new rubber damper on to base of new pump.
- 15) Place new pump with rubber damper on to bracket ensuring proper orientation on to base, making sure the rubber damper lips are relaxed and flat contact.
- 16) Install new filter screen on to pump.
- 17) Tighten hose clamps.
- 18) Replace fuel filter (recommended); if doing so, it also recommended to replace with new fuel-injection hose and hose clamps (this is not regular hose, but “high pressure fuel-injection” hose – available at your local auto parts store)
- 19) Reinstall fuel pump frame bracket into gas tank, carefully putting it back inside up so as not to disturb or bend the fuel level gauge float arm. Ensure gasket seal is properly in place.
- 20) Reconnect wire harness plug.
- 21) Reconnect hoses and tighten hose clamps
- 22) Reconnect electrical power – fuse, relay, battery connections.
- 23) Test.