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# INSTALLATION MANUAL AEROFLOW PERFORMANCE HONDA FUEL RAIL KIT

### Item list included in this kit:

1x Billet Fuel Rail to suit Honda K20 / K24 series engines

2x M8 x 1.25mm socket cap screws (UHL 25mm)

2 x -8ORB to -6an adapter fittings

1 x -8ORB block off plug

## Additional items required that does not come with kit:

- Hose fittings or barb fittings to connect to your current fuel line (rubber or braid)
- Fuel hose for feed line and return line ( OEM Hard-line adapter Sold Separately AF811-08-05 )

# WARNING!

BEFORE PROCEEDING WITH INSTALLATION PLEASE READ INSTRUCTIONS CAREFULLY. THIS PRODUCT REQUIRES DETAILED KNOWLEDGE OF AUTOMOTIVE SYSTEMS. WE RECOMMEND THAT THIS INSTALLATION BE CARRIED OUT BY A QUALIFIED AUTOMOTIVE TECHNICIAN.

THE INSTALLATION OF THIS PRODUCT REQUIRES THE HANDLING OF FUEL. WE RECOMMEND TO WORK IN A WELL VENTILATED AND WEAR APPROPRIATE SAFTEY WEAR FOR PROTECTION.

KEEP ALL IGNITION SOURCES AND OPEN FLAMES AWAY FROM VEHICLE AT ALL TIMES WHILE INSTALLING THIS PRODUCT.

THESE FUEL RAILS ULTILIZE O-RING SEALED AN STYLE PORTS AND DO NOT REQUIRE THREAD SEALANT ONLY AN APPROPRIATE LUBRICATE SHOULD BE USED

For more information or technical enquires

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#### **INTRODUCTION**

Congratulations on your purchase of Aeroflow Performance billet Honda fuel rail. Aeroflow Performance Products cannot and will not be responsible for any damage, or other conditions resulting from misapplication of the parts described herein. However, it is our intention to provide the best possible products for our customer, products that perform properly and satisfy your expectations. Should you have any questions, please call technical support at +61 2 8825 1900 and have the product part number on hand when calling.

Aeroflow Performance provides the solution when converting a K-Series return-less fuel injection system to a return style system for use in all K-Series powered vehicles. It may also be used on the returnless systems found in OEM K-Series powered vehicles, but only in conjunction with our optional Aeroflow Performance -8ORB to Honda 5/16" Quick-Connect Fuel Fitting (AF811-08-05 Sold Separately).

Featuring -8ORB feed and return ports on each end, with a -8ORB centre port feed/return option.

#### **STEP 1: REMOVAL**

- 1. Please refer to the factory service manual of the vehicle for the correct removal of the factory fuel rail if unsure a brief run down is provided below.
- 2. Disconnect the negative terminal on the battery.
- 3. Clean the area around the fuel rail to prevent dirt getting into injector holes and blocking them.
- **4.** Remove the fuel cap to relieve all pressure from fuel system
- 5. Remove the 2 bolts securing the engine cover and the bolts securing the engine cover brackets.
- **6.** Disconnect the 4 fuel injector connectors, the bolt securing the ground strap on the fuel injector wiring harness and remove the wiring from the harness holder.
- 7. Disconnect the OEM fuel feed quick-connect fitting by squeezing the retaining tabs to release them from the locking pawls and pull the tubing away from the rail.
  - I. Note: fuel will still be in the line
- 8. Remove the two M8x1.25mm nuts and studs that secure the fuel rail to the intake manifold.
  - I. Note: do not lose the 2 black fuel rail insulating spacers as they will be reused
- 9. Disassemble the factory fuel rail from the vehicle, keep all fuel rail spacers, bolts and O-rings as these may need to be reused.

#### **STEP 2: ASSEMBLY**

- 1. Install the -6AN adapters onto either end of the fuel rail (depending on fuel system configurations this may change). The -8AN O-ring side of the fitting into the fuel rail. Be careful not to damage the thread when doing so.
- 2. Install OEM injectors into the fuel rail with new OEM O-Rings, ensure O-rings are not pinched when installing injectors. Always use appropriate lubrication on fuel injector O-rings.
  - I. If using aftermarket injectors, they can either be 14mm direct fit or 11mm with the use of AF889 (injector insert adaptors) not included in this kit.
  - **II.** If the length of the injectors is not 60.65mm than an appropriate length adapter must be purchased separately and installed.
  - **III.** We recommend the use of new injector O-rings if re-using the standard injectors.

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#### **STEP 3: INSTALLATION**

- 1. Install the OEM injector insulating spacers into the intake manifold using the appropriate lubrication. Ensure O-rings are seated correctly before proceeding.
- 2. Install fuel rail and injectors onto intake manifold with bolts and spacers provided in the kit. Do not fully tighten fuel rail to manifold until all injectors are correctly seated into the injector adaptors.
- 3. Tighten all mounting bolts to correct torque specs. Do not overtighten this may cause damage to fuel rail and injectors.
- **4.** Install the fuel pressure regulator.
  - I. If an aftermarket fuel pressure regulator is required, please consult a professional or our sales team to provide ontions
- 5. Install fuel feed lines and return lines to correct positions depending on the setup that is required for the vehicle. If you wish to retain the factory OEM fuel system and OEM fuel line. You must purchase the Aeroflow Performance -8ORB to Honda 5/16" Quick-Connect Fuel Fitting (AF811-08-05 Sold Separately). Ensure enough slack is left in the line as to not put pressure on the fuel rail with engine running.
- **6.** Reconnect wiring harness and all connectors as per factory service manual. If using non factory injectors wiring plugs may require replacement or adaptors must be purchased separately.
- 7. Reconnect negative terminal on battery.
- 8. Turn the ignition the switch to the accessories position only at this point, wait two the three seconds and turn ignition back to off position. DO NOT ATTEMPT TO START ENGINE.
  - I. Repeat the above step and cycle the ignition three times.
  - II. Check all fittings, injector adaptors, fuel fittings for any signs of fuel leakage.
  - III. If there are any signs of leakage they must be corrected before proceeding on to the next step.
  - **IV.** If aftermarket injectors and/or fuel regulators have been installed ensure vehicle ECU has been adjusted to suit before attempting to start the engine.
- 9. If no signs of leakage have been found, then start the engine and be sure to check for any signs of leakage while engine is running. If no leakage is found on the final inspection, then the installation is complete.



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