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# INSTALLATION MANUAL

## AEROFLOW PERFORMANCE SR20 FUEL RAIL KIT

### Item list included in this kit:

- 1x Billet Fuel Rail to suit SR20 (s14/s15 sr20 with VCT only)
- 1x IACV billet spacer with gasket
- 4x Injector seat adapters (outer diameter 24.70mm, inner diameter 14mm)
- 1x Billet spacer (length 38.20mm, outer diameter 19.05mm, inner diameter 9.63mm)
- 2x Billet spacers (length 19.10mm, outer diameter 19.05mm, inner diameter 9.63mm)
- 1x Spring clamp
- 1x M8 1.25mm socket cap screw (UHL 59.50mm, shank 31.75mm)
- 2x M8 1.25mm socket cap screws (UHL 39.75mm, shank 9.95mm)
- 3x M6 1.00mm socket cap screws (UHL 49.50mm, shank 23mm)
- 1x 640mm length of black aeroflow 400 series ½" (12.7mm) rubber hose

### 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
- Aftermarket fuel regulator
- Aftermarket 14mm O-ring fuel injectors

# 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 SAFETY WEAR FOR PROTECTION.

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

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

## INTRODUCTION

Congratulations on your purchase of aeroflow performance billet 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. This product suits sr20 engines with standard manifold and suits short injectors 33.60mm (1-21/64”).

## STEP 1: REMOVAL

1. Please refer to the factory service manual of the vehicle for the correct removal of the factory fuel rail.
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. Disassemble the factory fuel rail from the vehicle, keep all fuel rail spacers and bolts as these may need to be reused.

## STEP 2: ASSEMBLY

1. Install the -6AN or -8AN supplied in kit onto either end of the fuel rail. The -8AN O-ring side of the fitting into the fuel rail. Be careful not to damage the thread when doing so.
2. Install either the -6AN O-ring plug or -6AN fitting to the centre of the rail depending on if you wish to run a single or dual feed setup with the vehicle. If unsure please consult a professional.
3. Install aftermarket injectors into the fuel rail, ensure O-rings are not pinched when installing injectors. Always use appropriate lubrication on fuel injector O-rings.
  - I. Aftermarket injectors must be used. 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 are not 60.65mm or 48.65mm 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

### STEP 3: INSTALLATION

1. Install the necessary brackets on to fuel rail on the left and right side. Using the bolts provided and torqued to specs.
2. Install the injector adaptor and/or injector O-rings into the intake manifold using the appropriate lubrication. Ensure O-rings are seated correctly before proceeding.
3. 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.
4. Tighten all mounting bolts to correct torque specs. Do not overtighten this may cause damage to fuel rail and injectors.
5. Remove idle air control valve (IACV) from intake manifold plenum. Torque the included barbed fitting to the IACV spacer. Install aeroflow IACV spacer under the OEM IACV and OEM gasket using bolts in kit. Replace IACV gasket if necessary not included in kit.
6. Measure the distance from the charge pipe barb to the new aeroflow IACV spacer barb and cut the provided hose to length. Secure IACV bypass hose using clamps.
7. Install the fuel pressure regulator.
  - I. If an aftermarket fuel pressure regulator is required please consult a professional or our sales team to provide options.
8. Install fuel feed lines and return lines to correct positions depending on the setup that is required for the vehicle. Refer to diagram at the end of this instruction as a guideline only. Ensure enough slack is left in the line as to not put pressure on the fuel rail with engine running.
9. 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.
10. Reconnect negative terminal on battery.
11. 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.
12. If no signs of leakage has 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.

*For more information or technical enquires*

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