



# INSTALLATION INSTRUCTIONS

Top Feed Conversion Fuel Rails, Subaru EJ

P/N: 20-0168 & 20-0335

Document: 19-0206

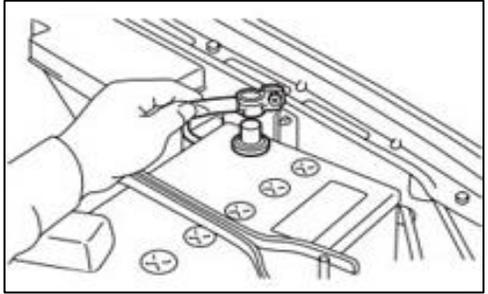
Support: info@radiumauto.com

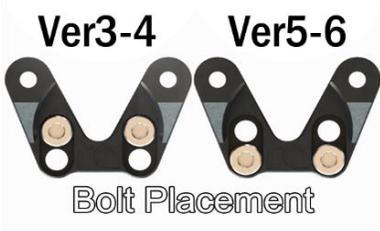
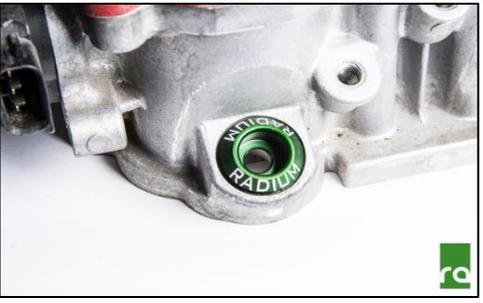
## CAUTION

Only a qualified technician following applicable safety procedures should perform the installation of this product. One must have knowledge in repair and modification of fuel systems and general vehicle modifications to install this product.  
**Gasoline and other fuels are flammable and can be explosive.**  
 Only install in a well-ventilated location to minimize buildup of fuel vapors.  
 No sparks, open flames, smoking or other ignition sources are to be present. Draining and removal of all fuel from the fuel system is recommended. Proper eye and personal protection is required at all times during installation.

## WARNING

The fuel system is under pressure! Do not loosen any connections until relieving the fuel system pressure. Consult a service manual for instructions on relieving fuel pressure safely. This product is designed for off-highway and racing use only. Fuel system components may not be legal for sale or use on emissions controlled motor vehicles. Consult local, state, and federal laws.

| STEP | TOOLS NEEDED         | INSTRUCTIONS   | PHOTO   |
|------|----------------------|--|---|
| 1    |                      | It is necessary to have access to a Factory Service Manual. Remove fuel pump fuse and start engine. Allow engine to stall to relieve fuel pressure. Remove ignition key and disconnect battery (as shown).   |   |
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| 2    |                      | The procedure for removing the OEM fuel rails and associated piping will vary from model to model and will not be covered in this document. Proceed to the next step when the OEM rails and piping are removed.  |  |
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|      |                      |  |   |
| 3    | Non-marring wrenches | Prepare the Radium fuel rails by installing the appropriate fittings or accessories into the ports. This will vary by application. All ports are 8AN ORB. Compatible fittings must have an o-ring installed. Lubricate all o-rings with oil.<br><br>If reusing the OEM Subaru (2-bolt flange type) fuel pressure regulator, transfer to the appropriate Radium OEM FPR adapter. Visit radiumauto.com for details.<br>If Radium 20-0478 Fuel Rail Plumbing kit was purchased, refer to those specific installation instructions.<br><br><b>NOTE: To avoid undue stress, it is highly recommended that fittings are installed and tightened down before the rails are mounted to the engine.</b> |  |
|      | Oil Lubrication      |  |   |
|      |                      |  |   |
|      |                      |  |   |
|      |                      |  |   |
| 4    |                      | <b>P/N 20-0168 Only:</b> Check fuel injector compatibility and select the correct mounting spacers to use in the kit.<br><br>These fuel rails are compatible with UNIVERSAL fuel injectors that use 14mm upper and lower O-rings, shown with green circle. "WRX" fitment injectors which have a lower "bucket" are NOT compatible. In some cases, these buckets can be removed from the aftermarket injector. Contact the injector manufacturer for more information.<br><br>When using 34mm height universal injectors, install the fuel rails with the shorter phenolic spacers. If using 48mm height universal fuel injectors, install with the taller phenolic spacers.                    |  |
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| 5 |                | <p><b>P/N 20-0335:</b> These rails are ONLY compatible with 48mm length universal fuel injectors. Injectors must have 14mm upper and lower O-rings. A few examples of universal 48mm injectors are shown in the picture.</p>  |    |   |   |
|   | 6mm Hex Wrench |   |   | <p><b>P/N 20-0335:</b> Install the fuel rail mounting bracket using the included screws. Adjust the bracket position based on the application.</p> <div style="text-align: center;">  <p>Ver3-4      Ver5-6</p> <p>Bolt Placement</p> </div> |  |
|   |                |   |   |   |   |
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| 7 | Oil            | <p>Install the included O-rings onto the injector seats if not installed. Next, lubricate the o-rings and push the injector seats into the injector ports on the TGV housings (or intake manifold).</p> <p>NOTE: The injector seats in the 20-0335 kit will look slightly different than pictured.</p>  |   |   |   |
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|   |                |   |   |   |   |
| 8 | 6mm Hex Wrench | <p>Push the injectors into the fuel rails, then install the fuel rails onto the TGV housings (or intake manifold). Lubricating the fuel injector o-rings is recommended to make installation easier.</p> <p>Secure the fuel rails in place using the supplied Allen head screws with the phenolic washers under the heads. Torque to 10 ft-lbs (13.6Nm) using a 6mm Allen wrench.</p> |  |   |   |
|   | Oil            |   |   |   |   |
|   |                |   |   |   |   |
|   |                |   |   |   |   |
|   |                |   |   |   |   |