

## **IAG BIG BORE 76MM THROTTLE BODY & ADAPTER FOR OEM STI / COSWORTH INTAKE MANIFOLDS**



Step 1/39

### **IAG-AFD-2023 IAG Big Bore 76mm Throttle Body & Adapter Package for Subaru STI OEM & Cosworth Intake Manifolds**

**Part# IAG-AFD-2023**

**Tools Required:** Ratchet, Torque Wrench, Pliers, Rivet Gun

**Sockets:** 10mm, T20H Torx, 4mm allen socket.

Congratulations on the purchase of your Big Bore Throttle Body Adapter, and thank you for choosing IAG Performance. This installation manual is intended to guide you through the modification of the factory timing system and the installation of the IAG Big Bore Throttle Body Adapter. This installation assumes that you are familiar with the removal of the factory throttle body assembly. If you are not familiar with this procedure please consult the factory service manual for your vehicle. If you do not own the factory service manual you may purchase temporary access at [https://techinfo.subaru.com/stis/#/purchase\\_subscription](https://techinfo.subaru.com/stis/#/purchase_subscription) to aid in your installation. Professional installation of this product is recommended and custom fabrication and tuning will be required for operation.

## WARNING

The IAG Throttle Body Adapters and Packages are for OFF-ROAD USE ONLY and are not to be used on vehicles subject to emissions controls. The replacement throttle body will require modifications to your intercooler piping or couplers. The OEM style MAP sensor will not bolt to the replacement throttle body. IAG recommends the use of an aftermarket MAP sensor connected, or threaded into, the intake manifold. Your vehicle must have a RIVETED style throttle actuator motor (as shown below) to work with the replacement throttle body.



### Step 2/39

### Step 3/39

Numbered annotations (1)

- 1 Remove the throttle body from the vehicle. Refer to the factory service manual for instructions, if needed.



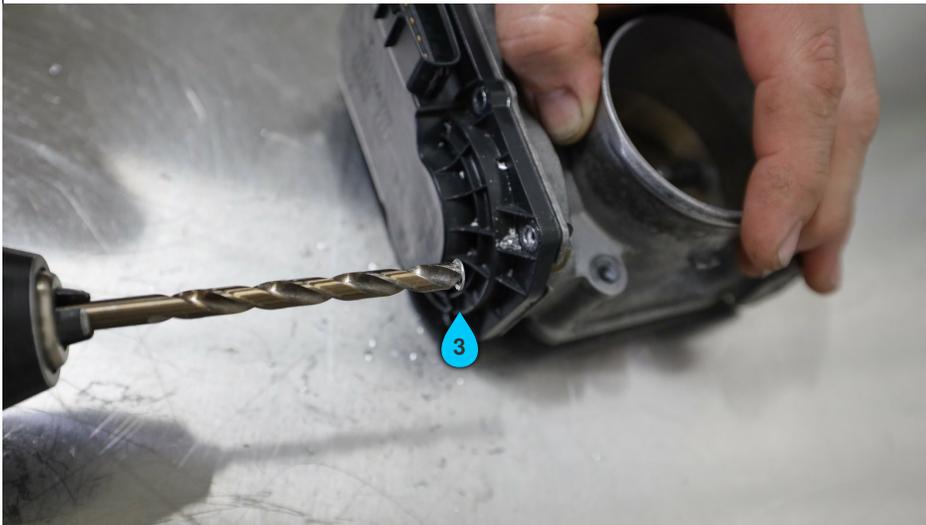
### Step 4/39



Numbered annotations (1)

- 2 Use a 1/4" Drill bit to carefully drill out the head of each of the 6 rivets holding the motor cover in place. Be careful not to damage the black cover.

### Step 5/39



Numbered annotations (1)

- 3 Close up of the rivet head drilled out

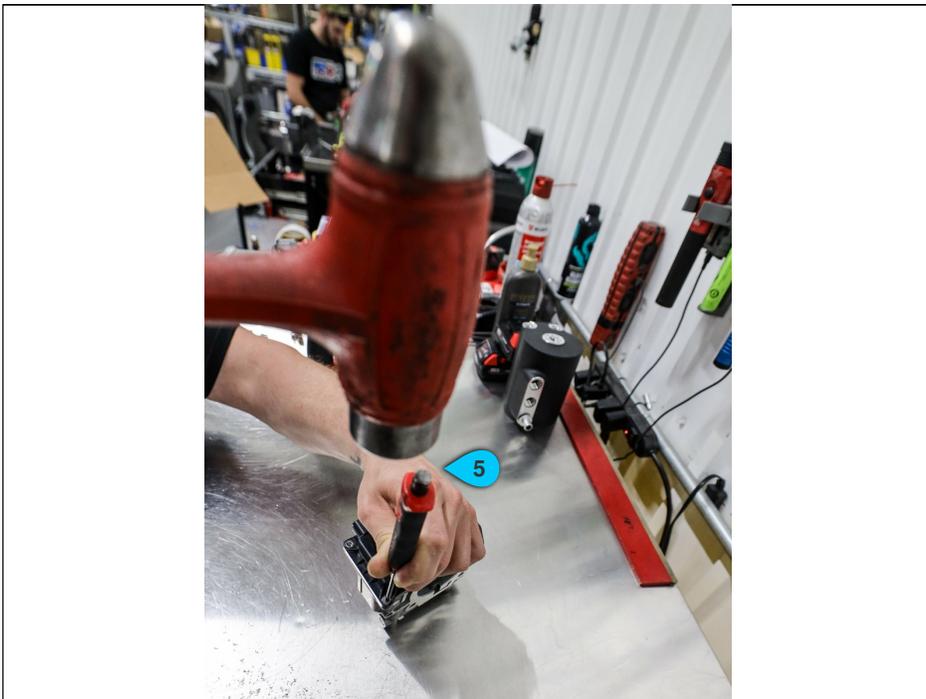
### Step 6/39



Numbered annotations (1)

- 4 Align a small punch with the remaining body of the rivet. The punch should be small enough to push out the rest of the rivet and fit through the hole without damaging the housing.

### Step 7/39



Numbered annotations (1)

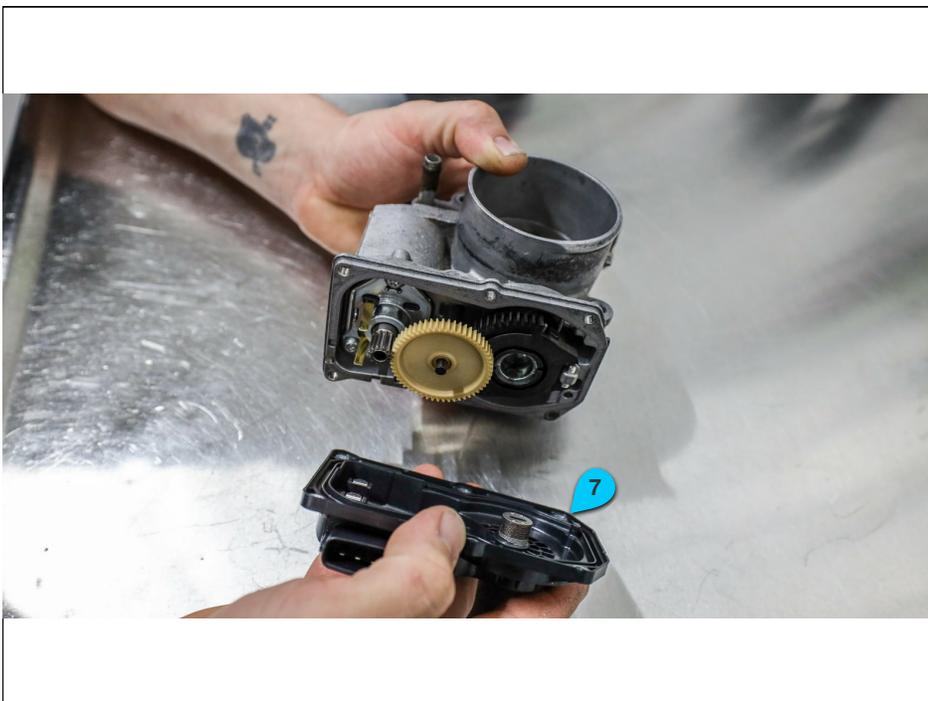
- 5 Strike the punch with a hammer to remove the rest of each rivet body. Be careful not to damage the housing.



### Step 8/39

Numbered annotations (1)

- 6 Rivet body removed.



### Step 9/39

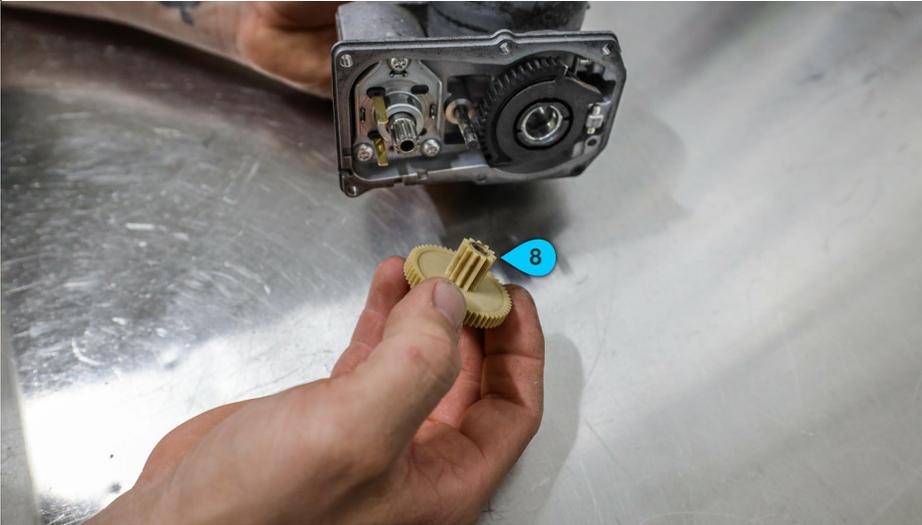
Numbered annotations (1)

- 7 Once the rivets are removed, carefully remove the motor cover from the OEM throttle body.

### Step 10/39

Numbered annotations (1)

- 8 Remove this gear from the OEM Throttle Body



### Step 11/39

Numbered annotations (1)

- 9 Remove the three screws holding the OEM throttle motor in place using a T20H Security Torx bit.



### Step 12/39



### Step 13/39

Numbered annotations (1)

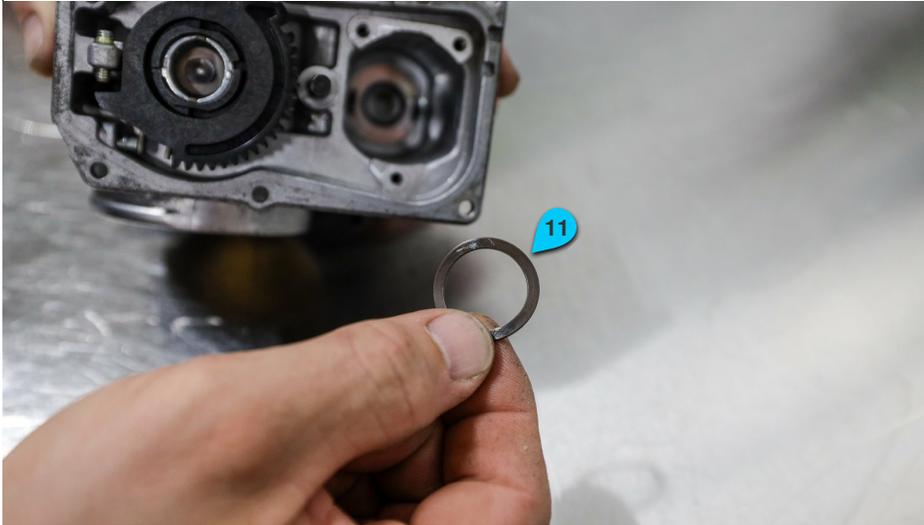
- 10 Remove the motor from the OEM housing.



### Step 14/39

Numbered annotations (1)

- 11 Locate and remove the washer which was under the OEM throttle motor.



### Step 15/39

Numbered annotations (1)

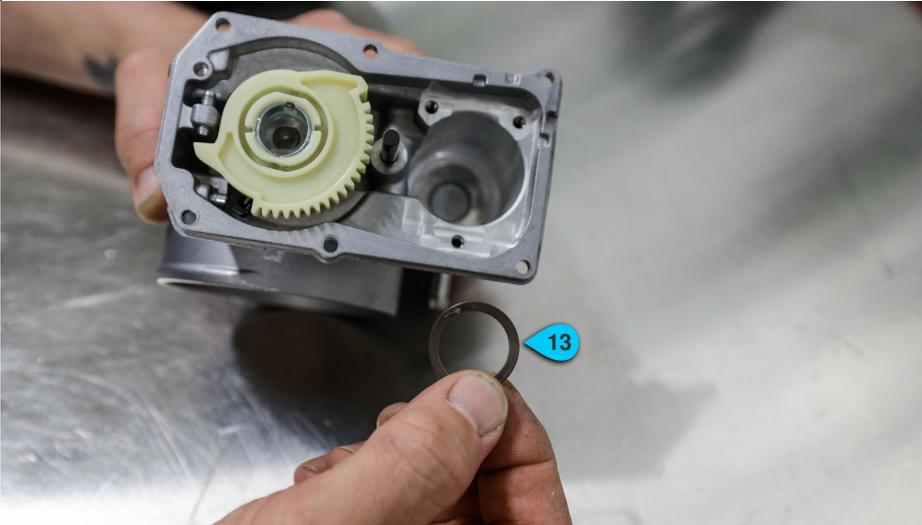
- 12 Locate the new throttle body housing.



### Step 16/39

Numbered annotations (1)

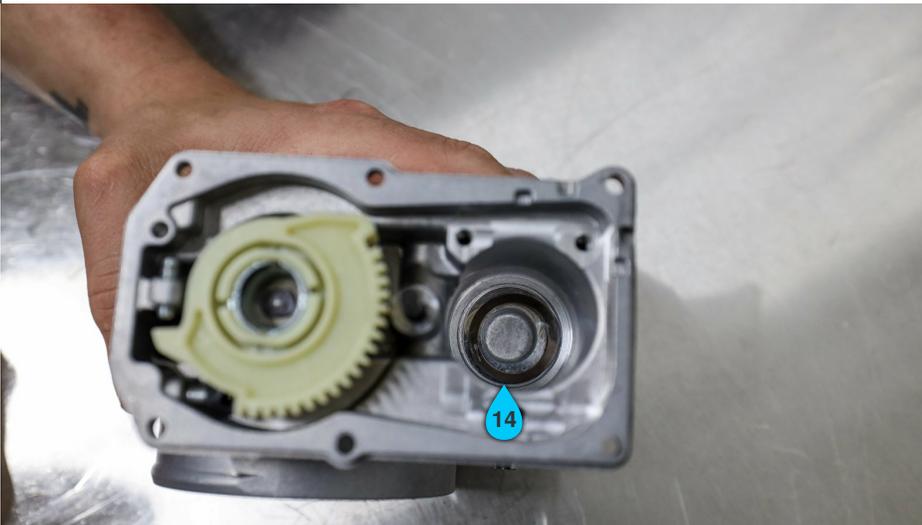
- 13 Locate the motor washer.



### Step 17/39

Numbered annotations (1)

- 14 Place the motor washer in the bottom of the new throttle body housing. Make sure to match the orientation of the washer to where it was in the OEM housing.



### Step 18/39

Numbered annotations (1)

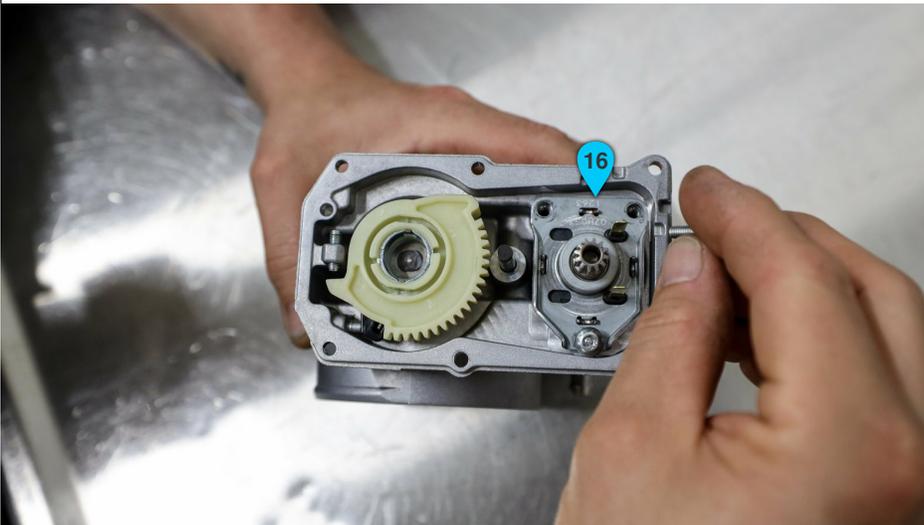
- 15 Locate the OEM throttle motor



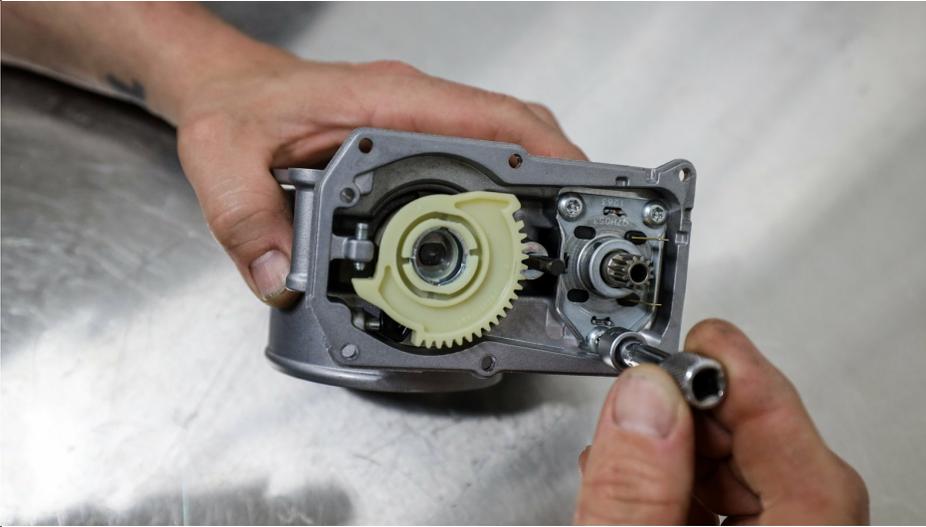
### Step 19/39

Numbered annotations (1)

- 16 Place the OEM throttle motor in the housing and secure it with the three torx screws. Additional torx screws are included.



### Step 20/39

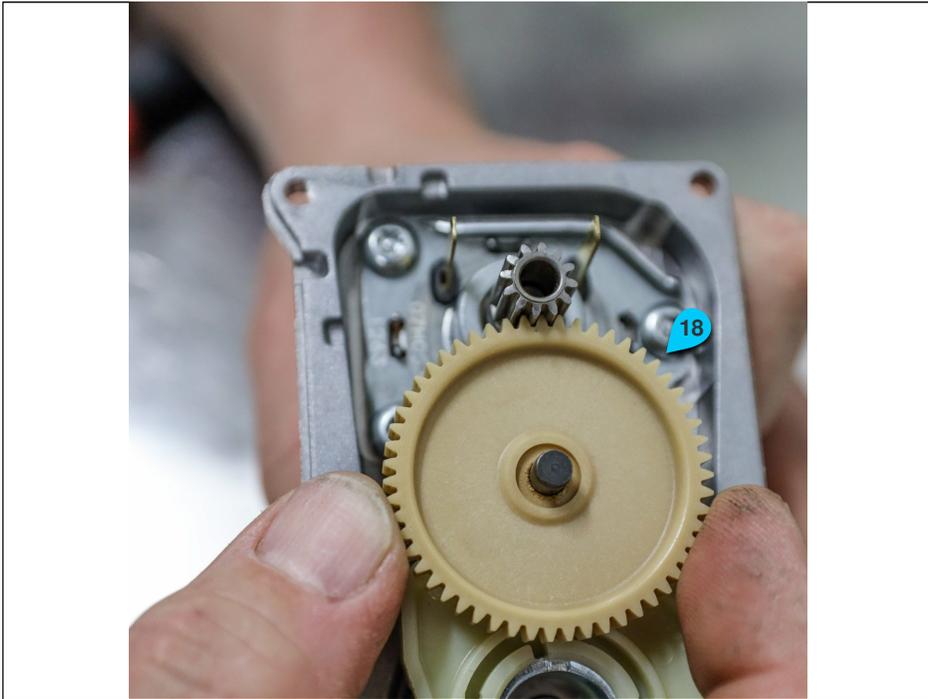


### Step 21/39

Numbered annotations (1)

**17** Torque the screws to 25 inch lbs.





## Step 22/39

Numbered annotations (1)

- 18 Install the gear removed from the OEM throttle body onto the new housing as shown. Ensure that the gear has a little bit of free play and slides easily into place. If necessary, loosen the screws holding the motor and push the motor away to add additional clearance.



## Step 23/39

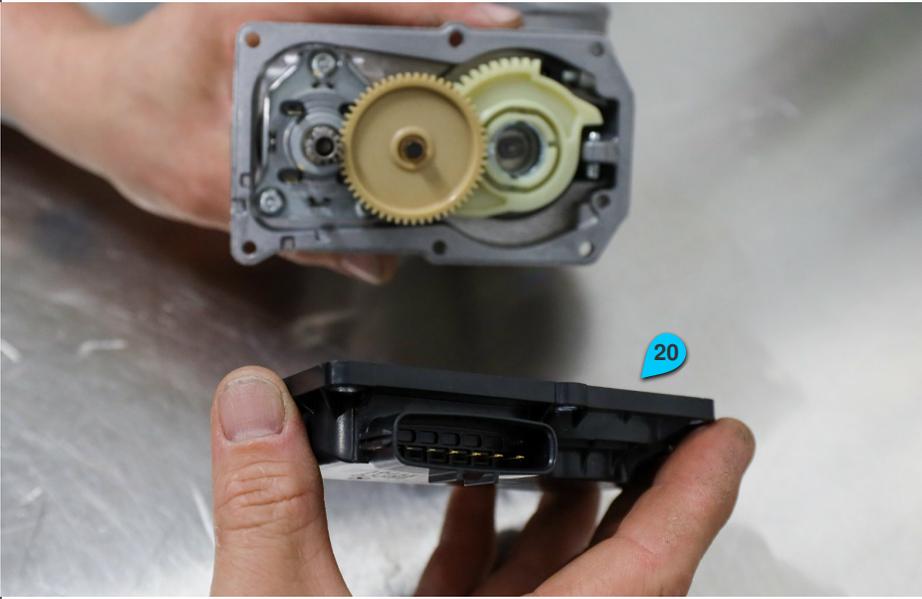
Numbered annotations (1)

- 19 Use your fingers to manually open and close the throttle plate, ensuring that the gears turn as they should. If the gear does not have enough free play the throttle plate will close very slowly. Adjust as necessary.

### Step 24/39

Numbered annotations (1)

- 20 Locate the OEM motor cover.



### Step 25/39

Numbered annotations (1)

- 21 Install the motor cover to the new throttle body housing.



## Step 26/39



Numbered annotations (1)

- 22 Locate one of the supplied rivets and the 4mm nut, which will be used as a spacer between the rivet and the rivet gun.

## Step 27/39



Numbered annotations (1)

- 23 Orient the rivet assembly and shown and attach the rivet gun to the end of the rivet. Pull the trigger on the rivet gun to complete the installation of the rivet.

### Step 28/39

Numbered annotations (1)

- 24 The rivet should look like this when properly installed.



### Step 29/39

Numbered annotations (1)

- 25 Repeat the rivet installation process for each of the remaining holes. You will use the same 4mm nut as a spacer if the rivet gun does not clear the housing.



### Step 30/39



### Step 31/39



#### Numbered annotations (1)

- 26** Orientation of rivet assembly where 4mm nut spacer is not required.

**Step 32/39**



**Step 33/39**



### Step 34/39



Numbered annotations (1)

- 27 The cover should look like this when properly installed.

### Step 35/39



Numbered annotations (1)

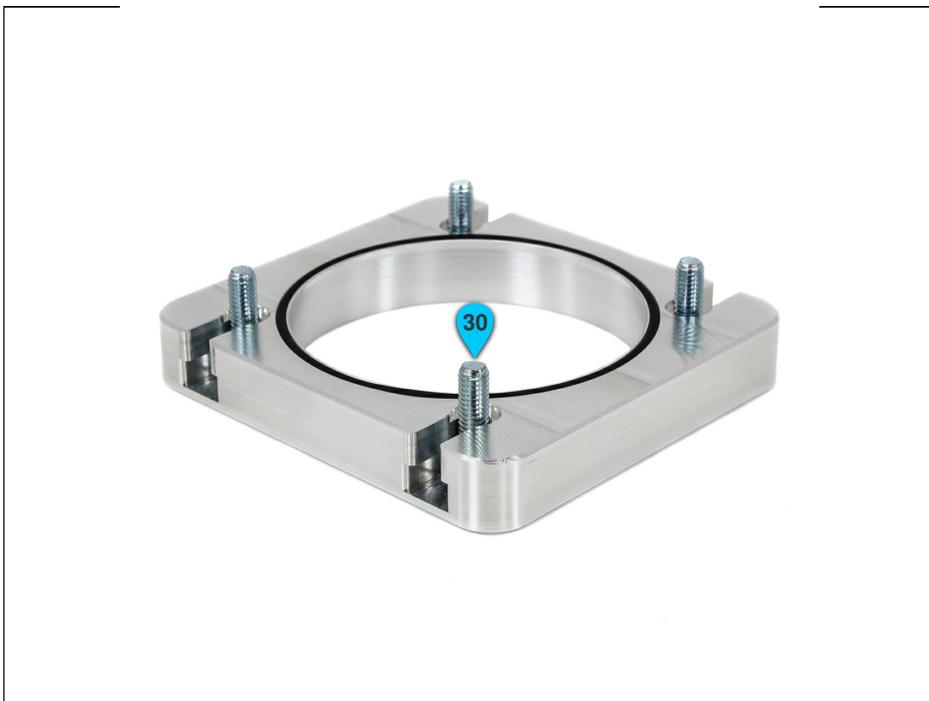
- 28 Locate the throttle body adapter and install the larger supplied o-ring in the receiver groove.



### Step 36/39

Numbered annotations (1)

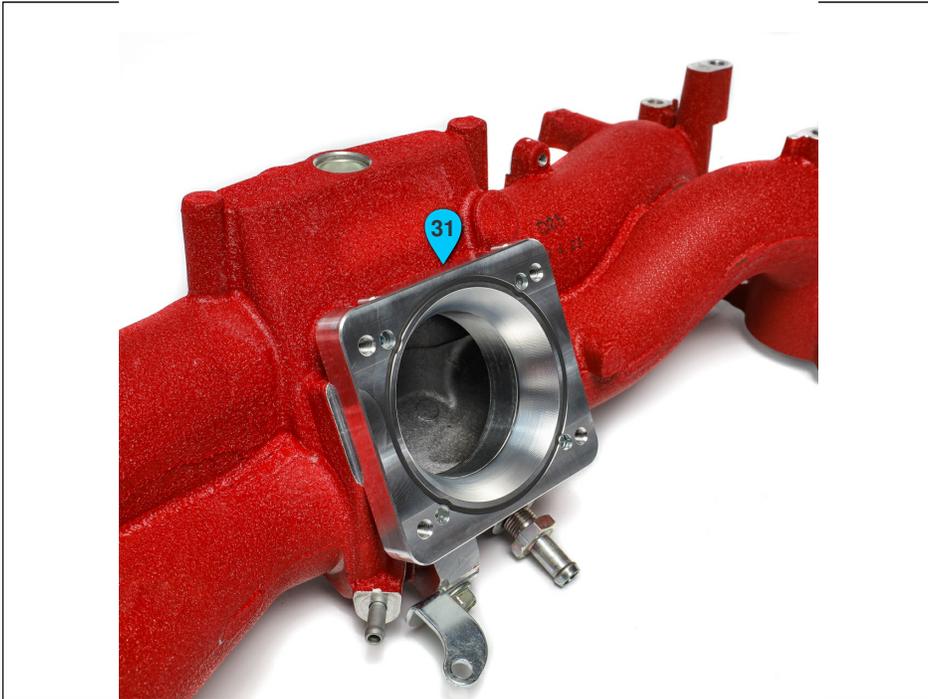
- 29 Install the other supplied o-ring in the groove on the other side of the plate.



### Step 37/39

Numbered annotations (1)

- 30 Slide the four short manifold mounting bolts into position using the slots in the plate. The four small o-rings can be slid over these bolts to hold them in place during installation.



### Step 38/39

Numbered annotations (1)

- 31 Install the adapter plate to the manifold using the bolts installed in the previous step. Torque the bolts to 8 NM.



### Step 39/39

Numbered annotations (1)

- 32 Install the throttle body to the intake manifold adapter using the four remaining bolts. Torque to 8 NM