



# INSTALLATION INSTRUCTIONS

PART DESCRIPTION: IHI Supercharger Lid

APPLICATION: 2.38L, 2.7L, and 3.0L IHI Superchargers

REVISION: 0

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Thank you for choosing SDG Motorsports for your IHI supercharger needs!

The following instructions will help you properly remove/install your supercharger lid.

## REMOVAL:

### Step 1: Remove All Lid Fasteners

- Remove all 16 lid fasteners around the perimeter of the lid, along with the 5 center lid fasteners

### Step 2: Remove the Lid

- There is a tab on the driver side rear of the supercharger lid; it is threaded for a wire harness Christmas tree. Grasp and use it to pull upward from the rest of the supercharger.
- As soon as the lid breaks free from the sealing surface, ensure that the lid gasket is not stuck to the lid. If the gasket sticks to the lid in the rear, and the rotor case in the front, THE LID GASKET WILL TEAR if the lid is pulled up too far!
- Now that the gasket has been separated from the lid in the rear, continue to pull upward on the lid until it feels as if there is a hard stop. At this point, the bypass throttle body is angled to where it has made hard contact. Continuously ensure that there is no risk of tearing the gasket during this process.
- Grasp the front (or the “nose”) of the lid with one hand, and the rear of the lid with the other hand, and rock the rear up and down while gently pulling up on the front of the lid. Continuously ensure that there is no risk of tearing the gasket during this process.

## INSTALLATION:

### Step 1: Align the Lid Gasket

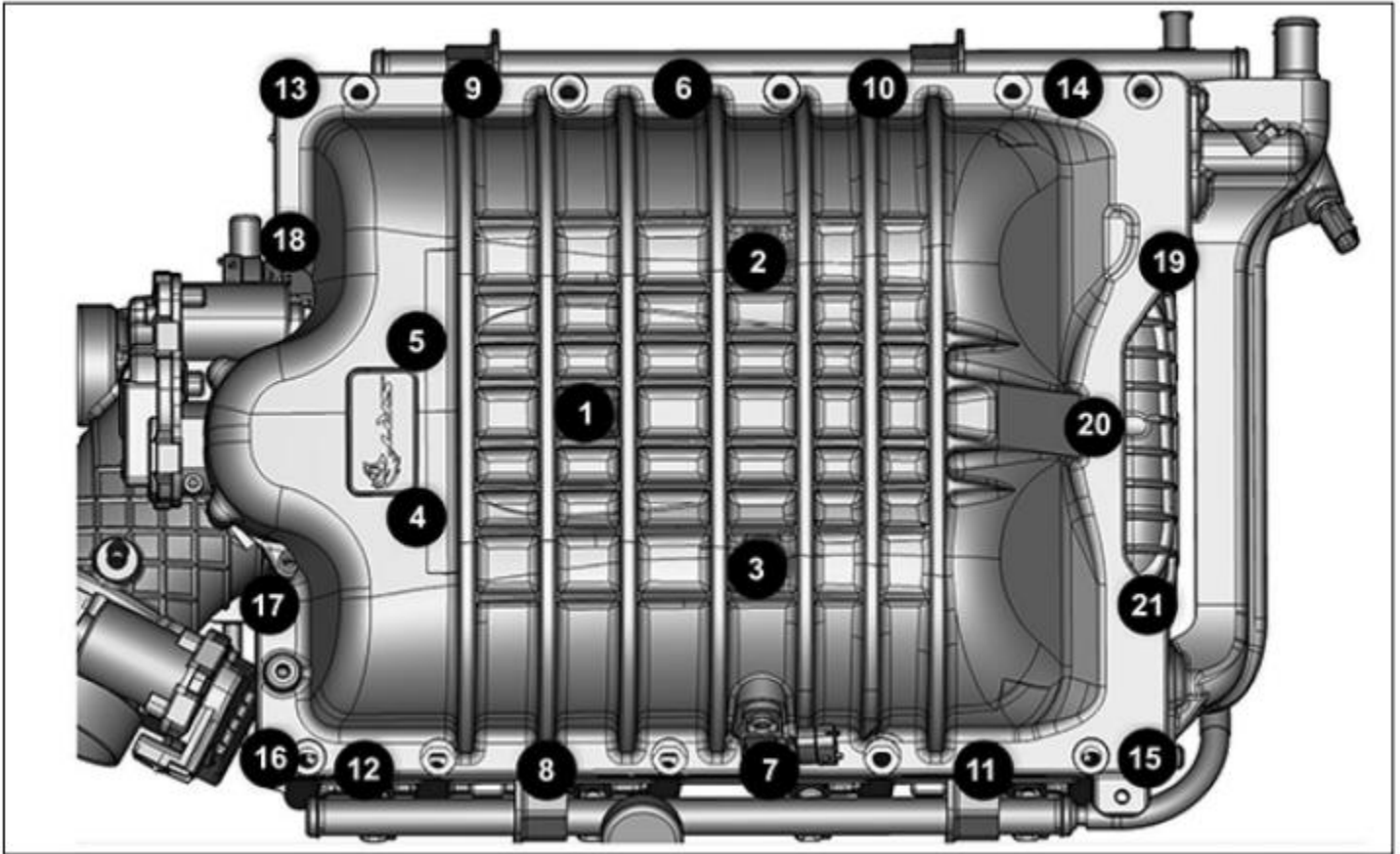
- Align the lid gasket with its respective holes in the rotor case.
- Press the silicone bead against the rotor case in several locations. This will help it stay seated while the lid is being installed.

### Step 2: Lubricate the Bypass Throttle Body Seal

- Apply a thin film of oil to the bypass throttle body seal. This will allow for lighter insertion force.

### Step 3: Install the Lid

- Insert the bypass throttle body into the bypass seal.
- Apply firm pressure to the front of the lid, directly above the bypass throttle body. This will seat the bypass throttle body into the seal to the point where the lid through holes will properly align with their respective threaded holes in the rotor case.  
**\*\*Ensure that the gasket does not move during this process\*\***
- Install the lid fasteners by hand (no tools). Start at the rear and move your way forward, and into the center.  
**\*\*Ensure that the fasteners do not bind or start cross-threading! Take your time and do it right, or it can be costly!\*\***
- When all fasteners have been started, seat the lid against the rotor case by tightening the fasteners by hand to “SNUG” with a small ratchet in the pattern shown on the next page.



#### Step 4: Tighten the Lid Fasteners

- In the pattern shown in the previous step, tighten each fastener to 14 N-m ( $\approx$  10.4 ft-lb).
- In case there was some movement or relaxation of the sealing joint, repeat the torquing process to ensure fasteners are tightened to specification.

Note: when securing the supercharger to the head, ensure ALL of the 10 perimeter M8 hex flange cap screws thread in by hand. It may be necessary to turn the fasteners counterclockwise until they find their starting threads.

If the supercharger was removed from the engine and is being reinstalled, ensure that the alignment dowels on the passenger side are aligned in the cylinder head.

Tighten from the center out on each side to 35N-m. Note that the TMAP sensor on the lid cannot be plugged into the harness when you conduct the torquing sequence. If it is plugged in and you force the socket over the fastener head for torquing, you risk damaging the wire harness connection.