



Holley Cast 95mm & 105mm Hi-Ram Side Entry Lid

Holley P/N	Engine Application & Induction Configuration
300-301	105mm Entry, Ford Throttle Body Compatible
300-301BK	105mm Entry, Ford Throttle Body Compatible, Black
300-302	105mm Entry, GM Throttle Body Compatible
300-302BK	105mm Entry, GM Throttle Body Compatible, Black
300-303	95mm Entry, Ford Throttle Body Compatible
300-303BK	95mm Entry, Ford Throttle Body Compatible, Black
300-304	95mm Entry, GM Throttle Body Compatible
300-304BK	95mm Entry, GM Throttle Body Compatible, Black

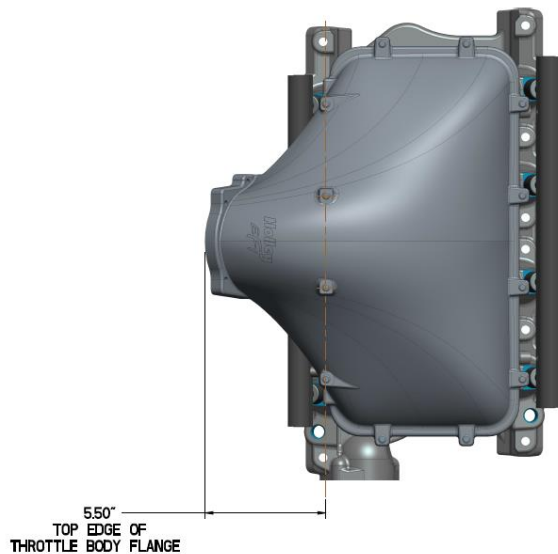
INSTALLATION INSTRUCTIONS: 199R11698
(Before installation, please read these instructions completely.)

APPLICATIONS:

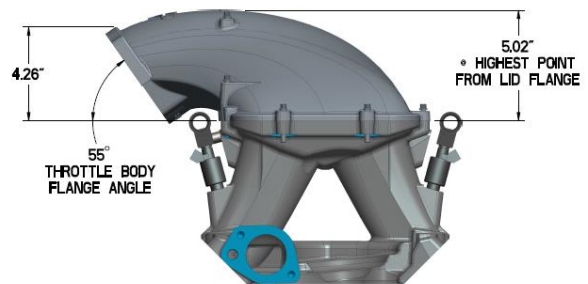
This Holley Hi-Ram Lid will fit all newer generation Hi-Ram bases including LS1/LS2/LS6, LS3/L92, LS7, LT1, & FORD 351W /302W applications. If your existing base is an earlier model which has through holes instead of threaded holes on the manifold base flange, the supplied hardware will not work. See table below for alternate hardware recommendations (not included).

INCLUDED HARDWARE	EARLIER HI-RAM ALTERNATE HARDWARE
6 – 1/4-20 UNC x 1" Long 12 Point Cap Screws	6 – 1/4-20 UNC x 1.5" Long Hex Head Screw w/ 1/4-20 UNC Nut
2 – 1/4-20 UNC x 1.5" Long 12 Point Cap Screws	2 – 1/4-20 UNC x 1.5" Long Hex Head Screw w/ 1/4-20 UNC Nut
2 – 1/4-20 UNC x 2.25" Long 12 Point Cap Screws	2 – 1/4-20 UNC x 2.75" Long Hex Head Screw w/ 1/4-20 UNC Nut
2 – 1/4-20 UNC x 5.1" Long 12 Point Cap Screws	2 – 1/4-20 UNC x 5.5" Long Hex Head Screw w/ 1/4-20 UNC Nut *NOTE* an additional sealing crush washer should be used on bottom of 5.5" through bolts under nut if alternate hardware is used.

DIMENSIONS:



Lid has been verified to fit under Cervinis 2.5" cowl hood on 1979-1993 Mustangs with 351W & 302W Hi-Ram bases when using motor mounts that retain stock engine locations.



INSTALLATION KIT CONTENTS:

- ❑ 6 – 1/4-20 UNC x 1" Long 12 Point Cap Screws, Zinc Plated, Plenum Attachment Bolts
 - ❑ 2 – 1/4-20 UNC x 1.5" Long 12 Point Cap Screws, Zinc Plated, Plenum Attachment Bolts
 - ❑ 2 – 1/4-20 UNC x 2.25" Long 12 Point Cap Screws, Zinc Plated, Plenum Attachment Bolts
 - ❑ 2 – 1/4-20 UNC x 5.1" Long 12 Point Cap Screws, Zinc Plated, Plenum Attachment Bolts
 - ❑ 2 – 10.82mm (.426") I.D 1.78mm (.070") cross section, O-ring
 - ❑ 2 – Aluminum Crush Washers
 - ❑ 10 – .56" O.D., .33" I.D., .06" Thick, Silver Zinc Plated, Washer
 - ❑ 2 – 1/4-20 UNC, .438" Hex, .156" Thick, Silver Zinc Plated Steel, Nut
 - ❑ 1 – Ford IAC Spacer (300-301, 301BK, 303, 303BK)
 - ❑ 2 – IAC Gasket (300-301, 301BK, 303, 303BK)
 - ❑ 2 – M6 x 1 x 30mm SHCS, Zinc Plated, IAC Valve Attachment Bolts (300-301, 301BK, 303, 303BK)
 - ❑ 1 – 95mm or 105mm GM TB, Gasket (300-302, 302BK, 304, 304BK)
- OR
- 1 – 95mm or 105mm Ford TB, Gasket (300-301, 301BK, 303, 303BK)

INSTALLATION INSTRUCTIONS:

- A. Verify that the existing O-ring cord in your Hi-Ram base flange is in good condition. If torn, replace with Holley part# 508-21.
- B. Flip cast lid upside down. Apply enough lithium/non-petroleum based grease to retain the supplied O-rings in both O-ring grooves, as shown in **Figure 1**.

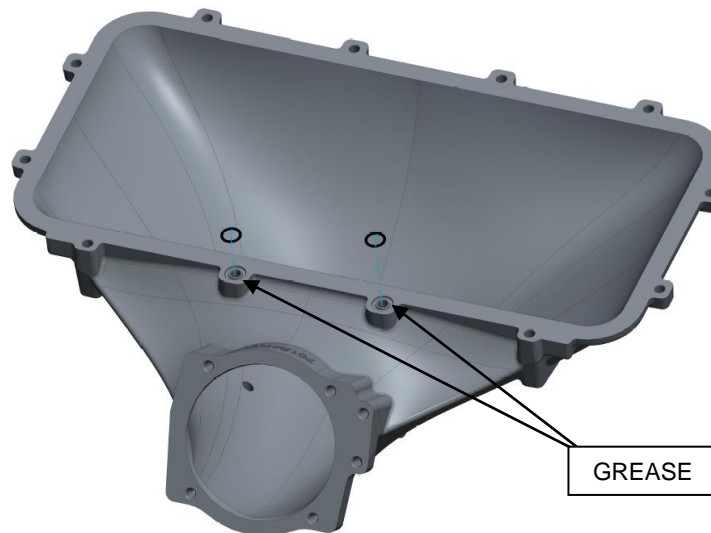
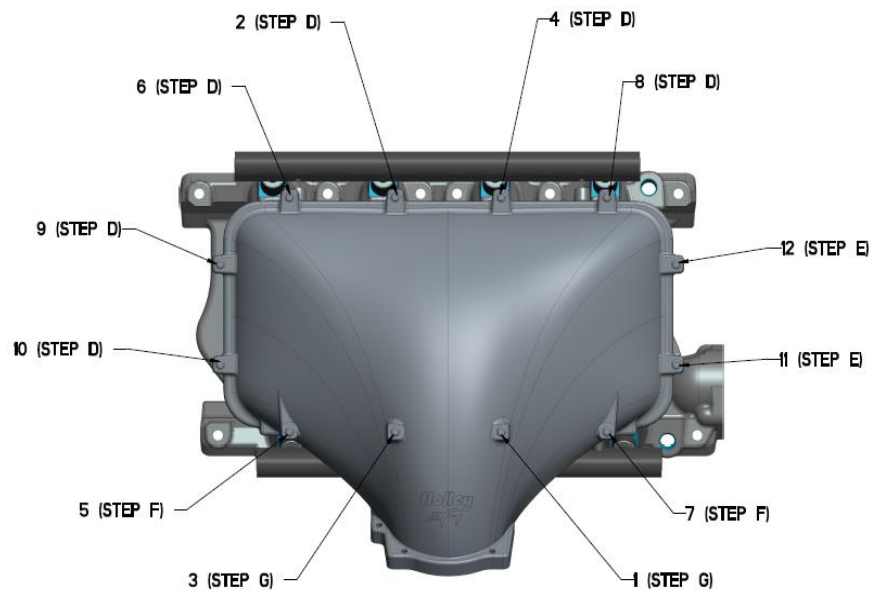


Figure 1

- C. After flipping the lid back over, carefully place the lid on the manifold making sure that the supplied O-rings remain in place.
NOTE – The lid is symmetrical so it can be mounted with the inlet facing the driver's or passenger's side of the engine bay.
NOTE – The 10 supplied steel washers are to be placed under all bolts mentioned in steps D-F.
- D. Apply a drop of engine oil to the supplied 1/4-20 UNC x 1" 12 point cap screws and install finger-tighten in 6 places, as shown in **Figure 2**.
- E. Install the 1/4-20 UNC x 1.5" 12 point cap screws and supplied 1/4-20 UNC nuts on bottom of bolts finger-tighten in 2 places, as shown in **Figure 2**.
- F. Apply a drop of engine oil to the supplied 1/4-20 UNC x 2.25" 12 point cap screws and install finger-tighten in 2 places, as shown in **Figure 2**.
- G. Place supplied aluminum crush washers on bolts, then apply a drop of engine oil to the supplied 1/4-20 UNC x 5.1" 12 point cap screws and install finger-tighten in 2 places, as shown in **Figure 2**.

H. Gently tighten the fasteners evenly - starting from the middle of the sides, crossing side to side, and moving towards the ends until the plenum top is seated and the O-rings are compressed. Tighten the fasteners in two steps using the tightening pattern shown in the figure below. Tighten to 45 in-lbs for the first step and 90 in-lbs for the second step. After running the engine through several heating cycles, it is advised that you re-check all the bolts to guarantee a proper seal.

STEP	HARDWARE
STEP D	- ¼-20 UNC x 1" - Steel Washer
STEP E	- ¼-20 UNC x 1.5" - Steel Washer - ¼-20 UNC Nut
STEP F	- ¼-20 UNC x 2.25" - Steel Washer
STEP G	- ¼-20 UNC x 5.1" - Aluminum Crush Washer



**Plenum Top Tightening Sequence
Figure 2**

NOTE: Part numbers 300-301, 301BK, 303, & 303BK are packaged with an IAC spacer that compensates for interference with early Ford style IAC valves. Gaskets and bolts are included.

HI-RAM PLENUM TOPS AND SERVICE PARTS AVAILABLE SEPARATELY:

Plenum Tops

- 300-207** – 2 x 4150, up to 1.75" bores, (sideways mount 4150, inline mount 4160)
- 300-208** – Blank Flange Configurable Top
- 300-209** – 1 x 92mm LS Throttle Body, Longitudinal Mount
- 300-210** – 1 x 105mm LS Throttle Body, Longitudinal Mount
- 300-280** – Sheet Metal Side Entry Hi-Ram Lid

Service Parts

- 300-305** – Replacement Hardware Kit, Cast Side Entry Hi-Ram Lid
- 508-20** – Throttle Body Gasket, 92mm or 102mm LS Throttle Body
- 508-24** – Throttle Body Gasket, 105mm LS Throttle Body
- 508-21** – Hi-Ram Plenum O-Ring Cord, 3/32" Round, Viton, 4.5' Long

Accessories

- 20-148** – Throttle Cable Bracket For 105mm GM Style Throttle Bodies
- 20-147** – Throttle Cable Bracket For 90-95mm GM Style Throttle Bodies

Holley Technical Support: 1-866-464-6553

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