



FEL-PRO INSTALLATION TIPS

GENERAL INSTRUCTIONS

CLEAN MATING SURFACES of all foreign material. Use a degreaser.

CLEAN THREADS of all bolts/studs using a wire brush; all nuts/threaded holes use a bottoming tap.

Determine Which Bolts extend into the coolant passages. Those **entering** the coolant passages require a pliable non-hardening sealer on the bolt threads and underside of the bolt head. Those **not entering** the coolant passages require oil on the bolt threads and the underside of the bolt head.

Exhaust Assembly: Apply a high temperature anti-seize lubricant to the threadings.

CHECK ALL CASTINGS for flatness; straighten, resurface or replace if out of flat conditions exists.

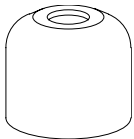
FINAL ASSEMBLY always requires torquing of fasteners according to OEM specifications. For certain assemblies we have provided specific torquing specifications.

Some procedures may be repeated with additional specific information for your application.

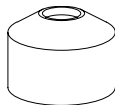
HEAD GASKET

Follow any directional markings shown on gasket(s). If no markings exist, install gasket(s). **Fiber Faced Gasket(s):** Install dry. **Metal Faced Gasket(s):** Requires a thin even coat of sealer applied to the metal side(s) of gasket.

VALVE STEM SEALS



Umbrella Intake
1969-71
Umbrella Exhaust
1972-78
Except Hi-Perf.
& Heavy Duty



Positive Intake
1972-78
Except Hi-Perf.
& Heavy Duty

Use the valve stem seals included in this set for the applications indicated.

POSITIVE GUIDE SEAL: Use the plastic installation sleeve(s), included in this set, to prevent damage to the lip of the seal. Trim the plastic sleeve so it extends 1/16" below the keeper groove. Place the sleeve on the stem.

Carefully start valve stem seal over sleeve.

Remove plastic installation sleeve and reuse for installing remaining seals.

FOR RUBBER JACKET SEALS: Push seal down over valve guide until it bottoms.

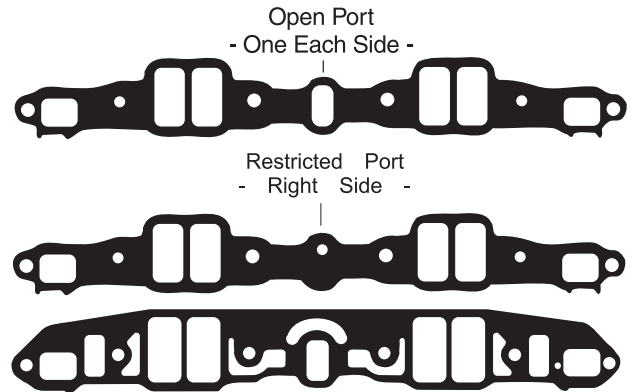
FOR SOLID OR METAL JACKET SEALS: The use of an OEM service tool is recommended. If tool is unavailable, use a deep socket or rigid tube of appropriate diameter. Center tool (or socket) over the shoulder of the seal and tap the seal down over the guide until it bottoms.

REPLACE VALVE SPRING ASSEMBLIES. Compress springs just enough to install keepers. **IMPORTANT:** Excessive compression can result in spring retainer damaging valve stem seal. Release spring carefully.

VALVE COVER/PUSH ROD COVER

ATTACH AND ALIGN GASKET(S): Use quick-drying adhesive, applied sparingly. If gasket has installation tabs, adhesive is not required. **IMPORTANT:** If gasket is rubber, install dry.

INTAKE MANIFOLD GASKET



This set contains 5 manifold side gaskets. Select 2 as indicated.

STEEL SHIM GASKET: Apply a thin coat of sealer around the intake ports on the underside of the gasket to prevent vacuum loss.

Now apply a 1/8" continuous bead of silicone sealer, such as RTV Black, around each water port on the cylinder heads.

Attach and align gasket(s) to engine. Position gasket(s) by means of stamped protrusions into corresponding bolt holes in the heads.

Apply a thin coat of sealer around the intake ports on the top side of the gasket.

Now apply a 1/8" continuous bead of silicone sealer, such as RTV Black, around each water port on the gasket.

EXHAUST MANIFOLD GASKET(S)

ATTACH AND ALIGN GASKET(S). If gasket has only one steel faced side, install steel side towards manifold.

TIMING COVER SEALS

PRIOR TO INSTALLING THE SEAL apply a thin coat grease on the seal face.

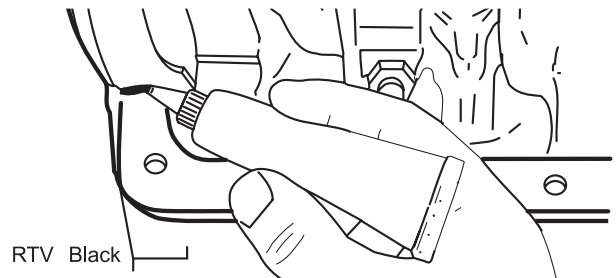
IMPORTANT: Do not install any seal without break-in lubricant protection.

REAR MAIN BEARING SEAL

CLEAN MATING SURFACES (cap, block and grooves of cap and block). You may wish to use a degreaser.

REMOVE NICKS AND SCRATCHES (IF ANY) FROM THE CRANK-SHAFT SEALING SURFACE using a crocus cloth.

OIL PAN GASKET



ATTACH AND ALIGN GASKET(S). Apply quick-drying adhesive sparingly in several places on the engine casting or oil pan (depending upon engine model). Mount gasket (or gaskets and seals, if multipiece) on surface where adhesive was applied. **Allow time for adhesive to set.** Test for slippage with light pressure. If gasket moves, allow more time.

PRIOR TO INSTALLING OIL PAN apply a small dab of silicone sealer, such as RTV Black, where all gaskets and seal(s) meet.



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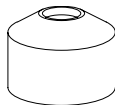
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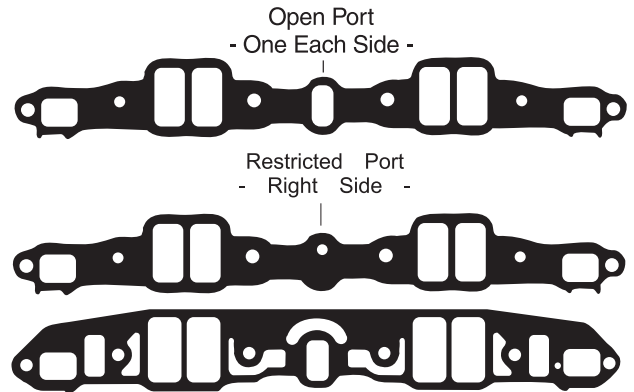
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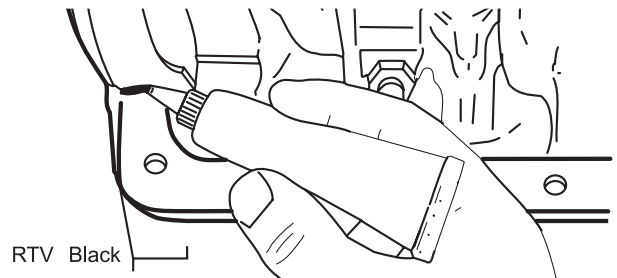
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