



## INSTALLATION INSTRUCTIONS C4013 PONTIAC V-8 FRONT MOTOR PLATE

Competition Engineering's C4013 front motor plate for Pontiac V-8's is designed to replace the factory side mounts and can be used with or without a mid-mount plate. The installation of an engine limiter kit (CE part C4043) is recommended for high horsepower installations. The three-piece design supports the front of the motor with four 3/8" timing cover bolts. The billet aluminum intermediate piece provides the necessary offset to clear the cast water pump inlet found in factory and aftermarket timing covers. The 360-degree feature surrounding the harmonic damper is stronger than two-piece designs and, when installed properly, adds rigidity to the frame structure. To install this kit, you will need a welder, engine hoist, level, drill, plumb bob, tape rule, cardboard sheets for making templates, and a means with which to cut the aluminum plates. The plates can be cut to shape using a reciprocating saw, band saw or a vertical mill.

To begin, first place the motor in the desired location. It can be suspended from above with a hoist or supported from below using a jack. Position the motor taking into account transmission cross member location, drive shaft phasing, exhaust, and oil pan clearance. Trace the shape of the aluminum mounting plates onto a piece of cardboard and cut it out. Trim the cardboard template into the desired shape and transfer that shape to the plate. When determining the finished shape of the plate, it is best to notch it so the weight of the motor is transferred directly to the frame of the car (see fig. 4). When creating an inside notch, drill as large a hole as practical at the intersection, and cut toward the hole, leaving a radius to help prevent cracking (see fig.3). Carefully cut the plate into the desired shape and trial fit it to the car. Repeat for opposite side. Once both plates are fitted, assemble them to the billet aluminum intermediate piece. Clamp the two steel mounting brackets to the backside of the plates and weld the brackets to the frame. Weld in the triangular gussets to the brackets. Remove the clamps and, using the brackets as a guide, drill the 3/8" boltholes in the plates. Remove all parts, de-burr and, paint if desired.

For Technical Assistance, call Competition Engineering's Tech Lines at

*(203) 458-0542 or (203)-458-0546, 8:30am-5:00pm Eastern Time*

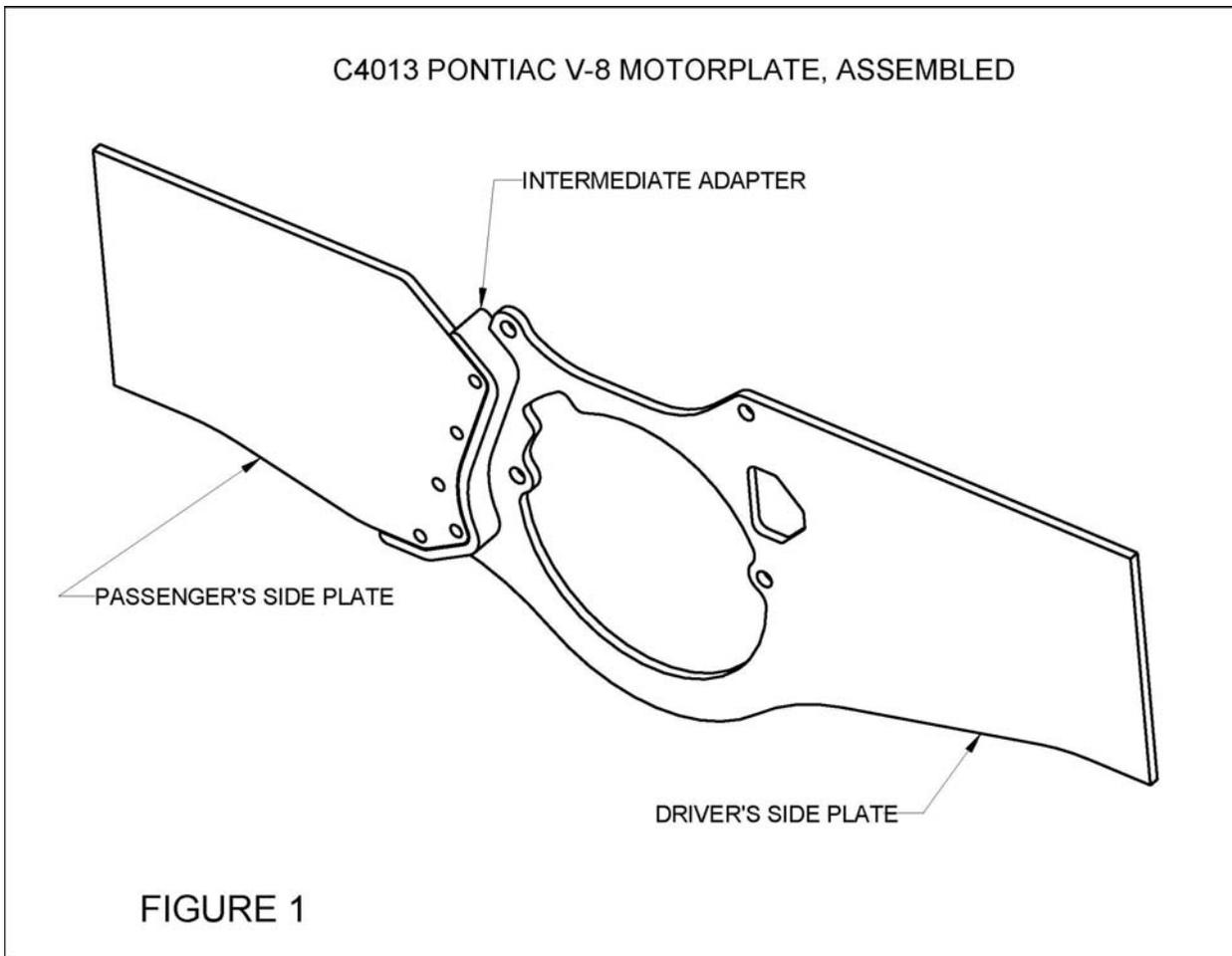
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Assemble the three components of the motor plate as shown using the five  $5/16 \times 1 \frac{3}{4}$  cap screws, washers and nylock nuts. The four  $3/8 \times 3 \frac{1}{4}$  cap screws attach the plate to the front of the motor, through the timing cover. Four small aluminum spacers are to be sandwiched behind the driver's side plate and the timing cover (see fig. 2). It may be necessary to grind or machine a small relief in the timing cover around the upper, passenger's side, mounting bolt hole (see fig. 5). On O.E.M. timing covers there are two cast-in mounting lugs that will not be used and will need to be trimmed off (see fig. 6).

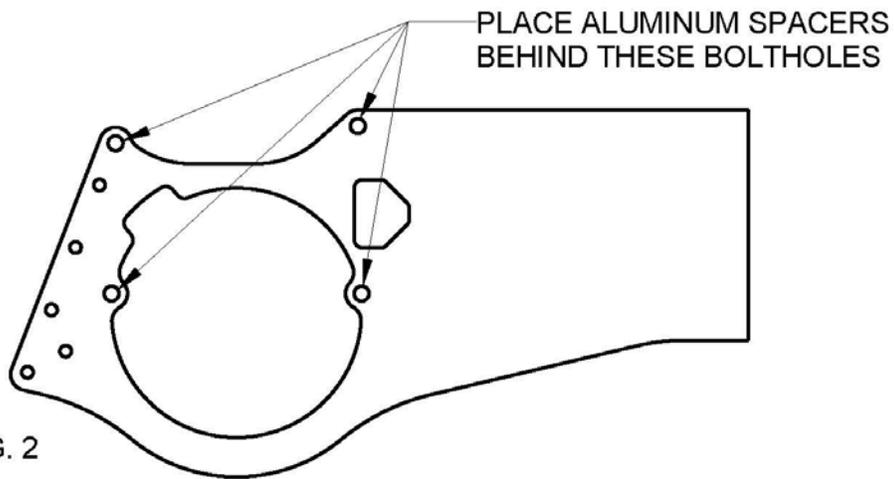


FIG. 2

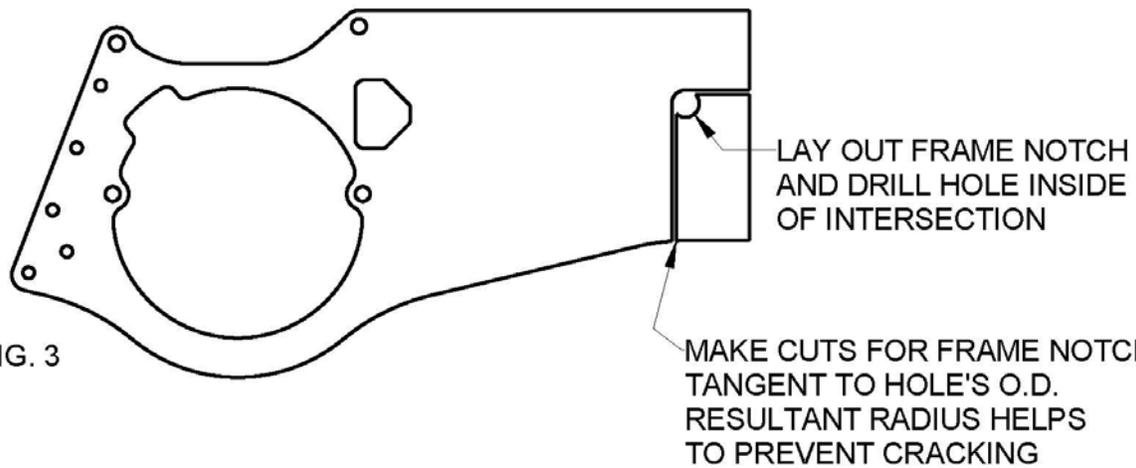


FIG. 3

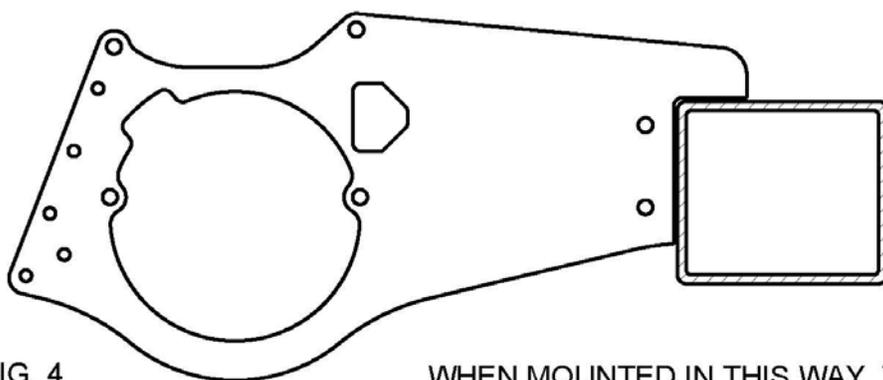


FIG. 4

WHEN MOUNTED IN THIS WAY, THE WEIGHT OF THE MOTOR IS TRANSFERRED TO THE FRAME DIRECTLY, NOT THROUGH THE FASTENERS

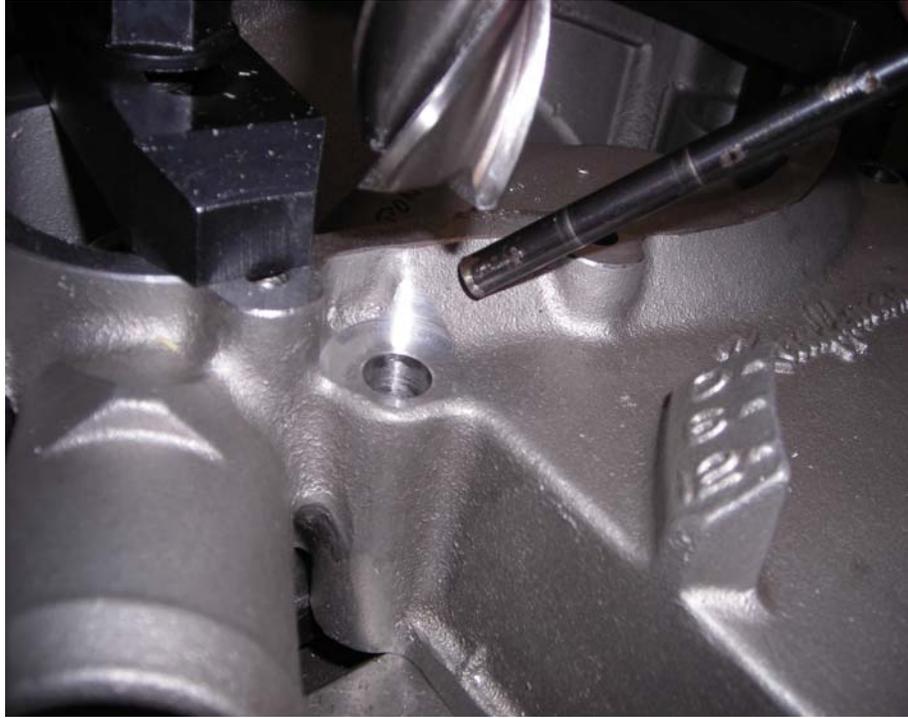


Figure 5.



Figure 6.