

I. Starter

Chevy starters mount directly to the block.

(See Figure 11).

Ford starters bolt to a mounting plate.

(See Figure 11). UTGC starters bolt into a pocket in the housing (See Figure 12).

1. Check starter pinion to ring gear clearance. Clearance should be $.100" \pm .040"$. If it is not possible to measure directly, measure the distance from the edge of the ring gear to the starter mounting surface and housing. Next, measure from the end of the pinion to the same starter mounting surface. Subtract this from the first dimension to get the clearance. If it is too tight, .062 shims are provided with the starter to move the pinion back. (See Figure 13)
2. The other clearance to be checked is ring gear backlash. Pull the pinion out by hand and put something behind it to hold it in place. Use a small feeler gauge or wire gauge to check the distance between the ring gear and pinion teeth. This should be $.010" - .030"$. (See Figure 14)
3. When checking ring gear clearance, the battery should be disconnected. When finished, reconnect the battery cable to the outer stud on the solenoid

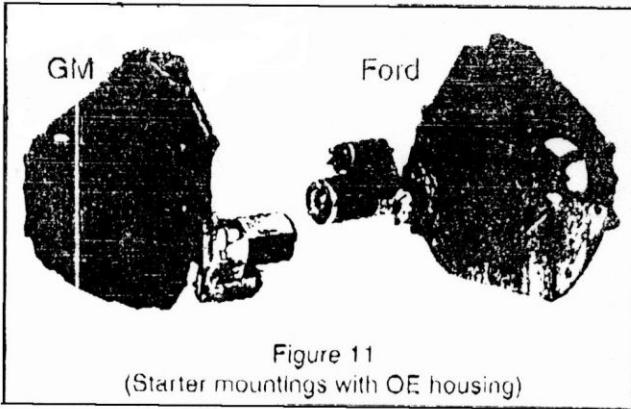


Figure 11
(Starter mountings with OE housing)

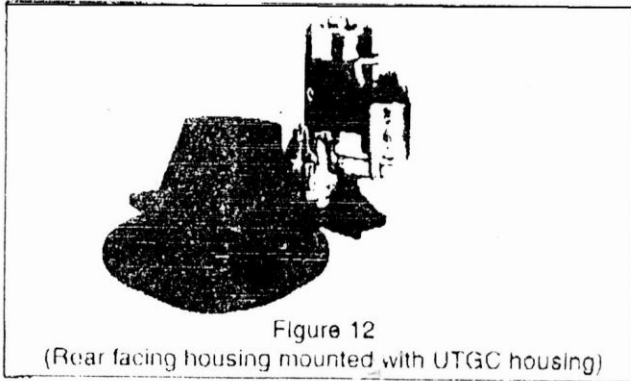


Figure 12
(Rear facing housing mounted with UTGC housing)

and the switch lead to the spade connector on the solenoid.

J. Mid-plates (See page 6)

Some housings are not designed to use a mid-plate between the engine and housing. Using a mid-plate will move the starter pinion too far from the ring gear to engage properly. If required, a version machined for a mid-plate is available as part of some packages. Please contact your distributor. In most instances, the flanges on the housing can be used to eliminate the need for a mid-plate. Alternatives are mounting a plate at the rear of the housing or bulkhead mounting which will fully utilize the design of the housing. If using the latter system, the engine would not be used as a stress member.

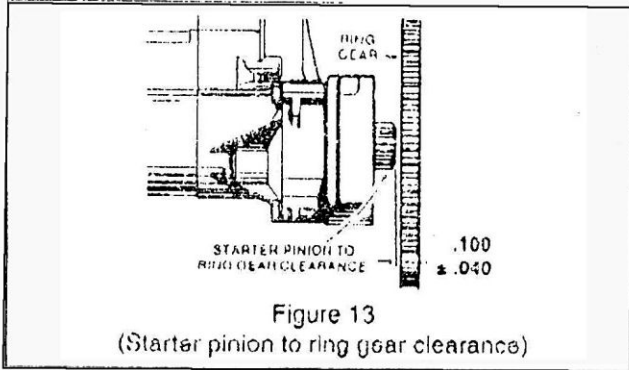


Figure 13
(Starter pinion to ring gear clearance)

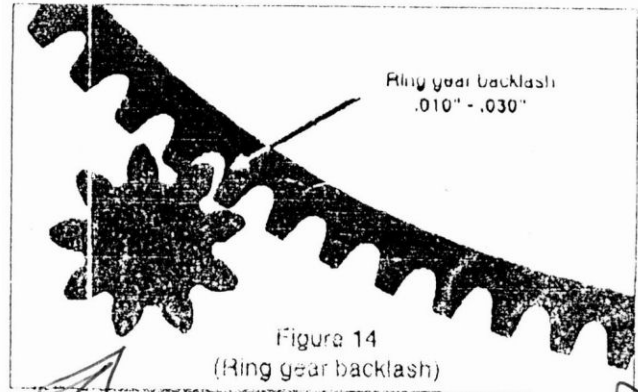


Figure 14
(Ring gear backlash)

4 USE CLAY TO CHECK WHEN MOTOR IS IN CAR