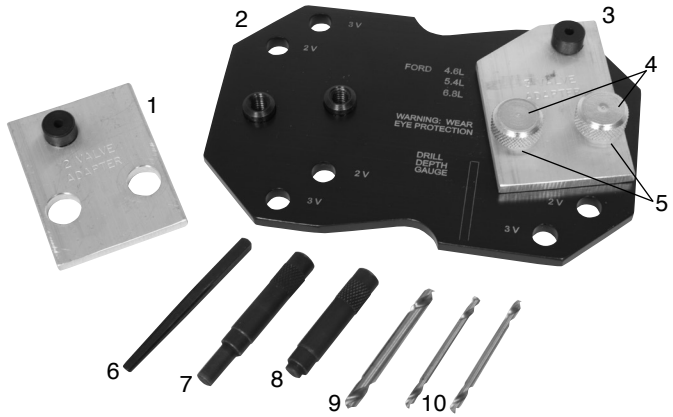
Manifold Drill Template for Ford 2V & 3V

⚠ WARNING:
Wear eye protection.

Includes:
1 - 2V Adapter
2 - Base Plate with Bushings
3 - 3V Adapter
4 - Knurled Thumb Screw (x2)
5 - Nylon Washer (x2)
6 - Stud Extractor
7 - Long Alignment Pin
8 - Short Alignment Pin
9 - 3/16" Double Ended Drill Bit
10 - 1/8" Double Ended Drill Bit (x2)



1. Insert 1/8" Drill Bit into your drill. Adjust length of drill bit using Drill Depth Gauge marked on the Base Plate. This distance allows the drill bit to go through the Drill Bushing and drill 1" into the broken stud. If you drill more than 1" into the broken stud, you risk drilling into a water jacket.
2. Install Base Plate on Cylinder Head using 2V or 3V holes as marked. Insert aligning pin through hole above broken stud. The short alignment pin is used to align the hole of the Base Plate over a broken stud. The long alignment pin is used to align the hole of the Base Plate over a threaded hole that the stud came out in one piece. This will help center the stud with the hole of the Base Plate. Snug up the other fasteners (use 3 if possible).
3. Depending on the engine, install the correct 2V Adapter or 3V Adapter over the 2 threaded bushings in the Base Plate. Install a Nylon Washer on each of the Knurled Thumb Screws and tighten the Thumb Screws finger tight.
4. Apply a light weight oil on the drill bit and drill a 1/8" pilot hole in the broken stud (Fig A). The oil does 3 things. It lubricates the drill bit so it stays sharp longer; the drill shavings stick to the drill bit, and it keeps the drill bit cooler compared to no oil at all. The 1/8" Drill Bit furnished has very short flutes that can pack full of shavings. After 10 seconds of drilling, remove the drill bit, wipe the shavings out of the drill flutes with a rag, and apply more oil before continuing to drill. When you are finished drilling into the stud, remove the Base Plate with Adapter attached.
5. Insert 3/16" Drill Bit so only 1" protrudes from the drill chuck. Don't use the drill gauge, it will allow too much of the bit to stick out and you could drill into a water jacket. Again use a light weight oil on the drill bit and use a pecking motion while drilling so the shavings will extract from the drill bit (Fig B). Be careful to drill in the center of the stud so threads or the block are not accidentally damaged.
6. Using the Square Extractor furnished with the kit, turn the stud out (Fig C). Tap Socket #4 works great to turn the Square Extractor.
7. Install a new Exhaust Stud. If you need to drill another broken stud, remove all the shavings from the Base Plate and Adapter. Repeat the above process.

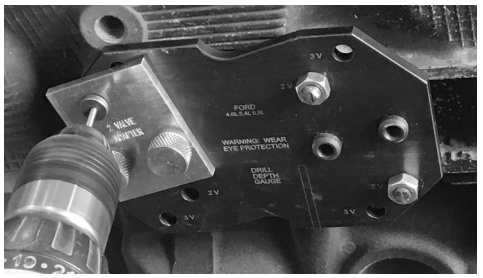


Fig A


Fig B

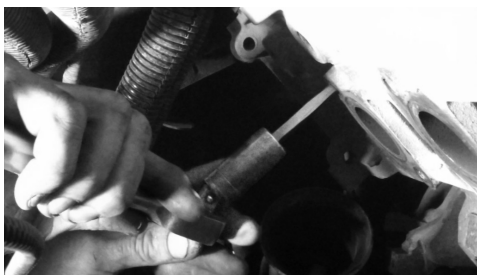


Fig C