

# INSTALLATION INSTRUCTIONS FOR TYPE 4 EMPI DUAL SOLEX CARB KIT

READ THOROUGHLY ALL STEPS OF THESE INSTRUCTIONS BEFORE BEGINNING THIS INSTALLATION.

## **TOOLS AND EQUIPMENT NEEDED:**

Combination, box or open end wrenches (metric + U.S.)

Socket set metric

Screwdriver (Regular and Phillips)

Pliers 3/8" Drive Ratchet Gasket Scraper 3/8" Drive Swivel

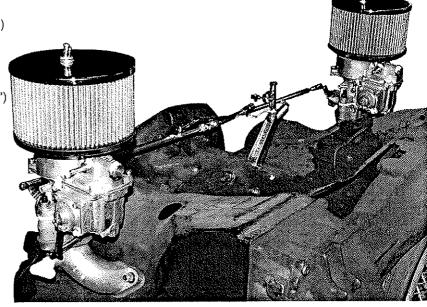
Rags 3/8" Drive Extension (10-12")

Cleaning Solvent 3/8" open-end Wrench

Knife Allen Wrenches
Gasket Sealer Wire Cutters

#### PARTS SUPPLIED WITH INSTALLATION KIT:

- 1 Gasket set
- 1 Hardware Kit
- 1 Linkage Mount
- 2 EMPI Solex 40mm Carburetors
- 2 Intake Manifolds
- 2 Air Filter Assemblies
- 1 Linkage Assembly
- 1 Fuel Line
- 1 Equalizing Line
- 1 Throttle Cable



The following instructions are based on an engine in stock condition. If you have made modifications to your engine, some of the following steps may not apply to your application.

NOTE: ON CARS WITH ORIGINAL FUEL INJECTION, A LOW PRESSURE FUEL PUMP (41-2000-8) AND CENTRIFUGAL ADVANCE DISTRIBUTOR (00-9443-B) MUST BE USED. ALL APPLICATIONS WILL BENEFIT FROM USING A CENTRIFUGAL ADVANCE DISTRIBUTOR.

### DISASSEMBLY FOR FUEL INJECTED ENGINES

Stock fuel injection fuel pump **MUST** be replaced. Before attempting removal of the fuel pump: either drain the fuel tank, or clamp off the fuel line **BEFORE** the fuel filter. Clamping is only recommended if hose is in good condition.

- 1. Disconnect the electrical lead to the stock fuel pump. Remove the fuel pump bracket and pump assembly. Replace the stock fuel filter, if necessary.
- 2. Install the replacement fuel pump, per the manufacturer's recommendations. Remove the fuel line clamp once the pump is installed. Check for fuel leaks.
- 3. Disconnect the metal fuel line to the injectors.
- 4. Disconnect the fuel pressure regulator and plug it off.
- 5. Disconnect all electrical components for the stock fuel injection system. Either tape the wires, or use tie-wraps to position them in a safe area. Tape all connectors to prevent any shorts.
- 6. Remove the mounting nuts and any other hardware retaining the intake and fuel injection system. Remove the manifolds and injection housing as one assembly. Insert a clean rag in the intake ports and clean the mounting surface with a gasket scraper.
- 7. STOCK FUEL INJECTION DISTRIBUTOR ASSEMBLY MUST BE REPLACED. Disconnect and remove the stock distributor. Install the replacement distributor per the manufacturer's recommendations. PROCEED TO CARBURETOR INSTALLATION SECTION.

#### DISASSEMBLY FOR CARBURETED ENGINES

- 1. Remove the vehicle's gas cap.
- 2. Disconnect the battery.
- 3. Remove the stock air filter and attached components.
- 4. Remove the distributor cap and ignition wires. Identify the wires for correct reassembly.
- 5. Remove fuel line from the pump to the carburetors. Plug the outlet to prevent leakage.
- 6. Disconnect the throttle cable and electric choke wire/idle cut-off solenoid wire from the carburetors. (Insulate the wire connectors to prevent any shorts. These wires will not be reused).
- 7. Remove linkage assembly.
- 8. Unbolt and remove carburetor and manifolds from the heads. Insert a clean rag in the intake ports to prevent dirt and debris from entering the engine.
- 9. Thoroughly clean the intake mounting surfaces using a gasket scraper.

### **BENCH ASSEMBLY**

- Remove the throttle levers included on each carburetor and install the throttle levers in the hardware kit (See Figures 1). Re-install throttle shaft nuts on each carburetor. (DO NOT OVER TIGHTEN NUTS, 4-5 FT/LBS MAXIMUM). Bend lock tab against nut to hold nut tight.
- Install air cleaner brackets to carburetors with M5 x 30 bolts and lock washers provided in the kit (Disregard left and right stickers on carburetors. These are used in different applications).

#### FINAL INSTALLATION

- 1. Remove the rags from the intake ports and install the manifold gaskets supplied in the kit. Install the manifolds using the brass nuts and lock washers from the kit. Screw a 90° fitting into each manifold and connect balance hose between fittings. If vehicle is equipped with power brakes, tee into this hose for vacuum source.
- 2. Install carburetor mounting studs into manifolds. Place carburetor gaskets onto manifolds and install left (drivers side carburetor). Fasten using M8 nuts and lock washers from the kit. Before the right carburetor is installed a dimple must be made in the cylinder tin to provide clearance for the accelerator pump arm (See Figure 2).
- 3. Place the carburetor on the manifold to find the exact location to dimple. Remove carburetor and use a small ball peen hammer to dimple the metal a small amount. Refit the carburetor then operate the throttle arm on the carburetor making sure the accelerator arm clears the tin through its full range of motion. If not, repeat step 3 until clearance is achieved. Once completed fasten carburetor using M8 nuts and lock washers from kit.
- 4. Locate the two pieces of linkage rod. Assemble together so that the spring tab and linkage ball are on the same side of the assembled rod (See Figure 3). Locate the two ball socket ends and screw one onto each end of linkage rod. Leave the lock nuts loose at this time.
- 5. Hold the linkage rod up to the carburetor linkage balls. Adjust ball sockets on rod until each snaps straight onto each ball without moving carburetor linkage arms. Snap sockets onto balls and position rod so that the linkage ball is upright (ball bracket parallel to top of engine) and tighten the lock nuts at each socket (See Figure 3).
- 6. Locate the linkage pivot bracket and pivot. Mount pivot onto bracket using the M8 x 60 bolt and M8 nut from kit. Insert bolt from top (cable mount end) of pivot, screw on the nut and then screw onto top of the pivot bracket. Adjust to remove play and allow free movement of pivot, then tighten the nut against the pivot bracket to lock bolt tight (See Figure 3).
- 7. Remove center top case bolt from engine and install linkage pivot bracket on the right (passenger) side with arm offset to the right using the M8 x 90 bolt, nut and lock washer from the kit. Hook the return spring from the linkage rod through the hole in the linkage pivot bracket. Install the small linkage rod to ball on the pivot and on the linkage rod. Tighten the lock nuts so the small linkage road is parallel to the large linkage rod (See Figure 3). Check throttle operation for free movement. If there is any indication of sticking or binding, correct as necessary before proceeding.
- 8. Reinstall the distributor cap and ignition wires.
- Remove the plug from the fuel pump outlet and install the new fuel lines supplied in the kit. BEFORE STARTING ENGINE, BE SURE CARBURETOR LINKAGE MOVES FREELY AND IGNITION PLUG WIRES HAVE BEEN REPLACED IN PROPER FIRING ORDER.
- 10. Replace the cap and reconnect the battery.
- Start the engine and check for fuel and vacuum leaks. Correct, if necessary, before proceeding.
- Adjust idle speed and idle mixture per shop manual for stock carburetors.
- After carburetor adjusting is completed, turn off engine and proceed with throttle cable installation.
- 14. Install the throttle cable shortener and trunion on pivot. Position the throttle cable next to the shortener (Some vehicles will require relocation of the cable to align with the pivot. A new cable is included if existing one is short) and measure excess cable to cut.
- 15. Once you have correctly measured the amount of cable to be removed, cut the cable. Install the cable end into the shortener. Lock the cable in place by tightening down the set screw. NOTE: WHEN SETTING ADJUSTMENT AT PIVOT, BE SURE TO SET AT "FULLTHROTTLE POSITION". THIS MEANS ACCELERATOR

PEDAL SHOULD BE AT "FULL STOP" AND THEN CABLE IS SET AT CARBURETOR "FULL THROTTLE STOP". THIS WILL KEEP YOU FROM OVER-EXTENDING THE CARBURETOR LINKAGE AND THROTTLE SHAFTS.

16. Complete the installation of the air filter assemblies.

