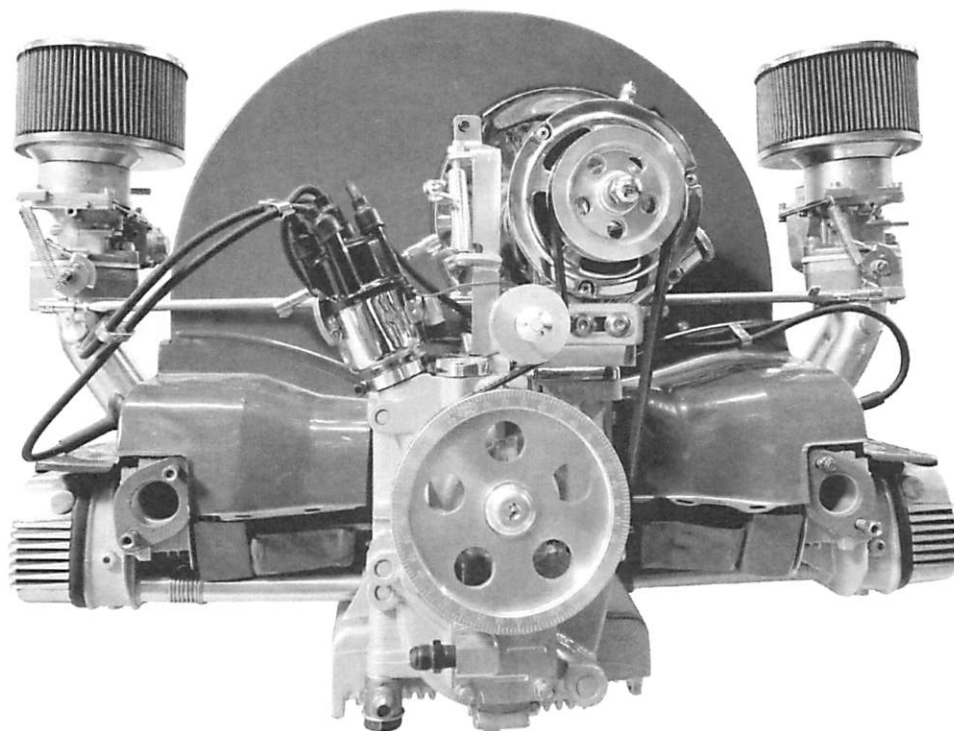




Installation Instructions for Part Number 43-4429 / 43-4430

EMPI 40K Dual Carburetor Kit for Dual Port 1600cc Up-Right Engines

1. Disconnect Battery
2. Remove vehicle gas cap.
3. Remove stock air cleaner and attached components.
4. Remove distributor cap and ignition wires making sure that you identify for correct reassembly.
5. Disconnect throttle cable.
6. Remove stock fuel line to carburetor.
7. Disconnect the electric choke and idle cut-off solenoid wires. Be sure to isolate wires ends with electrical tape to prevent shorts/sparks, as these wires will no longer be used.
8. Remove manifold, carburetor and end castings. (For detailed instructions, refer to a good Repair Manual).
9. Insert clean rags in the intake ports and clean the mounting surface using a gasket scraper and or razor blade.
10. Install studs and hose fittings on new manifolds.
11. Install new (taller) air cleaner stud/bracket using 5mm x 30mm bolts and lock washers supplied.
12. Install carb base gaskets and carburetors on new manifolds. Linkage arms on carbs are to face the rear of the vehicle.
13. Remove rags from intake ports and install manifolds with carbs using intake gasket supplied.
14. Remove nut from engine case stud and upper-left backing plate screw.
15. Position linkage bracket onto engine case stud and replace nut (hand tight only). Install 6mm x 20mm screw through upper linkage bracket and into backing plate. Once in position; torque both per Manual recommendations. (Some aftermarket fan shrouds may require a 1/4-20 x 3/4" Bolt, supplied).
16. Install intake crossover tube and clamps using tubing supplied in kit. Cut just enough to connect from one manifold fitting to the other. Tubing should not rest on engine case.
17. Install fuel line from fuel pump to "T" fitting and from each side of "T" to carbs. Use new clamps supplied and be sure each is secure.
18. Assemble linkage X-Rod and install with return spring on passenger side. Bar goes behind alt/gen. stand. Notice that linkage connectors to carbs on each end are adjustable with nuts to lock them in place. Adjust the rod so that it 'pops' on to each carb arm without moving the carb arm on the carb. Be sure to secure the linkage ends position by tightening the nut against the linkage end.
19. Install the actuating rod to the linkage X-Rod on one and the throttle pivot on the other. The throttle pivot is located on the linkage bracket.
20. Install return spring to linkage bracket.
21. Install throttle cable.
22. Install new air cleaners.
23. Reinstall distributor cap and wires.
24. Reinstall fuel cap.
25. Connect battery.
26. Check to see that linkage does not bind and that it returns quickly and easily when released.
27. Crank engine for a few seconds to bring fuel to carburetors. **CHECK ALL CONNECTIONS FOR LEAKS.**
28. Adjust idle mixture screws if necessary.



TUNING INSTRUCTIONS

1. The first step for tuning your 40K carburetors is to make sure that there are no fuel leaks. You can do this by unplugging the positive lead on the coil and turning the key to the "on" position so the fuel pump is activated. Inspect all of your fuel lines and fittings. You will want to also inspect under the car to make sure that there are no fuel leaks that cannot be seen from above. Now that you have completed your inspection and have found no leaks, you can reattach the positive lead back on the positive side of the coil.
2. Check your fuel PSI. These carbs can hold a maximum of 2psi before the needle valve is overpowered and you flood the engine.
3. Now start the engine and warm it up to operating temperature. Once it is up to operating temperature you can start the tuning process.
4. First start with adjusting the idle mixture (See Fig. 1). You will find the mixture screws on the throttle bodies. The one on the left is the easiest one to access with the long flat screw driver. The one on the right will be a bit difficult to get to. You may need a stubby flat screw driver for this side. Work on one carburetor at a time. Turn the mixture screw clockwise until the engine begins to stumble or want to go dead. Now back the screw out in $\frac{1}{4}$ turn increments, pausing after each $\frac{1}{4}$ turn and listening for the engine RPM's to increase. Do this to both sides, alternating between sides. What you change on one side will affect the other side. Repeat this step twice to make sure your carbs are in tune with each other.
5. Once the mixture screw is adjusted you will want to adjust the idle speed (See Fig. 2). Turn the idle speed on each carburetor until you get the engine sustaining 1000 RPM. Now reconnect the linkage and go for a test drive. If further tuning is required repeat these steps. **Note: for larger than stock engine combos custom jetting will be required.**
6. These carburetors offer the option of using a 009 centrifugal advance distributor or a single vacuum advance distributor. The vacuum port can be found on the left carburetor. If you are using a 009 distributor, set your timing at 28° to 32° total advance. If you are using a single vacuum advance, set the timing with the vacuum off to 28° to 32° . Then reconnect your vacuum line to the vacuum port on the left of the carburetor. Reset your idle speed if needed and go for a test drive. Make adjustments as needed. **Note: on lower than 8 to 1 compression engines you will need to set the timing higher than 32° .**



Figure 1



Figure 2