

Solex Adjustment Procedure

The following procedure assumes your carburetors and linkage are in reasonable condition.

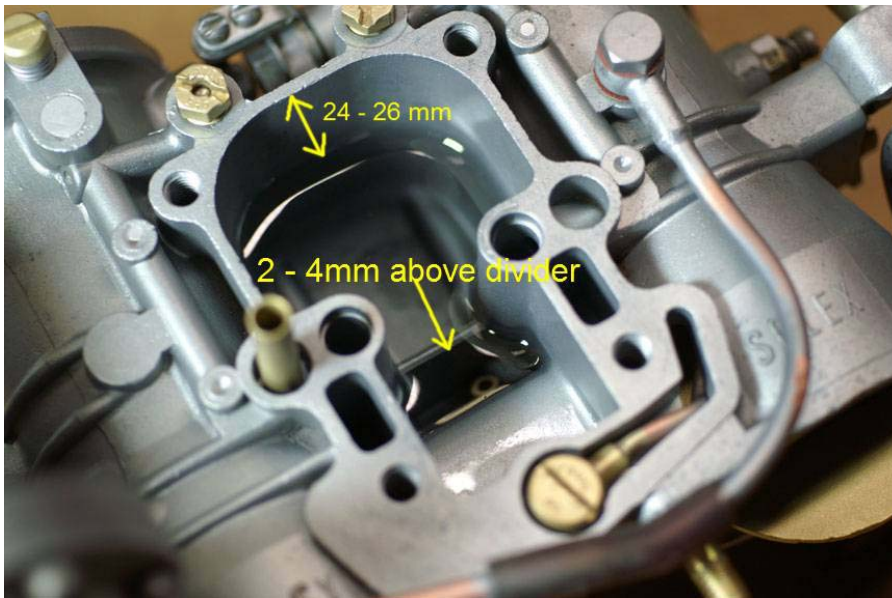
1. Set Ignition Timing

Preferably with a timing light, set timing to 9 deg before top dead center (BTDC) at idle and check that the distributor advances to about 39 deg BTDC when over 3,000 rpm. This is very important as ignition timing has a pronounced effect on idle speed.

2. Look for Vacuum Leaks

Spray carburetor cleaner around the gaskets on both sides of the intake manifold (carburetor and head) and underneath. Any leaks will affect idle speed and your ability to adjust idle mixture screws properly. Spray around the throttle shafts. Some slight change in idle speed is expected but if severe, adjustment will be difficult.

3. Float Level

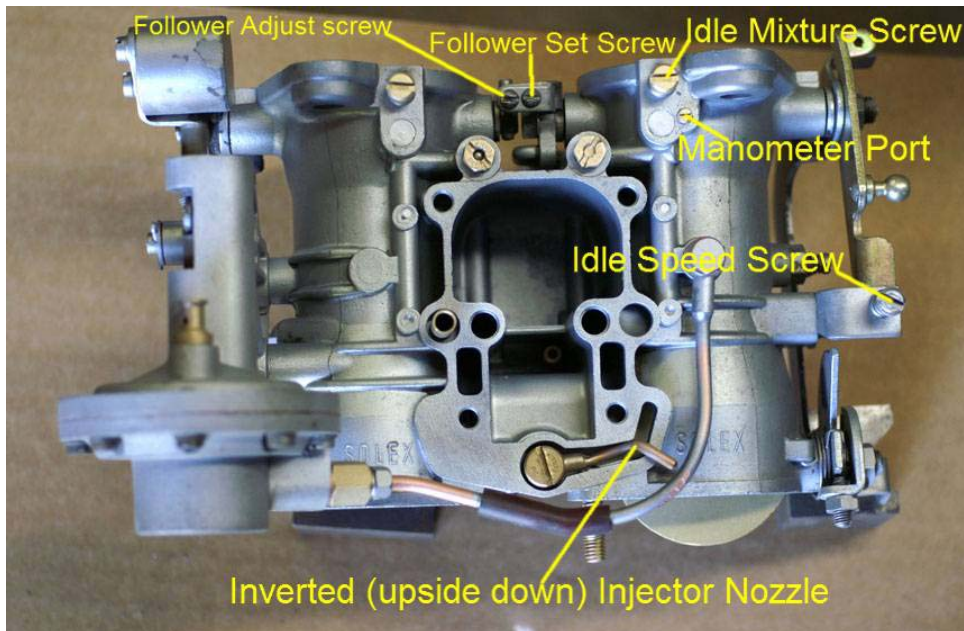


The next step is to check carburetor float levels. Beginning with a cool engine, start and run for 30 - 60 seconds at 1800 rpm.

Remove the float cover and check the fuel level. The specification is 24 to 26 mm below the upper surface which corresponds to 2 to 4mm over the bowl divider wall, an easy level to determine by eye. An appreciably higher level will result in a rich mixture

through the main jets; likewise a markedly lower level will result in a lean mixture. Adjustments are made by bending the float arm.

4. Verify Accelerator Pump Operation



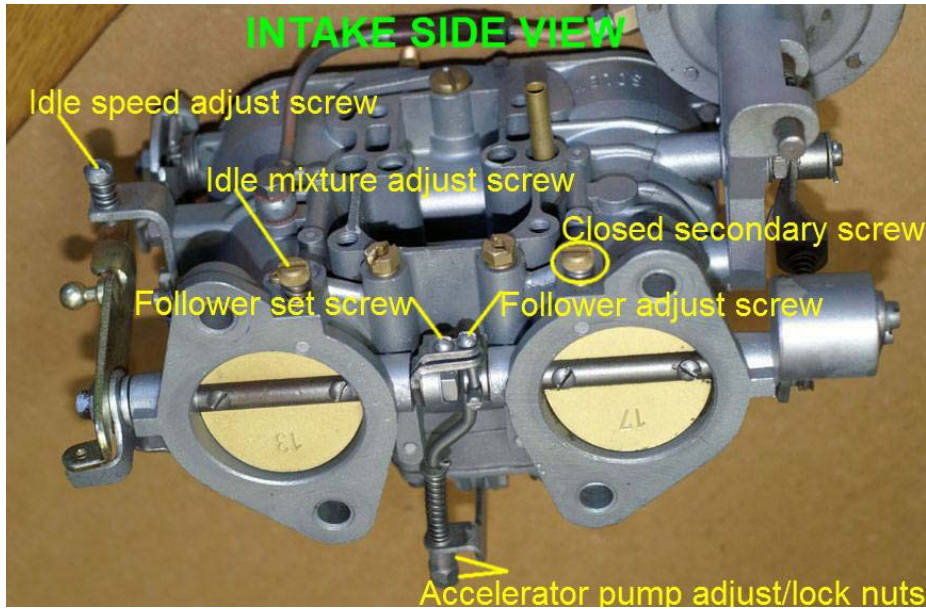
It is not recommend this step be undertaken unless you have been experiencing problems with stumbling on acceleration. The reason is that the adjustments are difficult to make unless the carburetors are on the bench.

With that caveat, the quickest and easiest method is to turn the injector nozzle over unless the air horn has been removed, in which case you can observe operations directly in the primary barrel with a mirror. A second washer on the bottom side of the banjo bolt may be needed to give sufficient clearance. A discharge should begin immediately upon movement of the accelerator linkage. Specification is .4 to .6 cc per stroke. Each stroke should be from idle stop to full open with a pause to allow all discharge to occur. The volume can be measured with a graduated vial or since the injection pump well holds a little over 6 cc, 10 to 15 strokes should empty the well.

For an increase in flow, turn the adjusting nuts clockwise. This is difficult to accomplish with the carburetors installed, particularly on the rear unit. With a socket and extensions, the nut can be turned from beneath the car if the locknut is not too tight, otherwise there is a danger of twisting the pump rod. The nut can be run up too far, moving the pump lever arm away from the diaphragm resulting in a delay at lower rpm's.

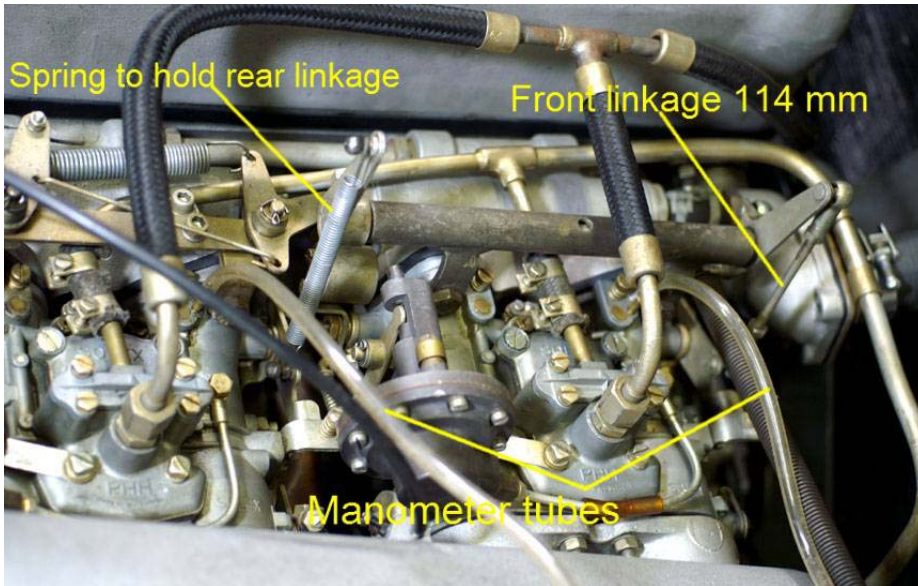
An immediate flow is much more important than the actual volume. Without immediate flow, the car will stumble and lag on acceleration. The hard part is now over.

5. Follower Screws



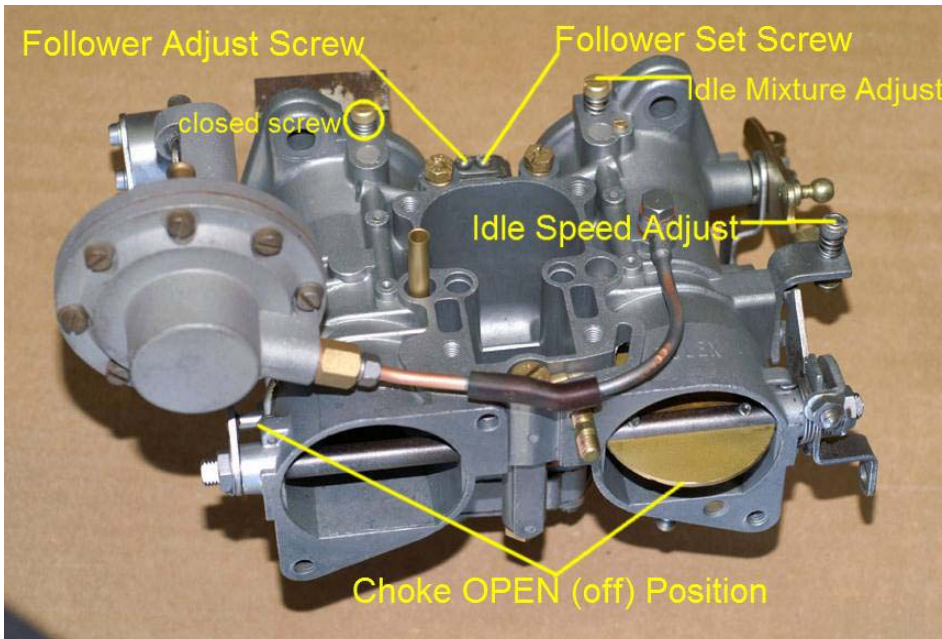
Back out the follower screws on both carburetors by loosening the locking screw then back out the adjustment screw several turns. Verify clearance by jiggling the secondary weights. This will allow the primary butterflies to fully seat. Also, verify the chokes are in the open position by observing the stop pin.

6. Linkage Adjustment



Adjust the number one (front) carburetor linkage to about 114 mm (center of ball socket to center of ball socket), then remove the rear carburetor linkage and attach a light spring to hold it closed. Adjust each idle speed screw until they just touch their respective levers. Use a thin feeler gauge, moving back and fourth, until the screw creates resistance, then turn each speed screw in 1.5 to 2 turns. Your butterflies are now set the same, so any adjustments made later should be done equally to keep in sync.

7. Set Idle Mixture Screws

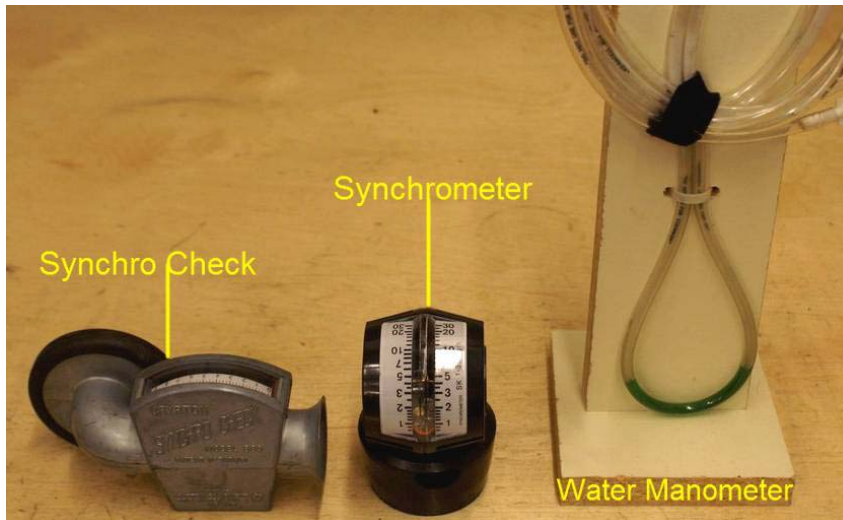


Screw both (front and rear carb) idle mixtures all the way in (gently) then 1.5 turns out. This is a good starting point. The idle mixture screws on the second barrel should be fully closed, but don't over-tighten.

Start the engine and let it warm to operating temperature. Then back one of the idle mixture screws out until the engine rpm slows down, note the position, then screw it in until the engine slows down again. The point of highest idle speed is your target which is generally the mid-point. Do this for both mixture screws, going back and forth to the speed screws to keep a satisfactory idle. Double check.

If you can't slow the engine down on either extreme of the idle mixture screw adjustment, then in all likelihood, you have an air leak. Repeat step 2 (look for leaks) and/or examine engine for other vacuum leaks such as the brake booster or leakage around the secondary throttle plates.

8. Balance Carburetors



If you have a uni-sync, synchrometer or have fashioned a manometer, now is the time to make fine adjustments to the balance between carburetors. This step is certainly not essential but it is a nice touch, especially if you experience an engine vibration as you pass through some rpm range.

Achieve equal air flow between the carburetors by adjusting one of the idle speed screws. If idle speed is too high during the procedure, slow the engine down by adjusting the idle speed screws together.

9. Finish Up

Shut down, adjust the number two linkage length to match the ball stud positions, remove the spring, and re-attach.

Set follower adjustment screw until it just touches the follower pin then back out 1/8th turn and secure with the locking screw.

Go for a nice drive.

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Overview picture:

