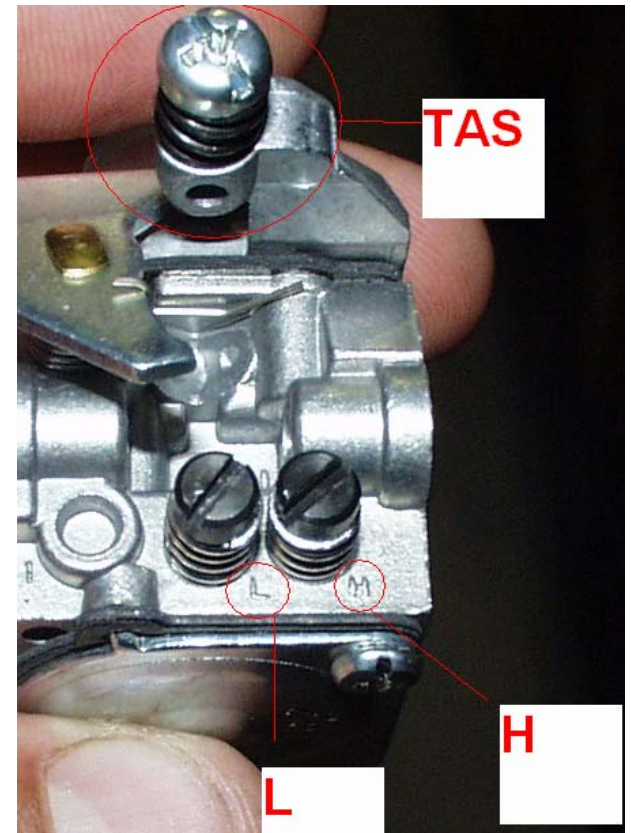


How to adjust typical diaphragm carburetors

On most Zama carburetors to help find the correct adjustment there is a small L beside the Idle mixture screw and H beside the High speed mixture adjustment. Normal adjustment for 2 needle carburetors begins with the L needle. This adjustment controls the fuel flow to the low speed or idle circuit. If the carburetor is too far out of adjustment to run, or has been disassembled, start with turning the L and H all the way in and then open 2 turns on each needle. Then turn the TAS screw or idle speed adjustment in all the way. When turning any of these screws be careful not to over tighten, this can cause damage to the carburetor.



Now you are ready to begin adjusting. Start the engine and allow it to warm up for a few minutes. Do not try to adjust the carburetor before the engine warms up as settings change while the engine is warming up. Begin with the L needle, turn the needle in clockwise and listen to the engine as you do so. The engine will speed up to a point then start slowing down again, the point of the highest speed is called optimum. This is at the most efficient point for the engine to run. When you find and set the engine to this point then adjust the TAS or idle speed screw. This screw adjusts the idle speed, you should try to adjust it so the clutch is not engaged or ringing. Note: when the clutch disengages the chain or string will stop moving. Some string trimmers do not have a clutch, so adjust these engines to a steady reliable speed. Once you have adjusted the idle speed it is necessary to recheck the L screw adjustment for the optimum point described above. It may be necessary to repeat these two adjustments several times to get the engine to run correct. The L screw may be opened 1/8 to 1/4 turn from this optimum point to help the engine to accelerate well to full throttle. The high speed adjustment procedure is similar to the L.

Accelerate the engine to full speed and search for the optimum point as described for the L needle. The important part to remember about adjusting the L or H screw is not to let the engine drop much on the lean side of this point, (screw in) you want to find the highest speed when turning the needle. However going too far past this point may result in engine damage. As with the L adjustment the H needle may be richened a little, but no more then $\frac{1}{4}$ turn from optimum point.

If your carburetor has no slots for a screwdriver, as in the picture below it is adjustable only with a special screwdriver available from the original equipment manufacturer. Zama is not offering any of these tools for sale.

