

V-Twin MFG.
Acu-Time Device
For use on E1970-78 Models
VT No. 16-0161

This tool should only be used by a knowledgeable and trained motorcycle technician. V-Twin Mfg. accepts no responsibility for improper use.

PLEASE FOLLOW THESE SIMPLE INSTRUCTIONS FOR THE CORRECT TIMING OF YOUR MOTORCYCLE.

Installation instructions:

Setting of the points:

1. Remove the spark plugs to allow your motor, to turn over easily.
2. Remove the circuit breaker inspection cover.
3. Turn over your engine in the direction of running by using your kick start pedal. For electric start bikes, put the bike in 4th gear and nudge it forward. you are looking for the wide high point of the point cam to open the points fully.
4. Now you must set the Gap of the points at .018 using feeler gauge. This is accomplished by loosening the lock screw #(3) and then sticking a screwdriver into the adjusting notch and then moving the contact point plate #(2) in the direction required. Now tighten screw #(3) and recheck the gap.
5. Next turn the engine over until the narrow lobe of the point cam opens the points fully. Now check your gap with feeler gauges. If this gap is also .018 you're perfect. If the gap is not .018 you must follow these additional steps to insure accuracy.
6. After you have take the second reading and you have determined you have your wide lobe at .018 and for example your narrow lobe is at .026, you must even out these gaps.
7. Now take a drift and a small hammer and strike the head of the bolt securing the point cam in the direction toward the point cam lobe with the smallest reading until you have split the difference. Ex .. 018 + .026 = , 044 divided by 2 = .022.
8. When the readings are the same on both point cam lobes you start again to set the wide lobe at .018. If these two point readings are not the same or within .002, it is impossible to get accurate timing in both cylinders. You must get them within .002.

Timing the Engine:

1. Remove the screw plug from the timing hole #(11) on the left side of crankcase.
2. Remove the front intake push rod cover so that the opening and the closing of the valve may be observed.
3. Now turn your engine over very slowly until the front intake push rod goes up and then down again. Now go to your timing inspection hole #(11) and begin turning your engine over very slowly again, less than 1/2 of a revolution until the timing mark #(12) is aligned in the hole as shown in the illustration.
4. Now at this point the narrow cam lobe is supposed to be at approximately the point where the contact points begin breaking open.
5. Now install your ACU-TIMER on the cam lobe from the condenser side and turn your ACU-TIMER using light finger pressure in a counter-clockwise direction until it stops. Hold it in this position and secure it with the locking screw. This now locks your automatic advance unit into the correct position. If the point cam lobe does not move with a spring action, this means it is worn out and must be replaced.
6. Now loosen the point backing plate screws #(6) and turn the point backing plate counter-clockwise all the way into full retard position by placing a screwdriver in the adjusting notch #(9) and prying the point backing plate.
7. Next and last place a circuit tester light across the points and turn on the ignition switch, rotate the backing plate clockwise until the light just begins to come on. If a circuit test light is not available turn on ignition switch and rotate.