

SUZUKI

2-Stroke

Service Bulletin

Subject: ENGINE TACHOMETER INSTRUCTIONS

TOOLS - 5

Bulletin No. SEPT. 17, 1976

Date: _____

Read and Initial

Manager _____

Parts _____

Service _____

To perform many engine analysis checks, it is essential that the engine's RPM be set at a predetermined speed (RPM) and be correct. For example, setting the ignition timing dynamically, the engine's RPM must be correctly set to Suzuki specifications to accurately read where the ignition system is firing in terms of degrees of crankshaft rotation before top dead center.

An accurate tachometer can also be a valuable tool in carburetion synchronization of multi-cylinder motorcycles. It is also helpful if the tachometer can be used on singles, twins, tripples and four cylinder engines of either two or four stroke engine design.

I. Measurement Ranges of the Tachometer (Part No. 09900-26002)

ENGINE TYPE	NO. OF CYLINDERS	RPM RANGES
2 Stroke	1	0-1200, 0-6000, 0-12,000
2 "	2	0-1200, 0-6000, 0-12,000
4 Stroke	1	0-2400, 0-6000, 0-12,000
4 "	2	0-1200, 0-6000, 0-12,000
4 "	4	0-1200, 0-6000, 0-12,000

II. Operation

- A. Before connecting the meter, the pointer must be set on zero, toward the left hand side of the scale. This may be performed by turning the plastic screw at the base of the scale dial.
- B. To calibrate the tachometer, the selector switch knob is rotated to the CAL range (any one of the three positions) and the power switch turned on.
- C. As the pointer deflects, it is then adjusted to the red CAL mark in the middle of the scale dial by turning the calibration knob. If it cannot be adjusted to CAL, the battery should be replaced. Do not touch the CAL knob during the test procedure.

(cont.)

- D. The selector knob is rotated to the number of cylinders of the engine to be checked.

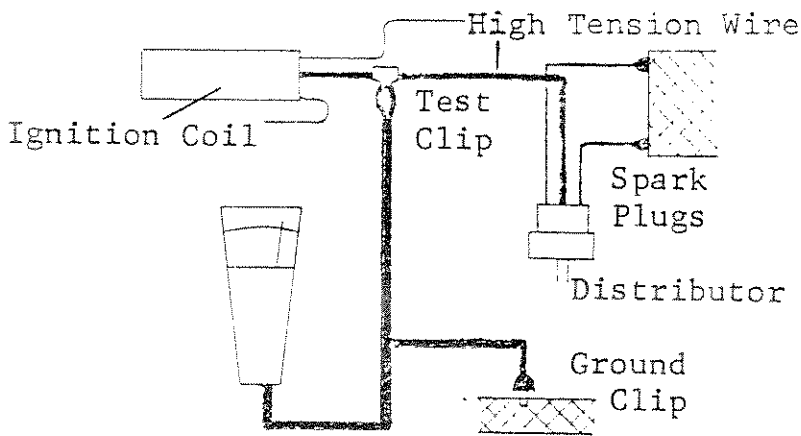
Reference:

4slc: 4 stroke and 1 cylinder

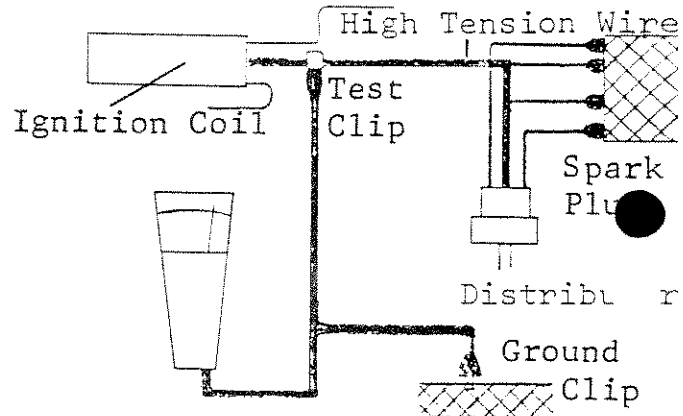
2s2c: 2 stroke and 2 cylinder

For setting the idle, use the 1200 or 2400 RPM scale, for normal speed, the 6000 RPM scale and for high speed, the 12,000 RPM scale.

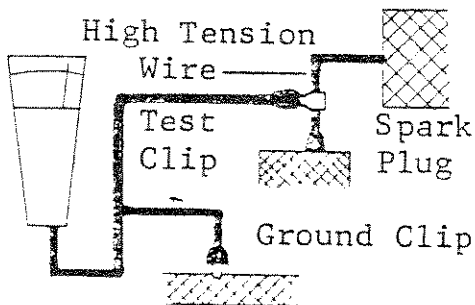
- E. The ground clip (black) is clamped to a good ground connection and the test lead (red) to the high tension wire from the ignition coil, as illustrated below.



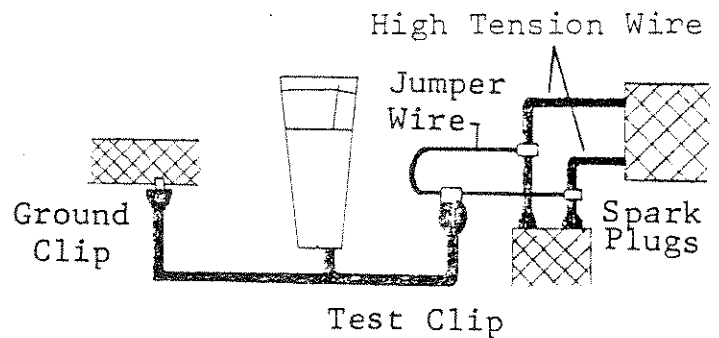
A- 2s2c or 4s2c



B- 4s4c

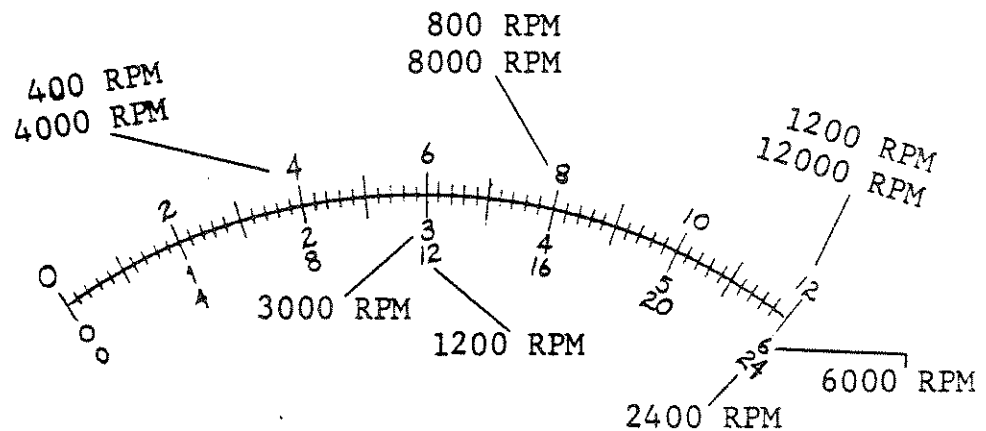


C- 2slc or 4slc



D- 2s2c or 4s2c

- F. As the engine is started, the pointer should immediately move toward the right side of the scale. If the pointer hesitates or the pointer does not move at all, the lead connections have been installed improperly. Recheck the meters connections to the ignition system.
- G. Reading the scale is as follows: 1200 and 12,000 RPM settings, read the upper figures multiplied by 100 and 1000, respectively.



Scale Readings

For 6000 RPM settings, read the second figures below the scale multiplied by 1000.

For 2400 RPM setting, 4-stroke single cylinder engines only, read the figures on the bottom of the scale multiplied by 100.

Note: This tachometer can also be used on multi cylinder models having a separate ignition coil to fire one cylinder. The selector switch knob has to be set on the single cylinder setting (2 or 4 stroke depending on engine design).

The GT500 having one ignition coil that fires two spark plugs must be set to 2s2c connected directly to either spark plug wire for a correct RPM reading. If the tachometer is attached to the engine with the jumper clips, the tachometer RPM readings will be double due to the double firing pattern of that ignition system.

When using the jumper wire on twin cylinder engines, make sure that the jumper wire is at least two inches away from any other metal object such as the throttle cable or cylinder head. Otherwise, the RPM reading will be incorrect.

III. Maintenance

- A. Avoid dropping the meter or subjecting it to severe vibration. Also avoid storage in direct sunlight.
- B. When setting the selector switch to an RPM position, be careful not to "peg" the needle against the right side needle stop.
- C. Make sure the power switch is in the off position when the meter is not in use.
- D. When changing RPM settings, on the CAL knob, the red test lead must be removed and the meter recalibrated for the next RPM setting. Reclamp the red test lead to the high tension wire and proceed with the test. If the meter is not recalibrated, the meter will read incorrectly.