

J&S Technical Information

Multimeter - SDM586



Trouble Shooting

Before anyone uses this automotive multimeter they must read the operating manual with regard to RPM, Duty Frequency and Dwell.

The reason for this is that RPM measurements can be taken by either using the inductive pickup or the test leads supplied with the instrument. If the technician wants to use the inductive pickup he must select RPM inductive on the rotary dial. The technician must also ensure that the pickup is round the right way, and the side marked spark plug is facing towards the spark plug end of the ignition lead. However, on distributor-less ignition systems, one side of the coil will face the correct way and the other side will face the wrong way. The technician will need to try both ways to get a proper reading.

Note: The inductive pickup **cannot** be used to take anything but RPM measurement. If the technician wishes to take RPM measurement using the test leads, he/she must do so by direct connection to the primary terminals of the ignition coil (**not the high voltage terminal**). On conventional distributor type ignition systems it also enables the technician to measure the dwell angle of the points.

When taking RPM measurements in this way the rotary switch must be turned to the RPM duty frequency Dwell position, the range button used to select 2 or 4 stroke and the Dwell and range button used to select the number of cylinders. When the engine is started the display will show the RPM. If desired, the Dwell can be displayed by pressing the DWL button. **Please note – once the engine warms up and goes into open loop, the duty cycle will fluctuate.** A number of technicians think that there is something wrong with the meter, whereas this situation would occur regardless of make or model of multimeter.

Taking Temperature Measurements

We have had complaints of inaccurate temperature readings, but when we check the instruments they are accurate to the nearest 1 degree centigrade. It appears that a number of technicians are putting the temperature adaptor units into the instrument the wrong way round. It is clearly marked + / - on the body of the adaptor the plus pin must go into the mA/TEMP socket, and the minus pin into the COM socket, otherwise the user will obtain incorrect readings.

