

TECH TIPS No 21a

CARRY OUT A VOLTAGE CHECKS ON AN ALTERNATOR

THIS CAN BE CARRIED OUT ON A MAGNETI MARELLI AND A POLISH ALTERNATOR

An alternator will generate 33 amps, at a regulated voltage of 14.0 – 14.5 volts that is what it will generate. So this write up is how to check whether the alternator is operating.

The battery on the car does not seem to be getting a full charge. Also at times during the operation of the headlights they seem to dim easily.

THE PROCEDURE FOR CHECKING.

The first test can be done on the car using a simple multi-meter.

- (1) Run the engine until warm.
- (2) Stop the engine and place a multi-meter on to the battery positive to positive and negative to negative, Now check the voltage across the battery it should be approx. 12 to 13 volts.
- (3) Start the engine and gradually increase the speed to about 1800-rpm. If the meter pointer climbs steadily and comes to an abrupt halt within the range of 14.0 and 14.5 volts, the charging system is most likely operating correctly.
- (4) If the meter climbs but stops before the range of 13.5volts, then the alternator is defective.

THE PROBLEMS ASSOCIATED WITH A DEFECTIVE ALTERNATOR.

1. Dirty or worn bearings can cause the alternator to rattle.
2. Loose mounting bolts; will cause the alternator to rattle.
3. Loose bolts on the pulley, again a rattling noise.
4. Defective stator.
5. Defective diodes. If you have checked 1,2, and 3 and the alternator still rattles it could be that one or more diodes have failed.
6. Defective rotor
7. Worn brushes.
8. The ignition light stays on when the engine is running. The voltage check achieved 14 to 14.5 volts, the regulator is faulty. Change the regulator straight away, if you don't it will over charge the battery.

The procedure for checking defects 4,5,6 and 7, see Tech Tips No 23 for Magneti Marelli Alternator. For a Polish Alternator see Tech Tips No 22.

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