

WINCO ELECTRONIC CONSERVER WITH MODULE

PRINCIPLES OF OPERATION:

Refer to Fig. 14. With the conserver switch in the "Automatic Idle" position, the operation of the Electronic Conserver Control is as follows:

1. After the engine has been started, and if there is no electrical load applied, the Electronic Conserver module will sense this and will allow a current to flow to the electro magnet which will pull the throttle lever up, closing the throttle on the carburetor allowing the engine to run at idling speed.
2. When a load is applied to the generator, the Electronic Conserver will sense this and will cut off the current to the electro magnet, thus allowing the throttle lever to drop down, opening the throttle on the carburetor and allowing the engine to come up to governed speed.

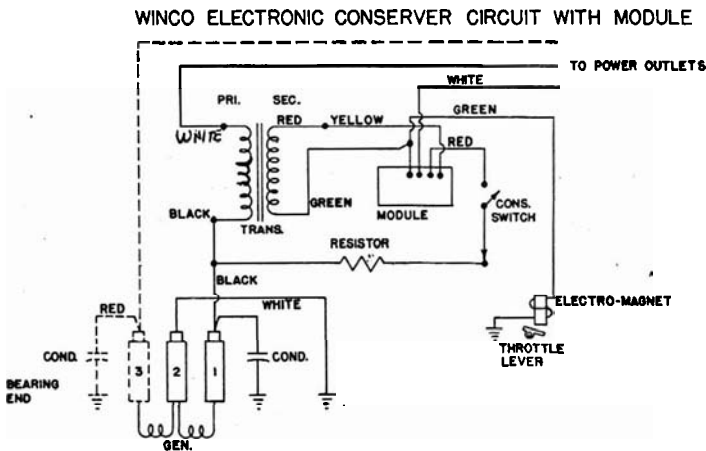


Figure 14

3. When the electrical load is turned off, no current will flow through the transformer; as a result the Electronic Conserver will once again cause the engine to slow down to idling speed as in 2.
4. When the switch is turned to the "Continuous Full Speed" position, the engine will retain full governed speed regardless of whether or not any load is applied.
5. If it is found that the engine will not come up to speed when a full load is applied at once, remove the load and set the Conserver Control to "Continuous" position and then reapply the load.

TROUBLE SHOOTING GUIDE FOR THE ELECTRONIC CONSERVER WITH MODULE

The module itself cannot be properly tested in the field, however, it can be determined if a module is defective by checking out the balance of the components in the Electronic Conserver circuit.

1. If the unit does not idle when no load is applied, connect a jumper wire across the terminals of the conserver switch to determine if it is open.
2. Examine the resistor of the conserver circuit. This resistor is located in the control box. The resistor should be checked for continuity, and the lead wires should be securely connected at each end.
3. Apply a load of approximately 100 watts (a light bulb is satisfactory) to the A.C. outlet and take a reading of the secondary winding (the two small wires) of the transformer located in the control box. With a 100 watt load, a reading of 12 to 16 volts A.C. should be obtained.
4. Examine the electro magnet to determine that the lead wire is properly connected to it. Check the core of the magnet to determine if it is magnetized when no load is applied to the generator. If it is magnetized, check the throttle lever arm to determine if it or any of the governor parts are binding or sticking because of dirt or paint. Take a resistance reading on the coil which should be approximately 70 Ohms. resistance from the core of the magnet to the lead wire.
5. If all of the above components check satisfactorily, then the conserver module is evidently defective and requires replacement.