2. Generator

The generator has a built-in regulator which provides diagnostic functions in addition to a voltage regulating function as follows:

1) Voltage regulation

The on-off operation of transistor ${\rm Tr}_1$ connects and disconnects the field current circuit, providing a constant level of output voltage.

2) Diagnosis warning

When any of the following problems occur, the charge lamp illuminates.

- a. No voltage generation
 - Brush wear exceeds specified wear limits, field coil circuit is broken, etc.
- b. Excessive output
 - Output voltage is greater than 16 volts (approx.)
- c. Terminal B disconnection
 - Harness is disconnected from alternator terminal B.
- d. Terminal S disconnection

Harness is disconnected from alternator terminal S. In this case, voltage is slightly greater than specified regulated voltage; however, voltage regulation is still controlled and the battery is prevented from becoming overcharged.

