



SERVICE PROCEDURE

ALTERNATE FIELD FLASHING METHOD FOR MAGNAPLUS GENERATOR EXCITER FIELDS WITH CORES EXHIBITING LITTLE OR NO RESIDUAL MAGNETISM

Procedure:

Place 120 VAC for about 2 to 3 seconds across SE350 power input terminals #3 & #4 while the unit was at rest. The basis for this procedure is:

1. The SE350 AVR requires approximately 240 VAC for both input power and sensing across input terminals #3 and #4. With 240 VAC input, maximum forcing voltage is 105 VDC. Maximum forcing current - for 1 minute is 5 amperes. Maximum continuous running current rating of this regulator is 3.5 amperes.
2. MAGNAPLUS exciter fields have a nominal resistance of 24.5 ohms. With 120 volts AC ($\frac{1}{2}$ rated voltage) imposed on the AVR power and sensing input, the AVR will go to full conduction of its power rectifier (SCR). With only 120 volts input power, the AVR will only force at half of 105 VDC or 52.5 VDC.
3. With 52.5 VDC imposed upon a 24.5 ohm field, maximum excitation current will be in the area of 2.1 to 2.2 amperes, which is 4.5 times the exciting current imposed on the field with a 12 VDC flashing source. 2.2 amperes is much lower than the SE350's rated continuous current of 3.5 amperes, thus this procedure will not pose a threat to the regulator so long as the exciter field resistance is 15 Ohms or higher.

Equipment:

120 volt, two prong power cord with flag terminals crimped on the ends.