VOLTAGE REGULATOR
GENERAL ELECTRIC TYPE TA-125, FORM L
OPERATING METHODS

1. GENERAL

1.01 This section describes the method of operating the General Electric Company's type TA-125, form L, voltage regulators for a-c generators and outlines the general troubles which might be encountered in the operation of these machines.

2. OPERATION

2.01 The operation of the voltage regulator is entirely automatic with the exception of the manual closing of the disconnect switches and periodic transfer of the reversing switches (at the bottom of the regulator panel). The reversing switches should be thrown to the opposite position at the beginning of each run or at least once every twenty-four hours during continuous operation to reverse the current through the contacts of the voltage regulator.

3. GENERAL TROUBLES

3.01 **The A-C Voltage Fails to Build Up:**

Cause	Action
Open circuit.	Close reversing switches and disconnect switches and check connections.

3.02 **The A-C Voltage Falls:**

Cause	Action
Low exciter voltage.	Examine for exciter trouble and binding in lever arm pivot bearings.

3.03 **The A-C Voltage Fluctuates:**

Cause	Action
Excessive vibration or loose connections.	Provide a rigid support and tighten any loose connections. Adjust exciter brushes if necessary.
Binding of d-c and a-c magnet cores and lever arms.	Adjust.
Faulty dashpot operation.	Refill dashpot to the required level with new oil and adjust.
Dirty or rough exciter commutator.	Clean and reface if necessary.

3.04 **The A-C Voltage Is of Incorrect Value:**

Cause	Action
Improper adjustment of d-c or a-c magnet core.	Readjust d-c or a-c magnet core.

3.05 **Arcing of Relay Contacts:**

Cause	Action
Open or wrong connection in exciter field rheostat circuit.	Repair and connect so that only rheostat is being short-circuited.
Defective condenser and connections.	Adjust or replace.

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