

CONFIDENTIAL COMPANY PUBLICATION-FOR USE OF G.E. SERVICE SHOP EMPLOYEES ONLY**SWITCHGEAR HIGH-POTENTIAL TESTS**

The Switchgear Department recommendations for field testing for suitability for service are delineated in the General Electric Field Supervisor's Guide (Electrical) Section 610 FS - Page 9 - Item 3. These test procedures apply to clean and/or reconditioned breakers as well as newly installed breakers. This recommendation is reproduced below.

Section 610 FS - Page 9 - Item 3**High-potential Tests**

The insulation and electrical clearances are tested in the factory before the switchgear is shipped and if the installation directions are followed high-potential tests in the field are not necessary and are not included in the installation inspection service.

However, if shipping or installation damages or inadequate protection of the equipment before or during installation indicates the need for such tests, they should be made by the customer before the equipment is energized.

Since some devices call for lower test voltages than are specified for switchgear assemblies, all devices should be disconnected from the circuit being tested. Potential transformer fuses should be removed and current transformer secondaries short circuited before testing.

The tests should be made in accordance with ASA C-37.20 (AIEE Standard No. 27) with test voltages in accordance with the table on the reverse side of this sheet; they are 75 per cent of the AIEE factory test voltages.

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Rated Voltage of Equip.	Field Hi-pot Test Voltage @ 60 cycles AC	Field Hi-pot Test Voltage DC
Up to 250 V	1125 V	1575 V
600 V	1650 V	2310 V
2.4 KV	11.25 KV	15.85 KV
4.16 KV	14.25 KV	19.95 KV
7.2 KV	19.5 KV	27.3 KV
13.8 KV	27 KV	37.8 KV

NOTE:

DC test voltage if used in lieu of AC test voltage shall be 1.4 times the specified AC voltage.

CAUTION !!!

- 1) The Switchgear Department engineers advise that breakers must be cleaned and checked to be sure that there are no obvious defects before high-potential tests are applied.
- 2) Be sure that all devices, potential transformer fuses and any other extraneous equipment are disconnected from the breakers before testing - see Paragraph 3 in the test instruction.
- 3) Also---be sure to protect all personnel from exposure to live apparatus while testing.