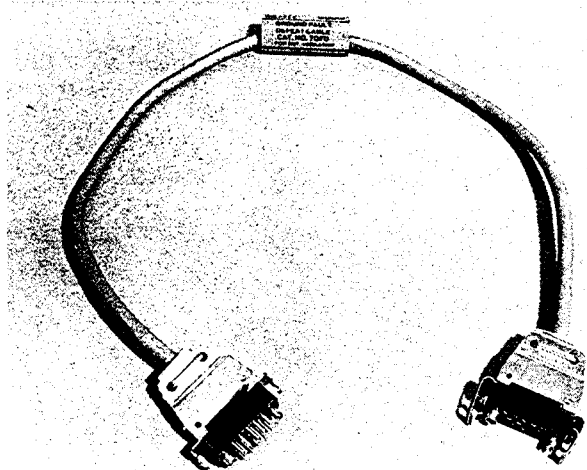




GROUND FAULT DEFEAT CABLE — TGFD

GENERAL

Circuit breakers equipped with either the SST or Versa Trip protection programmer and integral ground fault protection will require the use of the Ground Fault Defeat Cable (Fig. 1) when performing on-site high-current testing of long time/short time and instantaneous trip functions. These breakers utilize internally mounted current transformers (C.T.'s) to sense current flow in each breaker pole. A fourth C.T., (Neutral C.T.) is supplied for external mounting, when ordered, for 3 phase 4-wire systems.



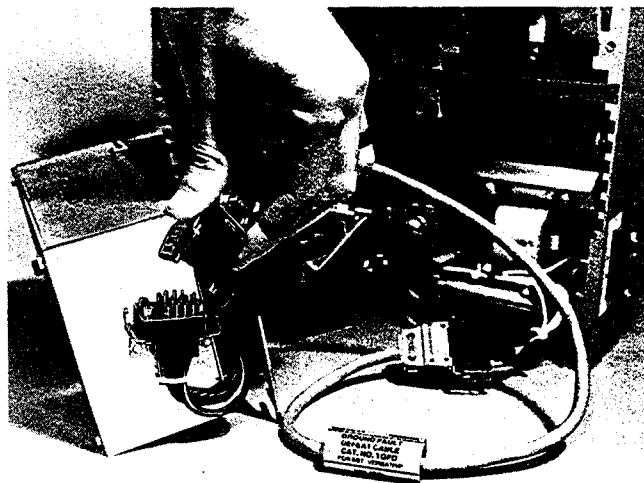
The C.T.'s provide the protection programmer with a low level signal proportional to current flow in each phase. The protection programmer in turn utilizes these signals to supply its own power needs and analyzes them for circuit protection. When integral ground fault protection is supplied, the vector sum of these signals must equal zero. That is, all current flowing through the breaker towards the load must also return through the breaker — or neutral C.T. if used. If this does not occur, the programmer will identify the resulting error signal as a ground fault and trip the breaker when its magnitude reaches the set point level of the programmer.

This situation may be encountered when conducting single phase high current tests. The Ground Fault Defeat Cable, when installed, essentially cancels the ground fault function and thus permits single phase testing of the long time/short time and instantaneous trip points.

SAFETY PRECAUTIONS

WARNING: Ensure that the breaker is "OPEN" or "TRIPPED" and completely disconnected from all power sources prior to connecting or disconnecting the TGFD cable.

NOTE: The Ground Fault Defeat Cable (TGFD) cannot be used when performing ground fault testing of breaker. Do not use the TGFD cable when using the portable low current SST or Versa Trip test sets.



INSTALLATION

Disassemble breaker, as required, to gain access to protection programmer. Refer to Fig. 2 for typical TGFD installation and proceed as follows:

1. Disconnect connector from the back of the breaker programmer.
2. Connect the TGFD cable female connector end to connector in back of the protection programmer.
3. Connect the male end of the TGFD cable connector to the female connector of the breaker wiring harness end.
4. Close the breaker, then perform "Hi-current" testing as required for long time/short time and instantaneous breaker trip operation.
5. Remove TGFD cable and reconnect breaker wiring harness to protection programmer. Re-assemble breaker.
6. Perform "Hi-current" testing as required for ground fault function.

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the General Electric Company.

GENERAL  **ELECTRIC**