Installation Instructions
TVTGD4
TVTGD9

Micro-VersaTrip® Programmer

Ground Fault Defeat Modules

General

Occasionally it is desirable to perform on-site testing of a circuit breaker's Long Time/Short Time and Instantaneous trip functions using a single phase, low voltage, high current test set (i.e. primary high current injection directly into one pole of the circuit breaker). When using this test method with circuit breakers equipped with Micro-VersaTrip® solid state programmers having a Ground Fault trip function, a TVTGD Ground Fault Defeat Module must be used.

Circuit breakers used with Micro-VersaTrip programmers have internally mounted current sensors (transformers) to sense the current in each breaker pole. An additional externally mounted sensor (neutral sensor) is used for three phase, four wire systems. When ground fault protection is supplied, the three-phase vector sum of these currents must equal zero. If this does not occur (as is the case with single phase testing) the programmer will identify the resulting error signal as a ground fault and trip the breaker when the error signal reaches the set point of the programmer's ground fault trip function.

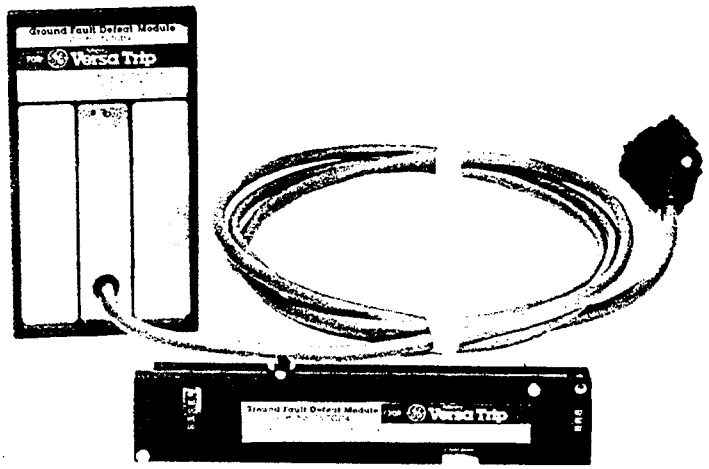
The Ground Defeat Module, essentially defeats the ground fault function, thus permitting single phase testing of the Long Time/Short Time and Instantaneous trip points.

The Ground Fault Defeat Module cannot be used when performing ground fault testing of the breaker. Also, do not use it when using the portable TVTSI Micro-VersaTrip test set.

Safety Precautions

WARNING:

1. Ensure that the breaker is "OPEN" and is completely disconnected from its power source prior to connecting or disconnecting the Micro-VersaTrip programmer or the TVTGD defeat module. Never open circuit the current sensors while the circuit breaker is carrying current as this will allow dangerous and damaging voltages to develop. The current sensors must always be connected to the Micro-VersaTrip programmer, either directly or through the TVTGD module when the circuit breaker is carrying current.
2. At the completion of testing, trip the circuit breaker and ensure that the TVTGD module is removed and the Micro-VersaTrip programmer is properly reinstalled in the circuit breaker. Failure to do so will result in a loss of circuit protection.



Installation

TVTGD4 Module
(For use with circuit breakers using Micro-VersaTrip programmer type T4VT).

1. Push the "PUSH TO TRIP" button on the front of the circuit breaker.
2. Remove the cover protecting the Micro-VersaTrip programmer.
3. Carefully remove the two-pin flux shifter trip coil connector at the top of the programmer.
4. Loosen completely the two captive screws that secure the programmer to the sensor (current transformer) package. The programmer may now be removed.
5. Plug the TVTGD4 module into the sensor package. Gently tighten the two mounting screws.

GENERAL ELECTRIC

6. Plug the Micro-VersaTrip T4VT programmer into the TVTGD4 Ground Fault Defeat Module. Gently tighten the two mounting screws.

7. Connect the two-pin flux shifter trip coil connector to the Micro-VersaTrip T4VT programmer.

8. Proceed to test.

9. To reinstall the programmer, trip the breaker and reverse this procedure.

TVTGD9 Module

1. Trip (open) the circuit breaker.

2. Remove the circuit breaker cover where applicable.

3. Remove the programmer from its plug in base, by releasing the cover interlock mechanism and applying a gentle rocking motion to the programmer as it is removed.

4. Install the TVTGD9 Ground Fault Defeat Module in the circuit breaker plug in base where the programmer was previously connected.

5. Connect the TVTGD9 cable connector to the Micro-VersaTrip programmer.

   NOTE: If the circuit breaker has a cover interlock mechanism such as in POWER BREAK circuit breakers, it will be necessary to install the circuit breaker cover in order to close the circuit breaker. This means that the connector cable from the defeat module must be routed through the programmer window in the cover before the cover is applied.

6. Proceed to test.

7. To reinstall the programmer, trip the breaker and reverse this procedure.

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. These instructions are intended for use by qualified personnel only.

For further information call or write your local General Electric Sales Office or...

Distribution Equipment Division
41 Woodford Avenue
Plainville, CT 06062 U.S.A.

Outside the U.S. and Canada write: Export Sales and Services, 570 Lexington Avenue, New York, NY 10022 U.S.A.

GEK-64466 PS.B 1/82

GENERAL ELECTRIC