GEH-703 Installation Instructions

*micro*EntelliGuard[™] Trip Unit

For Spectra[®] RMS Molded-Case Circuit Breakers with *micro*EntelliGuard[™] Trip Units





Overview

These instructions are intended to familiarize the user with the various display screens and setup parameters associated with the *micro*EntelliGuard[™] Trip Unit using the trip unit's 5-button keypad. For complete *micro*EntelliGuard[™] Trip Unit programming instructions, refer to GE user's manual GEH-702.

CAUTION: Trip unit parameters should only be adjusted to values specified by a professional engineer.

Before starting, the trip unit must be energized. Energize the trip unit using any one of the following means:

- EntelliGuard[™] Trip Unit Digital Test Kit (Cat. No. GTUTK20)
- Portable Battery Pack (Cat. No. TVPBP) in conjunction with a Battery Pack Adapter Cable (Cat. No. TVPBPACC)
- 24Vdc control power (requires that the breaker be connected to control power source via the distribution cable system)
- Self power- the trip unit will "self power" when carrying at least 20% of current sensors' rated current (either from actual load or with high current test set).

When energized, the trip unit's Main Menu will illuminate in the LCD as shown at left.

CAUTION: Changing protective functions or protective relay set points under load conditions may result in a breaker trip. Follow proper safety procedures.

SETUP - this mode is used to establish the trip unit's overcurrent (LSIG) and protective relay parameters.

- a. From the Main Menu, press the **UP** or **DOWN** button until SETUP is highlighted.
- b. Press the **FORWARD** button to begin the setup process.
- c. The first setup screen to appear is LANGUAGE. To change the parameter value, press either the UP or DOWN button to scroll through available choices. The parameter will flash on the LCD to indicate that the value has been changed.
- d. To save changes, you must press the **ENTER** button before advancing to the next parameter screen.
- e. To advance to the next parameter screen, press the **FORWARD** button (in this case, the next parameter following LANGUAGE is LONG TIME). When more than one parameter/value exists on a setup screen,

the first value will be automatically highlighted. Use the **UP** or **DOWN** buttons to change the parameter values. Remember to press the **ENTER** button to save changes before advancing to the next parameter screen.

- f. Repeat this process until all parameters/values have been adjusted and saved.
- g. After scrolling through all available setup parameters, the LCD display will return to the Main Menu. Pressing and holding the **BACK** button also returns the LCD display to the Main Menu.

IMPORTANT: The last parameters in the SETUP menu are DATE and TIME. These parameter values are used in the EVENTS screen to date/time stamp circuit breaker trip events.

METER – this mode is used to monitor current (and other parameters).

- a. From the Main Menu, press the **UP** or **DOWN** button until METER is highlighted.
- b. Press the **FORWARD** button to advance to the first metering screen. The first parameter displayed is CURRENT. The LCD displays current in amps on phases A, B, and C.
- c. Trip units optioned with advanced metering have additional parameters that can be displayed. Press the **FORWARD** button to advance to the next display screen or to the Main Menu.

STATUS – this mode is used to view protective parameter settings, errors and software information.

a. From the Main Menu, press the $\ensuremath{\text{UP}}$ or $\ensuremath{\text{DOWN}}$ button

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

GE Energy

41 Woodford Avenue, Plainville, CT 06062
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until STATUS is highlighted.

- b. Press the **FORWARD** button to advance to the first status screen. This screen displays the overcurrent protective settings that are programmed into the trip unit.
- c. Press the **FORWARD** button to advance to the ERROR STATUS screen. This screen is normally blank. If the trip unit detects an error, it will be displayed (refer to GEH-702 for error codes).
- d. Press the **FORWARD** button to advance to the VERSION screen. This screen displays the trip unit's software revision level, build date, and communications baud rate information.
- e. Press the **FORWARD** button to advance to the Main Menu.

EVENTS – this mode is used to view trip events. An event log stores up to ten individual trip events (EVENT 1 is always the most recent trip event and EVENT 10 is the oldest trip event).

- a. From the Main Menu, press the **UP** or **DOWN** button until EVENTS is highlighted.
- b. Press the **FORWARD** button to advance to EVENT 1. The display indicates the trip type (LSIG), phase (ABC) and level of fault that caused the trip.
- c. Press the **FORWARD** button to advance to the next event (up to EVENT 10).
- d. Press the **FORWARD** button to advance to the Main Menu.

NOTE: The event log can be cleared of all trip events by simultaneously pressing the **UP** and **DOWN** buttons.