



745 Transformer Management Relay Release Notes

GE Publication Number: GER-4031A

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Overview

Summary

- Affected products: 745 Transformer Management Relay
- Date of release: August 30, 2004
- Firmware revision: 4.00
- Hardware revision: G
- Boot code revision: 2.00

Release summary

GE Multilin releases a new generation of enhanced 745 Transformer Management Relays featuring a large, easy to read backlit display, an improved menu navigation structure and EnerVista-based software. An updated Instruction Manual complete the package offered to our customers. The enhanced relay retains the same footprint and unique feature set that provided the 745 relays a leadership position in the industry. The new firmware revision is 4.00.

GE Multilin technical support

GE Multilin contact information and call center for product support is shown below:

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Release details

New Models

Enhanced 745 relay has been introduced.

The order code has changed to introduce the new LCD by adding “-E” for the new enhanced relay. The new order code is shown below:

Table 1: 745 Order Codes

	745 - * - * - * - * - * - *						
Base Unit	745						745 Version 4.00 Release
Windings per phase	W2						Two windings per phase
	W3						Three windings per phase
Phase current input ratings	P1						Winding 1 = 1 A, Winding 2 = 1 A, Winding 3 = 1 A
	P5						Winding 1 = 5 A, Winding 2 = 5 A, Winding 3 = 5 A
	P15						Winding 1 = 1 A, Winding 2 = 5 A
	P51						Winding 1 = 5 A, Winding 2 = 1 A
	P115						Winding 1 = 1 A, Winding 2 = 1 A, Winding 3 = 5 A
	P151						Winding 1 = 1 A, Winding 2 = 5 A, Winding 3 = 1 A
	P155						Winding 1 = 1 A, Winding 2 = 5 A, Winding 3 = 5 A
	P511						Winding 1 = 5 A, Winding 2 = 1 A, Winding 3 = 1 A
	P515						Winding 1 = 5 A, Winding 2 = 1 A, Winding 3 = 5 A
P551						Winding 1 = 5 A, Winding 2 = 5 A, Winding 3 = 1 A	
Ground current input ratings	G1						Winding 1/2 = 1 A, Winding 2/3 = 1 A
	G5						Winding 1/2 = 5 A, Winding 2/3 = 5 A
	G15						Winding 1/2 = 1 A, Winding 2/3 = 5 A
	G51						Winding 1/2 = 5 A, Winding 2/3 = 1 A
Control power	LO						40 to 60 V DC; 20 to 48 V AC at 48 to 62 Hz
	HI						90 to 300 V DC; 70 to 265 V AC at 48 to 62 Hz
Options	A						Analog Inputs/Outputs
	L						Loss of Life
	R						Restricted Ground Fault
Display							Basic display
	E						Enhanced display, larger LCD

New features

Software: the 745 includes the new EnerVista 745 Setup software

The EnerVista 745 Setup software for version 4.00 is designed to allow customers to setup and monitor their relays in a faster and more reliable manner. The software includes the following features:

- Enhanced oscillography with:
 - movable cursors
 - selectable zoom
 - ability to display cursor 1, cursor 2, and delta for all the displayed channels in one window
 - playback option with selectable sample rate.
- The ability to convert 16-bit (745PC) setting files to 32-bit (EnerVista 745 Setup) files.
- A menu option to turn “ON” and “OFF” the front panel display.
- A Quick Connect feature to simplify serial connection to a 745 relay.
- The ability to setup multiple 745 relays from one view.

- Supports 745 firmware versions 4.0x and higher.
- Multiple information windows can now be opened in a single window.

Modified features

Front Panel: the enhanced 745 contains a larger LCD and improved menu navigation

The enhanced relay contains an improved larger LCD with 40 easily visible characters. As well, a new menu structure and keypad functionality has been implemented to improve message navigation.

The keypad was redesigned for the improved navigation structure. A new MENU key scrolls through setpoints, actual values and target messages, replacing the SETPOINTS, ACTUAL, and NEXT keys on earlier versions. The MESSAGE LEFT/RIGHT keys have been introduced to navigate between sub-menus, while the MESSAGE UP/DOWN remain to allow navigation within sub-menus. The VALUE UP/DOWN, ENTER, ESCAPE, HELP and numerical keys remain and maintain their functionality.

The LED test feature is initiated by holding down the HELP key. The overall dimensions and mounting details for the “-E” option are identical to the basic option of the 745 relays.

Product corrections: contact information updated

The technical support e-mail address and company web site was updated to reflect the new GE Multilin website address and e-mail.

Instruction manual changes

New instruction manual publication number

The enhanced 745 relay instruction manual has been assigned publication number GEK-106635.

Updates to the instruction manual

The majority of the instruction manual changes are related to the new navigation sequence for browsing through setpoints, actual values, and target messages. The content of the manual was also improved to enhance the understanding of the product

Chapter 1 was added to the manual. This chapter describes the new navigation process introduced with the new MESSAGE keys and MENU key, and the elimination of the NEXT, SETPOINT, and ACTUAL keys. Examples were introduced to illustrate the navigation process and how to access relay setpoints, actual values, and target messages.

The order code was modified in Chapter 2 (formerly in Chapter 1).

Chapter 3 was updated with illustrations of the new product as well as changes to the wiring diagrams, particularly to reflect the changes to the output relay nomenclature.

Chapters 2 and 4 were merged for the new manual. The relay faceplate drawing was updated to reflect the new faceplate design. The format of the diagnostic messages was changed to reflect the new presentation. The software section was replaced with a new section corresponding to the EnerVista 745 Setup software.

Chapter 5 was modified to reflect the new navigation process, due to the new MESSAGE keys, the introduction of the MENU key, and the elimination of the NEXT, SETPOINT and ACTUAL keys. The navigation instructions for setpoints were reviewed and changed accordingly.

Chapter 6 was modified to reflect the new navigation process, due to the new MESSAGE keys, the introduction of the MENU key, and the elimination of the NEXT, SETPOINT and ACTUAL keys. The navigation instructions for actual values were reviewed and changed accordingly.

The communications chapter (Chapter 7 in the previous manual) has been removed. This information is now available as GE Publication number GEK-106636: 745 Communications Guide.