



G650 Generator Protection And Control System

Firmware, Software Version 3.78 & Bootware 5.44

Release Notes

GE Publication Number: GER-4396

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Overview

Summary

GE Multilin releases the 3.78 firmware version for G650 relays.

Highlights of this release include:

- Synchronism function improvement
- **Release Date:** July 1st, 2010

Note:

- Firmware version 3.78 is compatible with Enervista 650 Setup Software version 5.48 and G650 relays with hardware version 01 or higher and Bootware version 5.44.
- Please refer to Chapter 8 of the Instruction manual for detailed directions on Bootcode and Firmware upgrade. The G650 Instruction Manual is available at the GE Multilin website:
<http://gemultilin.com/>
- The hardware version of the G650 relay can be verified from the device identification label. Alternately, it is also available from the EnerVista 650 Setup software version 3.00 or higher (while communicating with the relay).

Please contact your local GE Multilin Sales Representative or GE Multilin Technical Support Department for any questions regarding this G650 Release.

Release details

In the following enhancement descriptions, a revision category letter is placed to the left of the description. Refer to the Appendix at the end of this document for a description of the categories displayed.

Firmware Version 3.78

M Synchronism Function Enhancement.

New enhanced metering algorithm in 25 function for voltage values higher than 240Vac.

Enervista Setup Software Version 5.48

Revised for application and use with firmware version 3.78 and Bootware version 5.44.

Upgrade paths

In order to take advantage of the enhancements and new features introduced in the latest G650 release, we recommend that you upgrade to the new G650 Firmware version 3.78.

Firmware upgrades can be easily performed using 650 set up software. This upgrade can be done either via EnerVista Launchpad or by direct download from the following site:

<http://gemultilin.com/software/G650.htm>

If using EnerVista Launchpad, follow these steps:

1. Open EnerVista Launchpad
2. Click "IED Setup"
3. Click "Check Updates". Note: this will check for updates to all of the IED setup software shown.
4. Select the G650 version 3.78 upgrade for download.

Upgrade path for Hardware version 01 and above

For G650 relays with Hardware version 01 and above, the 3.78 Firmware release can be uploaded to the G650 relay CPU via the Enervista 650 Setup software.

Hardware Upgrade package must be obtained from GE Multilin to upgrade the relays from Hardware 01 to Hardware 02.

Upgrade path for Hardware Version 00

For G650 relays with Hardware 00, an upgrade package must be obtained from GE Multilin to upgrade the relays

Please contact your local GE Multilin sales representative or GE Multilin Technical Support Team for any questions regarding this upgrade.

Appendix

Change categories

This document uses the following categories to classify the changes.

Table 1: Revision categories

Code	Category	Comments
N	New feature	A separate feature added to the relay. Changes to existing features even if they significantly expand the functionality are not in this category
G	Change	A neutral change that does not bring any new value and is not correcting any known problem
E	Enhancement	Modification of an existing feature bringing extra value to the application
D	Changed, incomplete or false faceplate indications	Changes to, or problems with text messages, LEDs and user pushbuttons
R	Changed, incomplete or false relay records	Changes to, or problems with relay records (oscillography, demand, fault reports, etc.)
C	Protocols and communications	Changes to, or problems with protocols or communication features
M	Metering	Metering out of specification or other metering problems
P	Protection out of specification	Protection operates correctly but does not meet published specifications (example: delayed trip)
U	Unavailability of protection	Protection not available in a self-demonstrating way so that corrective actions could be taken immediately
H	Hidden failure to trip	Protection may not operate when it should
F	False trip	Protection may operate when it should not
B	Unexpected restart	Relay restarts unexpectedly

The revision category letter is placed to the left of the change description.

GE Multilin technical support

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

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