

Multilin 650 Family

Firmware v5.78, Software v8.23

Release Notes

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This document contains the release notes for firmware version 5.78 and EnerVista 8.23 for the Multilin 650 Family of products.

Summary

GE Grid Solutions issues the Multilin 650 Family Firmware version 5.78 and EnerVista 650 Setup software 8.23. The firmware is specific to some 650 Family products and does not affect other devices.

The 5.78 firmware and 8.23 software version release for the 650 platform introduces software and firmware improvements that only affect F650 devices. When using firmware version 5.78, EnerVista 650 setup 8.23 or above must be used.

Firmware Release Date: Feb 28, 2022

EnerVista Setup Release Date: Jun 13, 2022

Highlights of this release include:

5.78 Firmware Version

Feeder Protection Relay - F650

- Enhanced Frequency calculation algorithm

8.23 EnerVista 650 Setup software

- Compatibility with 5.78 and 7.80 Firmware versions
- New default configuration files (PLC (*.pep, *.aut, *.dbg) and *.650) for firmware versions 7.80 and 5.78

New 650 firmware and EnerVista Setup software can be downloaded from the links below, based on device type.

F650: <https://www.gegridsolutions.com/app/ViewFiles.aspx?prod=f650&type=7>



For existing 650 devices installed with firmware version below 7.0x, you must obtain a new relay to benefit from the enhancements described in this release note. If the new features and enhancements are not needed, no upgrade of the relays is required.

Please contact your local Multilin sales representative or Multilin Customer Service Department (CST) for any questions regarding this upgrade.

Release Details

In the change descriptions below, a revision category letter is placed to the left of the description. Refer to the Appendix at the end of this document for additional details.

Multilin 650 Family - Firmware version 5.78

Feeder Protection Relay – F650

- E** **Enhanced Frequency calculation algorithm**
Improved frequency measurement to increase security under high level of harmonics and disturbances

EnerVista 650 Setup - Software version 8.23

- G** **Compatibility implemented with Firmware 5.78 and 7.80 version**
Updated database and configuration files to ensure compatibility with 5.78 and 7.80 Firmware version

Upgrade Path

Firmware Compatibility

GE suggests using the latest version of the software.

EnerVista 650 Setup software can convert settings files from an older version to the latest version. It also provides a tool to compare settings files from different versions, generating a Difference Report. This Difference Report identifies new settings and additional information to assist the user during the upgrade process.

Notes

- Firmware version 5.78 is compatible with EnerVista 650 Setup Software version 8.23 or higher and F650 relays with hardware version 01 or higher and Bootware version 6.00.
- Hardware version HW 08
- Please refer to Chapter 8 of the Instruction manual for detailed directions on Bootcode and Firmware upgrade. The F650 Instruction Manual is available at the GE Grid Solutions website:
<http://www.gegridsolutions.com/Multilin/catalog/f650.htm>
- To upgrade to new the hardware version 08, please contact Multilin Technical Support Team for the appropriate hardware package.
- The hardware version of the F650 relay can be verified from the device identification label.
- To upgrade I/O board firmware version, please contact Multilin Technical Support Team for the appropriate hardware package.

To take advantage of the enhancements and new features introduced in the latest F650 release, we recommend that you upgrade to the new F650 Firmware version 5.78

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 (Software section):

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 for all IED setup software shown.
4. Select the F650 version 5.78 upgrade for download.

Upgrade path for hardware version 00

For F650 relays with hardware version 00, an upgrade package must be obtained from GE Multilin to upgrade the relays CPU to the hardware version to 01 to 04 before upgrading the firmware.

Upgrade path for hardware version 01 and above

For F650 relays with hardware version 01 and above, the 5.78 Firmware release can be uploaded to the F650 relay CPU using EnerVista 650 Setup software.

A Hardware Upgrade package must be obtained from GE Multilin to upgrade the relays from hardware versions 01 to 04.

Upgrade path for hardware version 08

A Hardware Upgrade package for the PIC (Programmable In-Circuit Chip) of the Magnetic Module must be obtained from GE Multilin to upgrade the relays to hardware version 08. This hardware is recommended to enhance the communication between DSP and PIC controller to strength the relay behavior against external disturbances.

Upgrade path for IO Board firmware

Upgrade package for I/O Board firmware must be obtained from GE Multilin to upgrade these boards to latest version. This firmware together with F650 firmware is recommended to enhance CAN BUS communications and protect the relay from problems described in the 5.72 Release Note.

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

Software Compatibility

The minimum operative system requirements for the EnerVista 650 Setup software are as follows:

- Windows® XP with Service Pack 2 (Service Pack 3 recommended)
- Windows 7
- Windows 8

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

For further assistance

For product support, contact the information and call center as follows:

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