



GE VERNOVA

Multilin 8 Series Protection and Control Relay Platform

8 Series Firmware & Software Version 4.20

Release Notes

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Summary

GE Grid Solutions releases the 8 Series Firmware and Software Version 4.20 for the Multilin 8 Series Protection Relays.

Multilin 8 Series Firmware and Software Version 4.20

Release Date: Feb 28, 2025

- Multilin 8 Series firmware versions 1.2x and below cannot be upgraded to firmware version 1.3x and above. Please contact us to upgrade the product.
- Multilin 8 Series firmware versions 3.x and below cannot be upgraded to firmware version 4.x. Please contact us to upgrade the product.
- Upgrade the firmware to version 4.20 by downloading the file directly from GE website: 850 Feeder Protection System
- The latest EnerVista 8 Series Setup software is available at the same location. The software supports Windows 7, 8.1, 10 and 11.

Note: Please contact your local Multilin sales representative or Multilin Customer Service Department for any questions regarding this upgrade.

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1 New in Firmware v4.20

1.1 Arc Flash – Reintroducing Point Sensors and adding Loop Sensors

Section:	Protection/Hardware
Impact to customer:	A new Arc Flash card option 'T', is now supported, with the ability to install one or two cards on the 8 Series relay, enabling the configuration of either 4 or 8 Arc Flash channels. Each card supports dedicated trip relays for each sensor.
Products Affected:	845, 850, 869, 889
What changed?	Arc Flash card 'T' consists of 4 SSR relays, 2 Form A Relays and 4 Arc Flash Point and/or Loop Sensors.

1.2 Incipient Cable Fault supported

Section:	Protection
Impact to customer:	Incipient Cable Fault Protection feature has been added to the 850, available with 'Advanced' Monitoring.
Products Affected:	850
What changed?	Incipient Cable Fault Protection added.

1.3 859 Low voltage power supply

Section:	Hardware
Impact to customer:	Low voltage power supply option now available on 859.
Products Affected:	859
What changed?	Support for Low voltage (24V to 48V DC only) power supply

1.4 859 Serial Fiber

Section:	Communications
Impact to customer:	Serial Fiber option now available on 859, option 'M'.
Products Affected:	859
What changed?	New communications connector introduced for Serial Fiber option.

1.5 Role Based Access Control (RBAC) as per IEC62351-8 standards

Section:	Cybersecurity
Impact to customer:	Upgraded advanced cybersecurity RBAC as per IEC62351-8
Products affected:	845, 850, 859, 869, 889
What Changed?	RBAC User Management Configurator allows for custom permissions. LDAP added as Authentication method.

1.6 RRTD Support

Section:	Protection
Impact to customer:	Thermal Model RTD Bias protection using Hottest Stator RTD will now also include RRTD Stator RTDs in its calculation.
Products Affected:	859 with RRTD
What changed?	Previously, Thermal Model only used the Local RTD's Hottest Stator Temperature for RTD Bias.

1.7 Generator Thermal Model

Section:	Protection
Impact to customer:	Generator Thermal Model introduced on 889, similar to protection offered on SR489.
Products Affected:	889
What changed?	889 now includes Generator Thermal Model

1.8 Disable Motor Events supported

Section:	Records
Impact to customer:	Users have the option to disable specific motor events (i.e. Stopped, Starting, Running, Overload, SM Stabilizing, SM Running, SM Resync) in order to reduce the number of events generated, should users prefer to limit.
Products Affected:	859, 869
What changed?	New settings under \Device\Motor Events\

1.9 Security Layer updated

Section:	Security
Impact to customer:	The communication interface between the protection relay and the configuration tool has been updated to incorporate standardized services: Role Based Access Control (RBAC), SysLog, ICT Adapter.
Products Affected:	845, 850, 859, 869, 889
What changed?	The communication protocol interface changed from Modbus over a secure SSH connection to data packet requests (Remote Procedure Call, gRPC) over a secure TLS 1.3 connection.

1.10 OPC-UA

Section:	Communications
Impact to customer:	OPC-UA communication protocol is reintroduced in 8 Series v4.20.
Products Affected:	845, 850, 859, 869, 889
What changed?	OPC-UA was previously available on the 8 Series 3.0x and earlier.

1.11 Simple Network Management Protocol (SNMP)

Section:	Communications
Impact to customer:	Simple Network Management Protocol (SNMP) protocol reintroduced.
Products Affected:	845, 850, 859, 869, 889
What changed?	SNMP was previously available on the 8 Series 3.0x and earlier.

1.12 Wireless Communications (WiFi)

Section:	Communication
Impact to customer:	Wireless Communications (WiFi) support has been reintroduced with the Wireless option 'W'. The WiFi feature was previously available on the 8 Series 3.0x and earlier, it now includes an additional setting to manage the WiFi signal.
Products Affected:	845, 850, 869, 889
What changed?	WiFi option 'W' now available, which also includes a managed setting.

1.13 Phase Overvoltage and Neutral Overvoltage

Section:	Protection
Impact to customer:	New 'Reset Mode' setting has been added to both Phase OV and Neutral OV to ensure backward compatibility.
Products Affected:	845, 850, 859, 869, 889
What changed?	Setting 'Reset Mode' added to Phase OV and Neutral OV

1.14 TOC Protection Elements

Section:	Protection
Impact to customer:	New 'Minimum Time' setting added to TOC Elements: Phase TOC, Neutral TOC, Ground TOC, Sensitive Ground TOC, Negative Sequence TOC
Products Affected:	845, 850, 859, 869, 889
What changed?	Setting 'Minimum Time' added to TOC Elements

1.15 Electrical Signature Analysis (ESA) Actual Values

Section:	Monitoring
Impact to customer:	The existing 'Estimated Speed' actuals values are now available on the FlexAnalog parameter list and can be accessed wherever a user configures settings using the FlexAnalog list (FC273).
Products Affected:	859, 869
What changed?	ESA's 'Estimated Speed' available on FC273 list.

1.16 Dissolved Gas Analyzer (DGA)

Section:	Monitoring
Impact to customer:	The DGA feature is reintroduced on the 845 v4.20, previously available in the 845 v3.0x and earlier.
Products Affected:	845
What changed?	DGA feature now available

1.17 8 FlexCurve points added to improve accuracy

Section:	Protection
Impact to customer:	8 new data points introduced on FlexCurve to improve accuracy
Products Affected:	845, 850, 859, 869, 889
What changed?	data points introduced: 1.070xPKP, 1.090xPKP, 1.125xPKP, 1.175xPKP, 1.250xPKP, 1.350xPKP, 1.450xPKP

1.18 Phase UV Reset

Section:	Protection
Impact to customer:	The reset characteristic behavior has changed when a FlexCurve is selected. Instead of using the 'Reset Time' setting, the logic now utilizes the 'Reset' portion of the FlexCurve.
Products Affected:	845, 850, 859, 869, 889
What changed?	The Reset Characteristic when using the FlexCurve

1.19 'Redundancy Network Error' supported

Section:	Communication
Impact to customer:	The self-test 'Redundancy Network Error' appears as a Target when both Port1/Port2 and Port4/Port5 are configured for Redundancy Networks. Only one pair can be configured at any one time.
Products Affected:	845, 850, 859, 869, 889
What changed?	A self-test Target 'Redundancy Network Error' appears for incorrect configuration.

1.20 Increase Fault Reports from 16 to 25

Section:	Records
Impact to customer:	Increased the maximum number of Fault Reports from 16 to 25.
Products Affected:	845, 850, 859, 869, 889
What changed?	Number of Fault Reports

1.21 Increase support for logical node RptRFLO on IEC61850

Section:	Communication
Impact to customer:	Fault Reports, RptRFLO now available on the 8 Series Platform. Previously RptRFLO was only available on 850.
Products Affected:	845, 850, 859, 869, 889
What changed?	Platform support for RptRFLO

1.22 Changes to Demand settings

Section:	Metering
Impact to customer:	Factory default for Demand elements Function setting changed to Disabled and Events setting changed to Enabled.
Products Affected:	845, 850, 859, 869, 889
What changed?	Default settings for Demand Function and Demand Event settings

1.23 "Operator PIN Password" supported

Section:	Security
Impact to customer:	'Operator PIN' for quick 'Control' access on the HMI reintroduced on v4.20, similar to the functionality available in 8 Series 3.0x and earlier.
Products Affected:	845, 850, 859, 869, 889
What changed?	'Operator PIN Password' available on the HMI

1.24 Learned Data

Section:	Records
Impact to customer:	Three new Actual values have been added to the existing Learned Data: Learned Running Cool Time Constant, Learned Stopped Cool Time Constant, and Learned Unbal Bias K Factor.
Products Affected:	859, 869
What changed?	Learned Data updated with 3 additional Actuals

1.25 Compatibility Mode File

Section:	Communications
Impact to customer:	If users require to configure Compatibility Mode between the 750 and 850 or the 469 and 869 models, the options for selecting the 750 or 469 will no longer be available in the selection list. Instead, users must select 'FlexMap' and enter the appropriate filename: either 'SR750XAFlexMap.000' or 'SR469XAFlexMap.000'. These filenames are the default values that will appear for the 'FlexMap File' field.
Products Affected:	850, 869
What changed?	Compatibility Mode uses an external file, FlexMap File that describes the Compatibility Mode Modbus addresses

1.26 Loss of Excitation

Section:	Protection
Impact to customer:	New 'VTFF Supervision' Setting added to the LOE Protection Element
Products Affected:	859
What changed?	A new setting 'VTFF Supervision' was added to LOE.

1.27 Default Screens, Screen Saver, Intensity

Section:	HMI
Impact to customer:	Setting changes and improvements to logic managing the screen saver, screen intensity. New setting 'Inactivity Timeout' added. Default Screens increased from 3 to 5.
Products Affected:	845, 850, 859, 869, 889
What changed?	Improvements to Default Screens, Screen Saver, Screen Intensity.

2 Enhancements and Firmware corrections

2.1 Relay Hangs/Reboots when set for Russian or Ukrainian language

Section:	System/HMI
Impact to customer:	Relays Hangs/Reboots when viewing Last Trip Data/Event Data on the HMI when language is set to Russian or Ukrainian due to translation text exceeding allocated space.
Products Affected:	845, 850, 859, 869, 889
What changed?	Firmware updated to support longer text strings for non-English languages.

2.2 RS485 causes relay to reboot

Section:	System/Communication
Impact to customer:	Relay may experience an unexpected reboot when connected to RS485 network with multiple devices.
Products Affected:	845, 850, 859, 869, 889
What changed?	Modbus data management improved to filter network traffic.

2.3 CT Supervision

Section:	Metering
Impact to customer:	Metered values used by CT Supervision were not calculated correctly.
Products Affected:	845, 850, 859, 869, 889
What changed?	Calculation corrected in firmware

2.4 Reactive Power Demand

Section:	Metering
Impact to customer:	Reactive Power Demand was incorrectly showing Real Power Demand. Reactive Power Demand is updated to show the corrected value.
Products Affected:	845, 850, 859, 869, 889
What changed?	Logic updated

2.5 GOOSE Reception mapping to Remote Inputs

Section:	Communication
Impact to customer:	The mapping of GOOSE Reception into Remote Inputs was not sequential.
Products Affected:	845, 850, 859, 869, 889
What changed?	Mapping has been corrected.

2.6 IEC 61850 - ConfReportControl

Section:	Communication
Impact to customer:	Users could not configure more than 8 reports.
Products Affected:	845, 850, 859, 869, 889
What changed?	The maximum number of reports increased from 8 to 48.

2.7 Reset Latched trip

Section:	System
Impact to customer:	Users would have to press the reset key twice to reset the LED and then press the reset a second time to reset the output relay.
Products Affected:	845, 850, 859, 869, 889
What changed?	A single press of the 'Reset' button resets all latched conditions including LEDs and output relays.

2.8 Sync Status

Section:	Protection
Impact to customer:	The Synchrocheck actuals screen displays incorrect status, although the feature operates correctly.
Products Affected:	845, 850, 859, 869, 889
What changed?	The Sync disabled status was previously inverted and corrected to reflect the actual status.

2.9 RTD protection

Section:	Protection
Impact to customer:	RTD protection fails to apply the Pickup delay after the first trip.
Products Affected:	845, 850, 859, 869, 889
What changed?	RTD protection logic improved to reset time accumulation between operations.

2.10 Operands in German language Updated

Section:	HMI
Impact to customer:	FlexLogic operand showed the same operand "IE" used, both on Neutral and Ground elements
Products Affected:	845, 850, 859, 869, 889
What changed?	Text modified to show the correct terms for Neutral "IN".

2.11 Restricted Ground

Section:	Protection
Impact to customer:	For 745-845 retrofit users, the minimum pickup cannot be set to the same low level that was supported on the SR745.
Products Affected:	845, 850, 859, 869, 889
What changed?	The Restricted Ground Minimum Pickup lowered from 0.05 to 0.02.

2.12 Voltage Phase Reversal

Section:	Protection
Impact to customer:	Voltage Phase Reversal not functioning on the 889.
Products Affected:	889
What changed?	Logic corrected on Phase Reversal element.

2.13 Latched Output Relay does not Reset

Section:	System
Impact to customer:	Customers configuring Output Relay Type as Latched are not able to Reset the output.
Products Affected:	845, 850, 859, 869, 889
What changed?	Updated output relay logic to process the Reset command.

2.14 Self-test target "Routing Cfg Error On"

Section:	Communication
Impact to customer:	Self-test for 'Routing Cfg Error On' does not function correctly when there is a configuration issue with Port 1 or Port 2.
Products Affected:	845, 850, 859, 869, 889
What changed?	Logic updated to include all 4 Ethernet Ports on a 4E order code.

2.15 Logical Node

Section: Communication
Impact to customer: Logical Node ZMOT1 not updating correctly.
Products Affected: 845, 850, 859, 869, 889
What changed? Logical Node ZMOT1 updated to correctly show data.

2.16 Ground Fault Pickup setting not visible on HMI

Section: Protection
Impact to customer: The Ground Fault Pickup setting is not visible on HMI, but the setting is available on the EnerVista setup software Tool.
Products Affected: 845, 850, 859, 869, 889
What changed? Logic updated to show the Ground Fault pickup setting on the HMI.

2.17 Waveform records - Contact Inputs and Analog Signals

Section: Records
Impact to customer: Contact Inputs and Analog Signals time not aligned correctly on waveform records
Products Affected: 845, 850, 859, 869, 889
What changed? Logic updated to record correct timestamps.

2.18 Single Line Diagram (SLD)

Section: HMI
Impact to customer: Breaker name gets truncated on the SLD HMI, 'Contactor' was displayed as 'Contac'
Products Affected: 845, 850, 859, 869, 889
What changed? Logic updated to widen the text field box area on the SLD.

2.19 PTP clock

Section: Time
Impact to customer: When relay is synchronized to a PTP clock which adjusts for leap-second the relay ignored the offset and introduced a 37s error in the time stamp.
Products Affected: 845, 850, 859, 869, 889
What changed? The relay is now receiving information from the master clock and if leap second compensation is applied the time is correctly adjusted.

2.20 OV/UV DOP Range

Section:	System
Impact to customer:	The OV/UV DPO setting range changed to better reflect the hysteresis applied to the operating quantity.
Products Affected:	845, 850, 859, 869, 889
What changed?	The setting under Settings/Installation was adjusted from Range: 97–99%, 95–97% to Range: 2% or 4%.

2.21 Self-Test Monitor

Section:	System
Impact to customer:	Programmed relay for ‘Self-Test Monitor’ was not activating on major self-test errors.
Products Affected:	859
What changed?	‘Self-Test Monitor’ logic corrected to trigger assigned relay for major test errors.

2.22 Start Inhibit Relay

Section:	System
Impact to customer:	Users are required to configure the Start Inhibit relay, which was previously available on the 369 by default.
Products Affected:	859
What changed?	Database set to default relay number 4 as the Start Inhibit Relay for 859.

2.23 Loss of Excitation

Section:	Protection
Impact to customer:	In Loss of Excitation, the positive sequence voltage should be less than UV Supervision PKP when LOE trips but it does not happen.
Products Affected:	845, 850, 859, 869, 889
What changed?	LOE logic corrected.

2.24 Second breaker missing under Device/Installation

Section:	System
Impact to customer:	Only the first breaker could be Disabled for Breaker status on relays with 2 Breakers.
Products Affected:	845, 850, 859, 869, 889
What changed?	Logic updated to support the 8 Series with 2 breakers to have the ability to disable the breaker status.

2.25 Output relay settings

Section:	System
Impact to customer:	When transferring settings file to the relay, if the Switching Device Type does not match, the Trip relay settings were being unintentionally overwritten.
Products Affected:	859, 869
What changed?	Logic updated to support the handling of settings files and to allow setting changes to be applied outside the parameters specified in the settings file.

2.26 Fault report timestamp

Section:	Records
Impact to customer:	The internal table for the Fault Report timestamps was not displaying the correct times.
Products Affected:	845, 850, 859, 869, 889
What changed?	Fault Report timestamp indexing corrected.

2.27 Event Recorder on HMI

Section:	HMI
Impact to customer:	Unable to mark the bottom (Event 1) due to the bottom-most event not being fully visible on HMI
Products Affected:	845, 850, 859, 869, 889
What changed?	Logic updated to improve the management of events on the HMI. The bottom-most event can now be brought into full view and selected.

2.28 Contact Input/Output names on HMI

Section:	HMI
Impact to customer:	Configured Contact Input/Output names are not displayed on the Status screens.
Products Affected:	845, 850, 859, 869, 889
What changed?	Logic updated to show the Contact I/O names on the Status screens.

2.29 UF / ROCOF

Section:	Protection
Impact to customer:	UF / ROCOF not working properly with only voltage injection (Bypass current supervision not working as per product specification).
Products Affected:	845, 850, 859, 869, 889
What changed?	UF/ROCOF logic corrected to match specification.

2.30 Data logger

Section:	Record
Impact to customer:	Automatic Data Logger Overwrite not occurring with 'Data Logger\Function' Set to 'Continuous'.
Products Affected:	845, 850, 859, 869, 889
What changed?	New Option 'Continuous with Overwrite' added under 'Data Logger\Function' for 'Continuous Forever' Behavior"

2.31 Link Loss Alert (LLA)

Section:	Communication
Impact to customer:	LLA not supported on RJ45 ports on Eth4 and Eth5 Ethernet ports
Products Affected:	845, 850, 859, 869, 889
What changed?	Logic updated to support RJ45 Ethernet ports Eth4 and Eth5

2.32 Starter Failure Alarm

Section:	Protection
Impact to customer:	859 Starter Failure Alarm Inoperative without Contactor Status wired
Products Affected:	859
What changed?	Logic updated to use the Closed status instead of the Open status.

2.33 859-Avg L-L Voltage

Section:	HMI
Impact to customer:	Actual Line-to-Line Voltage value hidden when Phase VT Connection is set to Delta
Products Affected:	859
What changed?	HMI logic updated to show L-L Voltage when Ph VT Connection set to Delta.

2.34 Syslog

Section:	Communication
Impact to customer:	Syslog messages fail to transmit to Syslog Server after extended period.
Products Affected:	845, 850, 859, 869, 889
What changed?	Syslog Service updated with SecureLog Integration for improved compliance with Syslog standards

2.35 Setpoints/Testing/Test LEDs

Section: System
Impact to customer: LEDs displayed under 'Testing' beyond supported options
Products Affected: 859
What changed? HMI Logic Updated to accurately display the number of supported LEDs.

2.36 Radius server

Section: Communication
Impact to customer: Invalid Vendor code configuration causes relay to reboot
Products Affected: 845, 850, 859, 869, 889
What changed? RBAC updated to use a new and enhanced RBAC service.

2.37 IEC61850 MMS

Section: Communication
Impact to customer: IEC61850 options displayed on relays with Comms option 1E despite, IEC61850 functionality not supported on option 1E
Products Affected: 845, 850, 859, 869, 889
What changed? Updated filtering logic to remove IEC61850 support from comms option 1E.

2.38 Backspin Detection (BSD) Start Inhibit

Section: Protection
Impact to customer: BSD Start Inhibit Operand fails to turn-off when minimum permissible frequency is set to 0
Products Affected: 859
What changed? Firmware logic updated to match the functional specification.

2.39 Parallel Redundancy Protocol (PRP)

Section: Communication
Impact to customer: PRP - programming MAC address value online does not take effect without Reboot
Products Affected: 845, 850, 859, 869, 889
What changed? Logic updated to reflect the change immediately without requiring a reboot.

2.40 Device and server

Section:	Communication
Impact to customer:	Users experienced Lockout condition when using identical names for Device and Server.
Products Affected:	845, 850, 859, 869, 889
What changed?	RBAC updated to use a new and enhanced RBAC service.

2.41 Advanced Security Radius

Section:	Communication
Impact to customer:	In Advanced Security Radius Settings, changing Device Authentication to 'Device' does not stop Radius Server Authentication until next reboot
Products Affected:	845, 850, 859, 869, 889
What changed?	RBAC updated to use a new and enhanced RBAC service.

2.42 Radius Events

Section:	Communication
Impact to customer:	None of the radius events were getting updated in the Event record log.
Products Affected:	845, 850, 859, 869, 889
What changed?	RBAC updated to use a new and enhanced RBAC service.

2.43 Latched Alarm Operation

Section:	System
Impact to customer:	Updated 'Latched Alarm' behavior: Previously, only the Alarm LED was latched, leaving users unaware of the Alarmed Element when the condition was inactive
Products Affected:	845, 850, 859, 869, 889
What changed?	New 'Latched Alarm Operation' setting introduced, changes latched alarm behavior: when set to 'Latched', the Alarmed Element Remains Latched

2.44 Polarizing Voltage

Section:	Protection
Impact to customer:	Setting name 'Measured VX' was not clear.
Products Affected:	845, 850, 859, 869, 889
What changed?	Changed setting name from 'Measured VX' to 'Measured VN' across 8 Series.

2.45 Minor Self-Tests

Section:	System
Impact to customer:	Minor Self-Tests errors crowded the target message screen.
Products Affected:	845, 850, 859, 869, 889
What changed?	Settings added to manage the Minor Self-Tests.

2.46 Phase Undervoltage

Section:	Protection
Impact to customer:	Reset Time on Phase UV element not configurable as supported on SR489
Products Affected:	889
What changed?	Settings added to Phase UV to specify the Reset Time and Reset Mode.

2.47 Curve Type changed from Motor to Standard

Section:	Protection
Impact to customer:	Curve Type under Thermal Model renamed from 'Motor' to 'Standard' to match SR469.
Products Affected:	859, 869
What changed?	Setting text label changed, no change to protection logic

2.48 Compatibility Mode Enhancements

Section:	Communications
Impact to customer:	Additional Modbus registers added to Compatibility Mode for 489 to 889, 745 to 845, 750 to 850, 369 to 859.
Products Affected:	845, 850, 859, 889
What changed:	The following compatibility registers are now included.

- Watt Hour – 845
- Var Hour - 845
- CB Tripped/Alarm – 845
- Lockout Reset Locally - 845
- Relay Fault – 845
- Active Power, Reactive Power, Voltage UV – 845
- Current Unbalance - 859
- Reactive Power – 859
- 750 Logic Inputs are mapped into 850 Digital Elements - 850
- Active Power, Reactive Power, Bus-2 Voltage – 850
- Gen. Earth Fault (3rd Harmonic UV) - 889
- Reverse Power - 889
- High Set Phase Over current - 889

3 EnerVista Setup Software

3.1 Replace .chm help files with .pdf files

Section:	Configuration Tool
Impact to customer:	CHM files replaced with PDF files.
Products Affected:	845, 850, 859, 869, 889
What changed?	CHM files replaced with PDF files

3.2 Offline - Communication settings

Section:	Configuration Tool
Impact to customer:	Users can now edit the following settings Offline: Modbus Compatibility, RS485 Baud Rate, RS485 Parity, RS485 Port Protocol.
Products Affected:	845, 850, 859, 869, 889
What changed?	Communication settings are editable in Offline Mode

3.3 Parallel Redundancy Protocol (PRP)

Section:	61850 Configuration
Impact to customer:	When Parallel Redundancy Protocol (PRP) is configured on ports 2 and 3, these ports should be logically combined into a single access point (S2), but they are still displayed as individual ports in CID.
Products Affected:	845, 850, 859, 869, 889
What changed?	Logic improvement in IEC61850 Configuration Tool

3.4 FlexLogic equation editor "Output Relays Voltage"

Section:	FlexLogic
Impact to customer:	Output Relay Voltage Monitoring operands missed from FlexLogic operand list.
Products Affected:	845, 850, 859, 869, 889
What changed?	Output Relay Voltage Monitoring operands added back into the FlexLogic operand list.

3.5 Modbus Protocol

Section:	Configuration Tool
Impact to customer:	Missing Ethernet port settings for '1P' Communication Order Code.
Products Affected:	845, 850, 859, 869, 889
What changed?	Logic improved to support '1P'.

3.6 Loss of Excitation

Section:	Configuration Tool
Impact to customer:	Loss of Excitation settings missed from the 889 Settings Tree.
Products Affected:	889
What changed?	Logic corrected to show Loss of Excitation settings.

3.7 User Map Parameters

Section:	Configuration Tool
Impact to customer:	'Compare Settings File' showing incorrect results.
Products Affected:	845
What changed?	Logic corrected for 'Compare Settings File'.

3.8 Conversion

Section:	Conversion
Impact to customer:	The following errors were corrected <ol style="list-style-type: none">File conversion from 3.0x to 2.9x not supportedRTD Settings not converting properlyGOOSE Reception settings removed during conversionConverting 750 to 850 – selected the wrong curve type settingsConverting v2.40 to v4.10 was not properly configuring Phase TOC and Ground TOC settings750 to 850 conversion summary not correct
Products Affected:	845, 850, 859, 869, 889
What changed?	Logic corrected for converting settings files

3.9 Preferences - Setting File Transfer - Write Comms Range

Section:	Configuration Tool
Impact to customer:	Preferences not clearly indicating the firmware revision that supported the writing of communication settings.
Products Affected:	845, 850, 859, 869, 889
What changed?	Preferences dialog updated to show the firmware version.

3.10 RMIO RRTD Configuration

Section:	Configuration Tool
Impact to customer:	Issues with configuring RMIO RRTD with an offline CID file.
Products Affected:	845, 850, 859, 869, 889
What changed?	Logic corrected.

3.11 XFMR Thermal Capacity Setpoint

Section: Configuration Tool
Impact to customer: Customer could not edit 'Xfmr Thermal Capacity' setting
Products Affected: 845
What changed? Logic improved to allow the setting to be modified.

3.12 Invalid IP Mask

Section: Conversion
Impact to customer: Issue creating an 869 file from a 369 settings file, where the IP addresses are not defaulted in the 369 settings file.
Products Affected: 869
What changed? Logic corrected.

3.13 User Map Parameters

Section: Configuration Tool
Impact to customer: 850 User Modbus Map not showing correct descriptions
Products Affected: 850
What changed? Logic corrected.

3.14 Copy Error from Group 1 to Group 2

Section: Configuration Tool
Impact to customer: Customer not able to copy from Group 1 to Group 2.
Products Affected: Multilin Agile
What changed? Logic corrected to support copying of Groups.

3.15 Phase OV, Neutral OV, and V/Hz missed Reset Rate settings

Section: Conversion
Impact to customer: Customer familiar with 489 does not see similar configuration for 'Reset Rate' on the 889.
Products Affected: 889
What changed? Logic updated.

3.16 Upgrade impact

- No Known issues.

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

Region	E-mail	Comments
Global Contact Centre	ga.support@ge.com	+44 1785 250070
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