Field Communicator Resource CD ReadMe Rev. A August 2009

### CONTENTS

1. Resource CD overview

2. Field Communicator Easy Upgrade Utility

3. System Software

- 4. Device Descriptions on the Resource CD
- 5. Technical Support on items in the Resource CD

### RESOURCE CD OVERVIEW

The Resource CD contains the Field Communicator Easy Upgrade Utility and System Software/DD Database. Sections 2, 3, and 4 in this document provide additional information on these items. The Resource CD also contains the documentation on the www.fieldcommunicator.com website, including the electronic copies of the Field Communicator manuals, certification documents, menu trees, etc. If the Resource CD main screen containing a link to this product information does not automatically appear, complete the following steps:

- 1. Insert the Resource CD into your CD-ROM drive.
- 2. From your PC desktop, double-click My Computer.
- Right-click the CD-ROM drive containing the Resource CD and select Open.
- 4. Double-click resourcecd.exe.

2. Field Communicator Easy Upgrade Utility

PC REQUIREMENTS FOR THE EASY UPGRADE UTILITY

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Your PCs must meet the hardware and software requirements to ensure successful installation and operation of the Easy Upgrade Utility.

### Windows User Accounts

Your Windows user account must have the following privileges to install and run the Easy Upgrade Utility:

-Windows administrator rights

-Full access to the Field Communicator Easy Upgrade Utility program folder in the install directory. The default location of this folder is C:\Program Files\Field Communicator Easy Upgrade Utility 3.0.

-The ability to access the Emerson Distribution web site on the Internet to download new system software and device descriptions.

### Software

- -.NET Framework 2.0 or higher installed on your PC. You can access the install file for .NET from http://www.microsoft.com/downloads/details.aspx?FamilyID=0856EACB-4362-4B0D-8EDD-AAB15C5E04F5&displaylang=en or by double-clicking dotnetfx.exe at the root of this Resource CD. If you see a message indicating windows 3.1 Installer is also required, double-click WindowsInstaller-KB893803-v2-x86.exe at the root of this Resource CD to install it.

  -Microsoft SQL Server 2005 Compact Edition (included with the Easy Upgrade Utility
- install program).

-Internet Explorer 6.0 or 7.0.

-Windows Vista Business Service Pack 1 or XP Professional Service Pack 2 or 3 must be installed on your PC prior to installing the Easy Upgrade Utility. (Windows 64-bit operating systems are not supported.) If your PC does not have the correct service pack installed, or you are unsure, contact your network administrator.
-windows DPI Display Setting at 96 DPI.

-Proxy server settings disabled while running the Easy Upgrade Utility.

# Hardware

### Minimum Hardware Requirements

- -1GB of free hard disk space (more space may be required as you add file packages, such as system software updates or device descriptions.)
- -256MB RAM
- -866MHz processor
- -Internet connection (required when using the Update PC and Online Licensing features)

### Approved Secure Digital (SD) Card Readers

- -SanDisk SDDR 104 (Part Number 00375-0018-0022)
- -SanDisk SDDR 99 A15 Firmware Version 4 -SanDisk SDDR 33 Firmware 0205
- -Kingston Travel Lite FCD HS2 MMC
- -Internal card readers in the following Panasonic Toughbook models: CF-19, CF-29, and CF-30

Use of any other SD card readers may result in corrupted files. Technical Support personnel may be able to assist you in recovering these files; however, Emerson Process Management is not responsible for any additional costs.

### Bluetooth Adapters for a PC

An approved Bluetooth adapter is required for the Easy Upgrade Utility to communicate with a 475 Field Communicator licensed for Bluetooth. This adapter must use the Windows Bluetooth software and drivers included with Windows XP Professional Service Pack 2 or 3 or Windows Vista Professional Service Pack 1.

If you have other third-party Bluetooth software and drivers already installed on your PC, the required Windows drivers may not be used by the adapter and it will not be plug-and-play.

An error message appears from the Easy Upgrade Utility if it cannot find a Bluetooth adapter using the Windows software and drivers. You can set the adapter to use these drivers by following the procedure in the Easy Upgrade Help. (Click the Help button from any window in the application and search for the "Set up the Bluetooth adapter" procedure.) Additional Bluetooth troubleshooting information is in the Easy Upgrade Utility Help.

### Approved Bluetooth Adapters

- -SMK-Link VP6494 USB 2.0 adapter -Internal Bluetooth adapters in the Panasonic Toughbook CF-29 and CF-30

### INSTALLATION INSTRUCTIONS FOR THE FIELD COMMUNICATOR EASY UPGRADE UTILITY

Each time you insert the Resource CD into the CD-ROM drive of your PC, a screen should launch that has a links to product documentation and the Easy Upgrade Utility install program. If you have a Resource CD with software newer than what is on your PC, click the Easy Upgrade link at the bottom of the screen, and follow the install wizard instructions.

If the install wizard does not launch automatically or you do not see the link, you can also manually launch the install wizard by following these steps:

- From your PC desktop, double-click My Computer.
- 2. Right-click the CD-ROM drive containing the Resource CD and select Open.
  3. Double-click TPUinstall.exe located at the root of the Resource CD.
- 4. Follow the prompts from the install program.

Note When the install wizard prompts you for a location to install the Easy Upgrade Utility, do not select a root directory, for example, "C:\" or "D:\". The default install location is C:\Program Files\Field Communicator Easy Upgrade Utility 3.0.

After the install completes, open the Easy Upgrade Utility by selecting Start | All Programs | Field Communicator Easy Upgrade Utility | Field Communicator Easy Upgrade Utility. Then click the Update PC button on the Upgrade window to download the latest System Software and DDs.

Be sure to keep the current version of this CD in a safe location. (Check the date code on the front of the Resource CD to determine your latest version.) The CD is both your backup (for when you want to install the Easy Upgrade Utility on a new PC, or reinstall it on the original PC) and an important source of reference information.

# Easy Upgrade Utility Software Versions

Version 3.0

Released August 2009

The Easy Upgrade Utility has been redesigned for this release. It has also been renamed from the "375 Easy Upgrade Programming Utility" to the "Field Communicator Easy Upgrade Utility".

New features include:

- -Ability to save (back up) and print HART configurations from a System Card, Internal Flash, or Expansion Module using the Easy Upgrade Utility. Your Field Communicator must be licensed for Device Configuration Management.
- -Support for Bluetooth communication with a 475 Field Communicator licensed for Bluetooth.
- -Ability to set the Easy Upgrade Utility to automatically check for new system software and device descriptions when the program is opened.

This version was first distributed on Resource CD Rev A.

Version 2.0.3 - obsolete

Released February 2008

The Programming Utility now lets you manage the memory in your 375 System Card by filtering out DDs from selected manufacturers. See the Easy Upgrade Programming Utility Help for more information on system card memory management.

The Transfer All and Cancel buttons were removed from the DDs, User Data, and Event Capture tabs. The Transfer All option in the File menu was also removed.

This version was first distributed on Resource CD Rev. R.

Version 1.6.0 - obsolete

Released May 2007

The Programming Utility now has an Online Licensing feature that lets you add new functionality to your 375 Field Communicator without sending it to a service center. You can purchase and enable licenses for the FOUNDATION fieldbus application, the Easy Upgrade option (new and renew), and the Graphics option. Before purchasing and downloading new licenses, you need to set up an account and register your 375s.

In version 1.6.0, you can use a USB Secure Digital (SD) card reader to transfer system software and device descriptions to a 375 System Card. When upgrading to 375 system software version 2.0, a card reader must be used.

This version was first distributed on Resource CD Rev. M.

Version 1.3.1 - Obsolete

Released March 2005

The Programming Utility includes enhancements for network communication and localization.

This version was distributed by Technical Support personnel, as necessary.

Version 1.3.0 - Obsolete

Released July 2004

The Programming Utility no longer performs an auto Detect 375 on startup as it did in version 1.1.1. The basic steps are:

- Launch the Easy Upgrade program.
   Click Check for Updates.
- 3. Click Detect 375.

(See the Easy Upgrade Programming Utility Help for detailed instructions.)

This version was first distributed on Resource CD Rev. E.

Version 1.2.6 - Obsolete

Released June 2004

This version was first distributed on Resource CD Rev. D.

Version 1.1.1 - Obsolete

Released July 2003

This version was the initial release of the Programming Utility. It was distributed on Resource CDs Rev. A, B, and C.

# Easy Upgrade Utility Discrepancies

- -Condition: The message "Windows administrator rights are required to use this application" appears when you try to open the Easy Upgrade Utility on multiple PCs that access a common PC Database on a network. The Easy Upgrade Utility will display the error message and then close. Only one PC running the Easy Upgrade Utility can access a PC Database on a mapped network drive at a time.
- -Workaround: Ensure only one PC on a LAN is running the Easy Upgrade Utility and accessing the PC Database at a time. (This affects version 3.0)
- -Condition: When you try to print a HART configuration file, a message indicating a printer could not be found appears or the Easy Upgrade Utility closes.
  -Workaround: You may need to select a different printer. Due to limitations within windows Vista, some printers may not be accessible to the Easy Upgrade Utility. (This affects version 3.0)
- -Condition: Configurations viewed or printed from the Easy Upgrade Utility may be displayed incorrectly if they were transferred to a Field Communicator from AMS Device Manager or if you created or saved them using Field Communicator System Software version 2.5 or earlier.
- -Workaround: Open and resave the configuration files on a Field Communicator with System Software version 3.0 installed. Then transfer these files to the Easy Upgrade Utility and try to view or print them. (This affects version 3.0)
- -Condition: Removing and reinserting the Bluetooth adapter on your PC while the 475 is connected using Bluetooth will disconnect the 475. When you try to reconnect the 475 using Bluetooth, a message indicates that no Field Communicators were found. -Workaround: Ensure the adapter is connected and reboot the PC. Open the Easy Upgrade Utility and then try to reconnect the 475 Field Communicator using Bluetooth.

(This affects version 3.0)

- -Condition: Double-clicking on a User Data File (.txt) from the PC Database side of the User Data tab may display unreadable characters. The User Data tab is on the Upgrade window.
- -workaround: Open the file from the Scratchpad application in the Field Communicator or from Notepad on a PC to view its contents. (This affects version 3.0)
- -Condition: When a version of the System Software is obsolete, it cannot be downloaded to the Field Communicator. If you view the list of System Software in the PC Database (System Software tab) without a Field Communicator or System Card connected, it will incorrectly show a yellow (downgrade) icon for obsolete System Software. When a Field Communicator is connected, the correct red (download blocked) icon appears.

-Workaround: No action is required. (This affects versions 3.0, 2.0.3, 1.6.0, 1.3.0, 1.2.6, and 1.1.1.)

# Technical Support for the Easy Upgrade Utility

For Technical Support on the installation and use of the Easy Upgrade Utility, contact Emerson Sure Service (Global Service Center) at 1-800-833-8314 or send an email to apsms@AP.EmersonProcess.com. Further Technical Support information can be found at http://www.fieldcommunicator.com.

### 3. SYSTEM SOFTWARE

Note: Interoperability testing between the 375 or 475 and other host systems is an ongoing process. To obtain the most up-to-date information on the results of this testing, go to http://www.fieldcommunicator.com.

The following is a list of System Software versions:

version 3.0

Released August 2009

Contains the following new functionality:

- -New licenses for Bluetooth and Device Configuration Management.
- -Ability to view the Easy Upgrade expiration date from the Settings Menu. (Double-tap Settings from the Field Communicator Main Menu, and then double-tap License.)
- -Ability to save HART device and user configurations to the System Card, if licensed for Device Configuration Management.
- -Support for color screens on the 475 Field Communicator.
- -Support for Bluetooth communication (if licensed) for the 475 Field Communicator.

Version 3.0 System Software is supported on both the 375 and 475 Field Communicator.

Contains the following new functionality:

- -Support for configuring HART revision 7 devices.
- -Two new polling options, Poll By Address and Poll Using Unique ID, were added to the HART application. The following polling options have been removed: Never Poll, Ask Before Polling, Always Poll, and Digital Poll.
- -Support for fieldbus device menus that organize parameters by function rather than by block. Options such as Overview, Configure, Service Tools, and Advanced may appear rather than the device's blocks. This device menu is the first online menu you will see when connected to a device. The Block List is still accessible from the Advanced menu. The DD determines if these new device menus are displayed.

Version 2.3 - Obsolete (Superseded by System Software version 3.0)

Released June 2008

Contains fixes to the following discrepancies in the HART application:

- -An "unknown enumerator" message appears and the HART application cannot be opened after editing parameters for HART revision 3 and 4 devices.
- -The HART application cannot be opened after setting up a hot key for a device.
- -Configuration parameters for one device type can be inadvertently sent to a different device type with a matching device revision.

Version 2.0 - Obsolete (Superseded by System Software version 3.0) Released May 2007

Contains the following new functionality:

- -Enhanced EDDL functionality from the version 1.9 and 1.91 releases
- -New Windows CE operating system -Faster boot-up time
- -Improved power management functionality
- -New functionality in the FOUNDATION fieldbus application, including block instantiation, a mode button to quickly change the block mode, and new segment diagnostics.

Version 1.91 - Obsolete (Superseded by System Software version 3.0) Managed Release September 2006

Contains support for graphic-related enhancements to EDDL for HART and FOUNDATION fieldbus devices.

Enhanced Graphic Device Descriptions are not available for download using the Easy Upgrade Programming Utility. Instructions for downloading these device descriptions for the 375 can be obtained by entering the URL below into the address field in Internet Explorer:

http://www.fieldcommunicator.com/downloads/Enhanced\_DD\_Downloads.pdf

Continue to use the Easy Upgrade Programming Utility for all non-EDDL device support.

Version 1.9 - Obsolete (Superseded by System Software version 3.0) Managed Release January 2006

Contains support for graphic-related enhancements to EDDL for HART devices.

Enhanced Graphic Device Descriptions are not available for download using the Easy Upgrade Programming Utility. Instructions for downloading these device descriptions for the 375 can be obtained by entering the URL below into the address field in Internet Explorer:

http://www.fieldcommunicator.com/downloads/Enhanced\_DD\_Downloads.pdf

Continue to use the Easy Upgrade Programming Utility for all non-EDDL device support.

Version 1.8 - Obsolete (Superseded by System Software version 3.0)

Released June 2004

Contains HART® application version 1.0, FOUNDATION $^{\text{M}}$  fieldbus application version 2.0, and CDC Firmware version 1.3.

Starting with this release, the original default battery power settings are "Power Save" = 5 Minutes and "Auto-Off" = 30 minutes. Default for "On external power" will remain the same (never).

Starting with this release, in the FOUNDATION fieldbus application, the minimum setting allowed for V(FUN) (first unpolled address) is 20.

Version 1.7 - Obsolete (Superseded by System Software version 3.0)

This version was a limited release to address the issue detailed in the Knowledge Base Article "375F Field Communicator with DeltaV Series 1 H1 Card (KJ3004X1-BA pn 12P1046)" which can be found on this CD at x:\Suppkba.htm.

Contains HART® application version 1.0, CDC Firmware version 1.3 and the FOUNDATION $^{\text{M}}$  fieldbus application version 1.1.

This is the first production version of System Software with a functioning FOUNDATION fieldbus application.

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This version does not contain fieldbus capability.

Version 1.4 contains HART® application version 1.0, CDC Firmware version .7 and the FOUNDATION $^{\rm M}$  fieldbus application version 0.2.

Version 1.4 implemented a preamble change to the HART Communication dll, which resolved an issue between the 375 and devices such as the Foxboro IMT25 and the Honeywell STT25.

Version 1.1 - Obsolete (Superseded by System Software version 3.0)

Released July 2003. This is the original System Software version.

Version 1.1 does not contain fieldbus capability.

Version 1.1 contains HART® application version 1.0, CDC Firmware version .7 and the FOUNDATION $^{\mathbb{N}}$  fieldbus application version 0.2.

# System Software Discrepancies

- -Condition: During a Re-Image or System Software/operating system upgrade, the Field Communicator may hang for more than 10 minutes on the splash screen that appears when the communicator restarts.
- -Workaround: Press the Backlight and FN (function) keys simultaneously to shut down the Field Communicator. Press the Power key to reboot and then select the Retry option at the bottom of the screen. If this does not resolve the issue, contact Technical Support for further instructions. (This affects version 3.0, 2.5, 2.3, and 2.0)

### HART Application

- -Condition: Occasionally, the HART application may be unable to send configurations to HART 5 devices when the polling address is greater than zero. The following error message may appear: "No netman table for specified handle (4210) [line 193, ] PRESS ANY KEY TO TERMINATE". After you press a key, the HART application exits to the Main Menu.
- -workaround: Set the polling address to zero and then try to resend the configuration. (This affects versions 3.0, 2.5, 2.3, and 2.0)

# Fieldbus Application

- -Condition: The Live Device List may be blank when the Field Communicator returns from standby mode.
- -Workaround: Return to the Fieldbus Application Main Menu and then double-tap Online. The Live Device List should display all connected devices. (This affects version 3.0)
- -Condition: A "Device uploading aborted" message may appear when trying to configure a MicroMotion 2700 device with a Field Communicator on a segment with a Yokogawa CS3000 host.
- -Workaround: Contact MicroMotion for a new .CFF file. (This affects version 3.0)
- -Condition: A "Program Memory Low" error may appear after the Field Communicator displays several large graphs.
- -workaround: On the Field Communicator keypad, press the Backlight and Fn (Function) keys simultaneously to shut down the Field Communicator. Then restart the Field Communicator. The error message may reappear after viewing more graphs. (This affects versions 3.0 and 2.5)
- -Condition: If a Field Communicator is connected to a fieldbus segment with a 3420 host, it is possible for the Field Communicator to inadvertently change the value and status of a device's I/O Function Block output when the I/O Function Block Tag Name is changed in the Field Communicator. This is because the output of these blocks could be mapped to Modbus registers which are, in turn, read by the control system. When the Tag Name of the block is changed, the mapping is broken resulting in the bad values and status going to the control system.

  -Workaround: Do not change I/O Function Block Tag names with the Field Communicator on
- -Workaround: Do not change I/O Function Block Tag names with the Field Communicator on a segment connected to a Rosemount 3420 Fieldbus Interface Module. (This affects versions 3.0, 2.5, 2.3, 2.0, 1.91, 1.9, 1.8, and 1.6)
- -Condition: If the Field Communicator is connected to a segment with a Yokogawa host and a Rotork valve, the host system may lose communication with the Rotork device while the Field Communicator is connected.

  -Workaround: A special feature file is available from Technical Support to prevent
- -Workaround: A special feature file is available from Technical Support to prevent this condition. This fix will prevent the Field Communicator from connecting to the Rotork valve, but it also prevents any disruption of communication between the Yokogawa host and the Rotork valve. This same situation may occur when some SMAR or K-TEK devices are connected to a Yokogawa host. (This affects versions 3.0, 2.5, 2.3, 2.0, 1.91, 1.9, and 1.8)

- -Condition: If the Field Communicator is connected to a segment with a Rockwell linking device, the host system may crash or time out.
- -Workaround: The Field Communicator should not be used on the same segment as a Rockwell linking device.

(This affects versions 3.0, 2.5, 2.3, 2.0, 1.91, 1.9, and 1.8)

- -Condition: Occasional inability to upload data from a fieldbus device (Device Upload
- -workaround: This can sometimes be corrected by changing the address of that device or by restarting the device. (Please note that this workaround will not work for SMAR LD302 devices.) This clears out the VCRs and allows the upload to complete. After several minutes, it may appear that the unit has hung. However, the Field Communicator is not hung in this case. You can back out of the detail view with the back arrow and ignore the warning message by selecting YES. In most instances, the operation will complete successfully. Do not use this technique when changing the address on a normal device that does not experience the upload problem. (This affects versions 3.0, 2.5, 2.3, 2.0, and 1.8)
- -Condition: You are unable to change the address of a device. (Note: it is not recommended to have the Field Communicator change a device address when the device
- is connected to a control system as it may cause unpredictable behavior.)

  -Workaround: Check to see if the Field Communicator is the Link Active Scheduler

  (LAS). If it is not, then determine if the device that you are trying to change the address of is a backup LAS, and might be behaving as the LAS. (Note: The Field Communicator is unable to change the address of a device that is actively the LAS.) Establish communication by putting the Field Communicator on the segment first and then adding the devices. By putting the Field Communicator on first, it will remain the LAS and allow the address change. (This affects versions 3.0, 2.5, 2.3, 2.0, 1.8, and 1.6)

- -Condition: The Field Communicator is connected to a segment in a bench configuration and the Live List remains blank (even the Field Communicator does not appear).

  -Worknown: Establish communication by putting the Field Communicator on the segment first, and then adding the devices. This issue is caused by the speed at which certain LAS enabled devices are attempting to run the segment. By putting the Field Communicator on first, it should remain the LAS and control the communication. (This affects versions 3.0, 2.5, 2.3, 2.0, 1.8, and 1.6)
- -Condition: The backup LAS takes over when you want to have the Field Communicator remain as the LAS on a segment.
- -Workaround: The likelihood that the backup LAS will take over is related to the device address and Slot Time. The lower the address and Slot Time of the device, the more likely this will occur. Check www.fieldcommunicator.com for the Knowledge Base Article detailing Slot Time issues. (This affects versions 3.0, 2.5, 2.3, 2.0, 1.8, and 1.6)
- -Condition: A device that is connected to the segment is not appearing on the live
- -Condition: A device that is connected to the segment is not appearing on the live list. (Note: For some older devices, you may need to change the Slot Time to 16 in order for the device to be seen on the live list.)

  -workaround: Verify the wiring installation is correct. If it is, then this may be caused by a Slot Time issue. You can change the Slot Time in the Field Communicator in the Link Settings window (FOUNDATION Fieldbus Application | Utility | Link Settings). Check www.fieldcommunicator.com for the Knowledge Base Article detailing Slot Time issues.

(This affects versions 3.0, 2.5, 2.3, 2.0, 1.8, and 1.6)

- -Condition: If the Field Communicator is connected to a segment with DeltaV, and a device on the same segment is commissioned using DeltaV, the Field Communicator will be unable to communicate with this device.
- -workaround: Go offline and then back online to establish communication. (This affects versions 2.5, 2.3, 2.0, 1.8, and 1.6)

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### 4. DEVICE DESCRIPTIONS ON THE RESOURCE CD

A list of HART and FOUNDATION fieldbus device descriptions (DDs), contained in the PC Database of this CD, is located at x:\Documents\General or x:\syssoftdds.html (where x is the CD drive).

To determine if new DDs have become available since the creation of this CD, or if previously Untested DDs have now become Tested, visit www.fieldcommunicator.com or click the Update PC button on the Upgrade window in the Easy Upgrade Utility. (An Internet connection is required. You may also be required to log in to PartnerNet.)

To see which DDs are available in your PC Database or connected Field Communicator, go to the "DDs" tab on the Upgrade window in the Easy Upgrade Utility. (See the Field Communicator User's Manual for instructions on using the Field Communicator to view the list of available DDs.)

### Tested vs. Untested DDs

The devices listed as Tested have passed the Field Communicator test requirements. The devices listed as Untested have demonstrated basic operational compliance, but have not yet met full Field Communicator test requirements.

DDs that have not passed the Field Communicator test requirements are listed as Untested and are not included on the System Cards shipping from the factory.

For Field Communicators licensed for Easy Upgrade, the Easy Upgrade Utility may be used to transfer these Untested DDs for immediate use. Note: Untested DDs must be selected individually for them to be transferred. Clicking the Upgrade Field Communicator button, Upgrade System Card button, or Select All button will not cause Untested DDs to be transferred to a Field Communicator.

Most, if not all, DDs currently listed as Untested will become Tested at some time in the near future. Once the requirements are met, Tested versions will be made available for download by using the Update PC feature of the Easy Upgrade Utility.

### Omitted DDs

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Omitted DDs are those in which the device manufacturer has taken no action or shows no interest in verifying basic operational compliance with the Field Communicator. When interfacing with these devices, you will be limited to generic functionality. The only device descriptions that have been omitted are those from the following manufacturers:

### HART Devices

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Apparatebau Hundsbach (0x71) - all devices Tokyo Keiso (0x82) - FST3000 device Young Tech (0xB4) - all devices

### 5. TECHNICAL SUPPORT ON ITEMS IN THE RESOURCE CD

J. TECHNICAL SUPPORT ON THEMS IN THE RESOURCE CD

For Technical Support on items in this Resource CD, contact Emerson Sure Service (Global Service Center) at 1-800-833-8314 or send an email to "apsms@AP.EmersonProcess.com". Further Technical Support information can be found at http://www.fieldcommunicator.com.