

# SoftLogix 5800 Controller

Catalog Numbers 1789-L10, 1789-L30, 1789-L60

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# Important User Information

Solid-state equipment has operational characteristics differing from those of electromechanical equipment. Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls (Publication [SGI-1.1](#) available from your local Rockwell Automation® sales office or online at <http://www.rockwellautomation.com/literature/>) describes some important differences between solid-state equipment and hard-wired electromechanical devices. Because of this difference, and also because of the wide variety of uses for solid-state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.





In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

	<b>WARNING:</b> Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.
	<b>ATTENTION:</b> Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard and recognize the consequences.
	<b>SHOCK HAZARD:</b> Labels may be on or inside the equipment, for example, drive or motor, to alert people that dangerous voltage may be present.
	<b>BURN HAZARD:</b> Labels may be on or inside the equipment, for example, drive or motor, to alert people that surfaces may reach dangerous temperatures.
<b>IMPORTANT</b>	Identifies information that is critical for successful application and understanding of the product.

## About the SoftLogix 5800 Controller

The type of SoftLogix™ 5800 controller you use determines how many slots are available in the virtual chassis and how many devices you can install.

Controller Type	Maximum	Available Slots
1789-L10	<ul style="list-style-type: none"> <li>• One SoftLogix 5800 controller</li> <li>• Memory size limit of 2 MB per controller</li> <li>• Two PCI network interface cards, which can be a mix of:<sup>(1)</sup> <ul style="list-style-type: none"> <li>– One 1784-PCICS</li> <li>– One 1784-PCIC</li> <li>– One 1784-PCIDS</li> <li>– One EtherNet/IP card<sup>(2)</sup></li> </ul> </li> <li>• No motion support</li> <li>• One 1784-SIM module</li> <li>• No third-party virtual-backplane module support</li> </ul>	3-slot virtual chassis <sup>(3)</sup>
1789-L30	<ul style="list-style-type: none"> <li>• Two SoftLogix 5800 controllers</li> <li>• Memory size limit of 64 MB per controller</li> <li>• Five PCI network interface cards<sup>(4)</sup></li> <li>• Two 1784-PM02AE analog motion cards</li> <li>• One 1784-PM16SE SERCOS motion card</li> <li>• Five 1784-SIM modules</li> <li>• EtherNet/IP support</li> <li>• Third-party virtual-backplane module support</li> </ul>	5-slot virtual chassis
1789-L60	<ul style="list-style-type: none"> <li>• Six SoftLogix 5800 controllers</li> <li>• Memory size limit of 64 MB per controller</li> <li>• Sixteen PCI network interface cards<sup>(4)</sup></li> <li>• Four 1784-PM02AE analog motion cards</li> <li>• Four 1784-PM16SE SERCOS motion cards</li> <li>• Sixteen 1784-SIM modules</li> <li>• EtherNet/IP support</li> <li>• Third-party virtual-backplane module support</li> </ul>	16-slot virtual chassis

- (1) Even though the 1789-L10 controller supports two PCI network interface cards, each card must be a different network card. You cannot have two of the same cards installed in the computer.
- (2) You can have one EtherNet/IP network via PCI bus card or embedded EtherNet/IP port on the personal computer's motherboard.
- (3) As of version 12 of the SoftLogix 5800 controller, the 1789-L10 controller supports 3 slots in the virtual chassis.
- (4) The number of available slots in the virtual chassis is limited by activation level. You can have as many PCI communication cards as you have available slots in the virtual chassis and in the personal computer.

**IMPORTANT** SoftLogix 5800 controllers and software do not support Integrated Motion on the EtherNet/IP network.

These PCI-based cards are not supported on the Microsoft 2003 Server operating system:

- 1784-PM13SE
- 1784-PM02AE

These PCI-based cards are not supported when using the Microsoft Windows Vista or Windows 2008 Server operating systems:

- 1784-PCIDS
- 1784-PM16SE
- 1784-PM02AE

All PCI-based cards are not supported when using the Microsoft Windows 7 operating system.

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## Before You Begin

**IMPORTANT** We recommend that you read the appropriate release notes for software requirements, compatible PCI cards and driver, and system requirements. To locate the release notes for your system, search for 1789-RN in Literature Library at <http://www.rockwellautomation.com/literature>.

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Before you can install the SoftLogix 5800 controller you need to perform the following steps.

1. Log into Windows under an account that is a member of the Administrators user group on the computer where you are installing the SoftLogix 5800 controller.

To log in as a member of the Administrators group, your user account must be added to the Administrators group on the computer. Ask your system administrator if you need help.

2. Install or verify that the following Windows services (required by the SoftLogix 5800 controller) are running.

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These services are automatically installed when you install Windows Networking or RAS:

- Server
- Workstation

If you are using Microsoft Windows 2000 or Windows XP operating systems, follow these steps.

1. Right-click the My Computer icon, and from the pull-down menu, choose Manage.

This opens the Computer Manager tool.

2. Select the Services and Applications folder to verify that the required services are running.

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**IMPORTANT** A machine running SoftLogix software does not support a remote desktop.

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## Install RSLinx Software

Before you install the SoftLogix 5800 controller, make sure that RSLinx® software is installed on the computer. A separate CD with RSLinx software ships with the SoftLogix 5800 controller.

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**IMPORTANT** In Microsoft Windows Vista, Windows 2008 Server, and Windows 7 operating systems, when RSLinx software is running as a service, the RSLinx driver configuration GUI is not available.

To invoke the RSLinx GUI, remove all SoftLogix controllers from the chassis monitor and use the RSLinx Control Panel to start RSLinx software as an application instead of a service.

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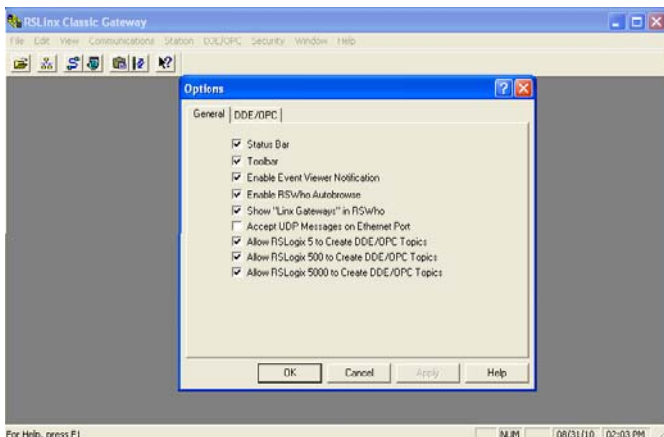
When installing drivers using RSLinx software, you must clear the UDP messaging checkbox. Follow these steps to clear the checkbox.

1. Launch RSLinx software.

2. From the View menu, choose Options.



3. On the Options dialog box, clear the Accept UDP Messages on Ethernet Port checkbox.



4. Click OK.

## Install the SoftLogix 5800 Controller

**IMPORTANT**

If you have a previous version of the SoftLogix 5800 controller already installed on the computer, use Add/Remove Programs to remove that earlier version before installing the current version.

When you insert the installation DVD into your CD ROM drive, the DVD automatically begins the set-up program for the controller. If your computer meets the hardware and software requirements for the controller, you can install the controller.

1. Verify that the version of RSLinx software that meets your system requirements is installed on the computer.
2. If RSLinx software is already running, shut it down before beginning this installation procedure.
3. Insert the SoftLogix 5800 installation DVD.
4. From the installation window, click SoftLogix 5800.



5. Follow the set-up wizard.
6. Microsoft recommends that you re-apply the Service Pack after installing other software packages.

## FactoryTalk Activation

There are two types of FactoryTalk® activations to activate the SoftLogix 5800 controller license—node-locked and concurrent.

### Node-locked Activation

Node-locked activation can be used only on the computer where the activation is locked (on the personal computer the license was purchased for). It is always locked to a specific piece of hardware, for example, an Ethernet card, a hard disk, or a dongle.

### Concurrent Activation

Concurrent activation is used in a server-client environment and is a type of activation that lets multiple computers across a network use Rockwell Automation software products concurrently. A concurrent activation can ‘float’ to, or be borrowed temporarily from, an activation server for a specific period of time before expiring and returning automatically to the pool of available activations on the server. Concurrent activations can be borrowed only if your Rockwell Software® product supports borrowed activations.

If you want to check out a concurrent activation from an activation server, you do not need to use the Rockwell Software Activation website. You can use the FactoryTalk Activation Manager to configure your client computer to recognize the activation server computer where concurrent activations are stored.

## Run the FactoryTalk Activation Manager

You must have the FactoryTalk Activation Manager installed on the personal computer where the activation will reside. The FactoryTalk Activation Manager is a software program that manages activations for the Rockwell Software products installed on the computer. The FactoryTalk Activation Manager opens automatically when you install a new Rockwell Software product.

You can also run the tool from the Windows Start menu by choosing Start>Programs>Rockwell Software>FactoryTalk Activation>FactoryTalk Activation Manager.

To download the latest version of the FactoryTalk Activation Manager, see <https://licensing.rockwellsoftware.com>.

From the Main Menu, click Downloads and choose FactoryTalk Activation Manager.

You need to have the following information available to activate your license. The FactoryTalk Activation Manager can help you obtain the following:

- Host ID
- Serial Number
- Product Key

Item	Description
Host ID	This is found by using the FactoryTalk Activation Manager. Choose Start>Programs>Rockwell Software>FactoryTalk Activation>FactoryTalk.
Serial Number	This is a 10-digit number supplied to you when you purchased your product.
Product Key	This is usually found in a red envelope that is shipped with your product.

To start activation, follow these steps.

1. On the Home Page, from the main menu, choose Get Activations.

## Rockwell Automation

### Rockwell Software

Rockwell

#### Rockwell Software

- ▶ [Activation Home](#)
- ▶ [Get Activations](#)
- ▶ [Downloads](#)
- ▶ [Rehost Activations](#)
- ▶ [Activation Videos](#)
- ▶ [Activation Help](#)

#### Step 1 of 3: Enter activation information

- Select Host ID Type
- Enter Host ID which identifies the computer
- Enter Serial Numbers and Product Keys

**To obtain the Host ID with Factory**  
*On the Get Activation Tab, select the computer associated with that computer.*  
**To obtain the Host ID without Factory**

- Enter the following activation information:
  - Host ID
  - Serial Number
  - Product Key

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## Rockwell Software

### Rockwell Software Activation

#### Rockwell Software

#### Step 2 of 3: Verify activation information

▶ Activation Home

Verify the activation information listed below. If it is not correct, click Back, below, and re-enter.

▶ Get Activations

— Verify that the serial # and product key match the Product Name, Product Revision, Activation Type that and the type the correct information.

▶ Downloads

**Tip**

— NOTE: If you are obtaining concurrent activations for an activation server computer, select the number of then click **Next**.

▶ Rehost Activations

▶ Activation Videos

▶ Activation Help

Host ID	Serial Number	Product Key	Product Name	Product Revision	Activation Type	Activation T
001958dabf52	2905103824	2mkgi-07dzg	FTGoldMaster Sales	1.09.00	Node-Locked	Expires on 02/28/2010

< Back   Next >   Cancel

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- Click Next.

- Click Download Node-Locked to download and install the activation files.

The screenshot shows the Rockwell Software Activation website. At the top, the Rockwell Automation logo is on the left, and 'Rockwell Software Activation' is on the right. Below the logo, the text 'Rockwell Software' is displayed. A navigation menu on the left includes 'Activation Home', 'Get Activations', 'Downloads', 'Rehost Activations', 'Activation Videos', and 'Activation Help'. The main content area is titled 'Step 3 of 3: Download and install activation files'. It contains instructions: 'The last step is to download your activation files and move them to the Rockwell Software Activation director drive activates your new Rockwell Software product.' Below this, a red line separates the text from the instructions: 'YOU MUST SAVE YOUR ACTIVATION FILE TO the Rockwell Software Activation directory on the spec location other than the default, you must identify the location on the FactoryTalk Activation Tools! The default activation directories for FactoryTalk Activation are: 3.0 and earlier - C:\Program Files\Common Files\Rockwell\Activations 3.01 and later - C:\Documents and Settings\All Users\Shared Documents\Rockwell Automation\Activations 3.01 and later (Windows Vista and Windows 2008 Server) - C:\Users\Public\Documents\Rockwell Automation\Activations'. An 'IMPORTANT!' note follows: 'If an activation directory already exists when you upgrade to 3.01, the existing activation path will permissions when activating software on Windows Vista, save all activation files in the Vista default'. A blue button with a hand cursor icon is labeled 'Download Node-Locked Activation File for Host ID 001644CADFA3'. Below the button, a 'CAUTION!' note states: 'DO NOT CLOSE YOUR BROWSER or switch to another web page, or click the Done button, below, unt'. A 'Done' button is located at the bottom of the main content area. The footer contains the text 'Copyright © 2010 Rockwell Automation. All Rights Reserved.'

- Click Done.

## Activation Tools and Rehosting

For information on Activation Tools and Rehosting Activations, see the Rockwell Software Activation website at <https://licensing.software.rockwell.com/Default.aspx>.

## Troubleshoot FactoryTalk Activations

There could be several reasons you might have trouble installing your activations:

- If you accidentally requested too few concurrent activations for a product, you can download more new activations for the same Host ID, provided a sufficient number of activations is available. You cannot download more activations than you purchased for use with your software.

To purchase additional activations, contact your local Rockwell Automation sales office.

- If you accidentally requested too many concurrent activations for a product, you must rehost all of the activations, and then request the correct number of activations again.

For example, if you have 50 concurrent activations available for a product, and you intended to request 10 for a particular Host ID, but accidentally selected 13 in the Activations Requested list, you cannot return just the three activations you didn't want. You must rehost all 13 activations, and then download 10 activations to the correct Host ID.

- If you accidentally requested activations for the wrong Host ID (computer or dongle), you must rehost all of the activations you downloaded accidentally, and then request the activations again for the correct Host ID.
- If you accidentally requested activations for the wrong product, you must rehost all of the activations for that product, and then request the activations again.

For example, if you accidentally requested five concurrent activations for RSLogix™ 5000 instead of FactoryTalk® View SE software, you must rehost the five activations for RSLogix 5000 software, and then download five activations for FactoryTalk View SE software.

To obtain more information, go to the Rockwell Automation Activations Support website at

<http://www.rockwellautomation.com/support/activations.html>.

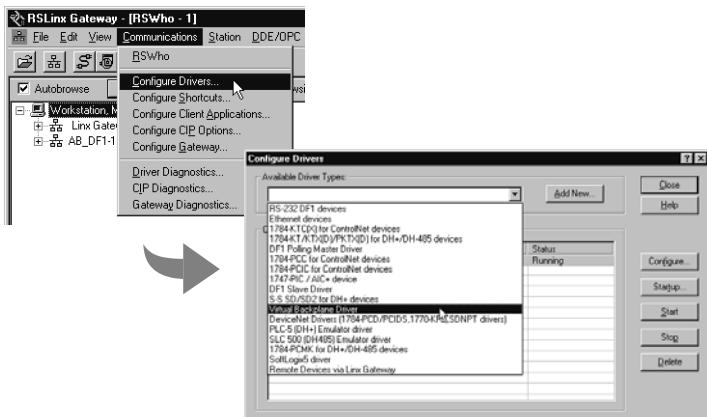
## Configure the RSLinx Virtual-backplane Driver

Use RSLinx software to configure the virtual-backplane driver. You do this only once for the computer.

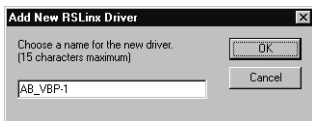
**IMPORTANT** The RSLinx virtual-backplane driver is required for SoftLogix software to operate.

To install the virtual-backplane driver follow these steps.

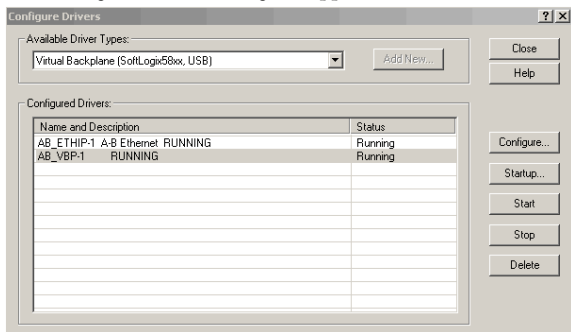
1. In RSLinx software, from the Communications pull-down menu, choose Configure Drivers.
2. From the Available Drives Type pull-down menu, choose Virtual Backplane Driver.



3. Click Add New.
4. Type the driver name, such as AB\_VBP-1, and click OK.

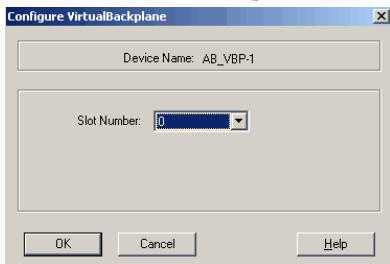


The Configure Drivers dialog box appears.



5. Click Configure.

The Configure VirtualBackplane dialog box appears. RSLogix 5000 software, version 20.00.00, lets you configure any of the SoftLogix modules in Slot 0 of the virtual backplane. The RSLinx software module defaults in Slot 0 if not set up for another slot position.



6. From the Slot Number pull-down menu, choose a slot number.
7. Click OK and then click Close.

### IMPORTANT

Even if you remotely program the controller over a ControlNet or Ethernet link, you must add the virtual-backplane driver via RSLinx software. If you do not, the SoftLogix application will not be restored when you restart the computer.

## Troubleshoot the SoftLogix 5800 Controller

The table describes the status of the controller.

**Table 1 - Troubleshooting the Controller**

Indicator	Status	Description
RUN	Off	The controller is in Program or Test mode.
	Green	The controller is in Run mode.
I/O	Off	Either of these is true: <ul style="list-style-type: none"> <li>• There are no devices in the I/O configuration.</li> <li>• The controller does not contain a project (controller memory is empty).</li> </ul>
	Green	The controller is communicating with all the devices in its I/O configuration.
	Green flashing	One or more devices in the I/O configuration of the controller are not responding.
	Red flashing	A virtual chassis error was detected. Contact your Rockwell Automation representative or local distributor.
FRC	Off	No tags contain force values. Forces are inactive (disabled).
	Flashing	At least one tag contains a force value. Force values are inactive (disabled).
	Green	Forces are active (enabled). Force values may or may not exist.
RS232 <sup>(1)</sup>	Off	No COM port was selected.
	Green	The selected COM port was successfully assigned to channel 0 on the controller.
	Red	There is a COM port conflict or you selected an invalid COM port number.
BAT <sup>(1)</sup>	Off	Normal operation.
	Amber flashing	The controller is in Power-up mode.
	Red	Persistent storage for the controller has failed.

**Table 1 - Troubleshooting the Controller**

Indicator	Status	Description
OK	Red flashing	Recoverable fault.
	Red flashing	Recoverable fault.
	Red	<p>Non-recoverable fault. Do the following to correct:</p> <ol style="list-style-type: none"> <li>1. Remove the controller from the virtual chassis and then re-install the controller.</li> <li>2. Download the project.</li> <li>3. Place the controller in Run mode.</li> </ol> <p>If the problem continues to occur, contact your Rockwell Automation representative or local distributor.</p>
	Green	The controller is OK.

(1) Note that these status indicators function slightly different than the same status indicators on a ControlLogix® controller.

## Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

**Table 2 - Additional Resources**

Resource	Description
SoftLogix 5800 System User Manual, publication <a href="#">1789-UM002</a>	Provides an overview of the SoftLogix system.
SERCOS and Analog Motion Configuration and Startup, publication <a href="#">MOTION-UM001</a>	Provides information on using motion modules to configure a motion application.
Logix5000 Controllers Common Procedures Programming Manual, publication <a href="#">1756-PM001</a>	Explains common procedures for Logix5000 controllers.
Logix5000 Controllers General Instructions Reference Manual, publication <a href="#">1756-RM003</a>	References the general instructions for Logix5000 controllers.
ControlNet Universal PCI Communication Interface Card Installation Instructions, publication <a href="#">1784-IN003</a>	Provides instructions about how to install a ControlNet communication card.

**Table 2 - Additional Resources**

Resource	Description
16 Axis PCI SERCOS interface Card Installation Instructions, publication <a href="#">1784-IN041</a>	Provides instructions about how to install a PCI SERCOS interface card.
The PCI 2 Axis Servo Card Installation Instructions, publication <a href="#">1784-IN005</a>	Provides instructions about how to install a PCI 2-axis Servo Card.
Logix5000 Controllers Advanced Process Control and Drives Instructions Reference Manual, publication <a href="#">1756-RM006</a>	Provides an overview of process control drive instructions for Logix5000.
Logix5000 Controllers Motion Instructions Reference Manual, publication <a href="#">MOTION-RM002</a>	Provides list of the motion instructions for Logix5000™ controllers.
ControlNet Network Configuration User Manual, publication <a href="#">CNET-UM001</a>	Overview of how ControlNet modules are used in Logix5000 control systems.
DeviceNet Network Configuration User Manual, publication <a href="#">DNET-UM004</a>	Overview of how DeviceNet modules are used in Logix5000 control systems.
EtherNet/IP Network Configuration User Manual, publication <a href="#">ENET-UM001</a>	Addresses network communication.

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley® distributor or Rockwell Automation sales representative.

**Notes:**

## Rockwell Automation Support

Rockwell Automation provides technical information on the Web to assist you in using its products.

At <http://www.rockwellautomation.com/support>, you can find technical manuals, technical and application notes, sample code and links to software service packs, and a MySupport feature that you can customize to make the best use of these tools. You can also visit our Knowledgebase at <http://www.rockwellautomation.com/knowledgebase> for FAQs, technical information, support chat and forums, software updates, and to sign up for product notification updates.

For an additional level of technical phone support for installation, configuration, and troubleshooting, we offer TechConnect support programs. For more information, contact your local distributor or Rockwell Automation representative, or visit <http://www.rockwellautomation.com/support/>.

## Installation Assistance

If you experience a problem within the first 24 hours of installation, please review the information that's contained in this manual. You can also contact a special Customer Support number for initial help in getting your product up and running.

United States or Canada	1.440.646.3434
Outside United States or Canada	Use the <a href="#">Worldwide Locator</a> at <a href="http://www.rockwellautomation.com/support/americas/phone_en.html">http://www.rockwellautomation.com/support/americas/phone_en.html</a> , or contact your local Rockwell Automation representative.

## New Product Satisfaction Return

Rockwell Automation tests all of its products to ensure that they are fully operational when shipped from the manufacturing facility. However, if your product is not functioning and needs to be returned, follow these procedures.

United States	Contact your distributor. You must provide a Customer Support case number (call the phone number above to obtain one) to your distributor to complete the return process.
Outside United States	Please contact your local Rockwell Automation representative for the return procedure.

## Documentation Feedback

Your comments will help us serve your documentation needs better. If you have any suggestions on how to improve this document, complete this form, publication [RA-DU002](#), available at <http://www.rockwellautomation.com/literature/>.

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Publication 1789-IN001J-EN-P - November 2011

PN-129364

Supersedes Publication 1789-IN001I-EN-P - September 2010

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