

ControlLogix Remote I/O (RIO) Communication Module

Catalog Number 1756-RIO

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About This Publication

These release notes list the add-on profiles and firmware compatible with the ControlLogix[®] remote I/O communication module, and how to identify them, as well as corrected anomalies.

Studio 5000 Environment

The Studio 5000™ Engineering and Design Environment combines engineering and design elements into a common environment. The first element in the Studio 5000 environment is the Logix Designer application. The Logix Designer application is the rebranding of RSLogix™ 5000 software and will continue to be the product to program Logix5000™ controllers for discrete, process, batch, motion, safety, and drive-based solutions.



The Studio 5000 environment is the foundation for the future of Rockwell Automation® engineering design tools and capabilities. This environment is the one place for design engineers to develop all of the elements of their control system.

1756-RIO Module Compatibility

The following table lists compatible module series, hardware components, firmware revisions, and Add-on Profile (AOP) versions. To prevent errors, verify that you are using compatible items.

Series	Hardware Component ⁽¹⁾	AOP Version ⁽²⁾	Firmware Revision ⁽³⁾
B	N/A	2.1.1 or later	3.1.1. or later
A	ST	1.05.002 or later	2.2.1 or later
	Non-ST	1.05.002 (recommended)	Any

(1) See [Identify Hardware Component Version for Series A Modules on page 3](#) for more information.

(2) See [Identify AOP Version on page 4](#) for more information.

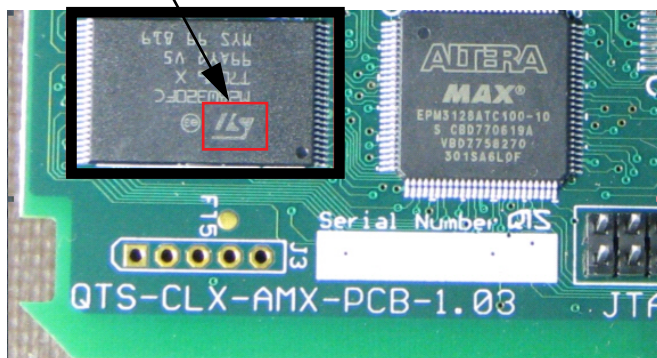
(3) See [Firmware Download on page 5](#) for more information.

IMPORTANT We recommend that all users install the latest AOP version to receive current updates.

Identify Hardware Component Version for Series A Modules

You can identify which hardware component you have by looking at the 1756-RIO module's circuit board at the bottom, rear corner of the module.

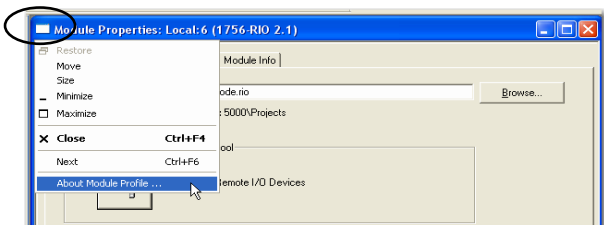
Hardware Component Shown with ST Stamp. Appears upside down here.



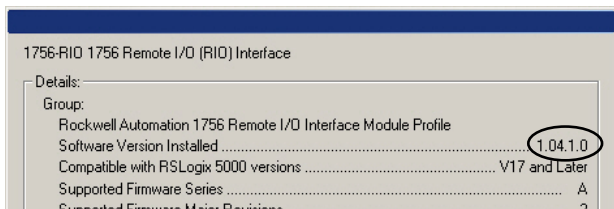
Identify AOP Version

To identify the AOP version in the Studio 5000 environment, complete the following steps.

1. Open the 1756-RIO Module Properties window.
2. Right-click the box in the top left-hand corner and choose About Module Profile.



The Module Profile Info window opens.



The circled area above shows where to locate the AOP version.

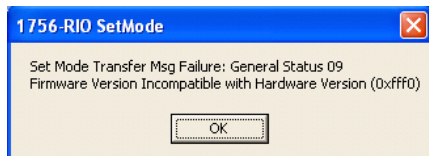
Firmware Download

To download firmware to the 1756-RIO module, choose Tools>Set 1756-RIO Module Scanner/Adapter Mode.

TIP You cannot update module firmware by using the ControlFLASH™ utility.

During the download process, a message indicating the revision of firmware that is being downloaded is displayed.

If you attempt to load incompatible firmware on a 1756-RIO module with an ST hardware component, it will fail with one of the following error messages.



Corrected Anomalies

The following anomalies were corrected in these updates.

Table 1 - Corrected Anomalies with Firmware Revision 3.2.1, AOP Version 2.4

Firmware Revision	AOP Revision	Description
3.2.1	2.4	<p>CORRECTED: If the user inhibits any rack, the 1756-RIO module (series B only) sends an incorrect output length to Rack 1 I/O grp 6-7, which causes only that rack (and not the 1756-RIO module) to fault. To clear this condition, the user can restart the 1756-RIO module by power cycling or a RIUP, or re-download its configuration. If the user does not have a quarter rack configured at Rack 1 I/O grp 6-7, this anomaly does not occur.</p> <p style="text-align: right;">Lgx139882</p> <p>CORRECTED: The min/max scale range values and their descriptions in module templates for the 1771-IFE-8CH, 1771-IFE-16CH, 1771-OFE, and 1771-OFE-diagnostic modules were limited to -4095...4095 in the 1756-RIO module (series A and B). Those limits are now -9999...9999.</p>

Table 2 - Corrected Anomalies with AOP Version 2.3.2

AOP Revision	Model	Description
2.3.2	Scanner/Adapter	CORRECTED: Support was added for computers running Windows 64-bit operating systems.

Table 3 - Corrected Anomalies with AOP Version 2.1.1

AOP Revision	Mode	Description
2.1.1	Scanner	CORRECTED: Fixed incorrect alias names for block transfers to racks greater than one.
	Scanner/Adapter	CORRECTED: Support was added for 1756-RIO series B.

Table 4 - Corrected Anomalies with AOP Version 1.05.002

AOP Revision	Mode	Description
1.05.002	Adapter	CORRECTED: An exported scanner configuration file now defaults to the *.rio extension.
	Adapter	CORRECTED: Rack status is now available for active racks. Additionally, aliases are properly created.
	Adapter	CORRECTED: Aliases can no longer be generated beyond the mapped length.
	Adapter	CORRECTED: Aliases are now created for all block-transfer status bits.
	Adapter	CORRECTED: Aliases are no longer generated for monitored inputs on active racks.
	Adapter	CORRECTED: Auto-configuration now captures all partial racks on rack 076.
	Scanner/Adapter	CORRECTED: Support was added for the new ST hardware component.

Additional Resources

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

Resource	Description
1756-RIO User Manual, publication 1756-UM534	Provides details about how to use the 1756-RIO module.
1756-RIO Installation Instructions, publication 1756-IN610	Provides details about how to assemble and mount the 1756-RIO module.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, http://www.ab.com	Provides declarations of conformity, certificates, and other certification details.

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.

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Rockwell Otomasyon Ticaret A.Ş., Kar Plaza İş Merkezi E Blok Kat:6 34752 İçerenköy, İstanbul, Tel: +90 (216) 5698400

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444
Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleedlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640
Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

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