



ControlLogix ControlNet Bridge Module

Catalog Numbers 1756-CN2, 1756-CN2R, Series A

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About This Publication

This release note provides software compatibility requirements and other usage consideration information for these modules. You should also use these documents with your modules.

Resource	Description
ControlLogix ControlNet Bridge Module Installation Instructions, publication 1756-IN602	Information about how to install your modules.
ControlNet Modules in Logix5000 Control Systems User Manual, publication CNET-UM001	Information about how to use your modules after installation.

View or download these publications at <http://literature.rockwellautomation.com>.

Required System Components

To use the 1756-CN2 and 1756-CN2R modules, you need the correct versions of RSLogix 5000 and RSLinx Classic programming software.

Software	Compatible Version
RSLogix 5000	16.0 or later
RSLinx Classic	2.51 or later

Corrected Anomaly for Firmware Revision 12.001

This anomaly has been corrected in firmware revision 12.001, series A.

Anomaly	Description
An input changes state during program execution.	Because the requested packet interval (RPI) and change of state (COS) functions are asynchronous to the logic scan, an input will change state during program execution if the RPI is shorter than the desired COS interval. <div style="text-align: right;">Lgx 00055557</div>

Enhancement for Firmware Revision 12.001

Firmware revision 12.001 includes this enhancement.

Enhancement	Description
CIP Safety Communication Support	GuardLogix controllers with firmware revision 16.06 support ControlNet CIP safety communication. This support allows GuardLogix controllers to distribute and control remote CIP safety I/O as well as produce and consume safety tag data between GuardLogix controllers on a ControlNet network. In RSLogix 5000 programming software, use a 1756-CN2 module to communicate over a ControlNet network.

Corrected Anomalies for Firmware Revision 10.008

These anomalies have been corrected in firmware revision 10.008, series A.

Anomaly	Description
1756-CN2 and 1756-CN2R modules stop communicating.	<p>All 1756-CN2 and 1756-CN2R modules with firmware revisions prior to 10.008 will stop communicating after 70.96 days of powered operation. If this occurs, the four-character display on the front of the module will be frozen and the OK LED indicator will be red.</p> <p>This problem can be avoided by removing and reinserting the ControlNet module, or cycling power to the chassis within the 71 days. Because the module will halt in another 70.96 days, you must perform a mandatory firmware upgrade to revision 10.008.</p>
1756-CN2R module may revert to using only channel A.	If the 1756-CN2R module is the only active keeper on the network while cycling power or there is a disruption, the module may revert to using only channel A.

Corrected Anomalies for Firmware Revision 10.007

These anomalies have been corrected in firmware revision 10.007, series A.

Anomaly	Description
<p>The module displays an Active/Invalid Keeper state.</p>	<p>The TUI Polling sequence in revision 10.006 and earlier firmware did not complete correctly, resulting in an Active/Invalid Keeper state on the module. In this state, new scheduled connections were prevented from forming on the network.</p> <p>Specific conditions for the anomaly include:</p> <ul style="list-style-type: none"> • network running at the non-default network parameters. • no active keeper present on the network. • the running network parameters match the values saved in its keeper memory. <p>Under these specific conditions, whenever a keeper capable device was attached onto a network it should have entered the TUI Poll state and did not.</p> <p style="text-align: right;">Lgx00066701</p>
<p>Downloading RSNetWorx project through bridge to 1756-CN2 or 1756-CN2R module fails.</p>	<p>The RSNetWorx project may have failed with this error message: 'Unable to send message to the online active keeper device due to resource limitations...', while performing either a Download or an Online Save when the Online Path is through a gateway and the last hop is a 1756-CN2 or 1756-CN2R.</p> <p style="text-align: right;">Lgx00066708</p>

Anomaly	Description
The 1756-CN2 or 1756-CN2R module may force its keeper parameters on the network that may not match the current configuration.	After going lonely, the keeper skipped the first few nodes if it entered the TUI Poll state. Specific conditions for the anomaly include: <ul style="list-style-type: none">• network running at the non-default network parameters.• no active keeper present on the network.• the running network parameters match the values saved in its keeper memory.• number of nodes on the network is five or less. <p style="text-align: right;">Lgx00066975</p>

Corrected Anomaly for Firmware Revision 10.006

In firmware revision 10.006, an anomaly seen in revision 10.004 or earlier was corrected where the module halts operation. A frozen four-character display and a red OK LED indicator are indicative of this condition, which will occur at approximately 70.96 days of continuous operation. Any reset or power cycle of the module clears the fault and returns the module to normal operation. The 10.006 firmware upgrade is mandatory for 1756-CN2 and 1756-CN2R modules.

ControlLogix ControlNet Bridge Module Firmware Enhancements

Revision 10.004 includes a firmware enhancement that provides support for hardware revision control by using the ControlFlash Update Kit software's Update2 service feature.

Compatibility with Other ControlLogix ControlNet Bridge Modules

The 1756-CN2 and 1756-CN2R series A modules do not support ControlLogix redundancy.

The 1756-CNB and 1756-CNBR series E and 1757-SRM series B modules are required for I/O control in redundant systems.

For standalone applications where compatible keying is specified in the RSLogix 5000 software configuration, these drop-in replacements are permitted:

- 1756-CN2 module in place of 1756-CNB module
- 1756-CN2R module in place of 1756-CNBR module

IMPORTANT

Any I/O modules that are being controlled by using the bridge that is replaced will temporarily lose their connections.

IMPORTANT

Systems that have other keeper-capable devices on a ControlNet network will maintain their ControlNet schedule. However, if the 1756-CNB module that is to be replaced is the only keeper, the network will have to be rescheduled to resume operation.

ControlLogix I/O Rack Connection Limitations

When using ControlLogix I/O with a remote ControlNet bridge (1756-CN2 or 1756-CN2R modules), as many as five controllers can create rack optimization connections to the ControlNet bridge. All subsequent rack connection requests will fail.

It is possible that more than one ControlLogix controller can configure the same remote 1756-CN2 module for rack optimization, since each RSLogix 5000 software project configures the I/O for only one ControlLogix controller. As many as five ControlLogix controllers can communicate to the same 1756-CN2 (or 1756-CN2R) module via a rack optimized connection.

If more than five ControlLogix controllers configure the same 1756-CN2 module for rack optimization, RSNetWorx for ControlNet software will schedule the network, but only five ControlLogix controllers will communicate to that 1756-CN2 module. The RSLogix 5000 software project files for the ControlLogix controllers that fail to communicate to that 1756-CN2 module will show that 1756-CN2 module as faulted, with the message 16#011a Connection Request Error: Out of Connection Resources.

Rockwell Automation Support

Rockwell Automation provides technical information on the Web to assist you in using its products. At <http://support.rockwellautomation.com>, you can find technical manuals, a knowledge base of FAQs, 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.

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://support.rockwellautomation.com>.

Installation Assistance

If you experience a problem with a hardware module 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 module up and running.

United States	1.440.646.3223 Monday – Friday, 8am – 5pm EST
Outside United States	Please contact your local Rockwell Automation representative for any technical support issues.

New Product Satisfaction Return

Rockwell 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, it may need to be returned.

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

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