

ControlLogix ControlNet Interface Module, Series E

Catalog Numbers 1756-CNB/E, 1756-CNBR/E

Topic	Page
About This Publication	1
Enhancements	2
Corrected Anomalies	2
Additional Resources	7

About This Publication

These release notes cover the enhanced ControlLogix ControlNet Interface Module Series E firmware, revision 11.004 and earlier. The 1756-CNB and 1756-CNBR series E modules support all nonredundant ControlLogix applications.

IMPORTANT

Only the 1756-CNB and 1756-CNBR, series D modules are supported in ControlLogix redundancy releases 8, 11, 13, and 15. After a firmware upgrade to revision 11.xx, series E will be supported in ControlLogix redundancy release 15 or later. You cannot upgrade a series D module to a series E module.

Enhancements

These enhancements have been made to the firmware.

Revision	Description
11.002	Added support for firmware and software upgrades to a running ControlLogix Redundancy Configuration.

Corrected Anomalies

These anomalies have been corrected in firmware revisions 11.004 and earlier.

Revision	Anomaly	Description
11.004	OK status indicator remains flashing red	After the module recovers from a NET ERR condition, the OK status indicator may remain flashing red until the first connection has been established through the module. Lgx00076105
	New extended status code of 16#812	The 1756-CNB and 1756-CNBR modules now reports error code 16#812 whenever its node address does not match the expected address. Lgx00075548

Revision	Anomaly	Description
11.004	Single-channel 1756-CNB module at lowest node causes network disruption	<p>Using a single-channel 1756-CNB module as the lowest node on a ControlNet network that has media redundancy configured for channels A and B or as a B only network may prevent normal network operation.</p> <p>Symptoms include:</p> <ul style="list-style-type: none"> • Loss of all scheduled connections for the network • New devices are prevented from joining the network • Module fault. Display reads ASSERT: smacdrv.c line 3440 <p style="text-align: right;">Lgx00076950</p>
	Fault due to unterminated ControlNet cable	<p>Leaving the ControlNet network unterminated for long periods of time may cause the 1756-CNB or 1756-CNBR modules to fault. The module display reads ASSERT: smacisr.c</p> <p style="text-align: right;">Lgx00070692</p>
	Power cycle racks caused persistent fault 16#0304	<p>A 1756-CNB or 1756-CNBR module that is also the current Active Keeper may fail any connections with an error code 16#304 (No Scheduled Configuration) if lower nodes are power cycled just after a major network disruption.</p> <p style="text-align: right;">Lgx00076167</p>
	ControlNet channel media redundancy state not configured correctly	<p>A 1756-CNB or 1756-CNBR module that is the current active keeper may not apply the channel media redundancy state correctly after a new RSNetWorx software project has been downloaded.</p> <p style="text-align: right;">Lgx00073910</p>

4 ControlLogix ControlNet Interface Module, Series E

Revision	Anomaly	Description
11.002	1756-CNB and 1756-CNBR modules stop communicating	<p>All 1756-CNB and 1756-CNBR modules with firmware revisions prior to 11.002 will stop communicating after 70.96 days of powered operation. If this occurs, the OK status indicator will be solid red and the 4-character display on the front of the module will either freeze or scroll the message: ASSERT main.c line 1231.</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 11.002.</p>
	1756-CNBR module may revert to using only channel A	If the 1756-CNBR 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.

Revision	Anomaly	Description
10.007	The module displays an active/invalid keeper state	<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>
	Downloading RSNetWorx software project through bridge to 1756-CNB or 1756-CNBR, series E module fails	<p>The RSNetWorx software project may have failed with this error message:</p> <p>Unable to send message to the online active-keeper device due to resource limitations...</p> <p>while performing either a download or an online save when the online path is through a gateway and the last hop is a 1756-CNB or 1756-CNBR, series E module.</p> <p style="text-align: right;">Lgx00066708</p>

6 ControlLogix ControlNet Interface Module, Series E

Revision	Anomaly	Description
10.007	The 1756-CNB or 1756-CNBR module, series E may force on the network its keeper parameters, which may not match the current configuration	If no other modules are on the ControlNet network, or the modules are not attached to a ControlNet network, the keeper has 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 fewer Lgx00066975
10.006	Module halts operation	An anomaly seen in revision 10.004 or earlier, in which the module halts operation, was corrected. A frozen 4-character display and a red OK status 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 revision 10.006 firmware upgrade is mandatory for 1756-CNB and 1756-CNBR series E modules.

Additional Resources

These documents contain additional information concerning related Rockwell Automation products.

Resource	Description
ControlLogix ControlNet Bridge Module, Series E Installation Instructions, publication 1756-IN604	Provides guidelines for installing ControlNet single-media and redundant bridge modules.
ControlLogix Redundancy System User Manual, publication 1756-UM523	Guides the design, development, and implementation of a redundancy system for a ControlLogix controller.
ControlNet Coax Media Planning and Installation Guide, publication CNET-IN002	Provides ControlNet network planning information.
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://literature.rockwellautomation.com>. To order paper copies of technical documentation, contact your local Rockwell Automation distributor or sales representative.

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 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	1.440.646.3434 Monday – Friday, 8 a.m. – 5 p.m. EST
Outside United States	Please contact your local Rockwell Automation representative for any technical support issues.

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.

Allen-Bradley, ControlLogix, Rockwell Automation, RSNetWorx, and TechConnect are trademarks of Rockwell Automation, Inc.

Trademarks not belonging to Rockwell Automation are property of their respective companies.

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, Vorstlaan/Boulevard du Souverain 36, 1170 Brussels, 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

Publication 1756-RN627E-EN-P - April 2009

PN-43706

Supersedes Publication 1756-RN627C-EN-P - October 2006

Copyright © 2009 Rockwell Automation, Inc. All rights reserved. Printed in the U.S.A.