ControlLogix® Redundancy System Revision 13

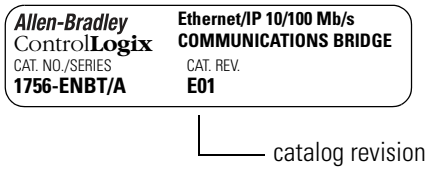
Cat. No. 1756-CNB/D, 1756-CNBR/D, 1756-ENBT, 1756-EWEB, 1756-L55, 1756-L55M12, 1756-L55M13, 1756-L55M14, 1756-L55M16, 1756-L55M22, 1756-L55M23, 1756-L55M24, 1756-L61, 1756-L62, 1756-L63, 1757-SRM

IMPORTANT If you have a 1756-L55 controller, you must install a memory board. For more information, see the *ControlLogix Controller and Memory Board Installation Instructions*, publication 1756-IN101.

When to Use These Release Notes

These release notes are for the following modules when you use them in a ControlLogix® redundancy system:

IMPORTANT For a module in a redundant controller chassis, make sure the catalog revision of the module is greater than or equal to the catalog revision shown in the following table. Otherwise, the secondary chassis will *not* synchronize with the primary chassis.



To determine the catalog revision of a module, look at the label on the side of the module or box.

Module:	Catalog number:	Catalog revision (or greater)	Firmware revision:
ControlLogix5555™ controller	1756-L55Mxx	any	13.70
ControlLogix5561 controller	1756-L61	any	13.71
ControlLogix5562 controller	1756-L62	any	13.71
ControlLogix5563 controller	1756-L63	any	13.71
ControlNet™ bridge module	1756-CNB/D or -CNBR/D	any	5.51
1756 10/100 Mbps EtherNet/IP Bridge, Twisted Pair Media	1756-ENBT	E01 (e.g., E01, E02, …, F01, etc.)	3.7
1756 10/100 Mbps EtherNet/IP Bridge w/ Enhanced Web Services	1756-EWEB	any	2.4
redundancy module	1757-SRM/A or -SRM/B	any	3.39

Publication 1756-RN608F-EN-E - July 2005

What's In These Release Notes

These release notes provide the following information about the components of the redundancy system:

For information about:	See this section:	On this page:
which software revisions to use	Compatible Software Revisions	2
order in which to update your system	How to Update Your Firmware	5
new features	Enhancements	7
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restrictions that no longer apply	Corrected Anomalies	11
restrictions to your redundancy system	Restrictions	15
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Compatible Software Revisions

To use this revision, update your system as follows:

IMPORTANT Revision 2.6 or later of the 1757-SRM System Redundancy Module Configuration tool doesn't work with revision 11 or earlier redundancy systems.

Use revision 2.6 or later of the configuration tool *only* with revision 13 or later ControlLogix redundancy systems. You can cause the 1757-SRM module to fault if you use those revisions with an earlier revision of a ControlLogix redundancy system.

For this software	Use this revision	Notes
RSLinx®	See Which revision of RSLinx software do I need? on page 3.	
RSLinx Enterprise	3.0	You need this only for these HMIs: • PanelView Plus™ terminal • RSView® Supervisory Edition software • VersaView™ industrial computer running a Windows® CE operating system
RSLogix™ 5000	13.0	
RSNetWorx™ for ControlNet™	4.21	
RSNetWorx™ for DeviceNet™	4.21	

Which revision of RSLinx software do I need?

If you	And	Then
don't connect your computer to revision 11 or earlier ControlLogix redundancy systems	RSLinx software revision 2.50 is available	Install RSLinx software revision 2.50 This revision of RSLinx software automatically installs 1757-SRM System Redundancy Module Configuration tool revision 2.6.4.
	RSLinx software revision 2.50 ***isn't*** available	1. Install RSLinx software revision 2.43. 2. Get Knowledgebase document G92234770. To access Rockwell Automation's Knowledgebase, go to http://support.rockwellautomation.com 3. Use the Knowledgebase document to install 1757-SRM System Redundancy Module Configuration tool revision 2.6.4.
also connect your computer to revision 11 or earlier ControlLogix redundancy systems	⇒⇒⇒	Install RSLinx software revision 2.42 ***Do not*** install any of these software revisions: • 1757-SRM System Redundancy Module Configuration Tool revision 2.6 or later • RSLinx software revision 2.43 or later. It automatically installs revision 2.6 or later of the configuration tool.

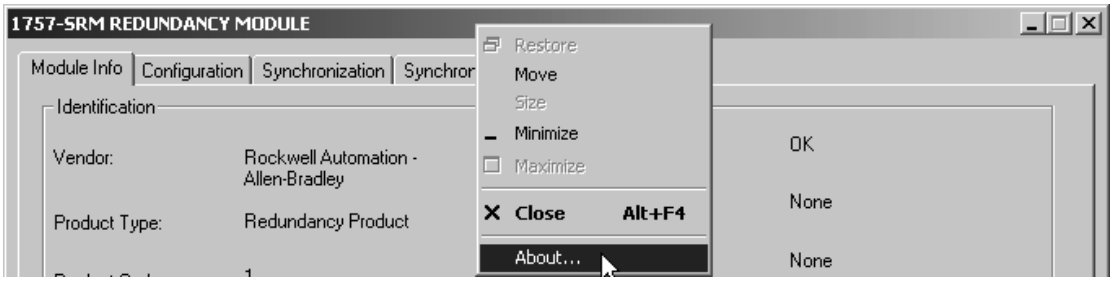
If you stay at revision 2.5 of the configuration tool

Consideration	Details
Revision 2.5 of the configuration tool doesn't recognize some devices	If you use revision 2.5 of the configuration tool in a revision 13 redundancy system, the event log lists these devices as Unknown Device Code 5: • 1756-L61 controller • 1756-L62 controller • 1756-L63 controller • 1756-EWEB module This *doesn't* affect the operation of the redundant system.
Some enhancements aren't available	Keep in mind that the following enhancements ***aren't*** in revision 2.5: • Set the Clock of a 1757-SRM Module to the Workstation Clock, listed on page 10 • Event Log Provides More Information, listed on page 10

How do I tell which revision I have of the configuration tool?

To see which revision of the 1757-SRM System Redundancy Module Configuration tool that you have:

1. In RSLinx software, browse to a SRM.
2. Right-click the SRM and choose *Module Configuration*.



3. Right-click the title bar of the configuration tool and choose *About…*

How to Update Your Firmware

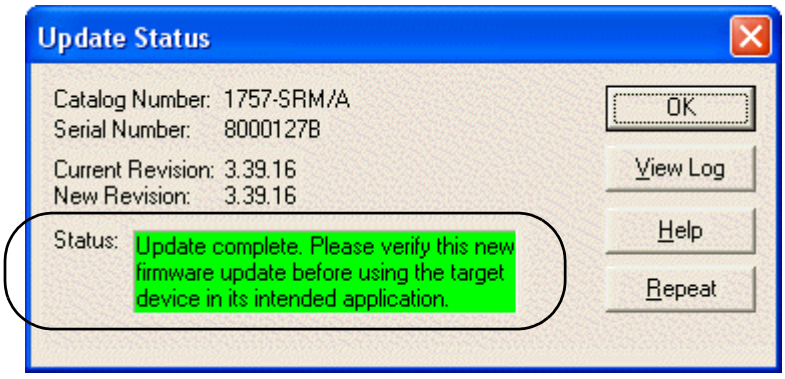
Update your firmware in the following order:

ATTENTION

1. Update the firmware of the SRMs.

   It takes several minutes to update a 1757-SRM module and the module resets itself at least 4 times. *Don't* interrupt the process. Wait until the Update Status window turns green and says Update complete.

Wait until you see this box turn green and say Update complete.



   If you interrupt the process, the module may become inoperative.

   If the update fails, *do not* cycle the power to the module. Leave the power on and update the firmware of the module again. The update failed if you see:

   - Update Status window turn red and say the update failed.
   - OK LED on the SRM module is red flashing and the 4-character display is blank.

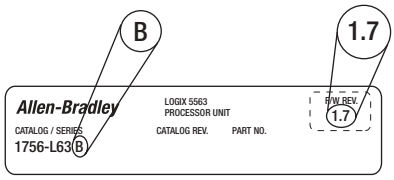
   After you update a module to revision 3.39 or later, it doesn't become inoperative if you interrupt an update.

2. Update the firmware of the CNB, ENBT, and EWEB modules.

3. Update the firmware of the controllers.

IMPORTANT ***Don't*** update a series B controller that has 1.7 firmware while it's in a secondary chassis.

If you have	And the controller is	And its firmware is	Then
updated the firmware of this controller before	⇒⇒⇒	⇒⇒⇒	It's OK to update its firmware while it's in a secondary chassis.
not updated the firmware of this controller before	series A	⇒⇒⇒	It's OK to update its firmware while it's in a secondary chassis.
	series B	1.7	To update its firmware the ***first time***, put the controller in a primary chassis or a non-redundant chassis. The controller will have a non-recoverable fault if you update it while it is in a secondary chassis. After you update the controller the first time, it's OK to update it in a secondary chassis from then on.
		1.8 or more	It's OK to update its firmware while it's in a secondary chassis.



Enhancements

This revision has these enhancements for a redundant system. For the list of enhancements for both redundant and non-redundant systems, see the following release notes:

- *ControlLogix Controller Revision 12 Release Notes*, publication 1756-RN601
- *ControlLogix Controller Revision 13 Release Notes*, publication 1756-RN603

Rev 13.71

Enhancement:	Description
Update your CNB modules while keeping control of your system	Revision 5.51 of a 1756-CNB or 1756-CNBR module synchronizes with revision 5.45…5.51. This lets you update the CNB modules in a secondary chassis and then synchronize the chassis. Once synchronized, you can switchover and update the modules in the old primary chassis. This works only if your CNB modules are already at 5.45 or later.

ControlLogix5555, 5561, 5562, 5563 Rev 13.70

Enhancement:	Description:
Series B of these controllers: • ControlLogix5561 • ControlLogix5562 • ControlLogix5563	**What's new about series B controllers?** With Series B controllers, you: • get to the CompactFlash card from the front of the controller • have longer battery life See *Maintain the Battery of a ControlLogix Series B Controller*, publication 1756-AP014, for details. **Important**: Use ***only*** a 1756-BA2 battery in a series B controller. **Are there any new precautions?** Take these precautions with CompactFlash cards: 1. Put the keyswitch in the PROG position before you insert a card. Do this for any card except one that you know is blank. Suppose you insert a card that already has a project that is configured to load on power up. If a power cycle happens before you store another project, the card loads the earlier project and firmware into the controller. It's also possible that the controller starts running the project. 2. Make sure that you hold the CompactFlash latch to the left before you remove the card. If you push the eject button without moving the latch out of the way, it's possible to damage the CompactFlash socket. **Do I use the same firmware for both series A and series B controllers?** Yes. You use the same firmware for series A and series B of ControlLogix5561, ControlLogix5562, ControlLogix5563 controllers.
CNB module gives a better indication when its backplane hardware fails	The CNB module shows the following message when its backplane hardware fails: FAILED BACKPLANE INTERFACE ASIC

Enhancement:	Description:
SRM module logs when modules open or close connections	The SRM module now logs when a CNB module or controller opens or closes a connection to the SRM module. Lgx00051525

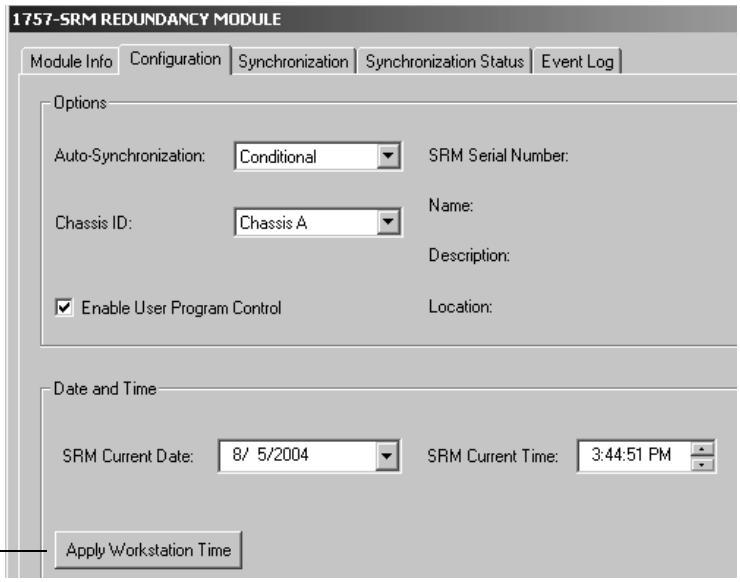
ControlLogix5555, 5561, 5562, 5563 Rev 13.53

Enhancement:	Description:
Sequential Function Charts	This revision lets you use the sequential function chart (SFC) programming language to program your redundancy system.
More Stable Scan Times	This revision reduces the jumps in program scan time that may have occurred in previous revisions. The jumps were caused by programs with fast scan times or large crossloads that flooded the 1757-SRM module with data, which increased the crossload time.
One ControlLogix5561, 5562, 5563 Controller in a Redundant Chassis	This revision lets you place a ControlLogix5561, 5562, or 5563 controller in a redundant chassis: • Use only 1 ControlLogix5561, 5562, or 5563 controller in a redundant chassis • Use an identical controller in the same slot in the partner chassis. • *Do not* mix ControlLogix5561, 5562, or 5563 controllers in the same chassis with ControlLogix5555 controllers. The program scan time improvement when using one of these controllers in a redundant system is less than in a non-redundant system. • Even though the ControlLogix5561, 5562, and 5563 controllers execute logic faster, they must still crossload data. • Given the same project and redundant system, a ControlLogix5561, 5562, or 5563 controller is up to 30% faster than a ControlLogix5555 controller.
Up to 2 ControlLogix5555 Controllers in the Same Redundant Chassis	This revision lets you place up to 2 ControlLogix5555 controllers in a redundant chassis: • Use identical controllers in the same slots in the partner chassis. • *Do not* mix ControlLogix5555 controllers in the same chassis with ControlLogix5561, 5562, or 5563 controllers

1756-EWEB module in a local redundant chassis	Place 1756-EWEB modules in a redundant chassis pair:
	Important: If you use RSLinx Enterprise software revision 2.0, put your 1756-ENBT or 1756-EWEB modules in a non-redundant chassis and bridge the communication over a ControlNet network to the redundant chassis.
	• Place an EWEB module in the same slot in each redundant chassis. (The modules in each redundant chassis must match each other slot-by-slot.)
	• Place up to 2 EtherNet/IP modules in each redundant chassis.
	  • Use any mix of ENBT or EWEB modules.
	  • The remaining communication modules must be either 1756-CNB or -CNBR modules, for a total of 5 communication modules per redundant chassis.
	• In a redundant system, use an EtherNet/IP network *only* for HMI/workstation communication and messaging. *Do not* use an EtherNet/IP network for:
	  • communication with I/O modules
	  • communication between devices via produced/consumed tags

<table>
<tr><th>Enhancement:</th><th>Description:</th></tr>
<tr><td>Duplicate IP Address Detection</td><td>1756-ENBT and 1756-EWEB modules now detect if their IP address conflicts with another device on the EtherNet/IP network. How the modules respond to the conflict depends on the following conditions:
<table>
<tr><th>If:</th><th>And:</th><th>The:</th></tr>
<tr><td rowspan="2">Both devices have duplicate IP address detection.</td><td>One of the devices is in a redundant chassis.</td><td>• The device in the redundant chassis uses the IP address.
• The other device stops communicating on the network.</td></tr>
<tr><td>Both devices are outside of a redundant chassis.</td><td>• The second device to access the network uses the IP address.
• The other device stops communicating on the network.</td></tr>
<tr><td rowspan="2">One of the devices does not have duplicate IP address detection.</td><td>The other device is in a redundant chassis.</td><td>Both devices try to communicate at that IP address.</td></tr>
<tr><td>Both devices are outside of a redundant chassis.</td><td>• The device without duplicate IP address detection uses the IP address.
• The other device stops communicating on the network.</td></tr>
</table>
In a redundant chassis, an ENBT or EWEB module uses duplicate IP address detection to swap its IP address with its partner during a switchover. See “Automatic IP Address Swapping” on page 9.</td></tr>
<tr><td>Automatic IP Address Swapping</td><td>During a switchover, 1756-ENBT and 1756-EWEB modules now swap their IP addresses with their partner modules in the other redundant chassis. This lets you use the same IP address to communicate with a primary module regardless of which chassis is primary.
• Typically, you no longer need to use ControlLogix Redundancy Alias Topic Switcher software to manage the IP addresses. If your application still requires alias topics to manage IP addresses, see ControlLogix Redundancy System User Manual, publication 1756-UM523.
• During a switchover, communication over an EtherNet/IP network with other controllers or HMI may freeze for up to a minute, depending on network topology. If you need bumpless communication with controllers/HMIs, use a separate ControlNet network that is dedicated to communication with those devices.
Important: Make sure to connect the 1757-SRCx cable to both 1757-SRM modules of the redundant chassis pair. Otherwise, the ENBT and EWB modules will show a duplicate IP address.
To let the modules swap IP addresses during a switchover:
1. Allocate 2 consecutive IP addresses for each set of ENBT or EWEB modules (one in each chassis). For example, 10.10.10.10 and 10.10.10.11.
2. Give the same IP address, gateway address, and subnet mask to both modules in the redundant pair. (E.g., Set both IP address = 10.10.10.10.)
The module in the primary chassis uses the IP address to which it is configured (e.g., 10.10.10.10).
The module in the secondary chassis uses the IP address of the primary +1 in the last address segment (e.g., 10.10.10.11).</td></tr>
</table>

Enhancement:	Description:
Set the Clock of a 1757-SRM Module to the Workstation Clock	Requires 1757-SRM System Redundancy Module configuration tool, revision 2.6 or later. See *Which revision of RSLinx software do I need?* on page 3.



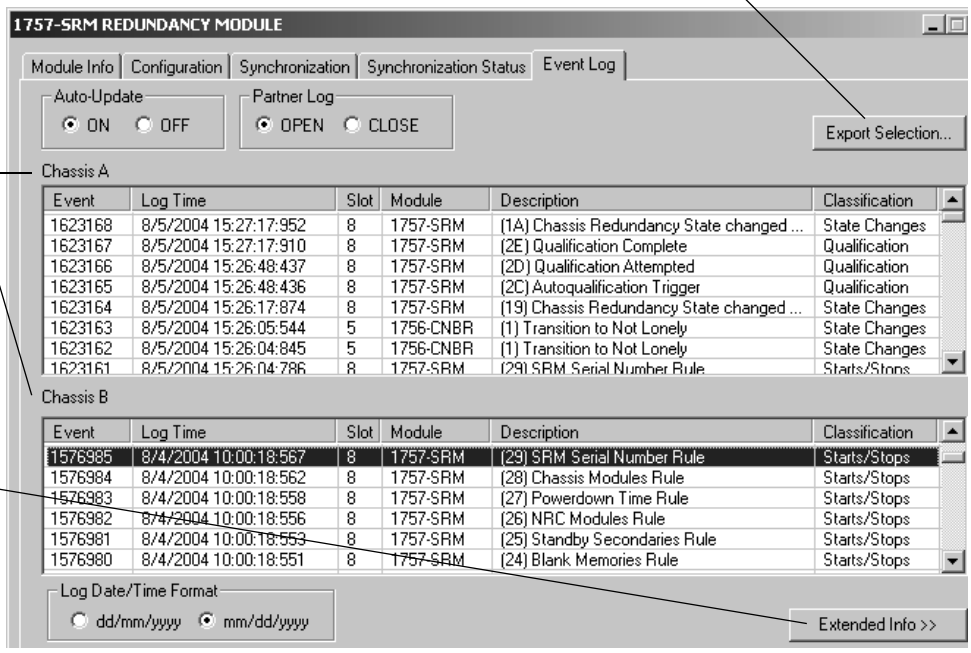
To send the currently running workstation (PC) time to the SRM module, click this button.

Event Log Provides More Information	Requires 1757-SRM System Redundancy Module configuration tool, revision 2.6 or later. See *Which revision of RSLinx software do I need?* on page 3.

Export file includes extended information in text format

See events in both SRM modules at the same time

See extended information in text format



Changes

This revision corrects these anomalies:

Rev 13.71

Change	Description
Support future component change to ControlLogix5561, 5562, and 5563 controllers	The controller firmware was updated to accommodate anticipated component change of the ControlLogix5561, 5562, and 5563 controller hardware. Lgx00057340

Corrected Anomalies

This revision corrects these anomalies:

Rev 13.71

Change	Description
Excessive electrical disturbance on the backplane caused a CNB module to stop	Excessive electrical disturbance on the backplane caused a 1756-CNB or 1756-CNBR module to stop communicating. When this happened, the CNB module showed one of these messages: • FAULT:ping.c line 448 • FAULT:ping.c line 467 Revision 5.46 of the CNB module increased the chance of this fault. Redundant chassis were more susceptible than non-redundant chassis. Lgx00057099

ControlLogix5555, 5561, 5562, 5563 Rev 13.70

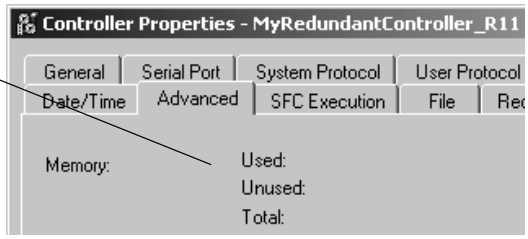
Anomaly:	Description:
ENBT module still showed PwDS after its partner was removed	Sometimes an ENBT module still showed PwDS even after you removed its partner from the secondary chassis. Lgx00045467
Communication Module Occasionally Used a Duplicate Address	After a switchover or simultaneous power cycle (both chassis cycled power at the same time), a 1756-CNB, 1756-ENBT, or 1756-EWEB module sometimes tried to use a duplicate address. • When this happened, the module showed DUPL NODE or DUPLICATE IP ADDRESS. • This condition stopped you from communicating with the module and left the secondary chassis disqualified (unsynchronized). • Sometimes, an ENBT or EWEB module showed a duplicate IP address due to this condition but the chassis still synchronized. Lgx00047327

Anomaly:	Description:
RSLogix 5000 software couldn't go online after you inhibit a remote CNB module	RSLogix 5000 software went offline when: 1. Your system used universal remote I/O (RIO). 2. You cycled power to all I/O on both the RIO and ControlNet networks. 3. You inhibited a remote CNB module while the I/O was reconnecting. RSLogix 5000 software couldn't go back online and the I/O stopped reconnecting when this happened. To recover, you had to cause a switchover. Lgx00052900
Each ControlLogix5555 Controller Needed a Separate ControlNet Bridge Module	You had to use a separate 1756-CNB or 1756-CNBR module for each ControlLogix5555 controller in a redundant chassis. If you have 2 controllers in a chassis: • You needed at least 2 CNB modules in the chassis. • You couldn't share a CNB module between controllers. Communication sometimes stopped through the CNB module if you shared it between controllers. Lgx00052928
ENBT module wouldn't recover from a short time between power cycles	An ENBT module wouldn't go back to OK if you cycled power too soon after turning on the power. That happened if you cycled power within 7 seconds after you first turned on the power. Lgx00052938
OK light of an ENBT module didn't show that a firmware update failed	The OK light of an ENBT module wouldn't go red if a firmware update failed. Lgx00053083
Download caused a CNB module to stop	A CNB module stopped when you downloaded a project that had a scheduled connection that was too big. When this happened, the CNB module showed this message: ASSERT:txlist.c line 907 The CNB module now rejects the connection. Lgx00053132
Chassis wouldn't synchronize after simultaneous power cycle	Sometimes the redundant chassis wouldn't synchronize if you cycled power to both chassis at the same time. When this happened: • You couldn't manually synchronize the chassis. • The 1757-SRM System Redundancy Module Configuration tool showed that the primary controller didn't have a partner. • The chassis synchronized after you either cycled power to the secondary chassis or removed and reinstalled the secondary controller. Lgx00053474
Chassis synchronized with mis-configured ENBT modules	The redundancy chassis pair synchronized even though one of the ENBT modules showed DUPLICATE IP ADDRESS. This happened when the ENBT modules couldn't use IP swapping because their configurations didn't match. Lgx00053868
Load from nonvolatile memory caused SRM module to fault	If you loaded a project from nonvolatile memory, the 1757-SRM module sometimes faulted. The fault was E2h1 FRMW Reset MOD. Lgx00054558

Anomaly:	**Description:**
CNB module blocked a 1407-CGCM module from joining the network	A CNB module sometimes blocked a 1407-CGCM module from joining the ControlNet network. This happened if you cycled power to both modules at the same time. Lgx00054692
Chassis wouldn't synchronize if an SRM reset itself during a switchover	Sometimes an SRM resets itself during a switchover. When that happened, the chassis wouldn't synchronize. Lgx00054716
Couldn't open an I/O connection	Sometimes the CNB module wouldn't let you open an I/O connection. It gave you this error instead: 16#0111 RPI out of range Lgx00055359
EWEB Module Erroneously Reported a Duplicate IP Address	It was possible for a 1756-EWEB module to erroneously report a duplicate IP address under these conditions: • high HMI traffic • secondary chassis was powering up (depended on your configuration) If this happened, the chassis wouldn't synchronize.

ControlLogix5555, 5561, 5562, 5563 Rev 13.53

Anomaly:	**Description:**	
RSLinx Enterprise Software and Local Ethernet Modules	**If you use**	**Then**
	RSLinx Enterprise software revision 3.0	Put your 1756-ENBT or 1756-EWEB modules in the redundant chassis pair.
	RSLinx Enterprise software revision 2.0	Put your 1756-ENBT or 1756-EWEB modules in a non-redundant chassis and bridge the communication over a ControlNet network to the redundant chassis.
Product Service Advisory ACIG 2004-11-002	Revision 5.45 of the 1756-CNB and 1756-CNBR module corrects the following issue: Continuous operation prevented additional unconnected communications After 497 days of uninterrupted continuous operation, the unconnected buffer resources soon became unavailable. The result of the ControlNet module's unconnected buffers being unavailable was that you could no longer communicate with the module via unconnected messaging. Some examples of how module services were affected included: • Unconnected message connections that were passed to or through the ControlNet module failed • Any attempt to go online with a controller through the ControlNet module failed (i.e., programming terminal connection failed) • Establishing or re-establishing I/O connections failed • Browsing to or through the module via RSLinx failed • CPU % utilization reading quickly went to 100% and stayed there Lgx00052277	

Anomaly:	Description:
Secondary Chassis Synchronized with ENBT Module NOT Connected	Revision 3.4 of the 1756-ENBT module corrects the following issue: A secondary chassis synchronized even if a 1756-ENBT module wasn't connected to the EtherNet/IP network. For example, the chassis synchronized when you unplugged or broke the ethernet cable of the ENBT module. Lgx00035956
ENBT Module Erroneously Reported a Duplicate IP Address	Revision 3.4 of the 1756-ENBT module corrects the following issue: It was possible for an ENBT module to erroneously report a duplicate IP address under these conditions: • high HMI traffic • secondary chassis was powering up (depended on your configuration) This resulted in a failure to synchronize.
Online Memory Information Was Incorrect	While online, RSLogix 5000 software showed incorrect values for the memory usage of the controller.  Lgx00042913
Modules Incorrectly Indicated Primary with Disqualified Secondary After the Secondary Module Was Removed	A module in a primary chassis incorrectly indicated *Primary with Disqualified Secondary* under the following conditions: 1. The secondary module was present but disqualified 2. While the secondary module was disqualified, you removed it from the chassis. Both the software and hardware showed the incorrect redundancy state of the module. Lgx00045469
Connections Prematurely Timed-Out	A connection prematurely timed-out under the following combination of circumstances: • RPI of the connection was approximately 15 to 25 ms. • CPU usage of the CNB module was close to 98 - 100%. Lgx00045470
Switchover Extended Task Period	If the period of a periodic task expired during a switchover, the task might have delayed its execution 2 times the specified period. After this extended period, it returned to its specified period. Lgx00045661
After a Switchover, the Maximum Interval Time for a Periodic Task Might Have Been Incorrect	After a switchover, a periodic task might have shown a maximum interval time that was approximately 1 second longer than the actual value. Lgx00046215
After a Switchover, Watchdog Timer May Have Been Temporarily Inactive	If the period of a periodic task expired during a switchover, the watchdog timer for the task might not have been active during the first execution after the switchover. On subsequent executions, the timer became active again. Lgx00046229

Restrictions

This revision contains the following restrictions:

IMPORTANT In a redundant system, use an EtherNet/IP network *only* for HMI/workstation communication and messaging.

Do not use an EtherNet/IP network for:

- communication with I/O modules
- communication between devices via produced/consumed tags

Restriction:	Description:
Online Editing During a Switchover	In some instances, RSLogix 5000 software may not let you perform additional online edits of a function block, SFC, or structured text routine. This may occur if you edit the routine while online and the system is switching over and synchronizing. If this occurs: 1. Close and then open RSLogix 5000 software. 2. Upload the RSLogix 5000 project from the primary controller.
Deleting a Task or Unscheduling a Program Online	The secondary chassis may disqualify and then synchronize if you: • delete a task while online with the controller • unschedule a program while online with the controller
ASCII Instructions May Prevent the Secondary Controller From Synchronizing	After you download a project that contains ASCII instructions (e.g., ABL, ACB) to a pair of redundant controllers, the secondary controller may disqualify and fail to synchronize. If this occurs, turn off both controllers (primary and secondary) and then turn the controllers back on.
Controller May Momentarily Drop Its Connection to a Digital I/O Module	In rare instances, if a tap to a 1756-CNB module is disconnected or breaks, the primary controller may momentarily drop its connection to a digital I/O module in local or remote chassis. The connection automatically re-establishes. To minimize this, use redundant ControlNet media. Redundant ControlNet media prevents a loss of communication if a trunkline or tap is severed or disconnected.
The File Search Compare (FSC) Instruction Causes a Non-Recoverable Fault	The FSC instruction causes a non-recoverable fault if both these conditions occur: • a major fault is declared from within the expression of an FSC instruction • the user fault routine clears the fault When the user fault routine attempts to recover, information previously saved isn't properly restored, which results in corrupted system registers and a non-recoverable fault. Lgx00055522

For More Information

For more information on the ControlLogix redundancy system, see the *ControlLogix Redundancy System User Manual*, publication 1756-UM523.

Rockwell Automation Support

Rockwell Automation provides technical information on the web to assist you in using our 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 our 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:

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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Corporate Headquarters
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