

EtherNet/IP CompactBlock Guard I/O Modules

Catalog Numbers 1791ES-IB8X0BV4, 1791ES-IB16

Topic	Page
About This Publication	1
Before You Begin	2
Enhancements	2
Corrected Anomalies	3
Known Anomalies	4
Error Codes	5
Additional Resources	6

About This Publication

These release notes correspond to:

- major revision 1, minor revision 7.
- major revision 1, minor revision 8.
- major revision 1, minor revision 9.

Use these firmware revisions with RSLogix 5000™ software, version 16.00 or later.

Before You Begin

Before using your module, read and understand the following requirements:

- Verify that you downloaded and installed the appropriate 1791ES Add-on Profiles available at <http://www.rockwellautomation.com>.
- The relevant Add-on Profiles are supported only in version 16.00 or later of RSLogix 5000 software.
- The 1791ES modules are supported in RSLogix 5000 software. The 1791ES modules are **not** supported in RSNetWorx™ for EtherNet/IP software at this time.
- Verify that you are using 1756-ENBT firmware major revision 4, minor revision 6 or later.
- These modules were tested with the 1756-ENBT (major revision 5, minor revision 1) and 1756-EN2T (major revision 4, minor revision 3) communication modules and RSLinx™ software, version 2.58.
- The changes made in firmware revision 1.9 to correct anomalies do not impact the functional safety operation of the 1791ES-IB16 or 1791ES-IB8XOBV4 modules.
- The enhancement made in firmware revision 1.9 does impact product functional safety operation when used with RSLogix 5000 software version 20. This applies to all 1791ES modules.

Enhancements

This section describes the new and updated features provided in this revision.

Table 1 Enhancements with Revision 1.9

Enhancement	Description
Input and output RPI has been increased to 500 ms, maximum limit.	When used in conjunction with the RSLogix 5000 software, version 20, the input and output RPI maximum limit has been increased to 500 ms. You must use RSLogix 5000 software, version 20, to have this enhancement available.

LGX123163

Corrected Anomalies

This section describes corrected anomalies associated with this revision.

Table 2 Corrected Anomalies with Revision 1.9

Corrected Anomaly	Description
The module does not maintain configuration settings after a lost link	CORRECTED When a link has been established, lost, and re-established, the module will now maintain the fixed speed/duplex configuration on the Ethernet port. LGX105722
The module does not report the actual muting output status	CORRECTED With this revision, the muting output status bit reports the actual muting output status regardless of the state of the muting output (on or off). The muting output pulse tests are run when the muting output is on, or when there is a muting fault. LGX102425

Table 3 Corrected Anomalies with Revision 1.8

Corrected Anomaly	Description
Modules with duplicate IP addresses fault when re-joined with Ethernet network	CORRECTED When modules were configured with a duplicate IP address of another EtherNet/IP module and re-joined the Ethernet network containing that EtherNet/IP module, they could cause the other module to detect a duplicate IP address and fault that module. The 1791ES-1B8XOBV4 and 1791ES-1B16 modules fault as well.

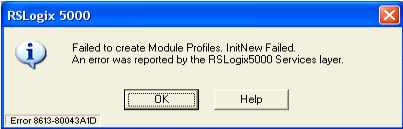
Table 4 Corrected Anomalies with Revision 1.7

Corrected Anomaly	Description
Auto negotiate does not update after the connection is made	CORRECTED Modules may have reported incorrect duplex/baud when powered up before the switch or cable.
Input delay filter times are incorrectly mapped	CORRECTED Input delay filter times that were incorrectly mapped have been corrected in the latest firmware revision.
Nuisance fault on safety output, change in output test pulse timing	CORRECTED Nuisance faults on the safety outputs resulting in the change in output test pulse timing.

Known Anomalies

This section describes the known anomalies associated with this revision.

Table 5 Known Anomalies with Revision 1.7, 1.8, and 1.9

Known Anomaly	Description
Module faults during safety connection establishment while other I/O connections running	When establishing 3 or more I/O connections (any combination of safety and/or standard) to the same 1791ES Guard I/O™ module, be sure all RPI values for these connections are 10 ms or greater.
Host processor performance affected when running safety and standard connections at RPI of 6 ms	
Cannot place a 1791ES module in the RSLogix 5000 I/O tree when other EtherNet/IP adapter added to the I/O tree first	<p>A 1791ES module cannot be added under a 1756-ENBT or 1756-EN2T module if the lowest IP address of the module's parent 1756-ENBT or 1756-EN2T module is not a safety module. If you receive this error message, choose one of the following workarounds.</p>  <p>For an existing branch, add a temporary branch in the I/O tree by adding a 1756-ENBT module to an unused slot in your chassis. Place a 1791ES module in this branch. Copy and paste this 1791ES module into the desired branch. Delete the temporary branch when complete:</p> <ul style="list-style-type: none"> • For a new branch, add your 1791ES module before adding non-safety Ethernet modules. • Export your ACD file to an LSK file. Edit the LSK file to add the 1791ES module.

Error Codes

This section describes the error codes associated with these modules.

Table 6 Error Codes

General Status	Extended Status	Description	Recommended Action
1	0x105	Ownership Conflict. The Originator Unique Network ID (OUNID) does not match the OUNID value stored in the module's configuration.	Verify the IP address entered in the profile. If the IP address is correct, reset ownership of the module by clicking the Safety tab in the profile and clicking Reset Ownership. This error is often caused by the safety network number (SNN) being mismatched between the controller and I/O module.
1	0x801	Incompatible RPI. An existing I/O connection has been established at a different RPI.	Adjust RPI value to match the RPI of the established I/O connection.
1	0x802	Invalid Safety Connection Size. This should only be received when using the Generic Ethernet Safety profile.	Verify and correct Size values entered for Input, Output, and Configuration Assemblies in the generic profile.
1	0x80C	Safety Configuration ID (SCID) mismatch.	The controller attempting to configure the 1791ES module has an SCID value different from the value currently stored in the 1791ES module. Verify the IP address entered in the profile. Reset ownership of the subject 1791ES module.
1	0x80D	The Target Unique Network ID (TUNID) has not been set.	The 1791ES module is in an out-of-box state, and the TUNID must be set first. Be sure to properly set the safety network number (SNN) and the 1791ES module IP address.
1	0x80E	Target Unique Network ID (TUNID) mismatch.	The message received may be directed to the wrong module. Verify the IP address of the desired 1791ES module. If the IP address is correct, reset ownership of the 1791ES module.
1	0x80F	Configuration not allowed.	The state of the module does not allow configuration. Place the module and/or host controller in an idle state.

Additional Resources

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

Resource	Description
EtherNet/IP Modules in Logix5000 Control Systems User Manual, publication ENET-UM001	Describes how to use EtherNet/IP modules with your Logix5000™ controller, including the 1756-ENBT and 1756-EN2T modules.
Guard I/O EtherNet/IP Safety Modules User Manual, publication 1791ES-UM001	Describes how to use Guard I/O EtherNet/IP safety modules, catalog numbers 1791ES-IB8XOBV4 and 1791ES-IB16.

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.

Allen-Bradley, Rockwell Software, Rockwell Automation, CompactBlock, Guard I/O, RSLogix, RSNetWorx, RSLinx, and Logix5000 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 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

Publication 1791ES-RN001E-EN-E - November 2011

PN-130568

Supersedes Publication 1791ES-RN001D-EN-E - September 2009

Copyright © 2011 Rockwell Automation, Inc. All rights reserved. Printed in the U.S.A.