



DriveLogix™ 5720 Controller (12.24)

Catalog Number 5720

When to Use These Release Notes

These release notes should be used with DriveLogix5720 Controller firmware major revision 12, minor revision 24. Use this firmware with:

Update this:	To this revision or later:
RSLinx® software	2.41
RSLogix™ 5000 software	12.01 (We recommend you upgrade to 12.02.)
RSNetWorx™ for ControlNet™ software	4.11
RSNetWorx for DeviceNet™ software	4.12
Firmware for PowerFlex 700S Drive with Phase I Control	2.03 (We recommend you upgrade to 2.07)

What Is In These Release Notes

These release notes provide the following information:

For information about:	See this section:	On this page:
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Determining Firmware Revision Level

To determine the firmware revision level for a DriveLogix controller, use RSNetWorx or RSLinx software to view the properties of the node occupied by the controller.

Before You Update Your System

Before you update your controller or RSLogix 5000 software to this revision, do the following preliminary actions:

If:	Then:
Your controller is connected to a DH-485 network.	Disconnect it from the DH-485 network <i>before</i> you update the firmware of the controller. If you update the firmware of a controller while it is connected to a DH-485 network, communication on the network may stop.
Your controller is close to its limits of memory.	<p>This revision <i>may</i> require more memory than previous revisions. Before you upgrade to this revision, do the following:</p> <ol style="list-style-type: none"> 1. Check the amount of unused memory that you have in the controller. To determine your unused memory, see either of the following documents: <ul style="list-style-type: none"> • Knowledgebase document G19984. To access Rockwell Automation’s Knowledgebase, go to www.ab.com. Select <i>Support</i>. • <i>Logix5000 Controllers Common Procedures</i>, publication 1756-PM001E or later 2. If your controller is close to its limits of memory, see “Additional Memory Requirements” on page 4 to determine how much additional memory you require. 3. For additional information on how the controller organizes its memory, see Knowledgebase document G19984.

Corrected Anomalies

The corrected anomalies are listed in the table below.

Corrected anomaly:	Corrected in	Description:
Controller loses ability to connect to FLEX I/O after Non Volatile Storage (NVS) store.	DriveLogix FW 12.24	<p>Performing a store to Non Volatile Storage on a controller with FLEX I/O may have caused it to lose its connection to the local FLEX I/O rail.</p> <p>You may not have realized the connection was lost until you returned the controller to run.</p>

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Restrictions

This firmware version has these restrictions:

Restriction:	Description:
Forcing is not supported between the PowerFlex 700S and DriveLogix	The forcing values can be set for the controller inputs and outputs. However, these values will not be used by the Logix program nor will they be transmitted to the PowerFlex 700S.
Minimum RPI for local FLEX I/O	The minimum recommended Requested Packet Interval (RPI) setting for the local FLEX I/O rail is 30 ms.
Unsupported Motion Commands	<p>The following Logix Motion Instructions are not intended for use with DriveLogix and the PowerFlex 700S:</p> <p>Motion State (for 1756-M02AE Only)</p> <ul style="list-style-type: none"> • MDO (Motion Direct Drive On) • MDF (Motion Direct Drive Off) <p>Motion Configuration (for tuning SERCOS cards only)</p> <ul style="list-style-type: none"> • MAAT (Motion Apply Axis Tuning) • MRAT (Motion Run Axis Tuning) • MAHD (Motion Apply Hookup Diagnostics) • MRHD (Motion Run Hookup Diagnostics)
Difficulty Flash Updating a DriveLogix Controller with Memory Expansion to 12.24 through EtherNet	When using EtherNet to flash update a DriveLogix controller to 12.24, the memory expansion option must be temporarily removed during the flash upgrade.
Application Program Loss with early versions of the Memory Expansion Option	If equipped with an early versions of the memory expansion option, the DriveLogix5720 controller can possibly lose the application program after power cycles. Memory expansion boards with part numbers 96395272 and earlier may exhibit this anomaly. Boards with the part number 96395273 will not exhibit this anomaly.
Compatible PowerFlex 700S Firmware	DriveLogix5720 firmware revision 12.24 requires a PowerFlex 700S drive with Phase I firmware revision 2.03 or later.

Additional Memory Requirements

Revision 12.x *may* require more memory than previous revisions (e.g., 10.x, 11.x). To estimate the additional memory that your project *may* require, use the following table:

Table 1 Additional memory requirements when you convert a project to revision 12

If you have this firmware revision (add <i>all</i> that apply):	Then add the following memory requirements to your project:		Which comes from this type of memory: ⁽¹⁾		
	Component	Increase per instance	I/O (base)	Data and Logic (expansion)	
11.x or earlier	tag that uses the MOTION_INSTRUCTION data type	4 bytes		Yes	
	tag for an axis				
	If the data type is:	And the tag is:			
	AXIS_CONSUMED	⇒⇒⇒⇒⇒⇒⇒⇒⇒⇒	264 bytes	Yes	
	AXIS_SERVO	produced for another controller	264 bytes	Yes	
		<i>not</i> produced for another controller	264 bytes		Yes
	AXIS_SERVO_DRIVE	produced for another controller	288 bytes	Yes	
		<i>not</i> produced for another controller	288 bytes		Yes
	AXIS_VIRTUAL	produced for another controller	264 bytes	Yes	
		<i>not</i> produced for another controller	264 bytes		Yes
	output cam execution targets	648 bytes		Yes	
user-defined data type: <ul style="list-style-type: none"> number of user-defined data types in the controller organizer ⇒Data Types folder ⇒User-Defined folder <i>not</i> the use of that data type in tags 	128 bytes		Yes		
indirect address (using a tag as the subscript for an array in an instruction, e.g., Array_A[Tag_B]). This memory change applies <i>only</i> if the array: <ul style="list-style-type: none"> uses a user-defined data type has only one dimension (e.g., UDT_1[5]) 	(-60 bytes)				
10.x	project for a DriveLogix controller	1200 bytes	Yes		
	programs	12 bytes		Yes	
	routines	16 bytes		Yes	

⁽¹⁾ In the DriveLogix controller, the I/O and expansion memory types are merged into a single memory pool.

Rockwell Automation Support

Before you contact Rockwell Automation for technical assistance, we suggest you please review the troubleshooting information contained in the supporting product publications first (e.g. publications 20D-UM002, *User Manual - DriveLogix System*, and 1756-PM001, *Logix5000 Controllers Common Procedures Programming Manual*).

If the problem persists, call your local distributor or contact Rockwell Automation in one of the following ways:

Phone	United States/Canada	1.262.512.8176 (7 AM - 6 PM CST) 1.440.646.5800 (24 hour paid support available through the TechConnect Support Program)
	Outside United States/Canada	You can access the phone number for your country via the Internet: Go to http://www.ab.com Click on <i>Support</i> (http://support.rockwellautomation.com/) Under <i>Contact Customer Support</i> , click on <i>Phone Support</i>
Internet	⇒	Go to http://www.ab.com/support/abdrives/
E-mail	⇒	support@drives.ra.rockwell.com

Be prepared to furnish the following information when you contact support:

- Product Catalog Number
- Product Serial Number
- Firmware Revision Level



Allen-Bradley Automation

www.rockwellautomation.com

Corporate Headquarters

Rockwell Automation, 777 East Wisconsin Avenue, Suite 1400, Milwaukee, WI, 53202-5302 USA, Tel: (1) 414.212.5200, Fax: (1) 414.212.5201

Headquarters for Allen-Bradley Products, Rockwell Software Products and Global Manufacturing Solutions

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 SA/NV, 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

Headquarters for Dodge and Reliance Electric Products

Americas: Rockwell Automation, 6040 Ponders Court, Greenville, SC 29615-4617 USA, Tel: (1) 864.297.4800, Fax: (1) 864.281.2433

Europe/Middle East/Africa: Rockwell Automation, Herman-Heinrich-Gossen-Strasse 3, 50858 Köln, Germany, Tel: 49 (0) 2234 379410, Fax: 49 (0) 2234 3794164

Asia Pacific: Rockwell Automation, 55 Newton Road, #11-01/02 Revenue House, Singapore 307987, Tel: (65) 6356-9077, Fax: (65) 6356-9011

U.S. Allen-Bradley Drives Technical Support

Tel: (1) 262.512.8176, Fax: (1) 262.512.2222, Email: support@drives.ra.rockwell.com, Online: www.ab.com/support/abdrives