

Guardmaster MSR57P Speed Monitoring Safety Relay

Catalog Number 440R-S845AER-NNL

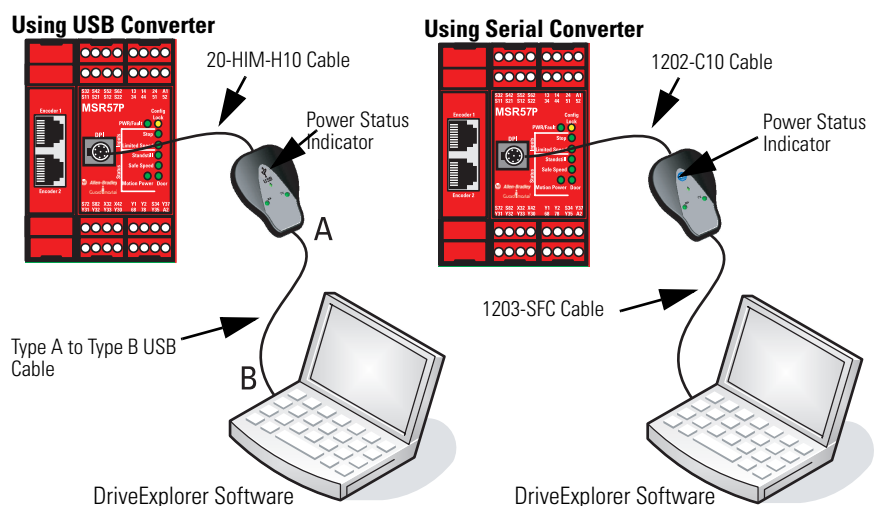
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About This Publication

This document explains how to install new firmware into the MSR57P safety relay. These release notes correspond to revision 1.005 of the MSR57P firmware.

Before You Begin

The procedure assumes that you have Drive Explorer software, version 5.02.07 or later, installed on your PC and you have successfully connected to the MSR57P relay.



TIP

If you do not have Drive Explorer software, you can download the free version, Drive Explorer Lite, at www.ab.com/drives/driveexplorer/free_download.html.

Download the Firmware Update File

Follow these steps to obtain the firmware upgrade file.

1. Go to www.rockwellautomation.com/support/firmware.html and choose Minotaur Safety Relays.
2. Click the file named MSR57_1_005_Update.msi.
3. Save the file to your hard drive.

Save Your MSR57P Configuration to Your PC

IMPORTANT

The Firmware update process deletes the configuration and restores the default parameters. If you save your configuration to your PC, you can reload it following the update.

1. Launch DriveExplorer software and connect to the relay.
2. In the tree view, expand the MSR57P relay.
3. Expand the Parameter groups and select the Security group.
4. Place the relay in Run mode by setting the P6 [Operating Mode] parameter to 1.
5. Record the value of the P10 [Signature ID] parameter.
You will need to verify this value is unchanged after you reload your configuration following the update.
6. From the Actions menu, choose Upload and Save to save your configuration.
7. Browse to the directory where you want to save your file.
8. Name the file and click Save.

This is the current configuration of the MSR57P relay. Once the firmware update is complete, you can download this configuration back into the relay.

Corrected Anomalies

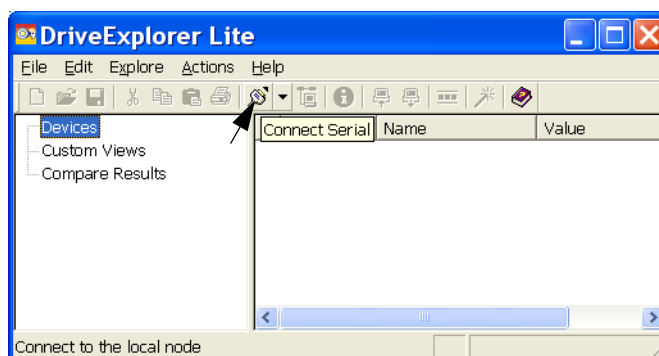
The anomalies corrected in this firmware revision update are listed in this table.


Anomaly	Description
Following an input fault, reset into actively monitoring motion was allowed without first requiring that both input channels be cycled to OFF (open) to confirm the fault has been cleared.	<p>This anomaly affected the Door Monitor input (DM_In), Enabling Switch Monitor input (ESM_In), Lock Monitor input (LM_In), and Safe Limited Speed input (SLS_In) when they are configured for 2NC 3s, 1NC + 1NO 3s, or 2 OSSD 3s.</p> <p>If inputs listed are configured in any of the above configurations and an input fault is detected, the anomaly did not require that both relay input channels turn OFF (open) before a reset into actively monitoring motion is permitted. For example, if an input was configured as 2NC 3s and only one of the channels turned OFF (opened), the relay would detect the fault and perform the required stop function. You should be required to open both channels on that input for a successful reset command.</p> <p>Corrected firmware requires that both input channels be cycled to OFF (open) before a reset into actively monitoring motion is permitted.</p>
Dual Feedback Speed fault occurs when safety mode is Disabled.	A Dual Feedback Speed fault results when an error is detected between the speed from the first encoder and the speed from the second encoder. This fault should not occur in Disabled mode, because speed monitoring is not in effect.
The Safe Stop input (SS_In) was not required to be cycled after a HIM stop request.	<p>If you press the stop button on a HIM connected to the DPI port, a stop request is initiated. The requirement to cycle the SS_In before attempting a safe stop reset was not enforced when the system was in the safe state with no faults present. Corrected firmware enforces this requirement in all cases.</p> <p>If you press the stop button on the HIM, you must press the green Start button on the HIM and then cycle the SS_In before requesting a reset of the MSR57P relay. Otherwise, the reset will not be successful.</p>

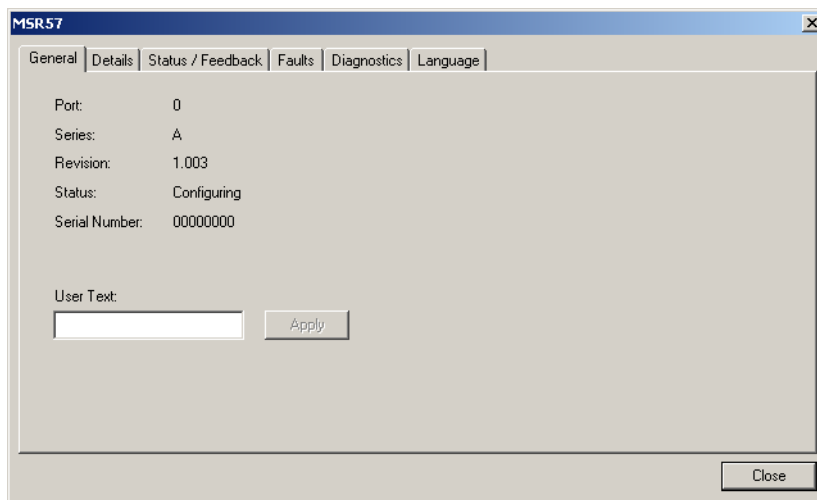
Update Firmware

Follow these steps to update the firmware of the MSR57P relay.

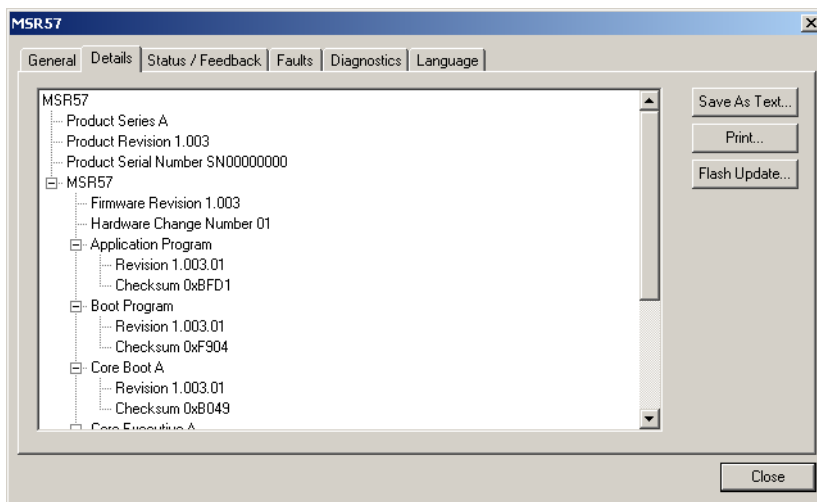
1. Open Drive Explorer software.
2. Click Connect to connect to the MSR57P relay.



3. Select the MSR57P relay and click the information icon  to open the relay Properties dialog box.

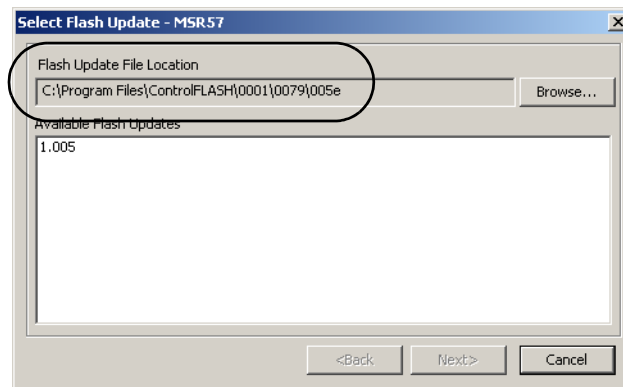


4. Select the Details tab to view the revision levels currently installed on your MSR57P relay.

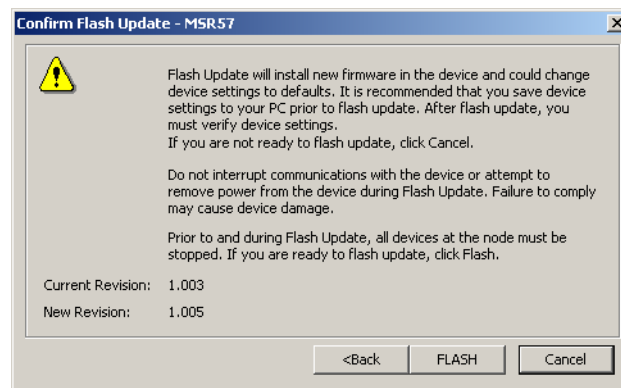


5. Click Flash Update.
6. Click Browse.

7. Find the directory where you installed the files and select that directory.



8. Select 1.005 and click Next.
9. On the Confirm Flash Update dialog box, click FLASH to start the update.




It takes approximately 7...10 minutes to update the relay. The Executing Flash Update dialog box tracks the progress of the update.

10. When the update is complete, click Close.
11. Click Yes when Drive Explorer software requests to reconnect to the MSR57P relay.

Confirm the Update

Follow these steps to confirm that the update was successful.

1. Select the MSR57P relay and click the information icon  to open the relay Properties dialog box.
2. Click the Details tab and verify that these revisions are shown.

File	Revision	Checksum
Application Program	1.005.01	0xC081
Boot Program	1.005.01	0x7104
Core Boot A	1.003.01	0xB049
Core Executive A	1.005.01	0xE2E8
Core Boot B	1.003.01	0xE9A3
Core Executive B	1.005.01	0xF578

3. Close the MSR57P dialog box.

Download Your Saved Configuration File

Follow these steps to reload your configuration to the relay.

1. In the DriveExplorer tree view, expand the MSR57P relay.
2. From the Actions menu, choose Download Saved File.
3. Click Yes to acknowledge that setup values may change.
4. Browse to the configuration file you saved before performing the firmware update (*.csf file).
5. Select your file and click Open.
6. Expand the Parameters and choose the Security group.
7. Compare the value of [P10] Signature ID to the value you recorded before the upgrade.

The two values should be the same.

IMPORTANT

After you verify that the Signature ID values match, you must revalidate your application, following the guidelines in the Guardmaster MSR57P Speed Monitoring Safety Relay User Manual, publication [440R-UM004A-EN-P](#).

8. Place the relay in Run mode by setting the P6 [Operating Mode] parameter to 1.

Additional Resources

For information on installing, configuring, and operating an MSR57P relay, including safety requirements, refer to the Guardmaster MSR57P Speed Monitoring Safety Relay User Manual, publication [440R-UM004A-EN-P](#).

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.

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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.

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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

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