

# Upgrade PM89RD96 display firmware to v4.0.15

This document describes the process to upgrade RD96 display firmware to the latest version for use with PowerLogic™ ION9000, PM8000 or ION7400 series meters.

The PM89RD96 display firmware upgrade applies to the following products:

| Commercial Reference | Description  |
|----------------------|--|
| METSEPM89RD96        | 96 x 96 mm display   |
| METSEION95030        | ION9000T series meter  |
| METSEION95040        | ION9000T series meter with RD 192 remote display                         |
| METSEION92030        | PowerLogic™ ION9000 series meter, without display                        |
| METSEION92830        | PowerLogic™ ION9000 series meter, without display (China)                |
| METSEPM8243          | PowerLogic™ PM8000 series meter, DIN rail-mount, without display         |
| METSEPM8213          | PowerLogic™ PM8000 series meter, DIN rail-mount, without display, LV DC  |
| METSEION7403         | PowerLogic™ ION7400 series meter, DIN rail mount, without display        |
| METSEION7413         | PowerLogic™ ION7400 series meter, DIN rail mount, without display, LV DC |

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## Upgrade overview

The PowerLogic™ ION9000 series meter supports the PM89RD96 display. Display firmware must be upgraded to v4.0.10 or later to use with PowerLogic™ ION9000 series meters.

The display must be connected to a PowerLogic™ ION9000, PM8000 or ION7400 series meter with meter firmware v2.1.0 or later to upgrade the display firmware.

Meter restart after the display firmware upgrade is not required.

Upgrading your display firmware may take up to 15 minutes to complete.

**NOTE:** If the display loses power during the firmware upload, the display will revert to its original firmware and you will have to repeat the display firmware upgrade procedure.

|   |
|---|
| <b>NOTICE</b>   |
| <b>UNINTENDED DISPLAY OPERATION</b>   |
| Display firmware upgrade to version 4.0.10 or later PM89RD96 breaks compatibility with meter firmware versions v3.2.xxx or earlier. |
| <b>Failure to follow these instructions can result in loss of display functionality.</b>  |

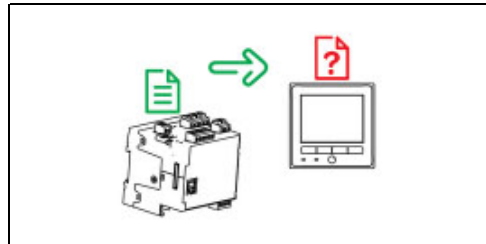
Do not perform this display firmware upgrade if you need to use your PM89RD96 with a PowerLogic™ PM8000 or ION7400 series meter with meter firmware v3.2.xxx or earlier.

## Should I upgrade my display firmware?

The PM89RD96 display firmware upgrade is required under the following conditions:

### Display troubleshooting icon

The display icon indicates a display firmware update is required when using firmware version v3.2.xxx or earlier.



Refer to “Appendix B: Display troubleshooting icons” for additional information.

### Display firmware version

Displays with firmware version v3.2.xxx or earlier require a display firmware upgrade for compatibility with:

- PowerLogic™ ION9000 series meter
- PowerLogic™ PM8000 or ION7400 series meter with meter firmware v2.1.0 or later

Use ION Setup to determine the display firmware revision.

**NOTE:** If the PM89RD96 is not compatible with the meter it is connected to, the display serial number and display firmware revision will be N/A or no data will be provided by ION Setup.

Navigate to **ION Setup > Advanced Meter Mode > Factory module > Setup registers > RMD Revision**.

## Prerequisites

Upgrade the PM89RD96 display firmware with ION Setup using an Ethernet connection or by using SFTP client software.

The recommended upgrade method is “Option 1: Upgrade using ION Setup”.

Required for this procedure:

- Computer with Ethernet connection

- ION Setup v3.1.x or later
- SFTP access to your meter from the computer running ION Setup
- SFTP client software, such as FileZilla or WinSCP
- An Ethernet-connected PowerLogic™ ION9000, PM8000 or ION7400 series meter
- PM89RD96 display connected to a PowerLogic™ ION9000, PM8000 or ION7400 series meter

**NOTE:** The SFTP protocol must be enabled on your meter. Refer to the user manual for instructions on enabling the SFTP protocol.

## RD96 Display firmware upgrade files

Download the PM89RD96 display firmware upgrade files from [www.schneider-electric.com](http://www.schneider-electric.com)

Navigate to **Support > Product Documentation & software downloads**, search for PM89RD96 firmware, and download:

- `rmdupg_rd96_004.000.015.bin`
- `rmdupg_rd96s_001.000.000_patch.bin` (required for upgrade to v4.0.10 or later from v3.2.xxx)

Some PM89RD96 displays may require a two-step firmware upgrade for compatibility with the PowerLogic™ ION9000 series meter (or PowerLogic™ PM8000 or PowerLogic™ ION7400 series meter with meter firmware v2.1.0 or later). The PM89RD96 display must be upgraded with the `rmdupg_rd96s_001.000.000_patch.bin` file before proceeding with the `rmdupg_rd96_004.000.015.bin` display firmware upgrade file. See “Appendix A: Two-step display firmware upgrade methods” for more information.

## Option 1 (recommended): Upgrade using ION Setup

This is the recommended upgrade method.

1. Start ION Setup.
2. Open the Setup Assistant for your meter.
3. Select **Template > Upgrade** tab then click **Upgrade**. Enter your meter’s password if prompted and click **OK**.
4. Navigate to where you have stored the display firmware upgrade file and select `Remote Display (.BIN)` as the file type.
5. Select the `rmdupg_rd96_004.000.015.bin` firmware file and click **Open**.
6. Click **Yes** to confirm the firmware upgrade. An ION Setup dialog box displays the upgrade progress.
 

**NOTE:** An elapsed timeout is set to 7 minutes.
7. Refer to “Upgrade status” to confirm the display firmware upgrade was completed.
8. If the display upgrade status indicates Upgrade not completed, your display may need to be upgraded using the two-step display firmware upgrade method.

## Option 2: Upgrade using SFTP

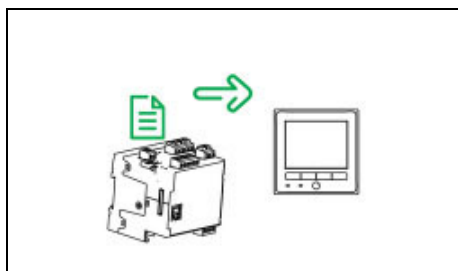
Use this option if you do not have ION Setup to upload display firmware using SFTP.

1. Launch the SFTP client software and connect to your meter’s internal SFTP site.

2. Copy the `rmdupg_rd96_004.000.015.bin` display firmware file to the remote display upgrade folder (*rmdUpg*).

**NOTE:** The file is immediately transferred to the display and is not stored on the meter.

The following troubleshooting icon indicates that the PM89RD96 display firmware upgrade file is being transferred to the display.



3. Wait a minimum of 7 minutes for the PM89RD96 display firmware upgrade to complete.
4. Refer to “Upgrade status” to confirm the display firmware upgrade was completed.

If the display upgrade status indicates Upgrade not completed, perform a two-step display firmware upgrade. See “Appendix A: Two-step display firmware upgrade methods” for more information.

## Upgrade status

### Upgrade completed status

The ION Setup summary screen provides the following information:

- RMD Upgrade Time: <Elapsed RMD upgrade time>
- RMD revision: 004.000.015
- Date and time of the PM89RD96 display firmware upgrade
- Additional upgrade information

The PM89RD96 displays the meter Summary screen when the display firmware upgrade is complete.

### Upgrade not completed status

The ION Setup summary screen provides the following information:

- RMD Upgrade Time: 7 minutes and 0 seconds
- RMD revision: N/A
- Unable to validate RMD update
- Date and time of the upgrade
- Additional upgrade information

The PM89RD96 displays an icon indicating incompatibility between your meter and display.

**NOTE:** The PM89RD96 troubleshooting icon displayed may vary. See “Appendix B: Display troubleshooting icons” for more information.

## Technical support

Go to [www.schneider-electric.com](http://www.schneider-electric.com) and search for support to get assistance with troubleshooting.

## Appendix A: Two-step display firmware upgrade methods

Perform a two-step display firmware upgrade if Option 1 or 2 indicates Upgrade not completed.

### Two-step upgrade using ION Setup

1. Start ION Setup.
2. Open the Setup Assistant for your meter.
3. Select **Template > Upgrade** tab then click **Upgrade**. Enter your meter's password if prompted and click **OK**.
4. Navigate to where you have stored the display firmware upgrade file and select `Remote Display (.BIN)` as the file type.
5. Select the `rmdupg_rd96s_001.000.000_patch.bin` firmware file and click **Open**.
6. Click **Yes** to confirm the firmware upgrade. An ION Setup dialog box displays the upgrade progress.

**NOTE:** An elapsed timeout is set to 7 minutes.

An ION Setup summary screen is displayed when the PM89RD96 display `rmdupg_rd96s_001.000.000_patch.bin` upgrade is complete.

7. Click **Exit**.
8. Repeat steps 4 to 7 using the `rmdupg_rd96_004.000.015.bin` upgrade file.

**NOTE:** An elapsed timeout is set to 7 minutes.

9. Refer to "Upgrade status" to confirm the display firmware upgrade was completed.

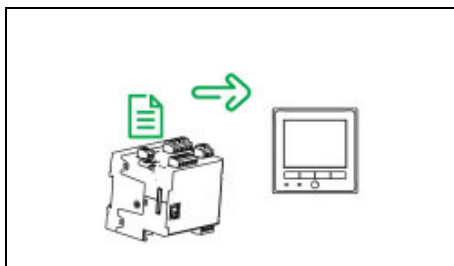
Contact Technical Support if the display upgrade status indicates Upgrade not completed.

### Two-step upgrade using SFTP

1. Launch the SFTP client software and connect to your meter's internal SFTP site.
2. Copy the `rmdupg_rd96s_001.000.000_patch.bin` display firmware file to the remote display upgrade folder (*rmUpg*).

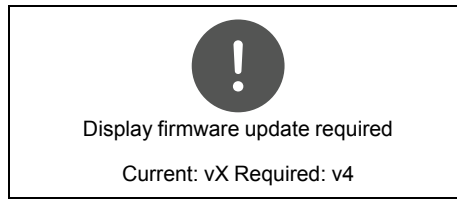
**NOTE:** The file is immediately transferred to the display and is not stored on the meter.

The following troubleshooting icon indicates that the PM89RD96 display firmware upgrade file is being transferred to the display:



3. Wait a minimum of 7 minutes for the PM89RD96 display firmware upgrade to complete.

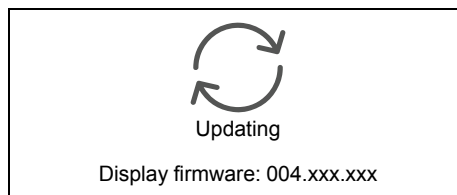
The following troubleshooting icon indicates that the `rmdupg_rd96_004.000.015.bin` display firmware file can be uploaded:



4. Copy the `rmdupg_rd96_004.000.015.bin` firmware file into the remote display upgrade folder (*rmdUpg*).

**NOTE:** The file is immediately transferred to the display and is not stored on the meter.

The following troubleshooting icon indicates that the PM89RD96 display firmware upgrade file is being transferred to the display:



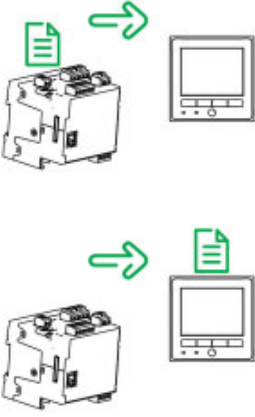


5. Wait a maximum of 7 minutes for the PM89RD96 display firmware upgrade to complete.
6. Refer to "Upgrade status" to confirm the display firmware upgrade was completed.






## Appendix B: Display troubleshooting icons

Use the display troubleshooting icons to determine the display connection status with the meter.

### Display firmware v3.2.xxx or earlier icons

| Icon   | Display status  |
|--|---|
|   | <p>Display cannot communicate with your meter. Check the connection between your meter and the display. Check the meter's status LED to confirm that the meter is operating normally.</p> |
|   | <p>Display needs updated firmware for compatibility with your meter.</p>  |
|  | <p>Display is undergoing a firmware upgrade. Do not disconnect your display from your meter.</p>  |

## Display firmware v4.0.10 or later icons

| Icon  | Display status   |
|---|--|
| <br>Connecting   | Display is connecting to your meter.   |
| <br>Error  | Display cannot communicate with your meter. Check the connection between your meter and the display. Check the meter's status LED to confirm that the meter is operating normally. |
| <br>Display firmware update required<br>Current: vX Required: v4 | Display needs updated firmware for compatibility with your meter.<br><b>NOTE:</b> vX is used here to illustrate the current display firmware version.                              |
| <br>Updating   | Display is downloading a firmware upgrade. Do not disconnect your display from your meter.   |
| <br>Updating<br>Display firmware: 004.xxx.xxx                    | Display is undergoing a firmware upgrade. Do not disconnect your display from your meter.  |