

M241/M251

Release Notes



Firmware Version:

V4.0.6.41

Release Date:

June 2020

This document contains important information about firmware delivery of M241/M251. Read the complete document before you use the product or products described herein.



The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein. If you have any suggestions for improvements or amendments or have found errors in this publication, please notify us.

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All pertinent state, regional, and local safety regulations must be observed when installing and using this product. For reasons of safety and to help ensure compliance with documented system data, only the manufacturer should perform repairs to components.

When devices are used for applications with technical safety requirements, the relevant instructions must be followed.

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Failure to observe this information can result in injury or equipment damage.

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1. Product Overview

The present document describes the major improvements and firmware versions released for M241/M251 products.

2. Major Releases Overview

The table below list all major releases for M241/M251 products.

Firmware version	Description
V4.0.6.26	Official firmware version for all M241/M251 controllers released in SoMachine V4.3
V4.0.5.11	Official firmware version for all M241/M251 controllers released in SoMachine V4.2
V4.0.4.12	Official firmware version for M251 controller (EtherNet/IP Scanner) released in SoMachine V4.1 SP2
V4.0.3.15	Official firmware version for others M241/M251 controllers released in SoMachine V4.1 SP2
V4.0.2.42	Official firmware version for all M241/M251 controllers released in SoMachine V4.1 SP1
V4.0.2.11	Official firmware version for all M241/M251 controllers released in SoMachine V4.1

3. Current Firmware: V4.0.6.41

Version number: V4.0.6.41			
Dates: Released W18 – 2020 Production N/A	Content: <input checked="" type="checkbox"/> New features <input checked="" type="checkbox"/> Maintenance	Products compliant: <input checked="" type="checkbox"/> M241 <input checked="" type="checkbox"/> M251	Software compliant: <input checked="" type="checkbox"/> SoMachine V4.x
Link:			
Restriction:			

3.1. New features

New feature									
Update of memory drivers to integrate new component references. Impacted products can be identified using their Product Version (PV), found on product labelling, as shown in table below.									
	<table border="1"> <thead> <tr> <th>References</th> <th>PV</th> </tr> </thead> <tbody> <tr> <td>TM241...R</td> <td>9</td> </tr> <tr> <td>TM241...T/U</td> <td>7</td> </tr> <tr> <td>TM251MES...</td> <td>6</td> </tr> </tbody> </table>	References	PV	TM241...R	9	TM241...T/U	7	TM251MES...	6
References	PV								
TM241...R	9								
TM241...T/U	7								
TM251MES...	6								

3.2. Mitigated Anomalies

This firmware is compatible with M241 and M251 controllers and is intended to address the anomalies listed in following table.

Anomaly	Corrective Description
Connection issue when connecting to an HMIBSC device	Correction in Ethernet driver of ETH1 network interface
Improve the robustness of device web server	
Improve handling of ModbusTCP communication protocol	<ul style="list-style-type: none"> - Addressed issue preventing communication with Festo devices - Addressed handling of error messages generated in error condition - Improve handling of connection closure when controller is configured as Modbus client - Communication Timeout adjusted
Improve OPC-UA robustness	Addressed issue during configuration update of OPC-UA server
Loading and saving data parameters using embedded Web Server unsuccessful	Correct issue in calculation of data size to be saved/loaded
Incorrect feedback of homing function block when Homing mode 20 is used	Addressed detection of signal edge of reference switch
Modbus Serial line frame detection	Improve UART driver to operate with low baud rate

4. Firmware Releases History

4.1. Version V4.0.6.39

Version number: v4.0.6.39			
Dates: Released W34 – 2018 Production N/A	Content: <input type="checkbox"/> New features <input checked="" type="checkbox"/> Maintenance	Products compliant: <input checked="" type="checkbox"/> M241 <input checked="" type="checkbox"/> M251	Software compliant: <input checked="" type="checkbox"/> SoMachine V4.x
Link: https://www.schneider-electric.com/en/download/document/M241_M251_Firmware_v4.0.6.39/			
Restriction:			

4.1.1. New features

This is a maintenance version and does not have new features.

4.1.2. Mitigated Anomalies

This firmware is compatible with M241 and M251 controllers and is intended to address the anomalies listed in following table.

Anomaly	Corrective Description
M241 Fast outputs are turned off for 5 seconds when V0+ is disconnected	Trigger Level for error detection is adjusted
Filter on Digital inputs is inoperable	Initialization of Digital Input/Outputs is improved
M241 DHCP client does not accept the offer if “client offer” option is set by DHCP server	Explicit check for this option is removed as it is a misinterpretation of RFC2131
Busy signal of MC_STOP_PTO is always set	Function Blocks’ internal event priority has been adjusted
No response if 2 simultaneous Modbus ASCII requests are sent	Adjust detection of end of frame
File system cannot be accessed via WebVisu when refreshed quickly	Improve handling of files in webserver

4.2. Version V4.0.6.38

Version number: v4.0.6.38			
Dates: Released W25 – 2018 Production W25 – 2018	Content: <input type="checkbox"/> New features <input checked="" type="checkbox"/> Maintenance	Products compliant: <input checked="" type="checkbox"/> M241 <input checked="" type="checkbox"/> M251	Software compliant: <input checked="" type="checkbox"/> SoMachine V4.x
Link: https://www.schneider-electric.com/en/download/document/M241_M251_Firmware_v4.0.6.38/			
Restriction:			

4.2.1. Mitigated Anomalies in version V4.0.6.38

5. This firmware is compatible with M241 and M251 controllers.

Anomaly	Corrective Description
FTP download is unsuccessful if the file size is greater than 256 kB	FTP download is functioning as defined
ERR LED Flashing – PLC does not boot	Improved timing settings for DDR

5.1. Version V4.0.5.11

5.1.1. Mitigated Anomalies in version V4.0.5.11

This firmware is compatible with M241 and M251 controllers and is intended to address the anomalies listed in following table.

Anomaly
Nodename lost
Error on ChangeIPAddress FB on TM251 Eth port2
LXM28 cannot be enabled if TMC4AQ2 is used
IoDrvModbusSerial returns incorrect values
SetRTCDrift adjustment too small
LTON timer resets to 0 after 2^{32} μ s
FTP communication not possible with active firewall

5.2. Version V4.0.4.14

5.2.1. New features in version v4.0.4.14

New feature
Add EtherNet/IP Scanner on M251

5.2.2. Mitigated Anomalies in version V4.0.4.14

This firmware is compatible with M241 and M251 controllers and is intended to address the anomalies listed in following table.

Anomaly
M251 goes into exception stop due to IOscanner
Datalogging in SD card not working on SoM V4.1 SP1 and SP2
M241 TCP client closes connection when receiving WIN:0
Download stops when recipes save automatically
An application transferred from M258 can't download into M251
Exception when Modbus TCP health bits are linked to variables

5.3. Version V4.0.3.20

5.3.1. Mitigated Anomalies in version V4.0.3.20

This firmware is compatible with M241 and M251 controllers and is intended to address the anomalies listed in following table.

Anomaly
M251 goes into exception stop due to IOscanner
Datalogging in SD card inoperable on SoM V4.1 SP1 and SP2
M241 TCP client closes connection when receiving WIN:0
Download stops when recipes save automatically
An application transferred from M258 does not download into M251
Exception when Modbus TCP health bits are linked to variables

5.4. Version V4.0.2.52

5.4.1. Mitigated Anomalies in version V4.0.2.52

This firmware is compatible with M241 and M251 controllers and is intended to address the anomalies listed in following table.

Anomaly
After several downloads, values may be reset of the persistent variable in the %MW<1000 "retain variables" range.
Under specific conditions, the M241 may lose the firmware after a power cycle

5.5. Version V4.0.2.46

5.5.1. Mitigated Anomalies in version V4.0.2.46

This firmware is compatible with M241 and M251 controllers and is intended to address the anomalies listed in following table.

Anomaly
In DHCP mode the @ IP is inversed
Actual persistent values not part of M241 clone
USB connection weakness

5.6. Version V4.0.2.12

5.6.1. Mitigated Anomalies in version V4.0.2.12

This firmware is compatible with M241 and M251 controllers and is intended to address the anomalies listed in following table.

Anomaly
IO bus Expander (Reference TM3XTRA)
SysSocket or CAA_NetBaseServices libraries