MSMU200-2 Source Measure Unit

V1.2.1 Firmware Release Notes

Tektronix, Inc.
13725 SW Karl Braun Drive
P.O. Box 500
Beaverton, OR 97077
USA
tek.com

Important information

These release notes contain important information about version 1.2.1 of the Tektronix MSMU200-2 firmware.

Introduction

This document provides supplemental information regarding the behavior of the MSMU200-2 firmware. This information is grouped into the following categories:

Revision history	Lists the date of the firmware release, the version of firmware, and the document version.
Firmware version compatibility	A cross-reference for compatible mainframe and module firmware versions.
Problem fixes	Summary of each significant firmware bug fix.
Known problems	Description of each significant known problem and ways to work around it.
Installation instructions	Detailed instructions describing how to install the firmware.

Revision history

This document is periodically updated and distributed with releases and service packs to provide the most up-to-date information. This revision history is included in the following table.

Date	Firmware version	Document number
9/11/2026	V1.2.1	077195500 (initial release)

Firmware version compatibility

To avoid compatibility issues between modules and the mainframe, it is recommended to either keep all products on the newest firmware or ensure that the mainframe firmware is newer than the module firmware.

The following table lists the compatible firmware versions to this firmware version. For other versions, see the corresponding release notes.

MP5103	**1.2.0 / 1.2.1**
MPSU50-2ST	1.2.0 or older
MSMU60-2	1.2.1 or older
MSMU200-2	1.2.1

VERSION 1.2.1

Problem fixes

Issue number	TREB-15697
Model affected	MSMU200-2
Symptom	There is an additional 1.5 ms delay when sourcing voltage on the 200 V range.
Resolution	This issue has been resolved.
Issue number	TREB-15733
Model affected	MSMU200-2
Symptom	The contact check procedure takes longer than expected.
Resolution	This issue has been resolved.

Known problems

Issue number	TREB-15901
Model affected	MSMU200-2
Symptom	There is an additional delay of approximately 500 µs when sourcing voltage on the 200 V range and using the `pulsestep()` trigger model block.
Workaround	Subtract 500 µs from the desired pulse width when pulsing voltage on the 200 V range.

VERSION 1.2.0

Known problems

Issue number	TREB-14808
Model affected	MSMU200-2
Symptom	When pulsing in the extended operating area, the pulse width is affected if the current limit must be changed with the `pulseset()` or `pulsestep()` commands. The pulse width will be shorter than specified due to time consumed by the range change.
Workaround	Set the bias condition to the range that will be used during the extended operating area pulse before the trigger model executes.

Issue number	TREB-15578
Model affected	MSMU200-2
Symptom	When quickly slewing high current (1 A or higher) and sampling voltage at the maximum rate (1 MSa/s), distortion may occur in the voltage waveform measurements. This is exhibited by a slight delay in the voltage waveform with respect to current. An overshoot at the start of slewing may also be present.
Workaround	Minimize distortion by setting the measurement sampling rate, voltage measurement range, and limit ranges to the minimums required for the test. For example, if the voltage measurements will not exceed 1.8 V, use the 2 V range instead of the 6 V or 20 V range.
Issue number	TREB-15612
Model affected	MSMU200-2
Symptom	When sourcing current in the extended operating area (EOA) and the pulse width exceeds the maximum duration for the active range, the output does not return to the programmed bias level. Instead, the output voltage goes to the voltage limit (configured by `slot[Z].smu[X].source.pulse.limitv`), causing the instrument to source more power than intended for the remainder of the trigger model.
Workaround	Ensure that all trigger model delay blocks following a pulse source action block do not exceed the maximum pulse width for the active current range.

Installation instructions (front panel)

Use a USB flash drive to update the firmware from the front panel for the mainframe and modules. The latest firmware is available from tek.com.

Make sure that the firmware is loaded onto your USB flash drive, then insert it into the USB port on the front of the mainframe.

The update process is the same for the mainframe as it is for the modules. The following example demonstrates the firmware update for a module.

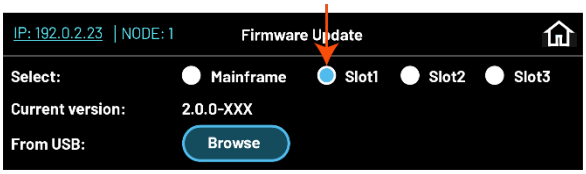
CAUTION

Do not remove the USB drive, turn off the instrument power, or otherwise interrupt the firmware update process. Your instrument may become unresponsive and require factory service.

The following procedure updates a module with mainframe firmware V1.0.1 or newer installed. If you need to update using an older mainframe version, replace the first two steps in the following procedure by selecting **General info** from the home screen and then selecting the firmware download icon.

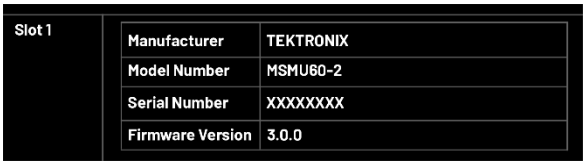
To update the module firmware (mainframe V1.0.1 and newer):

1. Select **Settings** from the mainframe home screen.
2. Select **Firmware Update**.
3. Select **Slot1**, **Slot2**, or **Slot3**.



4. Select **Browse** to locate the new firmware file on your USB flash drive, then select it.
5. Select **Update**. The firmware may take several minutes to load. The slot indicator on the front panel blinks red and green while the update is in process, and a message is displayed when the update is complete.

6. To confirm that the update was successful, select the information icon from the Home screen, then scroll to the information section for the slot to verify the module firmware version.



Installation instructions (remote)

To update the firmware using TSP Toolkit or another method, see the *MP5103 Mainframe Reference Manual*, available from tek.com.