



TSMPPPT-60 Critical Firmware Update

Technical Bulletin

#MS001331

December 2018

Affected

TSMPPPT60 **Pre 1836xxxx Serial Numbers**
TSMPPPT60M **Pre 1836xxxx Serial Numbers**

Summary

Recently, a limited number of customers using Morningstar Tristar MPPT60 model charge controllers have seen an increased percentage of units prone to failure with MOSFET damage.

Detail Information

Investigation into recent TSMPPPT60 failures has uncovered a change in basic operation of the controller DSP Chip (Microprocessor “A”). This operational change can, in limited circumstances, lead to damage resulting in a non-operational controller.

Though other triggers may be involved, affected units are primarily found in systems utilizing most, or all, of the following conditions.

- i. High I/O of Communications
- ii. Read/Write of vb_ref register (0x0033)
- iii. Read/Write of ib_ref register (0x0058)
- iv. Write of battery current limit (0xE01D)
- v. Coil command restart of controller
- vi. 48V Systems
- vii. Oversized Arrays

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Required Action

Prior to the sale or installation of pre-1836xxxx TSMPPPT-60 & TSMPPPT-60M charge controllers, update the “A” firmware to v32b or higher version.

For existing field-installed pre-1836xxxx TSMPPPT-60 & TSMPPPT-60M charge controllers, update the “A” firmware to v32b or higher version. Refer to the previous section to identify systems at higher risk - firmware update is critical.

Additional Information

The following link provides instructions on updating firmware:

<https://www.youtube.com/watch?v=J6Duwr5Tl-w&t=10s>

The required firmware is available for download from the Morningstar Technical Support website:

http://support.morningstarcorp.com/search/?document_section=&search_product=96

To request additional product information, or to contact technical support, please see the contact information below

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