US DIGITAL

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Product Change Notification

MD3 Firmware PCN-7114

Date of Notification	Change		Part Numbers Affected
February 8, 2021	☐Major	☒Minor	MD3

Notification

☐Product Obsolescence	☐Product Marking	☐Process Change	☐Design Change
☐Material Change	☐Specification Change	☐Component Change	☒Other

Notification Description (Including Extent, Purpose / Reason, and Effect on Form, Fit and Function)

As part of our ongoing continuous improvement efforts, US Digital is implementing a firmware change to the MD3 Microstepping Motor Driver.
Firmware version 4 has the following updates:

- The "Tshutdown" bit of Modbus Motion Control Register (0x11) is now renamed to "Fault". A Fault will stop all running motion commands. Faults can be cleared by writing to a bit in the Motion Control Register or activating the INHIBIT/HOME input (J2 pin 3).

- Added INHIBIT_MODBUS_MOTION mode to J2 pin 3 that will stop all running motion commands, block all modbus commands (except for enable/disable) and leave motor current enabled. This allows the drive to be inhibited without losing its position since the motor current remains on.

- Reduced audible motor noise in some circumstances and improved tolerance to drive current faults.

See the version 1.5 update of the **MD3 User Guide** for more information: https://www.usdigital.com/support/resources/reference/user-guides/md3-user-guide.
The firmware can be updated using the **MD3 Software Installer** (Version 1.0.24), which is available to download here:
https://www.usdigital.com/support/resources/downloads/software/md3-software
The firmware update option is in the "Maintenance" tab of the MD3 Demo Program.

If you have any questions or concerns about this PCN, please contact our Technical Support Group at 360-397-9999 or email support@usdigital.com.

Alternate Parts (as applicable)

Effective Date (Including Last Time Buy Date and Conditions, as applicable)

Will be implemented for all MD3's shipped on / after February 22, 2021.