

Mint^{MT} Multi-Tasking Application Note

AN00163-001 – e100 B Revision Hardware and Firmware Compatibility

Overview

Component obsolescence has forced a revision of the hardware in NextMove e100, MicroFlex e100 and MotiFlex e100. These revised products are referred to as revision 'B', but are functionally identical to the original version. In order to differentiate these revision B products, the order codes have been amended.

Supported Controllers

NextMove e100	<input checked="" type="checkbox"/>
MicroFlex e100	<input checked="" type="checkbox"/>
MotiFlex e100	<input checked="" type="checkbox"/>

New firmware is also being introduced to support the hardware change and to align Mint homing operation with the DS 402 specification. This application note describes the revised hardware, the order codes and the compatibility of the new and old firmware.

Order Codes

The revised products are indicated with a 'B' suffix. NextMove e100 order codes have been amended to more clearly identify the stepper interface type. The differential option is now indicated with a 'D'. The following tables show the old and new style codes:

NextMove e100

Old Style (Revision A)	New Style Revision A	New Style Revision B
NXE100-1608	NXE100-1608DA	NXE100-1608DB
NXE100-1608S	NXE100-1608SA	NXE100-1608SB
NXE100-1612	NXE100-1612DA	NXE100-1612DB
NXE100-1612S	NXE100-1612SA	NXE100-1612SB
NXE100-1616	NXE100-1616DA	NXE100-1616DB
NXE100-1616S	NXE100-1616SA	NXE100-1616SB

MicroFlex e100

Old Style (Revision A)	New Style Revision A	New Style Revision B
MFE230A003	MFE230A003A	MFE230A003B
MFE230A006	MFE230A006A	MFE230A006B
MFE230A009	MFE230A009A	MFE230A009B

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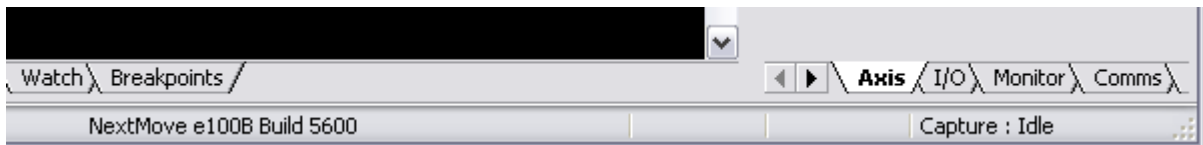
MotiFlex e100

Old Style (Revision A)	New Style Revision A	New Style Revision B
MFE460A001	MFE460A001A	MFE460A001B
MFE460A003	MFE460A003A	MFE460A003B
MFE460A006	MFE460A006A	MFE460A006B
MFE460A010	MFE460A010A	MFE460A010B
MFE460A016	MFE460A016A	MFE460A016B
MFE460A021	MFE460A021A	MFE460A021B
MFE460A026	MFE460A026A	MFE460A026B
MFE460A033	MFE460A033A	MFE460A033B

Have I got an A or B product?

The product label shows the order code of the product. B revision products will be labeled according to the tables shown above.

You can also see the revision in Mint WorkBench. Once connected to the product, the firmware version can be seen in the status bar at the bottom of the window. The firmware version will include a 'B' for B revision products.



This will also be seen in the SupportMe information, for example:

```
Firmware
Firmware:      NextMove e100B Build 5600
Bootloader:    v7B
```

Firmware compatibility

Due to the hardware changes in the revised products, it is not possible to use existing firmware. B revision hardware is supported with firmware build 5580 onwards.

Firmware build 558x is compatible with all previous firmware releases from build 5550 onwards. This makes it possible to replace an existing unit in the field with a B revision product as long as no parts of the system have firmware prior to build 5550.

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Firmware is distributed as Mint System Files (.MSX). From build 5580 onwards, firmware system files for e100 contain all the components needed for both revision A and revision B products. Mint WorkBench will automatically download the correct components depending on the revision of product that is connected. It is NOT possible to corrupt any revision of product by downloading incorrect firmware.

All B revision products currently ship from the factory with firmware build 558x.

WorkBench compatibility

It is essential to use Mint WorkBench build 5600 or above for full compatibility with the revised hardware. This is available from www.baldormotion.com/supportme.

Previous releases of Mint WorkBench or the Mint ActiveX control will communicate with the revised hardware but will be unable to download firmware.

Homing change in 561x

In order to be fully compatible with the DS 402 specification for ETHERNET Powerlink control, changes have been made to the underlying DS 402 homing methods used in response to a Mint HOME command. This change does not affect the values used in the HOME keyword and no changes are required to existing Mint programs.

For the home to work, the MN and CN must BOTH be running compatible firmware versions, that is either all pre build 5600 or all post build 5615.

Ethernet Powerlink stack change in 561x

In order to be fully compatible with third party devices, a number of changes to the Ethernet Powerlink stack have been made in firmware Build 5615 and above. These changes mean that the new stack will not operate correctly in networks where other controllers are using previous versions of the stack

It is NOT possible to mix firmware before Build 5615 with firmware Build 5615 and above on Baldor controllers on an Ethernet Powerlink network.

It is recommended that all new systems use build 561x firmware on all e100 products.