

This Application Note applies to the Unidrive M700 Drive Series

Saving and Restoring Unidrive M700 drive parameters

This application note will describe how to save and then restore parameters to a Unidrive M700 using the NV Media Card. The NV Media Card is made up of two individual parts fitted together: the SD-CARD-ADAPTOR and a SD memory card. Control Techniques sells the CTSDG8GB SD card and the SD-CARD ADAPTOR. Below are pictures of an actual SD-CARD-ADAPTOR fitted with the CTSDG8GB SD card. For all references to NV Media Card following in this document it will be assumed the NV Media Card will consist of both the SD-CARD-ADAPTOR and SD memory card in order to save and restore any drive parameters. Before performing any of the parameter restoration operations below make sure the drive is not enabled and there is no voltage applied to control terminal 31.



Saving Unidrive M700 drive parameters using the NV Media Card:

The following steps are needed to program a new NV Media Card or anytime the user wishes to save a new backup project to the NV Media Card residing in the working drive. In order to gain access to the drive NV Media Card the drive keypad will need to be removed as shown in Figure 1. The drive keypad can be installed or removed while powered down or when the drive is on.

Warning: Be aware of possible live terminals when installing the keypad with power on.

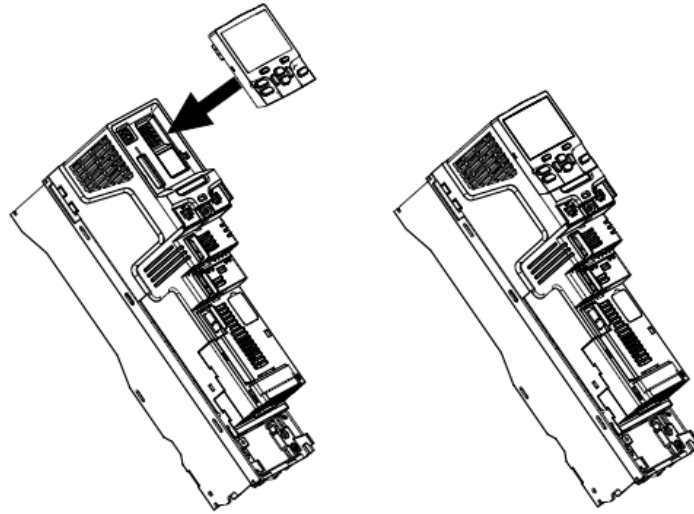


Figure 1

To install, align the keypad and press gently in the direction shown in Figure 1 until it clicks into position. To remove, reverse the installation instructions.

Once the keypad has been removed the NV Media Card can be installed into the drive as shown in Figure 2. The NV Media Card can also be installed with drive power on, but make sure the drive is disabled and there is no voltage applied to control terminal 31.

Installing the NV Media Card:

The NV Media Card is located at the top of the module under the drive display (if installed) on the left-hand side. Ensure the NV Media Card is inserted with the contacts facing the left hand side of the drive as seen in Figure 2 (1).

The NV Media card installed into the drive in Figure 2 (2) below.

The drive only communicates with the NV Media Card when commanded to read or write, meaning the card may be "hot swapped", however, do not remove the NV Media Card until the Read or Write operation has completed.

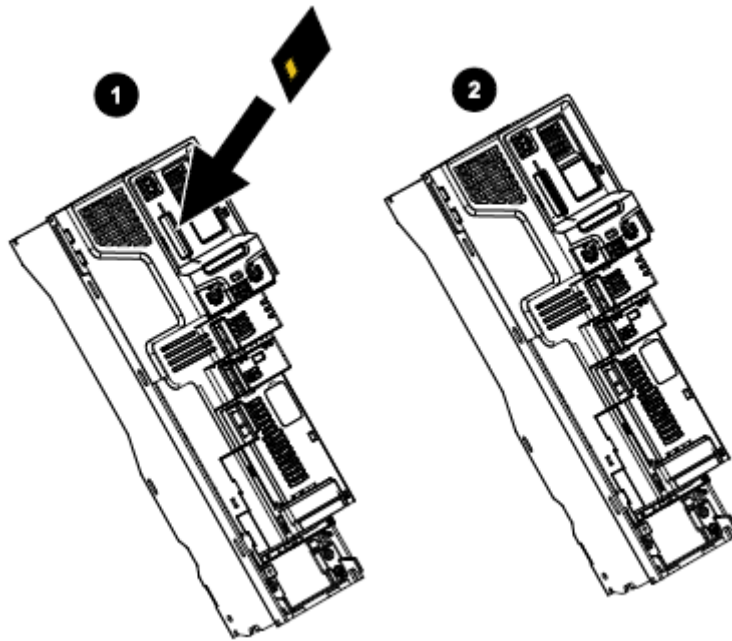


Figure 2

Once the NV Media card has been installed into the drive as shown in Figure 2 (2) the drive keypad will need to be replaced and drive powered on in order to program the NV Media card. Using the drive keypad scroll up or down to drive parameter 00.030. Press the keypad 'M' so that 'None' is flashing and then using the up arrow change to 'Program' and press the Red Reset button.



Programs all drive parameters to the NV Media Card

NOTE

Overwrites any data already in data block 1

Pr 00.030 = Program + 

A small flashing period will flash next to left hand side of '00.030' during the programming of the NV Media card. Parameter 00.030 will change back to 'None' once the programming is complete. The NV Media card now has a backup set of drive parameters that can be used to restore parameters in this drive or any replacement drive of the same size and voltage ratings.

Restoring Unidrive M700 drive parameters using the NV Media Card:

The following steps are needed to program a new out of the box M700 drive or replacement M700 drive that has an incorrect set of drive parameters.

Remove the drive keypad and install the NV Media card that has the backup drive parameters stored on it as shown in Figure 1 and Figure 2 and apply power to the drive. Make sure the drive is not enabled and there is no voltage applied to control terminal 31. Using the drive keypad scroll up or down to drive parameter 00.030. Press the keypad 'M' so that 'None' is flashing and then using the up arrow change to 'Read' and press the Red Reset button.



A small flashing period will flash next to left hand side of '00.030' during the programming of the M700 drive. Parameter 00.030 will change back to 'None' once the programming is complete. Cycle power to the drive and the newly programmed M700 drive is now ready for use.

Removing and replacing SI-UNI-ENCODER modules:

Caution: Power down the drive before installing / removing any option modules. Failure to do so may result in damage to the product.

The following steps should be used to remove and replace respective option modules. Remove power to the M700 drive. Option modules are not "hot swappable". Before removing any option modules note the order which they are installed so that when replacing the modules all are installed in the exact position they were removed from. Remove any cables or connectors attached to the respective option module. Option modules in Slot 1 must be removed first prior to accessing and/or removing option modules in Slot 2 and finally in Slot 3 or when changing out a M700 drive.

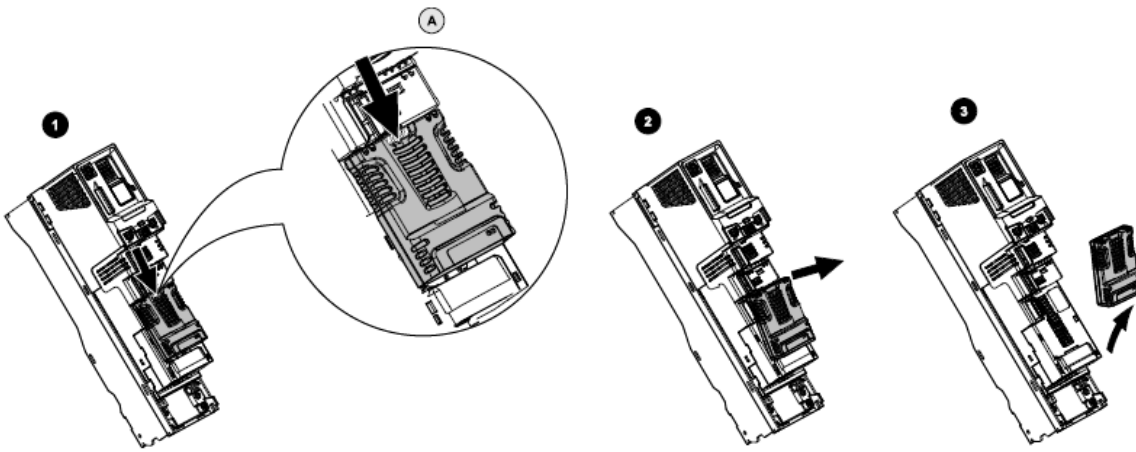


Figure 3

Removal of a standard option module illustrated as fitted in Slot 3:

- Press down on the tab Figure 3 (1) to release the option module from the drive housing, the tab is highlighted in the detailed view Figure 3 (A).
- Tilt the option module towards you as shown Figure 3 (2).
- Totally remove the option module in direction shown Figure 3 (3).

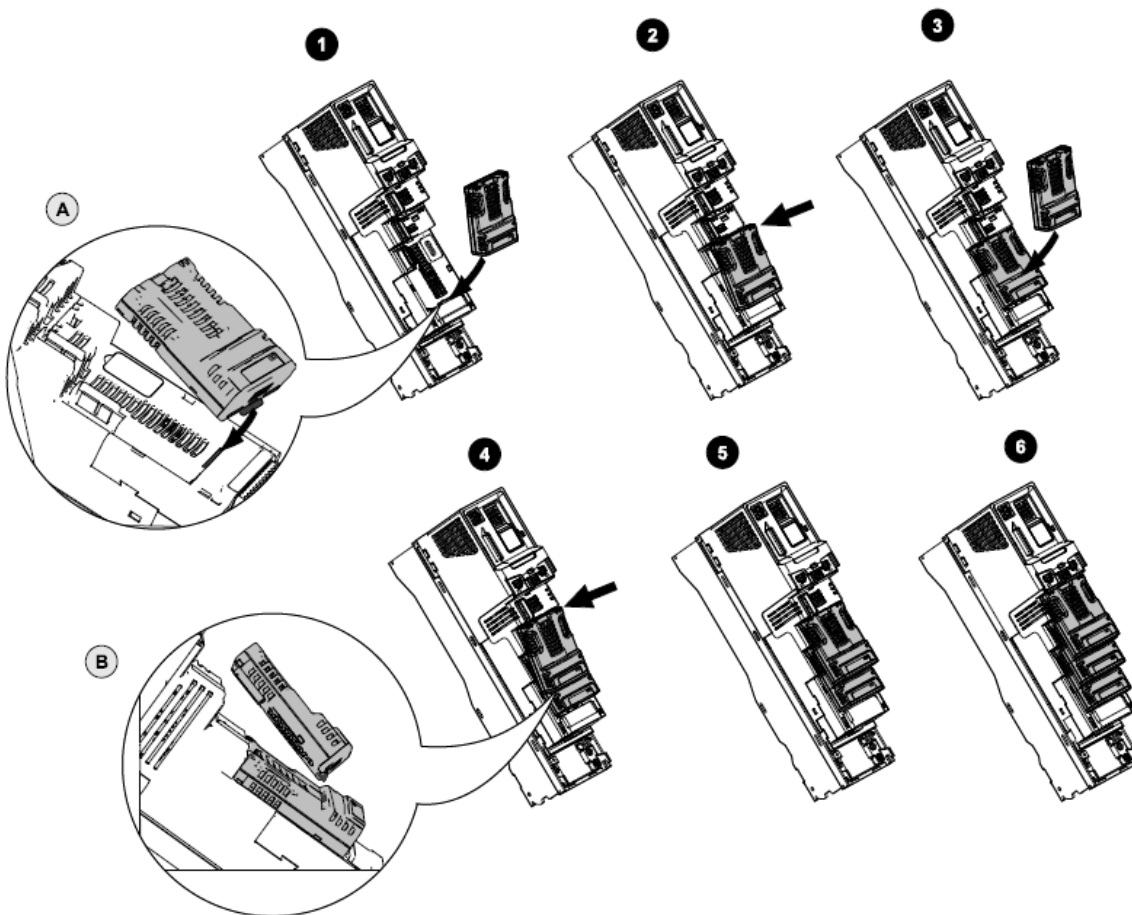


Figure 4

Note: Option module slots must be installed in the following order: Slot 3, Slot 2 and Slot 1.

Installing the first option module

Move the option module in direction shown Figure 4 (1).

- Align and insert the option module tab in to the slot provided Figure 4 (2), this is highlighted in the detailed view Figure 4 (A).
- Press down on the option module until it clicks into place into Slot 3.

Installing the second option module

- Move the option module in direction shown Figure 4 (3).
- Align and insert the option module tab in to the slot provided on the already installed option module Figure 4 (4), this is highlighted in the detailed view Figure 4 (B).
- Press down on the option module until it clicks into place into Slot 2. Image Figure 4 (5) shows two option modules fully installed.

Installing the third option module

- Repeat the above process.

The drive has the facility for all three option module slots to be used at the same time, image Figure 4 (6) shows the three option modules installed.

Once the option modules have been replaced re-connect any cables and connectors that were disconnected to allow removal.

For a working M700 drive, there are no extra steps required to program a new or replacement SI-UNI-ENCODER as these system integration module parameters are stored in the M700 drive. If replacing the M700 drive follow the steps earlier in the document for restoring M700 drive parameters using the NV Media Card.

Removing and replacing SI-APPS-PLUS or MCI210 modules:

For the purposes of the Application Note it will be assumed that pre-programmed SI-APPS-PLUS or MCI210 modules are available for replacement purposes. Remove power to the M700 drive. For the MCI210 follow removal and installation instructions in Figure 3 and Figure 4. Remove the SI-APPS-PLUS module according to the instructions in Figure 3 and replace it with a pre-programmed module in Slot 3 shown in Figure 4. Due to the physical size of SI-APPS-PLUS this SI Module is a large option module and must be used only in Slot 3. Once the module has been replaced and any cabling restored the M700 is now ready for use.

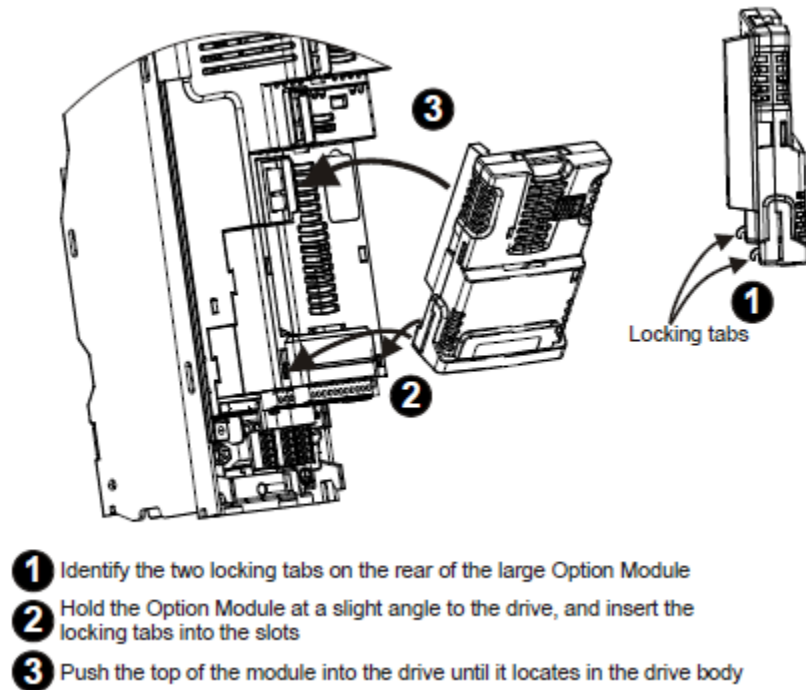


Figure 4

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Resources

Unidrive M700 User Guide Model sizes 3 to 10

For more resources visit: www.controltechniques.com

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