

This Application Note applies to the Unidrive M KI-Keypads

Keypad Auxiliary Button Programming

This application note will describe the necessary parameter changes to program the auxiliary button on a KI-KEYPAD-LCD, KI-KEYPAD-RTC, or REMOTE-KEYPAD-RTC.

Run/Auxiliary/Stop

The Unidrive M series keypads all include a green START button and a red STOP/RESET button. These buttons only perform start/stop operations if Pr. 01.014 (Reference Selector) is set to "Keypad" (or "PAd" on the LED screens). Otherwise, the green button performs no actions by default and the red button merely performs drive resets. On keypads that include the blue auxiliary button, this button is also unassigned to perform actions by default.

However, all Unidrive M series drives (excluding models M100/M101) have the option to program both the green and blue button in Menu 8. The red button is not designed to be user programmable. To program the auxiliary and start button, make the following changes:

Pr. 08.051 (Green START button mode) = Toggle Pr. 08.052 (Blue Auxiliary button mode) = Toggle

These settings allow for the keypad's to toggle digital commands using a rising edge detector, which is appropriate for pushbuttons. To set up what these buttons control, simply input the destinations for each button, into Pr. 08.061 (Green START button destination) and Pr. 08.062 (Blue auxiliary button destination).

Considerations

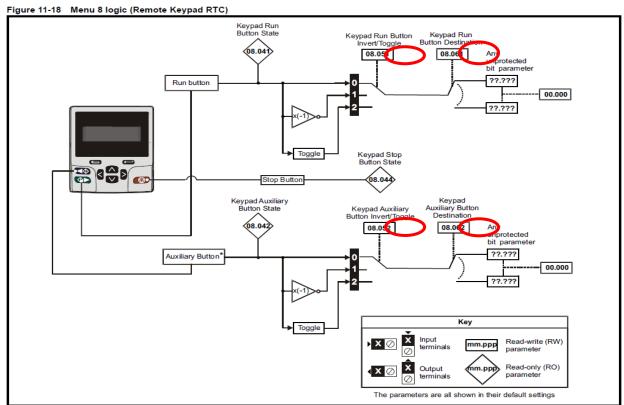
For the green START button to properly control the digital command defined in Pr. 08.061, you'll need to make sure Pr. 01.014 is NOT set to "Keypad," otherwise your settings will be overridden by the standard START/STOP functionality of the green and red button.

Remember to unassign a desired command if it is being used somewhere else in the drive to prevent destination trips (dESt). If you are looking to set either of the blue or green button destinations to a run command, remember to unassign that same run command from the terminals or anywhere else it is being used.

In the example of using the green button as a standard run forward (Pr. 08.061 = 06.030) and the blue button as a jog (Pr. 08.062 = 06.031), pressing both buttons will activate both commands, and this will cause the same behavior as closing two contactors controlling those same commands respectively: the run forward overrules the jog command. You'll need to use an onboard PLC program to define proper states during pushbutton operation if you want a button to cancel the function of another.



Block Diagram of relevant Remote Keypad RTC parameters (encircled)



* The auxiliary button available with Remote Keypad RTC.

Hardware

For M200-M400 drives, the user will need to obtain a REMOTE-KEYPAD-RTC to have an auxiliary button in the first place. Additionally, an AI-485-ADAPTOR and a UM-LCD-485 cable is required to have the remote keypad interface with the drive.

For M600/M701 drives, the keypad on the drive has an auxiliary button available. If you require the REMOTE-KEYPAD-RTC, you will also need the UM-LCD-485 cable.

For M700/M702 drives, the keypad on the drive has an auxiliary button available. If you require the REMOTE-KEYPAD-RTC, you will also need a UM-LCD-485 cable and a KI-485-ADAPTOR.

Resources: can be found on our website: www.controltechniques.com

For help contact techsupport.cta@mail.nidec.com, or call Technical Support at 952-995-8000, 24/7/365

