

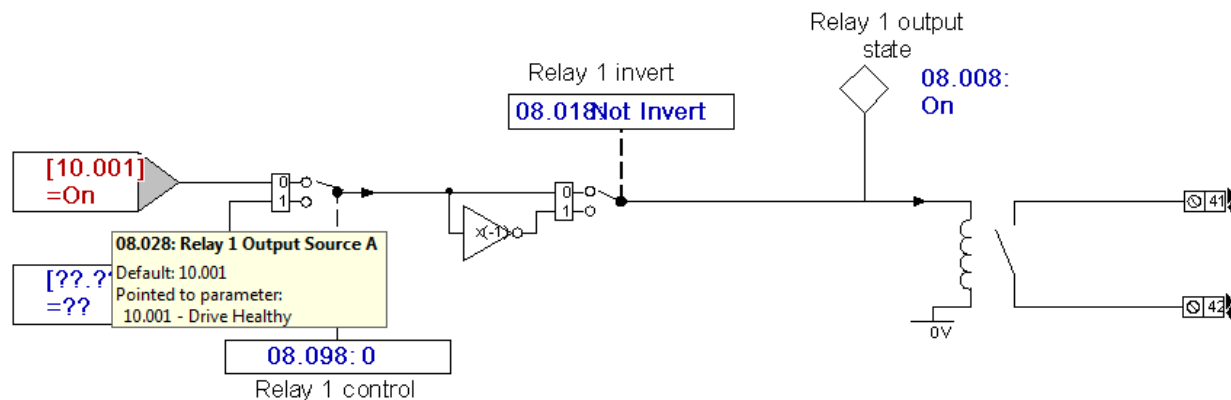
This Application Note applies to M100 through M400 series

M100-M400 Relay Programming

This document provides information on how to program the relay contact, terminals 41 and 42.

Why Program the Relay?

By default, the relay is set up for a Drive Healthy condition and the relay contact will open on a fault condition. There are other conditions that allow users to do a little more with the relay. A common use for the relay is to make the contact close upon a run or Drive Active condition or close on a fault condition. In this application note, we will make the relay close when the drive is in the run mode.



Programming the Relay Contact

Before proceeding with any programming, make sure the drive is either in the Inhibit (Inh) mode or Ready (rdy).

Proceed to parameter #00.010 and change the setting to "All" to allow access to the other menus in the drive.

Go to parameter #08.028, this is the Source parameter that defines how the relay is programmed. By default, it is set to "10.001", which is a Drive Healthy condition. Because we want to the relay to close on a run condition we need to look for a parameter or technique to make this happen. Menu 10 has a variety of Read-Only conditions that can be used as Source parameters and the one we want to use is Drive Active, or parameter #10.002, that is readily available. Change the setting in parameter #08.028 to "10.002". Do not forget to save the parameters and it would not hurt to do this now as we are working with a Source parameter, which requires a drive Reset, and this is done during the saving process. Even when working with M Connect software both need to be done. The drive relay is now programmed to close when the drive is in the run mode. Test the drive to verify it works.

Other Methods of Programming the Relay

Using the example of programming the relay to close on a run command, suppose one wants the relay to close when the drive is not running and open when the drive is running. This would be similar to making the relay contact close on a fault condition and open when the drive is OK.

Note in the block diagram there is a parameter used as an invert, or parameter #08.018. Change the setting to “Invert”. Save the parameters and test the drive and verify the result.

Other Parameters and Menus

A main source for working with other menus and parameters is the complimentary M Connect software program, which requires the communications cable **CT-USB-CABLE** and the **AI-485-ADAPTER** module. These can be acquired through our distributors.

Other free sources can be found at our website or Tech Support is the User Guide manuals and the Parameter Reference Guides. Both are in PDF format, except for M100/M101, and these sources help provide a greater explanation of the menus and parameters.

It is important to note that the Unidrive M100/M101 series menus 9, 12 or 18 do not exist and that could leave the drive somewhat limited if one wants to do a little more to influence the relay contact. We recommend to use the M200/M201 series.

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