Application Note:
Resetting a Module

Version: 1.03
September 8th, 2005

TRINAMIC
MOTION CONTROL

Version

Version	Date	Author	Comment
1.00	31-Jul-03	OK	Created
1.01	25-May-04	OK	TMCM-110 /PanDrive added
1.02	1-Oct-04	OK	Address changed
1.03	8-Sep-05	OK	TMCM-310 reset procedure simplified, TMCM-610 added

Contents

1 Introduction

On the TMCM modules, nearly all parameters can be stored in an EEPROM (some parameters are only stored there). Sometimes this can lead to trouble: a module can be miss-configured in such a way that it can no longer be reached by the PC. In such circumstances, there is a way to reset all configuration settings to their factory default values. This differs a bit between the module types.
This application note describes the reset procedures for all TMCM modules.

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2 The different modules

2.1   TMCM-300

On this module their is a boot loader which can be activated by shorting the pins 1 and 2 of the programmer port using a jumper (the pins 1 and 2 of the programmer port are located near the LED on the top left corner of the module). The boot loader can also clear the EEPROM. So, the reset procedure is as follows:

1. Turn the power off. Connect the module to the RS232 interface of the PC.
2. Short the pins 1+2 mentioned above.
3. Turn the power on. The LED is dark now.
4. Start the TMCL IDE. There, select "Install OS" in the "Setup" menu. In the "Install OS" dialogue, click the "Clear EEPROM" button and wait until this function has finished (watch the progress bar).
5. Turn the power off.
6. Remove the jumper that shorts pins 1 and 2 of the programmer port.
7. Switch the power on and wait until the LED flashes.

Modules with TMCL version 3.02 or higher can now be used again. Other modules must now be powered off and on twice and can than also be used again normally.

2.2   TMCM-301, TMCM-302, TMCM-303, TMCM-100

Since TMCL version 3.04, the reset procedure is as follows:
1. Turn the power off.
2. Short the pins 12 and 14 of the module.
3. Turn the power on and wait until the LED on the module flashes fast (much faster than normally).
4. Turn the power off.
5. Remove the link between the pins 12 and 14.
6. Turn the power on and wait until the LED flashes normally (this can take some seconds).
All settings are now restored to factory default, and the module can now be used again normally. If at step 3 the LED does not flash fast but continues to flash normally, the module has a version of TMCL older than 3.04. Then, there is no way to reset the module by hardware. In this case, first try to use the "Search module" function in the "Setup" menu of the TMCL IDE, also using different baud rates. If you do not succeed you will have to send it to TRINAMIC Microchips GmbH for reprogramming.
If the TMCL IDE finds the module, choose "Install OS" from the "Setup" menu and use the "Clear EEPROM" button. After this function has finished, wait until the LED starts flashing again. Then, turn the power off and on once or twice, and all settings are restored to factory default again.

2.3   TMCM-310

The reset procedure is the same as with the TMCM-100/301/302/303 modules, but the pins that have to be linked are located differently. Then, follow the reset procedure:
1. Turn the power off.
2. On V1.1 modules, please make sure that Jumper J101 links pins 1 and 2. On V2.0 modules this jumper is not there any more.
3. Link the pins as shown in the drawing below (pins 1 and 3 of connector X101).
4. Turn the power on and wait until the LED on the module flashes fast (much faster than normally).
5. Turn the power off.
6. Remove the link between the pins.
7. Turn the power on and wait until the LED flashes normally (this can take some seconds).
All settings are now restored to factory default, and the module can be used again normally. If at step 3 the LED does not flash fast but continues to flash normally, the module has a version of TMCL older than 3.04. There is then no way to reset the module by hardware. In this case, first try to use the "Search module" function in the

"Setup" menu of the TMCL IDE, also using different baud rates. If you do not succeed you will have to send it to TRINAMIC Motion Control GmbH & Co. KG for reprogramming.

If the TMCL IDE finds the module, choose "Install OS" from the "Setup" menu and use the "Clear EEPROM" button. After this function has finished, wait until the LED starts flashing again. Then, turn the power off and on once or twice, and all settings are restored to factory default again.
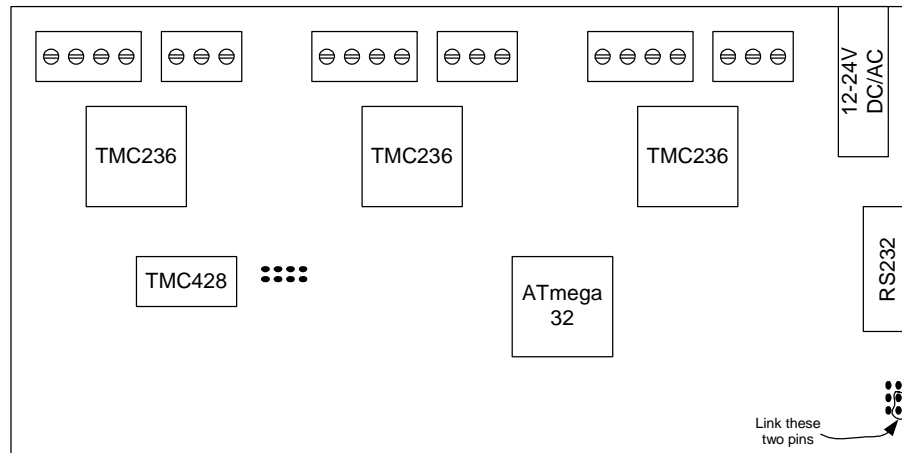

2.4   TMCM-110 (PanDrive)

The reset procedure of the TMCM-110 (PanDrive) is as follows:
1. Turn off the power.
2. Link pins 1 and 3 of the programming connector (as shown in the picture below) with a jumper.
3. Turn the power on and wait until the LED on the module flashes fast (much faster than normally).
4. Turn the power off.
5. Remove the link between the pins.
6. Turn the power on and wait until the LED flashes normally (this can take some seconds).

All settings are now restored to factory default, and the module can be used again normally.
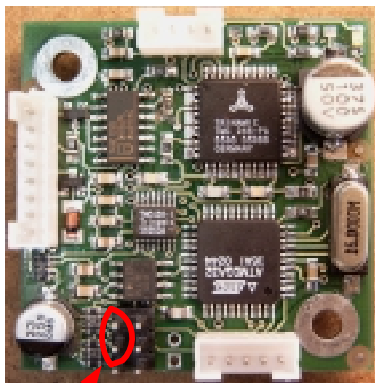
Link these two pins.

2.5   TMCM-610

On the TMCM-610, the reset procedure is similar to that of the TMCM-310 or TMCM-110 module:
1. Turn the power off.
2. Link the pins 1 and 3 of connector X101. Pin 1 is marked with a little "1" on the board.
3. Turn the power on and wait until the LED on the module flashes fast (much faster than normally).

4. Turn the power off.
5. Remove the link between the pins.
6. Turn the power on and wait until the LED flashes normally (this can take some seconds).

All settings are now restored to factory default, and the module can be used again normally.