

**Subject:** Jumper Setting Options

**Product:** LEGEND-MC (SMC-3010)

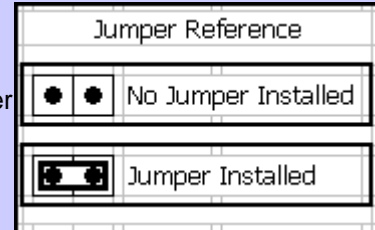
**Status:** Released

**Summary:** This document describes the available jumper settings for a LEGEND-MC (SMC-3010) 1.5 axis motion controller.

Requirements:

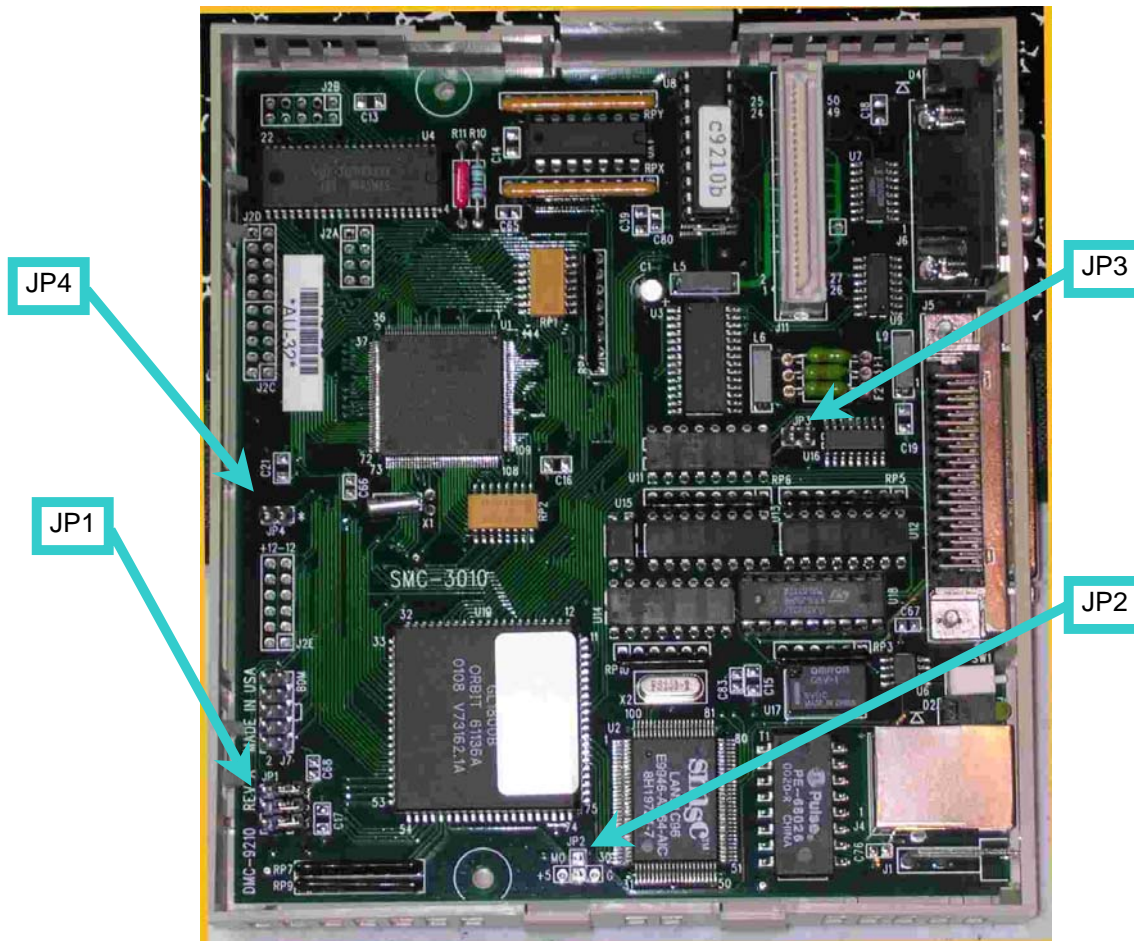
LEGEND-MC (SMC-3010) with firmware version 1.0c or later

Applicable model number: SMC-3010



### Jumper Layout:

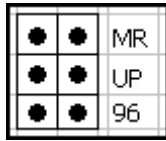
There are four main user configurable jumper settings on the LEGEND-MC (SMC-3010) circuit board. These jumper areas are highlighted in the image below.



Yaskawa Electric America - 2121 Norman Drive South – Waukegan IL 60085  
(800) YASKAWA - Fax (847) 887-7280

JP1

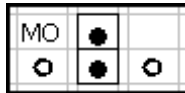
Jumper bank 1 has three jumper locations.



- ⇒ **MR** – The MR jumper is the Master Reset jumper. When MR is connected, the controller will perform a master reset upon power up or upon the reset input going low. Whenever the controller has a master reset, all programs, arrays, variables, and motion control parameters stored in EEPROM will be ERASED.
- ⇒ **UP** – The UP jumper enables the user to unconditionally update the controller's firmware. This jumper is not necessary for firmware updates when the controller is operating normally, but may be necessary in cases of corrupted EEPROM. EEPROM corruption should never occur. However, it is possible if there is a power fault during a firmware update. If EEPROM corruption occurs, your controller may not operate properly. In this case, contact Yaskawa to re-load the system firmware.
- ⇒ **96** – When this jumper is attached, baud rate for the serial port (CN6) is set to 9600, rather than 19200 (default) with out the jumper.

JP2

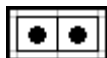
Jumper bank 2 has one jumper location.



- ⇒ **MO\*** – \*Note: This setting is not applicable to the LEGEND-MC (SMC-3010). With a jumper installed at the MO location, the controller will be powered up in the "motor off" state. The SH command will need to be issued in order for the motor to be enabled. With no jumper installed, the controller will immediately enable the motor upon power up. The MO command will need to be issued to turn the motor off. Be careful when issuing the BN command after the SH command, as the state of the SH will saved in the Flash memory. When power is cycled the servo will be enabled before the user program is executed.

JP3

Jumper bank 3 has one jumper location.



- ⇒ If this jumper is attached the hardware output compare (OC) circuit is activated. See the LEGEND-MC (SMC-3010) User's Manual [YEA-SIA-SMC-1.2] for details regarding configuration of the OC command.

JP4

Jumper bank 4 has one jumper location.



- ⇒ If this jumper is the reset input on the controller chip is activated (like pressing the reset (RST) button).

All other jumpers on the LEGEND-MC (SMC-3010) should not be connected.