

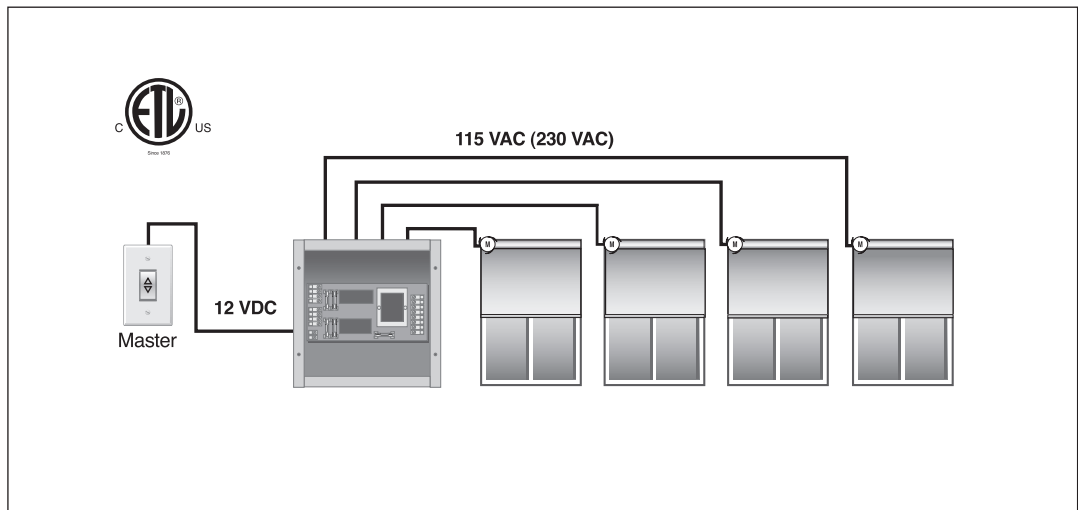
Hardwired: Low Voltage Control Systems – MLC™

Low Voltage Control (Hardwired)

MLC™

Features:

- Master Control for 4 standard line voltage tubular motors
- Full UP/Full DOWN Control w/ Supervised Mid-Window Positioning
- Daisy chain to orchestrate master control on up to 100 motors
- Variety of Automation Sensor Interfaces
- Dry Contact Integration into Lighting and other 3rd Party Control Systems



Description

The MLC offers enhanced functionality over Line Voltage Switch controls by providing master control of large groups of motors while also enabling the integration of low voltage sensors, timers and third party control systems for higher level functionality. The device is designed to accommodate cost conscious applications involving the simultaneous movement of multiple shades where shade operation is typically full up/full down while mid-window positioning and guaranteed alignment is not a driving concern. Blackout shades for A/V conference rooms often require this type of operation. These controllers are best suited for renovation/new construction projects where the control wiring can be conveniently run behind the drywall. Surface mount raceway and drop ceilings can enable these devices to be installed in retrofit projects as well.

Detail

MechoShade's MLC is a cost effective, low voltage controller offering master control of four (4) standard, line voltage motors (120/240 VAC, 50/60 Hz). The device is equipped with a low voltage control network that enables the positioning of motors in an UP/DOWN fashion with supervised mid-window positioning from either a single maintained-contact switch or multiple momentary center-off switches and/or low voltage accessories (ie. automation sensors, timers, remote controls, etc.). Up to 25 MLCs (100 motors) can be daisy chained over the low voltage network to operate from a single switch connection. MechoShade offers a variety of maintained-contact and momentary center-off switches in a wide range of colors and styles to accommodate virtually any décor. In addition, the MLC can operate with a variety of third party contact closure switches and controls supporting seamless integration into Lighting, HVAC, A/V and Building Management Systems (BMS).

MLCs provide control and power distribution functionality for the four (4) non-proprietary, line voltage motors they operate. Each motor is wired directly to its own dedicated set of fused power connections. The internal circuitry protects each motor and ensures the maximum lifetime out of the shade motor and the system. The low voltage control network (12 VAC) offers a cost effective opportunity to extend the control of the motors through contact closure devices into multiple locations and multiple sources. Control switches and low voltage accessories wire directly to the MLC input in a hardwired fashion for ease of troubleshooting.

The MLC has been qualified by ETL under stringent system testing requirements with regard to UL325 and CSA 22.2 along with all of MechoShade's available motors and hardware systems. This provides the installer and end user with additional confidence that the ENTIRE MechoShade solution and the methods used to install and wire it meet the strictest safety and reliability standards in the industry.

Continued 

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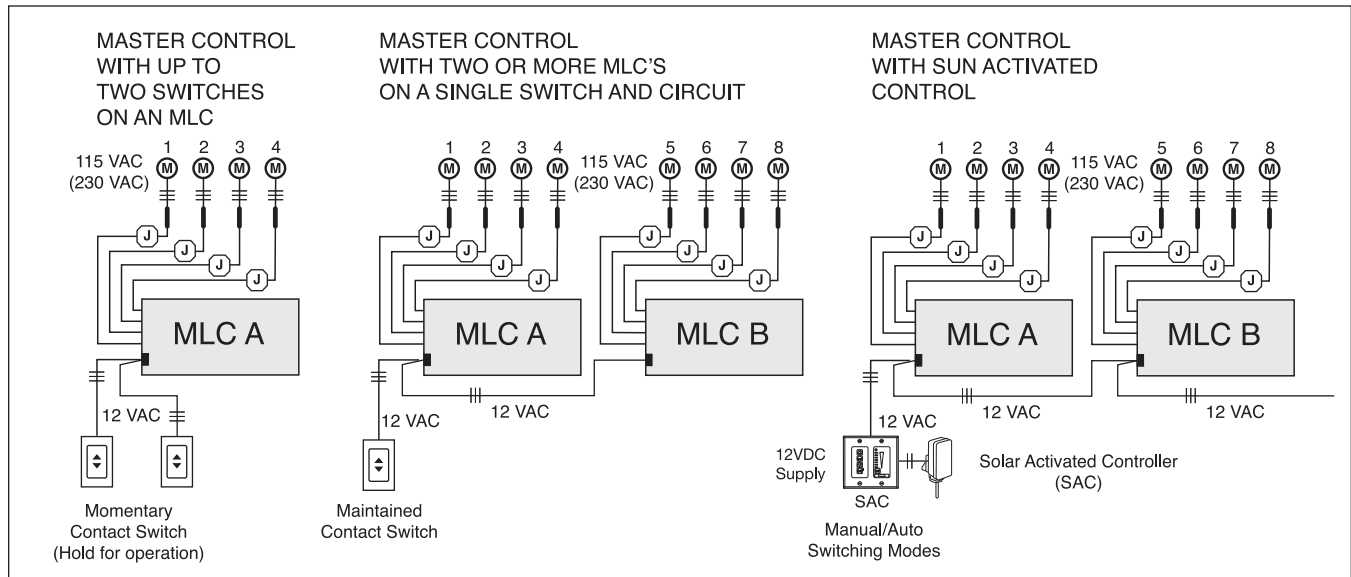
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MLC – Features and Benefits

Low voltage switching for standard motors using a four (4) motor Motor Logic Controller™ (MLC™).



MLC – Line Motor Controller™ (MLC™)

MechoShade's® economical, low voltage four motor controller offers master control for up to four motors on either one maintained switch or multiple momentary, center-off switches. Up to 100 motors may be wired together on a single switch circuit by daisy chaining MLC's. Shade operation is by UP/DOWN switch activation with mid-window settings accomplished in a supervised fashion.

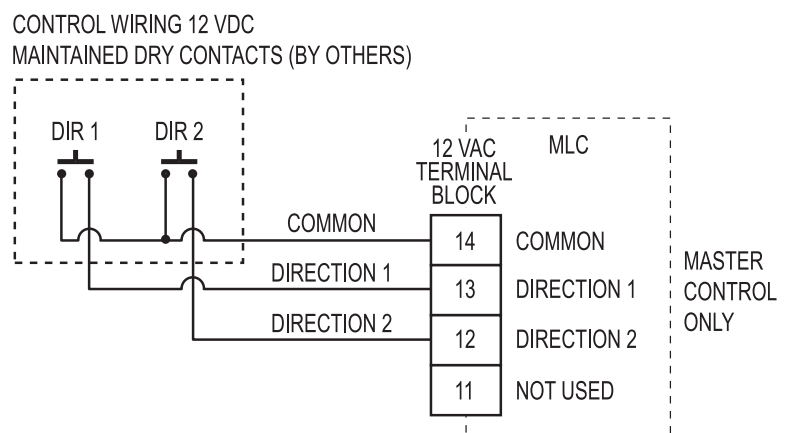
MLCs may be used to incorporate:

- Solar-activated control.
- Remote control (IR/RF).
- A low voltage interface with A/V and dimming systems.

Integration with Third Party Controls (ie. Lighting, HVAC, A/V for Home Automation, and Building Management Systems.) (See page 4.29.)

MLC™ (Motor Logic Controller) using Dry Contact Closures

- Provide two (2), 12 VAC, maintained dry contacts.
- To activate the shades, provide a maintained contact closure for the shades to move.
- The shades will continue to move until they reach their internal limit switches or are otherwise stopped by opening the contacts.
- Master switching only.



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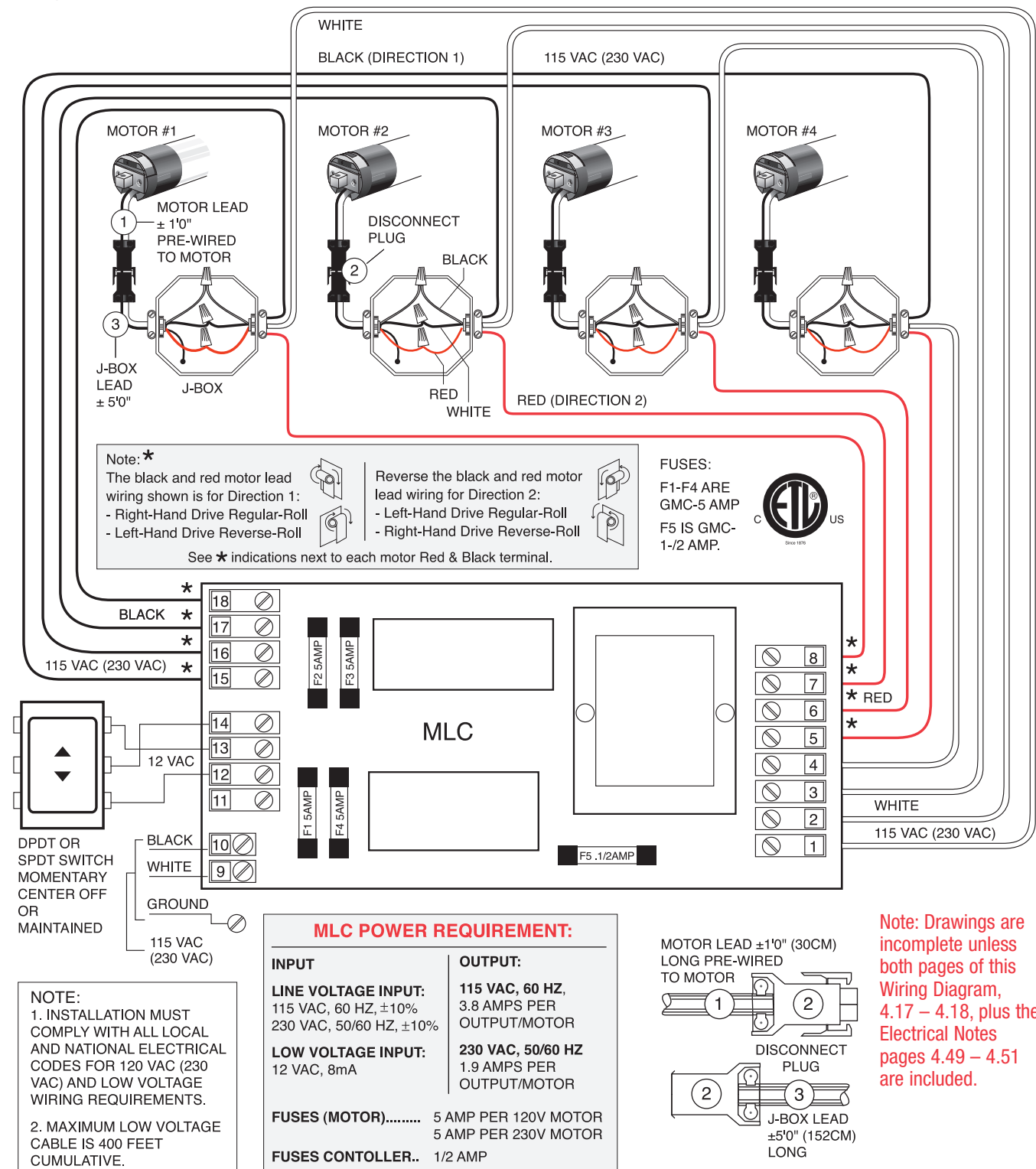
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MLC™ – ElectroShade® Wiring Diagram For Std. Motors

MLC – Wiring Diagram

Low voltage switching for one to four standard type motors on one switch using an MLC™ four motor controller.



Continued

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MLC System Summary

The MLC System consists of:

MLC Four Motor Controller.

Low voltage four (4) motor controller for standard motors with master switch control capability. Additional MLC control circuits can be wired in parallel or series. 12 VAC, 0.3A per switch. Input: 120 VAC, 0.5A; 240 VAC, 0.25A.

Output: 120 VAC, 3.8A max.; 240 VAC, 1.9A max.

P/N: 120V: EMLC SLMA ST SP

230V: EMLC SLSP ST SP

MLC Switch

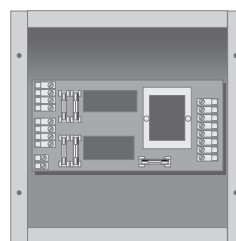
Double pole, double throw momentary or maintained rocker switch for master control switching. Full up/full down or anywhere in between shade positioning through activation of the switch and supervised mid-window positioning is capable. (12V)

Maintained P/N: ESWX 0688 PS WH
ESWX 1441 PS CW

Momentary P/N: ESWX 0689 PS WH
ESWX 1551 PS CW

MLC MOTOR LOGIC CONTROLLER

FOR MASTER CONTROL OF UP TO 4 MOTORS PER MLC
(EACH MLC MAY BE DAISY CHAINED)



MLC
MOTOR LOGIC CONTROLLER

120V
EMLC SLMA ST SP

230V
EMLC SLSP ST SP



MLC DPDT
ROCKER SWITCH
(MAINTAINED)

ESWX 0688 PS WH
ESWX 1441 PS CW



MLC DPDT
ROCKER SWITCH
(MOMENTARY)

ESWX 0689 PS WH
ESWX 1551 PS CW

WH = WHITE
CW = COLONIAL WHITE

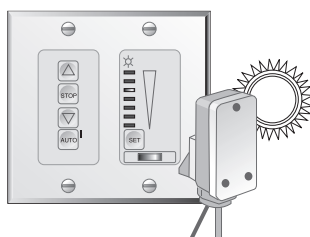
Please See Page 4.34 for a complete listing of Switches.

Accessory Controls

- Lighting Controls
- A/V
- Solar Activated Timers (SAC)
- Seven-Day Timers
- AAC – SolarTrac™

Please see pages 4.33-4.34 and 4.44 for details.

WH = WHITE
CW = COLONIAL WHITE

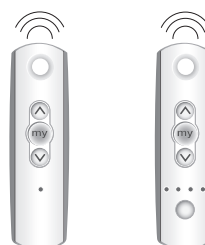


Solar Activated Controller (SAC)

SAC w/Photo Cell P/N: ESSA 0901 ST WH
ESSA 0931 ST CW

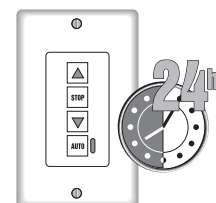
SAC w/Photo Cell and
Switch P/N: ESSA 0897 ST WH
ESSA 0927 ST CW

Photo Cell Only P/N: ESPC 0313 PL WH



Single Channel and Four Channel IF and RF Remote Controls

Single Channel P/N: EIRC 0632 RA TR
Four Channel P/N: EIRC 0633 RA TR



24-Hour Digital Timer

P/N: EDTI 0351 24 WH
EDTI 0352 24 CW



Key Switch

Maintained P/N: ESWX RYMA PS CW
Momentary P/N: ESWX RYMO PS CW



Digital Key Pad

P/N: ESDX 0739 IN WH

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