Serial and Network Control for Motorized Projection Screens and Projector Lifts

by DRAPER

Please Note: Draper motorized screens, AeroLifts, the Micro Projector Lift and the LCD Lift come with one 110V-120V AC 3-position wall switch (for ScissorLift, Revelation, Phantom and Orbiter, see their respective submittals). For Serial or IP control, select from below:

☐ **Control a screen or lift with two-way serial communication using RS232. For this you need an MC1.**
   How Many MC1s? _____ *(Up to four MC1s can be connected via the MC1 1-to-4 Splitter. How many 1-to-4 Splitters? _____)*
   ☐ **Factory install MC1 inside screen case?** [1]
      ☐ **Yes**   ☐ **No**

There are several additonal control options to choose from:

☐ Dry contact 3-button wall switch	How many? _____
☐ Low Voltage LED wall switch, power supply and splitter*	How many? _____
☐ 3-position key control switch	How many? _____
☐ Power supply (on-off) key switch?	How many? _____
☐ IR remote control eye and one transmitter*	
☐ Add IR remote control transmitter	How many extra transmitters? _____
☐ RF remote control receiver, one transmitter, power supply and splitter*	
☐ Add RF remote control transmitter	How many extra transmitters? _____

(Except for Orbiter, Phantom, Revelation and ScissorLift. For these products, see submittals.)

*Please note: The MC1 has one data cable input jack. If using more than one IR eye, LED wall switch or RF receiver, a splitter is required. If using more than one LED wall switch or RF receiver, an additional power supply may also be required (power supply powers up to three total receivers or LED switches).

☐ Add data cable splitter (1 per 2 additional inputs)   How many? _____
☐ Add power supply   How many? _____

☐ **Control a screen or lift with Network Communication (Ethernet). For this you need an MC1 and an LS100.**
   How Many MC1s? _____ *(Up to four MC1s can be connected via the MC1 1-to-4 Splitter. How many 1-to-4 Splitters? _____)*
   How Many LS100s (Each LS100 can handle one MC1)? * _____
   ☐ **Factory install MC1 inside screen case?** [2]
      ☐ **Yes**   ☐ **No**

*Please note: The LS100 connects to the MC1 through the serial pins. To connect an LS100 to an MC1, one RS232 (serial) adapter and one MJA4 modular jack adapter are required.

☐ Add MJA4 Modular Cable Adapter   How many? _____
☐ Add RS232 (Serial) Adapter   How many? _____

There are several additonal control options to choose from:

☐ Dry contact 3-button wall switch	How many? _____
☐ Low Voltage LED wall switch, power supply and splitter*	How many? _____
☐ 3-position key control switch	How many? _____
☐ Power supply (on-off) key switch	How many? _____
☐ IR remote control eye and one transmitter*	
☐ Add IR remote control transmitter	How many extra transmitters? _____
☐ RF remote control receiver and one transmitter*	
☐ Add RF remote control transmitter	How many extra transmitters? _____

(Except for Orbiter, Phantom, Revelation and ScissorLift. For these products, see submittals.)

*Please note: The MC1 has one data cable input jack. If using an RF receiver, IR eye or LED wall switch, a splitter is required. If using more than one LED wall switch or RF receiver, an additional power supply may also be required (power supply powers up to three total receivers or LED switches).

☐ Add data cable splitter (1 per 2 additional inputs)   How many? _____
☐ Add power supply   How many? _____

[1] *MC1 can be built into the following products:*
Access/Series E: Factory installed MC1 increases case length by $2^{1}/_{2}$"
Access/Series V: Factory installed MC1 increases case length by 1"
Signature/Series E: Does not increase case length
Signature/Series V: Does not increase case length
Silhouette/Series E: Factory installed MC1 increases case length by $7^{3}/_{8}$"
Silhouette/Series V: Factory installed MC1 increases case length by $7^{3}/_{8}$"
Ultimate Access/Series E: Does not increase case length
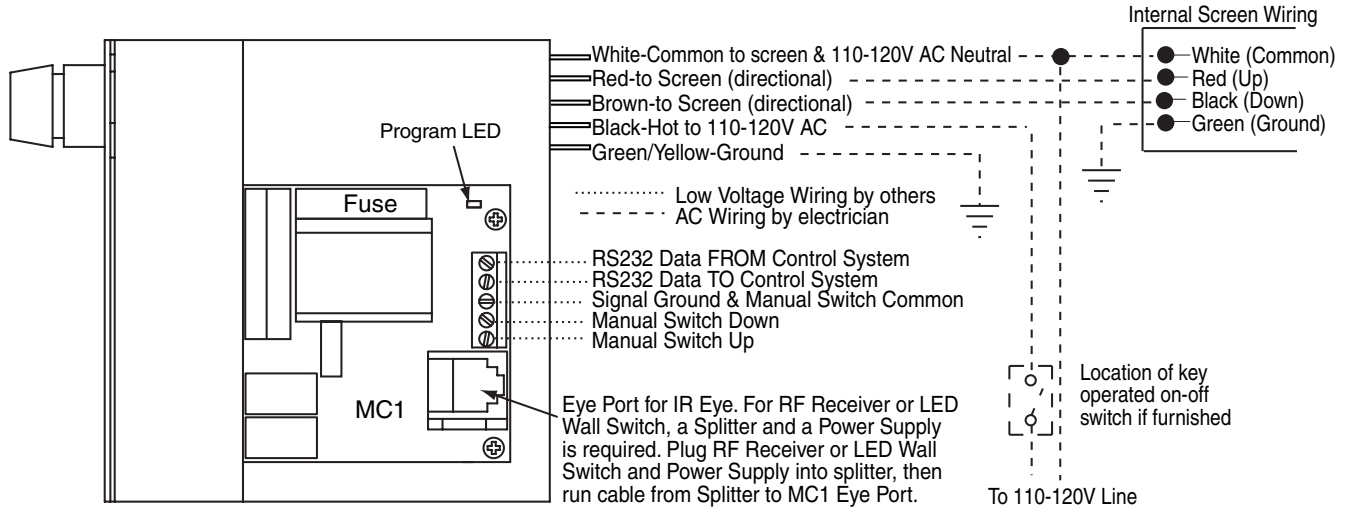Ultimate Access/Series V: Does not increase case length

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PROJECT: _____

SCREEN MODEL: _____

ARCHITECT: _____

CONTRACTOR: _____

SUPPLIER: _____

DATE: _____ REVISED: _____

Wiring Diagrams*

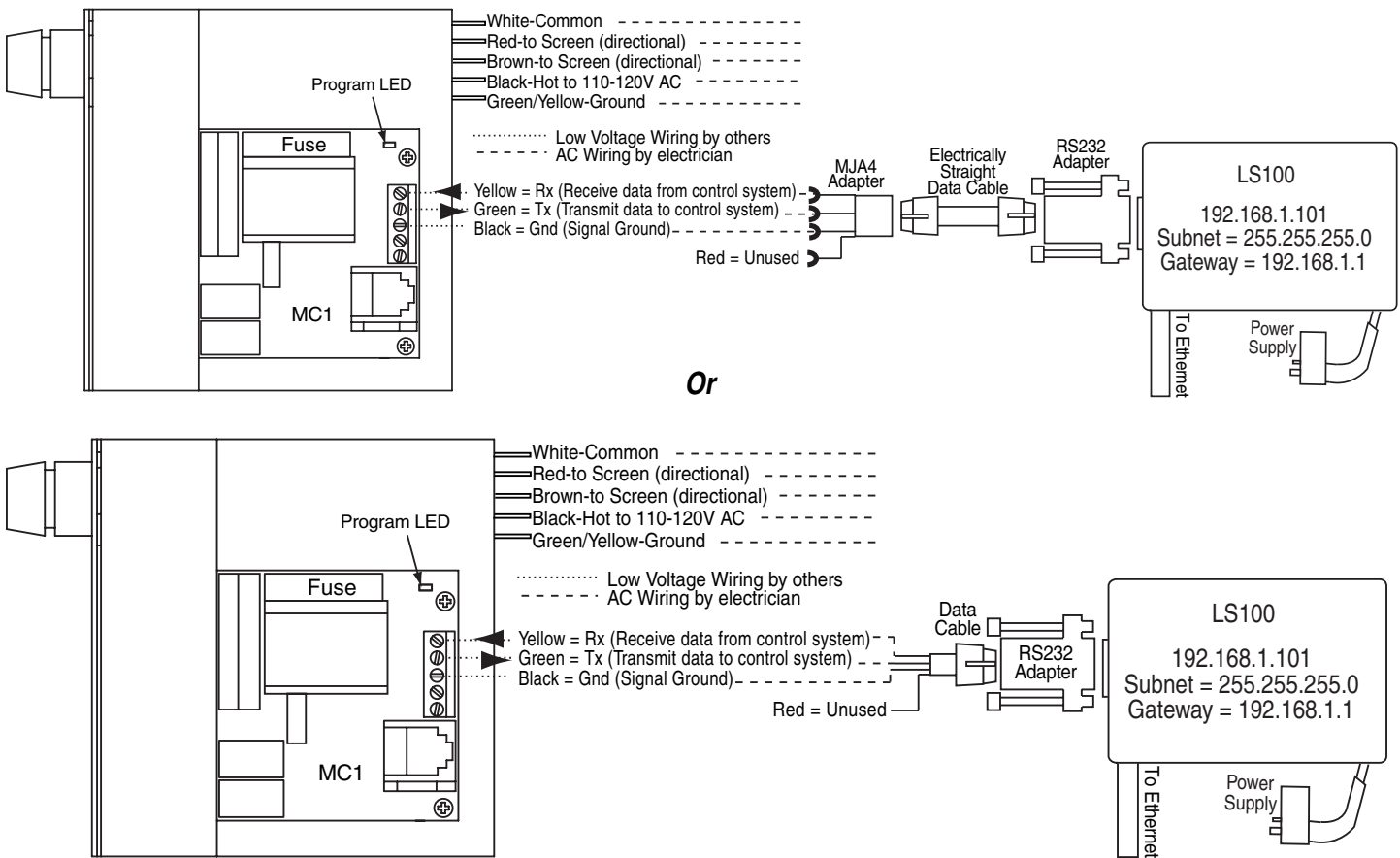### Serial (RS232) Control using the MC1

Internal Screen Wiring

White-Common to screen & 110-120V AC Neutral — White (Common)
Red-to Screen (directional) — Red (Up)
Brown-to Screen (directional) — Black (Down)
Black-Hot to 110-120V AC — Green (Ground)
Green/Yellow-Ground

Program LED

Fuse

.... Low Voltage Wiring by others
– – – – – AC Wiring by electrician

RS232 Data FROM Control System
RS232 Data TO Control System
Signal Ground & Manual Switch Common
Manual Switch Down
Manual Switch Up

MC1

Eye Port for IR Eye. For RF Receiver or LED Wall Switch, a Splitter and a Power Supply is required. Plug RF Receiver or LED Wall Switch and Power Supply into splitter, then run cable from Splitter to MC1 Eye Port.

Location of key operated on-off switch if furnished

To 110-120V Line

See separate Serial Communication-RS232 Instruction sheet for instructions on enabling RS232 with the MC1.

Network (IP) Control using the MC1

White-Common
Red-to Screen (directional)
Brown-to Screen (directional)
Black-Hot to 110-120V AC
Green/Yellow-Ground

Program LED

Fuse

.... Low Voltage Wiring by others
– – – – – AC Wiring by electrician

Yellow = Rx (Receive data from control system)
Green = Tx (Transmit data to control system)
Black = Gnd (Signal Ground)

Red = Unused

MC1

MJA4 Adapter

Electrically Straight Data Cable

RS232 Adapter

LS100
192.168.1.101
Subnet = 255.255.255.0
Gateway = 192.168.1.1

To Ethernet

Power Supply

Or

White-Common
Red-to Screen (directional)
Brown-to Screen (directional)
Black-Hot to 110-120V AC
Green/Yellow-Ground

Program LED

Fuse

.... Low Voltage Wiring by others
– – – – – AC Wiring by electrician

Yellow = Rx (Receive data from control system)
Green = Tx (Transmit data to control system)
Black = Gnd (Signal Ground)

Red = Unused

MC1

Data Cable

RS232 Adapter

LS100
192.168.1.101
Subnet = 255.255.255.0
Gateway = 192.168.1.1

To Ethernet

Power Supply

PROJECT: _____

SCREEN MODEL: _____

DATE: _____ REVISED: _____

* Wiring diagrams also ship with individual controls