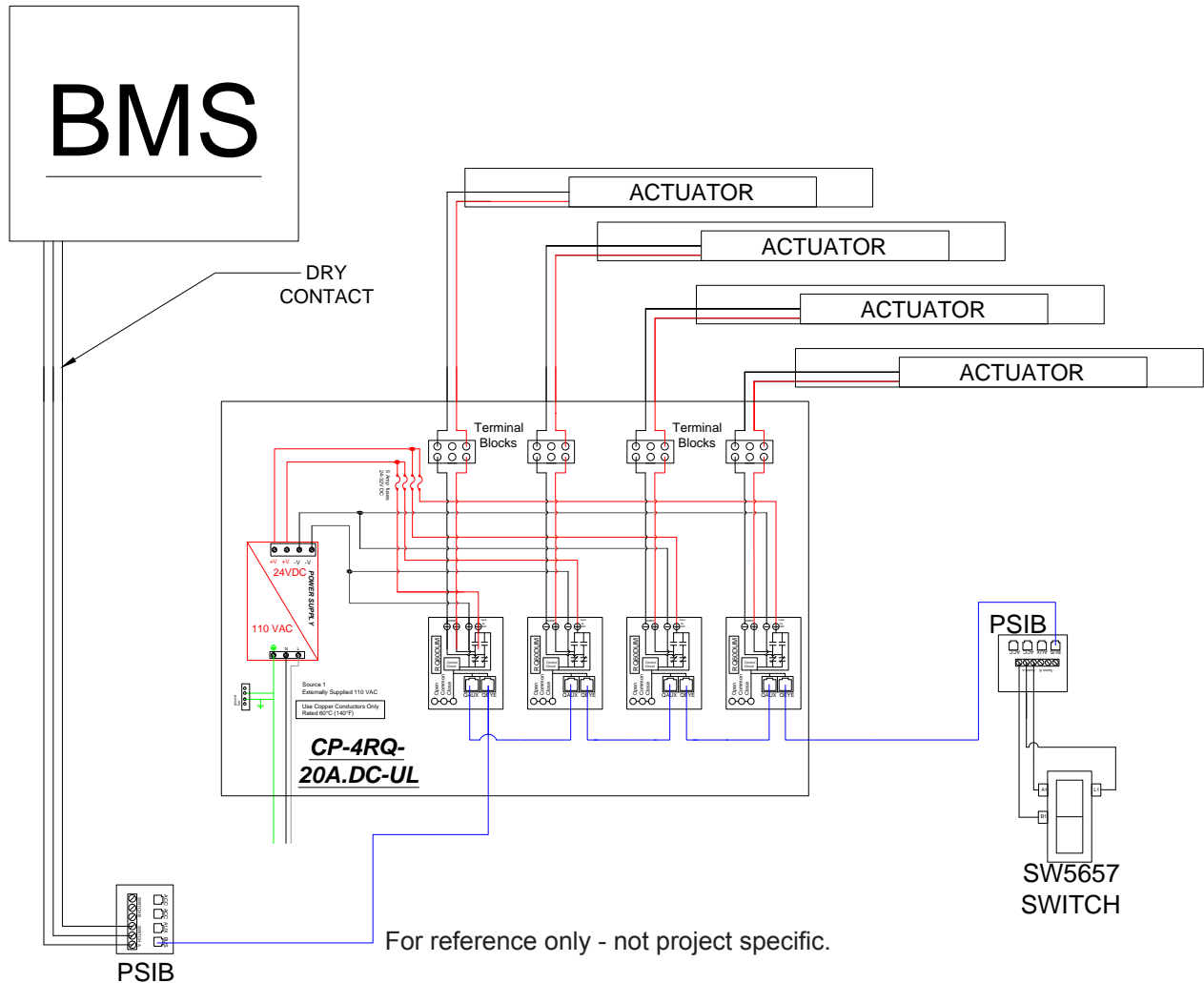


This installation guide is for dry contact switches and their connectivity with home automation, building management systems and stand alone automation applications.

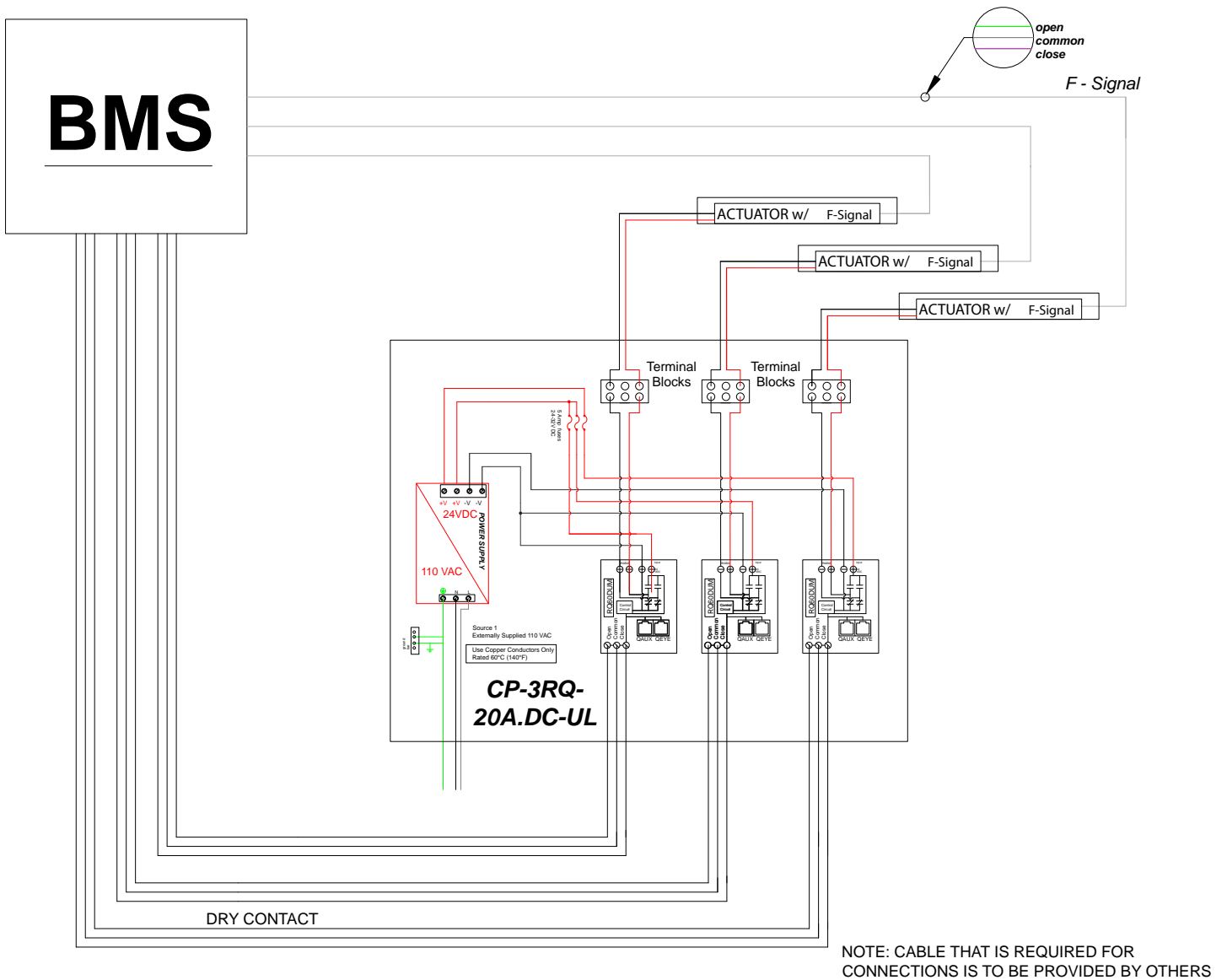
This example shows a single group of 4 actuators which are not controlled individually. The control panel has 4 RQ units and a 20A power supply. We recommend the following wiring method which allows for less wiring and a minimal chance of installation error. This layout requires 1 PSIB for communication with a Building Management System and a separate PSIB for communication with a momentary SPDT (Single Pull Double Throw) switch.



PLEASE NOTE

1. All connections to the control panel should be made prior to powering up.
2. Polarity matters! Polarity between the actuators and the control panel to your BMS/FMS is essential in order for everything to work properly.
3. If you have any questions, please call FFI at 1-800-677-0228 or sales@fenestration.net

This example shows 3 actuators which are controlled individually. The control panel has 3 RQ units and a 20A power supply. We recommend the following wiring method which allows for less wiring and a minimal chance of installation error. This layout includes communication between a Building Management System and the automation control panel.



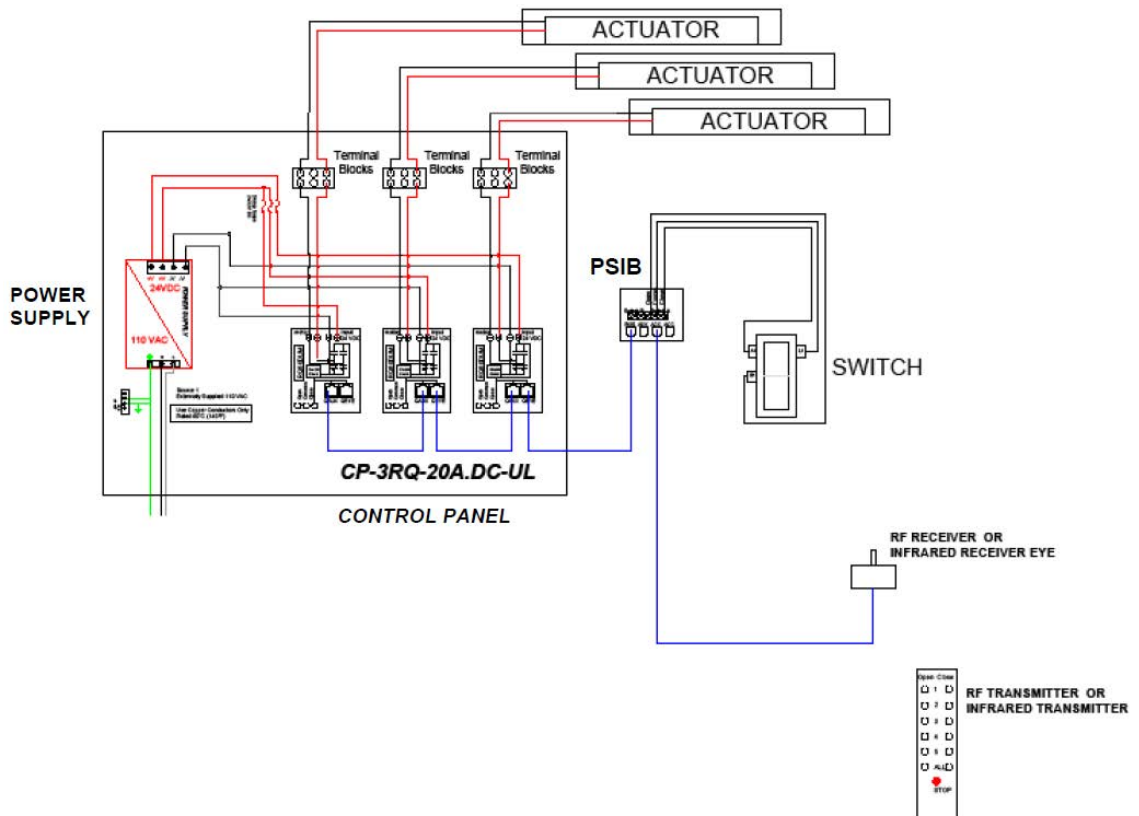
For reference only - not project specific.

FFI control panel containing a power supply and controller



⊘ Do not add non-essential components or disconnect internal wires or components!

System Example: Three DC actuators with FFI control panel with power supply and 3 RQ units, IR or RF receiver and transmitter, PSIB and momentary contact switch.
For reference only - not project specific.



PSIB accessory can be used in many instances, it is used more often when there are 2 or more RQ's.
Diagram elements are not to scale.

RQ Controller Connections

The white label on top of the RQ controller card indicates where all of the connections are located on the RC controller. The white label shows where to find the connections for the following:

- The QAUX and QEYE ports
- The dry contacts for OPEN, COMMON, and CLOSE
- The actuator connections (MOT) and power connections (NEG and POS)

Note: Do not tamper with these, as they are pre-wired for every control panel



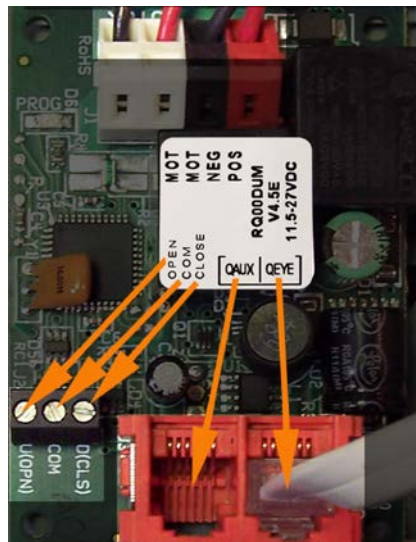
Important: The label may be in any of four orientations as you look at it. The orientation can change depending on the design of the control panel containing the RQ controllers. Please pay close attention to each RQ controller to be certain you are connecting to the correct contacts.

The QAUX and QEYE ports are particularly important to connect correctly, as it can be easy to confuse the two. Below are examples to illustrate this.

The white label may have different orientations as you look at different RQ controllers, as shown below.

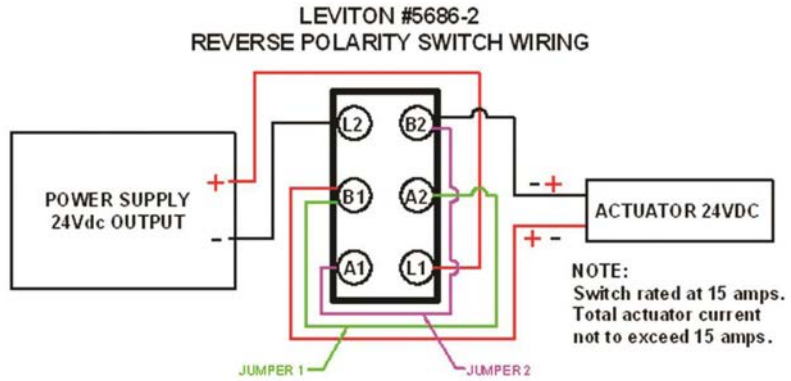


The white label indicates the location of the connections on the particular RQ controller, as shown below. Connect only at orange arrow points; do not tamper with other wiring or components.



Dry Contact Switch, Maintained: Double Pole Double Throw (DPDT)

SW5686-2W Maintained Switch



Dry Contact Switch, Maintained: Single Pole Single Throw (SPST)



Maintained contact switch with key
SW.CK-KEY-02

Optional Accessories

PSIB - Programmable Switch Interface in a Box

Can be used to connect a group of FFI actuators to a local switch and bypass a central BUS command. Allows fewer wire runs, with decentralized control.

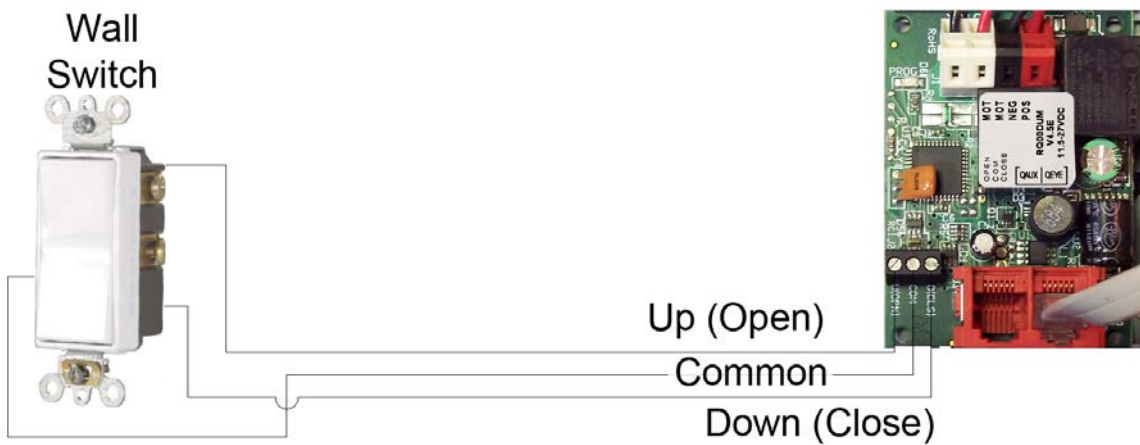


Installing switches

Dry Contact Switch, Momentary: Single Pole Double Throw (SPDT)

Warning! Do not apply voltage to the dry contact inputs.

SPDT switch connection to a controller



SW5657-2W
Momentary Switch



1223-2KL
Momentary Switch with Key



1257-L
Momentary Switch with Key



Troubleshooting

Questions? Troubleshooting? Call FFI at 800-677-0228.

PLEASE NOTE!

1. All connections should be made prior to powering up.
2. Polarity matters! Polarity between the actuators and the control panel to your BMS/FMS is essential in order for everything to work properly.
3. If you have any questions, please call FFI at 1-800-677-0228 or sales@fenestration.net

(1) Always test your data cables

Use a cable tester to check all cables connected to the card and control panel. For more details, see FFI Cables Data Sheet.



(2) Test for power

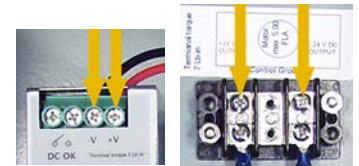
Check that the controller card is getting power. The controller card has a green LED that lights up briefly when it receives a command. Each RQ unit will flash a Red, Red, Green sequence to indicate power and connectivity.

LED Indicator



(3) Test for continuity with a multi-meter

Use a multi-meter to check the continuity between the power supply and the terminal block(s). As shown on diagram 9c, touch the multi-meter to the screw-heads on the power supply and each terminal block in the control panel as indicated by the arrows. Test for continuity between the negative connections, then test for continuity between the positive connections. If you find a continuity problem, next test the fuse by probing at each end of the fuse.



Power Supply Terminal Block



Fuse



(4) Do not add non-essential components or disconnect internal wires or components!

(5) The FFI Field Power Switch is available for use with FFI DC actuators, for testing and installation.

FFI Field Power Switch Part # SW.FPS.01



(6) Contact FFI for assistance.

Recommendations for FFI Actuators & Controls: FFI only recommends UL compliant systems. FFI is a UL Registered firm. Read FFI data sheets & installation guides before specifying project details. Project-specific needs vary depending on the number of actuators, electrical layouts, building management systems, distance between power supplies & actuators, and other details. Project specifications to comply with electric & building codes—for wire gauge, wire connections and run distance, conduits, junction boxes—must be arranged by the project electrical contractors.

Distribute this guide to all project parties, including electric contractors, architects and building management personnel!