SEL-651R-2 J204 Dual-Door Recloser Control Cabinet Door Switch Installation Instructions

Introduction

This installation kit contains two retrofit door switches designed for the SEL-651R-2 dual-door cabinet. The switches are powered by the auxiliary 12 Vdc outputs (B01–B03). Door-open and door-closed status signals are routed through the Molex connector on J204-2 and J204-4 (IN205 and IN206) of the SEL-651R-2.

Parts

Table 1 Contents of the Door Switch Installation Kit for Dual-Door SEL-651R-2 Recloser Control Cabinet (P/N 915900454)

SEL Part Number	Description	Quantity
190-3248	Bracket, Door Switch, Single Door, SEL-651R	2
290-1504	Snap Action Roller Arm Switch	2
140-0500	4-40 x 1/2” Phillips Screws	4
140-3150	10-32 Self-Locking Nut	4
142-0255	#10 Flat Washer	1
080-0200	Plastic Cable Clamp	1
C4002	Molex Connector to (2) FEM Spades	1
C5493-05	#8 Ring to 0.187 x 0.020 FEM Spade	2
310-0050	Zip Ties	10

Installation

Step 1. Retrieve the two door switch brackets, the door switches, and the four 4-40 x 1/2” Phillips screws.

Step 2. Mount each door switch to a door switch bracket with two 4-40 x 1/2” screws retrieved in *Step 1*. Torque the screws to 6 in-lb (see *Figure 1*).

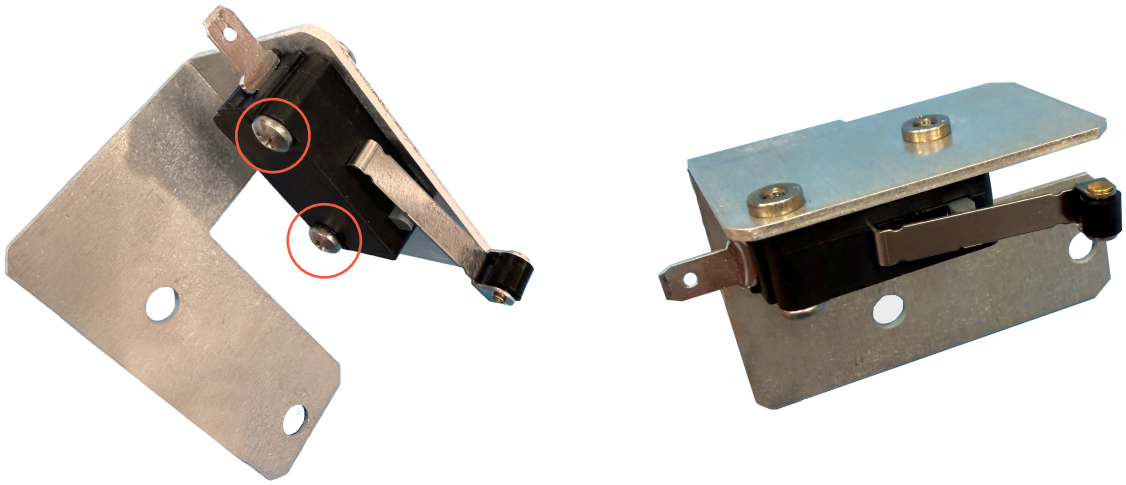


Figure 1 Door Switch Bracket and Switch Fully Assembled

Step 3. Identify the mounting places for both door switch bracket assemblies on the bottom of the cabinet closest to the door of each side (front and rear), as identified in *Figure 2*.

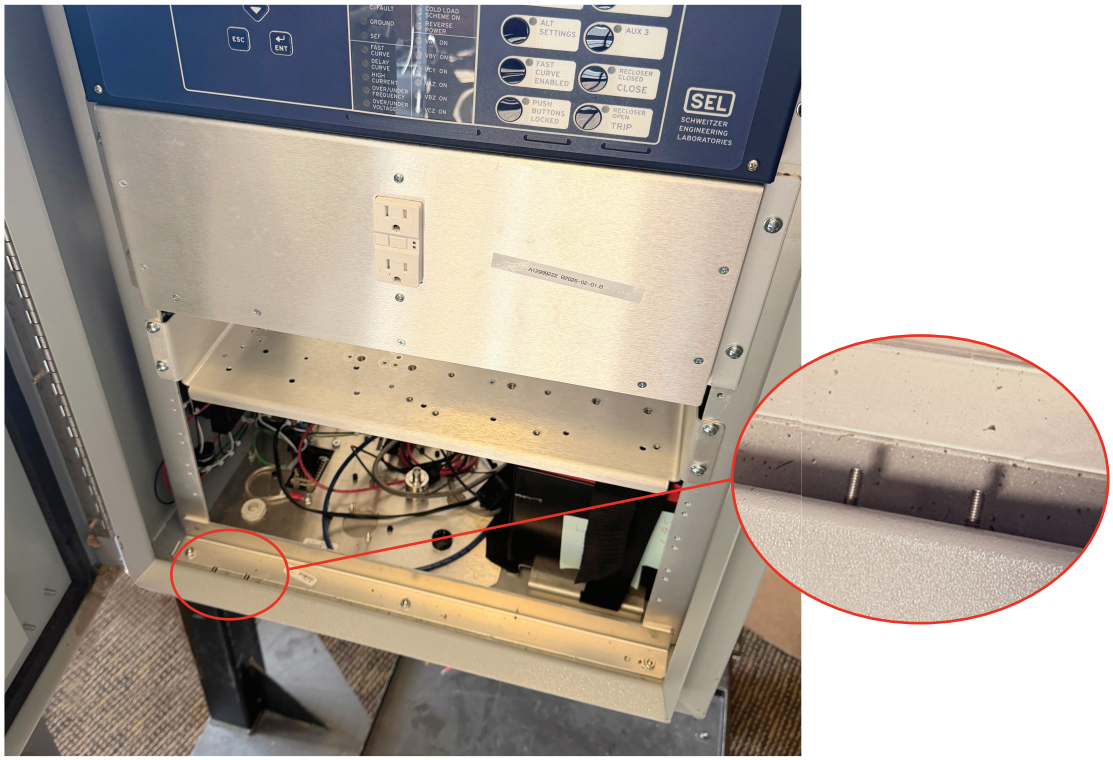


Figure 2 Cabinet Bracket Assembly Mounting Location

Step 4. Mount the door switch bracket assemblies to the front and rear of the cabinet and secure them with the existing 10-32 self-locking nuts. Torque the self-locking nuts to 18 in-lb (see *Figure 3* and *Figure 4*).

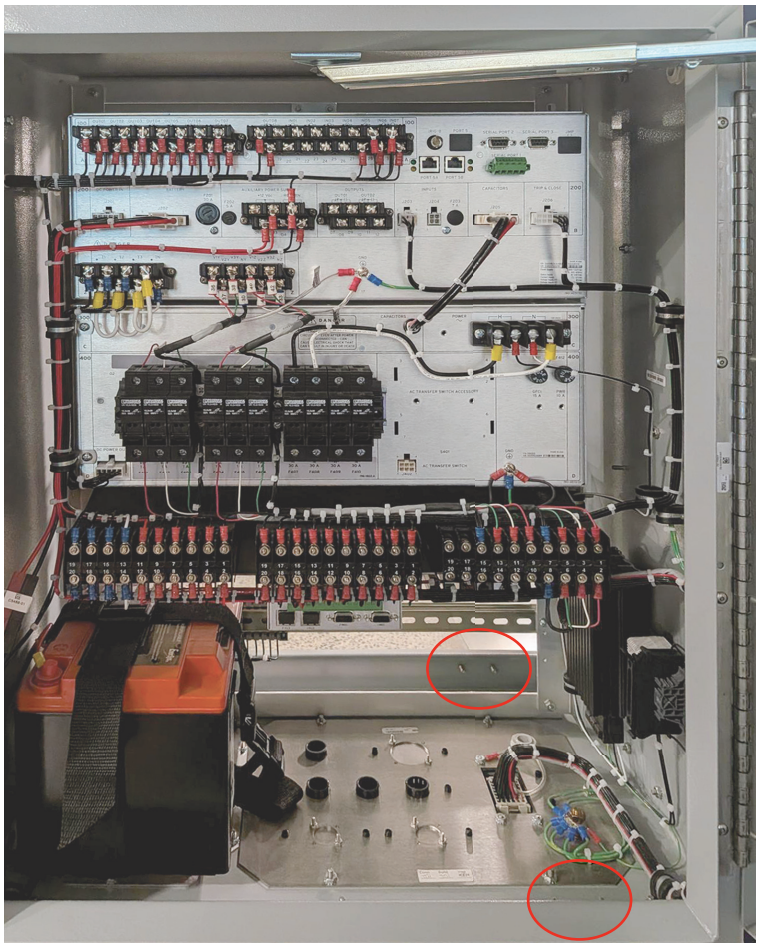
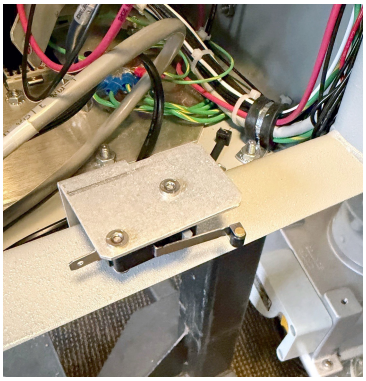


Figure 3 Mount Locations of Both Door Switch Bracket



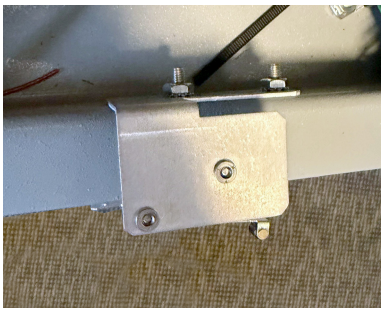


Figure 4 Mounted and Secured Brackets

Step 5. Route both C5493-05 wires from the COMM pins of each door switch (FEM Spades) to the B03 12 Vdc auxiliary power output (ring terminals). Secure the wiring to the existing harness using the supplied zip ties. Use *Table 2*, *Figure 5*, and *Figure 6* for reference.

Table 2 Terminal Block Wiring Connections

Wires	To:
C5493-05 (both wires)	B03

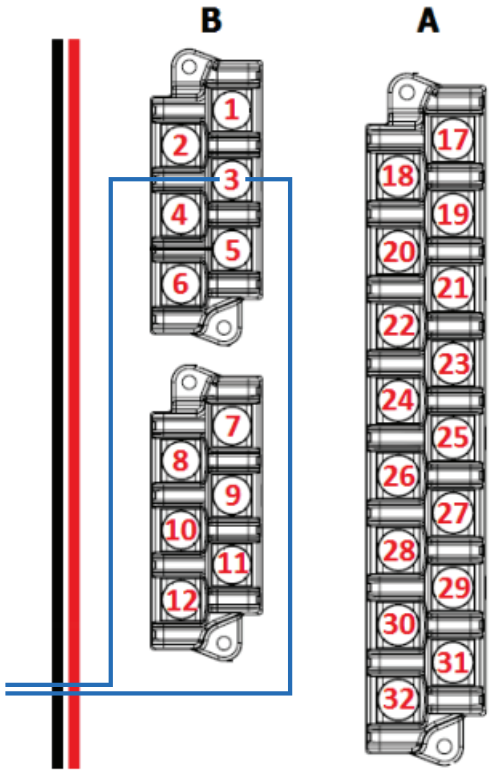
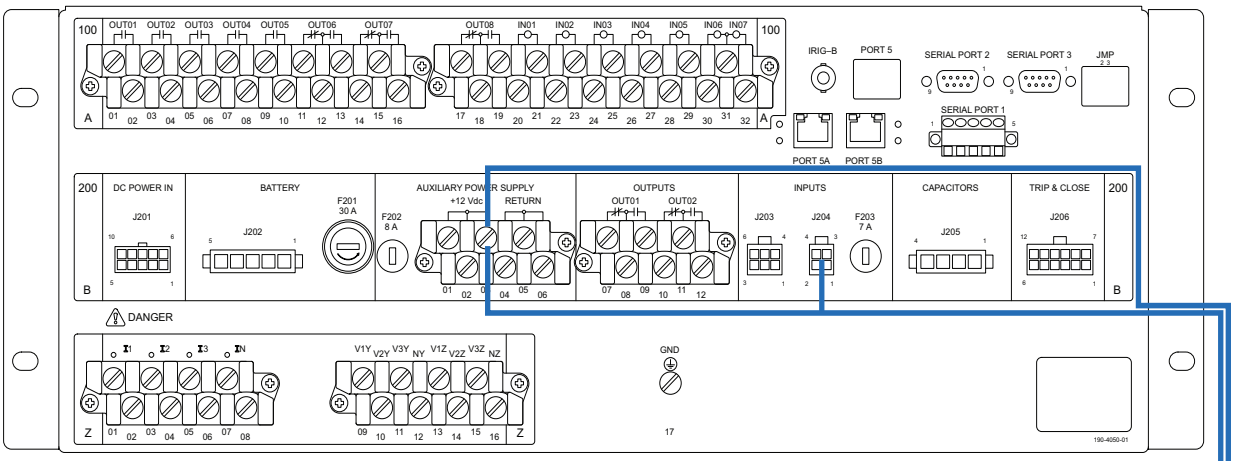


Figure 5 Wire Attachment to A and B Terminal Blocks



C4002 and C5493-05 wires are routed down the existing wiring harness and to the rear and front door switches (RDSW and FDSE).

Figure 6 Door Switch Wire Routing

Step 6. Continue routing the wires up the right side of the enclosure and down with the main harness, as shown in *Figure 8*. Secure the wires with zip ties.

Step 7. Route both ends of the C4002 wire from the NC/NO pins of each door switch (FEM Spades) to the J204 input (Molex connector). Secure the wiring to the existing harness using zip ties. If needed, use the plastic cable clamp on the inner cabinet studs. Use *Table 3*, *Figure 7*, and *Figure 8* for reference.

Table 3 Door Switch Wiring Connections

Wires	From:	To:
C4002	NC/NO (rear switch)	J204-4
C4002	NC/NO (front switch)	J204-2

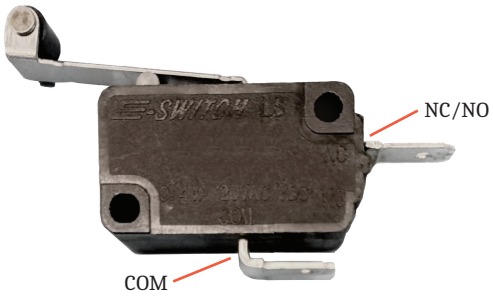


Figure 7 Door Switch Connection Pins

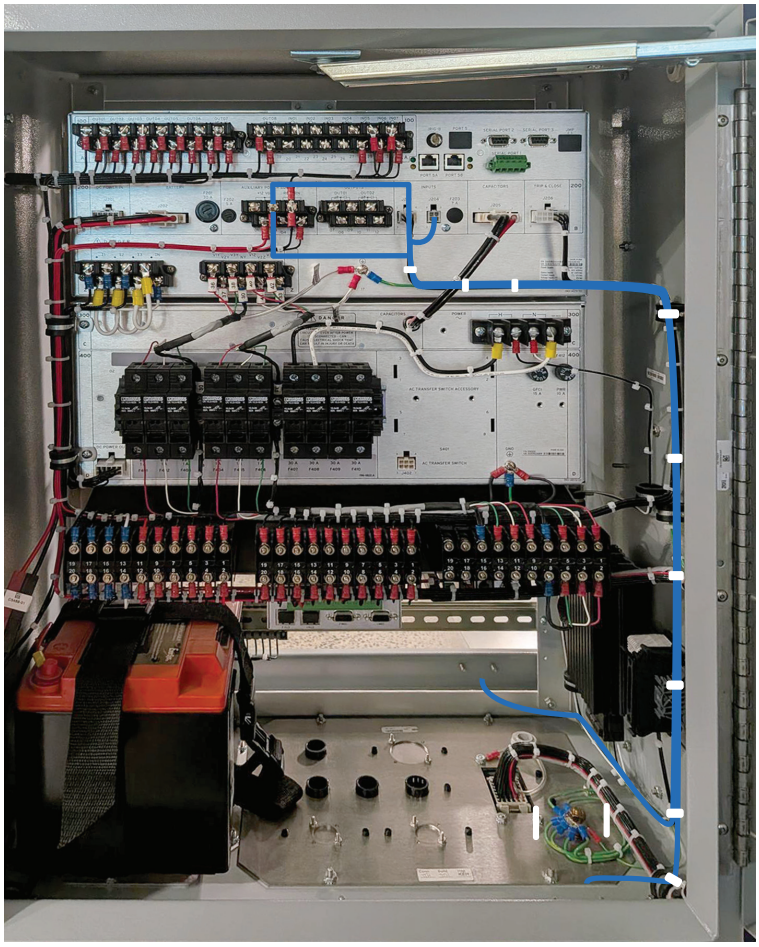
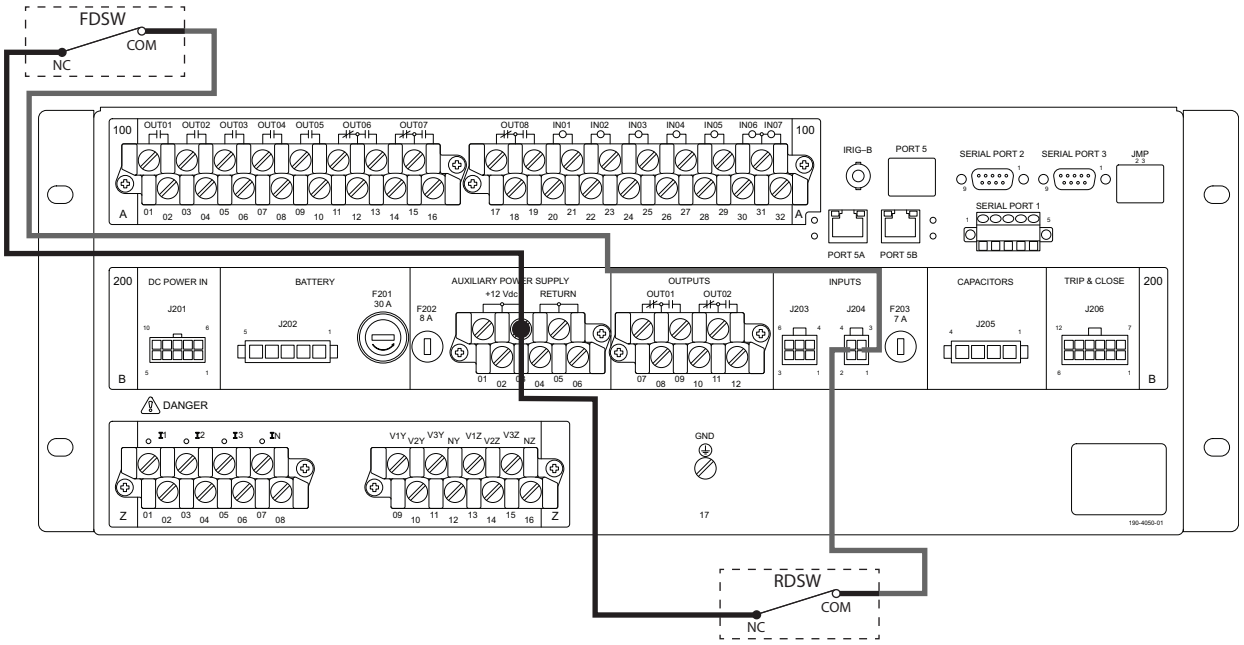


Figure 8 Door Switch Connections and Wire Routing

Wiring Diagram



Technical Support

We appreciate your interest in SEL products and services. If you have questions or comments, please contact us at:

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⚠CAUTION	**⚠ATTENTION**
Equipment components are sensitive to electrostatic discharge (ESD). Undetectable permanent damage can result if you do not use proper ESD procedures. Ground yourself, your work surface, and this equipment before removing any cover from this equipment. If your facility is not equipped to work with these components, contact SEL about returning this device and related SEL equipment for service.	Les composants de cet équipement sont sensibles aux décharges électrostatiques (DES). Des dommages permanents non-décelables peuvent résulter de l'absence de précautions contre les DES. Raccordez-vous correctement à la terre, ainsi que la surface de travail et l'appareil avant d'en retirer un panneau. Si vous n'êtes pas équipés pour travailler avec ce type de composants, contacter SEL afin de retourner l'appareil pour un service en usine.

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