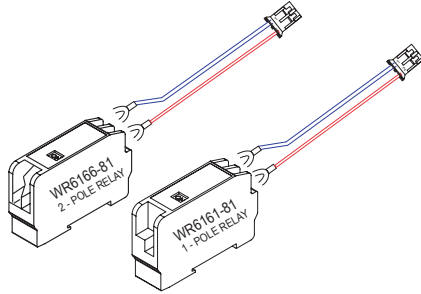


# ETC® Setup Guide

## SmartSwitch™ Relay Kit

### Overview

A SmartSwitch relay kit includes a relay and a wiring harness for relay low voltage connection to the relay control board.



### Relay Kit Ordering Information

- SS-1PRK: Single pole, single space 20A @ 300V AC HID relay (Aromat WR6161-81)
- SS-2PRK: Double pole, single space 20A @ 300V AC HID relay (Aromat WR6166-81)

### Relay Specification

#### WR6161-81 Single Pole HID Relay

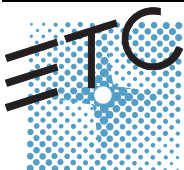
CSA		UL Listed	
• General Use	20A @ 347V AC	• General Use	20A @ 300V AC
• Ballast (HID)	20A @ 347V AC	• Ballast (HID)	20A @ 300V AC
• Tungsten	2400W @ 120V AC	• Tungsten	2400W @ 120V AC
• Motor Load	1/2 HP @ 110-125V AC 1-1/2 HP @ 220-250V AC	• Motor Load	1/2 HP @ 110-125V AC 1-1/2 HP @ 220-277V AC

#### WR6166-81 Double Pole HID Relay

CSA		UL Listed	
• General Use	20A @ 347V AC	• General Use	20A @ 300V AC
• Ballast (HID)	20A @ 347V AC	• Ballast (HID)	20A @ 300V AC
• Tungsten	2400W @ 120V AC	• Tungsten	2400W @ 120V AC
• Motor Load	1/2 HP @ 110-125V AC 1-1/2 HP @ 220-250V AC	• Motor Load	1/2 HP @ 110-125V AC 1-1/2 HP @ 220-277V AC

### Relay Ratings

- AIC: 5000A, 277V
- Inrush: 2000A
- Isolation: 5000V RMS
- Life: 60,000 cycles at full load
- Relay Output terminals accept 12-14AWG copper wire



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# ETC Quick Guide

## SmartSwitch Relay Kit Installation

### Installation Procedure

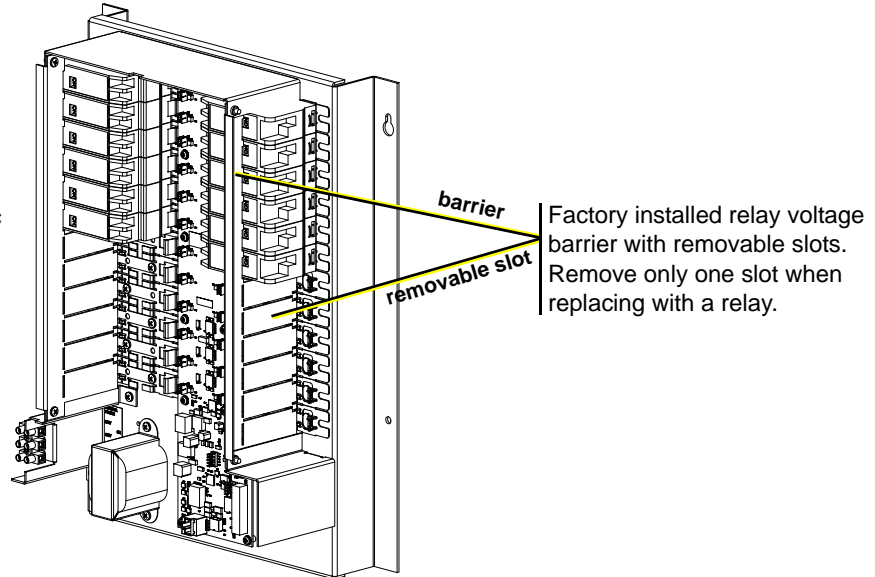


**WARNING:** *RISK OF ELECTRIC SHOCK! All relay panel maintenance and terminations must be completed with the power removed. All line feeds from the circuit breaker panel must be locked out in the OFF position prior to installing additional relays.*

**Step 1:** Remove the cover assembly from the SmartSwitch enclosure to reveal the relay panel interior.

a: Remove the four screws securing the front cover to the enclosure.

Rough-in enclosure and front cover removed from this graphic for clarity of the relay panel interior.



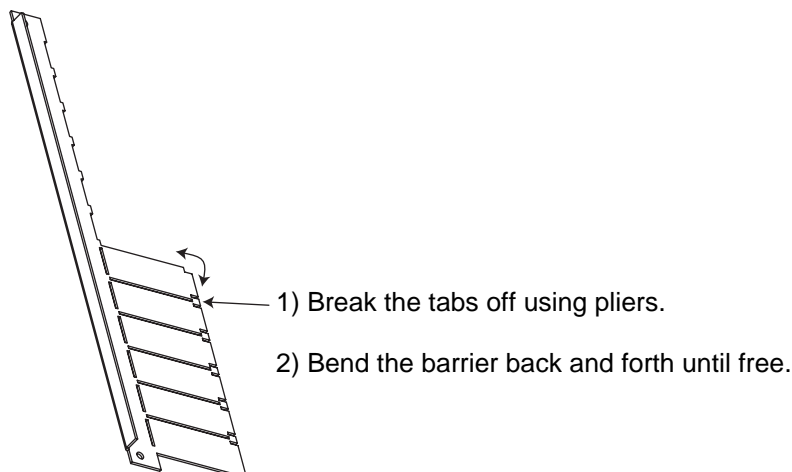
**Step 2:** Pull line feeds through conduit from the circuit panel to the relay panel.

**Step 3:** Pull load wires through conduit from the relay panel to the lighting loads.



**Note:** *It is important to separate low voltage from high voltage within the relay panel. SmartSwitch units shipped from the factory only partially populated include a relay voltage barrier in slots not populated with a relay. Remove only the slot from the relay voltage barrier that is to be replaced with a relay.*

**Step 4:** If installing one relay remove only one slot from the relay voltage barrier.

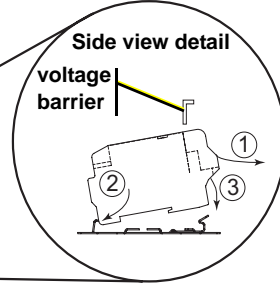
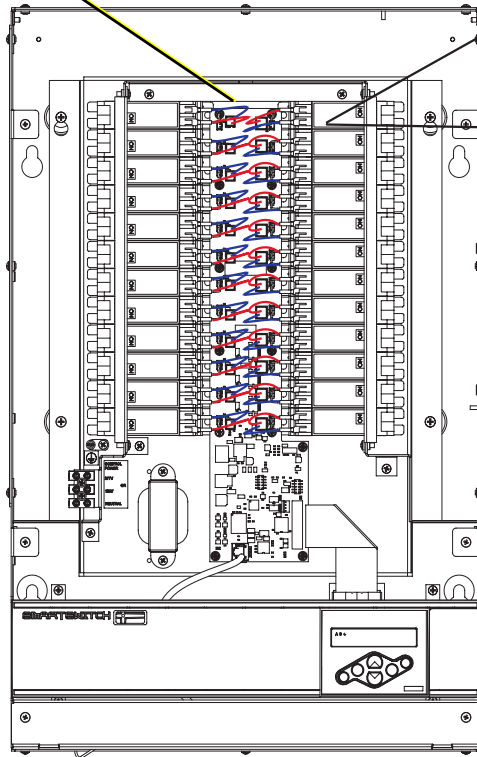


# ETC Quick Guide

## SmartSwitch Relay Kit Installation

**Step 5:** Install the relay into the relay slot.

Low voltage wiring harness  
provided with the relay kit



- 1) From the center of the relay panel, direct the relay under the voltage barrier and into the slot.
- 2) Align the input terminal side with the mounting bracket
- 3) Press the output terminal side down into the mounting clip until secure.



**CAUTION:** Careful not to damage the relay control board or connectors during relay installation.

**Step 6:** Install the keyed two pin connector found on the relay wiring harness into the adjacent receptacle on the relay control board.

**Step 7:** If the relay wiring harness was not attached to the relay upon receipt, connect the wire leads from the wiring harness to the low voltage input terminals on the relay.

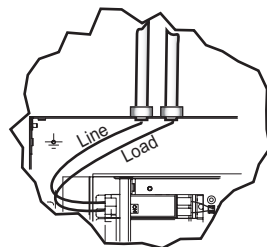
**a:** Connect the blue wire to the blue screw terminal and secure.

**b:** Connect the red wire to the red screw terminal and secure.

**Step 8:** Connect line and load wires to the output terminals of the relay.

**a:** Strip 1/4" of insulation from the end of the line and load copper wires.

**b:** Insert the bare-end into the relay output screw terminals and secure.



# ETC Quick Guide

## SmartSwitch Relay Kit Installation

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### Verify Installation

- Are all line and load cables landed into the appropriate relay and secured?
- Are all load circuits free of shorts?
- Are voltage barriers used where required by local code?
- Are all cable access openings covered with plugs and all removable plates reinstalled?
- Are all relay low voltage (control) wiring harnesses seated properly in the connector and secure to the relay input terminals?
- Is the relay panel clean of all metal shavings and debris?
- Is the circuit panel schedule updated with the new load information?

### Power Up

- Step 1:** Switch all relays to the OFF position prior to applying power.
- Step 2:** Re-attach the front cover to the unit.
- Step 3:** Apply power to the control electronics.
- Step 4:** At the circuit breaker panel, switch all line feeds to the ON position.
- Step 5:** Clear all faults that have caused breakers to trip.