BIG ASS FANS®

No Equal®

INSTALLATION GUIDE

Automatic Fire Sprinkler Relay

Powerfoil®8, Powerfoil®8Plus, Basic 6®, Pivot™,
Pivot™ 180, Isis®, Element, Essence®

For help, call 1-877-BIG-FANS
or visit www.bigassfans.com

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IMPORTANT SAFETY INSTRUCTIONS

READ AND SAVE THESE INSTRUCTIONS

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

WARNING: Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards.

CAUTION: The installation of a Big Ass Fan must be in accordance with the requirements specified in this installation manual and with any additional requirements set forth by the national electric code (NEC), ANSI/NFPA 70-2011, and all local codes. Code compliance is ultimately YOUR responsibility!

CAUTION: Exercise caution and common sense when powering the fan. Do not connect the fan to a damaged or hazardous power source. Do not attempt to resolve electrical malfunctions or failures on your own. Contact Big Ass Fans if you have any questions regarding the electrical installation of this fan.

WARNING: To reduce the risk of fire, electric shock, and injury to persons, Big Ass Fans must be installed with Big Ass Fan supplied controllers that are marked (on their cartons) to indicate the suitability with this model. Other parts cannot be substituted.

CAUTION: When service or replacement of a component in the fan requires the removal or disconnection of a safety device, the safety device is to be reinstalled or remounted as previously installed.

WARNING: Risk of fire, electric shock, or injury to persons during cleaning and user-maintenance! Disconnect the appliance from the power supply before servicing.

WARNING: Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.

WARNING: Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.

WARNING: Stay alert and use common sense when installing fans. Do not install fans if tired or under the influence of drugs, alcohol, or medication. A moment of inattention while installing fans may result in serious personal injury.

CAUTION: The Big Ass Fans product warranty will not cover equipment damage or failure caused by improper installation.

ATTENTION: If installing the fan in the United States, the fan must be installed per the following National Fire Protection Association (NFPA) guidelines:

- **The fan must be centered approximately between four adjacent sprinklers.**
- **The vertical distance from the fan to the sprinkler deflector must be at least 3 ft (91.4 cm).**
- **The fan must be interlocked to shut down immediately upon receiving a waterflow signal from the alarm system.**

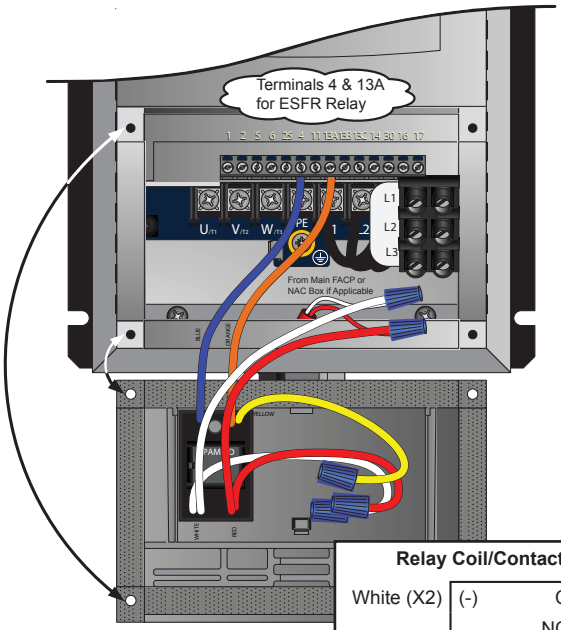
ATTENTION: The fire relay is needed only if the fan will be installed in a building that has a fire sprinkler system. The fire relay integrates the fan with the sprinkler system and shuts down the fan upon receiving an alarm signal from the system. If the building in which the fan will be installed has a sprinkler system, you must install the relay according to the instructions in this manual.

AC Tech Automatic Fire Sprinkler Relay 1

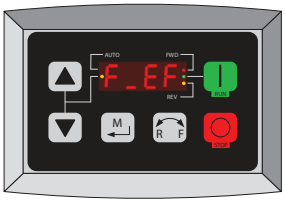
The following instructions are for Powerfoil®8, Powerfoil®8 Plus, Basic 6®, Pivot™, and Pivot™ 180 fans with AC Tech controllers. Consult the Installation Guide for all other aspects of fan installation.

A contact closure across the digital input terminals 4 and 13A will result in fan shutdown. The included relay uses a Normally Open (N.O.) contact as shown below. The relay coil must be energized by the FACP for fan shutdown.

Optionally, the normally closed (N.C.) relay contact can be used. The relay coil must remain energized by the FACP for fan operation. This would be considered a fail safe or fail open wiring arrangement. Two additional relay coil leads are provided to facilitate supervision pass-through where required.



Relay is mounted to the backside of the access cover.



An alarm condition will stop the fan and issue an "F_EF" (External Fault) on the fan controller's display.

Relay Coil/Contact Details

White (X2)	(-)	C	Blue
		NC	Yellow
Red (X2)	(+)	NO	Orange

Coil: 20–32 VDC @ 20 mA

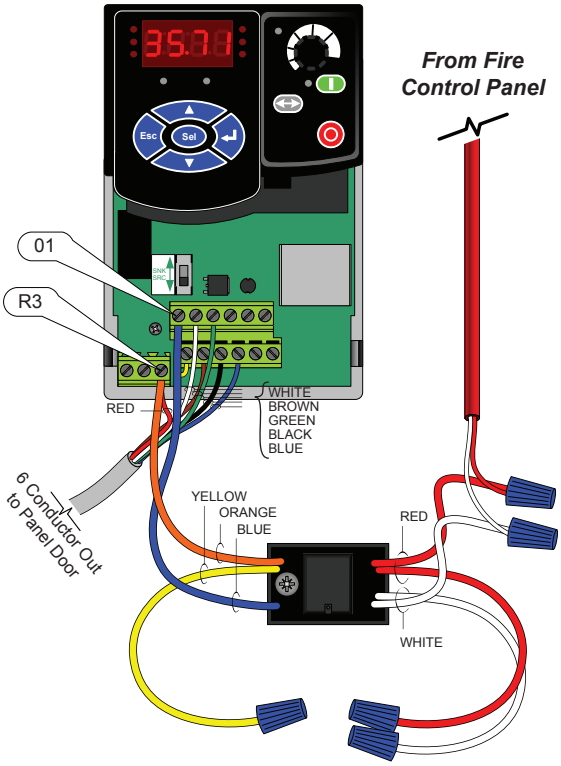
2 Allen-Bradley® Automatic Fire Sprinkler Relay

The following instructions are for Powerfoil®8, Powerfoil®8 Plus, Basic 6®, Pivot™, and Pivot™ 180 fans with Allen-Bradley® controllers. Consult the Installation Guide for all other aspects of fan installation.

Normally open

The relay uses a Normally Open contact (N.O.) as shown. The red lead from the VFD's terminal #1 must be lifted and moved to terminal #R3. The new relay's N.O. contact will land on terminal #R3 and terminal #1. Do not remove the small yellow jumper between VFD terminal #1 and terminal #11. The relay coil must be energized by the FCP for fan operation.

Two additional relay coil leads are provided to facilitate supervision pass-through where required.



Relay Coil/Contact Details

White (X2)	(-)	C	Blue
		NC	Yellow
Red (X2)	(+)	NO	Orange

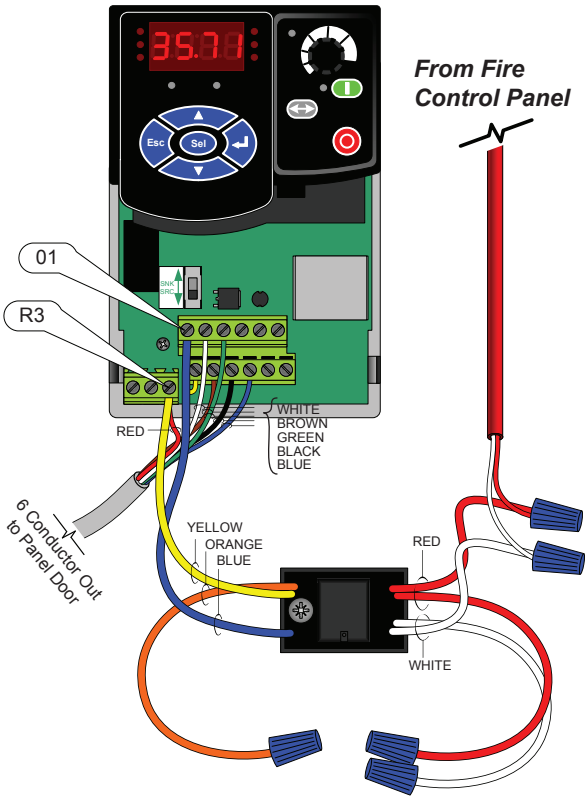
Coil: 20–32 VDC @ 20 mA

Allen-Bradley® Automatic Fire Sprinkler Relay (cont.) 3

Normally closed

The relay uses a Normally Closed contact (N.C.) as shown. The red lead from the VFD's terminal #1 must be lifted and moved to terminal #R3. The new relay's N.O. contact will land on terminal #R3 and terminal #1. Do not remove the small yellow jumper between VFD terminal #1 and terminal #11. The relay coil must be energized by the FCP for fan shutdown.

Two additional relay coil leads are provided to facilitate supervision pass-through where required.



Relay Coil/Contact Details

White (X2)	(-)	C	Blue
		NC	Yellow
Red (X2)	(+)	NO	Orange

Coil: 20–32 VDC @ 20 mA

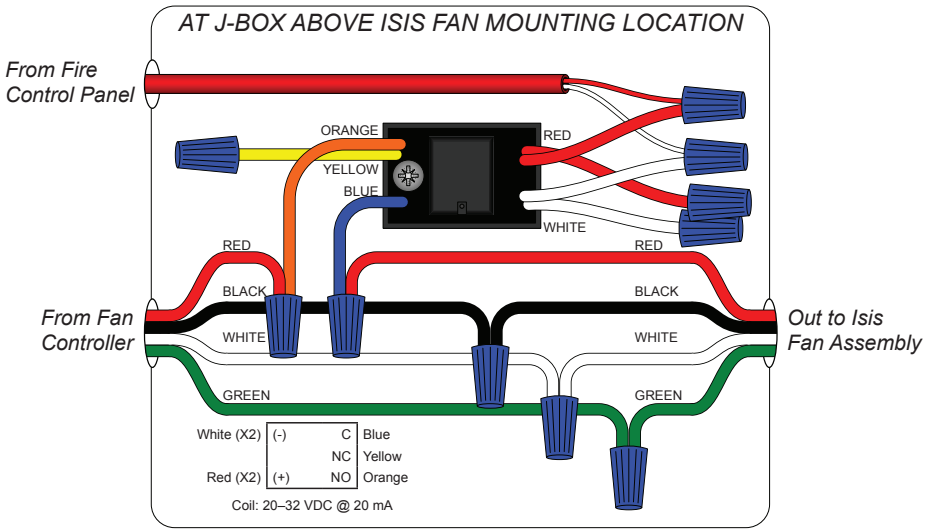
4 Isis® Automatic Fire Sprinkler Relay

The following instructions are for Isis® fans. Consult the Installation Guide for all other aspects of fan installation.

Normally open

The relay's Normally Open contact (N.O.) is wired with the dimmer output lead (RED) as shown. The relay coil must be energized by the FCP for fan operation.

Two additional relay coil leads are provided to facilitate supervision pass-through where required.

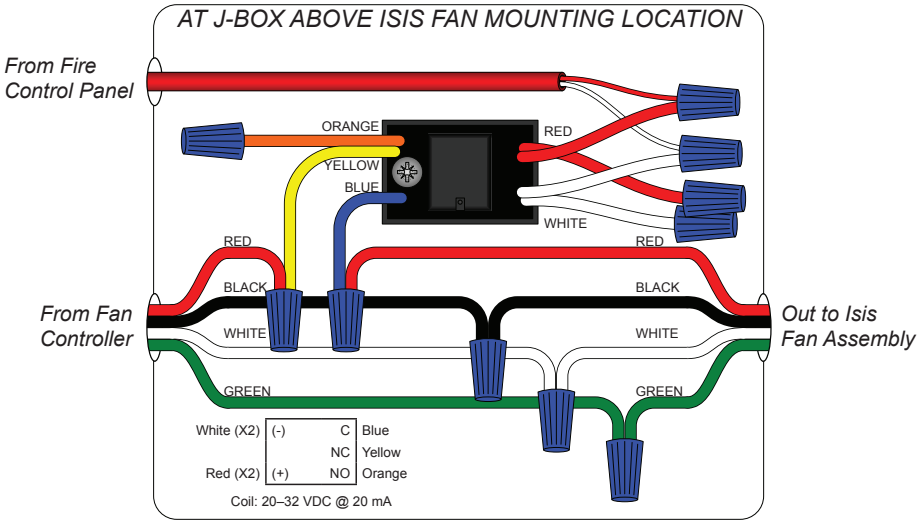


Isis® Automatic Fire Sprinkler Relay (cont.) **5**

Normally closed

The relay's Normally Closed contact (N.C.) is wired with the dimmer output lead (RED) as shown. The relay coil must be energized by the FCP for fan shutdown.

Two additional relay coil leads are provided to facilitate supervision pass-through where required.



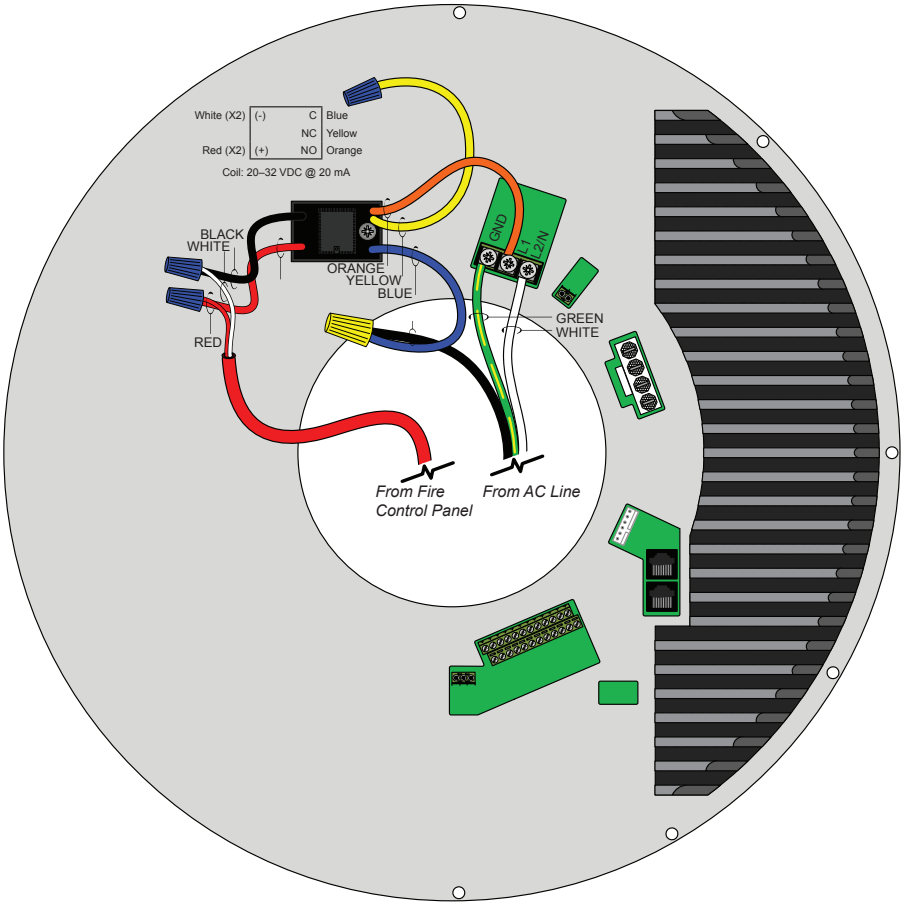
6 Element Automatic Fire Sprinkler Relay

The following instructions are for Element fans. Consult the Installation Guide for all other aspects of fan installation.

Normally open

The relay uses a Normally Open (N.O.) contact as shown. The new relay's N.O. contact will terminate between the AC line and terminal L1 on the fan's AC mains terminal strip.

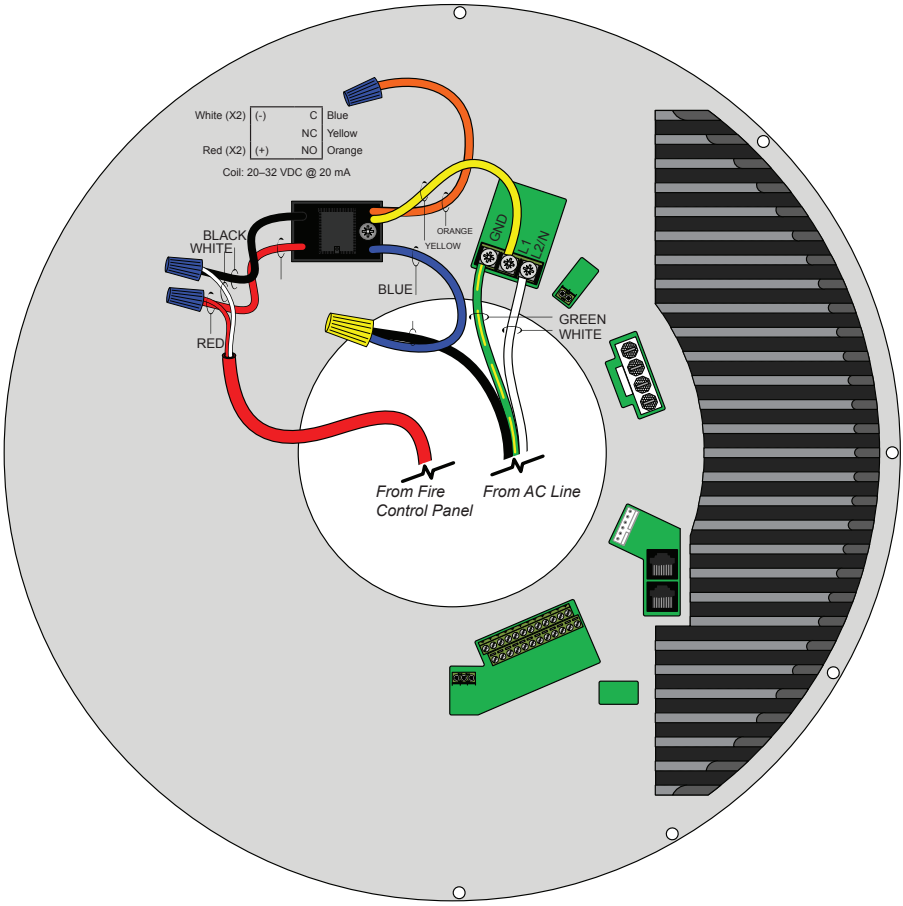
The relay coil must be energized by the FCP for fan operation.



Normally closed

The relay uses a Normally Closed (N.C.) contact as shown. The new relay's N.C. contact will terminate between the AC line and terminal L1 on the fan's AC mains terminal strip.

The relay coil must be energized by the FCP for fan shutdown.

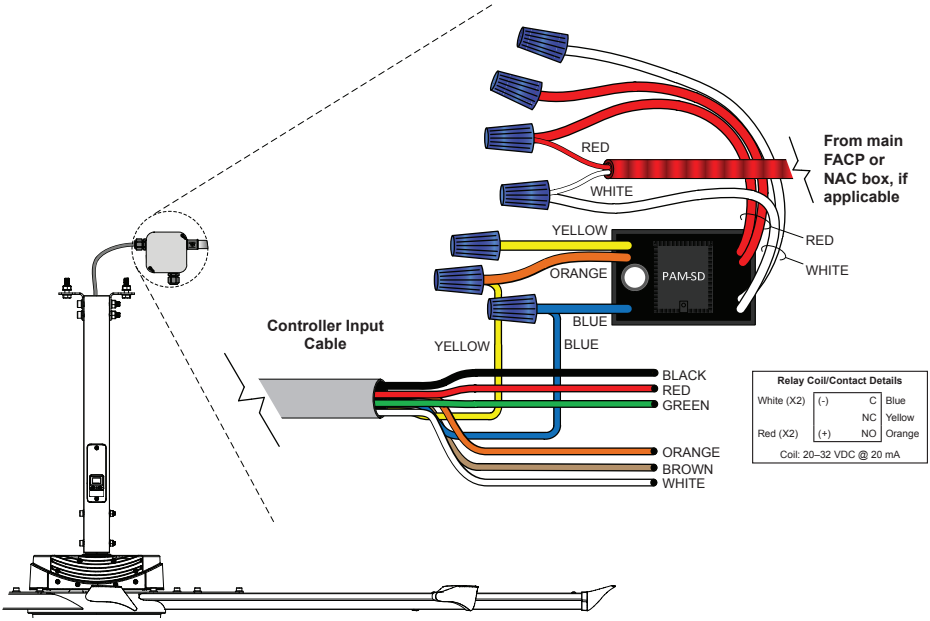


8 Essence® Automatic Fire Sprinkler Relay

The following instructions are for Essence® fans. Consult the Installation Guide for all other aspects of fan installation.

Note: The illustration below applies to fans installed with either a wired or wireless wall controller.

Note: In the configuration shown, power must be applied to the fire relay to enable fan operation.



Controller Input Cable

1	White	+0-10VDC Speed Ref.
2	Brown	Not Used
3	Orange	Status LED (+)
4	Yellow	Run Enable Closed: Enable, Open: Disable
5	Blue	
6	Green	Status LED (-)
7	Red	+10VDC Supply
8	Black	DC Common

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