Power Port 5FR-UNI Installation Note

The Power Port 5FR-UNI is a power distribution fuse module with built in fire trip that can be mounted in Inner Range and Gallagher cabinets.

Mounting Holes
I = Inner Range C size
G = Gallagher ¼ footprint
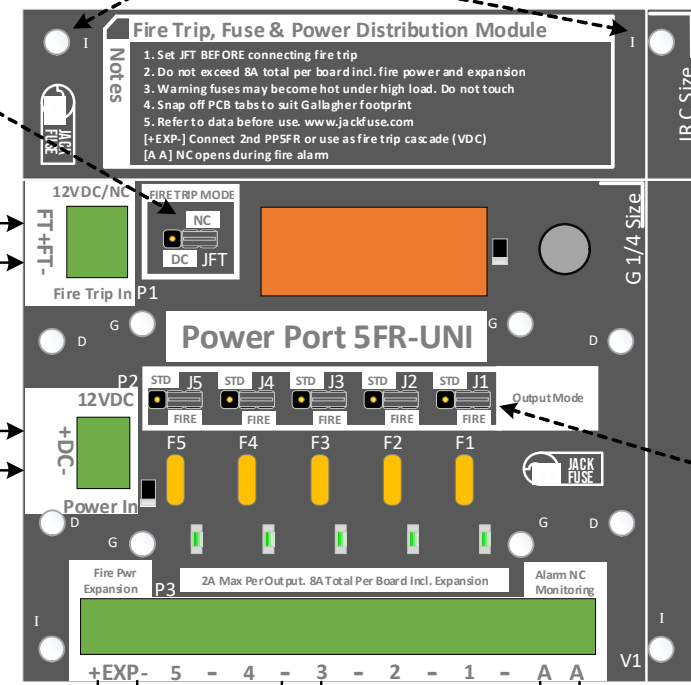D = Din rail clips (Jack Fuse Part No. PPDIN1)

Snap

Snap as indicated to remove Inner Range "C" size mounting tabs to fit Gallagher footprint

JFT – Fire Trip Mode
NC = Normally closed
DC = 12VDC

Fire trip input. NC or 12VDC direct from FIP.
(SET JFT)

Fire Trip, Fuse & Power Distribution Module

Notes
1. Set JFT BEFORE connecting fire trip
2. Do not exceed 8A total per board incl. fire power and expansion
3. Warning fuses may become hot under high load. Do not touch
4. Snap off PCB tabs to suit Gallagher footprint
5. Refer to data before use. www.jackfuse.com
[+EXP-] Connect 2nd PP5FR or use as fire trip cascade (VDC)
[A A] NC opens during fire alarm

12VDC/NC
FIRE TRIP MODE
NC
DC JFT
FT +FT-
Fire Trip In P1

Power Port 5FR-UNI

Snap

J1–5 – Output Mode
STD = Output connected to standard supply power
FIRE = Output connected to supply power via fire relay
Off = No power to output

P2
12VDC
+DC-
Power In

STD J5 STD J4 STD J3 STD J2 STD J1
FIRE   FIRE   FIRE   FIRE   FIRE
F5   F4   F3   F2   F1

Output Mode

12VDC Power supply input

Fire Pwr Expansion P3   2A Max Per Output. 8A Total Per Board Incl. Expansion   Alarm NC Monitoring

V1

+EXP- 5 – 4 – 3 – 2 – 1 – A A

Unfused expansion output. Fire power only.

Power to field devices either standard or fire tripped power depending on J1-5 2A max per output PPTC Fuse

Fire alarm monitoring contact NC going open during alarm. 2A max

WARNING
Read and understand all data before use

8A max per board including expansion

Universal Mounting

The PP5FR-UNI has mounting holes that allow the module to be mounted in the same footprint as popular Inner Range and Gallagher expanders.

Inner Range – Out of the box the PP5FR-UNI mounts in a "C" size module footprint. Four machine screws are provided and are used in the PCB holes marked "I"

Gallagher – Two sides of the module can be snapped away reducing the size of the PP5FR-UNI enabling it to be mounted in Gallagher cabinets with the same footprint as an 8-input expander. Four self-tapping screws are provided and are used in the PCB holes marked "G"

Integriti "B" Size	
PP5FR UNI	"C" Size

Gallagher 8 in 4 Out	
PP5FR UNI	8 In
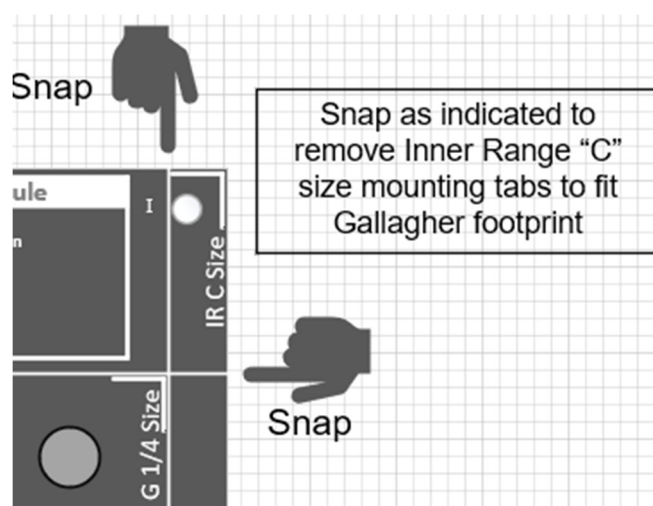
DIN Rail – The PP5FR-UNI can be mounted on DIN rail using the optional mounting kit available from Jack Fuse. The kit comes with self-tapping screws which are used in the PCB holes marked "D". (Part number PPDIN1)

Settings

Warning: It is important to correctly set and check JFT before applying fire trip or power to the PP5FR-UNI module. Incorrect jumper settings may cause damage to the module and other equipment.

| Jumper/Link	Position	Description
J1-5	STD	Associated output connected to standard supply power
	FIRE	Associated output connected to supply power via fire relay
	Off	No power available to associated output
JFT	NC	Fire trip interface normally closed contact
	DC	Fire trip interface 12VDC

Output Power to Field Devices

Power to field devices is sourced from terminal P3, outputs marked 1-5. Devices such as fail-safe door locks should be connected to fire power by setting the output mode to FIRE using J1-5. Alarm sensors, such as detectors, should be connected to non-tripped power by setting the output mode to STD using J1-5.
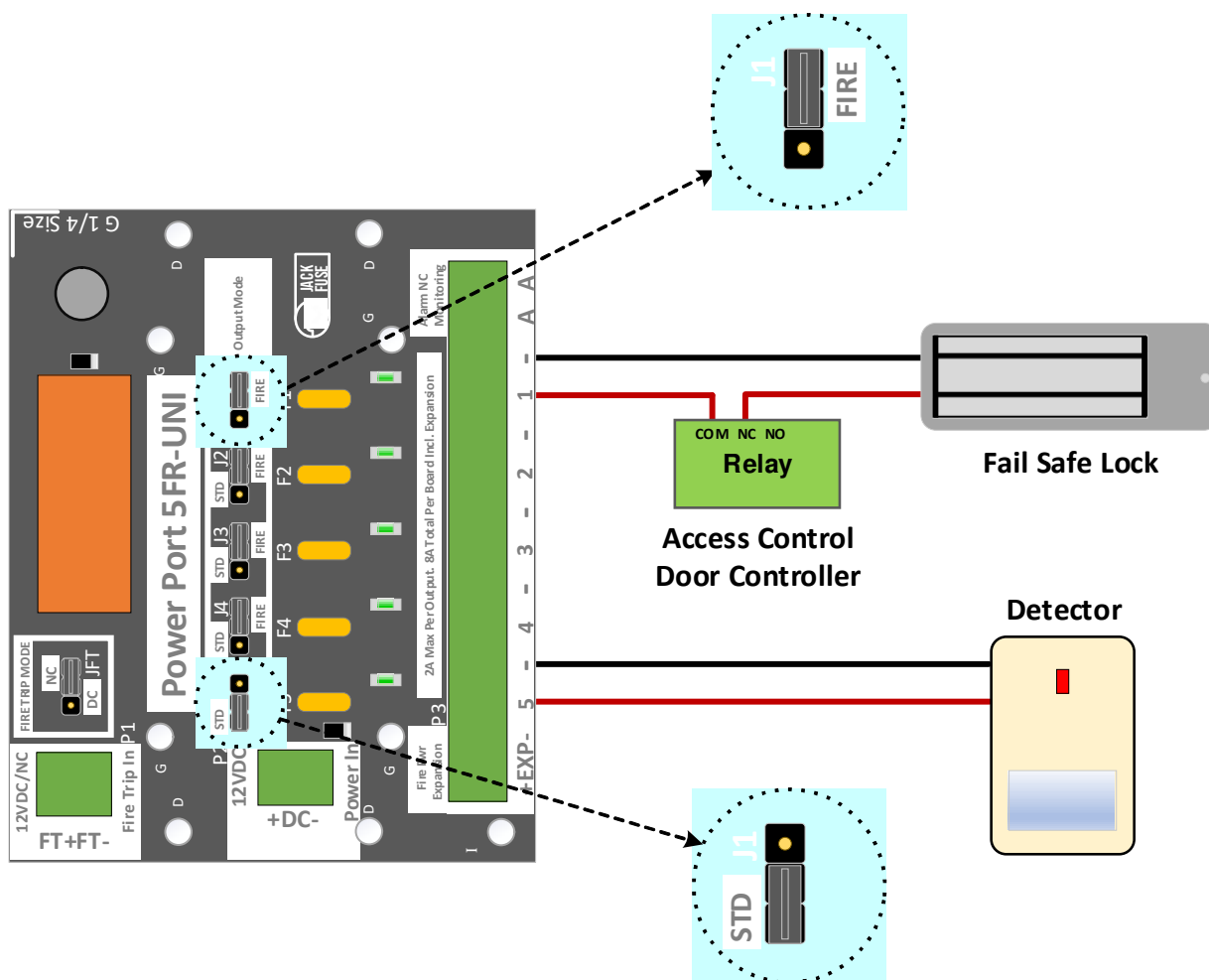
For optimal security and redundancy Jack Fuse recommends one field device per fuse. In this manner, if a fault causes one fuse to activate it will only affect a small part of the security system.

Fire Trip Interface

The on-board fire relay is designed to provide a failsafe method of fire trip interface. There are two options for connection to the FIP. (Fire Indication Panel.) A normally closed, voltage free contact can be used. Alternatively, the FIP or another device can supply a 12VDC voltage. Both options are terminated directly to the FT+ and FT- terminals and link JF set to match. Correct voltage polarity must be observed.
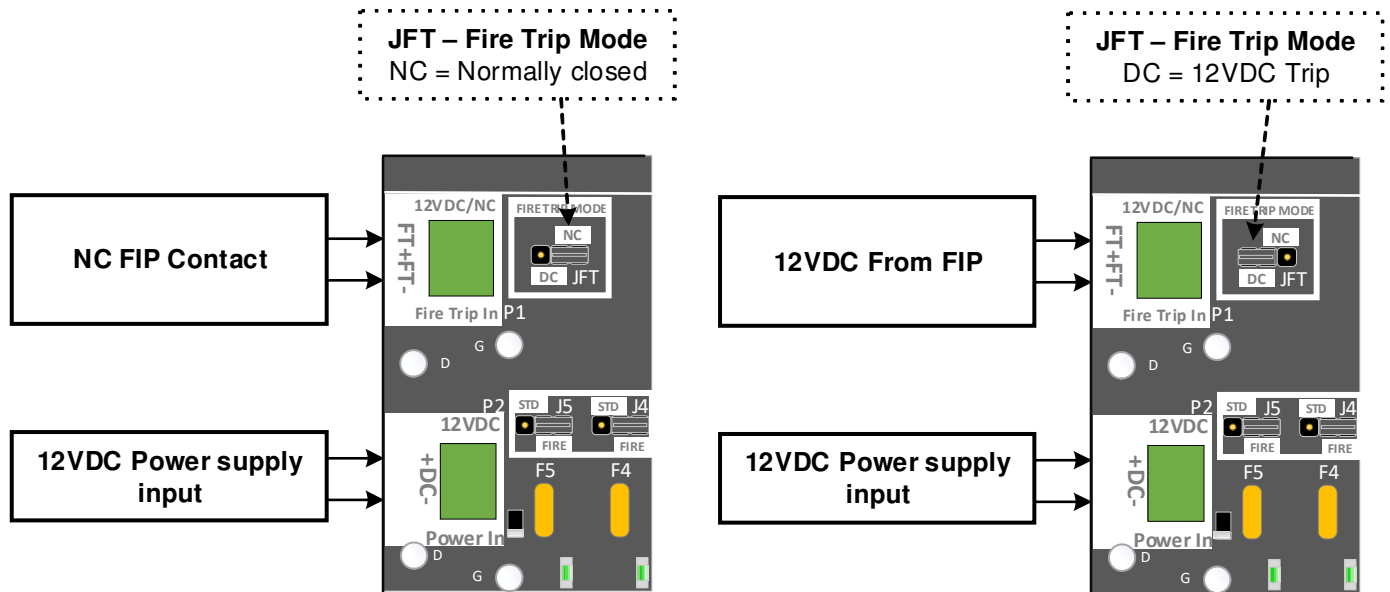
Note: The PP5FR-UNI does not accept 24VDC fire trip signals.

Alarm Contact & Trip Monitoring

The terminals marked A - A are interfaced to the secondary contact of the fire relay. This is a dry contact output that can be used to provide a fire trip to another Power Port module (see expansion) or used to monitor the fire relay status. To provide fire relay status the A – A terminals should be connected to an alarm system input via end of line resistors.
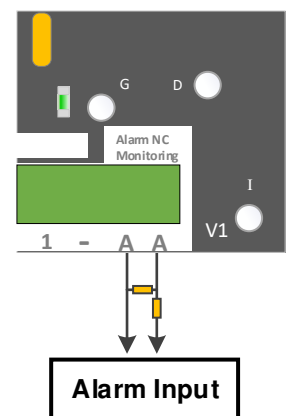
Expansion

A common expansion option is shown below. **Note.** Total current drawn through the PP5FR-UNI from power supply must not exceed 8A. This includes total via all outputs and expansion terminals. If expected current is more than 8A, use a second PP5FR-UNI with direct feed from power supply and not via expansion terminals of PP5FR-UNI.

Output expansion. Additional fused power outputs can be added using another PP5FR-UNI or the expansion boards PP10HD and PP10MG. One or more boards can be added if the total current draw via the PP5FR-UNI does not exceed the PCB or fire relay limit of 8A. If current draw exceeds limitations an additional PP5FR-UNI module can be used with a direct feed from the same or different power supply.

PP10MG
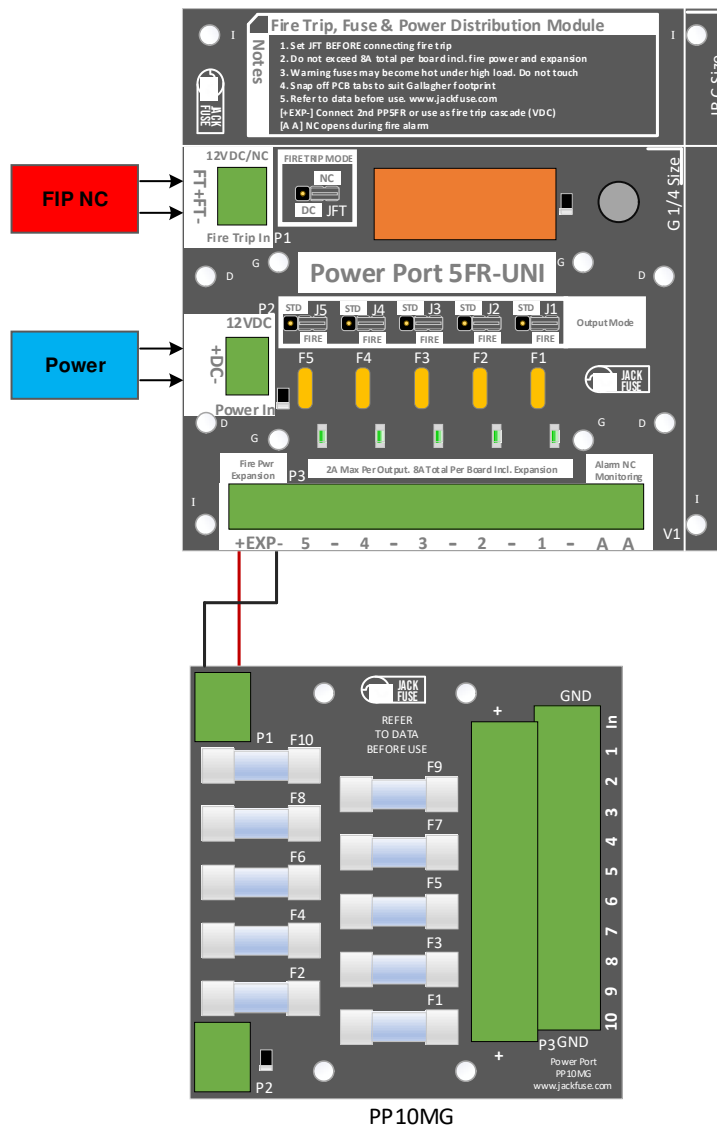
Fire Trip to Additional Modules

A normally closed fire trip signal from the fire panel can not be used to directly trip more than one PDM module. To replicate the fire trip to additional modules, Jack Fuse recommends powering all subsequent fire trips from the +EXP- expansion output of the first module. Remember to set JFT to DC for the downstream modules.
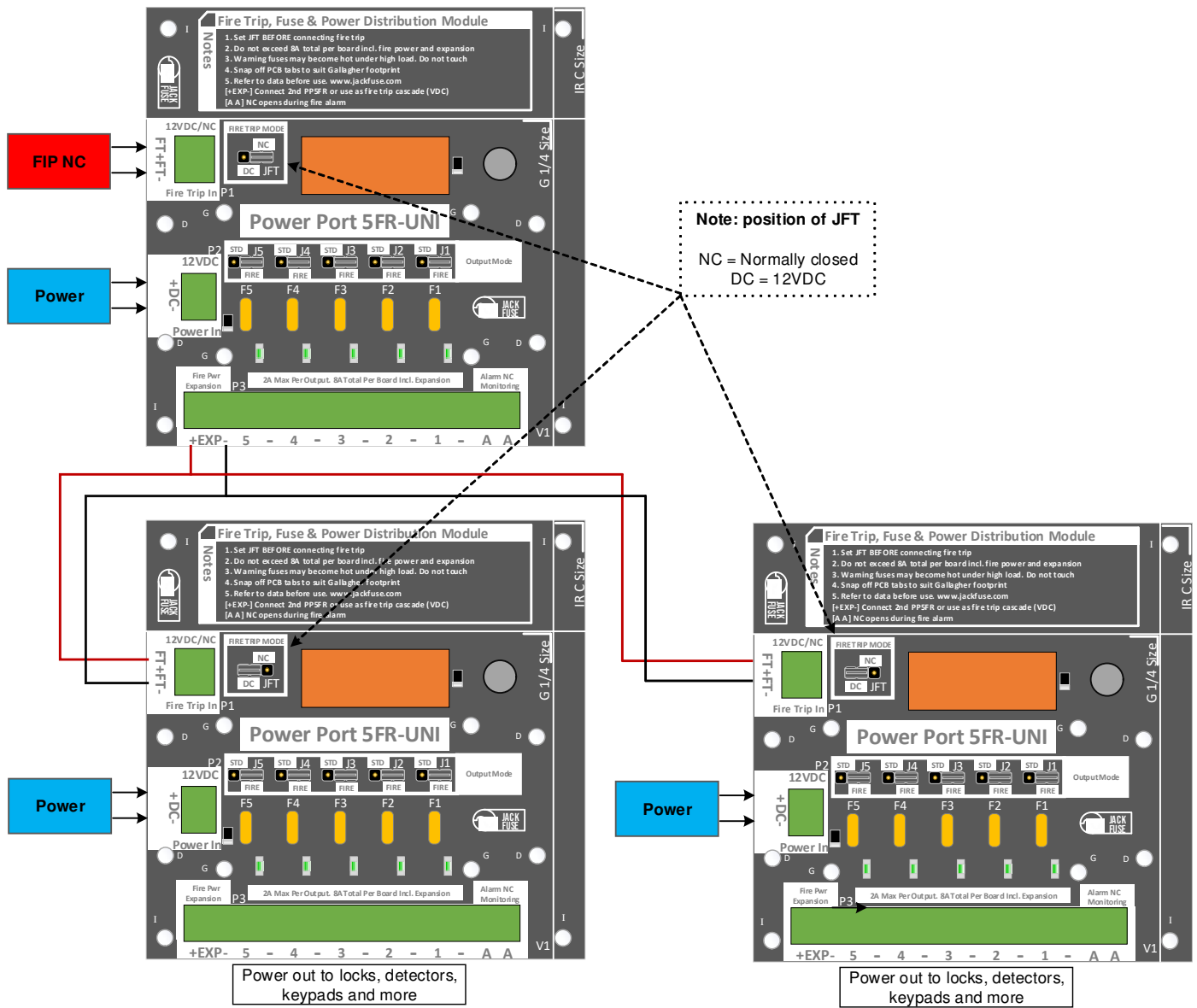
If not being used to monitor the fire relay, the A – A alarm contacts can also be used to provide a fire trip to additional power distribution modules or other equipment.

Technical Data

Input voltage range	12-15V DC
Fire relay coil voltage	12-15V DC (or dry contact)
Max. standard power current	8A
Max. fire power current	8A
Max. constant current per output	2A
Fused outputs	5
Fuse type	2A (Hold) Self-healing PPTC
Mounting	Gallagher ¼ and Inner Range "C" size
Dimensions	95 L X 95 W X 34 H (mm) (Inner Range) 87 L X 70 W X 34 H (mm) (Gallagher)
Country of origin	China

Connections

Terminal	Description	Max Conductor Size
P1 – FT- FT+	Fire panel trip interface	2.5mm^2
P2 – + DC -	DC Power supply input	2.5mm^2
P3 - EXP	Expansion Output	2.5mm^2
P3 1 - 5	Fused outputs	2.5mm^2
P3 A-A	Monitoring/NC output	2.5mm^2

Indicators

LED Designator	Description
D1-5	Fuse status, "on" indicates fuse intact and power is available.

Ordering Code

PP5FR-UNI	Power Port 5FR-UNI, mounts in Inner Range and Gallagher footprints. Supplied with fire relay and 5 X PPTC fuses.
PPDIN1	Optional mounting kit for the PP5FR-UNI. Suits most DIN rail profiles.
PP8FR	Power Port 8FR supplied with a din rail mount kit, fire relay and 8 X 1A glass fuses.
PP10MG	Power Port 10MG supplied with a din rail mount kit and 10 X 1A glass fuses
PP8PTC	Power Port 8PTC supplied with a din rail mount kit, fire relay and 8 X PPTC fuses.
PP10HD	Power Port 10HD supplied with a din rail mount kit and 10 X 1A PPTC fuses

Learning

Become a **Jack Fuse Product and Power Certified Technician**. Free training available online.

More Information: For complete installation notes, data sheets and technical support please visit www.jackfuse.com