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A8 / A8P Installation Manual

LifeSafety Power®



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Description

The A8 simple distribution accessory provides eight zones of fused or PTC-protected AC distribution with no built-in control features. The A8 is capable of distribution of one or two AC voltages. Each zone output is selectable for either input voltage by zone.

Specifications

Input	Voltage	16 - 28VAC nominal $\pm 15\%$
	Current	20A maximum
	Standby Current	65mA
Output	Voltage	Same as input
	Current (A8)	3A
	Current (A8P)	2.5A (Class 2 Power Ltd)
Fuse (A8 Only)	3A ATM automotive style	
Size	A8/A8P	4.00" x 2.50" x 1.0" (102mm x 64mm x 25 mm)
Weight	A8/A8P	0.15lb (0.07kg)

Regulatory Information

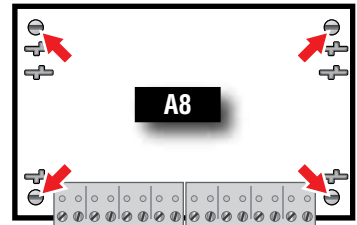
The equipment discussed within this manual has been tested to the following standards:

- UL294, UL2044
- CSA C22.2 #107.1

Mounting the A8 Power Distribution Accessory

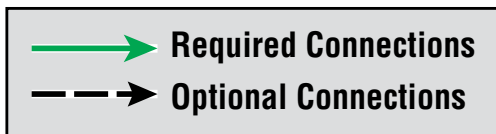
Mounting of the board to an enclosure is via the four snap-in standoffs supplied.

1. Locate the appropriate mounting holes in the enclosure and snap the standoffs into the holes.
2. Align the board mounting holes with the standoffs (be sure the PC board is properly oriented) and snap the board onto the standoffs.

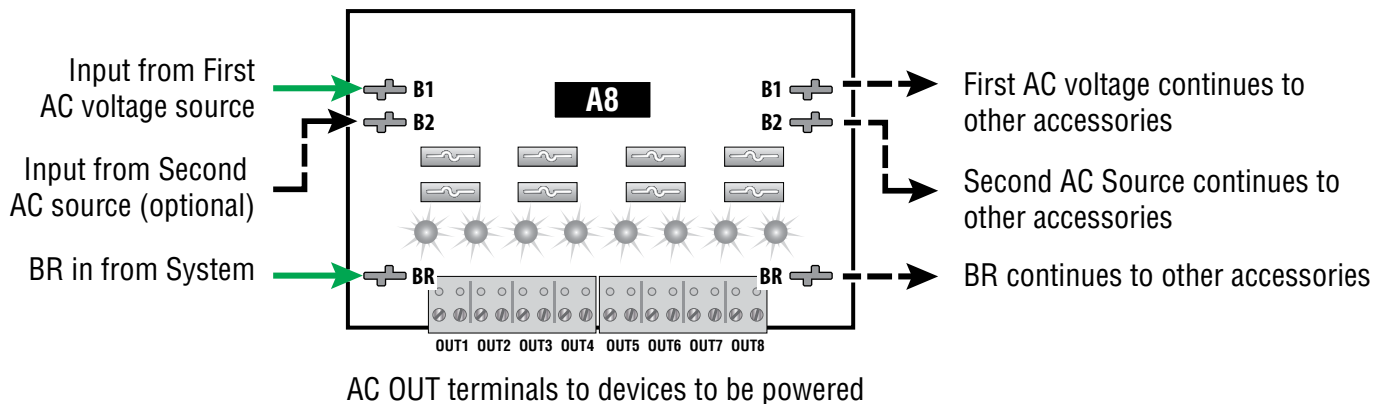


Wiring the A8 Board

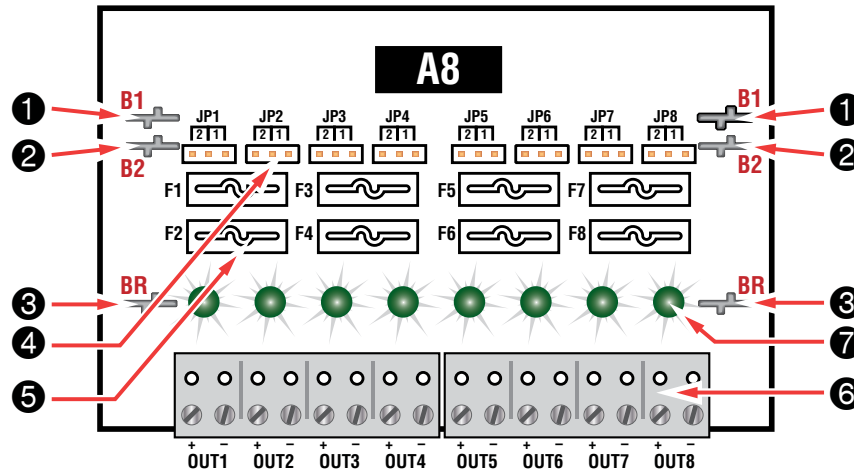
⚠ Remove all AC power from the FPA system before adding or replacing an A8 board.



Each of the B1, B2, BR, busses has *two* connectors. These connectors may be used interchangeably.



A8 – Accessory Overview



1 B1 Connectors (J1 & J4)

These fastons are for connection to the B1 voltage buss in the system. The voltage on the B1 buss comes from the first AC voltage in an FPA power supply. This voltage will be directed to any outputs whose Output Selection Jumper is set in the B1 position.

2 B2 Connectors (J3 & J5)

These fastons are for connection to the B2 voltage buss in the system. The voltage on the B2 buss comes from the second AC voltage in an FPA power supply in a dual voltage system. This voltage will be directed to any outputs whose Output Selection Jumper is set in the B2 position. If the A8 is being used in a single voltage system, these fastons can be left unused.

3 BR Connectors (J2 & J6)

The AC Common buss in the system. All boards in the system must have their BR fastons wired together for proper operation (except for between the DC and AC sections of an FPX hybrid system).

4 Output Selection Jumpers (JP1 – JP8)

These jumpers select which voltage buss input is selected for the output. Jumper numbers correspond with the zone number (e.g. JP1 is the jumper for OUT1). Possible settings are as follows:

- **Position 2 (Left)** – B2 Buss
- **Position 1 (Right)** – B1 Buss
- **Removed** – Disable Output

5 Output Fuses (F1 – F8) – Optional

When using the fused version of the A8, these are the fuses for each zone output. Fuse numbers correspond with the zone number (e.g. F1 is the fuse for OUT1). When using the PTC version of the A8, the fuse will be replaced with a soldered-in PTC.

6 Zone Outputs (Out1 – Out8)

These are the zone output terminal strips. These terminal strips are removable and accept wire sizes from AWG14 – AWG22. The terminals are labeled on the PC board underneath the terminal strip.

7 Output LEDs (D1 – A8) – Green

These LEDs indicate the availability of voltage on a zone's output. When voltage is available on the output terminals, the LED is lit. LED numbers correspond with the zone number (e.g. D1 is the LED for OUT1).

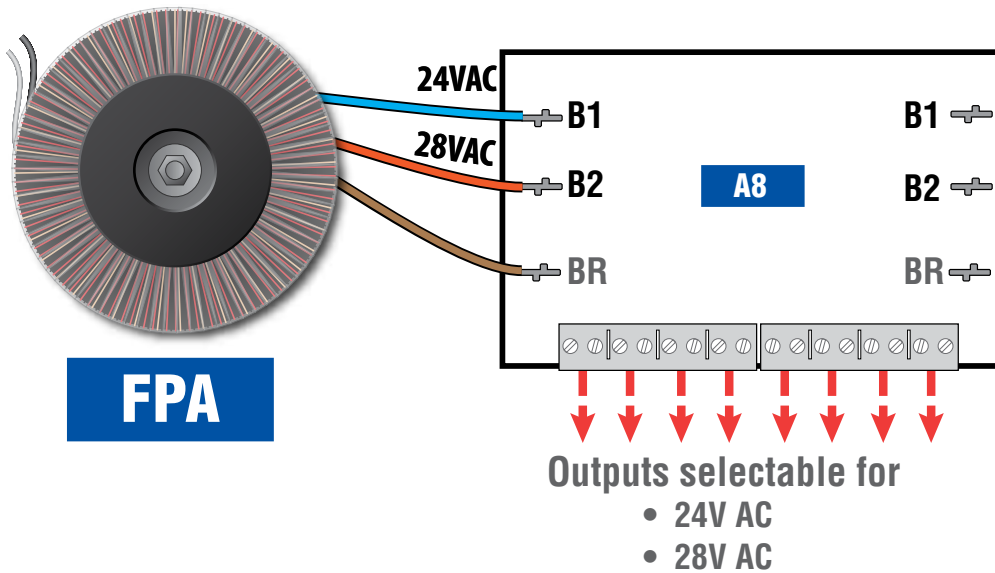
A8 – Application Examples

Eight output distribution with 24 / 28V AC zone programming

This application shows an A8 connected to the FPA transformer for eight output power distribution.

The B1 input is connected to the blue lead 24VAC output of the FPA dual tapped transformer. B2 input is connected to the orange lead of the FPA transformer for 28VAC output.

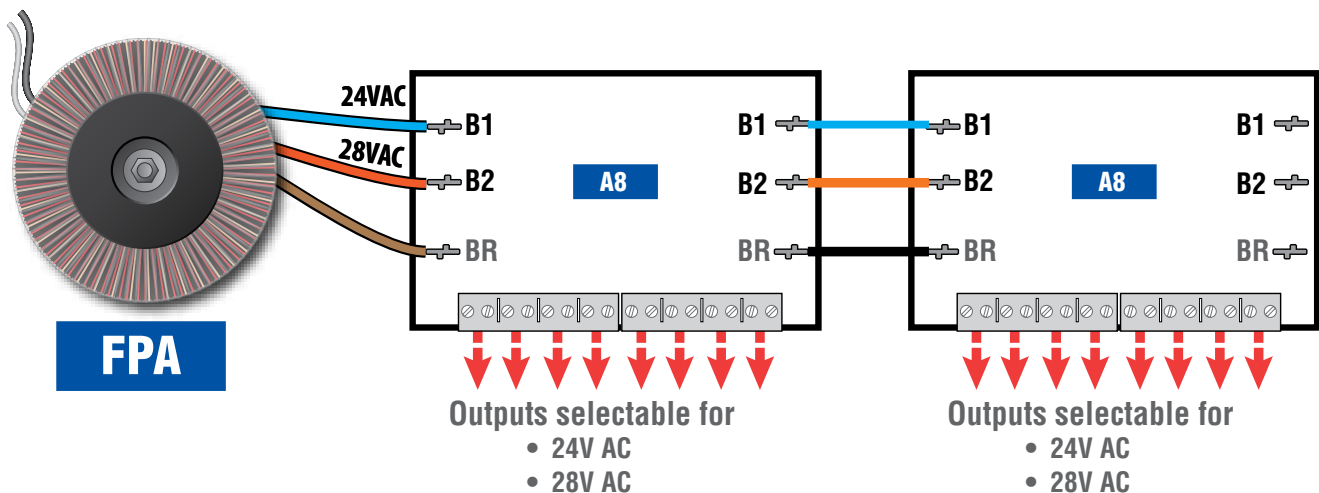
- Any zone output with its jumper set in Position 1 will have a continuous 24VAC output.
- Any zone output with its jumper set in Position 2 will have a continuous 28VAC output.



Sixteen output distribution with 24 / 28V AC zone programming

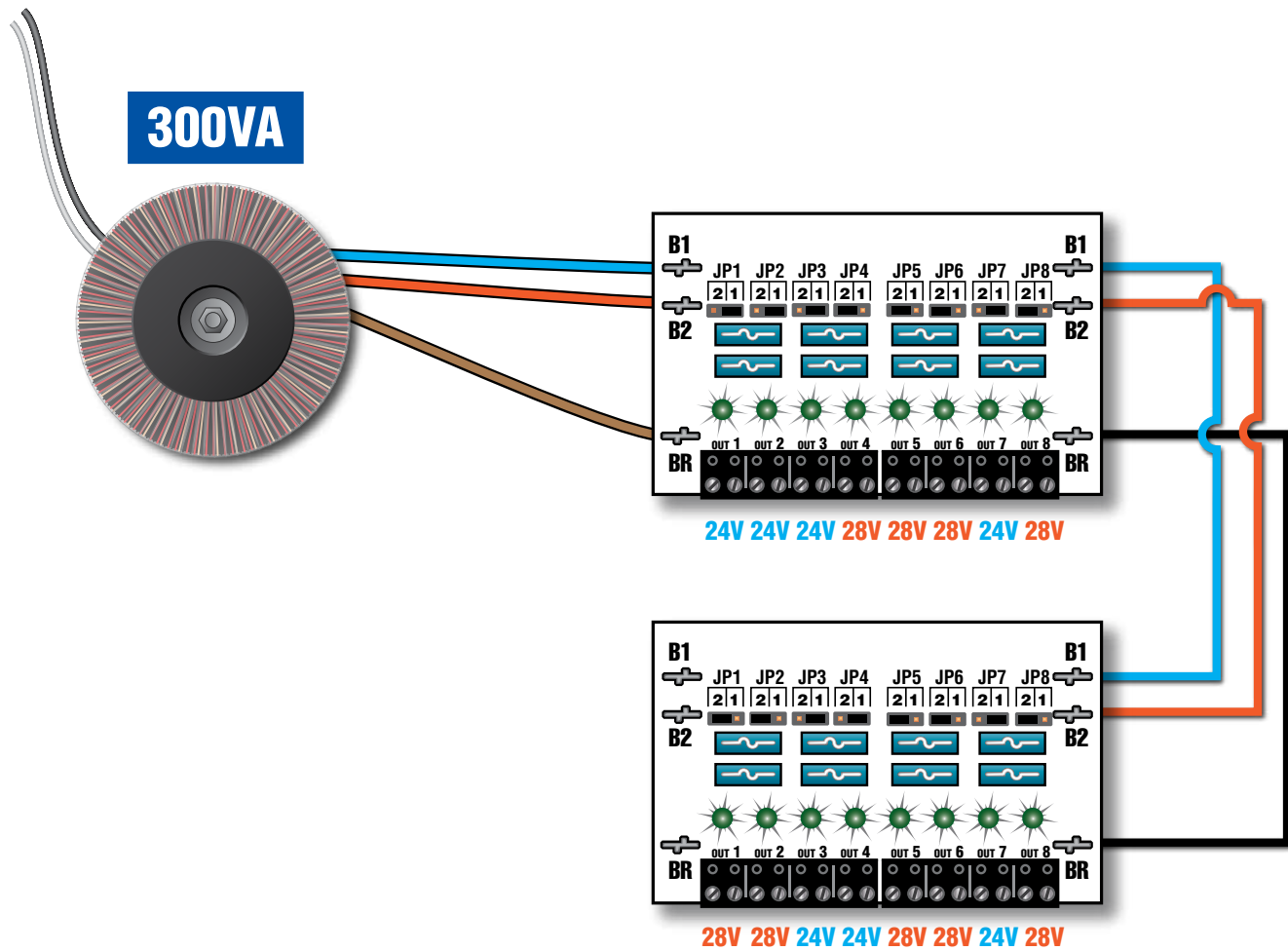
This application shows dual A8's for sixteen zone distribution

- The B1 input is connected to the blue lead 24VAC output of the FPA dual tapped transformer. B2 input is connected to the orange lead of the FPA transformer for 28VAC output.
- Any zone output with its jumper set in Position 1 will have a continuous 24VAC output.
- Any zone output with its jumper set in Position 2 will have a continuous 28VAC output.



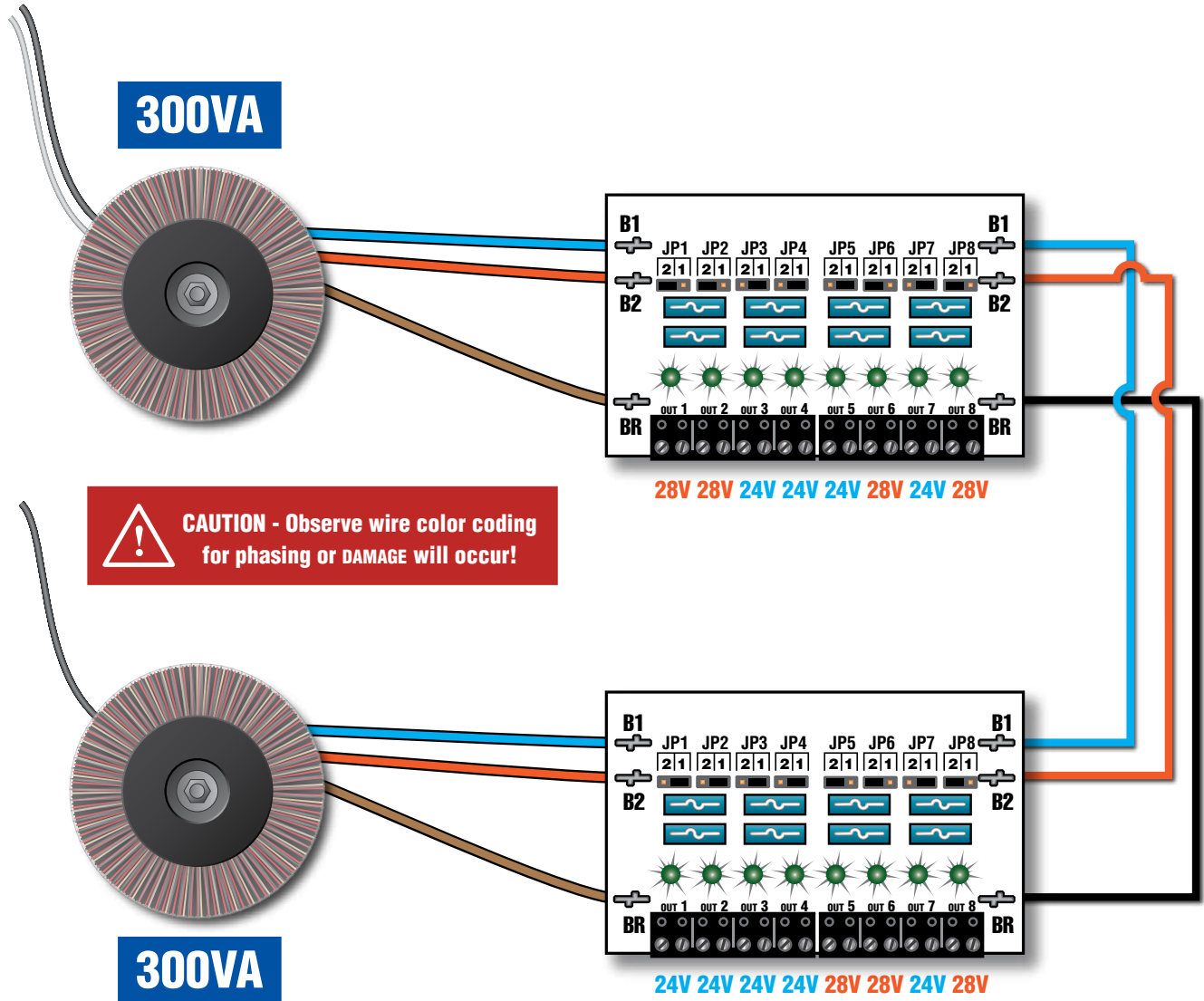
A8 – Application Examples

Typical 300VA, 16 outputs with zone select 24/28V AC power



A8 – Application Examples

Typical 600VA, 16 outputs with zone select 24/28V AC power





FlexPower System Replacement Parts

Board Kits	Order #	Description
FPO250	A01-007	FPO250 replacement board
FPO150	A01-005	FPO150 replacement board
FPO75	A01-003	FPO75 replacement board
B100	A03-009	DC-DC Convertor (12VDC or adjustable 5 to 18VDC) replacement board
D8	A02-001	Simple distribution replacement board
D8P	A02-002	Simple distribution (Class 2) replacement board
F8	A02-003	FAI controlled distribution replacement board
F8P	A02-004	FAI controlled distribution (Class 2) replacement board
C4	A02-005	Four zone power control replacement board
C4P	A02-006	Four zone power control (Class 2) replacement board
C8	A02-007	Eight zone power control replacement board
C8P	A02-008	Eight zone power control (Class 2) replacement board
N24	A04-001	Two Input, 4 Output NAC Expander accessory replacement board
NL2	A11-	NetLink network communication board (used in FPO systems)
NL4	A11-	NetLink network communication board (used in FPO systems)
NLR	A11-002	NetLink network communication kit / remote reset (used in FPA systems)
NS2	A11-003	Reset module board for use with NL1
RB2	A25-001	2A Relay, 12VDC or 24VDC input range, DP/DT
RB5	A25-002	5A Relay, 12VDC or 24VDC input range, DP/DT
RB8	A25-003	8A Relay, 12VDC or 24VDC input range, DP/DT
Hardware	Order #	Description
DL1	A05-001	DataLink USB cable
BDM	A05-006	Battery Disconnect Module cable
AC Cable	A05-005	AC Input Cable for FPO Power Supply
Battery Cable	A05-002	Battery Harness – 24"
Module Cable - 12"	A05-003	Accessory board cable set – 12"
Module Cable - 18"	A05-004	Accessory board cable set – 18"
Fuse - 3A	A05-201	ATM-3A Fuse – Bag of 25
Fuse - 5A	A05-202	ATM-5A Fuse – Bag of 25
Fuse - 7.5A	A05-203	ATM-7.5A Fuse – Bag of 25
Fuse - 10A	A05-204	ATM-10A Fuse – Bag of 25
Fuse - 15A	A05-205	ATM-15A Fuse – Bag of 25
Fuse - 30A	A05-206	ATM-30A Fuse – Bag of 25
Standoffs	A05-301	Nylon Standoffs – Bag of 25
Camlock Set	A05-302	Key and Lock fits LSP "E" enclosure

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