

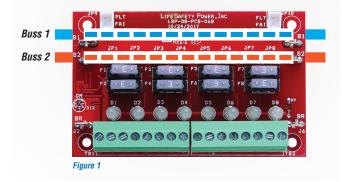
# FLEXPOWER® APPLICATION NOTE AN-17 D8 DISTRIBUTION - SINGLE VOLTAGE

### **OVERVIEW**

A common application in the security industry is providing continuous DC for auxiliary equipment such as REX detectors and readers and also resettable DC for fire override of egress locks in the same system.

Traditionally, a power supply, distribution module, and a remote activated relay module have been used for this purpose, which, although a working solution, is not economical in cost, space, or labor.

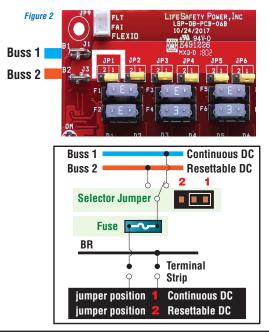
The FlexPower system utilizes an innovative dual buss structure that runs through the D8 auxilliary power module to make two voltages available on a per zone, user selectable basis. (Fig. 1) In a single voltage system, this allows Buss 2 to provide FAI-switched voltage to a D8 module.



# **D8 ZONE PROGRAMMING OPTIONS**

By using a simple jumper arrangement as an SPDT switch to connect an output to either buss, individual D8 outputs may be selected to operate as either continuous or resettable with the FPO power supply providing the trigger interface. (Fig. 2)

See the FPO manual for more information on DC2 operation.



#### **SYSTEM BENEFITS**

- Devices requiring continuous or resettable power may be mixed on the same power distribution or lock control module
- REX devices may be paired up with their respective locks for system clarity
- Door holder control may be easily added to a fire or access control system without special modules or custom wiring
- Multiple D8 auxilliary power modules can be daisy-chained together to increase the number of outputs in increments of 8

# **APPLICATION IN A SINGLE VOLTAGE SYSTEM**

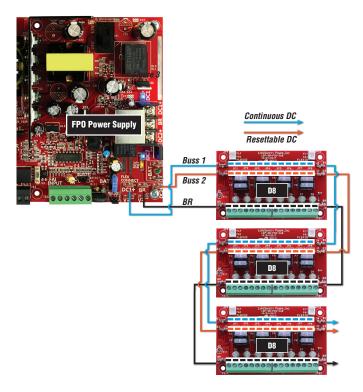
Every FlexPower DC power supply has a voltage select switch for either 12 or 24V DC output. Once a selection is made, the FPO has two independent outputs at that voltage setting:

- Continuous DC out (DC1)
- Resettable DC out (DC2)

When a D8 auxilliary distribution module is added to the system, the continuous DC output from the power supply can be connected to Buss 1 of the D8 module and the resettable DC output to Buss 2.

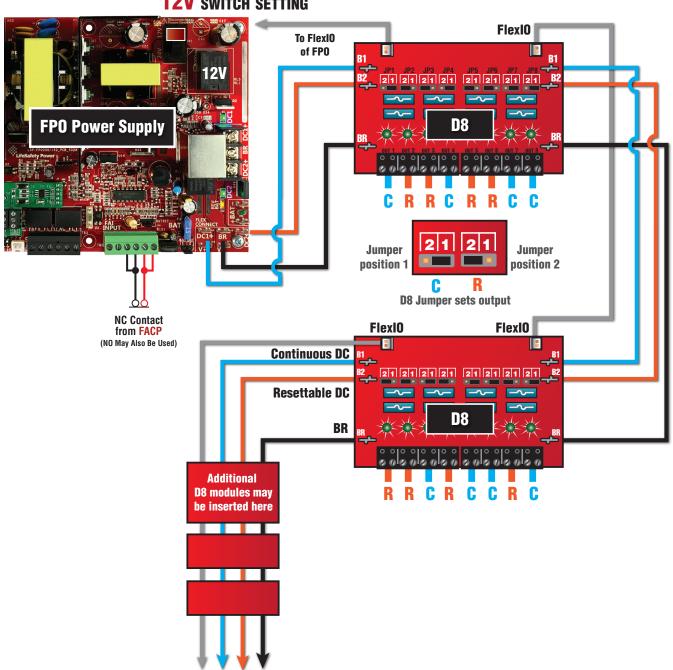
In this single voltage system, the D8 module now allows each individual output to be selected for either continuous or resettable DC. (Fig. 3)

For D8 programming in dual voltage systems see Application Note AN 18.



# **TYPICAL WIRING FOR SINGLE VOLTAGE CONTINUOUS AND RESETTABLE DC OUTPUTS**

Example shows FPO at 12V setting. FPO can be set to 24V.

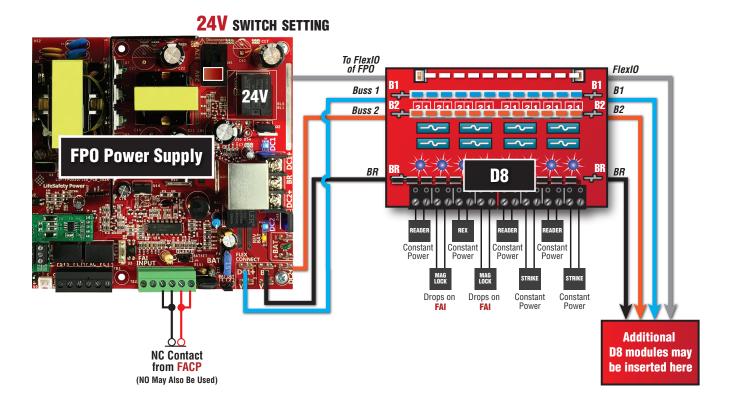


**12V** SWITCH SETTING

# **TYPICAL 4 DOOR SINGLE VOLTAGE - 24V**

Mixed Reader / Rex / Strike / Mag Lock Power.

➤ Mag locks drop on FAI



### ACCESSORY BOARD ORDERING

The specific LifeSafety Power part number is:

Model Number	Description
B100-Boxed	DC to DC converter provides +12VDC and adjustable voltage of 5 to 18VDC
C4-Boxed	4 input, 4 output lock controller, fuse protected
C4P-Boxed	4 input, 4 output lock controller, power limited
C8-Boxed	8 input, 8 output lock controller, fuse protected
C8P-Boxed	8 input, 8 output lock controller, power limited
D8-Boxed	8 output DC power distribution module, fuse protected
D8P-Boxed	8 output DC power distribution module, power limited
F8-Boxed	8 output programmable power distribution module, fuse protected
F8P-Boxed	8 output programmable power distribution module, power limited
RB2-Boxed	2A Relay, 12VDC or 24VDC input range, DP/DT
RB5-Boxed	5A Relay, 12VDC or 24VDC input range, DP/DT
RB8-Boxed	8A Relay, 12VDC or 24VDC input range, DP/DT

LifeSafety Power 10027 S. 51st Street, Suite 102 Phoenix, AZ 85044 USA Tel 888-577-2898 *info1@lifesafetypower.com*  Important: All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their particular application. LifeSafety Power makes no warranties as to the accuracy or completeness of the information, and disclaims any liability regarding its use. LifeSafety Power's only obligations are those in the LifeSafety Power Standard Terms and Conditions of Sale for this product, and in no case will LifeSafety Power or its distributors be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use, or misuse of the product. Specifications are subject to change without notice. In addition, LifeSafety Power reserves the right to make changes—without notification to Buyer—to processing or materials that do not affect compliance with any applicable specification.