

# ENFORCER®

EAP-3D1Q, EAP-5D1Q,  
EAP-3D1MQ, EAP-5D1MQ

## Access Control Power Supply, Single Output Manual



EAP-5D1Q shown

### Features:

- Input 110~240 VAC, fused at 3.15A
- Filtered and electronically regulated output
- AC Input and DC output LED status indicators
- Adjustable output voltage to compensate for voltage drop
- AC power failure supervision relay
- Over-current fuse-protected AC input
- 12/24 VDC Outputs, field selectable
- Battery failure / low battery supervision relay
- Built-in back-up battery charger (Batteries not included)
- Automatically switch to backup battery if AC fails
- Selectable 2.2k $\Omega$  End-of-Line (EOL) resistor for AC failure and battery failure supervision relays
- Selectable delay timer (5sec, 5min, 5h) for AC failure supervision relay via DIP switch
- Automatic shutdown for short-circuit protection

### EAP-3D1Q/EAP-5D1Q Only

- Heavy-duty steel case with removable cover for easy access to connections
- Ventilation holes to prevent heat buildup
- Both have room for two 7Ah batteries (or two 12Ah batteries for EAP-5D1Q) (Batteries not included)
- Knockouts for power connections and optional cam lock

# ENFORCER Access Control Power Supply, Single Output

## Parts List\*:

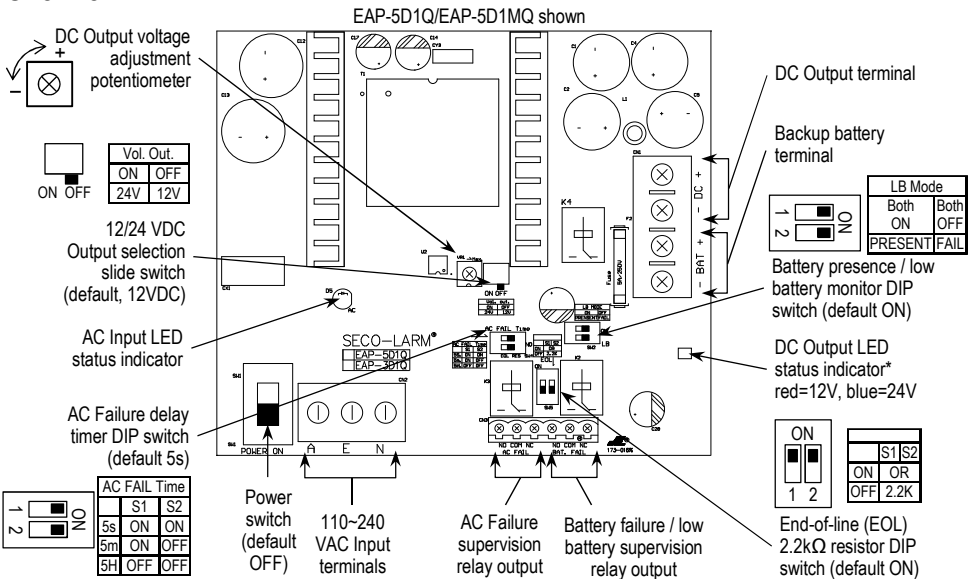
- |                             |   |   |
|-----------------------------|---|---|
| 1x Power Supply / Enclosure | 2x Screws for the enclosure door                | 1x Cable management clamp                     |
| 1x Cable management nut     | 3x Wires for backup battery (red, black, white) | 1x 6ft Power cord with ground wire            |
| 1x Manual                   |   | 1x Protective plastic bushing for power cable |

\*EAP-3D1MQ / EAP-5D1MQ includes power supply board, backup battery wires, and manual only

## Specifications:

Model	EAP-3D1Q	EAP-3D1MQ	EAP-5D1Q	EAP-5D1MQ
Operating voltage	110~240 VAC			
Output voltage	12/24 VDC (selectable)			
Output voltage range (adjustable)	12VDC	12~13		
	24VDC	23~25		
LED Status indicator	DC	Red=12VDC output, blue=24VDC output		
	AC	Green, input		
Current rating	3A@12VDC, 1.5A@24VDC		5A@12VDC, 2.5A@24VDC	
Supervision relays	EOL: Selectable ON (2.2kΩ) or OFF, 3A@24VDC dry relay output			
AC Input fuse rating	3.15A			
AC Power cord	6ft (1.8m)	n/a	6ft (1.8m)	n/a
Operating humidity	85% maximum			
Operating temperature	-4°~149° F (-20°~65° C)			
Dimensions	12 <sup>1</sup> / <sub>8</sub> "x12 <sup>1</sup> / <sub>4</sub> "x3 <sup>9</sup> / <sub>16</sub> " (308x311x90 mm)	5 <sup>1</sup> / <sub>2</sub> "x4 <sup>3</sup> / <sub>4</sub> "x1 <sup>9</sup> / <sub>16</sub> " (140x120x39 mm)	14 <sup>13</sup> / <sub>16</sub> "x14 <sup>5</sup> / <sub>16</sub> "x4 <sup>1</sup> / <sub>8</sub> " (377x363x105 mm)	5 <sup>1</sup> / <sub>2</sub> "x4 <sup>3</sup> / <sub>4</sub> "x1 <sup>9</sup> / <sub>16</sub> " (140x120x39 mm)
Weight	9-lb 13-oz (4.45kg)	9.9-oz (280g)	10-lb 11-oz (4.85kg)	11.3-oz (320g)

## Overview:



\*Built-in output overload / short-circuit protection – If an overload occurs, the motherboard's output voltage output will drop. The voltage drop will depend on the extent of the overload. The greater the overload the greater the voltage drop. If the overload is extensive, the voltage output will become intermittent and the red LED will start flashing. When the overload is removed, the mainboard will automatically restart normal output. If an output short-circuit occurs, the motherboard will automatically shut the output down and the red LED will turn off. When the short-circuit is removed, the motherboard will automatically come back on line.

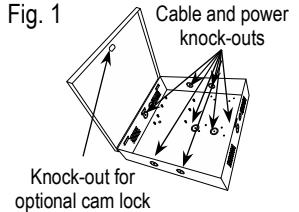
## Installation:

**IMPORTANT:** The ENFORCER Power Supply is not waterproof or weatherproof. Therefore, it must be mounted indoors where it will not be exposed to rain or other moisture.

**Installation must be done by qualified personnel, and should conform to local and all other applicable codes.**

1. Choose a mounting location out of sight and protected from moisture and weather, but easily accessible for future servicing.  
**NOTE:** Make sure the space where the enclosure is to be mounted has adequate ventilation. Otherwise, heat buildup inside the enclosure could damage the electronic parts.
2. Locate the enclosure mounting holes. Using these holes as a template, mark the location of the 4 screws on the wall with a pencil.
3. Thread the AC power cord through the protective plastic power cord bushing and then through the power cord hole in the enclosure, snapping the bushing into place. Secure the power cord with the cable management clamp.
4. Attach to the wall by first screwing in two  $\frac{3}{16}$ " x 1" (4x26 mm) upper screws using plastic wall anchors if needed (both not included) until the gap between the wall and the screw head is approximately  $\frac{1}{4}$ " (6mm).
5. Hang the enclosure on the two upper screws using the enclosure's upper screw holes and adjust the proper location of the enclosure. Screw in the two lower screws. Then securely fasten the upper and lower screws.
6. Run wires from the access control device or accessory to the power supply. The enclosure has knock-outs on the side, top, bottom, and rear panels for running cables. Punch out the appropriate knock-outs (see Fig. 1).
7. Set the desired DC output voltage (12 or 24 VDC) of the power supply using the sliding switch (see "Overview," pg. 2). The default voltage output setting is 12VDC.
8. Temporarily connect the AC power (110–240 VAC) to the "AC INPUT" terminal block of the power supply by following the terminal labels (i.e. "A" for active wire, "E" for ground wire and "N" for neutral wire, see "Overview," pg. 2). Move the AC power switch to ON. The AC power indicator LED should turn green and the DC output indicator LED should turn red (blue, if DC output voltage switch is set for 24VDC) to indicate the power supply unit is working properly.
9. Check the output voltage reading of the power supply's DC output terminal block marked "- DC +" to make sure it is within the normal range (see "Overview," pg. 2). The default output voltage of the power supply should be about 12.6VDC at no load when set at 12VDC, and about 25VDC at no load when set at 24VDC. After checking, disconnect the AC input power.
10. Connect the power input wires of the access control device or accessory to the power supply's DC output terminal block (see "Overview," pg. 2). **OBSERVE CORRECT POLARITY.**

Fig. 1



### IMPORTANT NOTES/WARNINGS:

- a. **To avoid risk of electrical shock, the ground terminal of the "AC INPUT" MUST be connected to earth via the power cord.**
- b. Maximum total current connected to the power supply terminal must not exceed the power supply's total current capacity (5A@12VDC and 2.5A@24VDC).
- c. Be sure to check the output voltage reading of the power supply as stated in point 6 above, and double check the specified operating voltage of each device before connecting it to the power supply to avoid potential damage.
- d. Use at least 18-gauge wires to minimize voltage drop. The thinner the wire, the greater the voltage drop.
- e. Keep power limited wiring separated from non-power limited wiring (AC input, battery wiring) by a minimum distance of  $\frac{1}{4}$ " (7mm) and use separate knockouts in the enclosure.

# ENFORCER Access Control Power Supply, Single Output

## Installation (Continued):

11. Reconnect the AC power and check the DC output voltage reading at the end of the wire pairs where it is to be connected to the device. If the output voltage reading falls below the minimum voltage requirement of the device, use a small screwdriver to carefully turn the potentiometer marked "VR1" located on the PCB. Turn clockwise to increase the voltage and counterclockwise to decrease the voltage (see "Overview," pg. 2).

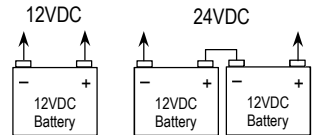
### IMPORTANT NOTES:

- a. Do not adjust the potentiometer unless absolutely necessary. Adjusting the potentiometer will alter the default factory setting.
  - b. An output voltage in excess of the specified voltage level of the device may cause damage.
12. Once the desired DC output voltage is achieved, connect the wire pairs to the device.
  13. Connect a visual or audio indicator device (such as siren or strobe light) to the AC-failure and battery-failure / low battery supervision relays if needed (see "Overview," pg. 2). Use between 22AWG to 18AWG wire size.

### Programmable Features

- a. *AC-failure Relay Output Delay Timer* — Program the AC-failure relay delay timer at 5sec, 5min or 5h using the DIP switch (see "Overview," pg. 2). The default setting is at 5sec.
  - b. *2.2K Ohm End-of-Line (EOL) Resistor* — The end-of-line 2.2kΩ resistor for AC-failure relay and battery-failure / low battery supervision relays (3A@24VDC, dry relay) can be activated independently using the DIP switch (see "Overview," pg. 2). The default setting is ON.
  - c. *Battery Presence and Low Battery Monitor* — When the LB MODE DIP switches are in the ON position, the power supply will monitor the battery to verify if it has sufficient voltage to run the power supply in case of AC power failure. Selecting "OFF" will stop monitoring of battery status and will charge battery continuously. It can take up to 5 minutes to alert you of a battery failure. The length of time the system will run will be limited by the overall capacity and the age of the batteries and the amount of load being drawn off the power supply. The default setting is ON.
14. Connect the backup battery to the backup battery terminal (see Fig. 2 and "Overview," pg. 2).
  15. Close the enclosure door and secure it with either the provided machine screws or an optional cam lock.

Fig. 2



**WARRANTY:** This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for one (1) year from the date of sale to the original customer. SECO-LARM's obligation is limited to the repair or replacement of any defective part if the unit is returned, transportation prepaid, to SECO-LARM. This Warranty is void if damage is caused by or attributed to acts of God, physical or electrical misuse or abuse, neglect, repair or alteration, improper or abnormal usage, or faulty installation, or if for any other reason SECO-LARM determines that such equipment is not operating properly as a result of causes other than defects in material and workmanship. The sole obligation of SECO-LARM and the purchaser's exclusive remedy, shall be limited to the replacement or repair only, at SECO-LARM's option. In no event shall SECO-LARM be liable for any special, collateral, incidental, or consequential personal or property damage of any kind to the purchaser or anyone else.

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