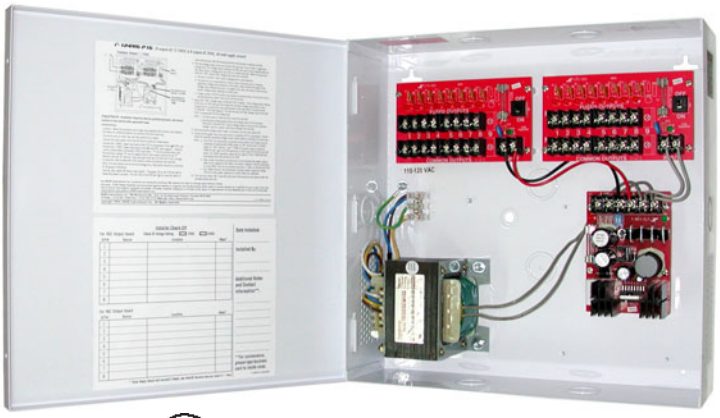
# Installation Manual
# ENFORCER®

## EVP-124M6-P16 AC/DC Power Supply

AC/DC Dual-Output Power Supply for CCTV Cameras and Accessories



UL Approved Transformer

SPECIFICATIONS:

- Provides 3 Amps @ 12VDC and 3 Amps @ 24VAC.
- Adjustable VDC outputs to compensate for voltage drop.
- Outputs individually fused (PTC*-type fuses)
- Output fuses rated 1.1 Amps @ 250VAC
- Individual red status indicator LED for each output
- Main power switches to turn on/off power to outputs

POWER:

- Input:120VAC, 60Hz ; Output: 6/12/24VDC & 24VAC.
- 6 Amp total supply current.
- Main fuse rated 5.0 Amps @ 250VAC (one on each board)
- With AC terminal block.
- Spare fuse and 6-foot power cord included.
- UL-approved power transformer.

ENCLOSURE:

- Heavy-duty steel case to protect the power connections.
- Removable steel cover for easy access to power connections.
- Ventilation holes to prevent heat build-up.
- Dimensions - 12" x 12" x $3\frac{1}{2}$" (308 x 311 x 91 mm).
- Enclosure equipped with cam lock knockout (optional).

*Positive Temperature Coefficient

### What it is:

The EVP-124M6-P16 Dual-Output Power Supply provides both 6/12/24VDC and 24VAC outputs in one unit where a combination of both AC & DC outputs are needed. It will simultaneously provide 3 Amps to eight 6/12VDC outputs and 3 Amps to eight 24VAC outputs. For 24VDC application it can only provide 1.5Amp.

### Note before installation:

The EVP-124M6-P16 Power Supply is not waterproof or weatherproof. Therefore, it must be mounted indoors where it cannot be exposed to rain or other moisture.

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

### Installation:

1. Find a good location for the enclosure - The enclosure should be mounted where it is out of sight and protected from moisture and the weather, but where it can be serviced by an authorized technician.

   **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 or cause the PTC fuses to trip needlessly.

2. Determine how the main power line and power cables to the CCTV cameras will be run -- The enclosure has knock-outs on the side, top, bottom, and rear panels for running cables. See Fig. 1.

   **NOTE:** If cables are run out of the side, top, or bottom panels, they should be protected by an armored cable sleeve.

3. Connect the main power cord to the insulated AC terminal block as shown in fig. 2.

### Also available:

AC Power Supplies for CCTV Cameras and Accessories

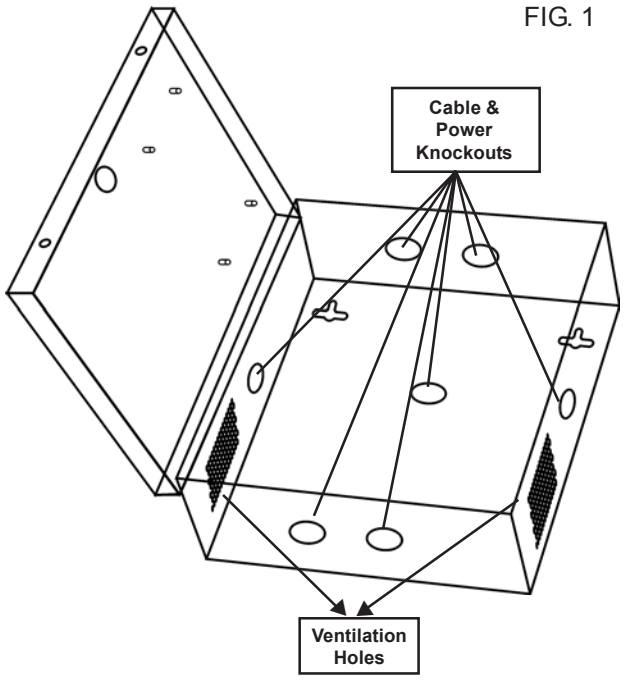
*EVP-124A4-P4 (4 outputs @ 24VAC, 4 Amps**)*
*EVP-124A4-P9 (9 outputs @ 24VAC, 4 Amps**)*
*EVP-124A8-P16 (16 outputs @ 24VAC, 8 Amps**)*

DC Power Supplies for CCTV Cameras and Accessories

*EVP-124D2-P4 (4 outputs @ 6/12/24VDC, 2 Amps at 12VDC**)*
*EVP-124D4-P9 (9 outputs @ 6/12/24VDC, 4 Amps at 12VDC**)*
*EVP-124D6-P16 (16 outputs @ 6/12/24VDC, 6 Amps at 12VDC**)*

***Total max. supply current, each channel output is fused at 1.1Amp.*

FIG. 1



4. Connect the 24VAC power input wires of the CCTV or accessories to the PCB on the right, and connect the 12VDC power input wires to the PCB on the left (see Fig. 2). Observe correct polarity when connecting 12VDC input wires. The terminals marked “P” are for positive wires, and “N” are for negative wires. Each output consists of one “P” terminal and one “N” terminal.

   Run wire pairs from the PCBs through or along the wall to where the CCTV cameras and/or accessories are mounted.

   **NOTE:** For best results and to minimize voltage drop, these wires should be a minimum of 18-gauge in thickness.

5. Turn the main switch ON (one on each board). The green LED on the PCB will light to show that power is present. The red LEDs on the printed circuit board will light to show the status of each terminal pair, with ON meaning that the terminal pair is working correctly.

6. Test the voltage output at the end of each VDC wire pair to see if there is significant voltage drop. The voltage output reading of all VDC wire pairs should approximately be the same unless a voltage drop occurred on a certain wire pair.

   When running wires from the "VDC" output PCB, voltage drop can occur for one of three reasons:

   a. The wire is too thin. That is why 18-gauge wire is recommended.

   b. The wire has run a long distance. If one or more of the wire pairs is showing significant voltage drop compared to the others, either shorten the length of the affected wire pairs, or lengthen the other wire pairs, to produce similar voltage output readings on all wire pairs.

   c. A large number of CCTVs and/or accessories connected to the ST-2406-5A PCB is causing excessive power drain across all the outputs.

7. Adjust the "VDC" voltage output of the left PCB if needed - If the voltage output reading at the end of a VDC wire pair falls below the minimum voltage requirement, use a screw driver to carefully turn the potentiometer to the right which is located on the ST-2406-5A PCB ( see Fig. 2 ). This will increase the total voltage output from the left PCB to compensate for the voltage drop.

   **NOTE:** 1. The VAC output is fixed and thus cannot be adjusted.

   2. Adjusting the potentiometer affects the voltage output of all the output terminals on the left PCB. Using a voltage output in excess of the specified voltage level of a camera may cause damage.

8. Once the desired voltage output range of each wire pair is achieved, turn the main switch OFF.

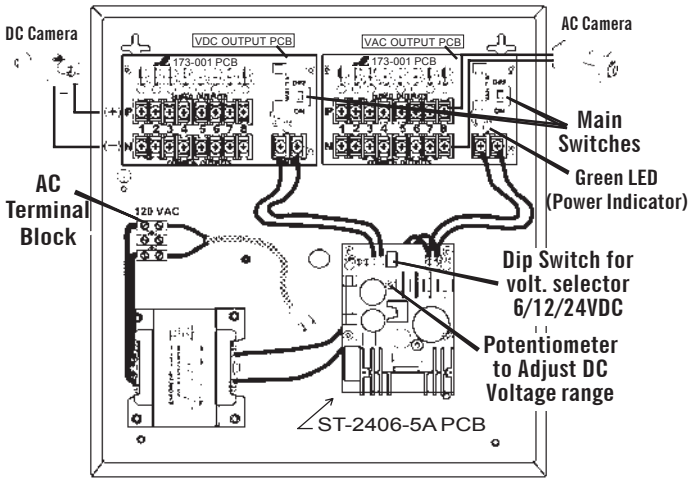



Fig. 2: Power Connections

9. Connect all the power input wire pairs to their respective CCTV cameras or accessories. Double-check the specified operating voltage of each device before connecting it to a wire pair.

   **NOTE:**

   a. The CCTVs and accessories connected to the printed circuit boards must be capable of working with 24VAC power for AC devices and 6/12/24VDC power for DC devices. The EVP-124M6-P16 power supply is preset at 24VAC for the right side PCB and 12VDC output for the left side PCB. For 6/24VDC operation, adjust the dip switch of the ST-2406-5A PCB according to the chart printed on its PCB.

   b. Maximum total current connected to all terminals must not exceed the power supply's total current capacity of 6 Amps (3 Amps per board). However if the VDC-output left side PCB is using 24VDC, then do not connect more than 1.5 Amps on the left side PCB.

   c. As a safety measure, we recommend running the power supply at or below 75% of its total capacity for smooth continuous operation.

10. Turn the main switch ON. Close the steel door of the enclosure and secure it with either the provided machine screws or an optional cam lock.



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