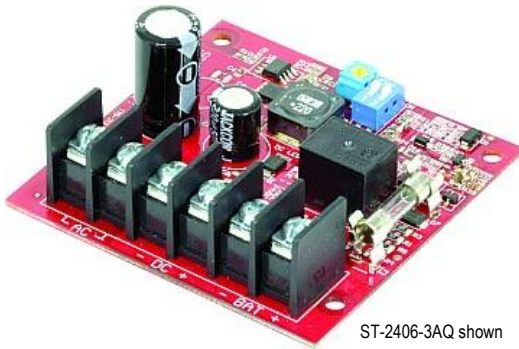


# ENFORCER®

## ST-Series Power Supplies/Chargers Manual



### Features:

- Automatic recharging of backup batteries
- Automatic switchover to backup battery if main power is lost or cut
- Built-in battery short-circuit protection
- LEDs indicate power status
- High efficiency at full load
- Heat sink free design (except for ST-2406-7AQ and ST-2406-10AQ)
- Programmable DC voltage output
- Regulated and filtered output voltage
- Fused output for a regulated charge
- Includes foam tape and battery leads for easy installation
- Low-battery cutoff (ST-2406-2AQ, ST-2406-3AQ, and ST-2406-5AQ)

# ENFORCER Power Supplies/Chargers

## Introduction:

SECO-LARM's ST-series of power supplies/chargers ensure that alarm systems and access control systems have enough power to do their job. Protected by fused outputs, input polarity protection diodes, and backup battery polarity reverse protection, these power supplies/chargers can be used to maximize the security and efficiency of nearly any alarm or access control installation.

## Specifications:

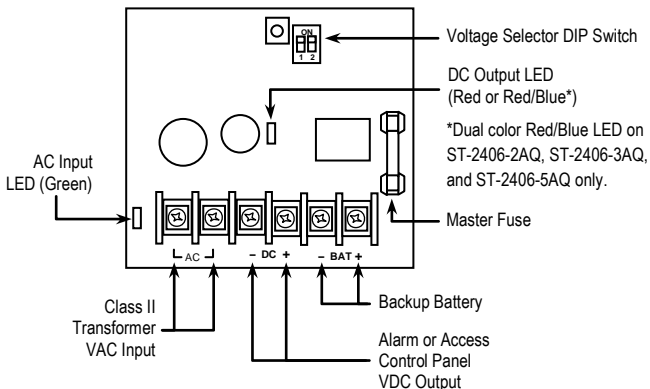
	ST-1206-1.5AQ	ST-2406-2AQ	ST-2406-3AQ	ST-2406-5AQ	ST-2406-7AQ	ST-2406-10AQ
DC Voltage	6,12	6,12,24				
Status LEDs	AC Input	Green				
DC Output	Red	Red/Blue (Blue indicates 24V)			Red	
Current (Continuous)	1.5A	2.0A	2.5A	4.0A	7.0A	9.0A
Current (Peak)	2.0A		3.0A	5.0A	7.5A	10.0A
Current Output (Maximum Charge)	6V=100mA, 12V=220mA	6V=100mA, 12V=220mA, 24V=450mA				
Master Fuse	3A		5A		10A	
Low battery cutoff	No	When battery voltage is <20% of set output voltage			No	
Operating temperature	-4°~149° F (-20°~65° C)					
Dimensions	2 <sup>1</sup> / <sub>2</sub> "x2 <sup>3</sup> / <sub>4</sub> "x1 <sup>3</sup> / <sub>16</sub> " (64x70x30mm)	2 <sup>1</sup> / <sub>2</sub> "x2 <sup>3</sup> / <sub>4</sub> "x1 <sup>3</sup> / <sub>16</sub> " (64x70x30mm)	2 <sup>7</sup> / <sub>8</sub> "x2 <sup>7</sup> / <sub>8</sub> "x1 <sup>3</sup> / <sub>8</sub> " (73x73x35mm)	2 <sup>7</sup> / <sub>8</sub> "x3"x1 <sup>3</sup> / <sub>16</sub> " (73x76x33mm)	5 <sup>1</sup> / <sub>2</sub> "x5 <sup>1</sup> / <sub>8</sub> "x2 <sup>1</sup> / <sub>16</sub> " (140x130x55mm)	

## Parts List:

- |   |                                     |
|---|-------------------------------------|
| 1x Power Supply/Charger   | 2x Wires for backup battery charger |
| 2x Acrylic foam tape for PCB mount<br>(4x for ST-2406-7AQ and ST-2406-10AQ) | 1x Manual                           |

## Wiring Diagram:

ST-2406-3AQ shown



Note: The LED, DIP switch, and terminal placement may be different on other models.

## Installation:

1. Mount the PC board in the desired location or enclosure. It should be easily accessible for future servicing.
2. Set the DC power output:
  - a. Set the desired DC output voltage (6, 12, or 24VDC\*) of the power supply using the DIP switch as in Table 1 (for ST-1206-1.5AQ, ST-2406-2AQ, ST-2406-3AQ, and ST-2406-5AQ), or Table 2 (for ST-2406-7AQ, ST-2406-10AQ) on the right.

**IMPORTANT:** Disconnect power before changing these DIP switch settings (Note the default voltage output setting is 12VDC).

  - b. Connect a transformer with appropriate specifications (See Table 3 below):

**Table 1:**

Voltage	SW1	SW2
6V	ON	ON
12V	ON	OFF
24V*	OFF	OFF

\* ST-1206-1.5AQ is 6/12VDC only

**Table 2:**

Voltage	SW1	SW2
6V	ON	OFF
12V	OFF	OFF
24V	OFF	ON

**Table 3:**

Output voltage	ST-1206-1.5AQ	ST-2406-2AQ	ST-2406-3AQ	ST-2406-5AQ	ST-2406-7AQ	ST-2406-10AQ
6VDC	12VAC/20VA	12VAC/20VA	ST-UV16-W50Q 16VAC/50VA	ST-UV16-W100Q 16VAC/100VA	ST-UVDA-W180Q 24-28VAC/180VA	ST-UVDA-W180Q 24-28VAC/180VA
12VDC	ST-UV16-W50Q 16VAC/50VA	ST-UV16-W50Q 16VAC/50VA	ST-UVDA-W100Q 24-28VAC/100VA	ST-UV16-W100Q 16VAC/100VA	ST-UVDA-W180Q 24-28VAC/180VA	ST-UVDA-W180Q 24-28VAC/180VA
24VDC	N/A	ST-UV24-W50Q 24VAC/50VA	ST-UVDA-W100Q 24-28VAC/100VA	ST-UVDA-W180Q 24-28VAC/180VA	24-28VAC/210VA	28VAC/350VA

3. Connect the wires to their respective terminals (see "Wiring Diagram," pg. 2).

## Notes:

1. Before connecting any external devices, temporarily power up the unit and measure the DC output voltage to avoid damage to devices. Then disconnect power before connecting external devices.
2. LED status:

**Table 4:**

Green LED	Red/Blue LED	Status
ON	ON	Normal
OFF	ON	No VAC input
ON	OFF	No VDC output
OFF	OFF	No VAC input and VDC output









3. The ST-1206-1.5AQ comes with a 3A fuse. The ST-2406-2AQ, ST-2406-3AQ, and ST-2406-5AQ models come with a 5A fuse. The ST-2406-7AQ and ST-2406-10AQ models come with a 10A fuse. Use only the correct fuses to prevent short circuits and damage to the power supplies/chargers or the alarm access control panel.
4. The automatic low battery cutoff will cut power when battery voltage drops below 20% of the set output voltage (ST-2406-2AQ, ST-2406-3AQ, and ST-2406-5AQ only).

## Warning:

1. Installation and servicing must be performed by qualified service personnel.
2. The power supply must be installed in accordance with all national and local electrical codes.
3. Do not use a higher AC input than recommended (rated max. 28VAC).
4. DISCONNECT THE POWER SUPPLY BEFORE CHANGING THE DIP SWITCH SETTINGS OR PERFORMING ANY TYPE OF SERVICE. There are no user serviceable parts inside.
5. Do not touch any exposed metal parts, electrical, or electronic components as these parts may become very hot under load
6. DO NOT USE METAL SPACERS TO MOUNT THE POWER SUPPLY'S PC BOARD.
7. Connect these power supplies/chargers only to a rechargeable backup battery. Use of a non-rechargeable backup battery could result in damage to the power supply/charger or the alarm access control panel.

# ENFORCER Power Supplies/Chargers

Also Available from **SECO-LARM®**:

<p><b>12VDC High-Amp Switching CCTV Power Supplies</b></p>  <p>PS-U1812-PULQ shown</p>	<p><b>Relay Boards</b></p>  <p>SR-2212-C5AQ shown</p>	<p><b>Low Battery Cutoff</b></p>  <p>ST-BD01Q</p>	<p><b>Timers</b></p>  <p>SA-025EQ shown</p>
<p><b>12VDC Plug-In AC Adapters</b></p>  <p>ST-UV12-S1.0Q shown</p>	<p><b>Power Converters</b></p>  <p>ST-LA130-TTQ shown</p>	<p><b>Plug-and-Play Backup Batteries</b></p>  <p>SB-L10V1-20Q shown</p>	<p><b>Open-Frame Transformers</b></p>  <p>ST-UVDA-W180Q shown</p>

## Troubleshooting:

<p>No DC output</p>	<ul style="list-style-type: none"> <li>• Check whether the AC input voltage or backup battery voltage is normal</li> </ul>
<p>Low DC voltage output</p>	<ul style="list-style-type: none"> <li>• Check whether the output voltage setting is correct</li> <li>• Check whether the AC input wattage is correct (see chart, pg. 3)</li> <li>• If the battery is supplying power, check whether the battery voltage is normal</li> <li>• Check whether the power supply board is overloaded</li> </ul>
<p>No backup battery power</p>	<ul style="list-style-type: none"> <li>• Check whether the battery voltage is normal or already discharged</li> <li>• Check whether the master fuse has burned out</li> </ul>

**WARRANTY:** This SECO-LARM product is warranted against defects in material and workmanship while used in normal service for 1 (one) 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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