

# SPS-75MV Instruction Manual

Thank you for purchasing the SPS-75M V Switching Power Supply. The SPS-75MV is designed to deliver output current up to 75 Amps intermittent or 70 Amps continuous at 13.8 Vdc.

Five types of output terminals are provided – 2 sets Anderson **Powerpole**®, 2 sets of 5-way binding posts, 2 sets of quick connect terminals and a cigarette lighter socket. The variable output control adjusts output from 4 Vdc to 16 Vdc. Output control has a pre-set detent position, which sets the output at 13.8Vdc. The battery charger provides charging current up to 20 Amps peak and 5 amps continuous.

The total combined output current for this power supply is 75 Amps intermittent or 70 Amps continuous at 13.8 Vdc. Each output connection has its output current limit as shown by the following chart. Do not draw current over the rated limited.

Output Connections	Maximum combined output current is 75 Amps, Intermittent
Gold 5-way binding posts	75 Amps
Black and Red binding Posts	40 Amps
Anderson Power Poles	35 Amps
Quick Connect Terminals	10 Amps
Cigarette Lighter Socket	10 Amps

## Installation

Before plugging the MFJ-4275MV in an AC outlet make sure that the proper input AC voltage is set to the correct AC voltage you are using. Select 115 for 100/110/120 AC operation or select 230 for 200/220/240 ac operation. 115V is the default factory setting. Do not connect any device to the power supply yet. Turn the power supply ON. Set the output voltage by adjusting the variable output control in front of the power supply. The MFJ-4275MV has variable output adjustment from 4 Vdc to 16 Vdc. The control will set the same output voltage for all output connectors. The detent position on the output control sets the output voltage at 13.8Vdc. Turn OFF the power supply after setting the output voltage.

Connect the loads to the any of the output connectors. Positive to positive terminal and negative to negative terminal. Reversed connection will damage your equipment. For Anderson **Powerpoles**® connection, please refer to “the assembly instruction” for detail assembly instructions. Connect the devices to the power supply then turn ON the power supply.

## Protection

The MFJ-4275MV has fault protection for output terminal short or overload (over 75 Amps), over voltage (pre-set at 16 Vdc) and component over heated. If any the above conditions occur, the warning LED will come on. Under fault condition, the power supply will automatically shut off. To reset, turn the unit OFF and wait 20 seconds, then turn the unit back on.

## Battery Charger

MFJ-4275MV has built-in battery charging circuit. Battery to be charged must be connected to the charger output binding posts on the back of the unit. Charging output is set at 13.8 Vdc fix. Maximum charging current is 20 Amps for 20 seconds and 5 Amps continuous. When the battery reaches its capacity the charging circuit will reduce charging current to trickle charge at 30 mA.

## **Powerpole**® connector assembly

Two sets of Anderson **Powerpoles**® connectors are provided. The terminals accommodate wires from 12 to 16 gauge.

Follow the following instructions to assemble the connectors.

First, slide two connector housings together to match the configuration of the corresponding connectors on your power strip. It’s easier to do this now rather than after the wired terminals have been inserted in the housings.

You can install the **Powerpoles**® connectors on your wires by either soldering or crimping, as long as you make sure you have good, solid connections. Wires smaller than 12 gauge will **not** allow for crimping, and must be soldered to the terminals.

To crimp, first strip the wire, making sure not to damage the wire strands. Insert the wire into the terminal and crimp. **Be careful not to deform or squash the terminal body.** If you do, crimp again to return it to its original shape. Otherwise, the terminal may not fit inside the housing. Be sure that you have a good firm connection to reduce resistance.

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