Astron RS-35M-AP

Astron RS-35M-AP Regulated DC Power Supply User Manual

Model: RS-35M-AP

1. Introduction

This manual provides comprehensive instructions for the safe and efficient operation, setup, and maintenance of your Astron RS-35M-AP Regulated DC Power Supply. Please read this manual thoroughly before using the device to ensure proper functionality and to prevent damage or injury.

2. Safety Information

Always observe the following safety precautions to prevent electric shock, fire, or damage to the unit and connected equipment:

- Ensure the power supply is connected to a grounded AC outlet.
- Do not operate the unit in wet or damp conditions.
- Do not open the power supply casing. There are no user-serviceable parts inside. Refer all servicing to qualified personnel.
- Ensure adequate ventilation around the unit to prevent overheating. Do not block ventilation openings.
- Verify correct polarity when connecting DC loads to prevent damage to the power supply or the connected equipment.
- Do not exceed the maximum current rating of the power supply.

3. Product Overview

The Astron RS-35M-AP is a robust, regulated DC power supply designed for various applications requiring stable DC voltage. It features dual meters for monitoring output current and voltage, and Anderson Powerpole connectors for convenient and secure connections.

3.1 Key Features

- 35 Amp Peak, 25 Amp Continuous output.
- Input: 105-125V AC.

- Output: 13.8V DC, internally adjustable from 11-15V DC.
- Dual meters for simultaneous display of Amps and Volts.
- Solid-state electronically regulated design.
- Fold-back current limiting and crowbar overvoltage protection.
- Heavy-duty heat sink for efficient cooling.
- Equipped with Anderson Powerpole ports for DC output.

3.2 Controls and Indicators

Figure 1: Front panel of the Astron RS-35M-AP Power Supply.

- **ON/OFF Switch:** (Red rocker switch on the left) Controls the main power to the unit.
- **AMPS Meter:** (Left analog meter) Displays the current (in Amperes) being drawn by the connected load.
- **VOLTS Meter:** (Right analog meter) Displays the output voltage (in Volts).
- **DC OUTPUT:** (Red and black terminals on the right) Provides the regulated 13.8V DC output. These are Anderson Powerpole compatible ports.
- **Power Indicator:** (Not explicitly visible but implied by operation) A light indicating the unit is powered on.

4. Setup

1. **Unpacking:** Carefully remove the power supply from its packaging. Inspect for any signs of shipping damage.
2. **Placement:** Place the power supply on a stable, flat surface. Ensure there is sufficient space around the unit for proper ventilation, especially at the rear where the heat sink is located. Avoid placing it near heat sources or in direct sunlight.
3. **AC Power Connection:** Connect the supplied three-wire AC power cord to the AC input receptacle on the rear of the power supply and then to a standard 105-125V AC, 60Hz grounded wall outlet.
4. **DC Load Connection:** Connect your DC-powered equipment to the DC OUTPUT terminals on the

front panel. Ensure correct polarity: red for positive (+) and black for negative (-). The Anderson Powerpole connectors provide a secure connection.

5. **Initial Check:** Before turning on the unit, double-check all connections. Ensure the ON/OFF switch is in the OFF position.

5. Operating Instructions

1. **Power On:** Flip the ON/OFF switch to the ON position. The power indicator (if present) should illuminate. The VOLTS meter will display the output voltage, typically around 13.8V DC.
2. **Monitoring Output:** The AMPS meter will show the current draw of your connected equipment. The VOLTS meter will show the output voltage.
3. **Voltage Adjustment (Internal):** The output voltage is factory-set to 13.8V DC. It can be internally adjusted from 11V to 15V DC by a qualified technician. This adjustment is not accessible to the user and requires opening the unit, which voids the warranty if not performed by authorized personnel.
4. **Power Off:** When finished, turn off your connected equipment first, then flip the ON/OFF switch on the power supply to the OFF position. Disconnect the AC power cord from the wall outlet if the unit will not be used for an extended period.

6. Maintenance

The Astron RS-35M-AP power supply is designed for reliable operation with minimal maintenance. However, regular checks can prolong its lifespan:

- **Cleaning:** Keep the unit clean and free from dust. Use a soft, dry cloth to wipe the exterior. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure that the ventilation openings are not obstructed. Periodically check for dust buildup on the heat sink and clear it if necessary using compressed air.
- **Connections:** Periodically check all AC and DC connections to ensure they are secure and free from corrosion.
- **Fuse Replacement:** The unit contains a chassis-mounted fuse. If the unit fails to power on, check the fuse. Replace it only with a fuse of the same type and rating (refer to specifications or the unit's label).

7. Troubleshooting

If you encounter issues with your power supply, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No power/Unit does not turn on	AC power cord not connected, wall outlet faulty, internal fuse blown.	Check AC power cord connection. Test wall outlet with another device. Check and replace fuse if blown (refer to Maintenance section).
Low or no DC output voltage	Overload condition, short circuit in connected equipment, internal fault.	Disconnect load and check for short circuits. Reduce load if exceeding 25A continuous. If problem persists, seek professional service.

Problem	Possible Cause	Solution
AMPS meter shows high current, but equipment not functioning	Short circuit in connected equipment or wiring.	Immediately disconnect equipment. Inspect wiring and equipment for short circuits.
Unit overheats	Blocked ventilation, excessive load.	Ensure ventilation openings are clear. Reduce load. Operate in a cooler environment.

If the problem persists after attempting these solutions, contact Astron customer support or a qualified service technician.

8. Specifications

- **Product Dimensions:** 11 x 11 x 5 inches
- **Item Weight:** 25 pounds
- **Input Voltage:** 105-125V AC
- **Output Voltage:** 13.8V DC (Internally adjustable 11-15V DC)
- **Continuous Current:** 25 Amps
- **Peak Current:** 35 Amps
- **Regulation:** Solid-state electronically regulated
- **Protection:** Fold-back current limiting, crowbar overvoltage protection
- **Cooling:** Heavy-duty heat sink
- **Output Connectors:** Anderson Powerpole compatible
- **Material:** Aluminum
- **Color:** Black
- **Manufacturer:** Astron

9. Warranty and Support

For warranty information and technical support, please refer to the documentation included with your purchase or visit the official Astron website. Keep your proof of purchase for warranty claims.