

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

manuals.plus /

› [Astron](#) /

› [Astron RS-20A 20 Amp Power Supply User Manual](#)

Astron RS-20A

Astron RS-20A 20 Amp Power Supply User Manual

1. INTRODUCTION

This manual provides essential information for the safe and effective use of your Astron RS-20A 20 Amp Power Supply. The RS-20A is a continuous duty power supply designed for heavy-duty and industrial applications, providing stable DC power. Please read this manual thoroughly before installation and operation.

2. SAFETY INFORMATION

Observe the following safety precautions to prevent injury and damage to the unit or connected equipment:

- **Electrical Shock Hazard:** Do not open the power supply casing. There are no user-serviceable parts inside. Refer all servicing to qualified personnel.
- **Ventilation:** Ensure adequate ventilation around the unit. Do not block ventilation openings. Overheating can cause damage.
- **Moisture:** Do not expose the unit to rain, moisture, or excessive humidity.
- **Power Cord:** Use only the provided power cord. Ensure the power cord is not damaged or frayed.
- **Grounding:** Always connect the unit to a properly grounded AC outlet.
- **Overload:** Do not exceed the specified output current ratings. The unit features fold-back current limiting and crowbar over-voltage protection, but continuous overload can reduce lifespan.

3. PRODUCT OVERVIEW

The Astron RS-20A is a robust linear power supply. It features a heavy-duty heat sink for efficient cooling and a chassis-mounted fuse for protection.

Front Panel



Image 1: Front view of the Astron RS-20A Power Supply. The front panel features a red ON/OFF toggle switch located on the left side. The Astron logo and 'RS-20A' model designation are visible on the right side of the panel.

- **ON/OFF Switch:** Controls the main power to the unit.
- **Power Indicator:** (If present, typically integrated with the switch or a separate LED) Indicates when the unit is powered on.

Rear Panel



Image 2: Rear view of the Astron RS-20A Power Supply. The rear panel displays large heat sinks, two output binding posts (positive and negative) on the left for DC output, and an IEC C14 AC power inlet on the right. Specifications like 'MDX 5 AMP', '115 VAC 60 HERTZ', and '500 WATTS' are printed near the AC inlet.

- **DC Output Terminals:** Binding posts for connecting your DC-powered equipment. Ensure correct polarity.
- **AC Input:** Standard IEC C14 inlet for the AC power cord.
- **Heat Sink:** Large fins designed to dissipate heat generated during operation.
- **Chassis Mount Fuse:** Provides overcurrent protection for the AC input.

4. SETUP

Follow these steps for initial setup:

1. **Unpacking:** Carefully remove the power supply from its packaging. Retain packaging for future transport or storage.
2. **Placement:** Place the power supply on a stable, level surface. Ensure there is ample space (at least 4 inches or 10 cm) around all sides, especially the rear heat sink, for proper ventilation. Do not place it near heat sources or in direct sunlight.
3. **AC Power Connection:** Ensure the power supply's ON/OFF switch is in the 'OFF' position. Connect the provided AC power cord to the AC input on the rear panel of the power supply, then plug the other end into a grounded 115 VAC, 60 Hz wall outlet.
4. **DC Output Connection:** Connect your DC-powered equipment to the output binding posts on the rear panel. Ensure the positive (+) terminal of your equipment connects to the red (+) binding post and the negative (-) terminal to the black (-) binding post. Tighten connections securely to prevent arcing or poor contact.

5. OPERATING INSTRUCTIONS

To operate the Astron RS-20A Power Supply:

1. **Power On:** After all connections are made, flip the ON/OFF switch on the front panel to the 'ON' position. The power indicator (if present) will illuminate.
2. **Verify Output:** The power supply will provide a nominal 13.8 VDC output. You can verify this with a voltmeter if necessary.
3. **Connect Load:** Turn on your connected DC equipment. The power supply is designed for continuous duty with a 16 amp rating and an intermittent duty rating of 20 amps (50% duty cycle: 5 minutes on / 5 minutes off).
4. **Power Off:** To turn off the power supply, first turn off your connected equipment, then flip the ON/OFF switch on the front panel to the 'OFF' position.

6. MAINTENANCE

The Astron RS-20A Power Supply requires minimal maintenance:

- **Cleaning:** Periodically clean the exterior of the unit with a soft, dry cloth. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure the heat sink fins and ventilation openings remain free of dust and debris. Use compressed air to gently clear any blockages if necessary.
- **Connections:** Periodically check all power and output connections to ensure they are secure and free

from corrosion.

- **Fuse Replacement:** If the unit fails to power on, check the chassis-mounted fuse on the rear panel. Replace it only with a fuse of the exact same type and rating (e.g., 5 Amp, 250V slow-blow). Refer to the markings near the fuse holder.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Power supply does not turn on.	No AC power; Blown fuse; Faulty power cord.	Check AC outlet and power cord. Replace fuse with correct type and rating.
No DC output voltage.	Unit not powered on; Loose DC connections; Internal fault.	Ensure unit is ON. Check DC output connections. If problem persists, seek professional service.
Output voltage drops under load.	Overload condition; Loose DC connections.	Reduce load to within specified current limits (16A continuous, 20A intermittent). Tighten DC connections.
Unit becomes excessively hot.	Insufficient ventilation; Overload.	Ensure adequate airflow around heat sink. Reduce load.

If troubleshooting steps do not resolve the issue, contact Astron customer support or a qualified service technician.

8. SPECIFICATIONS

Feature	Specification
Model	RS-20A
Input Voltage	115 VAC, 60 Hz
Output Voltage	13.8 VDC (Nominal)
Continuous Output Current	16 Amps
Intermittent Output Current	20 Amps (50% duty cycle: 5 min on / 5 min off)
Output Wattage (Max)	Approximately 276 Watts (20A x 13.8V)
Protection Features	Fold-Back Current Limiting, Crowbar Over Voltage Protection
Cooling Method	Air (Heavy-duty heat sink)
Dimensions (L x W x H)	10.5 x 9 x 5 inches (26.7 x 22.9 x 12.7 cm)
Weight	18 pounds (8.16 kg)

9. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation included with your purchase or visit the official

Astron website. For technical support or service inquiries, contact Astron customer service directly. Ensure you have your model number (RS-20A) and purchase details available when contacting support.