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› Cloudray 100 Watt Laser Power Supply User Manual

Cloudray MYJG-100W MONITOR 110V

Cloudray 100 Watt Laser Power Supply User Manual

Model: MYJG-100W MONITOR 110V

1. INTRODUCTION

This manual provides detailed instructions for the safe and efficient use of your Cloudray 100 Watt Laser Power Supply. Designed for 80-100W laser tubes, this power supply offers versatile compatibility and high performance for various laser engraving and cutting applications. Please read this manual thoroughly before installation and operation to ensure optimal performance and safety.

for 100W CO₂ Laser Engravers Cutters



Image: Cloudray 100W CO2 Laser Power Supply shown with compatible laser engravers and cutters, highlighting its application areas.

2. SAFETY INFORMATION

Always prioritize safety when working with laser equipment and power supplies. Failure to follow these guidelines may result in serious injury or damage to equipment.

- **Electrical Safety:** Ensure the power supply is properly grounded. Do not operate with wet hands or in damp environments. Disconnect power before performing any maintenance or connection changes.
- **High Voltage:** This device operates at high voltages. Only qualified personnel should attempt installation, maintenance, or troubleshooting.
- **Ventilation:** Ensure adequate ventilation around the power supply to prevent overheating.
- **Laser Safety:** Always wear appropriate laser safety glasses when operating laser equipment. Never look directly

into the laser beam.

- **Emergency Stop:** Familiarize yourself with the emergency stop procedures for your laser system.

3. PRODUCT OVERVIEW

The Cloudray 100 Watt Laser Power Supply is designed for reliability and performance, featuring quick response speed and robust protection mechanisms.



Image: Top-down view of the Cloudray 100 Watt Laser Power Supply, showcasing its compact design and connection ports.

Key Features:

- **Versatile Compatibility:** Works seamlessly with 80-100W laser tubes from various manufacturers.
- **Effortless Control:** Features TTL level start and stop functionality for easy laser operation.
- **Comprehensive Protection:** Includes output open circuit protection, TTL signal indication, water through signal indication, and laser output indication.
- **Manual Output Check:** A convenient button allows for manual checking of the output laser.
- **Real-time Monitoring:** Equipped with an External Ammeter featuring an LCD screen for monitoring processing current and status.
- **Precise Adjustments:** The LCD screen includes a trimmer potentiometer for fine-tuning current.

100W Laser Power Supply

Simple Control

Laser Power Adjustment

Open Circuit Protection

Laser light Test Function

Factory Aging Test

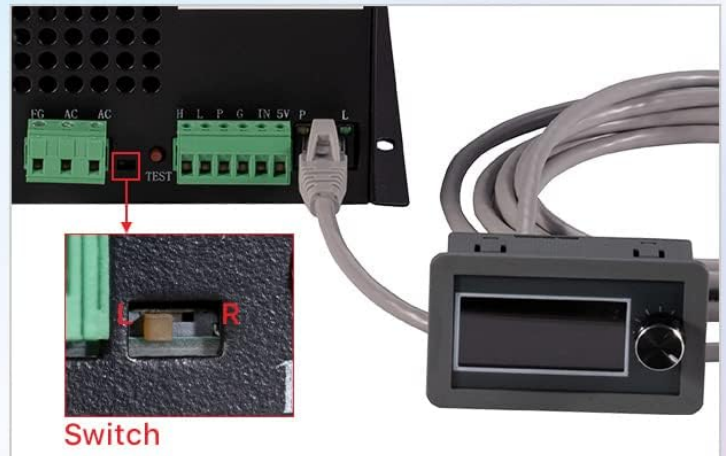
High Efficiency



Image: Diagram highlighting key features such as simple control, open circuit protection, factory aging test, laser power adjustment, laser light test function, and high efficiency.

ADJUSTABLE LCD DISPLAY

The adjustable LCD display (right side) shows current output amperage as well as the status of your machine's water protection system and laser signal.



WIDE COMPATIBILITY

Our retrofit replacement power supply for CO2 laser engravers and cutters is compatible with laser tubes up to 100W from various manufacturers.



Image: Close-up view of the power supply's adjustable LCD display and connection ports, showing the current output and status indicators.

Your browser does not support the video tag.

Video: An official product video from Clouday Laser demonstrating the 80-100W CO2 Laser Power Supply, showcasing its physical appearance and features.

4. SETUP AND INSTALLATION

Proper installation is crucial for the safe and effective operation of your laser power supply. Refer to the wiring diagrams and ensure all connections are secure.

Connection Points:

- **High Voltage Output:** Connects to the laser tube.

- **AC Input (115V L, N):** Connects to the main power source.
- **FG (Frame Ground):** Essential for safety grounding.
- **Control Signals (H, L, P, G, IN, 5V):** For TTL level control, water protection, signal ground, input control, and 5V output.
- **Laser Signal Input (L):** For laser signal input.



Image: Detailed diagram illustrating the various connection points on the Cloudray laser power supply, including AC input, high voltage output, and control signal terminals.

Laser Power Supply M100 115V		
Input	Input Voltage	AC115V
	AC Frequency	47 ~ 440Hz
Output	Max Output Voltage	28KV
	Max Output Current	30mA
Size	L x W x H (mm)	230*161*91
Weight (kg)		2.8
Efficiency		91%
MTBF		≥ 30000 hours
Response Speed		≤ 1ms
Voltage Range	High-Level	≥ 3V
	Low-Level	≤ 0.7V
Environment		-30° ~ +65°
Cooling		Forced air cooling (fan cooling)
High Temperature Test		Full Load / 60°C / 12 hours
Start / Stop Test		500 times 7 seconds

Image: The Cloudray power supply shown connected to a laser tube, demonstrating a typical setup configuration.

5. OPERATING INSTRUCTIONS

Once properly installed, the Cloudray 100 Watt Laser Power Supply offers intuitive control for your laser operations.

Basic Operation:

- Power On:** Ensure all connections are secure and the laser tube is properly cooled. Turn on the main power to the power supply.
- TTL Control:** Use TTL-level signals from your laser controller to initiate and stop laser firing. The power supply supports both active-high and active-low devices.
- Current Adjustment:** If your model includes an external ammeter with an LCD screen, use the trimmer potentiometer to precisely adjust the output current as needed for your application.
- Test Function:** Press the 'TEST' button on the power supply to manually check the laser output. This is useful for quick verification of laser functionality.

Monitoring Status:

The external ammeter's LCD screen provides real-time feedback:

- Current Output:** Displays the actual processing current in mA.
- Water Protection:** Indicates if the water protection system is active (ON/OFF).

- **Laser Signal:** Shows the status of the laser signal (ON/OFF).

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Cloudray Laser Power Supply.

- **Cleaning:** Periodically clean the exterior of the power supply and ensure ventilation grilles are free from dust and debris. Use a soft, dry cloth. Do not use liquid cleaners.
- **Fan Check:** Ensure the cooling fan operates freely and is not obstructed. A well-functioning fan is critical for heat dissipation.
- **Connection Integrity:** Regularly inspect all electrical connections for tightness and signs of wear or corrosion. Loose connections can lead to arcing and damage.
- **Environmental Conditions:** Maintain the operating environment within specified temperature and humidity ranges to prevent premature component failure.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your laser power supply.

Problem	Possible Cause	Solution
No laser output	No power to PSU, faulty laser tube, water protection active, control signal issue.	Check power connections, verify water flow, inspect laser tube, check control signals (TTL). Use the 'TEST' button to isolate the issue.
Low laser power	Incorrect current setting, aging laser tube, dirty optics.	Adjust current using the potentiometer. Consider laser tube replacement if it's old. Clean laser optics.
PSU overheating	Poor ventilation, fan malfunction, excessive load.	Ensure clear airflow around the unit. Check if the fan is spinning freely. Reduce operating load if consistently overheating.
LCD display not working	Loose connection, damaged display unit.	Check the cable connecting the LCD to the power supply. If still not working, the display unit may need replacement.

If you encounter issues not listed here or if the suggested solutions do not resolve the problem, please contact Cloudray customer support.

8. SPECIFICATIONS

Detailed technical specifications for the Cloudray 100 Watt Laser Power Supply (Model MYJG-100W MONITOR 110V).



VARIABLE VOLTAGE LEVEL

Our power supply uses TTL-level signals to control both active-high and active-low devices.

INTUITIVE CONTROL

This power supply uses simple TTL-level signals to control your laser's output.



Image: Dimensional drawing of the Cloudray 100W CO2 Power Supply, showing its length, width, and height.

Feature	Specification
Model Name	MYJG-100W MONITOR 110V
Input Voltage	AC 115V
AC Frequency	47 - 440Hz
Max Output Voltage	28KV
Max Output Current	30mA
Output Wattage	100 watts
Product Dimensions (L x W x H)	12.6 x 7.87 x 5.91 inches (320 x 200 x 150 mm approx.)
Item Weight	7.26 pounds (3.3 Kilograms)

Feature	Specification
Efficiency	91%
MTBF (Mean Time Between Failures)	≥ 30000 hours
Response Speed	≤ 1ms
Voltage Range (High-Level)	≥ 3V
Voltage Range (Low-Level)	≤ 0.7V
Environment Temperature	-30°C ~ +65°C
Cooling Method	Forced air cooling (fan cooling)
High Temperature Test	Full Load / 60°C / 12 hours
Start / Stop Test	500 times 7 seconds
Manufacturer	Cloudray
Country of Origin	China

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Cloudray website or contact your point of purchase. Keep your purchase receipt as proof of purchase for any warranty claims. Cloudray is committed to providing high-quality laser accessories and support to its customers worldwide.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question