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# MOON 820S

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Power Supply



## Owner's Manual

M O O N  
by SIMAUDIO

## Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves or another apparatus that produces heat.
9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for safety. If the provided plug does not fit into the outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus. Unplug mains cord during transportation.
11. Only use attachments and accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip over.  

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power cord or plug has been damaged; liquid has been spilled or objects have fallen into the apparatus; or the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. No naked flame sources, such as candles, should be placed on the apparatus.

**WARNING:**  
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

	<p><b>CAUTION</b></p> <p>RISK OF ELECTRIC SHOCK DO NOT OPEN</p>	
<p><b>CAUTION:</b> TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.</p>		

## Important Safety Instructions (cont'd)



The lightning flash with the arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Marking by the “CE” symbol (shown left) indicates compliance of this device with the EMC (Electromagnetic Compatibility) and LVD (Low Voltage Directive) standards of the European Community

***Please read all instructions and precautions carefully and completely before operating your MOON 820S Power Supply***

1. **ALWAYS** disconnect your entire system from the AC mains before connecting or disconnecting any cables, or when cleaning any component. To completely disconnect this apparatus from the AC mains, disconnect the power supply cord plug from the AC receptacle.
2. The MOON 820S must be terminated with a three-conductor AC mains power cord which includes an earth ground connection. To prevent shock hazard, all three connections must **ALWAYS** be used. Connect the MOON 820S only to an AC source of the proper voltage; Both the shipping box and rear panel serial number label will indicate the correct voltage. Use of any other voltage will likely damage the unit and void the warranty
3. AC extension cords are **NOT** recommended for use with this product. The mains plug of the power supply cord shall remain readily accessible.
4. **NEVER** use flammable or combustible chemicals for cleaning audio components.
5. **NEVER** operate the MOON 820S with any covers removed. There are no user-serviceable parts inside. An open unit, especially if it is still connected to an AC source, presents a potentially lethal shock hazard. Refer all questions to authorized service personnel only.
6. **NEVER** wet the inside of the MOON 820S with any liquid. If a liquid substance does enter your MOON 820S, immediately disconnect it from the AC mains and take it to your MOON dealer for a complete check-up.
7. **NEVER** spill or pour liquids directly onto the MOON 820S.
8. **NEVER** block air flow through ventilation slots or heatsinks.
9. **NEVER** bypass any fuse.
10. **NEVER** replace any fuse with a value or type other than those specified
11. **NEVER** attempt to repair the MOON 820S. If a problem occurs contact your MOON dealer.
12. **NEVER** expose the MOON 820S to extremely high or low temperatures.
13. **NEVER** operate the MOON 820S in an explosive atmosphere.
14. **ALWAYS** keep electrical equipment out of reach of children.
15. **ALWAYS** unplug sensitive electronic equipment during lightning storms.
16. **WARNING:** Do not expose batteries or battery pack to excessive heat such as sunshine, or fire or the like.

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Date Code: 20161101

## Introduction

Thank you for selecting the **MOON 820S** power supply as a part of your hi-fi reproduction system. This power supply has been designed to upgrade the "already state-of-the-art of performance" of any one, or any combination of two of the following MOON Evolution products simultaneously: 740P Preamplifier, 650D and 750D DAC/CD Transports, 780D DAC, 610LP and 810LP Phono Preamplifiers.

We have been building high-performance audio equipment for over 30 years, and the know-how gained through our cumulative experience is an important reason why **MOON** products are so musically satisfying.

Before setting up your new **MOON 820S**, we encourage you to please read this manual thoroughly to properly acquaint yourself with its features. We hope you enjoy using the **MOON 820S** power supply as much as the pride we have taken in creating this fine audio product. We understand the power and emotion of music and build our products with the goal of faithfully capturing these elusive qualities.

The information contained in this manual is subject to change without notice. The most current version of this manual is available on our official website at <http://www.simaudio.com>

Your **MOON 820S** Power Supply incorporates many significant design features to achieve its "world-class" level of performance. This is an abbreviated list of the more important features:

Two **custom proprietary toroidal transformers** with lower magnetic, electrical and thermal loss, yielding an improved power transfer and lower regulation factor. The result is increased current speed and better dynamics; One each for analog and digital power supplies.

**Special "pi-type" filters** – 2 for each for analog & digital supplies - after the initial voltage rectification stage that reduce AC transmission noise, using 40,000uF of capacitance and dual choke inductance (2x 20mH).

The analog and digital supplies each have four stages of our **M-R2S** circuit; A fully discrete voltage regulation circuit using a "precision reference" feeding an amplifier comprised of numerous IC's and transistors, as opposed to a single voltage regulation chip. M-R2S outputs pure DC power that is exceptionally fast, very precise, has a virtually unmeasurable noise level, as well as absolute stable voltage.

**4-Layer printed circuit boards** with pure copper tracings and extremely low impedance characteristics yielding much shorter signal paths and drastically reduced noise levels.

Ultra **rigid chassis construction** to minimize the effects of external vibrations.

Designed to be **powered up at all times** for optimal performance.

## Unpacking

The **MOON 820S** should be removed from its box with care.

The following accessories should be included inside the box with your power supply:

- ✓ *Two (2) 4-Pin XLR cables for analog section DC power*
- ✓ *Two (2) 5-Pin XLR cables for digital section DC power*
- ✓ *This owner’s manual*
- ✓ *Warranty and product registration information (USA and Canada only)*

Once the **820S** is unpacked, inspect it thoroughly and report any damage to your dealer immediately. We suggest that you keep all of the original packaging, storing it in a safe, dry place in case you’re required to transport this product. The customized packaging is specially designed to protect the **820S** from any potential damage during transit.

Please write the serial number of your new **MOON 820S** in the space provided below for future reference.

Serial Number

## Installation & Placement

The **MOON 820S** power supply should be placed on a solid level surface. You should never place another component directly on top of, or underneath this power supply. If you wish to stack the **820S** with other MOON Evolution series components, we suggest using a set of **MOON Bridges**, which have been designed specifically for this purpose. Consult your authorized MOON retailer for further details.

The **MOON 820S** uses two toroidal transformers in its power supply; even though they are extremely well shielded, you should not place this power supply too close to source components such as a turntable, phono preamplifier or CD Player. There should be at least 2 inches of space between the chassis’ of the **820S** and any of your source components.

If the surface you have chosen isn’t perfectly level, each of the four (4) cones of your **820S** are height adjustable; carefully using your fingers, you can either raise each leg by turning the cone underneath clockwise, or lower each leg by turning it counterclockwise.

We strongly recommend that you leave these cones mounted to the component at all times for reasons related to both performance and aesthetics.

## Rear Panel Connections

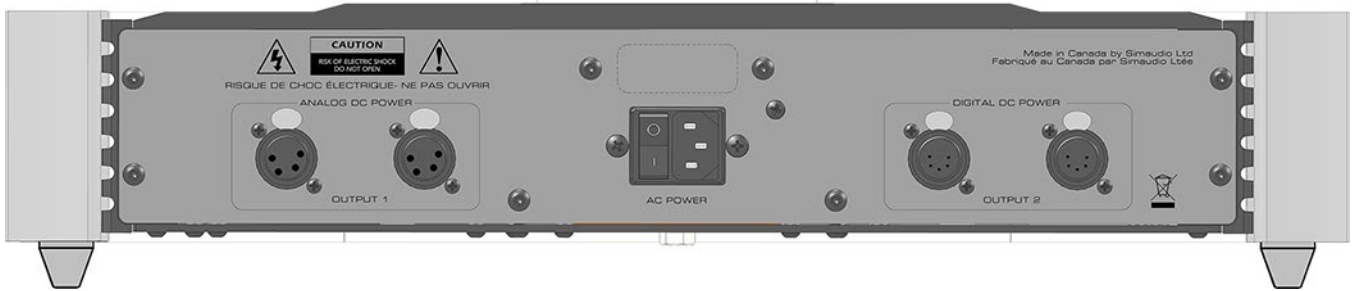


Figure 1: Rear panel of MOON 820S

The rear panel will look similar to Figure 1 (above). There are 2 pairs of outputs labeled “Analog DC Power – Output 1” and “Digital DC Power – Output 2” . The Analog outputs use 4-Pin XLR connectors and the Digital outputs use 5-Pin XLR connectors.

The “Analog DC Power” outputs are intended to power the analog circuitry (audio) in the 740P Preamplifier, 650D and 750D DAC / CD Transports, as well as, both the 610LP and 810LP phono preamplifiers. The “Digital DC Power” outputs are intended to power the digital circuitry (microprocessors for controller software, front panel displays, CD drive) in the 740P Preamplifier, as well as both the 650D and 750D DAC/ CD Transports.

The AC Power “main switch” and the “AC Input” IEC receptacle for the power cord are located in the center of the rear panel, between the Analog and Digital AC Power outputs.

## Connecting the 820S

1. Disconnect the AC power cable(s) from your MOON Evolution component(s) that you will be using with the **820S** power supply.
2. Connect the 4-Pin XLR cable between one of the 4-pin XLR outputs labeled “Output 1” on the rear panel of the **820S** and the corresponding 4-Pin XLR input on your MOON Evolution component, as shown in figure 2 on the next page.

3. If applicable, connect the 5-Pin XLR cable between one of the 5-pin XLR outputs labeled “Output 2” on the rear panel of the **820S** and the corresponding 5-Pin XLR input on your MOON Evolution component, as shown in figure 2 on the next page.
4. Connect the supplied AC power cable to the IEC receptacle, located on the power supply’s rear panel. Ensure that the AC wall outlet you use has a functioning ground. For the best sonic performance, it is preferable that you plug your **820S** directly into a dedicated AC outlet and avoid using an extension cord.

**Notes:** (i) The example in figure 2 on the next page shows a 750D DAC/ CD Transport (top) connected to an **820S** (middle) by both a 4-Pin XLR cable and a 5-Pin XLR cable, as well as a 610LP Phono Preamplifier (bottom) connected to the **820S** with only a 4-Pin XLR cable. (ii) When using the **820S**, the rear panel rocker switch on any connected component(s) is bypassed. (iii) When no components are connected to the **820S**, it will automatically go into standby mode after 20 minutes.

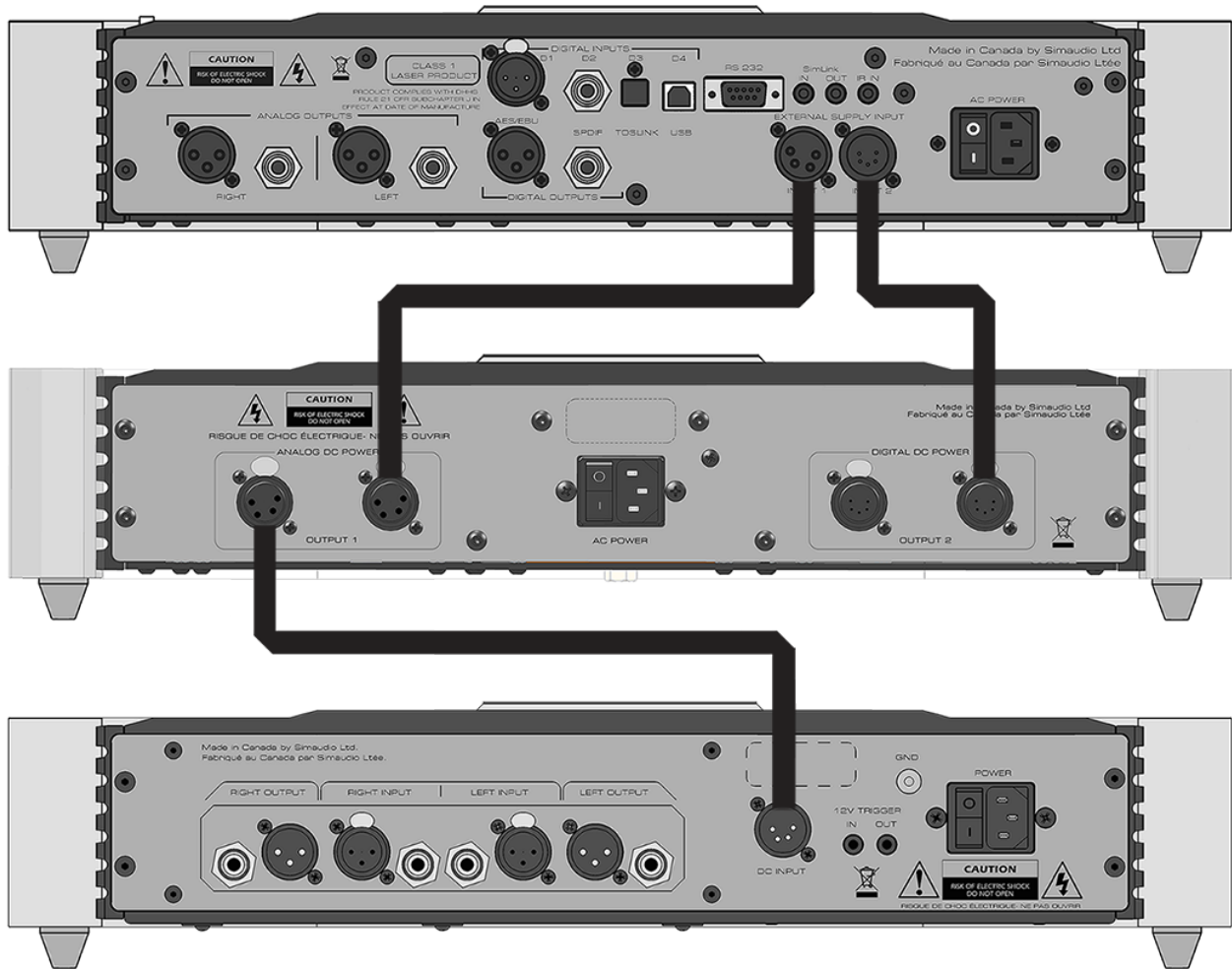


Figure 2: Connecting the 820S to other MOON Evolution components

### IMPORTANT !

Any component(s) connected to the 820S Power Supply will NOT power up, remotely or via their standby button, when the 820S is powered off or in standby.

## Operating the 820S

We recommend leaving your **820S** powered up at all times to maintain optimal performance. When you plan on being away for a few days, it may not be a bad idea to power off your **820S**.

### Turning on your MOON 820S for the first time

Prior to turning the **820S** power supply on for the first time, make sure that every cable is properly connected to avoid any problems (note: remember to remove the AC cable(s) from the component(s) connected to the **820S**). Then flick the main rocker switch located on the rear panel of the **820S**, labeled "POWER" to the '1' (on) position. Next press the push button labeled "Standby" located on the front panel. You will hear a very faint click sound confirming that everything is in order. The blue LED on the front panel will illuminate, indicating that the **820S** is now powered up and the connected component(s) are ready for use.

You may now power up each component that is connected to the **820S** by pressing their respective front panel "Standby" buttons. (note: the rear panel rocker switch on each connected component is no longer functional).

### On and Off Sequence

Always power up your **820S** first, then press the "Standby" button on your connected component(s). As well, always power down your connected component(s) first, via their "Standby" button(s), before powering down your **820S**.

## Troubleshooting

The blue LED located on the front panel also indicates the operational status of your **MOON 820S** power supply. When the **820S** detects a problem, the LED will begin blinking two times, repeatedly, and the power supply will stop powering any connected component(s).

## Specifications

Transformers	2 x 0 25VA
Total Capacitance	80,000 $\mu$ F
Total Inductance	80mH
Output Voltage (analog supply output 1)	$\pm$ 20 V
Output Voltage (digital supply output 2)	+14 V
Power Consumption @ idle	25 W
AC Power Requirements	120V / 60Hz or 240V / 50Hz
Shipping Weight	40 lb / 18 kg
Dimensions (W x H x D, inches / cm)	18.75 x 4.0 x 16.8 / 47.6 x 10.2 x 42.7



Fuse Replacement:

For the 120V version use a 2A slow blow (5 x 20mm size).

For the 230V version use a 1A slow blow (5 x 20mm size)