

M O O N

by SIMAUDIO

The performance of a lifetime



Owner's Manual
MOON 888
Power Amplifier

WARNING

To prevent the risk of equipment damage or personal harm, use only Class 2 rated loudspeaker wire properly terminated and connected securely to the binding posts.

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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.

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



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 UNIT

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 unit 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 unit 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 unit 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 unit with any liquid. If a liquid substance does enter your unit, 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 unit.
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 unit. If a problem occurs contact your MOON dealer.
12. NEVER expose the unit to extremely high or low temperatures.
13. NEVER operate the unit 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.

Introduction

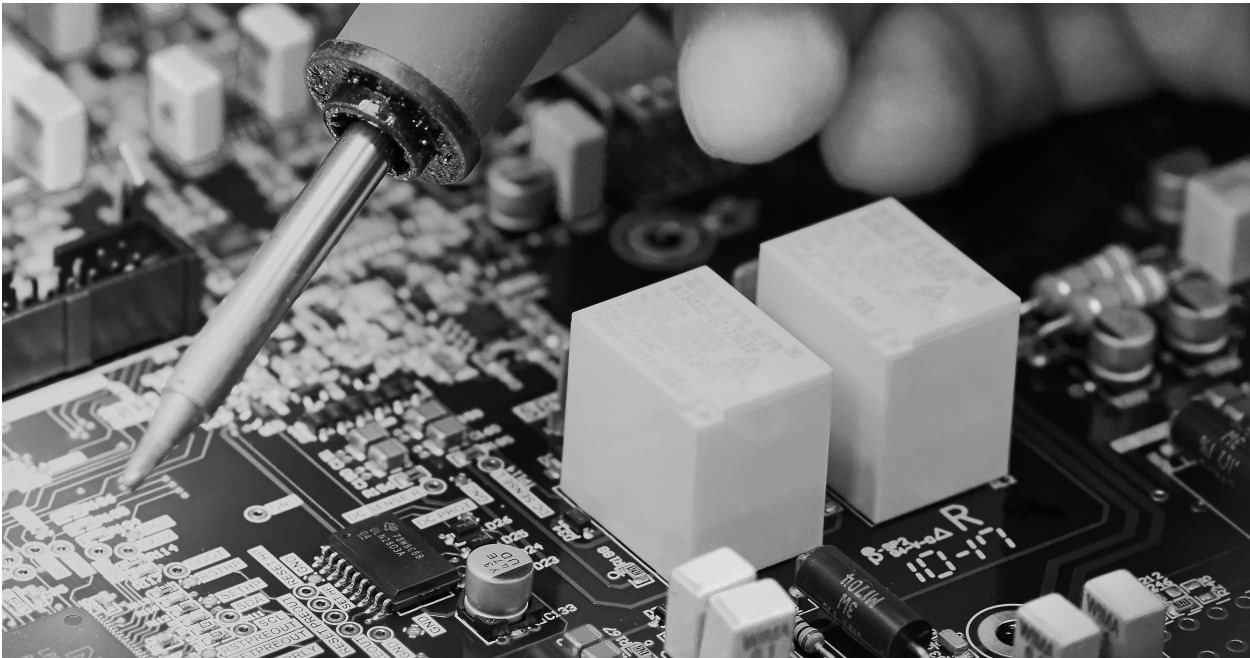
Thank you for selecting the MOON 888 Mono Power Amplifier as a part of your music system. This component has been designed to offer state-of-the-art high-end performance in an elegant package, hallmarks on which Simaudio has made its reputation. We have been building high-performance audio equipment for over 35 years, and the know how gained through our cumulative experience is an important reason why MOON products are so musically satisfying.

The performance of your 888 will continue to improve during the first 300 hours of listening. This is the result of a "break-in" period required for the numerous high quality electronic parts used throughout this amplifier.

Before setting up your new MOON 888, we encourage you to please read this manual thoroughly to properly acquaint yourself with its features. We hope you enjoy listening to the MOON 888 Mono Power Amplifier 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>



Unpacking

The **MOON 888** should be removed from its box with care.

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

- Word from our president
- AC power cable
- Pair of gloves
- Fuses
- SimLink™ / 12V trigger cable
- Warranty and product registration information (USA and Canada only)

Once the unit 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 unit from any potential damage during transit.

Please write the serial number of your unit in the space provided below for future reference.

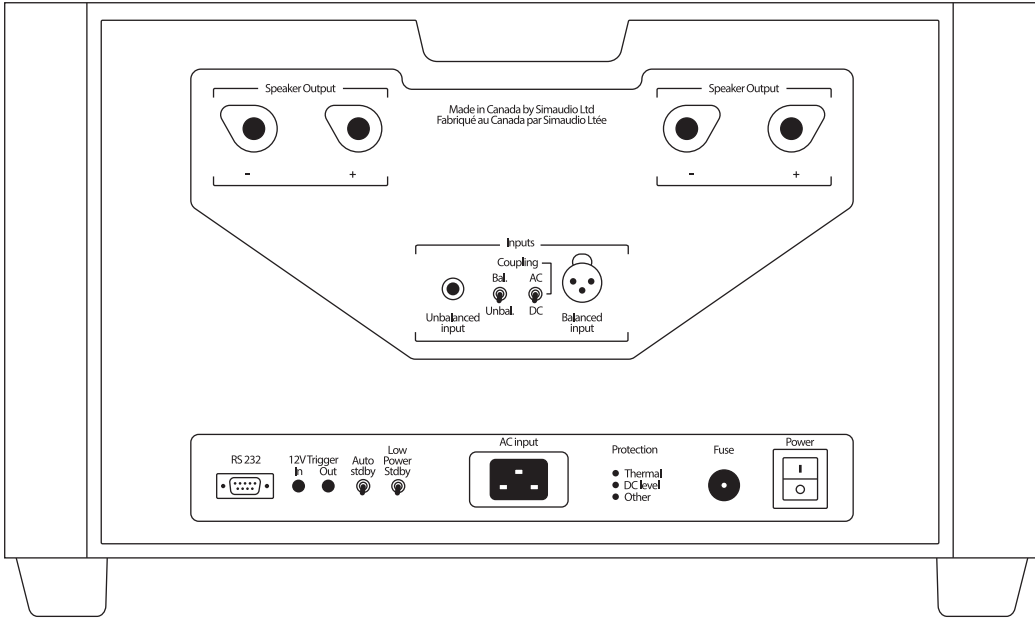
Serial Number

Installation & Placement

The MOON 888 Mono power amplifier requires reasonable ventilation to maintain an optimum and consistent operating temperature, especially since it will radiate significant heat when driven hard. Consequently, it should be placed in a location with empty space around it for proper heat dissipation. You should never place another component on top of this amplifier. As well, the amplifier should be placed on a solid level surface. No need for adjustments as the feet of the MOON 888 are self-levelling. You should avoid placing it near a heat source or inside a closed cabinet that is not well ventilated as this could compromise the amplifier's performance and reliability.

Rear Panel Layout

Figure 1: 888 Backpanel



Connecting the Unit

Prior to making any connections, the power amplifier must be turned off and the AC cable disconnected.

1. Connect the input cables running from your preamplifier's outputs, whether balanced or single-ended, to the amplifier's XLR or RCA input, respectively. We highly recommend that you use the balanced XLR input (provided that your preamplifier has balanced outputs) to take full advantage of 888 Power Amplifier's capabilities. Please refer to the next section, "Balanced Operation" on for further information.
2. Select the proper type of input with the switch labeled BAL / UNBAL, based upon RCA (UNBAL) or XLR (BAL) connection.

Do not connect cables to both the XLR and RCA inputs at the same time. Damage to the connected equipment can result that is not covered by warranty.

3. Select the preferred coupling mode with the switch labeled coupling. We recommend for most situations to set it to DC coupling as this will give the best performance. Only when the connected preamp has too much DC at its output (more frequent with tube equipment) then it can be useful to select the AC coupling mode to get rid of the incoming DC. See Troubleshooting section for more details.
4. Connect your speaker with the cable of your choice to the MOON 888's speaker binding posts. Take care to respect the polarity ("+" , "-") of the outputs. There are two pairs for convenience in bi-wiring configuration for example; both work the same.

5. Connect the supplied AC power cable to the IEC receptacle, located on the amplifier'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 MOON 888 directly into a dedicated AC outlet and avoid using an extension cord.

Balanced Operation

When using an unbalanced interconnect, the audio signal runs through both the center wire and the shield/ground wire. Any noise picked up by this interconnect (ie. nearby magnetic fields such as an AC power cord) will be reproduced by the amplifier and heard through the loudspeakers. Conversely, a balanced interconnect has three separate conductors; one for the ground and two for the actual signal. These two signals are identical except that one is 180 degrees out of phase with the other. For example, when one conductor is carrying a signal of +5 Volts, the other will be carrying a signal of -5 Volts. When these two inverted signals on a balanced line are input into a differential power amplifier such as the MOON 888, any noise picked up by the interconnect will be eliminated since a differential circuit amplifies only the difference between these two signals: Noise on a balanced interconnect will be equal on both conductors and therefore cancel out.

Operating the Unit

We recommend leaving your MOON 888 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 amplifier. Please keep in mind that once fully "broken-in", your 888 requires several hours of operation before reaching optimal performance after powering it up again.

TURNING ON YOUR MOON 888 FOR THE FIRST TIME

Prior to turning the amplifier on for the first time, make sure that every cable is properly connected to avoid any problems. Then turn on your preamplifier connected to the 888. Flick the main rocker switch, located on the rear panel, labeled "POWER" to the '1' (on) position. The blue LED on the front panel will blink for up to 10 seconds while it achieves standby mode. When it stops blinking and is not illuminated, your 888 is in standby mode. Next, briefly 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 888 is now powered up and ready for use.

ON AND OFF SEQUENCE

To avoid having any annoying noises (ie. "thumps" and "pops") emanate from your speakers when powering your 888 on or off, you should always power up your preamplifier prior to powering up your 888. As well, always power down your 888 prior to powering down your preamplifier.

STANDBY MODES

The 888 have two standby modes, the default and the low power. Both modes prevent the output of signal at the loudspeaker terminals and turn the front panel blue LED off. The default standby mode keeps all amplifier stages fully powered so that the amplifier keeps its optimal working temperature. The low power standby mode, keeps only logic control powered, and turn off all amplifier stages. This saves electricity wasted in heat.

Activate the Low Power Standby mode or not according to your preference using the switch labeled 'Low Power Standby'.

An automatic standby feature is available to turn off automatically the 888 after 20 minutes of silence. Use the switch labeled 'Auto Standby' to activate this function.

Note : The 12V trigger operation override this function.

Troubleshooting

The blue LED located on the front panel also indicates the operational status of the MOON 888. In the unlikely event the LED starts blinking on and off during normal use, it means it has detected a problem. It is a “smart” power amplifier equipped with a self-diagnostic system that will automatically shut itself down if it detects abnormal DC or overheat. If such situation arise, look at the back of the unit as one red LED under the label ‘Protection’ will indicate for which reason, either Thermal (overheating), DC Level, or other (unknown) the unit has entered Protection mode.

THERMAL PROTECTION

If the 888 enters thermal protection, we invite you to turn off the back panel rocker switch labeled Power and wait for the amplifier to cool down. Then turn on the unit normally.

DC LEVEL

If the 888 enters DC Level Protection, first power down the 888 via the main power rocker switch, remove physically the input connection to leave only the speakers connected. Attempt to power up your 888 again: A successful power up will indicate the presence of DC coming from your preamplifier or one of your signal sources (ie. CD Player). You may then use the switch labeled ‘Coupling’ and enable AC coupling mode to get rid of the problematic DC, then connect and turn on the amplifier normally.

OTHER

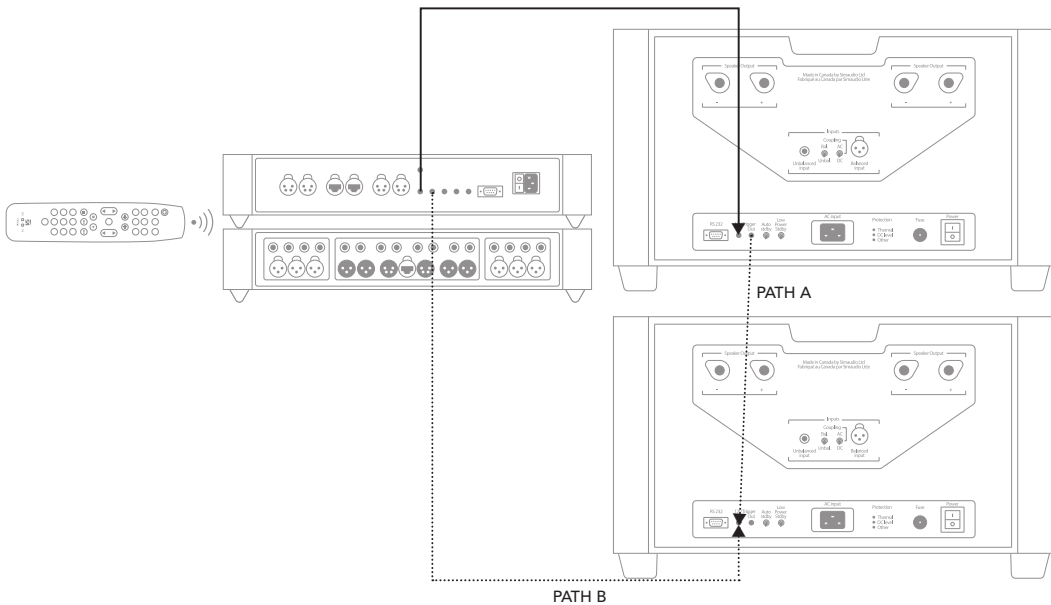
If the 888 enters this protection mode, first power down the 888 via the main power rocker switch, and wait one minute. Then try to turn on the unit normally.

If your 888 still doesn’t power up, turn off the main power switch and check the AC fuse. If the fuse appears OK, put it back in its socket and then try to power up again the usual way. If the fuse is blown, replace it with a fuse of the same rating, and repeat the above process. At this point, you should be able to power up your 888. If not, immediately consult your dealer for assistance.

Remote Operation

If you wish you to connect your 888 amplifiers in such a way that they turn on or off following the state of your preamplifier, see figure below on how to connect the system using the MOON 850P as example. Both connection schemes works the same, just use the configuration most convenient for you.

Figure 2: Remote Operation



In figure 2 we have a 850P Preamplifier and a pair of 888 amplifiers connected together via their respective 12V triggers; The 12V trigger output on the 850P is connected to the 12V trigger input on the top 888 (using a 1/8" mini-jack cable). The 12V trigger output from this 888 connects to the 12V trigger input on the bottom 888 (also using a 1/8" mini-jack cable). When you turn on the 850P via remote control (or its Standby button), both 888's will turn on automatically. The same rule applies when you put the 850P into Standby mode

or

Each of the two 12V trigger outputs on the 850P are connected to the 12V trigger inputs on each 888 (using a 1/8" mini-jack cable). When you turn on the 850P via remote control (or its Standby button), both 888's will turn on automatically. The same rule applies when you put the 850P into Standby mode.

Specifications

Configuration	Fully balanced Differential, mono
Power Supply Transformer	2 x 1.5kVA
Power Supply Capacitance	350,000 μ F
Class Of Operation	A/AB
Input Impedance	24k Ω
Input Sensitivity	2.4V
Output Device Type	MOON Bipolars – 32
Output Power @ 8 Ω	888 W per channel
Output Power @ 4 Ω	1776 W per channel
Frequency Response	10Hz - 200kHz +0/-3dB
Gain	31dB
Signal-to-noise Ratio	120dB @ full power
Intermodulation Distortion	0.006%
Total Harmonic Distortion (20Hz-20kHz @ 888W)	0.04 %
Power Consumption @ idle	50 W
AC Power Requirements	120V / 60Hz or 240V / 50Hz
Shipping Weight	300 lb / 136 kg
Dimensions (W x H x D, inches / cm)	22.1 x 13.8 x 26.6 / 56.1 x 35.1 x 67.6

Balanced Pin Assignment: Pin 1 → Ground Pin 2 → Positive Pin 3 → Negative



Fuse replacement: **120V version uses a 15A fast blow (3AG)**
230V version uses a 10A fast blow (3AG)

If you require the IR or RS-232 codes for the MOON 888, please visit the "Contact Us" section in the support page on our website at www.simaudio.com.

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