

# simaudio MOON 390 Network Player Preamplifier Owner's Manual

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by SIMAUDIO
390 Network Player Preamplifier
Owner's Manual



# **WARNING**

Do not ingest the battery, Chemical Burn Hazard The remote control supplied with this product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death. Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the remote control and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

WEB: simaudio.com

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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 other apparatus that produces heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades 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 the 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 main 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.

FCC information for MOON 390 equipped with the Qualcomm® aptXTM audio for Bluetooth module and MiND Music Streamer module:

This unit contains Transmitter Module FCC ID: SSSBC127-X and Transmitter Module FCC ID: 2AJYB-S810. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The Spotify Software is subject to third-party licenses found here: <a href="https://www.spotify.com/connect/third-party-licenses">https://www.spotify.com/connect/third-party-licenses</a>.

Apple, AirPlay, iPad, iPhone, and Siri are trademarks of Apple Inc., registered in the U.S. and other countries. Use of the Works with Apple badge means that an accessory has been designed to work specifically with the technology identified in the badge and has been certified by the developer to meet Apple performance standards.

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 hazards,
  - 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 main 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 having chosen the **MOON 390** Network Player / Preamplifier 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, the hallmarks on which Simaudio has made its reputation. We have been building high-performance audio equipment for 40 years, and the know-how gained through our cumulative experience is an important reason why MOON products are so musically satisfying.

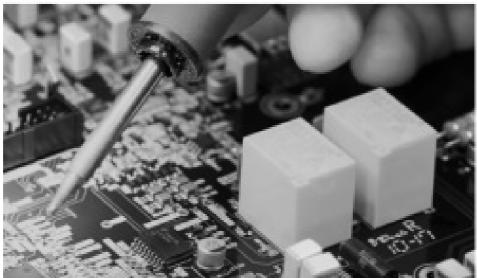
The MOON 390 is a Roon Ready device, which means that it can also be used with Roon software. As soon as the network setup (Ethernet or WiFi) is completed, the Roon system can be used to control the unit. For more information or any questions concerning the Roon software usage and installation, please consult: <a href="https://roonlabs.com/">https://roonlabs.com/</a>

MQA technology, manufactured under license from MQA Limited, enables playback of MQA audio files and streams, delivering the sound of the original master recording. For more information on MQA, please consult: <a href="http://www.mqa.co.uk/">http://www.mqa.co.uk/</a>

This MOON 390 supports AirPlay 2 and requires iOS 11.4 or later. AirPlay is an Apple technology to control audio systems and speakers anywhere on your network with the tap of an iPhone or iPad, or by asking Siri. For more information, please consult: <a href="http://support.apple.com/">http://support.apple.com/</a>

The performance of the MOON 390 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 unit. 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 <a href="http://www.simaudio.com">http://www.simaudio.com</a>





# Unpacking

The MOON 390 should be removed from its box with care. The following accessories should be included inside the box with your unit:

- · AC power cable
- "CRM-3" remote control with two `CR-2032' batteries
- "SimLinkTM" cable
- 2x Wi-Fi antenna
- Warranty and product registration information (the 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 packagings, 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.

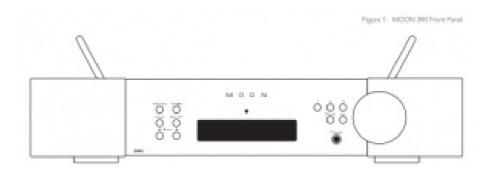
Please write the serial number of your unit in the space provided below for future re	eference
Serial Number:	

# **Installation & Placement**

The MOON 390 requires reasonable ventilation to maintain an optimum and consistent operating temperature

since it will radiate heat. Consequently, it should be placed in a location with empty space around it for proper heat dissipation. Maintain a minimum of 4 inches of free space on each side and back and top. You should never place another component on top of this unit nor block the vents. Air must be permitted to pass freely through. As well, it should be placed on a solid level surface. You should avoid placing it near a heat source or inside a closed cabinet that is not well ventilated as this could compromise its performance and reliability.

#### **Front Panel Controls**



**Standby:** Toggles between ON and standby mode.

**Mute:** Mutes the sound. To unmute, press again or change the volume.

**Display:** Allows to change the brightness of the display or turn it off. There are three (3) different levels of brightness; each press of the "Display" button scroll through the different brightness levels.

To turn the display off, press and hold the "Display" button for 2 seconds. When the display is turned off, it will still come back on briefly whenever you press any of the buttons located on the front panel or the remote control, the display will automatically turn off again once you are done.

To turn the display back on, simply press and hold the "Display" button for 2 seconds.

Input: The two (2) buttons labeled " Input " allow you to sequentially scroll, either forward " or

backward " \* " through all available inputs. The display will show the currently selected input.

**Speaker Off:** Turn off all audio outputs except one of the headphone output jacks for personal listening with headphones.

**Setup:** Enters the setup menu to program the numerous functions and settings available in this product. See the next section, entitled "Software Setup", which explains their usage in detail.

**OK**: Confirms selection made within the software setup.

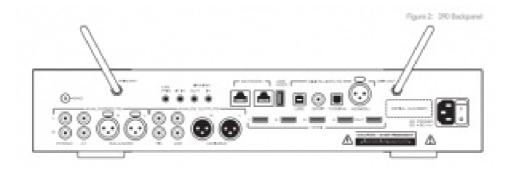
**Main rotary knob:** Volume control (1dB step from 0 to 30, 0.5dB steps above 30).

Once in setup mode, it allows scrolling through the various items of the menu.

1, 2, 3: Memory preset buttons. Each allows memorizing an internet radio station for quick retrieval, without having to use the mobile application. To set a preset, press and hold the memory button of your choice while the desired internet radio station is playing. Pressing briefly will recall the preset station and make it play. A delay of a few second before the music starts playback is normal; it depends on the time required to connect to the music station's server.

**Phones:** Connect a pair of stereo headphones.

# **Rear Panel Connections**



#### **Analog Inputs**

**Phono Input:** The analog "PHONE" input is for exclusive use with turntables. The default setting is made for a typical moving magnet (MM) cartridge. To optimize the input for your specific cartridge see Phone setup in the section entitled "Software Setup". Multiples settings are available to fine-tune the input for the cartridge of the connected turntable. Remember to connect the turntable's grounding cable to the grounding screw on the MOON 390's rear panel.

**A1 Input:** For use with any analog source with RCA output.

**Balanced Input:** For use with any analog source with balanced XLR output.

#### **Analog Outputs**

**Balanced Variable Output:** Connect to the balanced XLR input of the power amplifier, or powered active loudspeaker. This is the preferred or recommended connection to offer the best sound quality.

Variable Output (RCA): To connect to RCA input of power amplifier, or powered active loudspeaker.

**Fixed Output (RCA):** To connect to the input of an integrated amplifier (with its own volume control) or any device requiring a fixed, line-level signal.

**IR input:** To connect to a powered infrared repeater device. This is only useful if the MOON 390 is out of sight from where the infrared remote control is typically used.

# **Digital Inputs**

**Toslink Input:** For use with the source with Toslink output, such as TV set, set-top box.

**SPDIF Input:** For use with the source with SPDIF output, such as CD transport.

**AES-EBU Input:** For use with the source with AES-EBU output, such as High-End CD transport.

**HDMI 1, 2, 3, 4:** For use with any source with HDMI output, such as Blu-Ray player, SACD player, set-top box, or video games. Note that the MOON 390 is a 2-channel product and cannot process multi-channel audio.

In a typical setup, the source configures itself for 2-channel output. With some devices, it might be required to set it up specifically for PCM 2 channel audio.

**HDMI Out:** Connect to an HDMI display. Compatible with ARC (Audio Return Channel) and CEC device. It allows the use of the TV as the source for audio going into the MOON 390. See the section entitled "Software Setup" for more detail.

**USB Type B:** For use with computer or music servers with player and USB output.

Windows-based computers require a specific USB driver (USB HD DSD driver) which can be downloaded from the support section of our <u>website: www.simaudio.com.</u>

Mac computer do not require any driver.

**USB Host:** For use with the USB memory stick, powered USB Hard disk drive, or low-power portable USB Hard disk drive. Compatible audio file and content from folders will be appearing in the MOON MiND Controller mobile application in the USB library section.

**WiFi Antennas:** If you plan to use the wireless music streaming feature (between your wireless router and the MOON 390), you must install the included Wi-Fi antennas on the back panel by screwing them into the socket labeled "WIFI ANT".

**Network:** Ethernet connection (100Mbps) to connect to a router. Highly recommended for best music streaming performance (compared with a WiFi connection). The second Ethernet connection is available to connect to another device, such as a NAS drive, intelligent TV, or any other device requiring an Ethernet connection. Note: The MOON 390 do not bridge its wireless connection to the wired connection. The dual Ethernet connection acts as a wired LAN switch.

#### **Communication Connections:**

**12V Trigger:** Connect to the 12V trigger input of the amplifier. It allows to turn the connected amplifier on and off following the MOON 390 status.

**SimlinkTM:** Connect to other MOON components to provide various functions such as automatic source selection and grouped Standby mode. Always connect Simulink output to Simulink input. No need to close the loop, communication between components is bi-directionnal.

# **Audio Compatibility**

The MOON 390 is capable of processing a PCM or MQA digital signal at the following sampling rates: 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz, 352.8kHz and 384kHz.

The MOON 390 is also capable of processing a DSD digital signal at any of the following data rates: DSD64 (2.82MHz), DSD128 (5.64MHz) and DSD256 (11.28MHz).

The following chart summarizes which sample rates (from decoded PCM files & DSD files) will work on each digital input:

	OPTICAL	SPDIF	AES/EB U	USB	MiND via Ethernet	MiND via WiFi	Bluetoot h	НОМІ
PCM				/	/			
44.1kHz	V	<b>V</b>	V	<b>V</b>	V	V	<b>V</b>	<b>V</b>
48kHz	$\checkmark$	$\checkmark$	<b>✓</b>	$\checkmark$	$\checkmark$	<b>√</b>	$\checkmark$	$\checkmark$
88.2kHz	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	<b>✓</b>	$\checkmark$		$\checkmark$
96kHz	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	<b>✓</b>	<b>√</b>		$\checkmark$
176.4kHz		$\checkmark$	<b>✓</b>	$\checkmark$	<b>✓</b>	<b>✓</b>		$\checkmark$
192kHz		$\checkmark$	<b>✓</b>	$\checkmark$	<b>✓</b>	<b>✓</b>		$\checkmark$
352.8kHz				$\checkmark$	<b>✓</b>	#		
384kHz				$\checkmark$	<b>✓</b>	#		
DSD								
64 (2.8224MH z)				$\checkmark$	<b>✓</b>	$\checkmark$		
128 (5.6448M Hz)				$\checkmark$	<b>✓</b>	#		
256 (11.2896 MHz)				$\checkmark$	<b>✓</b>	#		

**Notes:** # signals that might work with MiND via WiFi input, depending on your router and conditions, but is NOT recommended as they may suffer from audible dropouts. / \* ALAC file type limited to 96kHz / \*\* AIFF file type must be uncompressed ONLY. / MQA is the same as PCM in the table above, without Bluetooth support.

# **Software Setup**

The MOON 390 includes a "Setup Software" that allows configuring the product to tailor it to your needs and preferences. For each input, you can assign a label to replace the factory-assigned name (for example change HDMI 1 to Blu-Ray) and disable unused input which is convenient when you scroll amongst the various available

inputs with the remote control. Other "Setup Software" features include the ability to set your preference of screen saver on the display, fine-tune the phono input for a specific cartridge, assign a maximum volume level, and multiple others. Finally, a function exists to reset all software settings back to their factory defaults. These are just some of the features included in the "Setup Software" which will be described in detail here.

#### To navigate through the Software setup Menu:

The setup button enters the menu;

The rotating knob scroll through the various items in the menu;

OK, the button confirms the selection of the highlighted item in the menu.

After making a selection, the indication `saved' will appear briefly to confirm its validity. To abort setup mode, simply press the "Setup" button to exit.

Note: After sixty (60) seconds of no activity, the MOON 390 will automatically exit from setup mode and "EXITING" will appear in the front panel display window.

#### To edit a text string:

The two "Input" buttons allow for cursor movement; the rotating knob scroll through the available characters.

# **Settings**

# To change the label of an input for a predefined one:

SETUP > INPUT > `Input you want to modify' > label > 'label of your choice'

Example to set the HDMI 1 input to be called Blu-Ray: SETUP > INPUT > HDMI 1 > label > Blu-Ray

# To change the label of an input for a custom one:

SETUP > INPUT > `Input you want to modify' > label > CUSTOM... > then enter the characters you want

# To make gain offset of a specific input:

SETUP > INPUT > `Input you want to modify' > Offset > `Select the offset you want' For example to set the Optical input to have +8.0dB gain: SETUP > INPUT > OPTICAL > Offset > +8.0dB

#### To make an input disabled so it does not appear when input scrolling via input buttons:

SETUP > INPUT > `Input you want to modify' > Enable > Disabled

#### To set an analog input into a Home Theather bypass:

SETUP > INPUT > 'Input you want to convert to bypass' > HT BYPASS > HT BYPASS

**Note 1:** This mode removes the volume control capability of the MOON 390 on the converted input; It is intended to be used to connect to a source that has its own volume control, such as a Home Theater processor variable output.

The system asks if you are sure before you proceed, to avoid any bad surprise.

Note 2: Only the input Analog and the input Balanced can be converted to Home Theater Bypass mode.

#### To disable the front panel blue LED:

SETUP > BLUE LED > DISABLED

# To get the serial number and model info of the unit:

SETUP > INFO

#### **Phone Settings**

To set up the phone input for a specific cartridge there is two different way to proceed. There is a basic setup and an advanced setup.

If a basic setup is desired, simply choose between a moving magnet or moving coil based on the real cartridge

used:

SETUP > INPUT > PHONE > CONFIG > BASIC > MOVING MAG or SETUP > INPUT > PHONE > CONFIG > BASIC > MOVING COIL

If an advanced setup is desired, then the gain, impedance, capacitance, and EQ curve can all be set manually, based on the desired characteristics to best fit with the cartridge.

# To set the gain of the phono input:

SETUP > INPUT > PHONO > CONFIG > ADVANCED> GAIN > `choose the desired gain from the list'

# To set the input impedance of the phono input:

SETUP > INPUT > PHONO > CONFIG > ADVANCED> IMPEDANCE > `choose the desired value from the list'

# To set the input capacitance of the phono input:

SETUP > INPUT > PHONO > CONFIG > ADVANCED> CAPACITANCE > `choose the desired value from the list'

#### To set the desired EQ Curve:

SETUP > INPUT > PHONO > CONFIG > ADVANCED> EQ CURVE > `choose the desired curve'.

**Note:** RIAA is the standard EQ curve for the vast majority of LP records. IEC curve is the equivalent of RIAA with an added anti-rumble feature, useful when significant unmusical bass resonances appear within the system.

#### **HDMI**

# To associate a specific HDMI video signal with a different audio input:

SETUP > I NPUT > `Input you want to modify' > HDMI In > `Select the HDMI input you want to associate' The default for this setting is called LAST. This means that the last selected HDMI video signal is still passed to the HDMI output.

# To listen to a connected HDMI source on the TV while MOON 390 is put in Standby mode:

SETUP > HDMI > HDMI STBY > `Input you want to listen'

Note: `LAST INPUT' means the last selected HDMI input would still be sent to TV while in standby. `OFF' means no HDMI signal is sent to the output in Standby mode.

# To enable HDMI CEC (Consumer Electronics Control) features (Allows automatic turn on/turn off, automatic input selection, etc with another CECcompatible component):

SETUP > HDMI > HDMI CEC > ON

**Note 1:** The default setting is ARC ONLY which means the CEC feature is disabled but allows HDMI ARC (Audio Return Channel) to function.

Note 2: The setting `OFF' not only disables CEC features, it also disables HDMI ARC.

# **Network Settings**

Please note it is not required to enter settings to use the wired (Ethernet) connection.

# To change the friendly name\* of the MiND zone.

SETUP > NETWORK > MiND name > `type the desired name'

\*name as it appears in the MOON MiND app. We recommend giving a meaningful name based on the location (or zone) in which the unit is, such as living room, listening room, etc.

The system asks if you are sure before you proceed, to avoid any bad surprise.

# To configure the WiFi network without the use of the MOON MiND application:

SETUP > NETWORK > CONFIG > WiFi PARAMETERS > CONNECT

And then select which WiFi network from the list to connect to. If the desired WiFi network does not appear in the list, it can be entered manually:

SETUP > NETWORK > CONFIG > WiFi PARAMETERS > MANUAL

Then the Security mode (WEP, WPA, WPA2) and password (Security key) will be asked; select and enter

appropriately. Make sure to have on hand the network credentials before starting the procedure.

# How to configure for DHCP:

SETUP > NETWORK > CONFIG > NET PARAMETERS > AUTOMATIC Note: It is the default setting and for 99.9% of situation, it is preferable to keep it automatic which use DHCP protocol.

# How to configure Static IP:

This mode should be reserved for network savvy experts:

SETUP > NETWORK > CONFIG > NET PARAMETERS > MANUAL

Then the desired IP address will be asked. Enter appropriately.

Then the desired Net Mask will be asked. Enter appropriately.

Then the desired Gateway will be asked. Enter appropriately.

Then the DNS will be asked. Enter appropriately. Then the system asks if you are sure to apply these settings to avoid any bad surprises.

#### To get detailed information on the connected network:

SETUP > NETWORK > INFO

#### **Multiroom Settings**

The multiroom function allows playing the same music synchronously on other MOON devices equipped with MiND 2 technology. Using the MOON MiND Controller application, the group can be formed or canceled at any



The MOON 390 has the capacity to play in group zone not only the audio from the MiND 2 player but also from any local source connected to the MOON 390.

There is a setting to let the user choose between the highest sound fidelity from the unit while playing in multi zones (ORIGINAL), or for the best synchronization of the different zones playing the same signal (SYNCHRONIZED).

#### To set this preference:

SETUP > MULTIROOM > SYNCHRONIZED or SETUP > MULTIROOM > ORIGINAL

The SYNCHRONIZED setting means that all grouped network players, including the master, are playing the same synchronized digital signal.

The ORIGINAL setting means that the master unit receiving the signal to be played in the group is actually playing the original signal (even analog if the original signal is analog) while the other in the group are playing a digitized and time encoded signal.

# **Bluetooth**

#### To pair the unit to a new Bluetooth device:

#### SETUP > BLUETOOTH > START PAIRING

Note: The Bluetooth feature of your smart device must be enabled for pairing to work. Pairing mode is enabled for 30 seconds only or until pairing is completed. This procedure only needs to be performed once for each smart device.

#### To disconnect a Bluetooth device from the unit:

# **MOON CD Special Feature**

If you connect a MOON CD player (or MOON CD transport) to the MOON 390 and connect the SimLinkTM cable between the products, automatic input selection will take place each time you press play on the player. Input need to be set according to the real life connection to work properly.

#### To set an input for MOON CD:

SETUP > MOON CD > `Select the desired input'

#### Volume

#### Volume level setting at the moment the MOON 390 is turned on, out of standby:

At turn on, the MOON 390 either start at the last volume level it was before it was put to Standby, or at specific value defined in the menu.

#### To set 'power on volume' preference:

SETUP > PWR ON VOLUME > LAST or SETUP > PWR ON VOLUME > SPECIFIC VALUE > `set the desired value'

To set a maximum volume:

SETUP > MAXIMUM VOLUME > `set the desired value'

This setting will limit the maximum volume the MOON 390 can be set via its volume control. This is useful for example if kids are present and there is fear they might make it play too loud and damage loudspeakers for example. Default is without limitation; maximum volume at 80.

#### Screen Saver

A screen saver is implemented in the MOON 390 software to extend the life of the OLED display beyond the life of the product. The following settings are available to tailor the screen saver behavior:

# To disable entirely the screen saver:

SETUP > SCREEN SAVER > MODE > DISABLED

# To set the activation of the screen saver after twenty minutes of silence and no user interaction:

SETUP > SCREEN SAVER > MODE > SILENCE

To set the activation of the screen saver after a period of twenty minutes of no user interaction, even if music is playing:

SETUP > SCREEN SAVER > MODE > USER OPERATION

# To set the look of the screen saver as a MOON logo randomly floating on the display window:

SETUP > SCREEN SAVER > LOOK > MOON LOGO

#### To set the look of the screen saver to a black screen:

SETUP > SCREEN SAVER > LOOK > DISPLAY OFF

# **Standby Mode Setting**

The following settings are available to tailor the Standby mode behavior of the unit.

To keep powered most electronics in the unit while in Standby mode:

SETUP > POWER SETTINGS > NORMAL

#### To put most electronics off while in standby to draw fewer mains current

SETUP > POWER SETTINGS > LOW POWER

To automatically go in low power mode as described above after twenty minutes of silence and no user activity:

SETUP > POWER SETTINGS > AUTO OFF

#### **Firmware**

To verify currently installed firmware version in the unit:

SETUP > FIRMWARE > VERSION

#### To update the unit to newer firmware version:

SETUP > FIRMWARE > UPDATE

If you activate firmware update, make sure not to unplug the mains or turn off the rocker switch of the unit while the update takes place. Once the firmware update has been completed, it is a good practice to make a power cycle with the rocker switch on the back panel.

# To reset the unit to factory settings:

SETUP > RESET

The system asks if you are sure before proceeding, to avoid any bad surprise. Note that this will erase any particular settings saved (including friendly name, WiFi settings, etc) to replace with factory settings.

#### **SimLinkTM**

This in-house developed protocol provides for communication between MOON components, allowing you to control various functions of several components with the touch of one button.

Use your phone, tablet or computer as a remote control for Spotify. Go to **spotify.com/connect** to learn how.

One feature of SimLinkTM involves the "Standby" function. By pressing down and holding the "Standby" button for 2 seconds on the MOON 390, all other MOON components connected via the SimLink will go into "Standby" mode. The same logic applies when switching from "Standby" to active mode.

Ilf you are using a MOON CD Player such as the MOON 260D with the MOON 390, a SimLinkTM connection between the units may be useful. When the (play) button is pressed on the CD player or via the remote, the MOON 390 will automatically switch to the "SPDIF 1" input (by default). Default can be changed to other input in the MOON CD setup using the previously described SETUP software.

The connection rules for the SimLinkTM are straightforward. You must always connect the supplied cable between one component's "SimLinkTM Out" jack and another component's "SimLinkTM In" jack. There is no master component in a SimLinkTM chain; no particular component operates as the main communications controller.

# **Operating the Unit**

We recommend leaving your unit 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 unit.

Turning on your unit for the first time

Prior to turning the unit on for the first time, make sure that every cable is properly connected to avoid any problems. Flick the main rocker switch, located on the rear panel, labeled "POWER" to the ON position. Next, briefly press the push button labeled "Standby" located on the front panel. The blue LED on the front panel will illuminate and an animated splash screen will appear in the display window for five (5) seconds while the unit goes through its start-up procedure.

# **Airplay**



AirPlay enables compatible Apple devices to stream audio to the Network input of the 390–to pause, play, skip forward or backward, and even to control volume– from within a wide range of apps like Apple Music, Spotify, and YouTube Music. NB: AirPlay Volume is indicated on a scale to 100, while the 390 displays gain to 80dB. Setting the volume with AirPlay to 50 corresponds to 40dB on the 390. To set up AirPlay with your 390:

- 1. Open the Home app on an iPhone or iPad
- 2. Tap the , then "Add Accessory".
- 3. Tap "Don't have a Code or Can't Scan".
- 4. Select "MOON 390" as your AirPlay speaker. The speaker will be added to your home.
- 5. Name your 390 and identify its room to make it easier to find.
- 6. Tap Done.

# **Spotify Connect**

Use your phone, tablet or computer as a remote control for Spotify. Go to spotify.com/connect to learn how



# Operating the Unit

We recommend leaving your unit 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 unit.

# Turning on your unit for the first time

Prior to turning the unit on for the first time, make sure that every cable is properly connected to avoid any problems. Flick the main rocker switch, located on the rear panel, labeled "POWER" to the ON position. Next, briefly press

the push button labeled "Standby" located on the front panel. The blue LED on the front panel will illuminate and an animated splash screen will appear in the display window for five (5) seconds while the unit goes through its start-up procedure.

This occurs every time you power up your unit via "Standby". Then you will hear a very faint single clicking sound confirming that everything is in order and that the unit is now ready for use.

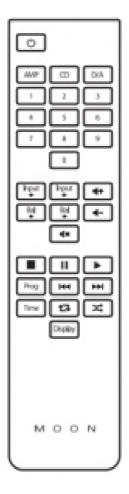
When powering up the unit via the rear panel main rocker switch, you must allow the MiND streaming module to go through its initialization process, which requires up to sixty (60) seconds, before you can begin using it to stream music. This is the result of this streaming module's complexity and required network connectivity.

# On and Off Sequence

To avoid hearing any annoying noises (ie. "thumps" and "pops") emanate from your speakers, you should always first power up any devices connected to the unit prior to powering up the unit. When powering off your unit always power down your unit before powering down any components connected to the unit.

For more information regarding the Home app: <a href="http://support.apple.com/kb/HT208724">http://support.apple.com/kb/HT208724</a>

# **Remote Control**



# Figure 3: CRM-3 Remote Control

The MOON 390 uses the `CRM-3' full-function remote control (figure 3). It operates on the Philips RC-5 communication protocol and can be used with other MOON components. The `CRM-3' remote uses two CR-2032 batteries (included). To install them, simply remove the two screws from the slidable lower section of the back plate.

To engage the `CRM-3' remote for use with the MOON 390, you must first press the button labeled The (Power) button, at the top left switches the unit to either `Standby' or `On' mode.

The 2 buttons labelled **INPUT** allow you to sequentially scroll, through all available inputs.

The 2 buttons labelled - **VOL +** allow you to control the volume level.

The 2 buttons labelled **BAL c**ontrol channel balance;

The **\*** button mutes the sound. Pressing again will reinstate the output.

When your selected input is "MiND" and the QUEUE contains at least one track, you can use the remote control to

play music from the MiND's QUEUE. You can use the (pause), (play), (backward) and (forward) buttons. Pressing once will repeat the QUEUE's current track; pressing a second time will repeat the entire contents of the QUEUE; pressing a third time will cancel the repeat mode. Pressing will randomly play the entire contents of the QUEUE. Pressing a second time will cancel the random mode.

When in repeat mode the icon will appear in the screen display; when in random mode the appear in the screen display.

When your selected input is "BLUETOOTH" and you have a paired smart device (iPhone, iPad, Android, etc.) that is playing music, you may be able to use the pause, play, backward and forward buttons on the CRM-3 remote control to navigate the music stored on your smart device. This is dependent on both the App and the smart device compatibility and both needs to be compatible for this functionality to work.

# **Specifications**

Analog Input Impedance	22kΩ
Max Analog Input	5V RMS
Maximum Gain	10dB
Output Impedance	50 Ω
Crosstalk @ 1kHz	-116dB
Frequency Response	10Hz – 200kHz +0.5/-3.0dB
Signal-to-noise Ratio	125dB
Total Harmonic Distortion	0.0004%
Intermodulation Distortion	0.0003%
Headphone output power (600 $\Omega$ / 300 $\Omega$ / 50 $\Omega$ )	100 mW / 200 mW / 0.8 W
Headphone output THD	0.005%
Headphone output IMD	0.005%
Power Consumption @ Idle	25W
Power Consumption @ Standby	20W
Power Consumption @ low power Standby	4W
AC Power Requirements	100-240V / 50-60Hz
Shipping Weight	22 lb / 10 kg
Dimensions (W x H x D, inches / cm)	16.9 x 3.5 x 13.1 / 42.9 x 8.9 x 33.3



Fuse replacement: 2A slow blow 5x20mm fuse.

# **Documents / Resources**



# References

- M High End Audiophile Amplifiers And Sound Systems | MOON Simaudio
- Spotify Connect

- Official Apple Support
- Add a HomeKit accessory to the Home app Apple Support
- M Homepage | Experience the best sound with MQA | MQA
- M High End Audiophile Amplifiers And Sound Systems | MOON Simaudio
- Roon Labs The audiophile player for music fanatics
- Third Party Licenses | Spotify for Developers

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