
MOON ACE

All-in-One



Owner's Manual

M O O N
by SIMAUDIO

ATTENTION

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.

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.

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.



FCC information for **MOON ACE** ALL-in-One equipped with the **Qualcomm® aptX™ audio for Bluetooth** module and **MiND 2** 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.

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 ACE All-in-One.

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

Thank you for selecting the **MOON ACE** All-in-One as a part of your music/cinema system. This component has been designed to offer state-of-the-art high-end performance in an elegant package, while retaining all the sonic hallmarks on which Simaudio has made its reputation. We have spared no effort to ensure that it is amongst **the very finest** All-in-Ones available. 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.

With MiND 2, the **MOON ACE** is a Roon Ready device, which means it can also be used with Roon software. As soon as the network setup (Ethernet or WiFi) is completed, Roon system can be used to control the unit. Please consult Roon (<https://roonlabs.com/>) for more information on the Roon software usage and installation.

With MiND 2, the **MOON ACE** includes MQA technology, which enables you to play back MQA audio files and streams, delivering the sound of the original master recording. It is manufactured under licence from MQA Limited. For more information on MQA please consult : <http://www.mqa.co.uk/>.

The performance of your **ACE** will continue to improve during the first 400 hours of listening. This is the result of a “break-in” period required for the numerous high quality electronic parts used throughout this All-in-One.

Before setting up your new **ACE**, we encourage you to please read this manual thoroughly to properly acquaint yourself with its features. We hope you enjoy listening to the **ACE** All-in-One 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 **ACE** All-in-One incorporates many significant design features to achieve its “world class” level of performance. This is an abbreviated list of the more important features:

Fully asynchronous DAC supports native DSD64, DSD128 and DSD256 and PCM up to 32-bit/384kHz including DXD (USB and Network only)

MQA decoding (Network input only).

3 line-level inputs including a front-mounted 1/8” mini-jack for personal media players.

Seven (7) digital inputs includes USB (hi-res audio), SPDIF (2), Optical (2), Bluetooth® with Qualcomm® aptX™ audio support, and MiND (via WiFi and Ethernet).

Moving magnet **phono** input for a turntable.

Headphone output on 1/4” jack located on the front panel.

Seamless integration with our MiND app.

OLED type screen (organic light-emitting diode) which provides much more detailed information.

Simple **MiND setup** via on-board software menu.

Analog inputs are configurable to “**HT BYPASS**” mode to accommodate components like a home-theater processor, whose own volume control is used. This is sometimes referred to as a “pass-through” input.

Configurable “Standby” modes that will reduce your power consumption.

DSD Streaming via USB input and over ethernet through the **MiND 2** module.

RS-232 port for (i) full unsolicited bidirectional feedback and (ii) firmware updates; **IR input** for external control with aftermarket infrared remote control receivers and **SimLink™** controller ports that allow for 2-way communications between other MOON components.

Rigid chassis construction to minimize the effects of external vibrations.

Unpacking

The **ACE** should be removed from its box with care.

The following accessories should be included inside the box with your All-in-One:

- ✓ AC power cable
- ✓ 'CRM-3' remote control with two 'CR-2032' batteries
- ✓ 'SimLink™' cable
- ✓ Wi-Fi antenna
- ✓ 1 spare fast-blow fuse
- ✓ This owner's manual
- ✓ Quick reference guide
- ✓ Warranty and product registration information (USA and Canada only)

Once the **ACE** 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 **ACE** from any potential damage during transit.

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

Serial Number

Installation & Placement

The **ACE** 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 9 inches on 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. The **ACE** uses a toroidal transformer; even though it is well shielded, you should not place it too close to source components sensitive to EMI, such as turntables.

Your **ACE** is equipped with the "MiND 2" Music Streamer. If you plan to use its wireless streaming feature (between your wireless router and your **ACE**), you must install the included Wi-Fi antenna on the back panel by screwing it into the socket labelled "WIFI ANT".

Since your ACE is equipped with the "MiND 2" Music Streamer, please visit our website to view videos on setup and usage of the application.

If you intend to use the ACE's USB input connection (PCM or DSD) with a Windows-based computer, you will need to install our USB HD DSD driver, which can be downloaded from the support section of our website.

Note: Apple-based computers don't require this driver.

Front Panel Controls

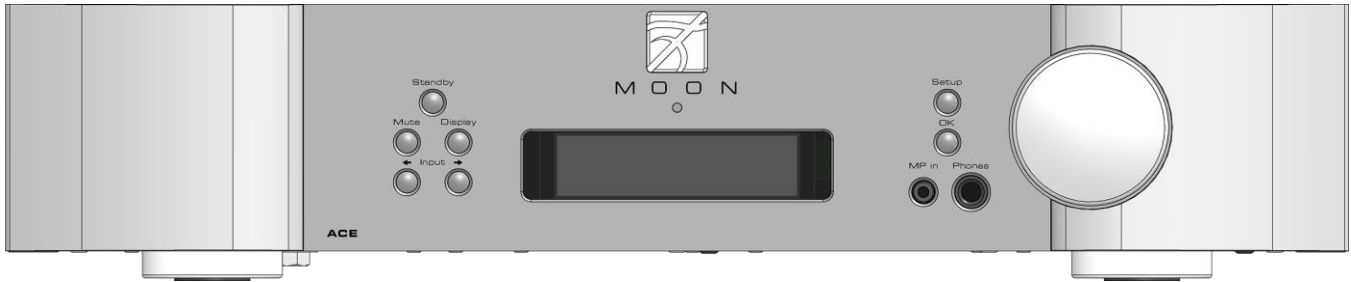


Figure 1: ACE Front panel

The front panel will look similar to Figure 1 (above). The “Standby” button places the unit into Standby mode; You can configure this to your own preferences– refer to the “Power Settings” section of the “Software Setup”. When switching from “Standby” to the “on” mode (i) Five (5) seconds of animation will appear in the display prior to the ACE being ready for use and (ii) The blue indicator LED will illuminate unless you have programmed it differently using the “SETUP” software.

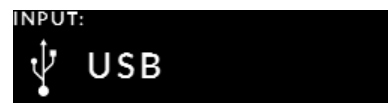
The “Mute” button mutes the output signal to all outputs. Pressing the “Mute” button a second time will reinstate the volume back to its previous level. Below are two (2) screen capture images that demonstrate what appears on the display during muting and immediately after unmuting the output signal:



The “Display” button allows you to adjust the brightness of the large display window. It also provides you with the option of turning off the display. There are three (3) different levels of brightness; The default is high. Pressing the “Display” button once will decrease the level to the low setting. Pressing the button again will increase the brightness to the medium setting. Pressing the “Display” button a third time returns the display to its default setting of high. 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, using the previously set brightness level; 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.

The two (2) buttons labeled “← Input →” allow you to sequentially scroll, either forward “→” or backward “←” through all eleven (11) inputs. These inputs are ordered as follows going forward (→): “OPTICAL 1”, “OPTICAL 2”, “SPDIF 1”, “SPDIF 2”, “USB”, “MiND”, “BLUETOOTH”, “ANALOG 1”, “ANALOG 2”, “PHONO” and “MP IN”. The display window will show the currently selected input. Each type of input has a uniquely representative icon, located to the left of the input name, to help clearly identify it. Here are examples of these aforementioned inputs. Note: The two (2) OPTICAL, two (2) SPDIF and two (2) ANALOG inputs each use the same type of icons:



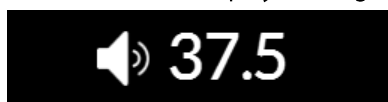


Unlike all other inputs, the “MP in” (for Media Players) has its corresponding input connection located on the front panel for easy access. It uses a 1/8” mini-jack connector which is the most common type of connection found on portable media players and most smart devices.

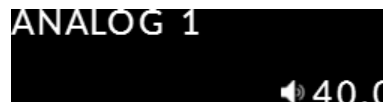
The “Setup” and “OK” buttons are used exclusively for programming the numerous software functions available on this All-in-One. The next section, entitled “Software Setup”, explains their usage in full detail.

The “Phones” jack is used for connecting a pair of stereo headphones to the **ACE**. The input connector is a standard ¼” stereo TRS jack. When a pair of headphones are connected to the **ACE**, both the loudspeakers and the preamplifier/subwoofer outputs will stop receiving a signal.

The rotary “volume” control ranges from ‘0.0’ (no output) to ‘80.0dB’ (full output). Within the 0.0 to 30.0dB range the volume operates in 1.0dB steps. From the 30.0 to 80.0dB range the volume operates in 0.5dB steps. When you adjust the volume, only the volume level will appear on the center of the display in a larger format:



The two (2) ANALOG inputs, “MP in” and “PHONO” inputs will only display their input name and volume level when active:

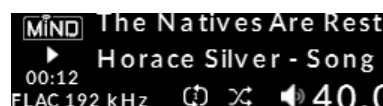


Phono Input

The **ACE** is equipped with one analog “PHONO” input for use with turntables equipped with a moving magnet (MM) cartridge ONLY. You must remember to connect your turntable’s grounding cable to the grounding screw on the ACE’s rear panel; Refer to the section “Rear Panel Connections” for details.

Digital Inputs

The **ACE** has a total of seven (7) “Digital Inputs”. Six (6) inputs are wired: “USB”, two (2) optical , two (2) SPDIF and Ethernet (for the MiND 2 module). One (1) input is wireless: Bluetooth® aptX®. The MiND 2 module can also operate wirelessly via WiFi. Each of these inputs will appear in the front panel display when selected, along with the digital audio signal’s sampling rate and other information:



The “MiND” input name appears in the top left on the display; Directly below is the ► icon to indicate the track is currently playing, as opposed to the || icon to indicate the track is paused or the ■ icon to indicate the track has stopped playing. Below the icon is the elapsed playing time of “00:12” for the current track. On the bottom left corner is the track’s file format, in this case “FLAC” followed by its sampling rate of “192kHz”.

The main body of the display shows the track name “The Natives Are Restless” on the first line and the artist name “Horace Silver” combined with the album name “Song For My Father” on the second line. When the length of this information exceeds the screen size, it will continuously scroll from left to right.

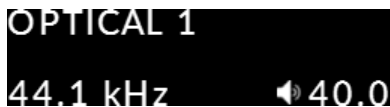
Below the track information are two (2) icons – one each for repeat mode and random mode - that will appear only when either or both of these modes are active. Repeat mode has two (2) variations: repeat the current track in the MiND QUEUE and repeat the entire contents of the MiND QUEUE. The number “1” will appear inside the repeat icon when repeating the current track. Random mode will play the contents of the MiND QUEUE in a random order, as opposed to the order they appear in the QUEUE. Please refer to the section “Remote Control Operation” to learn how to activate and deactivate these modes. The repeat and random modes are ONLY applicable to the MiND input; They are independant of each other; they can both be active at the same time. Finally, the volume level “40.0” appears in bottom right.



The **ACE** is capable of processing a PCM digital signal at any of the following eight (8) sampling rates: 44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192kHz, 352.8kHz and 384kHz.

The **ACE** is also capable of processing a DSD digital signal at any of the following three (3) data rates: DSD64 (2.82MHz), DSD128 (5.64MHz) and DSD256 (11.28MHz).

The other digital inputs – both “OPTICAL”, both “SPDIF”, “USB” and “BLUETOOTH” - will only show the input name, sampling rate and volume level in the display window:



Notes: (i) DSD format signals and PCM format signals with sample-rates of 352.8kHz and 384kHz can ONLY be played through the USB and Network input. (ii) MQA file can ONLY be played through the Network input. (iii) you cannot connect a USB flash drive or external hard drive to the “USB” input.

When the **ACE** cannot lock onto selected digital input’s signal, “NO SIGNAL” will appear in the display instead of the sampling rate:

Finally, the on-board MiND 2 module is capable of streaming PCM signals up to 32-bit/384kHz and DSD256.

INPUT \ SAMPLE RATE	OPTICAL 1 OPTICAL 2	SPDIF 1 SPDIF 2	USB	MiND via Ethernet	MiND via WiFi	BLUETOOTH
PCM 44.1kHz	●	●	●	●	●	●
PCM 48kHz	●	●	●	●	●	●
PCM 88.2kHz	●	●	●	●	●	
PCM 96kHz	●	●	●	●	●	
PCM 176.4kHz		●	●	●	●	
PCM 192kHz		●	●	●	●	
PCM 352.8kHz			●	●	#	
PCM 384kHz			●	●	#	
DSD64 (2.8224MHz)			●	●	●	
DSD128 (5.6448MHz)			●	●	#	
DSD256 (11.2896)			●	●	#	

Note: # signals might work with MiND via WiFi input, depending on your router and conditions, but is NOT recommended as they may suffer from audible drop outs.

* **ALAC** file type limited to 96kHz

** **AIFF** file type must be uncompressed ONLY

*****MQA** file type is compatible only with MiND Network input

Software Setup

The **ACE** “All-in-One” includes “Setup Software” that allows you to configure it to meet your specific needs. For each input you can assign a label to replace the factory assigned name (i.e. Optical 1, SPDIF1, USB etc.), create an offset volume level ranging from -10.0dB to +10.0dB, and disable the input when it’s not in use (excluding the MiND input). The “ANALOG 1” & “ANALOG 2” inputs have a facility to bypass the volume control (to exclusively use the source component’s volume instead). Either the “SPDIF 1”, “SPDIF 2”, “ANALOG 1” or “ANALOG 2 can be configured to allow the **ACE** to automatically switch to that input when you press the play button on a MOON CD player or transport connected to the **ACE**.

Other “Setup Software” features include automatic configuration of the included MiND 2 module to your computer network; the ability to assign a MAXIMUM VOLUME level (for all inputs); and the option 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 complete detail here. Please refer to the appendix at the end of the manual for the “Quick Reference: MOON Neo ACE Setup Menus” which is a snapshot of the entire Setup Menu structure.

When you are in Setup mode, there are five (5) front panel items used to program the **ACE** “all in one”; The “Setup” button for navigating through the various menu levels; the rotary volume control for scrolling through the available choices within each programmable item; the “OK” button for selecting menu items and saving your selections; and the two (2) “← Input →” buttons for cursor movement when editing a text string.

Notes: (i) If at any time in setup mode you want to abort whatever you are doing, simply press the “Setup” button to exit from wherever you are. (ii) After sixty (60) seconds of no activity, the ACE will automatically exit from setup mode and “EXITING” will appear in the front panel display window.

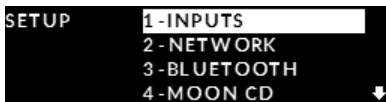
What follows are a series of step-by-step examples showing how to configure all the various “INPUTS” options, followed by all other system type options.

Input Settings:

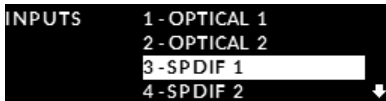
1. To enter the Setup mode, begin by pressing the “Setup” button; “SETUP” will briefly appear on the display window:



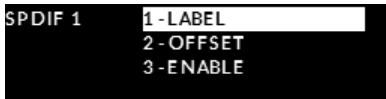
Then rotate the volume control clockwise until “INPUTS” is highlighted on the display; then press “OK” to enter the Setup “INPUTS” menu:



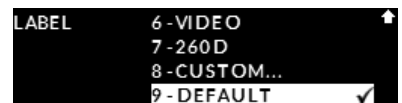
2. Rotate the volume control clockwise until “SPDIF 1” is highlighted (for this example); then press “OK”:



3. “LABEL” will appear highlighted on the display. Press “OK”:



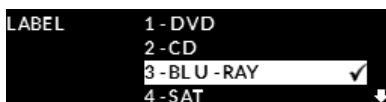
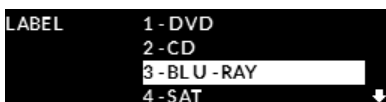
4. By rotating the volume control clockwise, you will scroll through a series of generic choices - DVD, CD, BLU-RAY, SAT, TV, VIDEO, 260D – an option named “CUSTOM” which allows you to create your own text label of up to 12 characters in length, and finally “DEFAULT” which represents the default input name, in this case “SPDIF 1”:



Note: In the middle image, you will see two arrows located on the far right of the display, \uparrow on top and \downarrow on bottom. These indicate that there are more options (or information) available to be displayed; use volume control accordingly to scroll up or down to see them.

Note: The check-mark \checkmark symbol located to the right of “DEFAULT” indicates that this is the currently selected option.

5. When the generic label name you wish to assign to the “SPDIF 1” input is highlighted on the display, press the “OK” button to select it, in this example “DVD”. A small check-mark \checkmark will appear beside this label to confirm that it has been selected:



Note: The “USB”, “MiND” “BLUETOOTH”, “PHONO” and “MP IN” inputs do not provide the facility to assign a preset name (ie. DVD, CD, BLU-RAY, etc.) to the input label.

- To assign a custom label to an input, rotate the volume knob until “CUSTOM” is highlighted (#8 in the LABEL option list) then press the “OK” button. The display will show “Please enter the desired custom label:” followed by “_____” on the next line. Rotate the volume control clockwise to scroll through the 26 letters of the English alphabet, first in uppercase and then lowercase, followed by the numbers 0 through 9, and finally a variety of symbols including the space character. When you see the character you wish to use, press the “Input →” button to select it and move to the input next character position; Repeat this step for up to a maximum of 12 characters for your custom label. If at any time you want to change a previously entered character, simply press the “← Input” button to go back one character at a time; This acts like the backspace character on a standard keyboard. Once you are finished entering your custom label, press “OK” and “SAVED” will briefly appear on the display followed by the SPDIF input options menu (refer to the display image in the previous step #3).

Please enter the desired custom label:

Use Input keys for character selection
Setup to cancel, OK to validate

Please enter the desired custom label:
BLU - RAY#3
Use Input keys for character selection
Setup to cancel, OK to validate

- Next we will adjust the volume “OFFSET” for the “BLU-RAY#3” labelled input (originally “SPDIF1”). The purpose of this setting is as follows: it ensures that all of devices that you connect to your **ACE** each perform at the same volume level. It allows you to compensate for the different output levels amongst the various devices that you will be connecting to the **ACE**. Therefore, each time you switch inputs, you will not need to adjust the volume to compensate for volume level differences between these devices.

To adjust the volume “OFFSET” for this input, rotate the volume control until “OFFSET” is highlighted on the display, then press “OK” and “+6.0dB” will appear on the display. To increase the “OFFSET” value, rotate to the volume control clockwise; To decrease the “OFFSET” value, rotate the volume control counter clockwise. The “OFFSET” adjustment occurs in 0.5dB increments and the range is from –“10dB” to +“10dB”. Once you have decided on an offset value, in this case “-4.5dB”, press the “OK” button:

SPDIF 1 1 - LABEL
 2 - OFFSET
 3 - ENABLE

OFFSET
Offset: + 6.0 dB

OFFSET
Offset: - 4.5 dB

“SAVED” will briefly appear on the display followed by returning to the “SPDIF 1” input options menu.

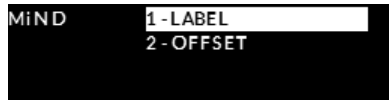
- The third available option for this input is the ability to disable the input if you don’t intend to use it. The advantage of disabling inputs that you don’t plan to use is as follows: When scrolling through the inputs with either the included CRM-3 remote control or front panel input buttons, only the inputs that are set to “ENABLE” will be available – this is more efficient. The default setting for all eleven (11) inputs is “ENABLE”. To “disable the “SPDIF1” input, rotate the volume control until the “ENABLE” option is highlighted in the “SPDIF 1” input menu. Then press “OK” and use the volume control to alternate between “ENABLED” and “DISABLED”. Then press “OK” to save this setting and you will return to the “SPDIF 1” input options menu.

SPDIF 1 1 - LABEL
 2 - OFFSET
 3 - ENABLE

ENABLE 1 - ENABLED ✓
 2 - DISABLED

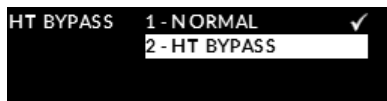
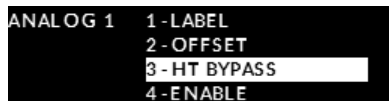
ENABLE 1 - ENABLED
 2 - DISABLED ✓

Note: “MiND” is the only input that **cannot** be disabled:

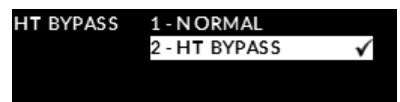
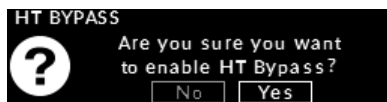
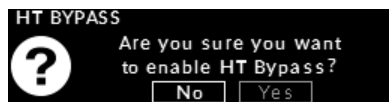


- The fourth configurable option is the volume bypass feature for use with home-theater processors and source components that have their own volume control. When activated, the volume control of the **ACE** is bypassed and the volume is adjusted from the component connected to the input. This option is only available for the “ANALOG 1” and “ANALOG 2” inputs.

To enable this setting you must first go to either “ANALOG 1” or “ANALOG 2” in the “INPUTS” section of the SETUP menu. Then rotate the volume control until “HT BYPASS” is highlighted on the display. Press “OK” and “NORMAL” will appear highlighted on the display. Rotate the volume until “HT BYPASS” is highlighted, then press OK:



The message “Are you sure you want to enable HT Bypass?” followed on the next line by “NO” (highlighted) and “YES” on the display. Rotate the volume control to highlight “YES”, then press OK. The “HT BYPASS” option is now active for the “ANALOG 1” input:



Note: When you enable “HT BYPASS”, the volume “OFFSET” you previously saved for this input will be set to 0.0dB to create a 0.0dB of gain from input to output; The “OFFSET” can then be adjusted if required. When this “HT BYPASS” is disabled, the “OFFSET” will automatically be reset to its default value of 6.0dB.

- At this point you can return to the “INPUTS” main menu and configure another input by pressing the “SETUP” button twice and then selecting another input; You can return to the main “SETUP” menu by pressing the “SETUP” button a third time; You can exit from “SETUP” by pressing the “SETUP” button a fourth time – “EXITING” will briefly appear on the display:

EXITING

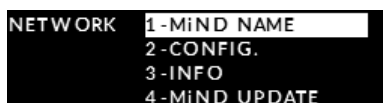
To summarize which options are available for each of the eleven (11) inputs refer to the following chart.

OPTION \ INPUT	OPTICAL 1 OPTICAL 2	SPDIF 1 SPDIF 2	USB	MiND	BLUETOOTH	ANALOG 1 ANALOG 2	PHONO	MP IN
LABEL:								
PRESET NAME	●	●				●		
CUSTOM NAME	●	●	●	●	●	●	●	●
OFFSET	●	●	●	●	●	●	●	●
ENABLE / DISABLE	●	●	●		●	●	●	●
HT BYPASS						●		

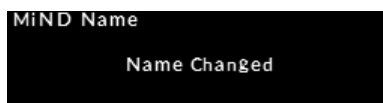
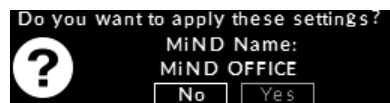
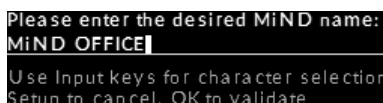
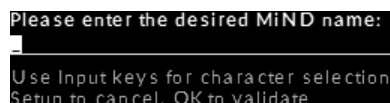
Network and MiND 2 settings:

This group of SETUP options allows you to easily configure the MiND 2 module found in the **ACE**.

1. Enter the Setup mode by pressing the "Setup" button; Rotate the volume knob until "NETWORK" is highlighted on the display. Then press "OK".

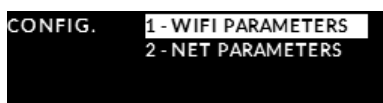
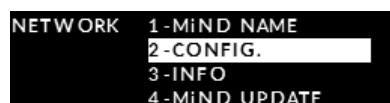


2. First you can assign a custom name for how the MiND 2 will appear in the MiND Controller App. Rotate the volume control to highlight "MiND NAME" and then press "OK". Refer to the "To assign a custom label to an input" = the 6th item in the previous section for details about how to create a custom name for the MiND 2. In this example we have assigned "MiND OFFICE" as the "MiND NAME". When you have finished creating the custom name, press "OK" and you will be prompted to confirm this change; rotate the volume control to "Yes", press "OK" and the confirmation message "Name Changed" will appear on the display:

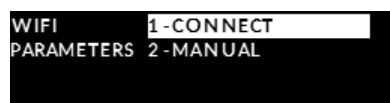


Note: Step 3 to 6 are NOT required if your **ACE** is connected to your network using an Ethernet cable; Skip to step 7.
Step 3 to 6 are ONLY required if you want to stream music wirelessly via WiFi.

3. The next "NETWORK" option is "CONFIG". Rotate the volume control to highlight the "CONFIG" option and press "OK". Here you will see two (2) options: "WiFi PARAMETERS" and "NET PARAMETERS". Rotate the volume control to highlight "WiFi PARAMETERS" and press "OK".:



4. "WIFI PARAMETERS" is where you configure the **ACE's** MiND 2 module to your network. There are two (2) ways to accomplish this: Automatically using the "CONNECT" option (strongly recommended) or "MANUAL" which is required when your network is hidden. To use the automatic "CONNECT" method, rotate the volume control to highlight "CONNECT" and press "OK".:

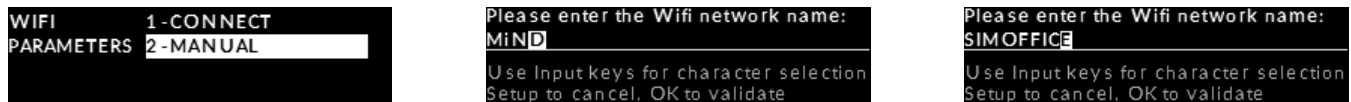


5. “CONNECT” will automatically ask the MiND 2 module to search for available WiFi networks; “Searching for networks” will appear on the display. In most cases within ten (10) seconds, but after up to sixty (60) seconds, one or more network names will be listed on the display. Rotate the volume control to highlight your intended network and press “OK”. You will be prompted for your network key (password): Enter it the same way as you assigned a custom name for the MiND 2 in step 2 above and then press “OK” when you are done. “Connecting to network...” will appear on the display; This may last up to 30-40 seconds. Then the MiND 2 module will notify the **ACE** whether or not a connection has been made; “Connection Success!” or “Connection Failure!” will appear on the display:



Note: If your network doesn’t appear on the displayed list, you will need to use the “MANUAL” option.

6. If you have to perform this process manually: From the aforementioned “WiFi PARAMETERS” option, rotate the volume control to highlight the “MANUAL” option and then press “OK”. You will be prompted to enter Your SSID (WiFi network name) – the default name is “MiND”; Enter it, “SIMOFFICE” in this example, the same way as you assigned a custom name for the MiND 2 in step 2 above and then press “OK” when you are done:



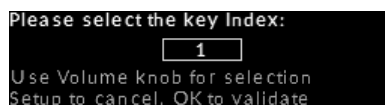
Select the security mode of your network by using the volume control to highlight from the four (4) available choices, then press “OK”. Finally, you will have to enter your “security key” (password): the same way as you assigned a custom name for the MiND 2 in step 2 above and then press “OK” when you are done:



Finally, you will be prompted to apply these above settings for the “SIMOFFICE” SSID (WiFi network name); Rotate the volume control to “YES” and then press “OK” when you are done. “Connecting to network...” will appear on the display; This may last up to 30-40 seconds. Then the MiND 2 module will notify the **ACE** whether or not a connection has been made; “Connection Success!” or “Connection Failure!” will appear on the display (refer to step 5 above):

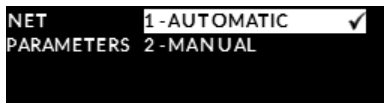


Note: If you are using the “WEP” security mode, then you will need to enter a key index of either “1”, “2”, “3” or “4”; rotate the volume control to highlight your selection – in this example “1”- and then press “OK”:



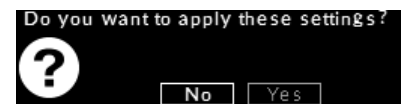
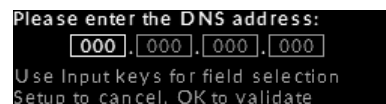
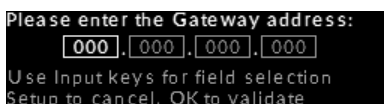
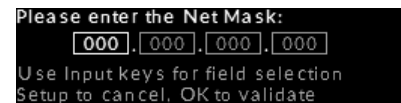
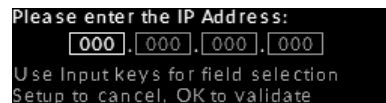
Note: Once your “WIFI PARAMETERS” have been saved, either by using the “CONNECT” or “MANUAL” option, the MiND will be unavailable for between thirty (30) and sixty (60) seconds while it reconfigures itself.

7. The next setup option in the “CONFIG” section is “NET PARAMETERS”. Similarly to “WiFi PARAMETERS”, there is an “AUTOMATIC” option (default setting) and a “MANUAL” option:

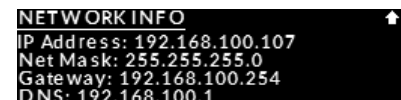
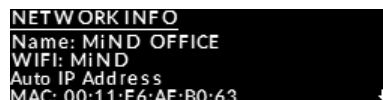
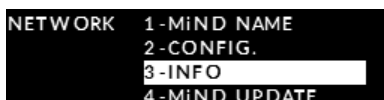


Note: The “AUTOMATIC” option for “NET PARAMETERS” (DHCP) will cover 99% of all scenarios.

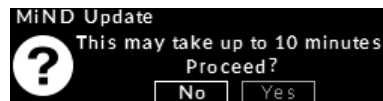
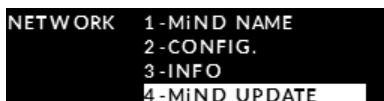
8. Alternatively, you can perform this process manually. The “MANUAL” option should ONLY be performed by someone who has a complete understanding about how to configure a network; From the aforementioned “NET PARAMETERS” screen, rotate the volume control to highlight the “MANUAL” option and then press “OK”. Here you will have to manually input a series of network parameters (all numeric) using the “← Input →” buttons, the volume control, and finally the “OK” button to go to the next required network parameter (displayed screen). The four (4) required network parameters are “IP Address”, “Net Mask”, “Gateway Address” and “DNS address”. Once all settings are entered, you will be prompted to save these “NETWORK PARAMETER” settings:



9. The “INFO” feature will display all the information about your network’s configuration; Since there are eight (8) items to display, you will have to use the volume control to scroll the display up and down to view all settings (notice the previously described arrows located on the far right of the display, ↑ on top and ↓ on bottom):



10. The “MiND UPDATE” feature is the final “NETWORK” option and provides a facility to automatically update the MiND 2 module’s firmware. Rotate the volume control to highlight “MiND UPDATE” and press “OK”. Then rotate the volume control to highlight “YES” and press “OK”.

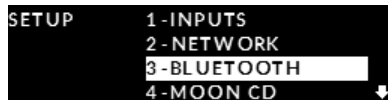


Note: If you go to the MiND input during a firmware update has been initiated, a status of this update’s progress will appear at the top of the display window.

Bluetooth input:

When you want to use the **ACE** with a Bluetooth capable smart device (iPhone, iPad, Android, etc.), you must first pair this smart device to the **ACE** by temporarily placing both items in discovery mode as follows:

1. Enter the Setup mode by pressing the “Setup” button; Rotate the volume knob until “BLUETOOTH” is highlighted on the display. Then press “OK”.



2. Rotate the volume control to highlight “START PAIRING” and then press “OK”. Now the **ACE** will be in Bluetooth discovery mode, and will remain so for 30 seconds; "PAIRING IN PROGRESS ..." will appear on the display window, and the three "." will flash in sequence.

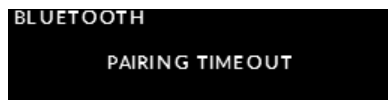


Note: The Bluetooth feature of your smart device must be enabled for pairing to work:

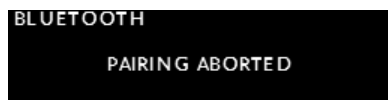
3. “MOON ACE” will appear in the Bluetooth device list of your smart device and you must select it. At the same time, the ACE's display window will show "PAIRING COMPLETE" for several seconds and then return to the "BLUETOOTH" menu, indicating successful pairing. This procedure only needs to be performed once for each smart device:



4. When the Bluetooth pairing procedure fails after 30 seconds, "PAIRING TIMEOUT" will briefly appear on the display window, followed by returning to the "BLUETOOTH" menu:



5. To exit the discovery mode prematurely press the “SETUP” button and “PAIRING ABORTED” will briefly appear on the display and you will automatically return to the “BLUETOOTH” menu screen.



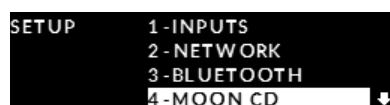
- The other "BLUETOOTH" option is "DISCONNECT" which terminates the Bluetooth connection between your **ACE** and your smart device (i.e. music from Bluetooth will stop playing). Press the "SETUP" button once to exit from the "BLUETOOTH" menu and return to the main "SETUP" menu. Press the "SETUP" button again to exit from the "SETUP" menu.

Note: You will not be required to perform the pairing process again; To reconnect via Bluetooth, you can do so from your smart device's Bluetooth settings.

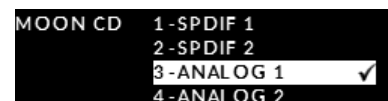
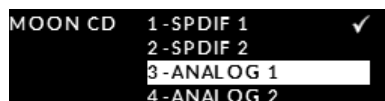
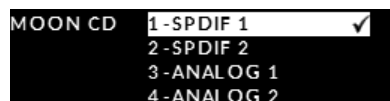
Setting an input for a MOON CD Player/Transport (MOON CD):

Your **MOON ACE** can automatically switch to the designated input for your SimLink™ connected MOON CD Player or CD transport when you press its play ► button; However, you must first assign a corresponding input – either the "SPDIF 1", "SPDIF 2", "ANALOG 1" or "ANALOG 2" input - on the **ACE** as follows:

- Enter the Setup mode by pressing the "Setup" button; Rotate the volume control until "MOON CD" is highlighted on the display. Then press "OK":



- The default input for "MOON CD" is "SPDIF 1". To change this input, rotate the volume control to highlight "SPDIF 2", "ANALOG 1" or "ANALOG 2". In this example we have chosen "ANALOG 1". Press "OK" and the check-mark ✓ symbol will appear to the right of "ANALOG 1" and flash briefly.

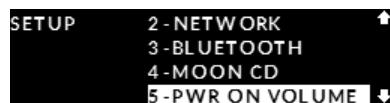


- Press the "SETUP" button once to exit from the "MOON CD" menu and return to the main "SETUP" menu. Press the "SETUP" button again to exit from the "SETUP" menu.

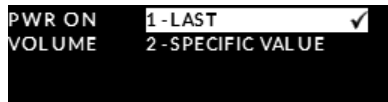
Setting the volume level when powering up the ACE:

You can specify the volume level for your **ACE** when you power it up.

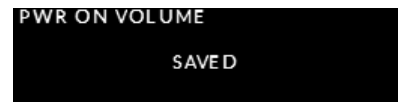
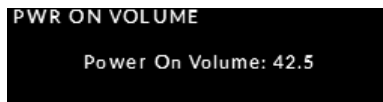
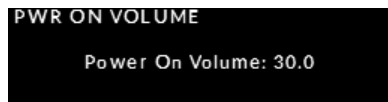
- Enter the Setup mode by pressing the "Setup" button. Rotate the volume control until "PWR ON VOLUME" is highlighted on the display. Then press "OK":



2. Rotate the volume control to highlight either “LAST” or “SPECIFIC VALUE”. The “LAST” option (default setting) will use the exact same volume level from the last time you used the **ACE**. To accept this option, press “OK”



3. The “SPECIFIC” options allows you to specify an exact volume level at power up. The default setting is 30.0dB. This adjustment occurs in 0.5dB increments and the range is from 0dB to 60dB; To increase the “SPECIFIC” volume level rotate the volume control clockwise. To decrease the “SPECIFIC” volume level rotate the volume control counter-clockwise. Once you find your desired volume level, 42.5dB in this example, press “OK” and “SAVED” will appear on the display:

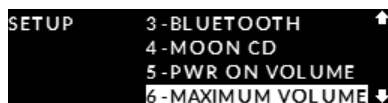


4. Press the “SETUP” button once to exit from the “PWR ON VOLUME” menu and return to the main “SETUP” menu. Press the “SETUP” button again to exit from the “SETUP” menu.

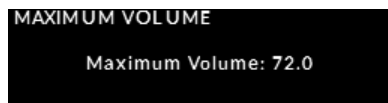
Maximum Volume for all inputs:

The “MAXIMUM VOLUME” setting applies to all eleven inputs on the ACE. It is an effective way to protect high sensitivity speakers from being damaged at an excessively loud volume setting. Another benefit of this feature is when you have young children who can inadvertently tamper with the volume control.

1. Enter the Setup mode by pressing the “Setup” button. Rotate the volume control clockwise until “MAXIMUM VOLUME” is highlighted on the display. Press “OK” and the factory default of “80.0dB” will appear on the display; this is also the **ACE’s** maximum possible volume level.



2. To decrease the “MAXIMUM VOLUME” value, rotate the volume control counter clockwise. The “MAXIMUM VOLUME” adjustment occurs in 0.5dB increments with a range from “20dB” to +“80dB”. Conversely, rotating the volume control clockwise will increase the “MAXIMUM VOLUME” level in 0.5dB increments. Once you have decided on a volume level, in this example 72.0dB, press the OK button and “SAVED” will appear on the display:



3. Press the “SETUP” button once to exit from the “PWR ON VOLUME” menu and return to the main “SETUP” menu. Press the “SETUP” button again to exit from the “SETUP” menu.

Note: When the aforementioned “PWR ON VOLUME” level has been set higher than this “MAXIMUM VOLUME”, the “PWR ON VOLUME” will be updated accordingly to this “MAXIMUM VOLUME” setting.

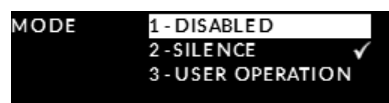
Setting the display window screen saver:

The ACE's front panel OLED display window has an optional screen saver that can be configured in several ways. The main purpose for a screen saver is to prevent burn-in on the OLED display; this will occur when the information on the display remains unchanged for a long period of time.

1. Enter the Setup mode by pressing the "Setup" button. Rotate the volume control until "SCREEN SAVER" is highlighted on the display and then press "OK":



2. Rotate the volume control until "MODE" is highlighted and press "OK". There are three (3) available options: "DISABLED" for the screensaver never being used; "SILENCE" (default setting) will activate the screensaver after a period of twenty (20) minutes of no user interaction (i.e. changing inputs, volume adjustments, etc) and no music being played through the **ACE**; and "USER OPERATION" which activates the screensaver after a period of twenty (20) minutes of no user interaction, even if music is playing though the **ACE**. Use the volume control to highlight your desired "MODE" and then press "OK". The check-mark ✓ symbol will appear to the right of the option you selected and flash briefly. Then press "SETUP" to return to the main "SCREEN SAVER" menu.



3. Once you have decided on a screensaver "MODE", you can select from two (2) different screensaver appearance options by rotating the volume control from the "MODE" option to the "LOOK" option; The "MOON LOGO" option (default setting) will have our MOON logo randomly floating on the display window and "DISPLAY OFF" will result in the screen being turned off. Use the volume control to highlight your choice of "LOOK" and then press "OK". The check-mark ✓ symbol will appear to the right of the option you selected and flash briefly. Then press "SETUP" to return to the main "SCREEN SAVER" menu.

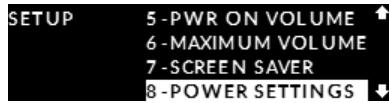


4. Press the "SETUP" button once to exit from the "SCREEN SAVER" menu and return to the main "SETUP" menu. Press the "SETUP" button again to exit from the "SETUP" menu.

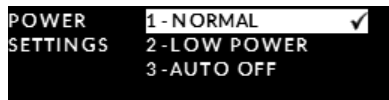
Power settings:

This set of options allows you to control how much AC power the **ACE** consumes under certain situations.

1. Enter the Setup mode by pressing the “Setup” button. Rotate the volume control until “POWER SETTINGS” is highlighted on the display and then press “OK”:



2. There are three (3) available options: “NORMAL” (default setting) whereby the **ACE**'s amplifier section is always powered on, even when in “Standby”; “LOW POWER” whereby the amplifier section is powered off when the **ACE** is in “Standby”; and “AUTO OFF” whereby after thirty (30) minutes of no user interaction and no music being played, the **ACE** automatically goes into “Standby” with the amplifier section powered off. Use the volume control to highlight your desired “POWER SETTING” and then press “OK”. The check-mark ✓ symbol will appear to the right of the option you selected and flash briefly.

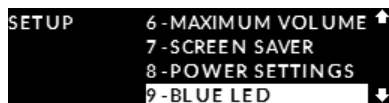


3. Press the “SETUP” button once to exit from the “POWER SETTINGS” menu and return to the main “SETUP” menu. Press the “SETUP” button again to exit from the “SETUP” menu.

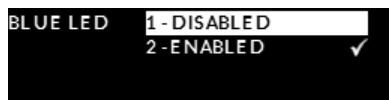
Front panel blue LED settings:

This “SETUP” feature allows you to turn off the front panel blue LED located directly above the display window. The reason for this feature is simple; In a darkened room the **ACE**'s blue LED might appear bright.

1. Enter the Setup mode by pressing the “Setup” button. Rotate the volume control until “BLUE LED” is highlighted on the display and then press “OK”.



2. There are two (2) settings: The default “ENABLED” whereby the blue LED is on and “DISABLED” to turn off the blue LED; Use the volume control to highlight your desired setting and then press “OK”. The check-mark ✓ symbol will appear to the right of the option you selected and flash briefly.



3. Press the “SETUP” button once to exit from the “BLUE LED” menu and return to the main “SETUP” menu. Press the “SETUP” button again to exit from the “SETUP” menu.

Displaying firmware versions:

This option is for informational purposes ONLY and displays the firmware versions for both the **ACE** and MiND 2. This can be a major convenience in situations where troubleshooting a problem may arise.

Begin by pressing the "Setup" button and then rotating the volume control until "FIRMWARE" is highlighted on the display and then press "OK". The current ACE & MiND 2 firmware versions will appear on the display. This information will be displayed for five (5) seconds before automatically returning to the main "SETUP" menu. :

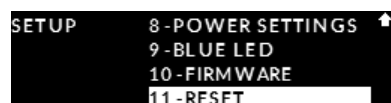


Press the "SETUP" button to exit from the "SETUP" menu

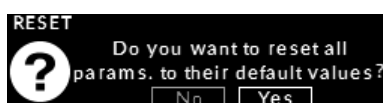
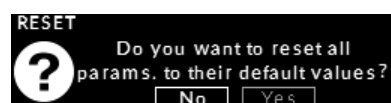
Reset to factory defaults:

This "SETUP" feature allows you to reset all aforementioned settings back to their original factory defaults.

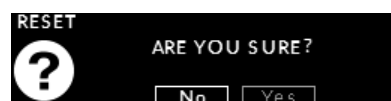
1. Enter the Setup mode by pressing the "Setup" button. Rotate the volume control until "RESET" is highlighted on the display and then press "OK":



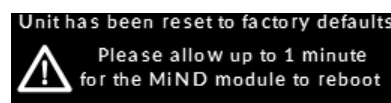
2. You will be prompted with "Do you want to reset all params. to their default values?" and "NO" will appear highlighted on the display. Rotate the volume control to highlight "YES" on the display and press "OK":



3. You will now be prompted a second time with "ARE YOU SURE?" and "NO" will appear highlighted on the display. This is to ensure that you really want to erase all of your current settings. Rotate the volume control to highlight "YES" on the display and press "OK":



4. "Unit has been reset to factory defaults. Please allow up to 1 minute for the MiND module to reboot" will briefly appear on the display and then you will automatically return to the main "SETUP" menu:



Press the "Setup" button to exit from the "SETUP" menu.

Rear Panel Connections

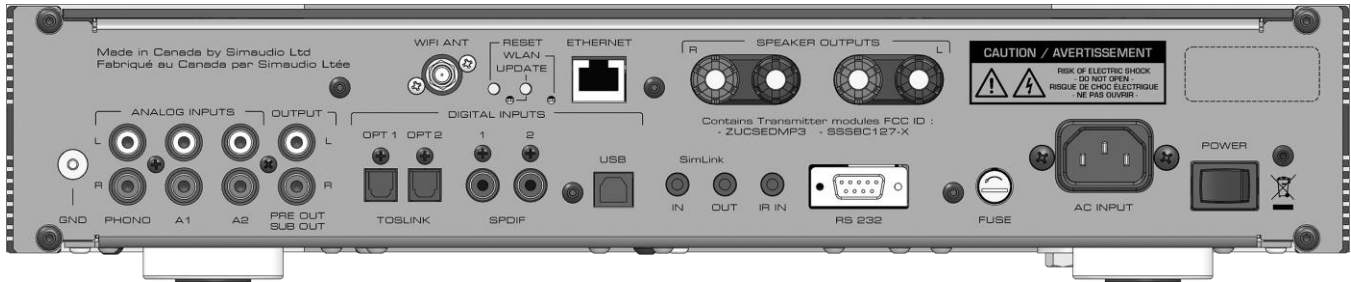


Figure 2: ACE Rear panel

The rear panel will look similar to Figure 2 (above). On the far left side is a screw labelled “GND” for use with a turntable’s grounding wire followed by three pairs of “Analog Inputs” on RCA connectors, labelled “L” for Left (white) on the top row and “R” for Right (red) on the bottom row; The first input “PHONO” is for use with a turntable ONLY; The second and third inputs “A1” (Analog 1) and “A2” (Analog 2) are reserved for analog source components such as tuner or CD player with analog outputs. The fourth pair of RCA connectors labelled “OUTPUT” can be used if (i) you have a stand-alone power amplifier (“PRE OUT”) as opposed to using the **ACE’s** power amplifier section or (ii) you have a sub-woofer (SUB OUT); This variable output is controlled by the **ACE’s** volume level setting.

Directly to the right of the aforementioned analog inputs and output you will see the digital inputs. There are eight (8) “Digital Inputs” as follows: Two (2) optical inputs using Toslink connectors labelled “OPT1” and “OPT2” (“OPTICAL 1” and “OPTICAL 2” in the SETUP); Two (2) SPDIF inputs on RCA connectors labelled “SPDIF 1” and “SPDIF 2” (same name in SETUP); These SPDIF inputs will benefit greatly from digital cables with an impedance of 75Ω; Next is the “USB” input using a type-B USB connector (same in SETUP). Above these five (5) digital inputs are the inputs for the MiND 2 module (same name in SETUP): The WiFi antenna connector “WIFI ANT” is for use with the supplied WiFi antenna; The “ETHERNET” input is for use with an RJ45 ethernet cable. Please consult the “MiND Setup Guide” and “MiND App User Guide” for complete details. Finally, there is the wireless Bluetooth input which has no physical connection; There is no actual visible input on the rear panel. The Bluetooth receiver is located internally.

Moving further right, the **ACE** is equipped with a pair of speaker binding posts, labelled “SPEAKER OUTPUTS” “R” and “L” for connection to your loudspeakers. Take care to respect the polarity (“+” is red, “-” is black) between the binding posts and the cable connectors on your loudspeakers.

Directly below the binding posts are four (4) connectors reserved for external communications. There are two (2) “SimLink™” connectors labeled “in” and “out” on 1/8” mini jacks. Please refer to the next section entitled SimLink™ for more details. Then there is a 1/8” mini-jack input for use with aftermarket infrared remote control receivers. Finally, there is a full-function bi-directional RS-232 port control and status for custom integration or automation, as well as future software updates.

On the far right side are the “AC Fuse” socket cover, the IEC receptacle, labeled “AC INPUT” for the included AC power cord and the main power switch (“0”=off, “1”=on). Connect the supplied AC power cable to the IEC receptacle. Ensure that the AC wall outlet you use has a functioning ground. For the best sonic performance, it is preferable that you plug your **ACE** directly into a dedicated AC outlet and avoid using an extension cord.

SimLink™

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.

One feature of SimLink™ on the **ACE**, involves the “Standby” function. By pressing down and holding the “Standby” button for 2 seconds on the **ACE**, all other **MOON** components connected via the SimLink will go into “Standby” mode along with the **ACE**. The same logic applies when switching from “Standby” to active mode.

If you are using a MOON CD Transport or CD Player such as the **260D** with your **ACE** you should make a SimLink™ connection between the “CD’s SimLink™ out and the **ACE**’s SimLink™ in. The default input is the “SPDIF 1” which means that when you press the ► (play) button on the CD, the **ACE** will automatically switch to the “SPDIF 1” input. You can change the default for the “MOON CD” using the previously described SETUP software.

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

Operating the ACE

We recommend leaving your **ACE** 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 All-in-One.

Turning on your ACE for the first time

Prior to turning the **ACE** 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 ‘1’ (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 **ACE** goes through its start-up procedure:



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

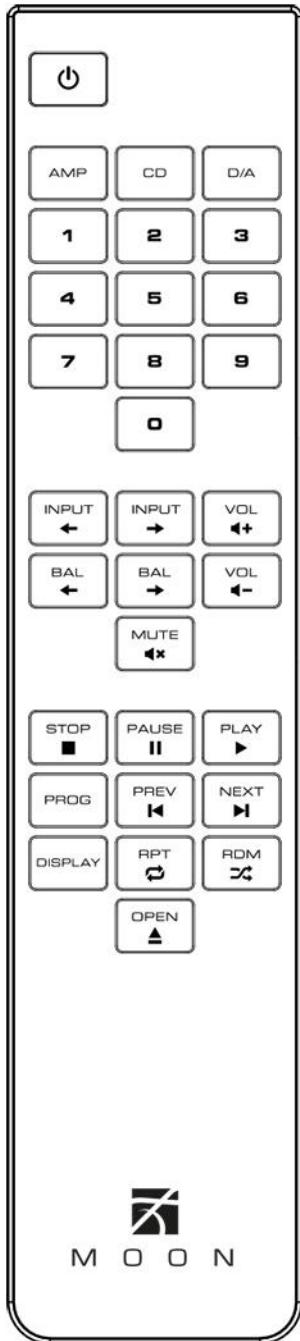
When powering up the ACE via the rear panel main rocker switch, you must allow the MiND 2 streaming module to go through its initialization process, which requires up to sixty (60) seconds, before you can begin using it to stream music. This is the result of this streaming module’s complexity and required 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 **ACE** prior to powering up the **ACE**. When powering off your **ACE** always power down your **ACE** before powering down any components connected to the **ACE**.



Remote Control Operation

The **ACE** 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 unscrew the two screws from the removable lower section of the back plate then slide downwards to remove the plate.





To engage the ‘**CRM-3**’ remote for use with the **ACE**, you must first press the button labeled **AMP**.

The  (Power) button, at the top left switches the **ACE** to either ‘Standby’ or ‘On’ mode.





The 2 buttons labelled  **INPUT**  allow you to sequentially scroll, either backwards or forwards, through all available inputs. Pressing and holding down either of these buttons results in only a single change to the selected input.



The 2 buttons labelled **- VOL +** allow you to control the volume level. You may either press and hold these buttons down or press them briefly to make volume adjustments.

The 2 buttons labelled  **BAL**  control channel balance; Pressing the left arrow button causes a decrease in the volume level of the right channel; pressing the right arrow button causes a decrease in the volume level of the left channel. When the balance is equal for both channels, “BALANCE Center” will appear in the front panel display. Whenever you make an adjustment to the balance, it will appear in the display for 3 seconds. The following 3 images show center balance, a balance adjustment of 50% to the right channel and a balance setting for the right channel only:



The **MUTE** button turns off the output volume. Pressing the “Mute” button a second time will reinstate the output volume level back to its current setting.

When your selected input is “MiND” and the QUEUE contains at least one track, you can use the “**CRM-3**” to play music from the MiND’s QUEUE. You can use the  (pause),  (play),  (backward) and  (forward) buttons. Pressing **RPT** once will repeat the QUEUE’s current track; pressing **RPT** a second time will repeat the entire contents of the QUEUE; pressing **RPT** a third time will cancel the repeat mode.. Pressing **RDM** will randomly play the entire contents of the QUEUE. Pressing **RDM** and second time will cancel the random mode.

When in repeat mode the  icon will appear in the screen display; When in random mode the  icon will 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 dependant on both the App and the smart device, as there may be compatibility issues between them.

Figure 3: CRM-3 Remote Control

Remote operation with multiple MOON components

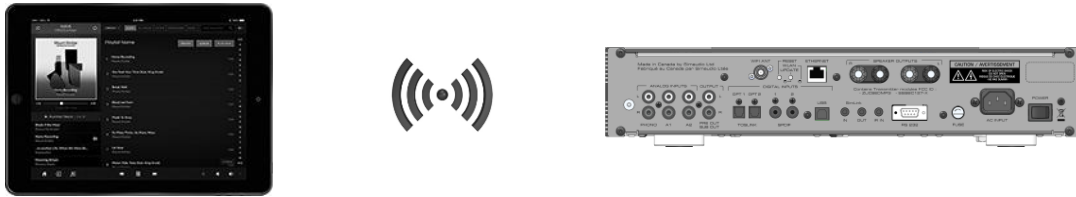


Figure 4: Remote Operation with WiFi

In figure 4 we have a **ACE**. When you launch the MiND App on your Apple smart device and select this system's ZONE, the **ACE** will turn on. As well, the **ACE** will automatically switch to the MiND input. To shut down the system, press "Off" for this ZONE in the MiND app. You can also use the MiND App to adjust the volume level, mute the volume and even change the current input.

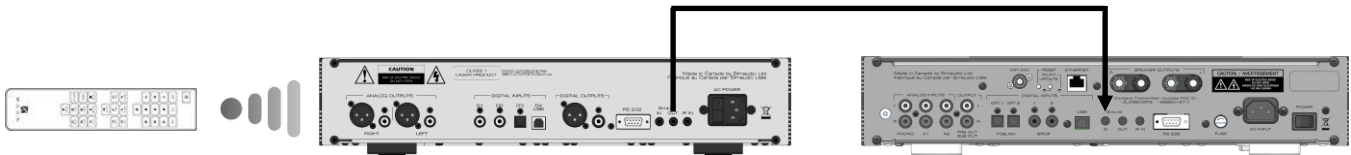


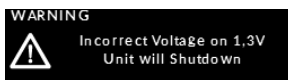
Figure 5: Remote Operation with SimLink™

In figure 5 we have a **260D CD Transport** connected to a **ACE** via their respective SimLink™ ports (using a 1/8" mini-jack cable) When you turn on the **ACE** via remote control or by pressing & holding its Standby button, the **ACE** turn on automatically. The same rule applies when you put the **260D** into Standby mode. SimLink™ also allows for the aforementioned "MOON CD" feature in the SETUP software.

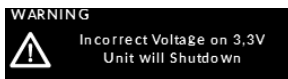
Troubleshooting

Your **ACE** is a “smart” All-in-One that is equipped with a self-diagnostic system that will automatically shut itself down when it detects a problem. There are ten (10) unique scenarios that can cause the **ACE** to shutdown after displaying a diagnostic message. These messages will help determine the exact cause of the problem in case you have to contact a member of the MOON support team. Error messages are shown for a duration of ten (10) seconds; The blue LED will blink at the same time. Then the ACE will go into “Standby” mode. Here is a complete list of diagnostic messages, each with a brief explanation:

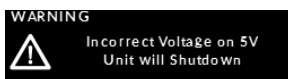
“Incorrect Voltage on 1.3V Unit will Shutdown” is related to the DAC power supplies:



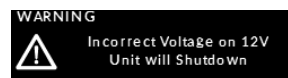
“Incorrect Voltage on 3.3V Unit will Shutdown” is related to control logic and CPU power supplies:



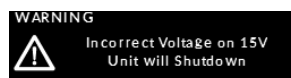
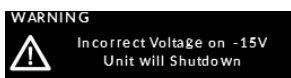
“Incorrect Voltage on 5V Unit will Shutdown” is related to control logic supplies:



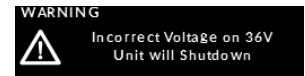
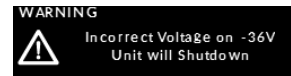
“Incorrect Voltage on 12V Unit will Shutdown” is related to the main power supply:



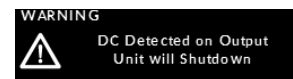
“Incorrect Voltage on -15V Unit will Shutdown” and “Incorrect Voltage on 15V Unit will Shutdown” are related to the DAC and Pre-amplifier power supplies:



“Incorrect Voltage on -36V Unit will Shutdown” and “Incorrect Voltage on 36V Unit will Shutdown” are related to the power amplifier’s power supplies.

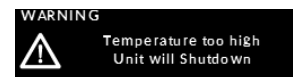


“DC Detected on Output Unit will Shutdown” is related to DC (direct current) coming from the source component that you are currently listening to through your ACE:



To confirm that there is DC present, first power down the **ACE** via the main power rocker switch on the rear panel; then disconnect the cables between the suspect source component and the **ACE**. Next power up the **ACE** via the main power rocker switch. Then attempt to turn on your **ACE** again via the “Standby” button: A successful power up will confirm that DC was coming from this source; If power up is unsuccessful and/or you still see the “DC Detected on Output Unit will Shutdown” message, then consult your MOON retailer for assistance.

“Temperature too high Unit will Shutdown” is related to the **ACE**’s operating temperature:



If your **ACE** reaches a dangerously high operating temperature it will shutdown to avoid overheating which can lead to physical damage inside the unit. You will need to wait until the **ACE** cools down before powering it up again. If this occurs repeatedly then consult your MOON retailer for assistance.

If your **ACE** simply doesn’t power up, turn off the main power switch and check the AC fuse on the rear panel. If the fuse appears good, put it back into its socket and consult your dealer for assistance. If the fuse appears blown, replace it with a fuse of the same size and rating. Then turn on the main power switch. If your ACE still doesn’t power up, consult your MOON retailer for assistance.

Specifications

Configuration	Stereo
Power Supply Transformer	250VA
Power Supply Capacitance	20,000 μ F
Class Of Operation – Amplifier	Class A/B
Single-ended inputs	2 (RCA) pairs
Mini-jack input	1 (1/8")
Input Sensitivity	370mV – 3.0V RMS
Input Impedance	22,100 Ω
Preamplifier / Subwoofer output	1 (RCA) pair
Headphone output	1 (1/4" Stereo TRS)
Output Power @ 8 Ω	50 W per channel
Output Power @ 4 Ω	85 W per channel
Gain	37dB
Signal-to-noise Ratio	100dB @ full power
Frequency Response	10Hz - 80kHz +0/-3.0dB
Crosstalk@ 1kHz	-100dB
Intermodulation Distortion	0.005%
Total Harmonic Distortion (20Hz-20kHz @ 1W)	0.02%
Total Harmonic Distortion (20Hz-20kHz @ 50W)	0.02%
Remote Control	Full-Function (CRM-3)
Display Type	OLED
Power Consumption @ idle	44 W
Power Consumption @ Standby	11 W
AC Power Requirements	120V / 60Hz or 240V / 50Hz
Shipping Weight	24 lb / 11 kg
Dimensions (W x H x D, inches / cm)	16.9 x 3.5 x 14.4 / 42.9 x 8.9 x 36.6



Fuse Replacement:

120V version uses a 4A fast blow (3AG)

230V version uses a 2A fast blow (3AG)

Specifications (cont’d)

Moving Magnet Phono Section:

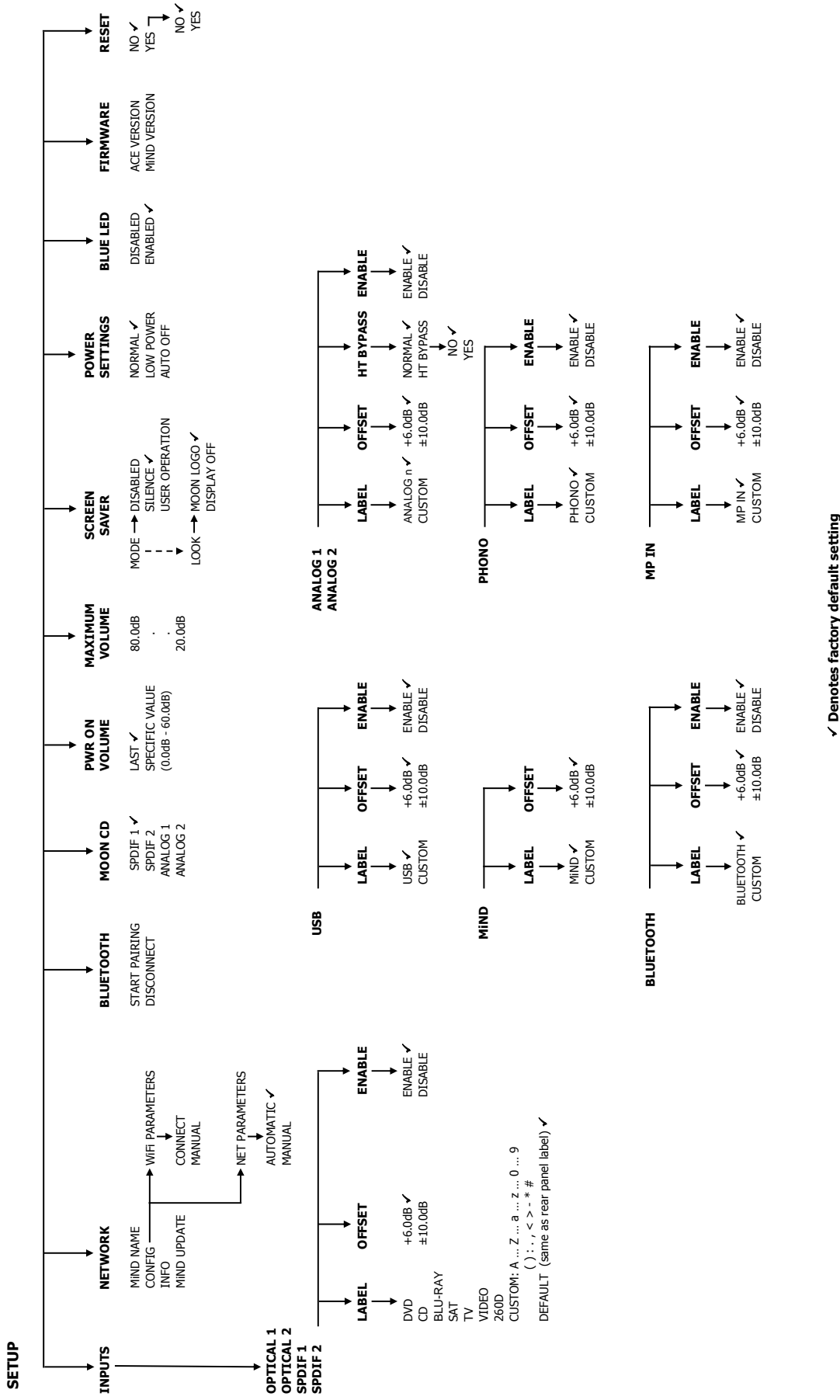
Input Impedance	47K ohms
Input Capacitance	100pF
Gain	40dB
Input overload @ 40dB	58mV RMS
Signal-to-noise ratio (full scale @ 40dB)	104dBr
Frequency Response	20Hz - 20kHz (± 0.5 dB)
Crosstalk @ 1kHz	-95dB
IMD	0.01%
THD (20Hz - 20kHz)	0.001%

Digital-to-Analog Converter:

Digital Input Types	2 x S/PDIF, 2 x TosLink, 1 x USB, Bluetooth with Qualcomm® aptX™ audio support, MiND: 100Base-T RJ45 Ethernet & IEEE 802.11 b/g/n Wi-Fi
Digital Input Impedance (S/PDIF)	75 ohms @ 0.5 Volts
DAC / Digital Filter	ESS9010
DSD Data Rates	(2.8224MHz), Double (5.6448MHz) & Quadruple (11.2896)
DSD Sample Rates	DSD 64, DSD 128 & DSD256
PCM Bit-depth range	16 - 32 bits
PCM Sampling Frequency Rates	44.1 - 384kHz
Compatible Digital File Formats	AAC, AIFF, ALAC, DFF, DSF, FLAC, MP3, OGG, WAV, WMA, MQA
Frequency Response (audible)	20Hz - 20kHz +0/-0.2dB
Frequency Response (full range)	2Hz – 72kHz +0/-3dB
THD @ 1kHz, 0dBFS (A-weighted)	0.001 %
IMD	0.005 %
Dynamic Range	115dB
Signal-to-noise Ratio	110dB @ full output
Channel Separation	110dB
Intrinsic Jitter	< 150 picoseconds RMS

NOTE: If you require the RS-232 codes for your **ACE**, please visit the "Contact Us" page and complete the "Information request" form on our website at www.simaudio.com.

Quick Reference: MOON Neo ACE Setup Menus



✓ Denotes factory default setting