260D Nēo *Series*

CD Transport and optional 32-bit D/A Converter

Owner's Manual

MOON
by SIMAUDIO

MOON

Important Safety Instructions

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this apparatus near water.

6. Clean only with a dry cloth.

7. Do not block ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves or another apparatus that produces heat.

9. Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for safety. If the provided plug does not fit into the outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus. Unplug mains cord during transportation.

11. Only use attachments and accessories specified by the manufacturer.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as when the power cord or plug has been damaged; liquid has been spilled or objects have fallen into the apparatus; or the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. No naked flame sources, such as candles, should be placed on the apparatus.

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

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

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

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 Nēo 260D CD Transport/DAC.

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 Nēo 260D 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 Nēo 260D 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 Nēo 260D 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 Nēo 260D with any liquid. If a liquid substance does enter your Nēo 260D, 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 Nēo 260D.

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 Nēo 260D. If a problem occurs contact your MOON dealer.

12. **NEVER** expose the Nēo 260D to extremely high or low temperatures.

13. **NEVER** operate the Nēo 260D 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.

Table of Contents

www.simaudio.com

Introduction

Thank you for selecting the **MOON Nēo 260D** CD Transport 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 finest* CD Transports available in its class. We have been building high-performance audio equipment for over 30 years, and the know-how gained through our cumulative experience is an important reason why **MOON** digital audio products are so musically satisfying.

The performance of your **Nēo 260D** 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 CD Transport.

Before setting up your new **260D**, we encourage you to please read this manual thoroughly to properly acquaint yourself with its features. We hope you enjoy listening to the **Nēo 260D** CD Transport 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 **Nēo 260D** CD Transport incorporates many significant design features to achieve its "world class" level of performance. This is an abbreviated list of the more important features:

Proprietary CD drive system with in-house developed hardware & software.

CD drive system mounted on our **M-Quattro** gel-based 4-point floating suspension for vibration damping, allowing ambient and spatial cues in your recordings to come to life like never before.

Two (2) digital outputs – S/PDIF and AES/EBU.

Oversized power supply with up to 13 stages of voltage regulation (5 for Transport and 8 for the DAC).

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.

With Optional **Digital-to-Analog Converter:**

32-bit asynchronous DAC.

Four (4) digital inputs (S/PDIF x 2, TosLink x 1 and USB x 1) allowing for a connection to virtually any digital source.

USB input with galvanic isolation which eliminates all ground current (i.e. no electrical connection) between the USB device (computer,music server, etc) and the 260D, preserving the accuracy of the audio signal.

Advanced analog signal path using a **DC servo circuit and proprietary analog filter**..

Unpacking

The **Nēo 260D** CD Transport should be removed from its box with care.

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

- ✔ *AC power cable*
- ✔ *''CRM-3' remote control with two 'CR-2032' batteries*
- ✔ *'SimLink™' cable with 1/8" mini plug terminations on each end*
- ✔ *This owner's manual*
- ✔ *Warranty and product registration information   (USA and Canada only)*

> Once the **Nēo 260D** 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 **260D** from any potential damage during transit.

Please write the serial number of your new **Nēo 260D** in the space provided below for future reference.

Serial Number [   ]

Installation & Placement

The **Nēo 260D** requires only minimal ventilation to maintain an optimum and consistent operating temperature. However, you should avoid placing it near a heat source as this could compromise the CD Transport's performance and reliability. As well, it should be placed on a solid level surface. The **260D** uses a toroidal transformer; even though it is well shielded, you should not place the CD Transport too close to source components sensitive to EMI, such as a turntables.

Compact discs are easily damaged, and must be kept very clean. Always store them in their cases. Dirty or finger-marked discs will reproduce music poorly. Moreover, the transport may even mute parts of a track, or be unable to find some tracks. If you need to clean a CD remember to use a soft lint-free cloth, using a radial

action (i.e. starting from the center and aiming towards the edges). Do not attempt to clean a compact disc using a rotating motion.

> *If you intend to use the Nēo 260D's USB input connection with a Windows-based computer, you will need to install our USB HD driver, which can be downloaded from the support section of our website*
>
> *Note: Apple-based computers don't require this driver.*
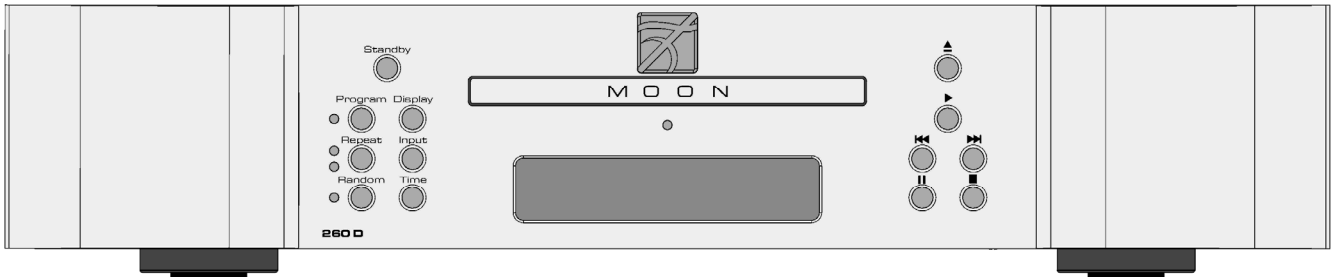
MOON

Front Panel Controls

Figure 1: Nēo 260D Front panel

The front panel will look similar to Figure 1 (above). The large digital display window indicates the track number of the compact disc currently playing (or the total number of tracks in stop mode) and corresponding time information. For units equipped with the *optional 32-bit DAC*, the display will indicate the selected digital input ("D1" thru "D4") and the corresponding sampling frequency in kHz ("44.1" thru "192.0") of the source material currently being played.

The "Standby" button disengages all internal circuitry from the power supply, except for the controller circuit and the IR receiver. The blue indicator LED turns off when the **Nēo 260D** is in "Standby" mode. The **260D** will automatically go into standby mode after approximately 20 minutes of inactivity. However, you can disable this *automatic standby* feature by pressing and holding the "Program" button for two seconds until "0 EuP" appears in the display window. To revert back to the default mode, simply repeat this operation; press and hold the "Program" button for two seconds until appears "1 EuP" in the display window.

The "Program" button allows you to program a selection of tracks to play in any desired order. After loading a compact disc into the **Nēo 260D**, select the first track you wish to listen to, using the ⏮ or ⏭ buttons and then press "Program". To program a second track, select it the same way you did for the first one and press "Program" again. Repeat this operation as many times as you want to program tracks to a maximum of 30 tracks. Once you've completed programming your track selection(s), the digital display window will show the number of tracks that have been programmed and their total time. To begin playing your programmed selections, simply press the ▶ button. Pressing ■ will only suspend the playing of the programmed selection. Pressing ■ a second time will clear your program selection from the **260D's** memory. As well, opening the top drawer at any time will also

clear your program. After you begin creating your program list, the LED immediately to the left of the "Program" button will illuminate and remain on until you clear your program from memory.

The "Display" button allows you to turn the digital display on and off.

Pressing the "Repeat" button once results in the entire disc being played again once it has reached the end of the final track. Pressing "Repeat" a second time will result in the track currently playing being repeated again once it has ended. To cancel this mode, simply press the "Repeat" button a third time or open the CD drawer. There are two (2) LED's located to the left of the "Repeat" button; The top one will illuminate when the current track is being repeated and both will illuminate when the entire disc is being repeated. If you have created a program of selected tracks, pressing "Repeat" once will result in your entire program repeating itself once it has completed its cycle; Pressing "Repeat" a second time will result in the current track from your program being played again once it has ended; Pressing "Repeat" a third time will terminate the "Repeat" mode.

For units equipped with the *optional 32-bit DAC*, the "Input" button is used to select an external digital source by sequentially scrolling through four (4) digital inputs: D1 and D2 use an RCA connector for a S/PDIF digital signal; D3 uses a TosLink connector for an optical

digital signal and D4 uses a USB type B connector for use with a computer equipped with a USB port and music player software such as iTunes, J-River, Winamp, etc. Note: you cannot connect a USB flash drive or external hard drive to the "D4" input. When you change inputs, the display window will show the new digital input and briefly, four (4) dashes "----". These dashes indicate that the **Nēo 260D** is in the process of locking onto a digital signal – this may take several seconds.

Once the **Nēo 260D** successfully locks onto the digital signal, the four dashes will be replaced by the sampling rate frequency of this digital signal. When the DAC cannot lock onto the selected digital input signal, "----" remains in the display window. The **260D's** DAC is capable of processing a digital signal at one of the following six (6) different sampling rates: "44.1", "48.0", "88.2", "96.0" , "176.4" and "192.0" (all in kHz). To return back to the disc input, simply press the "Input" button; the disc input follows the "D4" input.

The "Random" button, when pressed, will play each of the tracks on a compact disc in a completely random order, as opposed to the sequential order as they appear on the disc. If you have already created a program of selected tracks, it will play these programmed tracks in a random order. The LED located immediately to the left of the "Random" button will illuminate when you've engaged the random mode.

The "Time" button allows you to scroll through the four (4) different display modes for time related information. Each time you press the "Time" button, the system scrolls to the next time information mode. By default, the **Nēo 260D** will display the elapsed time of the track currently playing. The scrolling order is as follows:

1. Elapsed time of the current track
2. Remaining time of the current track
3. Elapsed time of the entire disc (or program)
4. Remaining time of the entire disc (or program)

If you want to turn the display off, press and hold the "Display" button for 3 seconds. When the display is turned off, it will still come back on for a short period of time 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 3 seconds. Finally, the display mode that you select will continue to be used until you either select another mode or power down the **Nēo 260D** using the main power switch located on the rear panel.

To load a compact disc into the **Nēo 260D**, press ▲ to open the drawer. While the drawer is opened, four (4) dashes "----" will appear in the display. Place the CD in the drawer with the label side facing up. To close the drawer, press ▲ again; Once the CD is successfully read, the total number of tracks and total playing time will appear in the display window. As a result of various copy protection schemes, some CDs will take longer to read than others.

When you load a CD that contains no musical tracks (i.e. data only), the word 'DATA' will appear in the display window. As well, if you load a disc that is not compatible with the **260D** (i.e. SACD, DVD-A, DVD-Video etc), the phrase 'NO DISC' will appear in the display window.

> **Finally, when you inadvertently leave the drawer open, it will automatically close after approximately three (3) minutes.**

Press ▶ to begin playing a compact disc. Pressing ▶ while a track is already playing will result in the current track immediately playing again, starting from the beginning. Press ◄◄ to search backward or ►► to search forward through the compact disc's tracks. When you've located the track number, press ▶ to begin playing that track. When you initiate a forward or backward track change while a disc is already playing, it will automatically start playing the track you select; you need not press ▶.

Press ❚❚ to pause the compact disc currently playing. The disc will continue spinning and the laser will be suspended in its current position. Press ❚❚ a second time or ▶ to resume playing the disc. Press ■ to stop the compact disc from playing. The laser will return to the start position of the disc.
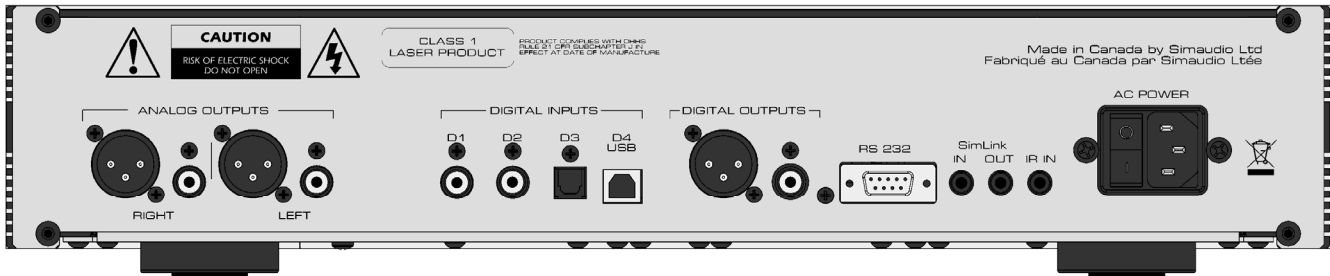
Rear Panel Connections

Figure 2: Nēo 260D Rear panel

The rear panel will look similar to Figure 2 (above). The analog outputs are on the left side; There are two pairs, "Right" and "Left", each with a single-ended RCA and balanced XLR connector. These are "Fixed Level" outputs, intended to be connected to a line-level input on either your preamplifier or integrated amplifier. We strongly recommend that you use the balanced XLR connectors on your **260D** to maximize its level of performance. Both pairs of analog outputs can be used simultaneously if required. Don't hesitate to use high quality interconnect cables**. Poor quality interconnect cables can degrade the overall sonic performance of your system.

Next is a group of four (4) "Digital Inputs" labelled "D1" thru "D4". Inputs "D1" and "D2" are S/PDIF on RCA connectors, benefitting most from cables with an impedance of 75Ω. Input "D3" is Optical and uses a Toslink connector. Finally, input "D4" is USB type-B connector. Next, are two digital outputs; AES/EBU on a XLR connector (that benefits most from a 110Ω digital audio cable terminated with XLR connectors) and SPDIF on an RCA connector. Don't hesitate to use high quality digital interconnect cables**.

The right side of the rear panel has various connectors for external communications. The **Nēo 260D** is equipped with full-function bi-directional RS-232 port control and status for custom integration or automation, as well as future software updates. Next to the RS-232 port 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 on the far right side is the main power switch ("0"=off, "1"=on), the IEC receptacle, labeled "AC Input" for the included AC power cord, and the "AC Fuse" socket cover. 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 **260D** directly into a dedicated AC outlet and avoid using an extension cord.

* Please speak with your MOON Authorized Retailer about the benefits of high quality cables for your system.

SimLink™

The SimLink™ provides communication features between various **MOON** components. For example, if you were to connect the **260D** to the **260D** via the SimLink™, pressing the ▶ (play) button on the **260D** will cause the **260D** to automatically switch to the input labelled 'CD'.

> The main feature of SimLink™ on the **Nēo 260D**, involves the "Standby" function. By pressing down and holding the "Standby" button for 2 seconds on the **260D**, all other **MOON** components connected via the SimLink will go into "Standby" mode along with the **260D.** The same logic applies when switching from "Standby" to active mode.

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. If you inadvertently connect the cable between either two "SimLink™ In" or two "SimLink™ Out" jacks, the SimLink™ communication feature may not function. Also, there is no master component in a SimLink™ chain; no one particular component operates as the main communications controller. If you are using your **Nēo 260D** with an older MOON product such as a P-7, P-8 or i-7, you will need to update the software of the older product to allow for complete SimLink™ functionality. Contact your retailer for further details.

Operating the Nēo 260D

Turning on your Nēo 260D for the first time

Prior to turning the CD Transport 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. You will hear a very faint click sound confirming that everything is in order. The blue LED on the front panel will illuminate, indicating that the **260D** is now powered up and ready for use.

On and Off Sequence

To avoid having any annoying noises (ie. "thumps" and "pops") emanate from your speakers when powering your **260D** on or off, you should always power up your **260D** before powering up your preamplifier, integrated amplifier or power amplifier**.** As well, always power down your **260D** after powering down your preamplifier, integrated amplifier or power amplifier.

Balanced Operation

When using an unbalanced interconnect, the audio signal runs through both the center wire and the shield/ground wire. Any noise picked up by this interconnect (ie. nearby magnetic fields such as an AC power cord) will be reproduced by both the preamplifier and amplifier, then heard through the loudspeakers. Conversely, a balanced interconnect has three separate conductors; one for the ground and two for the actual signal. These two signals are identical except that one is 180 degrees out of phase with the other. For example, when one conductor is carrying a signal of +4 Volts, the other will be carrying a signal of –4 Volts. When these two inverted signals on a balanced line are output from the **Nēo 260D**, any noise picked up by the interconnect will be eliminated since a differential circuit amplifies only the difference between these two signals: Noise on a balanced interconnect will be equal on both conductors and therefore cancel out.
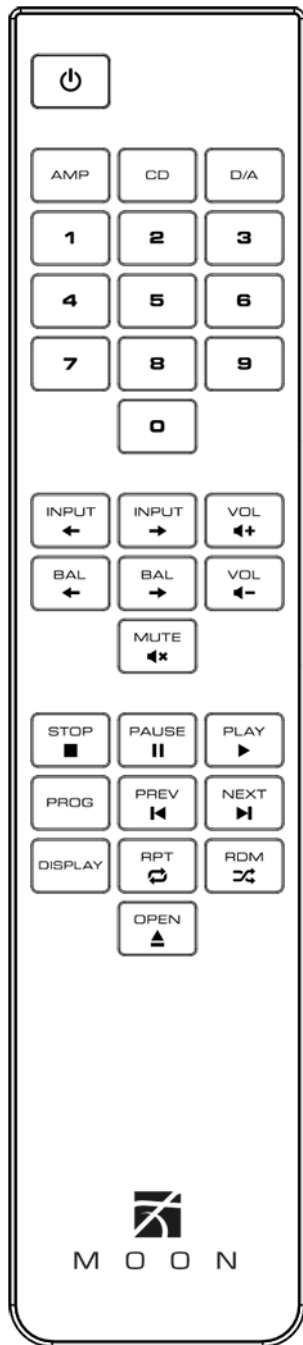
Remote Control Operation

The **Nēo 260D** CD Transport 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 slide the back plate off; insert the batteries in the correct direction and then replace the back plate.

To engage the **'CRM-3'** remote for use with the **260D** CD Player, you must first press the button labeled **CD**.

The ⏻ (Power) button, located on the upper left, will switch the CD Player to either 'Stand by' or 'On' mode.

Certain buttons found on this remote control perform identical functions to their corresponding button located on the **260D's** front panel. Please refer to page 8 for a more detailed description of the "**RDM**", "**RPT**" and "**PROG**" buttons.

0 thru 9	Direct access track number selection
OPEN	Open/Close the Compact Disc drawer
DISPLAY	Turns the front panel display on and off
← **INPUT** →	To switch from listening to the disc loaded in the player to an external digital source connected to the player
■	Stop playing the CD's current track
II	Pauses the player
▶	Play the compact disc loaded into the player
◄◄	Press Once: Go back to the previous track on the disc
◄◄	Press and hold: Scan backward through current track
►►	Press Once: Skip to the next track on the disc
►►	Press and hold: Scan forward through current track

Figure 3: CRM-3 Remote Control

For **Nēo 260D** units equipped with the *optional 32-bit DAC*, you can sequentially scroll, either backwards or forwards, through all four (4) available inputs using the 2 buttons labelled ← **INPUT** →. For example, to switch from "D4" to "D1" you may press either ← **INPUT** three (3) times or **INPUT** → one (1) time. Pressing and holding down either of these buttons results in only a single change to the selected input.

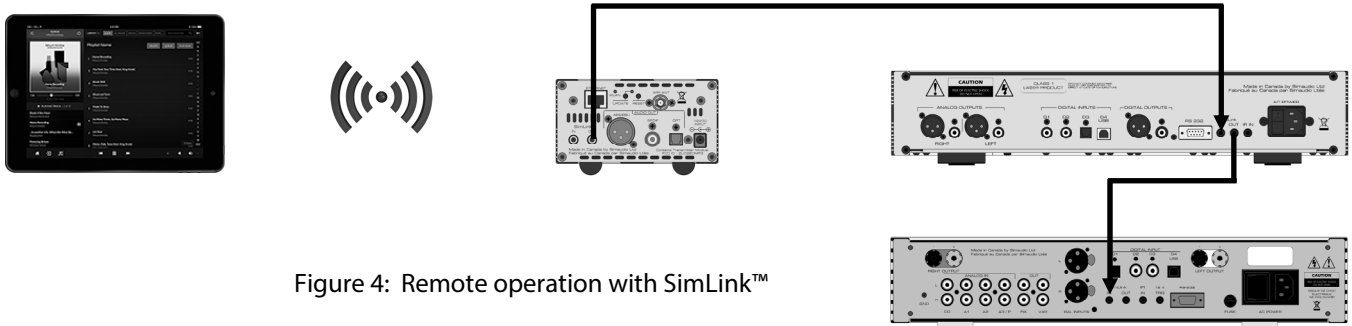**Remote operation with multiple MOON components**

Figure 4: Remote operation with SimLink™

In figure 4 we have a 180 MiND Music Streamer connected to a **Nēo 260D** CD Transport via their respective SimLink™ ports (using a 1/8" mini-jack cable), and the **260D** connected to a **340i** Integrated Amplifier also via their respective SimLink™ ports. When you launch the MiND App on your Apple smart device (full list on the MiND page of our website) and select this system's ZONE, the 180 MiND, **260D** and **340i** will alll turn on. As well, the **260D**, equipped with the optional DAC, will automatically switch to the default MiND input "D1". To shut down the system, press "Off" for this ZONE in the MiND app.
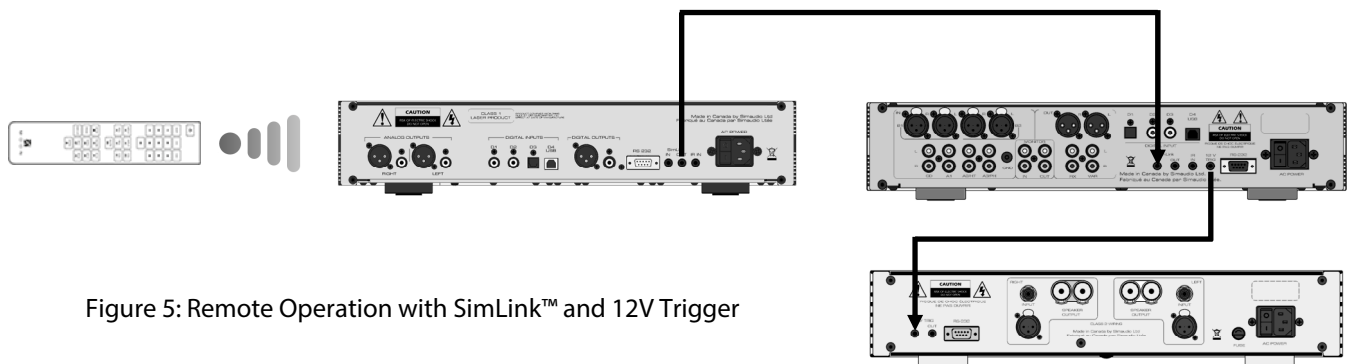

Figure 5: Remote Operation with SimLink™ and 12V Trigger

In figure 5 we have a **Nēo 260D** CD Transport connected to a **350P** Preamplifier via their respective SimLink™ ports (using a 1/8" mini-jack cable), and the **350P** is connected to a **330A** Amplifier via their respective 12V triggers (also using a 1/8" mini-jack cable). When you turn on the **260D** via remote control (or its Standby button), both the **350P** and **330A** will turn on automatically. The same rule applies when you put the **260D** into Standby mode.

Specifications

Configuration	Single-Ended
Digital Outputs (2)	S/PDIF (RCA), AES/EBU (XLR)
Remote Control	Full-Function CRM-3
Power Consumption in Standby	0.5 watts
AC Power Requirements	120V / 60Hz or 240V / 50Hz
Shipping Weight	16 lbs / 7.5 Kgs
Dimensions (W x H x D, inches / cm.)	16.9 x 3.4 x 13.1 / 42.9 x 8.6 x 33.3

Optional **32-bit Digital-to-Analog Converter:**

Digital Filter / Digital-to-Analog Converter	32-bit
Frequency Response (full range)	2Hz - 100kHz +0/-3dB
THD @1kHz, 0dBFS (A-weighted)	0.005%
Intermodulation Distortion	0.005%
Dynamic Range	120dB
Signal-to-noise Ratio	120dB @ full output
Channel Separation	116dB
Intrinsic Jitter	1 picosecond RMS
Analog Outputs – Balanced / Single Ended	1 pair XLR / 1 pair RCA
Analog Output Impedance - XLR / RCA	75Ω
Analog Output @ 0dBFS - XLR / RCA	2.0 Volts
Bit-depth range / Sampling Frequency	16 to 24 bits / 44.1kHz to 192kHz
Digital Inputs (4)	2x S/PDIF (RCA), 1x TosLink, 1x USB

Balanced Pin Assignment:

Pin 1	Ground
Pin 2	Positive
Pin 3	Negative

NOTE: If you require the RS-232 codes for your **Nēo 260D**, please visit the "Contact Us" page and complete the "Information request" form on our website at www.simaudio.com.

Fuse Replacements:	F1 All versions use 0.5A slow blow (5 x 20mm size)
	F2 : 120V version uses a 0.2A slow blow (5 x 20mm).
	230V version uses a 0.1A slow blow (5 x 20mm).