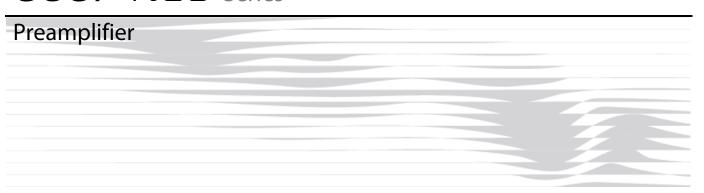
# 350P N\(\bar{e}\)o Series





## **Owner's Manual**







## **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 groundingtype 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:** 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 Neo 350P Preamplifier.

- 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 350P 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 350P 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
- 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 Neo 350P 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.

- NEVER wet the inside of the N\u00e3o 350P with any liquid. If a liquid substance does enter your N\u00e3o 350P, immediately disconnect it from the AC mains and take it to your MOON dealer for a complete check-up.
- NEVER spill or pour liquids directly onto the Neo 350P.
- NEVER block air flow through ventilation slots or heatsinks.
- 9. **NEVER** bypass any fuse.
- NEVER replace any fuse with a value or type other than those specified
- 11. **NEVER** attempt to repair the Neo 350P. If a problem occurs contact your MOON dealer.
- 12. **NEVER** expose the Neo 350P to extremely high or low temperatures.
- 13. **NEVER** operate the Neo 350P in an explosive atmosphere.
- 14. **ALWAYS** keep electrical equipment out of reach of children.
- 15. **ALWAYS** unplug sensitive electronic equipment during lightning storms.
- WARNING: Do not expose batteries or battery pack to excessive heat such as sunshine, or fire or the like.



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## www.simaudio.com

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Date Code: 20161028



#### Introduction

Thank you for selecting the **Nēo 350P** Preamplifier as a part of your hi-fi reproduction system. This preamplifier 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 among the finest preamplifiers available. 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** Preamplifiers are so musically satisfying.

The performance of your **350P** will continue to improve during the first 300 hours of listening. This is the result of a "break-in" period required for the numerous high quality electronic parts used throughout this preamplifier.

Before setting up your new **Nēo 350P**, we encourage you to please read this manual thoroughly to properly acquaint yourself with its features. We hope you enjoy listening to the **Nēo 350P** Premplifier 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 350P** Preamplifier incorporates many significant design features to achieve its "world-class" level of performance. This is an abbreviated list of the more important features:

**7 line-level inputs** (4 single-ended & 2 balanced) including one front-mounted 1/8" mini-jack for personal media players

One single-ended audio input which functions as a "pass-through", bypassing the gain stage to accommodate a component such as a home-theater processor, whose own volume control is used instead.

#### A full-function monitor loop

Optional internal **digital-to-analog converter** circuit for use with a PC, digital music server or external transport, etc

Optional internal **phono preamp** circuit with adjustments for gain, capacitance and resistance loading

**Discrete headphone amplifier** circuit with the output on ¼" headphone socket located on the front panel

**Fixed** (single-ended) and **Variable** (balanced & single-ended) **line level outputs** 

**RS-232 port** for i) full unsolicited bidirectional feedback in custom installation setups and ii) firmware updates

**IR input** for external control

#### 12 Volt Trigger Output

**SimLink**<sup>™</sup> controller port allows for 2-way communications between other compatible MOON components

**Rigid chassis construction** to minimize the effects of external vibrations

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

**Low operating temperature** for a ultra-long expectancy.



## **Unpacking**

The **Neo 350P** preamplifier should be removed from its box with care.

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

- ✓ 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 350P** 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 **350P** from any potential damage during transit.

Please write the serial number of your new Neo 350P in the space provided below for future reference.

Serial Number	

#### **Installation & Placement**

The **Nēo 350P** 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 preamplifier's performance and reliability. As well, it should be placed on a solid level surface. The **350P** uses toroidal transformers; even though they are well shielded, you should not place the preamplifier too close to source components sensitive to EMI, such as a turntables.

If you intend to use the Nēo 350P'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.

<u>Note:</u> Apple-based computers don't require this driver.



#### **Front Panel Controls**



Figure 1: Neo 350P Front panel

The front panel will look similar to Figure 1 (above). The large display window indicates the selected input source. If your **Nēo 350P** includes the digital input option, additional information will appear in the display window. Refer to the section entitled "Optional Digital Inputs" on page 9 for further details..

The "Standby" button disengages the input section from the rest of the **350P**'s circuitry. When in "Standby" mode all audio circuitry remains powered up to help maintain optimal performance. When switching back from "Standby" to the "on" mode, the blue LED directly above the display window will illuminate, As well, the current 'input' will be memorized from the previous listening session. The blue indicator LED turns off when the **350P** is in "Standby" mode.

The "MP" button (for Media Player) has its input connection located next to the headphone jack for easy access. It uses a 1/8" mini-jack connector which is the most common type of connection found on portable media players. When selected, the corresponding red LED, located to the left of the button, will illuminate. When the "MP" input is in use the display window automatically turns off. The "Display" button allows you to turn the digital display on and off.

The two (2) buttons labeled **INPUT** allow you to sequentially scroll, either forward (▶) or backward (◄) through all of the available inputs. Depending on the installed options, the order of the inputs is as follows going forward (▶): Basic Unit: "CD", "A1", "A2", "A3", "B1" and "B2"; All options installed: "CD", "A1", "A2", "PH", "B1", "B2", "D1", "D2", "D3" and "D4"

The above abbreviations correspond to the labeling of the rear panel inputs. By default the "CD" input is intended for use with a CD Player, however you can connect another type of source component to it. "A1", "A2", "A3", "B1" and "B2" are intended for use with any type of source component that outputs an analog signal: "CD", "A1", "A2" and "A3" for single-ended sources using RCA connectors; "B1" and "B2" for balanced sources using XLR connectors. If you have installed the optional phono section, the "A3" input is replaced by "PH". If you have installed the digital input option, "D1", "D2", "D3" and "D4" will appear after "B2". The optional inputs only appear if they are installed.

The "Monitor" button provides for a dedicated loop to be used with either a component that can record & playback (Cassette Deck, DAT, CD-Recorder, etc.) or a signal processor such as an equalizer. Pressing this button allows you to 1) monitor the recording as it occurs on the recording device or 2) engage the effects of the signal processor. The monitor component's outputs must be connected to the **350 P**'s "Monitor In" and its inputs must be connected to the **350P**'s "Monitor Out". The monitor output level is fixed and independent of the **350P**'s volume setting. The LED to the left of the display window will illuminate when the "Monitor" function is engaged.

The "Mute" button mutes the output signal to the headphone jack, as well as both the fixed and variable line output connectors (refer to the section entitled "Rear Panel Connections" for further details). Pressing the "Mute" button a second time will reinstate the volume back to its previous level. When the output



signal is muted, the red LED to the right will repeatedly flash on and off.

The "A2" input can be configured as a 'pass-through' which bypasses the 350P's gain control section, allowing you to control the gain setting via the connected source component's own volume control - a home theater processor for example; In other words, this input operates like the input of a power amplifier. In 'pass-through' mode, adjusting the volume on the 350P will have no effect whatsoever when the "A2" input is selected. To put the "A2" input into 'passthrough' mode, press and hold down the "Monitor" button for approximately 2 seconds while on the "A2" input. The front panel display will change from "A2" to "HT". To reconfigure the "A2" input to function like the other inputs, repeat the this procedure. Powering down the **350P** via the rear panel rocker switch will automatically reset the the "A2" to the factory default 'normal' mode.

The rotary "Volume" control determines the output level. The volume control has an embedded red LED to indicate its actual position.

The "Phones" jack is used for connecting a pair of stereo headphones to the **Nēo 350P**. The input connector is a standard ¼" stereo jack. When a pair of headphones are used with the **350P**, the output signal will continue to be sent to the amplifier(s) connected to the **350P**.

## **Optional Digital Inputs**

The Digital Input option includes four (4) separate inputs: "D1" uses an optical Toslink connector, "D2" and "D3" use S/PDIF on an female RCA connector and "D4" uses a type-B USB connector. The "D1" is intended for use with a source equipped with a TosLink digital output such as a satellite dish receiver; The "D2" and "D3" inputs are intended for use with a source equipped with a S/PDIF digital output such as a DVD player, music server or disc transport. The "D4" input is for use with a computer equipped with a USB connector and music player software such as iTunes or Winamp; you cannot connect a USB flash drive or external hard drive to the "D4" input.

When you select one of the digital inputs as described in the aforementioned section, the display window will show which of the four digital inputs is selected. At the same time, the right side of the display window will initially show four dashes as follows "----" which indicate that the **350P** is in the process of locking onto the external digital signal – this may take several seconds. When the **350P** successfully locks onto the digital signal, the four dashes will be replaced by the sampling rate of this digital signal. When the signal cannot be locked onto, "----" remains in the display window.

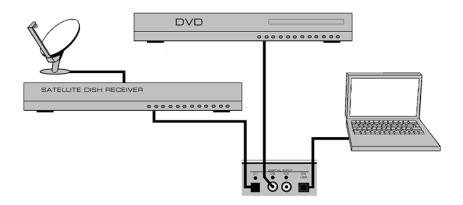


Figure 2: Neo 350P Optional Digital Inputs – connection examples



## **Optional Phono Section**

The **Nēo 350P** Preamplifier features an optional MC/MM phono section that may be installed only by your MOON Authorized Dealer or at the Simaudio factory. This phono card is a very high quality design, providing

adjustments for both capacitance and resisitance loading, as well as gain level. This flexibility allows you to optimize the **350P** for a wide variety of MC and MM cartridges.

#### **Circuit Board Layout:**

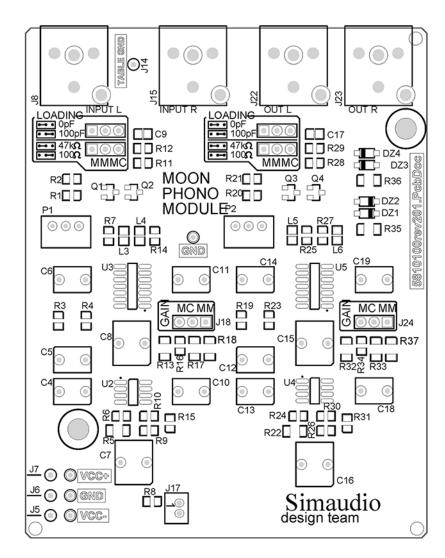


Figure 3: Neo 350P Optional Phono Section Circuit Board Layout

#### **Internal Settings**

We strongly recommend that you ask your MOON Authorized Dealer to make these adjustements. If you decide to do this on your own, any damage cause to this component, including from static discharge, will not be covered under warranty.



There are three (3) types of settings available on the optional phono section of the **Nēo 350P**; Capacitance loading, Resistance loading, and Gain level. Each setting is adjustable through the use of jumpers. For each type of setting, there are 2 banks of jumpers – one each for the left and right channels. This is the result of the phono section's genuine mirror-image circuit design which yields exceptional stereo separation.

Always disconnect all audio connections and the AC power cord of your **Nēo350P** prior to changing any of the following input settings.

There are six (6) screws, located on the top of the chassis, that you must remove using a phillips head screw driver. Once these screws are removed, carefully lift off the chassis cover. Once the cover is removed, you are ready to make all of the necessary internal adjustments to the **350P** phono module to achieve optimal sonic performance.

#### **Resistance Loading:**

There are two (2) different settings available for setting the resistive load;  $100\Omega$  and  $47k\Omega$  which are represented by jumper sockets R12 for the left channel and jumper socket R29 for the right channel (refer to figure 2 – section labeled "LOADING"). The factory default setting is  $47k\Omega$ , therefore both jumpers will be found in each of the two left most sockets.

For moving magnet (MM) cartridges, it is recommended that you leave the jumpers inserted in the factory default setting of  $47k\Omega.$  Conversely, if you're using a moving coil (MC) cartridge, you should use the  $100\Omega$  jumper settings by simply inserting the supplied

jumpers into each of the two right-most sockets of jumpers R12 and R29.

#### **Capacitance Loading:**

There are two (2) different settings available for the capacitive load; 0pF and 100pF which are represented by jumper sockets C9 for the left channel and jumper sockets C17 for the right channel (refer to figure 2 – section labeled "LOADING"). The factory default setting is 100pF for a moving magnet cartridge, therefore both jumpers will be found in each of the two right most sockets.

For MM cartridges, it is recommended that you leave the jumpers inserted in the factory default setting of 100pF. Conversely, if you're using a MC cartridge, you should use the 0pF jumper settings by simply inserting the supplied jumpers into each of the two left-most sockets of jumpers C9 and C17.

#### **Gain Level:**

There are two (2) different settings available for gain level. They are 40dB for MM cartridges and 60dB for MC cartridges, which are represented by jumper socket J18 for the left channel and jumper socket J24 for the right channel (refer to figure 2 – section labeled "GAIN"). The factory default setting is for a MM cartridge, therefore both jumpers will be found in each of the two right most sockets labeled MM; *It is highly recommended that you do not use the jumpers labeled MC for an MM cartridge as this will overload the 350P*. When using a MC cartridge, you should insert the supplied jumpers into each of the two left-most sockets labeled MC.



#### **Rear Panel Connections**



Figure 4: Neo 350P Rear panel

The rear panel will look similar to Figure 2 (above). There are two (2) pairs of balanced analog inputs on XLR connectors labeled "B1" and "B2" with their respective left and right channel connections beside each other. Immediately below are four (4) pairs of single-ended analog inputs on RCA connectors labeled CD, A1, A2/HT and A3/PH. The RCA input and output connectors on the rear panel have been color coded: 'white' for the left channel and 'red' for the right channel. If your **Nēo 350P** is equipped with the optional phono section, the input labeled 'A3/P' must be used to connect your turntable interconnect leads to this preamplifier. If you don't have the optional phono section installed, then this input can be used in the same way as CD, A1 and A2 inputs. This preamplifier is also equipped with a single-ended monitor loop; the input and output connectors for each channel are located to the right of the four pairs of single-ended analog inputs.

The Neo 350P premplifier has three pairs of outputs: 1 pair of balanced XLR's and 2 pairs of single-ended RCA's labeled 'FIX' and 'VAR', located next to the monitor inputs and ouputs. The balanced outputs are designated for output to a power amplifier equipped with balanced inputs. The 'FIX' output is intended as an input to a recording device such as a cassette tape deck or CD-Recorder Player. Keep in mind that the output level is fixed and cannot be adjusted by the 350P's volume control. The 'VAR' output is designated for output to your power amplifier(s) with single-ended RCA inputs. If the power amplifier(s) you're connecting the **350P** to use balanced inputs, its highly advantageous to use the 350P's XLR outputs. This will provide you with an even better signal-to-noise ratio. Don't hesitate to use high quality interconnect cables\*. Poor quality interconnect cables can degrade the overall sonic performance of your system.

For **Nēo 350P**'s equipped with the digital input option, you will find 4 digital inputs labeled D1, D2, D3 and D4. The D1 input is on an optical Toslink connector; both the D2 and D3 inputs are on a S/PDIF connector; the D4 input is on a USB type B connector.

Below the area reserved for the optional digital inputs are a series of input/output connectors for custom type

installations: From left to right 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. Next, there's a 1/8" mini-jack input for use with aftermarket infrared remote control receivers. Then there's a 12V trigger output on a 1/8" mini-jack that can power up a connected component (with a 12V trigger input) at the same time that the **350P** is powered up. Next, there's a full-function bidirectional RS-232 port for custom integration or automation on a DB9 connector. Finally on the far right side is the "AC Fuse" socket cover, the main power switch ("0"=off, "1"=on) and the IEC receptacle, labeled "AC Power" for the included AC power cord.

Connect the supplied AC power cable to the IEC receptacle, located on the preamplifier's rear panel. Ensure that the AC wall outlet you use has a functioning ground. For the best sonic performance, it is preferable that you plug your **350P** directly into a dedicated AC outlet and avoid using an extension cord. If you have the time and willingness, consider installing a superior quality AC wall outlet such as a hospital grade Hubbell\*.

<sup>\*</sup> Please speak with your MOON Authorized Retailer about the benefits of high quality cables for your system, and superior quality AC wall outlet.



## **Balanced Operation**

The **Nēo 350P** includes two (2) balanced line-level inputs and one (1) balanced preamplifier output on XLR connectors. The "B1" and "B2" inputs use a fully balanced differential circuit, intended for use with source components that output a fully balanced differential signal. The **Nēo 350P** balanced inputs and outputs takes full advantage of the benefits of balanced circuitry:

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 +5 Volts, the other will be carrying a signal of -5 Volts. When these two inverted signals on a balanced line are output from the Neo 350P, 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.

#### SimLink™

The SimLink™ provides communication features between various **MOON** components. For example, if you were to connect the **Nēo 260D** to the **350P** via the SimLink™, pressing the ▶ (play) button on the **Nēo 260D** will cause the **350P** to automatically switch to the input labeled 'CD'. You can change this default setting as follows: Select the input that you want as the new default for CD, then press and hold the **◄ INPUT** (left) button until the front panel display begins to flash on and off.

Another feature of SimLink™ involves the "Standby" function. By pressing down and holding the "Standby" button for 2 seconds on the either the **Nēo 260D or 350P**, both units will go into "Standby" mode. The same logic applies when switching from "Standby" to active mode.

If you are using the "MiND" Music Streamer and an external digital-to-analog converter (DAC), you must make a SimLink™ connection between the "MiND"s SimLink™ out and the **350P**'s SimLink™ in. The 'A1' input is the default input for your external DAC's analog outputs; When you press the \( \bigcup \) (play) button on the "MiND" App, the 350P will automatically switch to the input labeled 'A1'. If your 350P includes the "DAC" option, then the default input for the MiND is the 'D2" input; When you press the \( \bigcup \) (play) button on the "MiND" App, the 350P will automatically switch to the input labeled 'D2'. You can change these default settings for the "MiND" as follows: Select the input that you want as the new default for "MiND", then press and hold the "MP" button until the front panel display begins to flash on and off.

The connection rules for the SimLink™ are very basic. 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.



## Operating the Neo 350P

We recommend leaving your **Nēo 350P** 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 preamplifier. Please keep in mind that once fully "broken-in", your **350P** requires several hours of operation before reaching optimal performance after powering it up again.

#### Turning on your Neo 350P for the first time

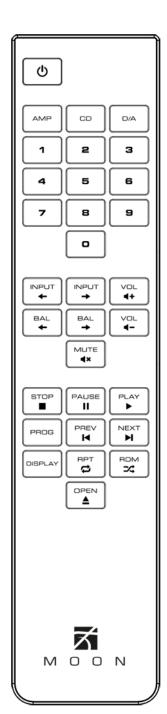
Prior to turning the preamplifier on for the first time, make sure that every cable is properly connected to avoid any problems. Flick the main rocker switch, located on the rear panel, labeled "POWER" to the '1' (on) position to place your **350P** in to standby mode. Next, briefly press the push button labeled "Standby" located on the front panel. You will hear a very faint click sound confirming that everything is in order. The blue LED on the front panel will illuminate, indicating that the **350P** 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 **350P** on or off, you should always power up your **350P** prior to powering up your amplifier. As well, always power down your **350P** after powering down your amplifier(s).



## **Remote Control Operation**



The **Nēo 350P** Preamplifier 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 Simaudio 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 Neo 350P Preamplifier, you must first press the button labeled AMP.

The **(**Power) button, located on the upper left, will switch the Preamplifier to either 'Standby' or 'On' mode.

The **DISPLAY** button turns the front panel display on and off

The 2 buttons labeled ← INPUT → allow you to sequentially scroll, either backwards or forwards, through all available inputs. For example, to switch from the "A3" to the "CD" input, press INPUT ← three (3) times. To switch from the "CD" to the "A3" input, press INPUT → three (3) times. 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. Pressing **VOL** – results in a decrease in the volume level; Pressing **VOL** + results in an increase in the volume level. You may either press and hold these buttons down or press them briefly to make volume adjustments.

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.

**NOTE:** The buttons labelled  $\leftarrow$  BAL  $\rightarrow$  don't affect the operation of the 350P.

Figure 5: CRM-3 Remote Control



#### Remote operation with multiple MOON components

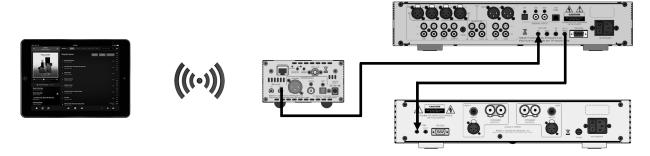


Figure 6: Remote Operation with SimLink™ and 12V Trigger

In figure 6 we have a 180 MiND Music Streamer connected to a **Nēo 350P** Preamplifier via their respective SimLink<sup>™</sup> ports (using a 1/8″ mini-jack cable), and the **350P** connected to a **330A** Amplifier via their respective 12V triggers (also using a 1/8″ mini-jack cable). 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 will turn on, as will both **350P** and the **330A**; The **350P** will automatically switch to the "MiND" assigned input, as described previously in the SimLink<sup>™</sup> section. To shut down the system, press "Off" for this ZONE in the MiND app.



Figure 7: Remote Operation with 12V Trigger

In figure 7 we have a **Nēo 350P** Preamplifier and **330A** Amplifier connected together via their respective 12V triggers; The 12V trigger output on the **350P** is connected to the 12V trigger input on the **330A** (using a 1/8" minijack cable). When you turn on the **350P** via remote control (or its Standby button), the **330A** will turn on automatically. The same rule applies when you put the **350P** into Standby mode.



## **Specifications**

Configuration	Fully balanced differential, stereo
Balanced inputs (XLR)	2 pairs
Single-ended inputs (RCA)	4 pairs
Mini-jack input	1 (1/8")
Monitor Loop (RCA)	1
Input Sensitivity	200mV – 5.0V RMS
Input Impedance	22,000Ω
Headphone output	1 (1/4" Stereo TRS)
Balanced outputs (XLR)	1 pair
Single-ended outputs (RCA)	2 pairs (fixed and variable)
Output Impedance	100Ω
Gain	6dB
Signal-to-noise Ratio	120dB @ full output
Audible Frequency Response	20Hz - 20kHz ±0.1dB
Full-Range Frequency Response	5Hz - 100kHz +0/-3.0dB
Crosstalk@ 1kHz	-96dB
Intermodulation Distortion	0.0005%
Total Harmonic Distorition (20Hz-20kHz)	0.0005%
Remote Control	Full-Function (CRM-3)
Power Consumption @ idle	12.5 Watts
AC Power Requirements	120V / 60Hz ou 240V / 50Hz
Shipping Weight	16.5 lbs / 7.5 Kgs
Dimensions (W x H x D, inches / cm.)	16.9 x 3.5 x 13.1 ./. 42.9 x 8.9 x 33.3



Fuse Replacement:

120V version uses a 0.2A slow blow (5 x 20mm size)

230V version uses a 0.1A fast slow (5 x 20mm size).



## Specifications (cont'd)

### **Optional** Phono Section:

Input Impedance - Adjustable	100 ohms and 47K ohms
Input Capacitance - Adjustable	0pF and 100pF
Gain - Adjustable	40dB and 60dB
Input overload @ 40dB / 60dB gain	58mV RMS / 3mV RMS
Signal-to-noise ratio (full scale @ 40dB / 60dB gain)	107dBr / 85dBr
Frequency Response	20Hz - 20kHz (±0.5dB)
Crosstalk @ 1kHz	-97dB
IMD	< 0.009%
THD (20Hz - 20kHz)	< 0.001%

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

Digital Input Types	S/PDIF (RCA) x 2 USB x 1 TosLink x 1
Digital Input Impedance (S/PDIF)	75 ohms @ 0.5 Volts
DAC / Digital Filter	ESS9018K2M
DSD Data Rates	(2.8224MHz), Double (5.6448MHz) & Quadruple (11.2896)
DSD Sample Rates	DSD 64, DSD 128 & DSD256 via USB only
PCM Bit-depth range	16 - 32 bits (32-bit via USB only)
PCM Sampling Frequency Rates	44.1 - 384kHz (352.8 & 384kHz <b>via USB only</b> )
Frequency Response (audible)	20Hz - 20kHz +0/-0.2dB
Frequency Response (full range)	2Hz - 72kHz +0/-3dB
THD @ 1kHz, 0dBFS (A-weighted)	0.001 %
IMD	0.004 %
Dynamic Range	116dB
Signal-to-noise Ratio	115dB @ full output
Channel Separation	115dB
Intrinsic Jitter	< 25 picoseconds RMS

### **Balanced Pin Assignment:**

Pin 1	Ground
Pin 2	Positive
Pin 3	Negative

**NOTE:** If you require the RS-232 codes for your **Neo 350P**, please visit the "Contact Us" page and complete the "Information request" form on our website at <a href="www.simaudio.com">www.simaudio.com</a>.