PERREAUX 200iX / 300iX

Owner's Manual V1.1

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THANK YOU LETTER

Congratulations on your **200iX/300iX** integrated amplifier purchase!

From the entire team, we thank you for choosing a PERREAUX audio product. Handmade and one of a kind, you can expect many years of high-quality listening pleasure from this unit. The following owner's manual has been written to assist in the setup operation and care for your PERREAUX **200iX/300iX** integrated amplifier. Please read thoroughly.

I. IMPORTANT SAFETY INSTRUCTIONS

Explanation of symbols used in this manual or on the rear of the device:

This symbol is intended to alert the user to the presence of uninsulated dangerous voltages within the enclosure of sufficient magnitude to cause electric shock.

This symbol is intended to alert the user to the presence of important operation, maintenance and servicing information in the instruction and service manuals.

Caution

- To reduce the risk of electric shock, do not remove the cover.
- No user serviceable parts inside.
- Refer servicing to qualified service personnel.
- Replace the mains fuse in the plug with one of the same type and rating.
- Disconnect supply cord before changing fuse.

Warning

To reduce the risk of fire or electric shock, do not expose this device to rain or moisture. Shock hazard - do not open.

Mains Plugs

- This device is supplied with a non-rewireable mains plug for the intended country.
- Replacement mains leads can be obtained from your Perreaux dealer. Should you need to change the plug please dispose of it carefully. A plug with bared conductors is dangerous if engaged in a live socket.
- The Brown wire must be connected to the Live (Line) supply pin.
- The Blue wire must be connected to the Neutral supply pin.
- The Green/Yellow wire must be connected to the Earth (Ground) supply pin.
- Please contact your dealer or a competent electrician if you are in any doubt.
- Refer to the rear of the product for fuse and mains voltage information.

This product is designed to comply with international directives on the Restriction of Hazardous Substances (RoHS) in electronic equipment. The wheelie bin logo indicates compliance and that these products must be recycled or processed as according to these directives.

II. FEATURES

Your PERREAUX 200iX/300iX integrated amplifier incorporates the following design elements and features:

• PERREAUX iOS / Android BT remote control app

Your 200iX/300iX can be remotely controlled, configured and customized via the PERREAUX BT iOS / Android remote control app available for download from the Apple App Store and Google Play Store.

• Infrared (IR) hand-held remote control

The supplied PERREAUX hand-held infrared (IR) remote control offers direct control over your 200iX/300iX. External control by IR is also offered via the IR input on the rear panel, should the amplifier be housed inside a cabinet or beyond the line-of-sight of the remote control.

• Digital multifunction controller

Your 200iX/300iX features a solid-state, stepped-attenuator offering precise resolution with exceptional channel matching. The digital multifunction control providing volume control, function navigation and adjustment within the 200iX/300iX menu system.

• High-resolution 24 bit 384kHz ESI SABRE 9038 DSD Digital To Analog Converter (DAC)

Digital audio processing and conversion duties are handled within the 200iX/300iX by the fully integrated ESI SABRE PRO 9038 DSD Digital To Analog Converter (DAC). This ultra-high-resolution DAC features a USB Audio 2 input capable of 384 kHz DSD digital audio playback with a 140dB dynamic range and a dedicated, independent, galvanically isolated power supply.

• Integrated hi-resolution BT audio streaming

Your 200iX/300iX provides integrated hi-resolution CD quality BT audio streaming allowing the connection and playback of audio from BT audio equipped devices such as smartphones, tablets and laptop computers.

• Integrated PERREAUX MC / MM Phono Preamplifier

Your 200iX/300iX features a class leading integrated PERREAUX Moving Coil (MC) / Moving Magnet (MM) Phono Preamplifier providing selectable 40 or 60 dB of gain.

• Integrated PERREAUX SXH2 Class A Headphone Amplifier

Your 200iX/300iX incorporates the highly acclaimed PERREAUX SXH2 Class A headphone amplifier.

This dedicated headphone amplifier circuit provides a clean, powerful output suitable for 8-600 Ohm headphones with selectable impedance and power saving modes (page 20).

• High Contrast OLED digital display

Visual feedback, menu operation and system configuration on your 200iX/300iX is supported via the front panel high contrast OLED digital display. This monochromatic OLED display provides a wide viewing angle both horizontally and vertically and increased visual clarity in both low-light and direct-light environments.

• AES EBU digital audio input

Your 200iX/300iX features a high-resolution AES EBU (XLR) digital audio input providing 24-bit 192 kHz audio performance and compatibility with many high-end and professional digital audio components.

• 2 x TOSLINK optical digital audio inputs

Your 200iX/300iX can accommodate up to 2 high-resolution digital audio input devices equipped with TOSLINK optical audio outputs, providing 24-bit 192 kHz audio performance.

• 2 x SPDIF coaxial digital audio inputs

Your 200iX/300iX features 2 high-resolution SPDIF coaxial (RCA) digital audio inputs providing 24-bit 192 kHz audio performance

• Balanced XLR analog input pair

Your 200iX/300iX features a balanced analogue input pair via XLR connectors, allowing optimal audio performance and compatibility with many high-end and professional analog audio components.

• 5 x pairs of unbalanced (RCA) audio inputs

Your 200iX/300iX features 5 x pairs of unbalanced analogue audio via RCA connectors, allowing line level compatibility with analog audio components such as CD players, Phono Preamplifiers, Set top boxes and Tape machines.

• Home Theatre (HT) input Loop

Integrate your 200iX/300iX into your Home Theatre system using the selectable Home Theatre (HT) input loop. This function allows your 200iX/300iX to receive signal and provide power to the main L/R speakers as a component of a surround sound system.

• User customisable interface

Many settings of the 200iX/300iX are user customizable – inputs may be renamed, made active or inactive, input levels may be volume matched, inputs configured to bypass the volume control, initial startup volume level set and maximum volumes limiting enabled, providing seamless system integration

• Low Z impedance mode (only 200iX)

With the Low Z impedance mode engaged your 200iX can effortlessly drive speaker loads as low as 2-1 Ohms. Suitable for use with electrostatic speakers.

• Capacitor-free signal path

The inputs of the PERREAUX 200iX/300iX are DC coupled and capacitor-free improving low-frequency response and linearity. This provides audible stability and improves reliability throughout the amplifier's lifetime.

• Electronic and Electro Mechanical Protection

Your 200iX/300iX employs several forms of electronic and electro-mechanical protection, both for its own self-preservation as well as the protection of loudspeakers and other components to which it is connected. The protection mechanisms include DC offset, over-current, AC power, internal DC fuse and thermal protection.

III. INSTALLATION

What's in the box?

- Perreaux 200iX/300iX Class A /AB 200/300 watt stereo integrated amplifier
- IEC Power Cable
- USB Cable
- IR Remote Control
- BT antenna (SMA / 50 Ohm, coaxial)
- Quick Start Guide

We recommend you retain the packaging for reuse in case you need to transport the unit at a later date.

Placement

Your 200iX/300iX integrated amplifier should generally be placed close to your primary source component, keeping interconnect cabling short. Position all other components of your system close enough to your 200iX/300iX to avoid having to stretch or extend any of the interconnect cables.

If mounting to a wall or ceiling, it should be via a heavy-duty bracket or shelf designed for audio equipment use.

Ventilation

Your 200iX/300iX requires dissipating considerable power in the form of heat. It should be placed in a position that does not restrict the airflow around it.

Allow at least 80mm (3 inches) above and to each side of the unit and mount the 200iX/300iX on a flat surface for air circulation to allow this heat to dissipate. Do not sit directly onto a carpeted surface as it will prevent the heatsinks from operating as designed.

If the device is used in a cabinet, air must be able to flow through. An enclosed cabinet will severely restrict heat dissipation. Ensure that nothing is placed above or below the amplifier that might block or restrict the vents.

If the 200iX/300iX has inadequate ventilation and/or is played very enthusiastically for a prolonged period of time, its temperature may rise above the designated operating level and the over-temperature protection will trip – disconnecting the output until it has cooled sufficiently.

Ideally, your 200iX/300iX integrated amplifier should not be located directly above or adjacent to other heat-producing products such as radiators, other power amplifiers, etc. If multiple amplifiers are being used and space is restricted, placing them side by side is preferable to stacking.

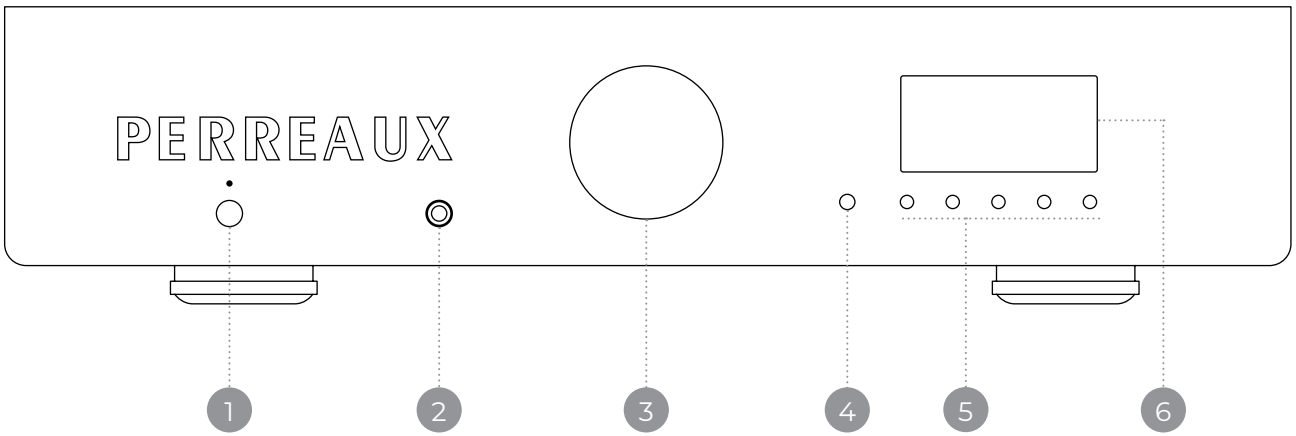
Dedicated circuit (recommended)

It is advisable to position your 200iX/300iX away from (and if possible, connected to a power socket on a different circuit from) powerful electrical or electronic products such as TV sets, computers, cookers, fridges etc. This will prevent the possibility of the strong electrical and electromagnetic emissions or interference given off by such devices adversely affecting the performance of your amplifier.

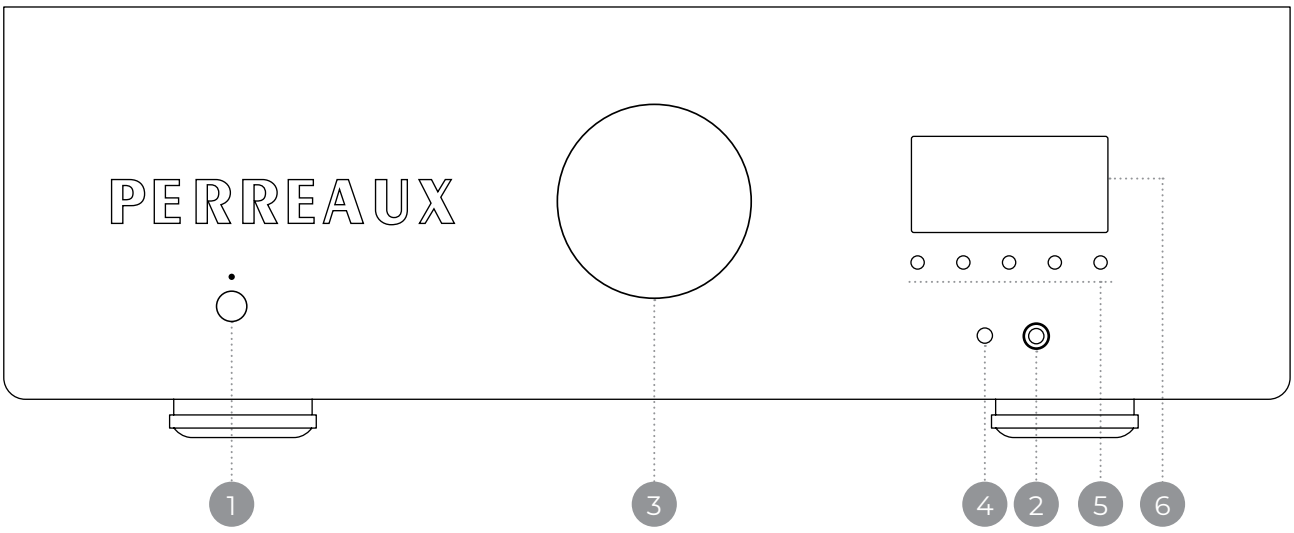
Note: Some home electrical appliances can introduce DC noise into your sound system which can be perceived as humming. A DC blocker, or line conditioner, may help in this case.

IV. FRONT PANEL

200iX



300iX

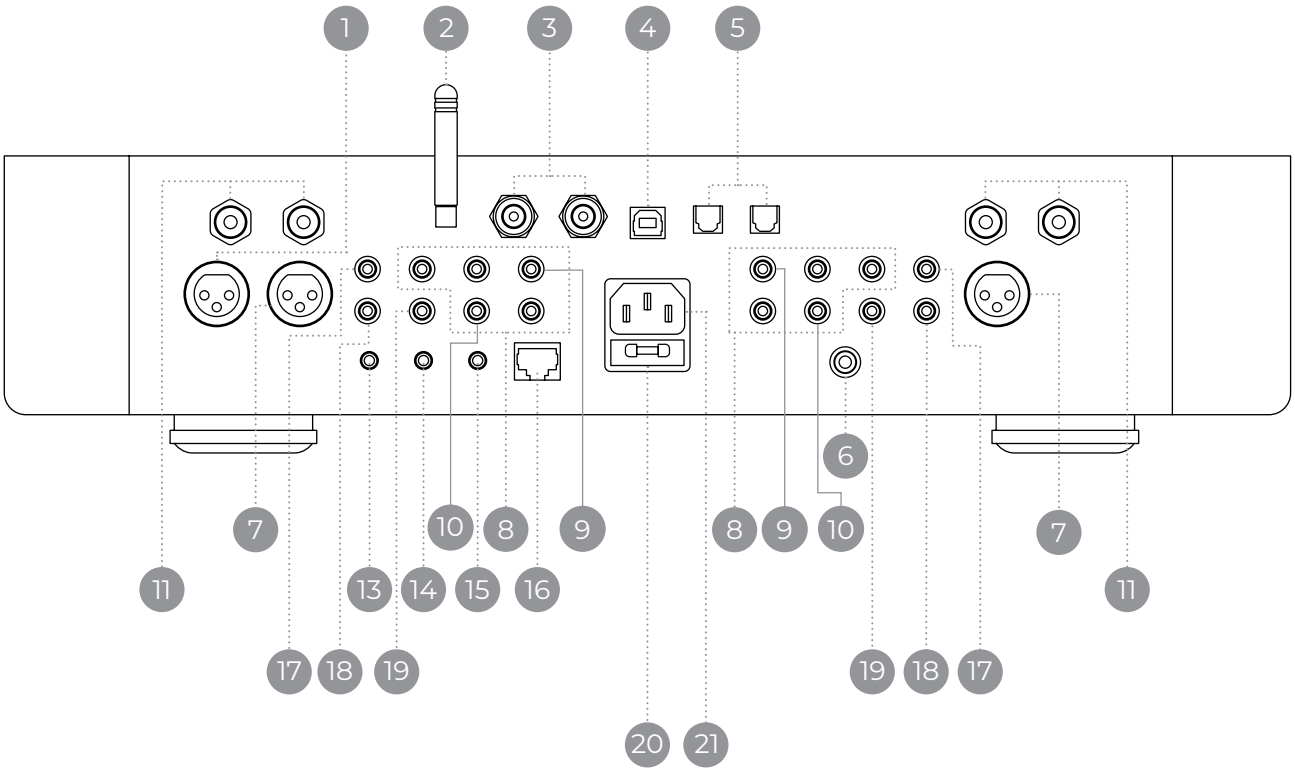


1. **Power Button**
2. **Headphone output**
3. **Digital Multifunction Controller**
4. **Infrared Sensor**
5. **Multifunction navigation keys**
6. **High contrast OLED digital display**

1	**Power Button**	The power button connects and disconnects the amplifier from the mains power. The power indicator LED shows the AC mains power status of your **200iX/300iX**. The LED is illuminated when the power button on the front panel of the amplifier is switched on and flashes slowly to indicate the unit is powering up and initializing.
2	**Headphone output**	Your **200iX/300iX** incorporates the highly acclaimed PERREAUX SXH2 Class A headphone amplifier. This dedicated headphone amplifier circuit provides an isolated, clean, powerful output, stable down to 8 Ohms and fully capable of effortlessly driving headphones between 8 and 600 Ohms (see The Menu System, page 20).
3	**Digital Multifunction Controller**	Your **200iX/300iX** features a solid-state, stepped-attenuator offering precise resolution with exceptional channel matching. The sealed package and minimal mechanical contact, results in a smooth, reliable, multi-functional, and effortless digital multifunction control providing volume control, function navigation and adjustment within the **200iX/300iX** menu system. Note: When the home theatre input (HT LOOP) is selected, or an input is set to bypass the volume control (see Bypass, page 19), the interface knob will have no effect on the volume level.
4	**Infrared Sensor**	Receives infrared (IR) commands from the supplied remote control. Ordinarily, your **200iX/300iX** must have unobstructed line-of-sight with the remote control in order to respond to remote control commands. If your integrated amplifier is to be placed inside a cabinet, you may use the IR input at the rear of the unit (see IR Input, page 13~14) to solve the problem.
5	**Multifunction navigation keys**	Use these buttons to control your **200iX/300iX** integrated amplifier (i.e. access menu, change source or mute the volume). While in the menu, the interface knob can be used, as well, to make any changes to the settings. Note: The function of these buttons will differ depending on which state the amplifier is in.
6	**High contrast OLED digital display**	Visual feedback, menu operation and system configuration on the **200iX/300iX** is supported via the front panel high contrast OLED digital display. This monochromatic OLED display provides a wide viewing angle both horizontally and vertically and increased visual clarity in both low-light and direct-light environments.

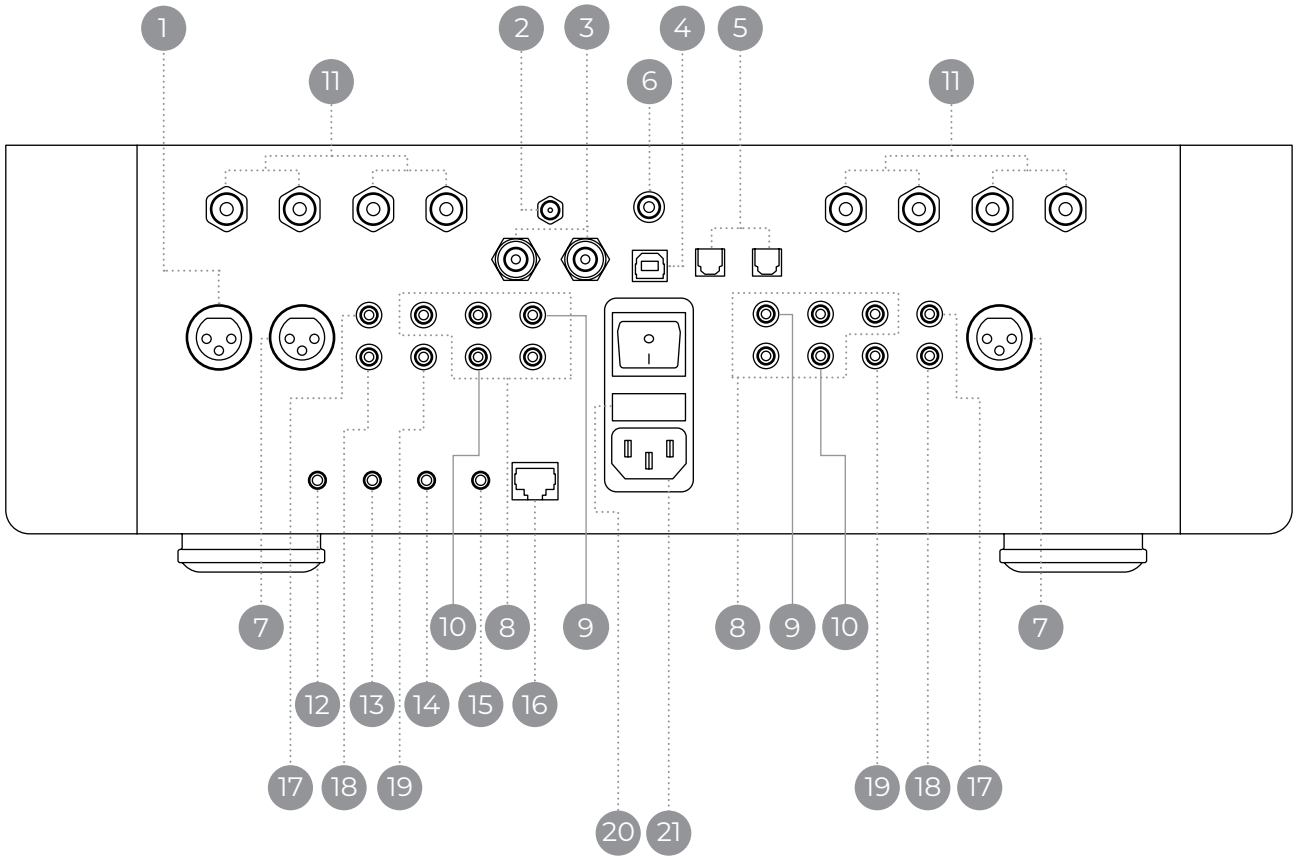
V. REAR PANEL / CONNECTIONS

200iX



1. AES/EBU digital input
2. BT antenna input
3. Coaxial SPDIF digital inputs
4. USB digital input
5. Optical TOSLINK digital inputs
6. Chassis / Phono earthing terminal
7. Balanced XLR (analog input)
8. Unbalanced RCA (analog line inputs)
9. Phono / unbalanced RCA (analog input)
10. Home Theatre HT loop / unbalanced RCA analog input
11. Speaker output terminals
13. Remote trigger output
14. IR input
15. IR output
16. RS232 Serial Communication port
17. Unbalanced RCA preamp output
18. Unbalanced RCA amplifier input
19. Unbalanced RCA analog line output
20. AC Mains fuse
21. AC Mains power socket

300iX



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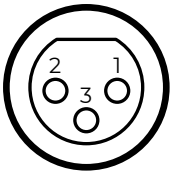
1 AES/EBU digital input



Pin 1: Shield
Pin 2: +ve signal (hot)
Pin 3: -ve signal (cold)

The AES/EBU input accepts digital signals from a source component with an AES/EBU digital output. The pin assignments of the AES/EBU XLR input connector is shown in the diagram on the left.

2 BT antenna input

The **200iX/300iX** provides CD quality, BT audio streaming direct from any BT equipped PC, laptop, smartphone or tablet. Supported codecs are SBC, AAC, aptX, aptX-LL, aptX-HD and LDAC.

In order to use the BT input, please follow the next steps:

1. Select BT as the source within the **200iX/300iX**.
2. Within the source device (e.g. smartphone), enable BT and connect to the 200iX/300iX (i.e. "**200iX/300iX** Audio-xxxx"). The xxxx is unique to your unit and noted on the back panel above the serial.
3. Play your favourite music in your source device; volume can be controlled both in the source device as well as the **200iX/300iX**.

The BT antenna input provides a SMA type, 50 Ohm, coaxial, screw connection for connection of the wireless BT antenna (supplied).

Note: BT is switched off when you switch to another channel to lower noise.

3 Coaxial SPDIF digital inputs

The **200iX/300iX** features 2 High-Resolution Coaxial SPDIF (RCA) digital audio inputs providing 24 bit 192 kHz audio performance.

4 USB digital input

Stream high resolution digital audio directly from your computer via the integrated, ES SABRE Reference 9038 PRO 24-bit/384kHz asynchronous USB DAC.

Compatibility

- Windows 10 (release 1703) or later.*
- Mac users using OSX 10.6.3 or later.

Note: Always use a high quality USB connection cable certified as USB Hi- Speed (cable provided with your **200iX/300iX**). USB cable connections longer than 3m may result in inconsistent audio performance.

* Starting with Windows 10, release 1703, a USB Audio 2.0 driver is shipped with Windows. Device is reported as XMOS USB Audio.

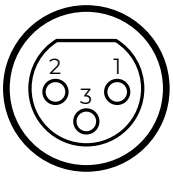
5 **Optical TOSLINK digital inputs**

The 200iX/300iX can accommodate up to 2 High-Resolution digital audio input devices equipped with Optical TOSLINK audio outputs, providing 24-bit 192 kHz audio performance.

6 **Chassis / Phono earthing terminal**

The Chassis / Phono earthing terminal on your 200iX/300iX is most often used for the ground wire of a turntable. Connecting the ground wire from your turntable's tonearm to this terminal usually minimizes any hum or buzzing to which the turntable may otherwise be susceptible. Your authorized PERREAUX dealer can assist you in handling this problem if it should arise.

7 **Balanced XLR (analog input)**



Pin 1: Signal ground
Pin 2: Signal + (non-inverting)
Pin 3: Signal – (inverting)
Shield ground: Chassis ground

The balanced (XLR) analog inputs accept audio signals from source components equipped with balanced +4dB professional audio outputs.
The pin assignments of the XLR input connectors are shown in graphic on the left.
Please refer to the owner's manual of your source component to verify that the pin assignments of the XLR output connectors correspond to those of the 200iX/300iX. If this is not the case, you will need to rewire the cables so that the appropriate output pin connects to the equivalent input pin.

8 **Unbalanced RCA (analog line inputs)**

The unbalanced (RCA) analogue inputs accept signals from source components with single-ended RCA outputs.
Inputs 2 / 3 / 5 provide line level connection of analogue (-10dBv) audio components such as CD / DVD / Digital audio players / Tape decks / Games consoles.

9 **Phono / unbalanced RCA (analog input)**

If you have a turntable you would like to use with the 200iX/300iX Input 1 functions as a Moving Coil / Moving Magnet phono preamplifier. Connect the RCA inputs from your turntable, select the desired gain level (+40dB / +60dB) from the 200iX/300iX PHONO MENU located on-screen within the OPTIONS MENU: MENU > OPTIONS > PHONO > GAIN

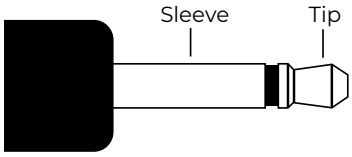
10 **Home Theatre HT loop / unbalanced RCA analog input**

Input 4 is pre-configured as a home theatre loop (HT LOOP) straight from the factory and bypasses the volume control. Please ensure the volume level of the connected processor or receiver is suitably attenuated before selecting this input. This function can be TOGGLED between or BYPASSED and used as a standard analog line level connection by SELECTING MENU > VOLUME > BYPASS > HT LOOP

11 Speaker output terminals

Your **200iX/300iX** speaker output terminals are designed to accommodate loudspeaker cables fitted with either the spade, banana or pin type plugs. If neither of these are available, the screw type output terminals will also accommodate bare stripped cable.

12 Remote trigger input

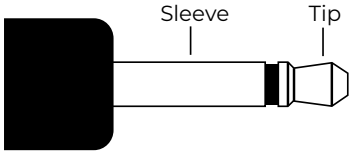


Sleeve: GND
Tip: Signal

The remote trigger input allows a remotely connected device to control the standby state of your 300iX. The remote trigger input accepts a mono 3.5mm (⅛") plug. The remote trigger input accepts a voltage of 5-12V DC to activate the amplifier; please consult the remote device's manual before connecting to the 300iX.

Note: Connecting a mono 3.5mm (⅛") plug into the remote trigger input will override the standby button of the amplifier as well as the standby button of the remote control and App. Please disconnect the mono 3.5mm (⅛") plug from the remote trigger input if the 300iX will no longer be controlled remotely.

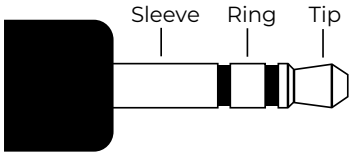
13 Remote trigger output



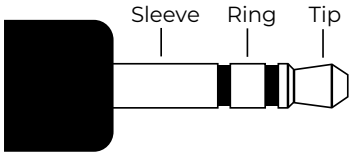
Sleeve: GND
Tip: Signal

The remote trigger output allows your **200iX/300iX** to control the standby state of a remotely connected device. The remote trigger output accepts a mono 3.5mm (⅛") plug. The remote trigger output voltage is 12V DC when the amplifier is active.
The remote trigger output plug must meet the specifications shown in graphic:

14 IR input



Sleeve: No connection
Ring: GND
Tip: Signal

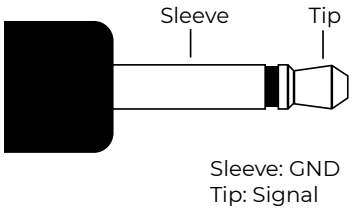


Sleeve: +12VDC
Ring: GND
Tip: Signal

The IR (infrared) input allows your **200iX/300iX** to receive un-modulated commands from home automation systems or other components.
The IR input uses a stereo 3.5mm (⅛") plug, and accepts voltages of 0V DC up to 12V DC. The plug must meet the specifications shown in graphic:

Using an external IR receiver module (for example, Xantech 490-30 Micro Link™ IR receiver) allows the amplifier to be placed inside a cabinet or outside the normal line-of-sight of the remote control. The plug must meet the specifications shown in graphic:

15 **IR output**



The IR (infrared) output allows your **200iX/300iX** to relay un-modulated commands received via the IR sensor on the front panel, or to pass on commands from home automation systems or other components received via the IR input.
The IR output uses a mono 3.5mm (⅛") plug, and transmits voltages from 0V DC up to 12V DC. The plug must meet the specifications shown in graphic:

16 **RS232 Serial Communication port**

The RS-232 (RJ45) serial communication port is used both for downloading new operating (firmware) software into your **200iX/300iX** integrated amplifier and for external control of the amplifier by home automation systems such as Control4™, AMX™ and Crestron™.

17 **Unbalanced RCA preamp output**

The unbalanced (RCA) preamp outputs provide a single-ended preamp level (relative to volume control) audio signal for connection to an external power amplifier or active subwoofer. This output is not active when Headphones are connected.

18 **Unbalanced RCA amplifier input**

The unbalanced (RCA) amp in inputs allow direct connection to the power amplifier section of your **200iX/300iX** when used in conjunction with the Separates function.

19 **Unbalanced RCA analog line output**

The unbalanced (RCA -10dBv line level) analog line outputs provide a single-ended line level analogue audio signal, suitable for recording from the selected source component input. This output is disconnected when INPUT 4 / HT Loop is selected; to prevent any potentially damaging feedback loops.

20 **AC Mains fuse**

The AC mains fuse is user serviceable, and should always be replaced with the same type and rating (see technical specifications for type and rating)
Notes: Fuses do not blow without a reason. Any doubts about fuse failure should be conveyed directly to your PERREAUX dealer.
Ensure your **200iX/300iX** is disconnected from the mains power before attempting to change the fuse.

21 **AC Mains power socket**

The IEC standard AC mains power socket is used with a removable IEC mains power cord to supply your **200iX/300iX** integrated amplifier with power.
Prior to connection to the AC mains, please check the voltage label on the rear panel to ensure that your amplifier conforms to the power supply in your area. Never attempt to connect the unit to an incorrect voltage – severe damage may result.

VI. MENU

The menu system can be used to configure the 200iX/300iX to customize aspects of its operation to suit your requirements, to operate in a particular type of installation, or to view important functional data.

Home Screen

The home screen provides easy access to the basic functions of the integrated amplifier: volume control, input selection and mute. It also provides an easy to read and highly legible depiction of the selected input and current volume setting.

Volume Control

Adjust the volume setting using the interface knob on the front panel (or using the remote control). The display will show the volume level in decibels (dB). The maximum volume setting is +31.5dB, while lower volume settings progress into the negative range with the minimum being -96.0dB.

Input Selection

Scroll through the available inputs using the ∧/∨ buttons on the front panel (or using the remote control).

Notes: The labels for the inputs, as displayed on the front panel, can be customized for your convenience (see Labels, page 17).

Disabling an input (see Enable, page 18) removes it from selection by scrolling from the front panel or remote control (although it is still available for selection via the menu system and the remote control s-keys).

Mute

Mute the volume by pressing the MUTE button on the front panel (or using the remote control). The mute mode is indicated by the volume level being replaced with MUTED in the display, which flashes while mute mode is enabled.
If you increase the volume while mute is enabled, the mute mode will be canceled and the volume will increase from the muted level. This is a safety measure to avoid situations where the volume might be increased while muted, only to have the system un-muted to an unexpectedly high volume.
When mute is canceled, the volume level replaces MUTED in the display and stops flashing.

Notes: If the mute level is set to a customized setting (see Mute Level, page 19) the volume level will be attenuated by this amount when mute is enabled. The attenuated mode is indicated by the volume level changing to the reduced level in the display, which flashes while attenuated.

If you decrease the volume while attenuation is enabled, the volume level will reduce whilst remaining in the attenuated mode.

When mute is canceled, the volume level will increase by the set attenuation level.

Entering and Navigating the Menus

Using the remote control:

- Press MENU.
- Navigate up or down the options within a menu using ∧/∨.
- Press > or OK to select an option.
- Press < to go back to the previous option or menu.
- Alter the setting using </>.
- Press OK to save a setting.
- Press MENU while setting an option to return to the menu.
- Press MENU while in the menu screen to exit the menu and return to the home screen.

or

Using the front panel:

- Press the MENU button.
- Navigate up or down the options within a menu by rotating the interface knob left or right or using the ∧/∨ buttons.
- Press the interface knob or the > button to select an option.
- Press the interface knob or the EDIT button to alter a setting.
- Press the < button to go back to the previous menu.
- Alter the setting by rotating the interface knob left or right or using the ∧/∨ buttons.
- Press the interface knob or the SET/SAVE button to select or store a setting.
- Press the BACK button to return to the menu when altering a setting.
- Press the EXIT button to exit the menu and return to the home screen.

Note: For each option, currently selected enabled settings are indicated by a solid box.

Main Menu

The menu system is comprehensive and intuitive, and provides access to settings and features that allow you to customize how the 200iX/300iX works within the context of your system.

The main menu is the top-level of the menu system and consists of five sub-menus:

- Input
- Volume
- Headphone
- Options
- System

Input

Each input on your 200iX/300iX integrated amplifier can be customized in several ways to enhance either the performance or the ease of use of the system.

Menu > Input > Input Select > Select

The select menu allows you to choose a source input. An input will be available for selection even if it is disabled (please refer to the Enable paragraph within this section for further information).

Menu > Input > Labels
The labels menu allows you to customize the input name as it appears on the display. Any name can be entered, up to a maximum of 11 characters (including spaces).

To change the selected input name via the front panel:

- Rotate the interface knob or press the </> buttons to scroll through the available characters.
- Press the interface knob to add the selected character to the input label and advance the label cursor.
- Press the DEL button to delete characters from the input label and move the label cursor back.
- Press the SAVE button to store your customized input label.
- Press BACK to cancel changes and return to the menu.

To change the selected input name via the remote control:

- Press </> to scroll through the available characters.
- Press ∧ to add the selected character to the input label and advance the label cursor.
- Press ∨ to delete characters from the input label and move the label cursor back.
- Press the OK button to store your customized input label.
- Press MENU to cancel changes and return to the menu.

The factory default labels are as follows:

Input	**Default Label**
Balanced (XLR)	BALANCED
Input 1	PHONO
Input 2	INPUT 2
Input 3	INPUT 3
Input 4/HT	HT LOOP
Input 5	INPUT 5
Coax 1	COAX 1
Coax 2	COAX 2
Optical 1	OPT 1
Optical 2	OPT 2
USB	USB
Antenna	BT
AES/EBU Input	AES/EBU

Menu > Input > Volume Trim
The volume trim screen allows the volume level of each input to be adjusted up or down, relative to the others, to equalize the volume across all sources. For example if a CD player and a radio tuner are connected, the CD player's output volume may be louder than that of the tuner so this feature saves volume adjustment when switching between these sources.

The factory default volume trim is ±00.0dB for all inputs except BT (i.e. +4dB).

Note: The volume difference will not be visible on the volume display so when switching between offset sources, the volume display will not reflect the offset.

Menu > Input > Balance Trim
The balance trim screen gives you control over the relative volumes of the left and right channels for each input. The volume of one channel relative to the other can be changed in increments of 0.5dB, up to a maximum of 20.0dB.
This allows for compensation of any slight imbalance that may be present on a particular source component. For example, the finest handmade cartridges are subject to small channel imbalance problems.

The factory default balance trim is 00.0dB.

Menu > Input > Enable
The enable menu allows you to select which inputs are available when scrolling through the inputs via the front panel or the remote control.

Note: If an input is disabled, you will still be able to select it via the input select menu, or the remote control s-keys.
The factory default has all available inputs enabled.

Menu > Input > Status
The status screen displays all the user customizable settings for a particular input. A factory default setting is not applicable to the status screen.

Volume Configuration

The volume is not directly adjusted by the knob on the front panel, as per traditional potentiometer volume controls; instead it is adjusted by software controlled volume circuitry. Since the volume control circuitry is under software control, it is possible to customize its behavior in a number of ways.

Menu > Volume > Initial Volume
The initial volume screen allows you to set the volume level that the amplifier will be set to when it is powered up.

The factory default initial volume is -40.0dB.

Menu > Volume > Maximum Volume
The maximum volume screen allows you to establish a maximum level to which the volume can be set. It is particularly useful if the system is sometimes used by people who may not be as careful as you would be.

The factory default maximum volume is +00.0dB.

Menu > Volume > Balance
The balance screen gives you fine control over the relative volumes of the Left and Right channels. The volume of one channel relative to the other can be changed in increments of 0.5dB, up to 40.0dB; beyond this, the output of the reduced channel will be muted entirely.

The factory default balance is 00.0dB.

Menu > Volume > Ramp
The volume ramp menu allows you to select the rates at which the volume will ramp up or down when changing between inputs and when muting. Selecting OFF results in no ramping of volume when changing between inputs and a direct change in volume to the muted level. Selecting FAST, MEDIUM or SLOW will result in a corresponding volume ramp rate. The factory default volume ramp is MEDIUM.

Menu > Volume > Mute Level
The mute level menu allows you to select the level of attenuation the mute level employs when it is engaged. Selecting MUTED will attenuate the output entirely, whilst -10.0dB, -20.0dB, -30.0dB and -40.0dB will attenuate the output by the respective level.

The factory default mute level is -40.0dB.

Menu > Volume > Bypass
The bypass menu allows you to select if the volume control is bypassed for any of the inputs. When a bypassed input is selected, it becomes a unity gain (00.0dB) input and the volume control of the **200iX/300iX** is disabled.

This is useful in situations where the **200iX/300iX** is being used to pass through a signal from a component with its own volume control, for example a surround processor or receiver. Care should be taken to adjust the volume control of the other component before selecting a bypassed input, as the resulting volume level may be uncomfortably loud.

Note: INPUT 4 has the volume bypassed straight from the factory, and by default is set to be used as a home theatre loop (HT LOOP).

HEADPHONE

Menu > Headphone > Initial

The initial volume screen allows you to set the volume level that the amplifier will change to when connecting headphones to the headphone connector on the front of the 200iX/300iX.

The factory default initial volume is -50.0dB.

Menu > Headphone > Vol Trim

The volume trim screen allows the volume level to be adjusted to accommodate your headphone's sensitivity. This adjustment will be applied to all inputs.

The factory default volume trim is +06.0dB for all inputs.

Menu > Headphone > Balance

The balance screen gives you fine control over the relative volumes of the Left and Right channels. The volume of one channel relative to the other can be changed in increments of 0.5dB, up to 40.0dB; beyond this, the output of the reduced channel will be muted entirely.

The factory default balance is 00.0dB.

Menu > Headphone > Impedance

Low or high impedance settings can be manually selected for use with headphones rated below or above 250 Ohms.

8-250Ω: This lowers the noise floor and protects sensitive headphones from being over driven.

250-600Ω: Recommended for high impedance studio grade headphones.

The factory default impedance is 8-250Ω.

Menu > Headphone > CLASS A

The 200iX/300iX features our legendary SXH2 Class A headphone amplifier for personal headphone listening. The SXH2 incorporates an efficient power saving function. Toggle between ON DEMAND and ALWAYS ON to manage the power mode.

The factory default is ON DEMAND. Upon connecting headphones, the amplifier will be available after +2 seconds.

OPTIONS

Menu > Options > Display

The display menu allows you to configure various attributes of the LCD screen and display layout.

Menu > Options > Display > Contrast
The contrast screen allows you to adjust the contrast of the display. The available settings range from 0, minimum contrast, to a maximum of 10.

The factory default contrast setting is 5.

Menu > Options > Display > Timeout
The timeout menu allows you to select a time after which the display will turn off.

The factory default timeout setting is DISABLED.

Note: If the display timeout is enabled, the display will turn on when user input is detected then automatically turn off after the timeout duration has elapsed.

Menu > Options > Display > Text Size
Select between three font sizes; small, medium and large.

The factory default text size is SMALL.

Menu > Options > Display > Volume Unit
Select between dB or percentage to display the volume level.

The factory default is dB.

Menu > Options > Separate
The separate menu allows you to break the connection between the preamplifier and power amplifier sections of your integrated amplifier, letting you use the preamplifier and power amplifier sections independently of each other. This is particularly useful for inserting components between the pre and power sections, for example room correction, graphic equalizer or active filter.

The factory default separate setting is DISABLED.

Menu > Options > Low Z (only 200iX)
With the Low Z impedance mode engaged your **200iX** can more efficiently drive speaker loads as low as 2-1 Ohms. Suitable for use with electrostatic speakers.

The factory default is DISABLED.

Menu > Options > S-Keys
The s-keys menu allows you to configure which source inputs the remote control s-keys have instant, direct selection of. Enables direct selection of your six most frequently used source components.

The factory default s-key settings are as follows:

S-Key	Default Input
S1	BALANCED
S2	PHONO
S3	INPUT 2
S4	INPUT 3
S5	HT LOOP
S6	INPUT 5

Menu > Options > PHONO

Menu > Options > PHONO > GAIN

Select between MM (+40dB) or MC (+60dB) according to your turntable's phono cartridge.

The factory default is MM (+40dB).

Menu > Options > DAC

Menu > Options > DAC > POLARITY

The polarity menu will provide the option to inverse the polarity of each input as required. This will invert how transients initiate; with a pull of the drivers, not a push.

The factory default polarity setting is NORMAL.

Menu > Options > DAC > PCM FILTER

The PCM filter will allow you to customize the DAC PCM filter per digital input:

- Fast Lin
- Slow Lin
- Fast Min
- Slow Min
- Apodizing
- Hybrid
- Brickwall

The factory default separate setting is Fast Min.

Menu > Options > DAC > DSD FILTER

The DSD filter will allow you to customize the DAC DSD filter per digital input:

- 47KHz
- 50KHz
- 60KHz
- 70KHz

The factory default separate setting is 47KHz.

SYSTEM

Menu > System > Unit Info

The unit info screen displays information relating to your amplifier – software version, serial number, etc.

Menu > System > Preset
The preset menu allows you to save and restore user settings for your 200iX/300iX integrated amplifier.

Menu > System > Defaults
The defaults menu allows you to reset the system configuration to the factory default settings.

Note: Resetting the factory default settings causes any customization of the amplifiers configuration to be lost – including input labels, gain settings, volume trims, etc. Although, customized user settings may be recalled from the preset menu if they were saved.

VII. APP

APP

Your 200iX/300iX can be remotely controlled, configured and customized via the PERREAUX BT iOS / Android remote control app available for download from the Apple App Store and Google Play Store. The following soft keys control the various settings and functions of the 200iX/300iX.

1 Power/Standby
The power/standby key (300iX model only; not applicable for the 200iX) switches the amplifier between normal operation and standby. Pressing this button puts the unit into standby mode, disconnecting all power supplies except the digital power supply for the microcontroller and turning off the remote trigger outputs.

2 Navigation Keys
The navigation keys are used to navigate your way around the 200iX/300iX menu system and adjust various settings.

3 Menu Key
The menu key calls up the 200iX/300iX menu system, allowing you to customize and control various amplifier function settings (see Using the remote control, page 16).

4 Mute Key
The mute key causes the volume of the 200iX/300iX to be muted, or attenuated by a user customized amount (see Using the remote control, page 16).

5 Display Key
When pressed the OLED digital display will flash once then switch digital display OFF. When another function such as volume + key is pressed the display will illuminate then return to the OFF setting. Press again to display normal OLED digital display function.

6 Enter Key
The OK key is used to confirm various functions selected in the menu system. (see Using the remote control, page 16).

7 Volume Up and Down Keys
The volume up / volume down keys adjust the volume of the amplifier. The volume is adjusted slowly at first and progressively increases the longer the volume keys are held. This allows both fine adjustments while making it easier to move quickly between extremely low and normal listening levels.
Note: When the home theatre input (HT LOOP) is selected, or an input is set to bypass the volume control the volume keys will have no effect.

8 Source Up and Down Keys
The source up / source down keys scroll through the source inputs, provided they are enabled. If an input is disabled it will not be available for selection using the source keys, although it can still be selected using the S-keys.

9 S-Keys
The S-keys provide direct selection of source inputs, and can be customized to select your six most frequently used inputs.
Default source settings are:

S1	Balanced analog input
S2	Phono
S3	Unbalanced analog input 2
S4	Unbalanced analog input 3
S5	HT Loop
S6	Unbalanced analog input 5

VIII. PROTECTION SYSTEM

Your **200iX/300iX** integrated amplifier employs a proprietary protection system to ensure reliability and long life of the unit and the speakers it is connected to. The protection system comprises five main protection methods.

DC Detection

The DC detection mechanism offers loudspeaker protection if the output of the amplifier goes to a high DC voltage because of excessive DC at a source input or some internal fault.

When DC detection occurs the output to the speakers are disconnected and the PROTECT! screen is displayed. The **200iX/300iX** will try to compensate for the amount of DC voltage present, if successful the PROTECT! screen will disappear and operation will resume as normal.

If the PROTECT! screen remains for a prolonged period of time, switch off the amplifier. Wait a few seconds before switching back on and checking the operation at a reduced volume level. If the DC fault occurs again please contact your retailer for service.

Over Temperature Detection

Over temperature is caused by high listening levels and/or low impedance speakers. The over temperature detection constantly monitors the heat generated by the output MOSFETs. If the monitored temperature reaches a high level (suitably within the limits of the output devices) the output to the speakers will be disconnected and the PROTECT! screen is displayed.

The amplifier will remain in this state until it has cooled down adequately – at which time the PROTECT! screen will disappear and the output to the speakers re-engaged.

The volume should ideally be reduced to allow the amplifier time to cool down adequately. If the unit has not fully cooled down then the temperature may reach the limit again soon after the amplifier has resumed operation.
If the loudspeaker impedance is low the temperature of the amplifier will rise faster as the amplifier is working harder. If the amplifier is mounted in a cabinet or the ventilation slots are obstructed the over temperature detection may activate/reactivate after a short listening time.

DC Rail / AC Input Detection

The 200iX/300iX checks for appropriate DC / AC voltages. The 200iX/300iX will enter protection mode if a fault is detected - for example if the mains power is removed or a rail fuse fails.

Over Current Detection

The over current detection system ensures the output devices are constantly operating within their safe operating limits and provides a fast response to temporary overload conditions.

When over current detection occurs the output to the speakers are disconnected and the PROTECT! screen is displayed. The amplifier will need to be switched off and the source of the fault resolved before the amplifier can be switched on again.

Over current detection can occur due to a short across the speaker terminals, a speaker driver/crossover fault or excessive current demand exceeding the amplifier's current rating.

IX. TROUBLESHOOTING

There is no power

- Ensure the mains plug is fully inserted into the wall socket and both power socket and 200iX/300iX amplifier are switched on.
- Check the mains fuse of the amplifier.
- Check fuse in the mains plug or adapter.

There is no sound (loudspeakers)

- Check that there's no mono 3.5mm (⅛") plug connected to the remote trigger input unless it's being remotely controlled (300iX only).

- Check that your source components are properly connected and powered on.
- Check that the desired source component is playing and selected on the 200iX/300iX.
- Check that your loudspeakers are properly connected.
- Make sure the 200iX/300iX is not currently set to Mute.
- Ensure that the volume on your 200iX/300iX is set to a suitable level.
- Check that headphones are fully disconnected from the headphone socket.

There is no sound (headphones)

- Check that your headphone jack is fully inserted into the headphone socket on the front of your 200iX/300iX.
- Check that your source components are properly connected and powered on.
- Check that the desired source component is playing and selected on the 200iX/300iX.
- Make sure the 200iX/300iX is not currently set to Mute.
- Ensure that the volume on your 200iX/300iX is set to a suitable level.

There is no sound on one channel

- Ensure the balance control is in the correct position.
- Check speaker connections.
- Check interconnects.

There is a loud buzz or hum

- Ensure no audio interconnects are loose or defective.
- Check that audio interconnects or loudspeaker cables are not located too close or touching the IEC power cable.
- Check the proximity of your 200iX/300iX amplifier to any possible source of EMI and/or RF interference, for example computers, televisions, refrigerators, dishwashers, etc.
- In the case of turntables (i.e. Phono input):
    - Ensure that your Turntable is not located too close to the 200iX/300iX amplifier.
    - Ensure that GND is connected between the turntable and the 200iX/300iX.

There is weak bass or diffused stereo imaging

- Ensure the speakers are not wired out of phase.
- Check that your audio interconnects are correctly connected.
- Verify that the 200iX/300iX hasn't gone into protection mode.

The remote handset will not function

- Check that the battery has not expired.
- Ensure that nothing is blocking the remote sensor.

The iOS / Android remote App will not function

- Ensure that the iOS / Android device has BT function is enabled.
- Ensure iOS / Android device is located near to the 200iX/300iX (i.e. ideally in clear view of the amplifier and < 10m).

- To improve BT range, make sure that your listening room is free of devices that have excessive emissions of radio waves (e.g. microwave oven, fluorescent lights and wifi access points). If it's not possible to remove the wireless access point, try switching the channels in the settings.

X. CARE AND MAINTENANCE

The 200iX/300iX has been designed to provide many years of trouble free enjoyment. It is important to keep the exterior of the unit clean.

The front panel and cover feature an exquisite, high-quality automotive paint finish. To remove finger marks and dirt, simply rub the surface with a CLEAN soft cloth (e.g. microfiber). You can apply a coat of car paint wax (i.e. waterless wax detailer) to restore the original look; apply product to cloth and not to the amplifier.

If the dirt is not removed, use a small quantity of isopropyl alcohol on a rag and rework the affected area.

Notes: Always switch the unit off and remove the power cord from the rear of the amplifier before attempting to clean your 200iX/300iX integrated amplifier.

- Never apply liquid directly to the amplifier.
- Never use abrasives.
- Never rub in a circular motion.

XI. TECHNICAL SPECIFICATIONS

Amplifier	**200iX**	**300iX**
Rated Power Output (per channel):	200W into 8Ω, 300W into 4Ω	300W into 8Ω, 500W into 4Ω
Total Harmonic Distortion + Noise	<0.005%, Typically 0.002% @ 1kHz, rated power into 8Ω	
Frequency Response	20Hz to 20kHz: +0.00dB, -0.15dB, 5Hz to 60kHz: +0.00dB, -0.50dB	
Preamplifier		
Input Impedance Unbalanced: Balanced:	 12kΩ 22kΩ	
Input Overload Unbalanced / Balanced:	 8Vrms	
Volume Control Range:	-95.5dB to +12dB	
Volume Control Resolution:	0.5dB per step	
Input Volume Trim Range:	±40dB	
Balance Resolution:	0.5dB	
Balance Range:	40dB	

Headphone Amplifier	
Headphone Rated Power Output:	1.0W into 32Ω 150mW into 300Ω
Headphone Total Harmonic Distortion + Noise	Low impedance mode (-17dB): <0.003%, 1kHz at 540mW into 8Ω High impedance mode: <0.002%, 1kHz at 100mW into 600Ω
Headphone Volume Trim Range:	±40dB
Digital to Analog Converter (DAC)	
Digital Inputs:	2 SPDIF Coax (RCA) 2 SPDIF Optical (Toslink) 1 USB (Type B) 1 AES EBU (XLR)
Chipsets:	ES9038PRO Sabre DAC
Input Sample Rate:	32, 44.1, 48, 88.2, 96, 176.4, 192kHz (Coax, Optical, AES/EBU) 32, 44.1, 48, 88.2, 96, 176.4, 192, 352.8, 384 kHz / DSD 64, 128, 256 (USB)
Input Word Length (maximum):	24-bit (Coax, Optical, AES EBU) 32-bit (USB)
Input Impedance:	75Ω (Coax)
Isolation:	Coax, AES/EBU: Transformer coupled Optical: n/a USB: Asynchronous and Galvanically Isolated
Digital to Analogue Conversion:	32-bit / 384kHz
Output Voltage:	2.0Vrms @ 0dBFS
Total Harmonic Distortion + Noise	0.002%, 20Hz-20kHz @ 0dBFS
Frequency Response	+0.0dB, -0.1dB from 20Hz to 20kHz +0.0dB, -3.0dB from 5Hz to 94kHz
Stop Band:	105kHz
Stop Band Attenuation:	125dB
Phono Stage	
Input Impedance:	Low Gain (MM): 47kΩ High Gain (MC): 100Ω
Gain:	Low Gain (MM): 40dB High Gain (MC): 60dB
Total Harmonic Distortion + Noise:	0.1% @ 1kHz Low gain setting <0.5% 20Hz to 20kHz Low gain setting
RIAA Accuracy:	±0.5dB, 20Hz-20kHz
Signal to Noise Ratio (unweighted):	Better than 85dB, low gain setting

Dimensions	200iX	300iX
Width / Depth / Height:	426mm (16.8”) / 344mm (13.5”) / 100mm (3.9”)	426mm (16.8”) / 344mm (13.5”) / 144mm (5.7”)
Weight:	16 kg (35.2lb)	21.5 kg (47.4lb)

Disclaimer

Perreaux Audio reserves the right to change specifications or features without notice.
Perreaux Audio will not assume any liability for errors being made by retailers, custom installers, cabinet makers, or other end users based on information contained on this manual.

XII. LIMITED WARRANTY

Perreaux Audio Ltd warrants this product to be free from defects in materials and workmanship (subject to the terms set forth below). Perreaux Audio Ltd will repair or replace (at Perreaux Audio Ltd’s option) this product or any defective parts in this product. Warranty periods may vary from country to country. If in doubt consult your dealer and ensure that you retain proof of purchase.
To obtain warranty service, please contact the Perreaux Audio Ltd authorized dealer from which you purchased this product. If your dealer is not equipped to perform the repair of your Perreaux Audio Ltd product, it can be returned by your dealer to Perreaux Audio Ltd or an authorized Perreaux Audio Ltd service agent. You will need to ship this product in either its original packaging or packaging affording an equal degree of protection.

Proof of purchase in the form of a bill of sale or receipted invoice, which is evidence that this product is within the warranty period, must be presented to obtain warranty service.

This Warranty is invalid if (a) the factory-applied serial number has been altered or removed from this product or (b) this product was not purchased from a Perreaux Audio Ltd authorized dealer. You may call Perreaux Audio Ltd or your local country Perreaux Audio Ltd distributor to confirm that you have an unaltered serial number and/or you made a purchase from a Perreaux Audio Ltd authorized dealer.

This Warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of, the product. This Warranty does not cover damage due to improper operation, maintenance or installation, or attempted repair by anyone other than Perreaux Audio Ltd or a Perreaux Audio Ltd dealer, or authorized service agent which is authorized to do Perreaux Audio Ltd warranty work. Any unauthorized repairs will void this Warranty. This Warranty does not cover products sold AS IS or WITH ALL FAULTS.

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For any service, in or out of warranty, please contact your dealer.

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