PS AUDIO®

Owner's Reference

Stellar™ Phono Preamplifier

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Stellar Phono Preamplifier

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Safety Information

Stellar Phono Preamplifier

Important Safety Instructions

READ AND FOLLOW ALL INSTRUCTIONS
HEED ALL WARNINGS

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE. OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THE APPARATUS. THIS APPARATUS MUST BE CONNECTED TO A MAINS SOCKET OUTLET WITH A PROTECTIVE EARTH CONNECTION.

Clean only with a dry cloth. Do not place flammable material on top of or beneath the unit.

The PS Audio® Stellar Phono Preamplifier is a passively cooled component that requires adequate ventilation at all times during operation.

Do not remove or bypass the ground pin on the end of the AC cord. All PS Audio® products ship with a grounding-type plug. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

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 this apparatus during lightning storms.

When making connections to this or any other component, make sure all components are powered off. Turn off all systems' power before connecting the PS Audio® component to any other component. Make sure all cable terminations are of the highest quality.

THERE ARE NO USER-SERVICEABLE PARTS INSIDE THIS PS AUDIO PRODUCT. REFER ALL SERVICE NEEDS TO QUALIFIED SERVICE PERSONNEL.

Please contact your authorized dealer, distributor, or PS Audio® directly if you have any questions or concerns that are not addressed in this reference manual.

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This product was designed and assembled in Boulder, Colorado with globally sourced components.

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Introduction

Stellar Phono Preamplifier

Thank You

Thank you for purchasing PS Audio's Stellar Phono Preamplifier. This is your comprehensive Operator's Guide, intended to provide a full overview of the Stellar Phono Preamplifier's functions and capabilities. It is our intention to provide you with full details about the Stellar Phono Preamplifier and to answer any and all questions you may have. If you have additional questions or concerns that are not addressed in this guide, please contact us and we will be happy to assist you.

Contact Information

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service@psaudio.com
www.psaudio.com

A Message From The Design Engineer

It is inconvenient, yet utterly enthralling, to realize that measurements don't always correlate with what we hear. This realization is what's been fueling my design career; it's so exciting and invigorating to know there are mysteries to be solved. Some of the most commonly used circuit typologies suffer from what I call overexposed sound - the edge transients lead with far too much high frequency energy and the overall tonality has a grey sheen that washes out the tonal contrast. Many have claimed that this is what happens when a circuit is transparent and has low distortion. I beg to differ.

The Stellar Phono is a fully discrete phono preamp that utilizes proprietary circuits that don't rely on high amounts of global feedback to lower complex distortion or increase bandwidth. To the contrary, they were designed to be innately transparent and present the music with a correct display of tonal balance. The circuitry is DC coupled from the input to output and doesn't contain any complementary circuits. The signal path is relatively short and utilizes MOSFET and JFET semiconductors biased in pure Class A.

After hundreds of hours of listening with many different cartridges and systems, I ended up with a phono preamp that always presents the music in the correct light. It gets out of the way of the music and lets you focus on really what matters – our connection with the music and most importantly the opportunity to share those moments with the people in our lives.

So put on one of your favorite recordings, drop the needle in the groove, and kick back.

Welcome to the HiFi family.

-Darren Myers

Getting Started

Stellar Phono Preamplifier

Symbols Found On The Stellar Phono

CE — Indicates compliance with European Union Legislation for relevant safety (Low Voltage Directive 2014/35/EU) and EMC (EMC Directive 2014/35/EU) requirements.

Is intended to tell the user that parts inside the product are a risk of electric shock to persons.

Is intended to tell the user that important operating and servicing instructions are in the papers with the appliance.

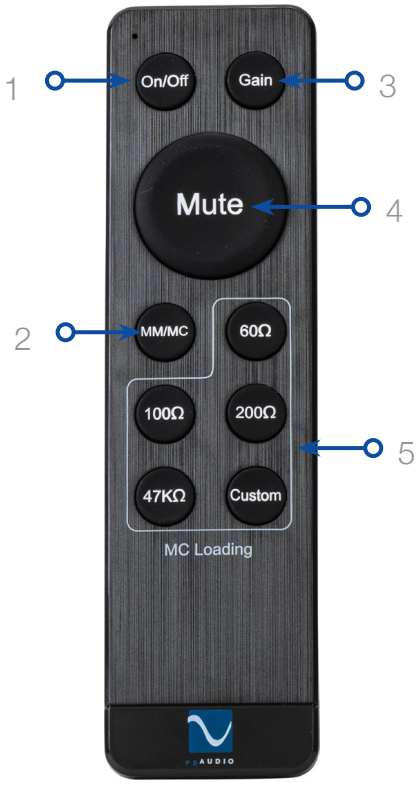
Signifies that the instrument complies with European Union Waste Electrical and Electronic Equipment Directive.

Indicates that the unit is in compliance with the European Union Reduction of Hazardous Substances Directive.

Included With The Stellar Phono

- 6-foot Power Cable
- Owner's Reference Manual
- Remote Control

The Remote



1 The On/Off button activates/deactivates idle mode.

2 The MM/MC button toggles between moving magnet and moving coil inputs.

3 The Gain button toggles between Low, Med, and High.

4 The Mute button activates/deactives the mute function.

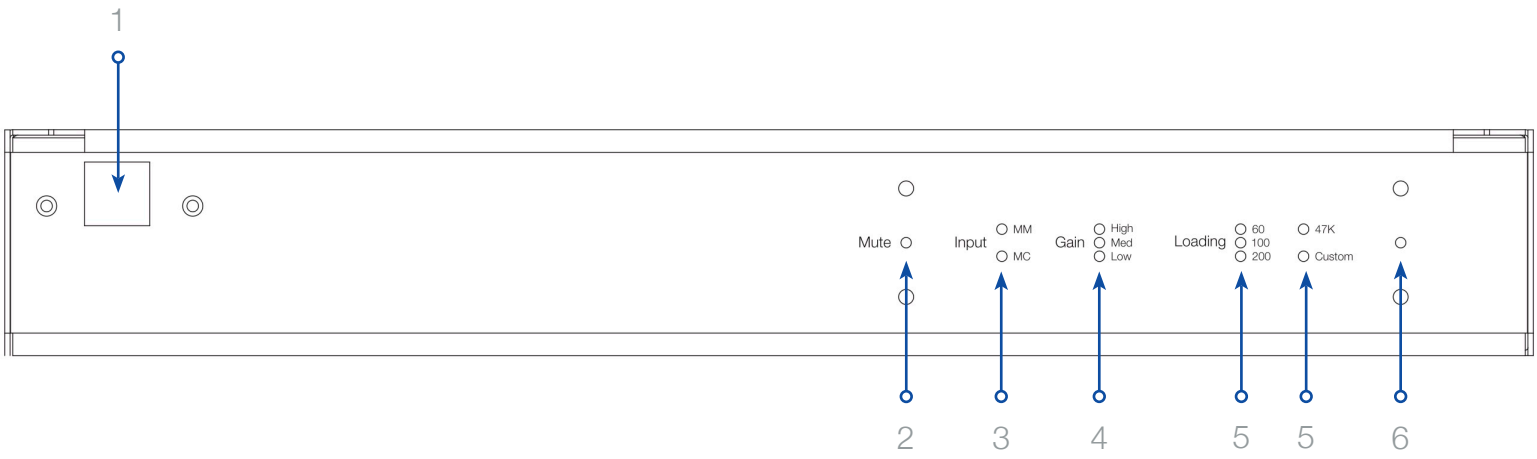
5 These are the resistive loading options for moving coil.

Getting Started

Stellar Phono Preamplifier

Front Panel View

1	PS Audio Logo LED Button
2	Mute LED Indicator
3	Input LED Indicators
4	Gain LED Indicators
5	Loading LED Indicators
6	Infrared Remote Sensor

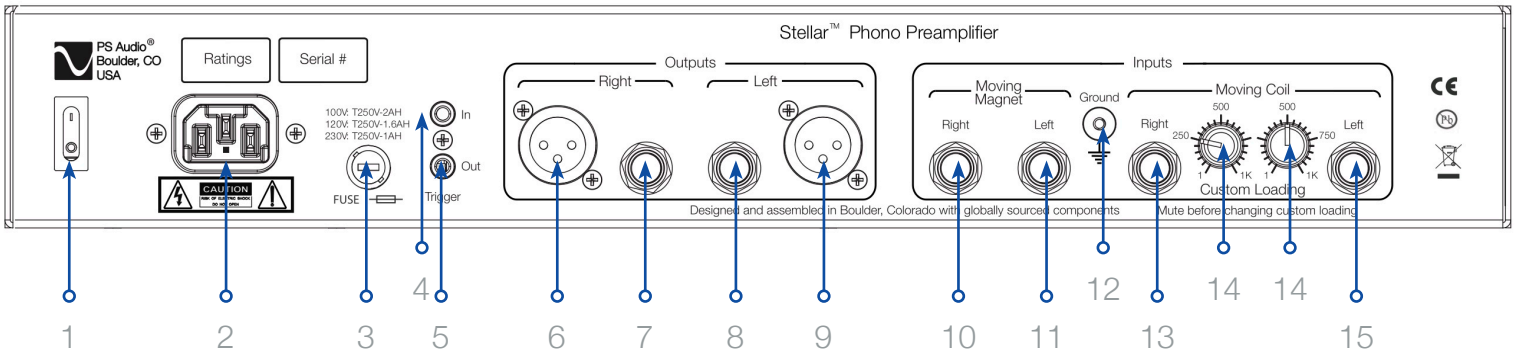


Getting Started

Stellar Phono Preamplifier

Rear Panel View

1	Master Power Switch	9	Balanced Left Output
2	IEC AC Power Inlet	10	Moving Magnet Right Input
3	Fuse Socket	11	Moving Magnet Left Input
4	5 Volt -12 Volt Trigger Input	12	Ground Binding Post
5	5 Volt - 12 Volt Trigger Output	13	Moving Coil Right Input
6	Balanced Right Output	14	Moving Coil Custom Loading
7	Single-Ended Right Output	15	Moving Coil Left Input
8	Single-Ended Left Output		



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Getting Started

Stellar Phono Preamplifier

Installation Considerations

Location

Once your new Stellar Phono Preamplifier is unpacked, you will need to find a convenient place to set it. To avoid RF interference from other components in your system, such as computers and servers, we recommend placing the Stellar Phono as far away from these devices as possible.

Mounting

The Stellar Phono Preamplifier should be placed with consideration of providing air circulation to the unit. If you wish to install the Stellar Phono into your component rack, the purchase of an aftermarket, custom-designed shelf may be necessary.

If your equipment is located a long distance from the Stellar Phono, it is preferable to use a long, heavy gauge shielded power cable between the AC receptacle in the wall and the Stellar Phono, rather than long individual cables between the connected components.

Plugging In The Power Cable

You may use either the provided power cable or an aftermarket power cable to connect your unit to AC power. For best results, we strongly recommend the use of a PS Audio PerfectWave® Power AC cable, or any high-quality aftermarket power cable. It is always preferable to feed your equipment using an excellent power cable, as there will be a significant performance improvement over the stock power cable.

To connect your unit to AC power, plug the flat end of the power cord into the IEC AC inlet and the pronged end into a wall socket.

Getting Started

Stellar Phono Preamplifier

Plugging In Your Equipment

With the Stellar Phono powered off, plug the cables from your turntable into either the moving magnet or moving coil (depending on the output voltage of your cartridge) RCA input jacks on the rear panel of the phono preamplifier. If your turntable has a grounding wire, we highly recommend connecting it to the grounding post on the rear panel of the Stellar Phono.

Next, connect the cables from your line preamplifier to either the balanced XLR or single-ended RCA jacks on the rear panel of the Stellar Phono. Keep in mind, single-ended cables have 6dB less gain, so if you are using a cartridge with low gain (<0.2mV) you will want to use balanced XLR cables.

Powering On Your Stellar Phono

Once the unit is connected to power, flip the master power switch on the rear panel to the on position. The PS Audio Logo LED button on the front panel will glow blue when the unit is powered on and ready for use. When powering on your Stellar Phono Preamplifier using the master power switch, it will always load the factory default settings: moving magnet, low gain, and 47K ohm loading. The unit will always power up in mute.

Idle Mode

The master power switch on the rear panel should remain on at all times (except when making new connections). When your connected equipment is not in use, the Stellar Phono can be placed in Idle mode. Putting your unit in Idle mode will deactivate all of its output relays.

Idle mode can be activated/deactivated by pressing the PS Audio logo button, located on the upper left hand corner of the Stellar Phono's front panel. When the logo button is not lit, the Stellar Phono is in idle mode. Idle mode can also be activated/deactivated by pressing the On/Off button in the top left hand corner of the remote.

When toggling in and out of idle mode, the phono preamplifier will retain its most recent settings. However, if you power down your unit using the master switch on the rear panel, the Stellar Phono will load the factory default settings on the next power up.

CAUTION: Activate idle mode before powering down your unit using the rear panel master power switch.

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Operation Guide

Stellar Phono Preamplifier

Front Panel LEDs

Mute - When the Mute LED is illuminated red, the Stellar Phono Preamplifier is muted. You can activate/deactivate mute by using the remote control or holding in the front panel PS Audio logo LED button for 3 seconds.

*Input - The Input LED indicates which input you have selected. Using the remote, you can toggle between moving magnet (MM) and moving coil (MC) cartridge inputs.

*Gain - The Gain LED indicates the selected level of amplification. Using the remote, you can select the correct gain setting, which is dependent on the cartridge's output voltage.

MM: 44dB (Low), 50dB (Medium), 56dB (High)
MC: 60dB (Low), 66dB (Medium), 72dB (High)

*Loading - The Loading LED indicates the selected resistive loading. Using the remote, you can select the correct resistive loading, which is mandatory for flat frequency response.

MM: Resistive loading - 47KΩ fixed loading
MC: Resistive loading - 60Ω, 100Ω, 200Ω, 47KΩ, and custom loadings

The custom loading option allows you to use the potentiometers on the rear panel to select between 1 - 1000 ohms.

* These features can only be changed via the remote control.

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Operation Guide

Stellar Phono Preamplifier

Moving Magnet

A moving magnet cartridge is the preferred path for getting started in analog since they are not as picky with set up, cost less, are more durable, and are not as discriminating when it comes to the quality of the recording or pressing.

The default settings for moving magnet are low gain and 47K ohms loading. To adjust these settings, you will need to use the remote.

Setting the Correct Gain

We recommend the following gain settings for each range of output voltages:

4mV - 10mV: MM, Low Gain
2.5mV - 4mV: MM, Medium Gain
1mV - 2.5mV: MM, High Gain

Resistive and Capacitive Loading

The resistive loading for moving magnet inputs is fixed at 47K ohms and cannot be adjusted. However, this is the preferred loading for most moving magnet cartridges. When it comes to capacitive loading, moving magnet cartridges can be fairly picky. Typically, moving magnet inputs are loaded at around 100 picofarads, similar to the Stellar Phono.

The capacitance of the RCA cables running from your turntable to the phono preamplifier is important, since it will affect sound and add to the fixed input capacitance of the phonostage. The correct amount of capacitance in a cable may range depending on the cartridge. Most users of moving magnet cartridges will be very happy with cables of average capacitance and the 100pF loading, but you may try different cables if you wish to change the capacitive loading of the Stellar Phono. It's always best to talk to the manufacturer of your cartridge to see what they recommend.

Moving Coil

The default settings for moving coil are low gain and 100Ω loading. To adjust these settings, you will need to use the remote.

Setting the Correct Gain

MC cartridges generally have lower output voltages that typically range from .15mV to 2.5mV. We recommend the following input and gain settings for each range of output voltages:

1mV - 2.5mV: MM, High Gain
0.7mV - 1mV: MC, Low Gain
0.35mV - 0.7mV: MC, Medium Gain
<0.35mV: MC, High Gain

Setting the Correct Loading

Moving coil cartridges typically have a low self-inductance and resistance, causing them to perfom better with low resistive loading (typically less than 500 ohms). Because of the low resistance, the capacitive loading effects are pushed well above the audio band. High output moving coil cartridges normally like to be loaded at 47K, making them a perfect match with the high gain moving magnet setting. The optimal loading for a phono cartridge is always supplied by the manufacturer. This is a good starting position, but we encourage trying different loadings to see what sounds best. The phono cartridge cannot be damaged by loading it incorrectly.

CAUTION: Mute your Stellar Phono Preamplifier before changing the custom loading setting using the rear panel potentiometers.

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Troubleshooting

Stellar Phono Preamplifier

Noise

If a whining, whistling, beeping, or other noise is coming from the Stellar Phono Preamplifier, it is likely due to RF interference from another component. Components such as computers and servers should be located as far away from the phonostage as possible. We recommend using high-quality, shielded interconnect cables between the turntable and phonostage. If necessary, you can also add a clamp ferrite to the RCA cable that runs between your turntable and your Stellar Phono.

Hum or Buzzing from Speakers

If you can hear a hum or buzzing noise coming from your speakers and it goes away when muting your Stellar Phono, verify that you have selected the proper gain setting for your cartridge. High noise could be a sign of the gain being set too high. Also, make sure that the grounding wire from your turntable (if it has one) is connected to the binding post on the rear panel of the Stellar Phono.

If you are using single-ended cables, try a pair of balanced (XLR) cables to see if the noise is reduced or eliminated.

If you are still experiencing a hum or buzz coming from your speakers, it may be due to cartridge interference. To test, mute the phonostage and unplug the input RCA cables. Check to see if the noise is still there. If so, move the turntable to a different location and repeat the test.

Loud Popping

If you hear a loud popping noise when touching the tonearm or turntable, verify that your turntable's grounding wire is connected to the binding post on the rear panel of the Stellar Phono Preamplifier. Not all turntables have a grounding wire, so if yours does, we highly recommend that you use it.

Music Sounds Distorted

If your music sounds distorted or the soundstage is ill defined or incorrect, check the alignment of your cartridge.

You may also check the verticle tracking angle (VTA) of the tonearm and verticle tracking force (VTF) of the cartridge. If you are unsure how to do this, please contact the manufacturer of your tonearm or cartridge.

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Specifications

Stellar Phono Preamplifier

Stellar Phono Specifications

Unit Weight	21.6lbs (9.8 kg)
Unit Dimensions	17”W x 13”D x 3.25”H (43cm x 33.02cm x 8.255cm)
Shipping Weight	25.1lbs (11.4 kg)
Shipping Dimensions	22”W x 8”H x 17”D (55.88cm x 43.18cm x 20.32cm)
Color Options	Black Silver
Voltage Options (Factory set only)	Japan 100V North America 120V Europe/Asia/Australia/New Zealand 230V
Mains Power Input	IEC C14
Idle Power Consumption	26W
Fuses	100V: T250V-2.0AH (2A Slow Blow) 120V: T250V-1.6AH (1.6A Slow Blow) 230V: T250V-1AH (1A Slow Blow)
Accessories Included	US (NEMA 5-15P) (100V/120V versions) Schuko (CEE7/7) (230V version) UK (BS 1363) (230V version) Remote Control
Audio Inputs	RCA (Unbalanced) MM,MC
Audio Outputs	RCA (Unbalanced) 1 Stereo Pair XLR (Balanced) 1 Stereo Pair
DC Trigger	3.5mm 12VDC (2)

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Specifications

Stellar Phono Preamplifier

Stellar Phono Specifications

Performance	All measurements are with both channels operating, gain set to low, and balanced outputs. Input frequency is 1kHz.
Gain	MM: 44dB, 50dB, 56dB MC: 60dB, 66dB, 72dB
Input Loading	MM: 47KΩ (100pF) MC: 60Ω, 100Ω, 200Ω, 47KΩ, Custom 1-1KΩ
Output Impedance	Unbalanced <200KΩ Balanced <200KΩ per leg
Frequency Response	20Hz - 20kHz +/- 0.25dB
THD	0.5V out @ 1kHz: <0.01%
Maximum Output	@1%THD: 24VRMS
Overload Margin	@1kHz: > 22dB
S/N Ratio	MM: >82dB A-Weighted MC: >74dB A-Weighted
Interchannel Crosstalk	>74dB
Power Consumption	26W

Warranty Information

Stellar Phono Preamplifier

Registering Your Product

By registering your product, you are validating the start date of your limited warranty. This limited warranty is in effect for 3 years from the date the unit was first purchased from PS Audio or its dealers and agents. If you do not register your product within 30 days of service, a copy of your purchase receipt from an authorized PS Audio dealer may be used as proof of purchase to establish the warranty start date. If no proof of purchase from an authorized PS audio dealer or registration is provided, the production date of the product will be used to determine the warranty start date. You can register your product online, by phone, by mail, or by email.

What This Warranty Covers

This warranty covers defects in material and workmanship for products purchased from PS Audio or its authorized dealers and agents. In the event your product fails, your sole remedy under this limited warranty shall be to return the product to PS Audio or an authorized PS Audio repair center. At the option of PS Audio, the product will be repaired without charge for parts or labor, replaced, or the purchase price refunded through the original point of purchase.

Shipping

You are responsible to pay for the safe and proper shipment of the warrantied product to PS Audio or its authorized repair center. Under this limited warranty, PS Audio or its authorized repair center will pay the cost of returning the repaired or replacement product to you.

What This Warranty Does Not Cover

This warranty does not cover damage due to:

- Accidents, carelessness, improper transportation, misuse, neglect, or abuse
- Failure to follow the operating instructions that are provided by PS Audio in the Owner's Reference Manual (available for download at www.psaudio.com)
- Use in any manner inconsistent with PS Audio's operating instructions (available for download at www.psaudio.com)
- Lack of routine maintenance
- Connection to an improper voltage supply
- Alterations or modifications to the unit
- Improper or unauthorized repair, including repairs not authorized by PS Audio or a PS Audio authorized repair center
- Fire, lightning, flood, "Acts of God," or other contingencies beyond the control of PS Audio
- Products purchased through an unauthorized source (if you have questions as to whether or not a dealer is authorized, please contact customer support at www.psaudio.com
- Products with a factory-applied serial number that has in any way been altered, defaced, or removed

Warranty Information

Stellar Phono Preamplifier

Limitations Under This Warranty

In no event will PS Audio's liability to you exceed the origianl purchase price of your unit. This warranty does not cover the cost of custom installation, customer instruction, setup adjustments, or signal reception problems. Consequential and incidental damages are not covered under this warranty. However, some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you. In the event that your warrantied product cannot be repaired, PS Audio will either replace or refund the cost of the unit. We reserve the right to replace any out-of-stock, discontinued, or limited edition products with a comparable product. Discontinued products may not be available for warranty replacement.

Warranty Transfer

This warranty is for the benefit of the original purchaser of the product. The warranty may be trasferred to a subsequent purchaser during the 3 year warranty period. To do this, you must contact PS Audio directly to set up a transfer of warranty registration.

Service Information

Stellar Phono Preamplifier

Warranty Service Within North America

Please contact PS Audio customer support for service assistance, help with locating an authorized PS Audio repair center, help with the operation of a product, or for more information.

Obtaining An RMA#

In order to receive warranty service, you must first obtain a Return Merchandise Authorization Number (RMA#) prior to returning any item. Please contact PS Audio or an authorized PS Audio repair center to receive an RMA#. The RMA# must be on all returned items. If it is not clearly marked, PS Audio will return the package back to you, freight collect.

Packaging and Shipping

Original packaging should be used for the safe transit of your PS Audio unit to the repair center. If you do not have the original packaging, PS Audio can sell and ship replacement packaging to you. You are responsible for the cost of shipping the product to a PS Audio authorized repair center. You should insure the product for its full retail cost, in the event it gets lost or damaged in transit. PS Audio is not responsible for damage incurred during the transit of products sent to us. Shipping your product in non-PS Audio packaging may void this warranty. PS Audio reserves the right to charge you for new factory packaging to return your product after a repair.

State Law

This warranty gives you specific legal rights. You may also have other rights, which vary from state to state.

International Warranty Service

PS Audio has authorized distribution in many countries of the world. In each country, the authorized importing distributor has accepted the responsibility for warranty of the products sold by that distributor. Warranty service should be obtained where the product was purchased.

Changes To Our Products

PS Audio reserves the right to modify the design of any product without obligation to purchasers of previously manufactured products, and to change the prices or specifications of any products without notice or obligation to any person.

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Your Product

Stellar Phono Preamplifier

Your Serial Number	
Your Purchase Information	
Date of Purchase	

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