



# SPL HPm Headphone Monitoring Amplifier User Manual

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**SPL HPm Headphone Monitoring Amplifier**



## Product Information

### Specifications

- Input & Output (balanced)
  - Input impedance: 10 k
  - Output Impedance: 150
- Headphone Outputs, 1/4 (6,35 mm) TRS Jacks
  - Max output power (600 ): +18 dBu
  - Max output power (300 ): +15 dBu
  - Max output power (32 ): +5 dBu
- Double-slot module, 500 Series
- Weight: 1.76 lbs (0.8 kg)

### Installation

1. Please keep the original packaging. In a service case, the Original packaging ensures a mode of safe transport.

### Control Elements

- **Stereo/Mono/Mute:** The audio signal can be switched between stereo and mono. In the Mute position, the headphone outputs are muted.
- **Crossfeed:** The Crossfeed parameter of the HPM is continuously adjustable via the crossfeed control.
- **Matrix On/Off:** With the Matrix switch, the Phonitor Matrix (Crossfeed, Speaker Angle, Center Level) can be activated or deactivated.
- **Speaker Angle:** Adjust the speaker angle.
- **Center Level:** Adjust the center level.
- **HEADPHONE AMP 1:** Adjust the volume for headphone 1.
- **HEADPHONE AMP 2:** Adjust the volume for headphones 2.

## Security Advice

Before starting up the device, please follow the security bits of advice listed below to avoid serious injuries or even deadly accidents due to electric shocks, short circuits, fires, or other dangers:

- **Lightning:** Before thunderstorms or severe weather, disconnect your 500 Series rack from the main socket outlet. Do not do this during a storm to avoid lightning strikes.
- **If you notice any abnormality:** When problems occur, immediately turn off the power switch and disconnect the electric plug to your 500 Series rack from the main socket outlet. Has the device been inspected by a qualified professional?
- **Do not open:** This device contains no user-serviceable parts. Do not open the device or attempt to disassemble or modify the internal parts.
- If it appears to be malfunctioning, turn off the power of your 500 Series rack, unplug the power cord, and have it inspected by a qualified professional.
- **Water warning:** Do not expose the device to rain or use it near water or in damp conditions. Do not place anything containing liquids on it.
- If any liquid seeps into the device, turn off the power immediately and unplug the power cord. Has the device been inspected by a qualified professional?

## FAQ

### Q: Can I use this amplifier with any headphones?

- **A:** Yes, you can use this amplifier with any headphones that have a 1/4 (6,35 mm) TRS jack.

### Q: Can I adjust the volume separately for each headphone?

- **A:** Yes, you can adjust the volume for headphone 1 using the Volume Poti for HEADPHONE AMP 1, and adjust the volume for headphone 2 using the Volume Poti for HEADPHONE AMP 2.

## Introduction

- Developer
- Bastian Neu
- Version 2.0 – 12/2022
- This manual contains a description of the product. In no way does it represent a guarantee of particular characteristics or results of use.
- The information in this document has been carefully compiled and verified and, unless otherwise stated or agreed upon, correctly describes the product.
- Specifications are subject to change without notice.

## Specifications

<b>General</b>	
Frequency range (-3 dB):	10 Hz – 100 kHz
Common mode rejection (1 kHz, 0 dBu):	> 82 dB
THD + N (0 dBu, 10 Hz – 22 kHz):	0.03%
Noise (A-weighted):	-92.3 dBu
Dynamic range:	113 dB
<b>Input &amp; Output (balanced)</b>	
Input impedance:	10 k $\Omega$
Output Impedance:	150 $\Omega$
<b>Headphone Outputs, 1/4" (6,35 mm) TRS Jacks</b>	
Max output power (600 $\Omega$ )	+18 dBu
Max output power (300 $\Omega$ )	+15 dBu
Max output power (32 $\Omega$ )	+5 dBu

## Scope of Delivery

- HPm module, 500 Series
- Manual

## Measurement & Weight

- **Double-slot** module, 500 Series
- **Weight:** 1.76 lbs (0.8 kg)
- Please keep the original packaging.
- In a service case, the original packaging ensures a mode of safe transport.

## Installation

- Installation into a 500 Series rack:
- Please read the manual that comes with the 500 Series rack. You should receive all necessary information for the installation process.
- For the installation or exchange of HPm, your 500 Series rack should be switched off and the power cable should not be connected.
- Insert the HPm module into two adjacent free slots of your rack. Make sure the connectors of the HPm are precisely aligned with the rack connectors.
- Press the HPm module carefully into the rack connectors and tighten the screws.
- Connect the HPm module with your audio environment using the connections from your 500 Series rack.
- Connect Headphones.

- Insert the power cable into the 500 Series rack and switch it on.

## **Control Elements**

### **Phase Ø**

- With the phase inversion switch the phase of the left or right channel can be inverted (180°).

### **Stereo/Mono/Mute**

- The audio signal can be switched between stereo and mono. In the Mute position, the headphone outputs are muted.

### **Crossfeed**

- The Crossfeed parameter of the HPm is continuously adjustable via the crossfeed control.

### **Matrix On/Off**

- With the Matrix switch, the Phonitor Matrix (Crossfeed, Speaker Angle, Center Level) can be activated or deactivated.

### **Speaker Angle**

- The Angle parameter can be adjusted in three settings: 20°, 30° and 40°. The studio standard is 30°.

### **Center Level**

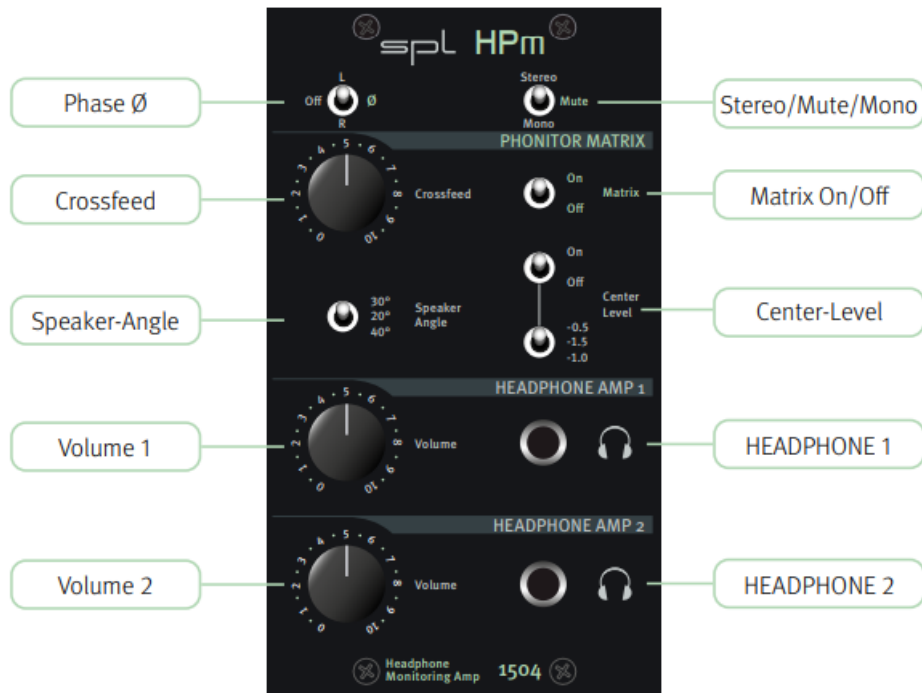
- To make the listening experience even more perfect, the level of the center of the stereo image needs to be attenuated when the Phonitor Matrix is active.
- This ensures that not only the position of all sound sources is correct but also their volume.
- With HPm, this parameter, which we call “Center” in the Phonitor Matrix, can also be adjusted in three settings.
- You can choose between an attenuation of -0.5dB, -1 dB, or -1.5 dB.
- The standard for an authentic representation of the stereo image is -1 dB.

### **HEADPHONE AMP 1**

- With the Volume poti for the HEADPHONE AMP 1 the volume for headphone 1 can be adjusted.

### **HEADPHONE AMP 2**

- With the Volume poti for the HEADPHONE AMP 2 the volume for headphone 2 can be adjusted.



## Security Advice

### Before starting up the device:

- Read thoroughly and follow the security bits of advice.
- Read thoroughly and follow the manual.
- Observe all warning instructions on the device ad on your 500 Series rack.
- Please keep the user manual as well as the security bits of advice in a safe place for future reference.
- Module installation and replacement should only be carried out by qualified technicians.
- Please refer to and heed the safety and assembly instructions of your 500 series rack.

### Warning

- Always follow the security bits of advice listed below to avoid serious injuries or even deadly accidents due to electric shocks, short circuits, fires, or other dangers.
- The following are examples of such risks and do not represent an exhaustive list:

### Do not open

- This device contains no user-serviceable parts. Do not open the device or attempt to disassemble the internal parts or modify them in any way.
- If it should appear to be malfunctioning, turn off the power of your 500 Series rack immediately, unplug the power cord from the main socket outlet, and have it inspected by a qualified professional.

### Water warning

- Do not expose the device to rain, use it near water or in wet conditions, or place anything on it (such as vases, bottles, or glasses) containing liquids that might spill into any openings.

- If any liquid such as water seeps into the device, turn off the power of your 500 Series rack immediately and unplug the power cord from the main socket outlet. Then have the device inspected by a qualified professional.

### **Fire warning**

- Do not put burning items, such as candles, on the unit. A burning item may fall over and cause a fire.

### **Lightning**

- Before thunderstorms or other severe weather, disconnect your 500 Series rack from the mains socket outlet; do not do this during a storm to avoid life-threatening lightning strikes.
- Similarly, disconnect all the power connections of other devices, antenna, and phone/network cables that may be interconnected so that no damage results from such secondary connections.

### **If you notice any abnormality**

- When one of the following problems occurs, immediately turn off the power switch and disconnect the electric plug of your 500 Series rack from the main socket outlet.
- Then have the device inspected by a qualified professional.
- The device emits unusual smells or smoke.
- An object has fallen into the unit.
- There is a sudden loss of sound during the use of the device.

### **Caution**

- Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the device or other property. These precautions include, but are not limited to, the following:

### **Location**

- Do not place the device in a location where it may come into contact with corrosive gases or salty air. This may result in malfunction.
- Before moving the device, remove all connected cables.

### **Connections**

- Before connecting the device to other devices, power down all devices. Before powering on or off the devices, set all volume levels to a minimum.
- Only use appropriate cables to connect the device to other devices. Make sure that the cables you use are intact and comply with the electrical specifications of the connection.
- Other connections can lead to health risks and damage to the equipment.

### **Handling**

- Operate the controls and switches only as described in the manual. Incorrect adjustments outside safe parameters can lead to damage. Never use excessive force on the switches or controls.
- Do not insert your fingers or hands in any gaps or openings of the device.
- Avoid inserting or dropping foreign objects (paper, plastic, metal, etc.) into any gaps or openings of the device. If this happens, power down immediately and unplug the power cord from the main socket outlet.
- Then have the device inspected by a qualified professional.
- Do not expose the device to excessive dust or vibrations or extreme cold or heat (such as direct sunlight, near a heater, or in a car during the day) to prevent the possibility of causing damage to the housing, the internal components, or unstable operation.
- If the ambient temperature of the device suddenly changes, condensation can occur (if for example the device is relocated or is affected by a heater or air conditioning).
- Using the device while condensation is present may result in malfunction. Do not power on the device for a few hours until the condensation is gone. Only then it is safe to power on.

## **Cleaning**

- Disconnect the device from your main socket outlet before cleaning.
- Do not use any solvents, as these can damage the chassis finish. Use a dry cloth, if necessary, with an acid-free cleaning oil.

## **Disclaimer**

- The company names and product names in this manual are the trademarks or registered trademarks of their respective companies.
- SPL and the SPL Logo are registered trademarks of SPL Electronics GmbH.
- SPL cannot be held responsible for damage caused by improper use or modification of the device or data that is lost or destroyed.

## **Notes on Environmental Protection**

- At the end of its operating life, this product must not be disposed of with regular household waste but must be returned to a collection point for the recycling of electrical and electronic equipment.
- The wheellie bin symbol on the product, user manual, and packaging indicates that.
- For proper treatment, recovery, and recycling of old products, please take them to applicable collection points under your national legislation and the Directives 2012/19/EU.
- The materials can be reused under their markings. Through reuse, recycling of raw materials, or other forms of recycling of old products, you are making an important contribution to the protection of our environment.
- Your local administrative office can advise you of the responsible waste disposal point.
- This directive only applies to countries inside the EU. If you wish to discard devices outside the EU, please contact your local authorities or dealer and ask for the correct method of disposal.
- WEEE-Reg-No.: 973 349 88

## **Support & Contact**



- help. SPL. audio
- SPL electronics GmbH
- Sohlweg 80
- 41372 Niederkrüchten

## GERMANY

- SPL can of course also be found on Facebook, Instagram, Twitter, and YouTube, and we are happy to welcome new friends, followers, and viewers.
- **Website & Blog:** [www.spl.audio](http://www.spl.audio)
- **Videos:** [youtube.spl.audio](https://youtube.spl.audio)
- **Instagram:** [instagram.spl.audio](https://instagram.spl.audio)
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## Declaration of CE Conformity

- The construction of this unit complies with the standards and regulations of the European Community.

## Documents / Resources

	<p><a href="#">SPL HPm Headphone Monitoring Amplifier</a> [pdf] User Manual HPm Headphone Monitoring Amplifier, HPm, Headphone Monitoring Amplifier, Monitoring Amplifier, Amplifier</p>
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## References

- [User Manual](#)