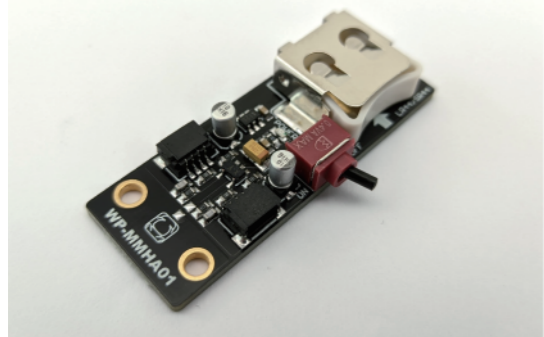




# Head Amp for MM Cartridges

## WP-MMHA01 Ver.2



**KYOHITSU**  
共立電子産業株式会社

- Description:  
Head amp for MM cartridge - Fully Assembled board.  
Integrated design for easy attachment and use on the headshell.  
Operates with a single button battery due to built-in step-up circuit.
- "Specifications: (\*Battery not included.)
  - Power Supply LR44 or SR44 battery 1 pcs
  - Voltage Gain approx. -3db
  - Input Impedance 47kΩ
  - Input capacitance 330pF
  - Board Size 48(D)×18(W)×8(H) mm
  - Weight  
approx. 5.0g (board only)  
approx. 7.8g (including battery and cable)

●Note and Disclaimer  
Initial defect concerning up to 1 week from the commodity purchasing, please contact the store which you purchased with your receipt. Please note that this product and its components are change without notice.  
This product is not intended for installation in equipment or for use as an industrial product.  
We do not provide any compensation will be provided for any direct or indirect damage caused by this product.

"Seller:  
Kyohritsu Electronic Industry Co., Ltd. Kyohritsu Products Division  
5-8-26 Nihonbashi, Naniwa-ku, Osaka 556-0005, JAPAN  
TEL: +81-6-6644-4447 FAX: +81-6-6644-4448  
Web <https://prod.kyohritsu.com/>



### ●Overview

MM cartridges have a high output impedance, and the wiring from the cartridge to the phono equalizer significantly affects the sound quality. In Hi-Fi playback, expensive cables are often necessary due to the high susceptibility to noise in cables with insufficient shielding.

The WP-MMHA01 doesn't have voltage amplification but converts the output impedance of MM cartridges to low impedance, eliminating the negative impact of connected cables. Additionally, as the ground reference points for L and R get closer to the cartridge, stereo positioning becomes clearer.

To achieve circuit clarity and low noise, a button battery is used. While battery replacement is required, minimizing the operating current of the circuit has significantly extended the operational time compared to its sister product, the MC Head Amp (model: WP-MCHA01).

To enhance convenience, a holder-type battery case is used, and it also supports the use of longer-lasting SR44 batteries instead of LR44 batteries."

### ●Circuit Features

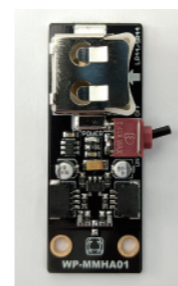
Placing heavy objects on the headshell may disturb the balance of the tonearm. Therefore, to address this concern, the heaviest component, the battery, is a single LR44 battery, taking into consideration availability and cost-effectiveness.

However, with the voltage from a single LR44 battery, it's not sufficient to power the LED for operation confirmation. Hence, a step-up voltage circuit is incorporated to illuminate the LED. Illuminating a high-brightness LED with minimal current helps reduce the load on the battery.

### ●Sound Characteristics

The MM-type head amp is a product that I have never heard before, so I decided to try it with my various MM cartridges. Starting with my usual Shure M44, there is a slight tendency for it to become somewhat subdued, perhaps due to its weight. However, the improvement in soundstage, front-back perception, and three-dimensionality, along with a noticeable reduction in background noise (silence during quiet moments), was evident. The subtle spatial nuances that were challenging to reproduce with the conventional M44 now became apparent, surprising me. The effect is particularly pronounced in quiet acoustic recordings that one would want to hear in hi-fi. When combined with high-resolution cartridges like V15 or M91, the reproduction of three-dimensionality and spatiality is significantly enhanced. This represents a new MM sound world that I haven't experienced before. By fine-tuning not only the cartridge but also the needle, headshell, screws, and other components in combination, it could become a formidable lineup.

### ●Contents

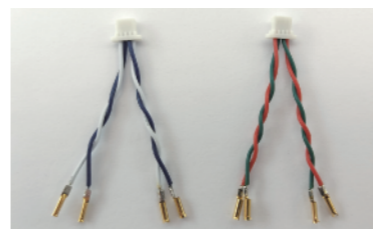


MM Cartridge Head Amp Board Module: 1 piece



Acrylic Cover: 1 piece

Gold-Plated Shell Tip Attached Cable for Headshell Connection

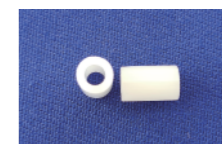


For L Channel (White/Blue) 1 piece For R Channel (White/Blue) 1 piece

Installation screws and spacers  
( Please refer to the "●Assembly" section for details)



Hex socket bolt (black)  
M2.6×18mm, 2 pieces

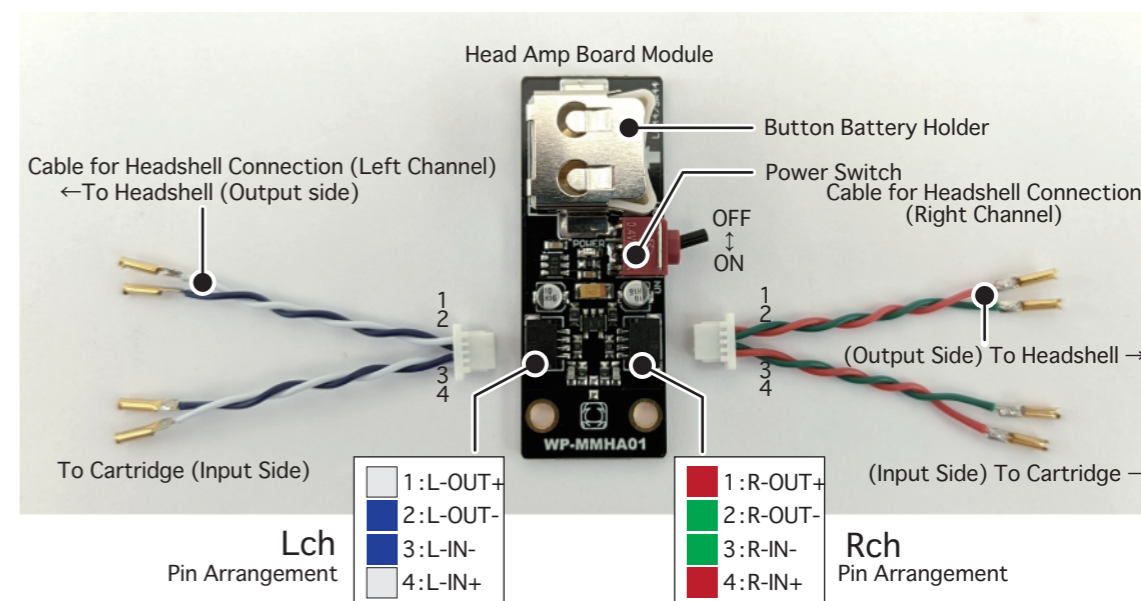


Spacer  
M2.6×8mm, 2 pieces  
(Used when attaching the acrylic cover)



Countersunk screws(Black) 2 pieces each  
M2.6×20mm M2.6×25mm M2.6×30mm

### ●Board Exterior



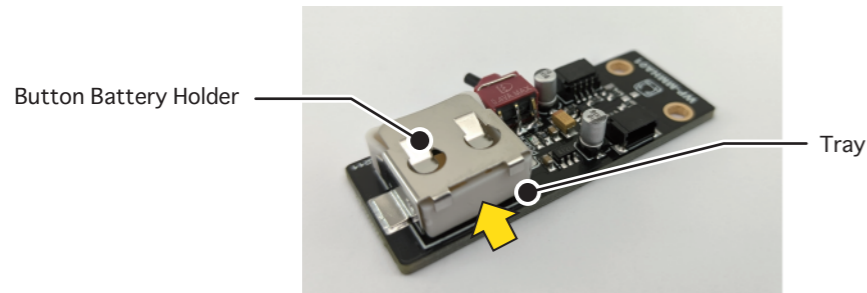
"The shell tip at the end of the headshell connection cable has different dimensions for the input side and output side.

Input Side (To Cartridge): 1.2mm  
Output Side (To Headshell): 1.0mm"

To prevent wire breakage or pin disconnection, always detach the connector with holding the white housing part.

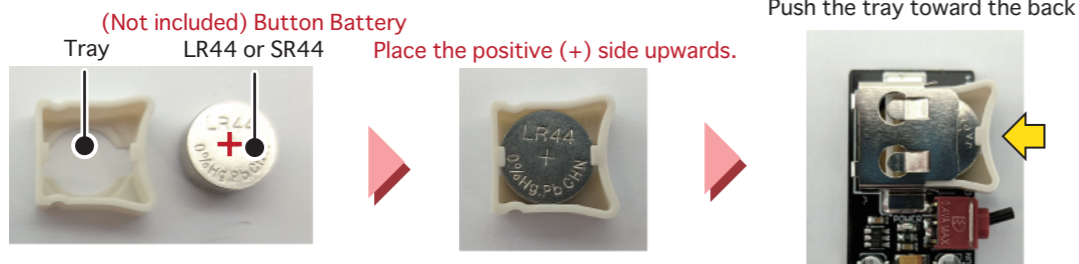
## ●Installing the Battery

Remove the white plastic tray from the button battery holder on the board.

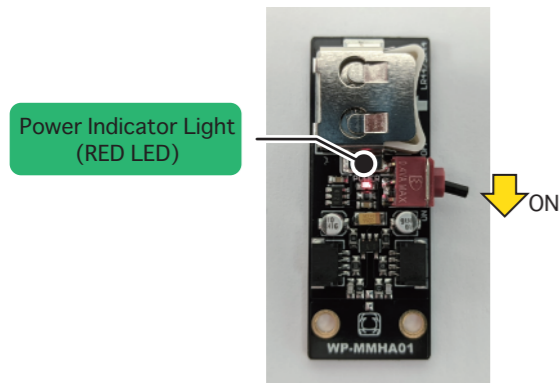


Using a rod-shaped tool, push it straight out from the direction of the arrow

Push it straight out from the direction of the yellow arrow with using a rod-shaped tool.



After installing the battery, when you switch ON, the power indicator light on the board will illuminate.



### Battery life

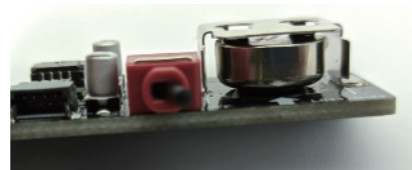
The estimated battery lifetime when using LR44 is approximately 7-10 hours (continuous operation). Note that the actual battery lifetime may vary depending on the type of battery used.

If the power indicator light goes out (does not light up even when the power is turned on), it indicates that the battery has reached the end of its life. Please replace it with a new battery.

### If the power does not turn on,

If the power does not turn on even with a new battery, please refer to the 'Maintenance' section in this manual and try cleaning the negative terminal directly beneath the battery holder.

Depending on the shape of the battery, the negative terminal of the battery may not protrude from the bottom of the tray and may not come into contact with the board. In that case, install the battery without using the tray. Once remove the battery and tray, lightly press down on the "plate springs" (2 locations) at the top of the holder to prevent the battery from falling out, and then insert the battery.

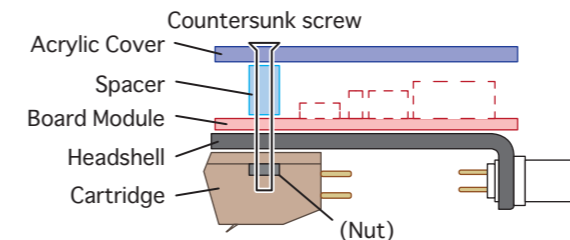


## ●Assembly instruction(Step 1: Fastening Screws)

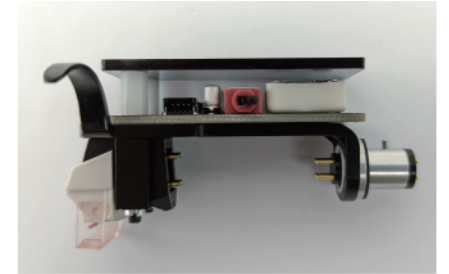
- Mount the board module to the headshell and cartridge with screw.
- The included acrylic cover is an accessory designed to protect and decorate the circuit on the board from static electricity, dust, and other elements. After confirming the balance of the tonearm, if there is room for increased weight, feel free to use it according to your preference.

### [Assembly Example: With the Acrylic Cover]

Please refer to the diagram below and to screw the 'Board Module' and 'Acrylic Cover' onto the headshell and cartridge.

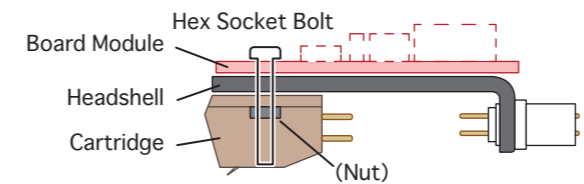


- ※ There is no continuity on the back of the board module, so insulation between the headshell is not necessary.
- ※ ※ Three types of countersunk screws (20mm, 25mm, 30mm) are included. Please use the shortest one according to the shape of the cartridge (depth of the attachment holes to the headshell).

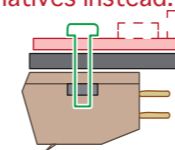


### [Assembly Example: Without the Acrylic Cover]

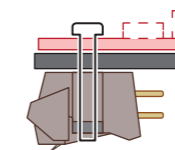
If attaching the acrylic cover affects the balance of the tonearm, you can screw only the board module onto the headshell.



- ※ There is no continuity on the back of the board module, so insulation between the board module and the headshell is not necessary.
- ※ The hex socket bolts included with this product are of a relatively long type (18mm), intended to reach even deeper cartridges. If the length is a concern, and there is a risk of interference with the needle or an increase in weight, please consider using the screws provided with the cartridge or commercially available alternatives instead.



(Example of a cartridge reached by short screws) Using shorter screws can reduce weight



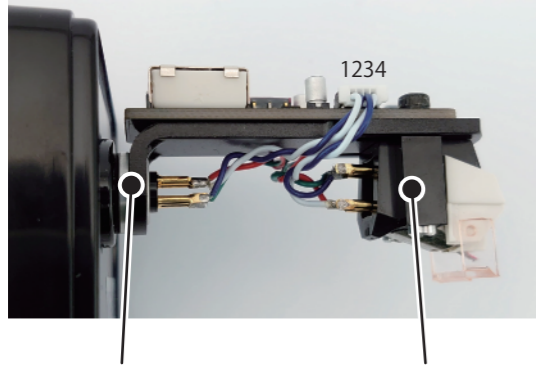
(Example of a cartridge requiring longer screws)



## ●Assembly (Step 2: Wiring)

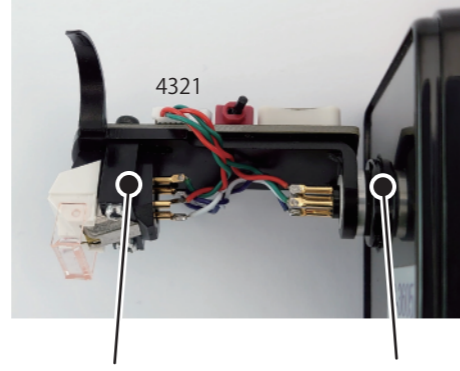
- After screwing in, insert the Lch/Rch headshell connection cables into the connectors on the board module. Refer to the '● Board Exterior Diagram' and wire each shell tip to the cartridge and headshell.

**Lch**  
 1: L-OUT+ (Headshell - White)  
 2: L-OUT- (Headshell - Blue)  
 3: L-IN- (Cartridge - Blue)  
 4: L-IN+ (Cartridge - White)



Headshell Side (to Tonearm) - 1, 2 Cartridge Side - 3, 4

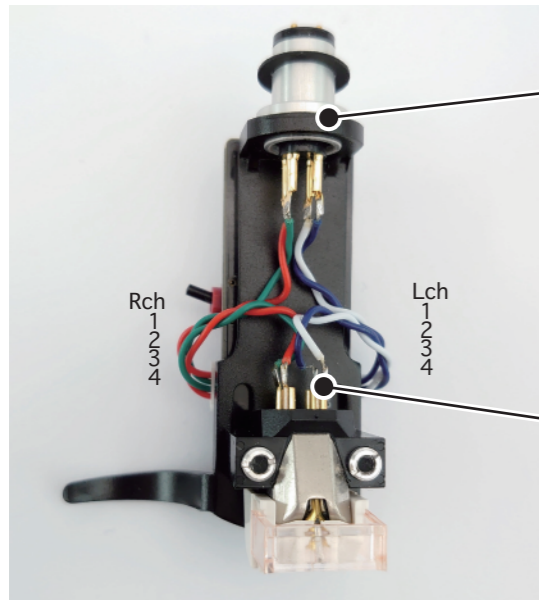
**Rch**  
 1: R-OUT+ (Headshell - Red)  
 2: R-OUT- (Headshell - Green)  
 3: R-IN- (Cartridge - Green)  
 4: R-IN+ (Cartridge - Red)



Cartridge Side - 3, 4 Headshell Side (to Tonearm) - 1, 2

Cartridge pin arrangements vary by model. Not all models follow the depicted order (L and R, + and - may be reversed). Please be sure to check the cartridge's user manual for the pin layout and wire accordingly.

Bottom View(From Stylus Side)



Headshell Side (to Tonearm) - 1, 2

Cartridge Side - 3, 4

## ●Example of Use:



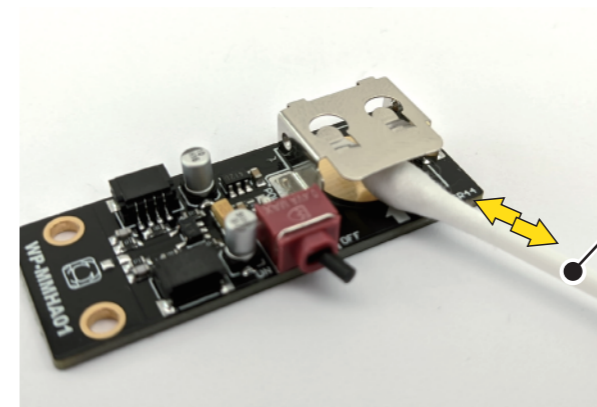
## ●Precautions for Use

- Do not turn the power switch ON/OFF while the preamp volume is turned up; this may cause a popping sound.
- When replacing the battery, make sure to turn off the power of this unit as well as the power of the phono equalizer or preamp.
- If the power switch is ON and the power lamp (green LED) does not light up, it indicates the end of the battery life; replace the battery.
- While the board module is made very lightweight, if the tonearm balance is still not achieved, consider replacing it with a lightweight headshell.

## ●Maintenance

- If the battery contact deteriorates, improvement can be achieved by cleaning the negative terminal of the battery (directly beneath the battery holder) on the board.
- Use a cotton swab soaked in 'anhydrous ethanol' to clean the electrode on the negative terminal. Finish with a dry cotton swab, install the battery, and check if the contact has been restored.

※Please do not use hard materials for cleaning the negative terminal.  
 ※Before turning on the power, make sure that the board is not wet.



Cotton Swab



Example of anhydrous ethanol (available at pharmacies, DIY Stores, etc.)