

CM-1500: Hybrid Passive Pre-Amplifier

The Hybrid Passive Pre Amplifier CM-1500

Draws out the music's reality and the artist's passion the Phasemation's Control Meister is now available at an affordable price.



- **Model name: CM-1500**
- **Color: Gold / Black**
- **1st Ship: Dec. 2024**
- **Production: Yokohama Japan**

〈Designing Back Ground〉

Phasemation has been advocating the “Control Meister,” a hybrid passive preamplifier with no built-in active circuit, which is outstanding from the standard preamplifiers. In 2022, the CM-2200, a culmination of these efforts, was released with a +6 dB amplification function and has received much acclaim from both Japan and abroad.

In 2024, we will release its brother model, the CM-1500. The CM-1500 is equipped with Phasemation's patented hybrid attenuator technology, making it possible to enjoy the pure playing of the “Control Meister.” The CM-1500 can be used in all kinds of situations, including high volumes played with today's low-efficiency speakers and low-gain amplifiers used together.

〈Features〉

- **Equipped with a patented hybrid passive attenuator that delivers a very transparent sound**
- **A new development for balanced and optimally coiled attenuator for superior sound image localization**
- **Loaded with a 3-step gain switching (-10, 0, +6 dB) making any volume setting to be possible**
- **Balanced/unbalanced outputs can be used at the same time**
- **High-performance core and winding materials are used in the transformers to reproduce realistic bass and delicate treble sounds.**
- **Thoroughly eliminates external induced hums and unwanted vibrations to produce pure, blur-free sounds**
- **Adoption of parts for various high sound quality that improves the expression in detail**

■ **Equipped with a patented hybrid passive attenuator that delivers a very vivid sound**

As well as CM-2200, CM-1500 is equipped with Phasemation's patented "Hybrid Passive Attenuator" that achieves the ideal preamplifier having high input impedance and low output impedance. This ideal design, which is a combination of taking only the pros of the resistive type and transformer type attenuators, plays a highly expressive, vivid and transparent sound.

■ **Newly developed balanced winding attenuator for superior sound imaging**

For the attenuator transformer, we adopted a balanced attenuator transformer with two attenuator windings for the HOT and COLD sides of the balanced connection coiled onto a single transformer. Furthermore, since there are two attenuator windings, the COLD side signal is generated inside the transformer even for an unbalanced input, enabling a complete balanced output. The balanced volume control circuit transformer produces excellent frequency and phase characteristics over a wide range, reduces phase distortion within the audible bandwidth, and above all, contributes to a clearer and precise sound image localization

■ **3-step gain switching (-10, 0, +6 dB) making any volume setting to be possible**

The balanced attenuator transformer with +6 dB gain that was used in the CM-2200 is also adopted for CM-1500. The CM-1500 has three gain switching of +6dB/0/-10dB, which, in combination with the attenuator's 23 contacting-points that can be changed within a range of 0 dB to -50 dB, allows even finer volume settings. The transformer winding structure has been re-examined to ensure a wide-range frequency response and to guarantee impedance characteristics regardless of which combination is selected so that the CM-1500's fine, clear sound image localization can be enjoyed at any gain level. The CM-1500 uses a printed circuit board and has a simplified housing structure, which improves productivity and makes it available at a price that is affordable to many people.

■ **Balanced/unbalanced outputs can be used at the same time**

The input provides 3 unbalanced (RCA) and 2 balanced (XLR) inputs. The output provides 2 unbalanced (RCA) and 2 balanced (XLR) outputs, and the circuit design allows simultaneous output, increasing the flexibility of system construction.

■ **High-performance core and winding materials reproduce the bass realism and the delicacy treble sounds.**

The core material of the transformer is "ultra-thin 0.1mm Super Malloy material" that is used in the CM-2200 superior model. The winding material also uses PC-TripleC polyurethane wire, which is the most suitable wire for audio materials to achieve excellent low-range linearity and in combination with a large core the subtle and relaxed high frequency characteristics are realized.

■ **Thoroughly eliminates external induced hums and unwanted vibrations to produce pure, blur-free sounds**

The 10mm thick aluminum slanted front panel follows the elegant design of the CM-2200. The chassis and top cover panel are made of sturdy 1.6mm thick steel plate with copper plating to ensure thorough measures against external induced hum. In addition, the top cover panel is coated with a low dielectric paint. In addition, a double magnetic shielding material is placed under the transformer to ensure rigidity and reduce magnetic distortion. The legs are made of heavy metal insulators made of a combination of different materials to prevent external vibrations.

■ **Use of high-quality parts to enhance the expression of sound details**

All rotary switches use gold-plated contacts. The RCA terminals are made from high-quality machined brass and then gold-plated, and the XLR terminals use gold-plated terminals made by Neutrik, thoroughly improving the expressiveness of every detail.

CM-1500 Specification	Hybrid Passive Pre- Amplifier
Input Impedance	47kΩ~
Channel Separation	100dB~ (20~20kHz)
Frequency Response	10~100kHz (+0,-3 d B)
Output Impedance	under 250Ω
Input terminals	RCA×3, XLR×2
Output Terminals	RCA×2, XLR×2
Dimension	430 (W) × 93 (H) × 362 (H) mm
Weight	6.5kg



<Designing Back Ground>

History of "Control Meister"

Phasemation's "Control Meister" has been applauded around the world for its vivid and expressive sound.

It all started with the CM-1 in 2009, followed by reference models such as the CM-1000, CM-2200, and now the CM-1500 is released.



Introducing CM-1500 in Y2024

Introduced in 2022, the CM-2200 marks the culmination of Control Meister, bringing Phasemation's sound philosophy to listeners around the world. However, it is also true that the price of the CM-2200 is not in a range that will satisfy everyone, including beginners. Phasemation has developed the CM-1500 to make the Control Meister more accessible to a wider audience of music lovers, with a sound quality that follows the CM-2200 at a price that is more affordable. The new Control Meister CM-1500 is a product that allows you to rediscover the joy of listening the music through your listening experience.

< "Control Meister" / The definition >

The inherited common Technology; Patented "Hybrid Passive Attenuator"

The products we call "Control Meisters" share a common technology. That is Phasemation's patented "Hybrid Passive Attenuator" technology.

What is "Hybrid Passive Attenuator" ?

The "Hybrid Passive Attenuator" is an ideal volume control circuit that combines the advantages of the conventional volume control method of resistive attenuator and the variable transformer attenuator.

Merit of "Hybrid Passive Attenuator"

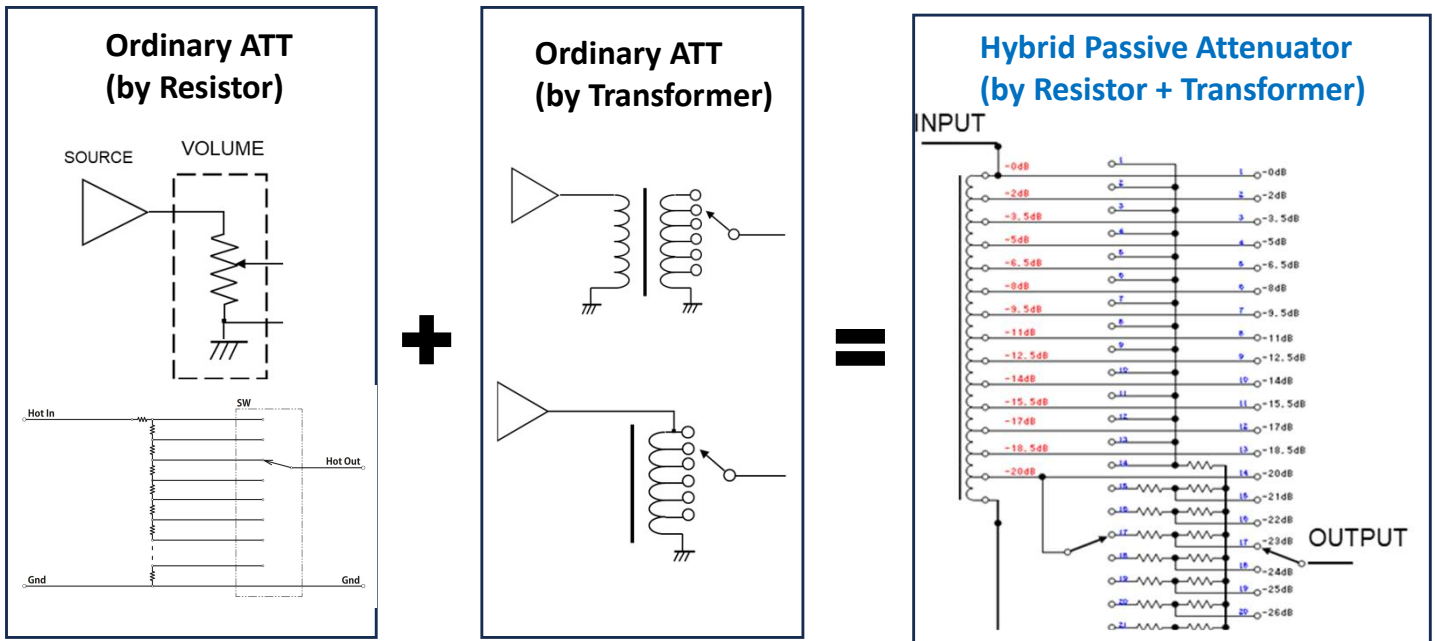
The "Hybrid Passive Attenuator" has many advantages and benefits.

- High input impedance → No extra burden on the source device at the input, therefore it receives a stable signal.
- Low output impedance → No sound deterioration to the power amp even if a long cable is used.
- No power circuits or devices that require power → No power source means no noise source.
- No active electrical amplifier circuit → Fewer circuit components for fresher sound.

The Sound of “Hybrid Passive Attenuator”

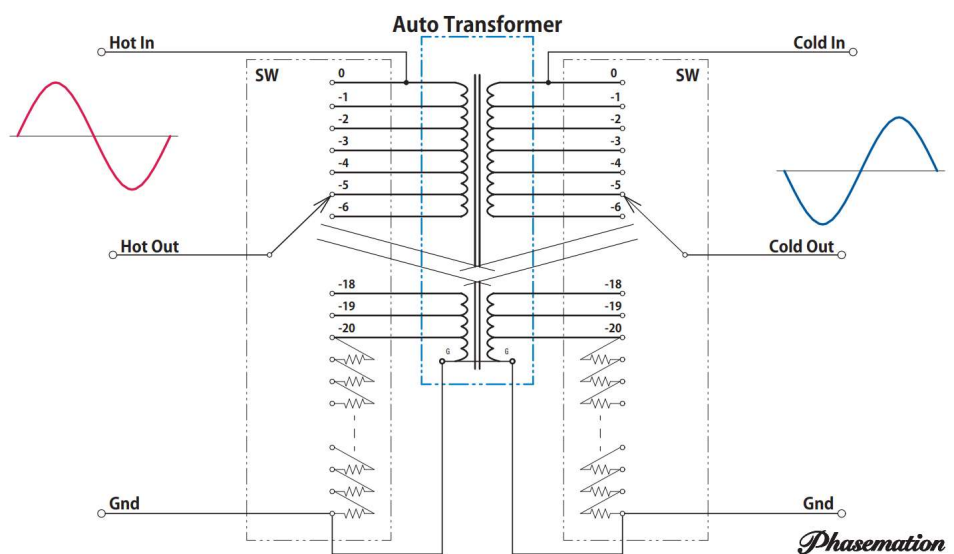
As a result, “Hybrid Passive Attenuator” technology produces a highly expressive sound with a high degree of clarity. In addition, the sound does not thin even when the volume is turned down.

< Construction of the Hybrid Passive Attenuator >



■ **A new development for balanced and optimally coiled attenuator for superior sound image localization**

The attenuation transformer used is a balanced attenuation transformer in which two attenuation windings, one for the HOT side and one for the COLD side of the balanced connection, are wound on a single transformer. Furthermore, since there are two attenuator windings, the COLD side signal is generated inside the transformer even for an unbalanced input, enabling a complete balanced output. The balanced volume control circuit transformer produces excellent frequency and phase characteristics over a wide range, reduces phase distortion within the audible bandwidth, and above all contributes to clearer and more accurate sound image positioning.



< Other details >

■ **3-step gain switching (-10, 0, +6 dB) making any volume setting to be possible**

So the question was how can you lower the price without dropping the quality compared to the CM-2200 (the reference passive preamplifier). We have been confronting with this goal issue. The CM-2200 has 46 contacting points, but the CM-1500 has 23, which is half the number of contacts of the CM-2200. To make up for the halved volume control points, a 3-level gain switch is provided.

The CM-1500 has a +10dB, 0dB, and the +6dB amplification, which has been used since the CM-2200, allowing the volume to be adjusted by switching between the three levels.

The transformer winding structure has been re-examined to ensure a wide range of frequency response and impedance characteristics regardless of the combination selected so that the CM-1500's precise and clear sound image localization can be enjoyed at any gain level.



The gain selection switch uses a high-quality switch with gold-plated contacts, while the use of a printed circuit board has improved productivity and simplified the housing structure, making it affordable for many people.

■ **Balanced/unbalanced outputs can be used at the same time**

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