



M8 Phono Signature

Level 5 pre-amplifier

Owner's Information

Music's Finest Conductor

Introduction to the M8 Phono Signature pre-amplifier

Congratulations on your purchase of the Audio Note M8 Phono Signature level 5 pre-amplifier.

Audio Note Level System

First, a word about how we classify our products at Audio Note. The world renowned Audio Note Ongaku, Kego and Gaku-on amplifiers incorporate six technological design features which give them unmatched sonic performance and clarity, placing them amongst the best amplifiers in the world. All Audio Note products are, where applicable, judged by this standard. These features are:

- Single ended output stage
- Zero negative feedback
- Directly heated triode output stage
- Pure Class A operation
- Materials and component technology
- Valve rectification

Qualification for level 5 requires the inclusion of all of these features with the materials and component technology pushed beyond that of level 4; only the best available components are used in level 5 products.

The M8 Phono Signature

The M8 Phono Signature is a full facility pre-amplifier with all the features of the M8 Phono but with the following enhancements: Thinner laminate Audio Note 55% nickel double C-cores, Black Gate N, Nx, and NH type capacitors throughout and Audio Note precision carbon film resistors.

The M8 Phono Signature incorporates vacuum tube technology to produce the most accurate sound possible. We have developed the M8 Phono Signature using a "comparison by contrast"* technique of aural evaluation - a system that is currently unique to Audio Note.

Please read this manual carefully in order to obtain the best possible performance and longevity from your pre-amplifier.

*An essay dubbed "Audio Hell" which describes this system is available from Audio Note on request.

Unpacking and installation

Please ensure care is taken when unpacking the pre-amplifier. We recommend that you store the packing materials in case the unit requires shipping at a later date. Also, check that no transit damage has occurred before installing the pre-amplifier.

Select a suitable location for the unit, ensuring that adequate ventilation is provided as the pre-amplifier generates considerable heat during normal operation. Avoid sitting the M8 Phono Signature close to any other equipment, such as a power amplifier, that may be generating a strong magnetic field, or in close proximity to active mobile telephones.

The M8 Phono Signature is capable of driving long interconnects to power amplifiers and so, if you are using mono block amplifiers, it may be worthwhile to locate them close to the speakers. This will reduce the speaker cable lengths and provide sonic improvements.

Connections

Phono input

The phono input is suitable for connection to a turntable with a moving magnet (MM) cartridge installed. Audio Note is able to provide a range of step-up transformers for use with moving coil (MC) cartridges. These transformers are able to provide the best possible match for the M8 Phono Signature. The phono input consists of a pair of RCA connectors.

NOTE: Some turntables are equipped with a separate ground wire for connection to the ground terminal next to the phono input sockets. We recommend that this terminal is used, however, in some systems this may cause a ground loop. This will be identifiable by excessive background hum. It is therefore worthwhile to experiment a little to find the connection method that yields the lowest background noise levels.

Line input

Each line input is suitable for connecting to any line level music source. Line level sources include CD players, radio tuners, televisions etc. Each line input consists of a pair of RCA connectors. The M8 Phono Signature has 5 line inputs available.

Tape loop

The tape loop is available for connecting to a cassette deck. The 'tape in' connections should be connected to the cassette deck's 'line out' and the 'tape out' connections should be connected to the cassette deck's 'line in'. The tape in can be used as an additional line input if required. The RCA connectors are marked red for the right channel and white for the left channel.

Balanced output

The balanced outputs are provided to be used with power amplifiers equipped with a balanced input option. Using the balanced option can sometimes result in a better sound quality, depending on the exact design of the power amplifier.

Unbalanced output

There are 2 sets of unbalanced outputs provided for Bi-amplified systems. Both sets are identical and may be used for single amplifier operation. The connectors are marked red for the right channel and white for left channel.

NOTE: The balanced/unbalanced selection switch must be set to the appropriate position. It is not recommended to use both the balanced and unbalanced outputs simultaneously.

Mains power connection

Use the supplied cable to connect the IEC inlet socket on the pre-amplifier to the mains supply. Ensure the power is switched off when you do this.

NOTE: It is important that all connections are firm, secure and airtight. Any oxidation of the interconnects will result in loss of performance. Always use high quality interconnects - Audio

Note interconnects are recommended, as they are manufactured to the same exacting standards as all of our products.

Operation

Once all the connections are completed and checked, make sure all power amplifiers are off and flip the mains rocker switch located on the back panel of the pre-amplifier to the 'on' position.

The M8 Phono Signature is a vacuum tube design and therefore requires about 45 seconds warm-up time. After this the remaining system components may now be turned on.

Bedding-in time

The pre-amplifier requires around 200 hours of initial use (called 'bedding-in time') before the circuitry becomes stable and optimum performance is realised. As the pre-amplifier beds in, the sound will become more lucid, detailed and expansive.

After the initial bedding-in, a short warm-up period is required each time the unit is turned on before optimum sonic performance is reached.

The M8 Phono Signature is designed for continuous operation and may remain switched on, even when not in use. You may, however, prefer to turn the unit off between uses by using the power switch located on the back panel, next to the mains inlet socket.

NOTE: Always turn the pre-amplifier(s) on before turning on the power amplifier and always turn the power amplifier off before turning off the pre-amplifier. This will prevent any buzzing or popping sounds from occurring.

After-care

Cleaning

Cleaning the M8 Phono Signature is best done with a soft brush - some photographic stores are able to provide suitable brushes. Alternatively, a soft cotton cloth may be used with a mild proprietary cleaner for removing dirt build-up. Strong or alcohol based solvents may damage the finish of this amplifier. Ensure the pre-amplifier is switched off and cold when cleaning. Do not wet the unit.

Replacing the vacuum tubes

The vacuum tubes in the M8 Phono Signature are carefully selected from Audio Note's vast stock to provide optimum performance and reliability. Should these tubes require replacement, please contact your Audio Note dealer, who will be able to supply the correct parts.

Warranty and servicing

Audio Note warrants that this product will be free from defects in materials and workmanship for one year from the original date of purchase from an appointed Audio Note dealer. The vacuum tubes are warranted for three months.

In the event that your Audio Note product requires servicing, please contact your Audio Note dealer. If the component needs to be shipped, please use the original packaging materials and include a copy of the sales purchase with a note, explaining, in as much detail as possible, the problems that you are experiencing with the unit.

Any modification not authorised by Audio Note will invalidate any warranty.

If you require technical support or have any questions, please direct them to your local Audio Note dealer or alternatively contact us directly at:

Customer Support
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Technical overview

The M8 Phono Signature utilises simple but sonically effective circuitry using vacuum tube technology rather than complex techniques using impure semi-conductor type devices, so common in the audio industry.

This kind of circuit architecture is incredibly transparent and revealing. As a natural consequence, part material plays an important role in the final sonic performance, so we use only the best possible components and materials. Where components that meet our standards are not available - we make our own.

The M8 Phono Signature's circuit arrangement is briefly described below.

Line inputs are routed from Audio Note non magnetic RCA connectors into ELMA, Swiss made gold contact input selector. Volume and balance adjustments are made with Noble conductive plastic potentiometers and this output signal drives the line stage. The phono input is directly routed to the phono board with AN-V pure silver Litz interlink.

The input stage of the phono board uses a cascode connected 6072 General Electric dual triode feeding a completely passive (zero feedback) RIAA EQ network. Final phono stage gain and buffering is provided by a further 6072, connected as an anode follower. Tantalum resistors and Audio Note silver foil capacitors are used throughout.

The line stage is of a direct coupled cascaded anode follower type. Two 5687 dual triodes are used for both anode followers. The second stage is again pure class A, single ended and is transformer coupled using a custom line level output transformer.

The use of transformer output coupling in the M8 allows the output power generated by the 5687 triodes to be fully utilised to drive the power amplifier and cabling. This means that the M8 is capable of driving low load impedances.

Also, this transformer design provides a true balanced output option, making the use of complex differential circuitry used by other manufactures completely redundant.

Parts selection is of the highest order with an abundance of 2W Tantalum resistors, Audio Note silver foil and Black Gate capacitors. The output transformers utilize the very best quality MBH double C cores and have silver windings. The power supply incorporates vacuum tube rectification and choke input filtering for each channel, and in addition, a new type of vacuum tube regulator ensures clean supply voltages to the amplifier stages.

The best quality NOS valves are provided with the M8 for enhanced performance.

Specifications

Weight (kg)	16
Dimensions	
Height (mm)	141
Width (mm)	445
Depth (mm)	410
Max Power Consumption (W)	81
Fuse Ratings	
HBC T (110/120 Vac supply) (A)	1
HBC T (220/240 Vac supply) (A)	0.5
Input Impedance	
Line input (k Ohms)	100
Phono input (k Ohms)	47
Gain @ 1kHz	
Line (dB)	18
Phono (dB)	65
Line Input Sensitivity (for 1V output) (mV)	126
Output Noise	
Line, unweighted (mVrms)	< 0.08
Phono, unweighted (mVrms)	12
Output Impedance (Ohms)	< 10
Tube Compliment	
ECC82	x 1
6463	x 1
6X5	x 2
ECL82	x 2
OB2	x 2
CV4068	x 3

NOTE: Due to Audio Note's ongoing research and development programme, specifications are subject to change without notice.

Safety Information



HEAT: By the nature of vacuum tubes, this product generates high levels of heat. Adequate ventilation must be provided. Do not restrict the airflow through any of the ventilation slots or place the amplifier on any surface that may restrict airflow.

CAUTION: The vacuum tubes and other nearby parts operate at extremely high temperatures - KEEP OUT OF REACH OF CHILDREN.



HUMIDITY: Do not store or operate this unit in areas of high humidity or in close proximity to water. Do not expose the unit to liquid.



EARTHING: The product must be earthed - ensure that the mains supply cable is earthed.



SHOCK: Internal operating voltages are lethal. Do not remove the top cover. Do not replace fuse without first disconnecting the unit from the mains supply.



SAFETY COMPONENTS: Internal fuses and other safety components are located inside this unit in accordance with BS 60065 requirements. In the event of component failure, replacements must be of the same part type. Such replacements must be carried out by a qualified service technician.



This product conforms to CE standards