

SUGDEN AUDIO

Masterclass PA-4 Phono Amplifier

INSTRUCTION MANUAL

MAY 2024

Designed and manufactured in England by

J E Sugden & Co Ltd
Valley Works
Station Lane
HECKMONDWIKE
West Yorkshire
WF16 0NF
ENGLAND

BEFORE USE

This section must be read before connecting to the mains supply

MAINS CONNECTION INFORMATION

Your SUGDEN amplifier has been designed to comply with the domestic power and safety requirements that exist in your area. This amplifier can be powered by **AC ONLY**.

CHOOSE A SAFE AND SUITABLE LOCATION

Your amplifier is a class A design and therefore requires good ventilation

DO NOT: Expose to direct Sunlight

DO NOT: Position next to a heat source such as a radiator

DO NOT: Use in places with high humidity or poor ventilation

DO NOT: Subject to mechanical vibration

DO NOT: Place on an unstable or inclined surface

DO NOT: Stand other equipment on top of the amplifier

Never block the ventilation holes or stand directly on a carpet

GUARANTEE

To **activate your guarantee**, please complete the owner registration form on our website www.sugdenaudio.com/warranty-registration within 60 days of purchase. It is in your best interests to register your ownership to ensure you benefit fully from our warranty. Your details are not shared with any other company.



The PA-4 is in conformity with the EMC directive and low-voltage directive.



UNPACKING

Your amplifier should reach you in a substantial protective carton. On unpacking please examine the unit for signs of prior use or damage. Check that all the front panel controls function mechanically.

RECYCLING

This products packaging materials are recyclable and can be reused. The product and the accessories packed together are the applicable product to the WEEE directive except batteries. Please dispose of any material in accordance with your local recycling regulations. When discarding the unit, comply with your local rules and regulations. Batteries should never be thrown away or incinerated but disposed of in accordance with your local regulation concerning chemical waste.

INSTALLATION

The Masterclass Phono amplifier is suitable for freestanding on a shelf or in a cabinet. Do not stand the unit in direct sunlight or obstruct the ventilation holes on the top plate.

ACCESSORIES SUPPLIED IN THE CARTON

- IEC straight connector with moulded mains plug. This should be suitable for your country. To check that the pre-amplifier is the correct voltage examine the carton, the assembly ticket attached to rear of the unit and the legend on the rear of the unit.
- Two RCA Phono Plugs for Additional Loading

CONNECTING YOUR PHONO AMPLIFIER TO THE MAINS SUPPLY

Use the IEC power chord supplied, as this has been properly tested and EC approved to be used with your phono amplifier. The mains input socket is located at the rear of the unit and is clearly marked 'Power on/off mains input'. The mains input socket also houses the power on/off switch. It is normal to leave the Pre-amplifier mains power on unless being left unattended for a long period of time.

FUSES

If a fuse does blow this is usually an indication that a fault has occurred. ALWAYS DISCONNECT YOUR EQUIPMENT FROM THE MAINS SUPPLY IF YOU ARE REPLACING A FUSE. There are two (T) time delay fuses located on the main circuit board. These must only be replaced by ones of the same specification. If in any doubt please contact your supplier. Replacing these fuses with ones of a different value and specification may damage the equipment or not survive the inrush current on switch on.

CONNECTING YOUR PHONO AMPLIFIER TO A PRE-AMPLIFIER

The Masterclass phono amplifier has two pairs of phono sockets the phono sockets are standard type RCA connectors of high quality with Teflon inserts and gold plated contacts. It is advisable to make sure your interconnect leads have similar quality plugs that fit securely. We recommend WBT type connectors preferably the locking type. These offer the best possible connection. The two sets of phono sockets are clearly marked right (red) and left (black) for identical connection to your pre-amplifier. The second set of phono sockets can be used to connect to a recorder or second pre-amplifier such as a Headmaster.

CONNECTING YOUR TURNTABLE TO THE PHONO AMPLIFIER

Your Phono amplifier is very well equipped and will accept up to three cartridges.

All input sockets are clearly marked on the back panel of the phono amplifier. There are three stereo inputs in total

- Two Moving Coil
- One Moving Magnet

The inputs are clearly marked left and right for identical connection to your source component.

INPUT SELECTOR SWITCH AND MC/MM INDICATOR

The selector switch has three positions MC1, MC2 and MM. There are two indicators on the front panel that will light up when an input type is selected.

The Input selector switch is located at the far right of the front panel and controls which input is to be selected. The large knob has an indicator that corresponds with the input legend. The input selector switch is a precision component and requires the minimum of effort to rotate. Never force the switch as this could result in damage or loosening of the control knob. The amplifier circuit uses gold contact relays which cause the signal to cut off when moving between inputs. This is normal and avoids any possibility of noise such as clicks or pops.

STANDBY SWITCH AND READY INDICATOR

The standby switch is located at the far left of the front panel and switches the pre-amplifier from a standby situation into full operation. It will not operate unless the mains switch on the rear of the unit is on. It is recommended that the pre-amplifier should be switched into standby mode when not in use. When in standby the switch is rotated fully anti clockwise and the 'ready' indicator will go out. The standby switch operates a relay circuit and a delay is normal before the output becomes operational.

CARTRIDGE LOADING

This is available for the two MC inputs only. The MM input is set at 47K but can be customised for specific cartridges at the factory or by your distributor if outside the UK. The Standard setting for both MC inputs is 470 Ohm. This can be reduced but not increased by placing resistive phono plugs into the MC1 and MC2 Load sockets. These are located next to the MC1 and MC2 inputs.

The two phono plugs supplied with you phono amplifier will reduce the loading to 100 Ohms. We have chosen two settings of 100 and 470 Ohms, as these are popular with cartridge manufacturers. If you have a requirement for loading above 470 Ohms then this can be factory set or customised by your distributor. For a specific loading below 470 Ohms you can purchase phono plugs to fit yourself.

It is worth experimenting with different loads as the quality of recordings varies so much. High quality classical music benefits greatly from correct loading, adding significantly to the performance. Certain popular music recordings have the sound balance adjusted; increasing the loading can produce a more dynamic sound. Turntable and arm configurations can also be tailored by the loading of a cartridge.

SET-UP AND FINE TUNING

The design of the Masterclass phono amplifier is wide-bandwidth and we recommend that quality ancillaries should be used to obtain the best possible sound quality. Interconnects are an important part of the music chain so money should be invested in buying the best possible. Sitting audio equipment on specialist solid isolation platforms can improve the performance of all audio products.

If you have digital equipment in the vicinity of your analogue components it may be beneficial to switch these off when listening to your turntable.

SUGDEN MASTERCLASS PA-4 Specification @ 230Volts setup.

Facilities	
Inputs	Two stereo moving coil inputs 470R x 22nF
	Two stereo pairs load, adjustment phono sockets
	One moving magnet stereo input facility 47K
Outputs	Two pair stereo phono output sockets
Specifications	
Output	360mV
Input Sensitivity	Moving magnet 3.5mV
	Moving coil 0.15mV
Loading	Moving magnet 57K
	Moving coil 470 & 100 Ohms
Frequency Response	10Hz to 30kHz +/- 0.3dB
Stereo Separation	-70dB
Signal to Noise Ratio	>70dB
Nett Weight	7kg
Dimensions	90 x 430 x 335mm (hwd)

The manufacturer reserves the right to alter specification without notice.