

# azur 540P/640P

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Phono pre-amplifier

User's manual



*Cambridge Audio*

## INTRODUCTION

Thank you for purchasing this Cambridge Audio azur series phono pre-amplifier. It is the result of our ongoing research and development program for over three decades of producing high quality audio products. We hope that you will appreciate the results and enjoy many years of listening pleasure.

### *About this phono pre-amplifier*

The design of a high quality but cost-effective phono pre-amplifier presents a major challenge. Providing first-class performance on an unlimited budget is one matter; achieving the same performance within tight price limits is quite another, and requires all the expertise and experience that Cambridge Audio brings to its product design process. We believe we have succeeded in our aim of creating a first-class affordable product.

The 540P features a moving magnet stage whilst the 640P offers moving magnet and moving coil stages. Both use discrete transistors for the all-important input stages instead of the more common integrated circuits.

Both are designed to produce high gain and linearity, without requiring massive amounts of negative feedback to achieve low distortion. These new models also employ a single-ended 'Class A' gain stage with audiophile passive RIAA equalisation.

High quality components are used throughout such as 1% metal film resistors and close tolerance polypropylene capacitors.

The 640P uses more exotic amplification circuitry to provide even lower distortion and noise plus the higher gain stage for MC cartridges. In addition, the 640P employs multi-parallel capacitors to achieve exceptional RIAA accuracy of only 0.3dB up to 50kHz and features a defeatable subsonic filter.

Now we invite you to sit back, relax and enjoy!



Matthew Bramble  
Technical Director

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## IMPORTANT SAFETY INSTRUCTIONS

Please take a moment to read these notes before installing your Azur phono pre-amplifier, they will enable you to get the best performance and prolong the life of the product. We advise you follow all instructions, heed all warnings and keep the instructions for future reference.

This unit must not be exposed to dripping or splashing water or other liquids. No objects filled with liquid, such as vases, shall be placed on the unit. In the event, switch off immediately, disconnect from the mains supply and contact your dealer for advice.

Do not route the power cable so that it can be walked upon or damaged by other items near it.

Electronic audio components have a running in period of around a week (if used several hours per day). This will allow the new components to settle down, the sonic properties will improve over this time.

If you do not intend to use this unit for a long period of time, unplug it from the mains socket.

To clean the unit, wipe its case with a moist, lint-free cloth. Do not use any cleaning fluids containing alcohol, ammonia or abrasives. Do not spray an aerosol at or near the amplifier.

These units are not user serviceable, never attempt to repair, disassemble or reconstruct the unit if there seems to be a problem. A serious electric shock could result if this precautionary measure is ignored. In the event of a problem or failure, please contact your dealer.

## REAR PANEL CONNECTIONS



### 540P

#### MC input sockets (640P only)

If your turntable uses a moving coil cartridge, connect outputs here (0.5-1mV, with 100 ohm 220pF loading).

#### MM input sockets

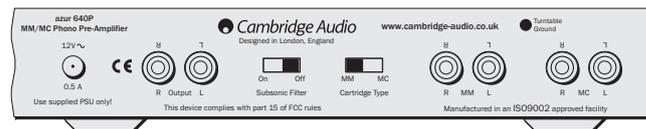
If your turntable uses a moving magnet cartridge, connect outputs here (3-5mV, with 47k ohm 220pF loading).

#### Turntable ground

If your turntable has a separate grounding lead then connect here. This provides shielding to the arm and the sensitive circuitry in the turntable.

#### Cartridge Type selector switch (640P only)

Match this switch to the cartridge type that your turntable uses. MM for a moving magnet cartridge or MC for a moving coil cartridge.



### 640P

#### Subsonic Filter (640P only)

The subsonic filter cuts out very low frequency 'rumble', caused by vinyl imperfections, which can affect your system's performance.

#### Output sockets

Use phono cables to connect to any line level input on your amplifier, such as Aux.

**NB. Do not connect to a phono level input.**

#### PSU socket

Once you have completed all connections to the amplifier and turntable, plug the PSU power cable into an appropriate mains socket. The blue LED on the front panel will indicate that the power is on. The unit has been designed to be left permanently powered.

Please note the 640P has an output relay, which after power on takes 15 seconds to come out of mute.

**NB. Only use supplied power supply.**

# 540P/640P Phono pre-amplifier

only one of these connections

To any line level input on your amplifier using phono cable (2RCA-2RCA)

Must not be connected to a phono level input

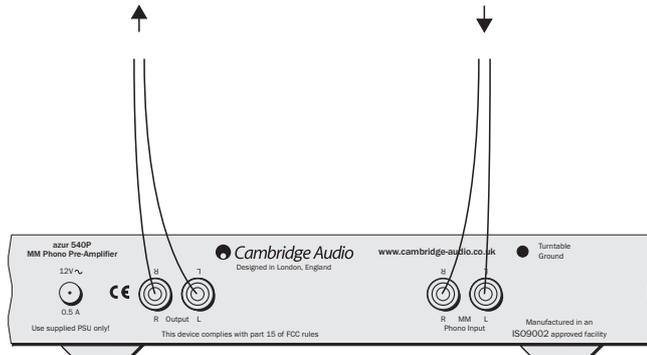
From a turntable with a moving magnet cartridge using phono cable (2RCA-2RCA)

To any line level input on your amplifier using phono cable (2RCA-2RCA)

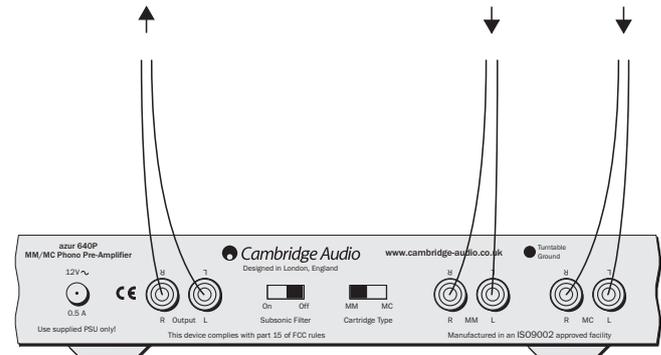
Must not be connected to a phono level input

From a turntable with a moving magnet cartridge using phono cable (2RCA-2RCA)

From a turntable with a moving coil cartridge using phono cable (2RCA-2RCA)



540P



640P

## TROUBLESHOOTING

### There is no power

Ensure the AC power cord is connected securely.  
Ensure the plug is fully inserted and is switched on.

### There is no sound

Make sure the unit is plugged in.  
Check that your turntable is properly connected.  
Check that your speakers are properly connected.  
Check all connections are secure and correct amplifier input is selected.  
Ensure correct cartridge type has been selected (MM or MC).

### There is no sound on one channel

Check that your speakers are properly connected.  
Check all connections are secure.

### There is a loud buzz or hum

Check turntable or tone arm for ground and connection lead fault.  
Ensure no connections are loose or defective.  
Ensure that your turntable is not too close to the amplifier.

### Volume is too loud/quiet

Check cartridge type matches input type. If a MC cartridge is connected through the MM inputs, volume will be very quiet (and vice versa). Note that it is possible to obtain high level MC cartridges which are designed for an MM input.

## SPECIFICATIONS

	540P	640P (MM)	640P (MC)
<b>Max power consumption</b>	5W	5W	5W
<b>Gain @ 1kHz</b>	39dB	39dB	55dB
<b>Nominal output</b>	300mV	300mV	300mV
<b>Sensitivity for nominal output</b>	3.35mV	3.35mV	0.5mV
<b>THD 20Hz-20kHz</b>	<0.009%	<0.005%	<0.002%
<b>RIAA curve accuracy</b>	<+/-0.65dB 25Hz-20kHz	<+/-0.3dB 20Hz-50kHz (subsonic filter off)	<+/-0.3dB 20Hz-50kHz
<b>Signal to noise ratio</b> using Audio Precision RIAA-1 with grounded inputs	>85dB	>86dB	>72dB
<b>Crosstalk @ 20kHz</b>	>76dB	>83dB	>69dB
<b>Dimensions (HxWxD)</b>			
<b>mm</b>	46 x 215 x 133	46 x 215 x 133	46 x 215 x 133
<b>inches</b>	1.8 x 8.5 x 5.2	1.8 x 8.5 x 5.2	1.8 x 8.5 x 5.2
<b>Weight</b>			
<b>kg</b>	0.8	0.9	0.9
<b>lbs</b>	1.8	2	2

## LIMITED WARRANTY

Cambridge Audio warrants this product to be free from defects in materials and workmanship (subject to the terms set forth below). Cambridge Audio will repair or replace (at Cambridge Audio's option) this product or any defective parts in this product. Warranty periods may vary from country to country. If in doubt consult your dealer and ensure that you retain proof of purchase.

To obtain warranty service, please contact the Cambridge Audio authorised dealer from which you purchased this product. If your dealer is not equipped to perform the repair of your Cambridge Audio product, it can be returned by your dealer to Cambridge Audio or an authorised Cambridge Audio service agent. You will need to ship this product in either its original packaging or packaging affording an equal degree of protection.

Proof of purchase in the form of a bill of sale or receipted invoice, which is evidence that this product is within the warranty period, must be presented to obtain warranty service.

This Warranty is invalid if (a) the factory-applied serial number has been altered or removed from this product or (b) this product was not purchased from a Cambridge Audio authorised dealer. You may call Cambridge Audio or your local country Cambridge Audio distributor to confirm that you have an unaltered serial number and/or you purchased from a Cambridge Audio authorised dealer.

This Warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of, the product. This Warranty does not cover damage due to improper operation, maintenance or installation, or attempted repair by anyone other than Cambridge Audio or a

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