• Cambridge Audio azur 340A

azur 340A

Integrated amplifier / 集成功放 User's manual / 用户手册



www.cambridge-audio.co.uk Part No. AP17142/1

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INTRODUCTION

Thank you for purchasing this Cambridge Audio azur series amplifier. It is the result of our most extensive ever research and development program in 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 amplifier

The design of a high quality but cost-effective audio 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 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 amplifier.

The wide bandwidth of this amplifier is ideal for the new "better than CD" high bandwidth sources such as DVD-audio and Super Audio CD.

The power amplifier stages follow the same basic architecture that Cambridge Audio have used in previous award-winning amplifiers, with refinements to match it to its exact application in the Azur 340A. The power amplifier input circuitry uses dual differential pairs, linearly buffered from the input to establish optimal operating conditions. A carefully controlled amount of local negative feedback is used in this stage to define the stability margins so that any reactive load may be driven effortlessly.

The output stage uses large-area silicon devices, with exceptionally rapid thermal compensation to maintain correct output stage conditions and so prevent crossover distortion, even under widely varying drive conditions. The power amplifiers incorporate an electronic muting system that reacts extremely quickly and allows the complete suppression of switching clicks, such as may occur when changing inputs or turning the amplifier on and off.

The power supply is a vital part of a power amplifier. The Azur 340A power amplifiers are fed from a power supply of elegant simplicity that avoids the complications and uncertainties of regulated supplies. A toroidal transformer selected for low external magnetic field, is used in conjunction with generously specified reservoir capacitors and optimally placed decoupling components.

Close attention has been paid to the performance and quality of the passive components used, both in the signal paths and for decoupling purposes.

The Cambridge Audio Azur 340A incorporates tone controls that give vernier control of the frequency response, allowing the correction of dubious source material, and compensation for loudspeaker inadequacies or problems with room acoustics. These tone controls can be switched completely out of the audio path by use of the DIRECT switch, to give the shortest possible audio path. Other features include 24-carat gold-plated phono sockets, a tape send/return loop, a headphone socket, and a second set of switchable loudspeaker outputs.

The Cambridge Audio Azur 340A has full protection against misuse and possible faults. The overload and short-circuit protection systems continuously monitor the voltage, current and temperature of the output devices, allowing the protection to act positively in case of genuine need, but never triggering spuriously.

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CONTENTS

Full temperature protection directly senses the device die temperatures and shuts down the output if the amplifier overheats due to obstructed ventilation or any other cause.

DC offset protection immediately isolates the amplifier from the loudspeakers, by positively opening an output relay in the unlikely event of an amplifier error.

Voltage clamping is built into the power amplifier output stages to safely handle flyback transients from highly reactive loads.

A sophisticated microcontroller system handles the basic operation of the amplifier, such as muting at switch-on and switch-off, protection and so on.

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

Bran

Matthew Bramble **Technical Director**

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SAFETY PRECAUTIONS

Checking the power supply rating

For your own safety please read the following instructions carefully before attempting to connect this unit to the mains.

Check that the rear of your unit indicates the correct supply voltage. If your mains supply voltage is different, consult your dealer.

This unit is designed to operate only on the supply voltage and type that is indicated on the rear panel of the unit. Connecting to other power sources may damage the unit.

This equipment must be switched off when not in use and must not be used unless correctly earthed. To reduce the risk of electric shock, do not remove the unit's cover (or back). There are no user serviceable parts inside. Refer servicing to qualified service personnel. If the power cord is fitted with a moulded mains plug the unit must not be used if the plastic fuse carrier is not in place.

The lightning flash with the arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.





The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the service literature relevant to this appliance.

This product complies with European Low Voltage (73/23/EEC) and Electromagnetic Compatibility (89/336/EEC) Directives when used and installed according to this instruction manual. For continued compliance only Cambridge Audio accessories should be used with this product and servicing must be referred to qualified service personnel.

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Plug fitting instructions (UK only)

The cord supplied with this appliance is factory fitted with a 13A mains plug fitted with a 3A fuse inside. If it is necessary to change the fuse, it is important that a 3A one is used. If the plug needs to be changed because it is not suitable for your socket, or becomes damaged, it should be cut off and an appropriate plug fitted following the wiring instructions below. The plug must then be disposed of safely, as insertion into a 13A socket is likely to cause an electrical hazard. Should it be necessary to fit a 3-pin BS mains plug to the power cord the wires should be fitted as shown in this diagram. The colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug. Connect them as follows:-

GREEN/ E

CORD

GRIP

FUSE

BROWN

YELLOW

BLUE

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter 'N' or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter 'L' or coloured RED

The wire which is coloured GREEN/YELLOW must be connected to the terminal which is marked with the letter 'E' or coloured GREEN.

If your model does not have an earth wire, then disregard this instruction.

If a 13 Amp (BS 1363) plug is used, a 3 Amp fuse must be fitted, or if any other type of plug is used a 3 Amp or 5 Amp fuse must be fitted, either in the plug or adaptor, or on the distribution board.

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IMPORTANT SAFETY INSTRUCTIONS

Please take a moment to read these notes before installing your Azur 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.

The unit is of Class 1 construction and must be connected to a Mains socket outlet with a protective earthing connection.

The unit requires ventilation above and below. Do not situate it on a rug or other soft surface and do not obstruct any air inlet or outlet grilles on the underside and top cover. Do not place in an enclosed area such as a bookcase or in the cabinet.

Do not install near any heat sources such as radiators, heat register, stove, or other apparatus (including amplifiers) that produce heat.

Do not defeat the safety purpose of the polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or third prong are provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet.

WARNING - To reduce the risk of fire or electric shock, do not expose this unit to rain or moisture. 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.

Ensure that small objects do not fall through any ventilation grille. If this happens, 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.

It is recommended that when bi-amping, the same type power amplifiers are used.

This unit must be disconnectted from the mains socket to be turned off completely. If you do not intend to use this unit for a long period of time, unplug it from the mains socket. Unplug this unit during lightning storms.

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.

This unit is not user servicable, never attempt to repair, dissassemble or reconstruct the unit if there seems to be a problem. Servicing is required when the unit has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have frallen into it, the unit has been exposed to rain or moisture, does not operate normally or has been dropped. A serious electric shock could result if this precautionary measure is ignored.

This unit should be installed on a sturdy, level surface. Due to stray magnetic fields turntables should not be located nearby due to interference.

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REAR PANEL CONNECTIONS



AC power socket

Once you have completed all connections to the amplifier, plug the AC Power Cable into an appropriate mains socket. The amplifier is now ready for use.

Loudspeaker connections

The 340A has two sets of Loudspeaker terminals on the rear panel, speakers A and B. Speakers A are the main speaker terminals, speakers B are the secondary switchable speaker terminals. Connect the wires from your left channel loudspeaker to the LEFT + & - terminals, and likewise the wires from the right channel loudspeaker to the RIGHT + & - terminals. In each case the red terminal is the positive output, and the black terminal is the negative input. Care should be taken to ensure no stray strands of wire are shorting speaker outputs together.

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Note: This amplifier has been designed for use with loudspeakers that have a nominal impedance of between 4 and 8 ohms.

Please ensure that the speaker terminals have been tightened adequately to provide a good electrical connection. It is possible for the sound quality to be affected if the screw terminals are loose.

Tape mon

These sockets can be connected to a tape deck or to the analog sockets on a MiniDisc or CD recorder. Connect an interconnect cable from the recorder's Line Out sockets to the amplifier's Tape Monitor sockets. This monitor doubles up as the standard tape/recording medium input.

Note: When connecting a source component that has both an input and output i.e. a tape recorder, the output of should always be connected to the Tape Mon input. This will eliminate howlround if the wrong input channel is selected.

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Tape out

This socket can be connected to a tape deck or to the analog sockets on a MiniDisc or CD recorder. Connect an interconnect cable from the Tape Out socket of this amplifier to the recorder's Line In.

CD/Tuner/DVD/AV/MD input sockets

These inputs are suitable for any 'line level' source equipment such as CD players, DAB or FM/AM tuners etc.

Aux input sockets

Connect any 'line level' source equipment to these sockets i.e. CD player, DAB tuner or external Phono unit.

These inputs are for analog audio signals only. They should not be connected to the digital output of a CD player or any other digital device.

Ground connection

If you are connecting a turntable to your amplifier then its ground wire should be attached to this point.

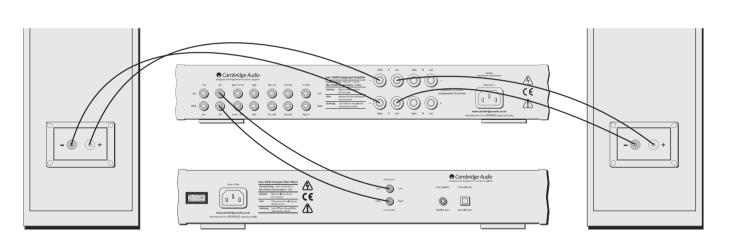
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CONNECTING

When designing our amplifiers we have tried to include features that allow you to connect your system in various ways. The inclusion of features such as SPEAKER B connections mean that you can configure your system depending on your requirements. The following diagrams are designed to make connection easy.

Basic connection

The following diagram shows the basic connection of your amplifier to a CD player and a pair of loudspeakers.



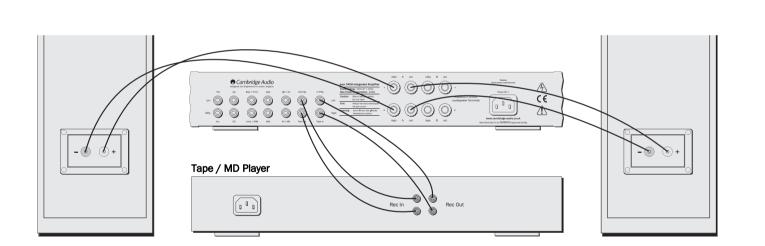
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Tape connection

The following diagram shows how to connect the amplifier to a tape recorder or other source with a record and monitor connection.

Using Speaker B connections

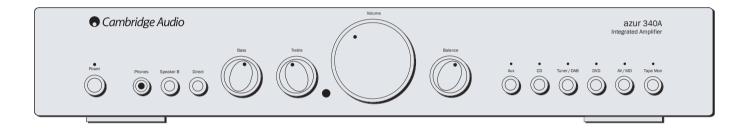
The Speaker B connections on the back of the amplifier allow a second set of speakers to be used, which could be for another room.



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OPERATING INSTRUCTIONS & CONTROLS



Power

Switches the unit on and off.

Headphone socket

Allows for the connection of headphones with a $\frac{1}{4}$ " Jack plug connector. When the headphones are connected the loudspeaker relay is released switching off the output to the loudspeakers (Speakers A and B).

Speaker B on/off

Enables/disables the secondary set of speaker terminals on the back panel. This can be used for listening to an extra set of speakers in another room.

Please note that care should be taken when selecting if two loudspeakers are going to be used on each channel. If the combined

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resistance measured on the speaker terminals is too low the amplifier may activate its overload protection system.

Note - When using two pairs of speakers each pair should be rated at least 8 ohms (or higher). 4 ohm speakers are not recommended when using more than one pair.

Direct

This control gives the audio signal a more direct path to the power amplifier stage of your amplifier, bypassing the tone control circuits for the purest possible sound quality.

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Bass and treble tone controls

These controls allow subtle adjustments to the tonal balance of the sound. In the central position these controls have no effect. These controls only modify the sound through your loudspeakers, they do not affect the signals sent through the Tape Out connections. With a well produced CD and a good system the tone controls are unnecessary and can be switched out. If the musical recording is of poor quality and/or the loudspeakers/surroundings are lacking it may be necessary to adjust the tone controls to compensate.

Volume

The Volume control increases/decreases the level of the sound from the outputs of the amplifier. This control affects the level of the Loudspeaker output and the headphone output. It does not affect the Tape Out Connections.

It is advisable to turn the Volume control fully anti-clockwise before switching the amplifier on.

Balance

This control allows you to adjust the relative output levels of the left and right channels. In the central position the output from each channel is equal. This control only modifies the sound through your loudspeakers, it does not affect the signals sent through the Tape Out connections.

Input selection push buttons

Push the appropriate input selection button to select the source component that you wish to listen to. The signal selected is also fed to the Tape Out sockets so that it may be recorded. The input should not be changed whilst recording, although the recorded signal can be checked using the tape input Tape monitor.

Tape monitor selection button

This control lets you listen to the output signal from a tape recorder or signal processor connected to the amplifier's Tape monitor sockets. When Tape monitor is selected, the source component chosen by the input selection push buttons continues to be routed to the Tape Out sockets for recording or processing.

Remote control operation/features

This Amplifier is supplied with a system remote control that operates both this amplifier and the Cambridge Azur CD players. The functions relevant to the amplifier are as follows:

Mute - Mutes the audio (indicated by the input LED flashing).

Volume +/- - The volume buttons increase and decrease the Volume of the amplifier output.

Input select - The five input select buttons and the Tape monitor select button are used to change the input source.

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PROTECTION SYSTEM

The Azur 340A protection system comprises of:

Overload and Short-Circuit Protection

The Azur 340A is fully protected against excessively low load impedances, taking into account the fact that a reactive load puts much more severe demands on a amplifier stage than a pure resistor.

The overload and short-circuit protection systems continuously monitor the voltage, current and temperature conditions of each of the output devices, and comparing them with the defined Safe Operating Area or SOA. This sophisticated system allows the protection to act positively in case of genuine necessity, but without false triggering.

Over temperature detection

The instantaneous temperatures of the output devices of the Azur 340A are continuously monitored to ensure that junction temperatures do not get dangerously high. When an overtemperature condition occurs, the output is muted until the devices cool. The operation is carefully controlled to minimise the exposure of the output devices to wide temperature variations, which can impair reliability by thermal cycling. This is accomplished by making the muting periods relatively short, so the amplifier appears to be turning on and off. This puts the least stress on the output devices.

Careful definition of the protection parameters ensures that the 340A is not subject to nuisance tripping, but only closes down when the need is real. Typically this can only happen if the ventilation openings of the amplifier are obstructed while low-impedance speakers are driven at a high level for extended periods.

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DC offset protection

The DC offset protection system immediately isolates the amplifier from the loudspeakers by positively opening an output relay, in the unlikely event of an amplifier error. Errors of either polarity on both channels are detected.

Voltage clamping

When rapid transients are applied to reactive loads in extreme circumstances, flyback pulses can be generated which are larger than the amplifier supply rail voltages and have the potential to cause harm to the output devices. The Azur 340A has a comprehensive voltage clamping system that ensures that such pulses are safely absorbed by the amplifier and no damage can result.

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Protection Indications and Remedies:

| Indication | Fault/Remedy |
|--|---|
| Output distorted and at unexpectedly low level. | Overload protection is operating. Check loudspeaker impedance is not too low. Very often loudspeakers of too low an impedance can be driven at low levels but not high levels. |
| Output appears to cut out frequently, independently on the two channels. | Temperature protection is operating. Ensure ventilation is not obstructed, and loudspeakers are not of too low impedance. Switch the amplifier off for 15 minutes to cool down if necessary. |
| Amplifier will not operate; all input LEDs are flashing. | DC offset protection is in operation. This can sometimes be triggered by excessive mains noise etc; if so switching the unit off and on again will reset it. If unit will not reset then there is an amplifier fault that will require servicing. Switch the unit off and contact your dealer. |

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TROUBLESHOOTING

SPECIFICATIONS

| There is no power Ensure the AC power cord is connected securely | | 340A |
|--|---------------------------|-----------------------|
| Ensure the plug is fully inserted into the wall socket and is switched on Check fuse in the mains plug or adaptor | Power Output | 40W (into 8Ω) |
| There is no sound Make sure the unit is switched on Check that source component is properly connected Check that 'TAPE MON' is not switched on (unless tape input is required) Check that your speakers are properly connected | Max Power Consumption | 50W (into 4Ω) 345W |
| If using Speaker B terminals check they are switched on If channel LED is flashing turn mute off | Total Harmonic Distortion | 1kHz < 0.01% |
| There is no sound on one channel Ensure that balance control is in the correct position | | 20kHz < 0.09% |
| Check speaker connections Check interconnects | Frequency Response (-1dB) | 5Hz - 50kHz |
| There is a loud buzz or hum Check turntable or tone arm for ground and connection lead fault Ensure no interconnects are loose or defective Ensure that your tape deck/turntable is not too close to the amplifier | S to N Ratio (unweighted) | 92dB |
| | Slew Rate (into 8Ω) | 20V/uS |
| Unable to make or play tape recordings Check that TAPE MON and TAPE OUT have been connected correctly | Dimensions (HxWxD) mm | 70 x 430 x 310 |
| There is weak bass or diffused stereo imaging Ensure that speakers are not wired out of phase | inches | 2.8 x 16.9 x 12.2 |
| Protection LED flashing Please see section on protection system (page 13) | Weight kg Lbs | 6.2 13.6 |

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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 Cambridge Audio dealer, or authorised service agent which is authorised to do Cambridge Audio warranty work. Any unauthorised repairs will void this Warranty. This Warranty does not cover products sold AS IS or WITH ALL FAULTS.

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Some countries and US states do not allow the exclusion or limitation of incidental or consequential damages or implied warranties so the above exclusions may not apply to you. This Warranty gives you specific legal rights, and you may have other statutory rights, which vary from state to state or country to country.

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介绍

感谢你购买Cambridge Audio的AZUR系列功放。这 是我们生产优质音响产品三十多年以来最为广泛和 不断努力的研发结果,我们真诚希望你能欣赏这个 成果,使您能长期享受听觉愉悦。

关于本功放

设计一款高品质但又经济的功放是一个极大的挑战。不受 预算限制提供一流的性能本身就有一定难度,要在一个严 格限制的价位内要达到同等性能就更加难,并且需要 Cambridge Audio 在产品设计过程中所赋予的专业技术 和经验。我们相信已成功地实现了我们创造一个性能一流 又经济的功放的目标。

这个功放的宽的带通对于新的"优于CD"的高带宽源如: DVD-Audio和Super Audio Cd非常理想的。

这一功率放大器平台秉承Cambridge Audio 在已获奖功放 中所用的基本技术,且运用其精华来匹配Azur 340A的精 密设计。该功放输入电路使用多组双声道,线性缓冲输入 来建立优化的工作条件。这一平台使用了一组受控的本地 阴极反馈以确定稳定工作的极限,所以任意电性阻抗都能 轻而易举地驱动。

输出平台使用了大规模集成硅组件,特别地加速了温度补偿以维持正确的输出平台工作条件,防止串音失真,哪怕

是在不同的驱动条件下也一样。

该功放兼容了一个能快速反应的电子静音系统并且能完全 抑制开关杂声,比如可能发生在转换输入,开关功放电源 时产生的杂音。

电源是功放至关重要的一部分。Azur 340A采用了简单而 精致的电源电路,避免了复杂又不稳定的镇流电源。选用 了环形变压器以降低漏磁,并与大容量电容联用,还有理 想地设置了退耦零件。

特别关注了所用的无源零件的性能和质量,包括用在信号 通道和退耦电路的。

Cambridge Audio Azur 340A功放兼容了音调控制功能, 能微调频响,校正信号源所带来的缺陷,补偿扬声器的不 足或室内的音响效果。音调控制能用直通开关完全地关掉 ,而不进入音频通道,从而使信号通路最短。其他的功能 特性包括:24K镀金的音频插座、卡式环路输出/输出、耳 机插座,还有额外一套可控的扬声器输出。

Cambridge Audio Azur 340A 有针对误用和本身缺陷的 全面保护。过载保护和短路保护系统持续监测输出装置的 电压,电流和温度,能在真正需要时即时启动保护但又不 误触发。

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全面温度保护能直接感应温度,如果因通风孔阻住或其他问题 引起的功放过热,输出将被关闭。

在功放出现意外时,直流偏置保护系统会立即通过打开一个输 出开关来断开功放与扬声器的连接。

钳压电路设在功放输出级以安全地处理来自高电性阻抗的瞬间 反馈。

一个综合的微控系统处理功放的基本工作,如在开机和关机时 静音,保护等等。

现在就请落座、放松休息并欣赏音乐吧!

Mathe Bram

Matthew Bramble 技术总监

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安全注意事项

检查电源额定值

为了确保您的自身安全,在试图将此装置连接电源之前,请仔细阅读以 下说明。

检查设备后面板上标明的电源电压与实际电源电压一致。如果您使用的 电源电压与后面板上标明的电压不一样,请与销售商联系。

本装置设计仅适用于该装置后面板上所标明的电源电压和电源类别。将设备连接到其它电源,可能会损坏该设备。

在不使用本设备时,须将其关闭:在没有正确地接地的情况下,也不可 使用本设备。为了防止电击的危险,不要将设备顶盖(或后盖)打开。 本设备内部无使用者可维修的部件。请与指定的服务人员联系维修事宜 。如果电源线配的是模制电源插座,那么在没有塑胶保险丝夹的情况下 就不可使用本产品。如果保险丝夹丢失,则须向Cambridge Audio公司 的经销商重新订购一个。

等边三角形内带箭头的闪电符号是警告用户产品的机壳内有未经绝缘的"危险电压",其强度足以对人构成电击危险。

等边三角形内的感叹号是警告用户,重要的操作和维护说明 是在有关本的服务说明中。

本产品在遵照说明手册安装使用的情况下 是符合欧洲低压指令(73/23/EEC)和电磁兼容性指令 (89/336/EEC)。要想始终符合以上标准,只能与本 产品使用Cambridge Audio的配件,且须请指定的维修 人员进行维修。 插头装备说明(仅限于英式插头)

本产品电源线配有13A的电源插头,内配3A保险丝。如需更换保险丝, 切记使用3A保险丝。如因插头不适合您的插座,或因损坏而需更换,则 应将插头剪断,并按照以下的接线说明安装一个合适的插头。然后,插 头必须作安全处理,否则将其插入13A插座内可能会造成电击。电源线 要接三脚英式电源插头,请按图示的方法连接。本产品上电源线的颜色 可能会与插座上的识别端子的颜色标记不一致。请按以下方法连接:

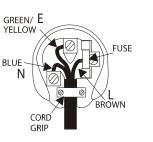
蓝色线须与标有字母"N"或着色为 黑色的端子连接。

棕色线须与标有字母 "L" 或着色为 红色的端子连接。

绿色/黄色线须标有字母"E"或着色 为绿色的端子连接。

如果您所购买的型号没有接地线,则 忽略此说明。

如果使用13A(BS1363)插头,则插头内必须配用3A保险丝;如果使用的是其它种类的插头,则必须在插头或电源插座内或配电板上使用3A或5A保险丝。



340A 集成功放

重要安全指南

安装功放之前,请花费少许时间阅读以下说明,这样您会获得最佳的性能,并可延长该产品的使用寿命。我们建议你遵从所有指示,注意所有 的警告并保存此指南以供将来使用。

本机构造是基于一级安全等级所以必须要有一条保护性地线连接到电源 插座。

本设备需要上下通风。勿将其放置在地毯或其它柔软的表面上;不要将 机壳顶部和下部的空气进出口的栅格挡住;勿将设备放在封闭的空间内 ,如:书架或柜内。

不要把该机放于近发热源的地方,如电暖炉,储热器,火炉,或其它会 发热的设备(包括功放)

不要损坏基于安全因素考虑的极性化的或带有接地脚的插头。一个极性 化的插头有两个引脚,其中一个要比另一个宽一点;一个带有接地脚的 的插头有两个引脚和第三个接地脚。宽一点的引脚和接地脚是提供安全 保护的。如果提供的插头不合你的电源插座,咨询一下电工来更换没有 用的插座。

警告---为减少火灾或电击危险,不要将本机曝露于下雨或潮湿环境,不 可将本设备曝露于滴水或向其喷洒水或其它液体物质。不要放装有水的 物体在上面,如花瓶,如发生此类意外,立即关闭电源,断开电源和联 系你的经销商。

确保体积较小的物体不落进通风栅格内。如果发生以上情况,应立即将 设备关闭、电源切断,然后与您的经销商联系。 电源线的走向应避免被人踩踏以及被附近的其它物品损坏。

在配备双重音量放大时,建议使用同样的功放。

要完全关闭本机就必须从电源插座拔下插头。如长期不使用,请关闭设备,并将插头从电源插座内取出。在雷电天气请拔下电源插头。

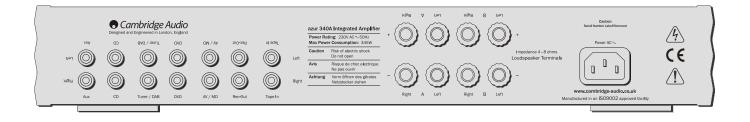
如需清理设备,请用带一点潮湿但不含有纤维屑的布进行清理,不要使 用含有酒精、氨水或研磨剂的液体清洁剂,不要在功放上或周围喷洒喷 雾剂。

本产品不是用户可维修产品,如有问题,切勿尝试维修、拆装或改造该装置;当产品以任何方式损坏都需要维修,如电源线或插头损坏,液体流入,或异物掉进机内,本机被淋雨或潮湿,工作不正常,或被摔落地。如果忽视本注意事项,则可能会引起严重的电击事故。

本设备应安装于坚固平稳的表面,不要将唱盘机放置在功放的附近,因 为转盘机会产生杂散磁场,形成干扰。

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后面板连接



交流电源插头

完成对功放的所有电线连接后,将交流电源线插头插入相应的电源插座 ,您的功放此时准备就绪,可以使用。

扬声器的连接

340A功放的后面板上有两套扬声器接线端子:扬声器A和B;扬声器A为 主扬声器接线端,扬声器B为额外可切换的扬声器接线端;用连接线从 左声道扬声器连接到LEFT+&-接线端,同样用连接线从右声道扬声器连 接到RIGHT+&-接线端;在以上两个连接中,红色接线端为正极输出,黑 色接线端为负极输入。请注意,要确保没有散露的线使扬声器输出形成 短路。 注意:本功放设计使用阻抗为4-8欧姆的扬声器。

请确保将扬声器的接线端拧紧以确保良好的电气连接。如 果接线端螺丝松动,则可能会影响音质。

功放预置输出 将这些插头与外部功放的输入相连。

卡式机监测 可将这些插口连接到卡式录音机或者小型磁碟或CD录制机上的类 似插孔,将录音机输出线路插孔的连线接到功放的卡式监测插孔 上;该监测器起着标准卡式/录制媒体输入的双重作用。

注意: 在连接同时具有输入和输出的源组件时,如: 磁带 录音机,其输出应始终与卡式监测的输入连接。这样可以 消除在选择了错误的输入通道时的噪音反馈。

340A 集成功放

卡式机输出 可将这些插口连接到卡式录音机或者小型磁碟或CD录音机上合适的插孔 ,将功放的卡式输出插孔上的连线接到录音机的进线口。请注意该设备 有两个完全相同输出的卡式环路输出接口。

CD/收音机/DVD/AV/MD 输入插口 这些输入插口适合于任何"线性电平"音响组件,如:碟片播放机、 DAB或FM/AM收音机等。

Aux输入插口 可将任何"线性电平"音响组件连接到这些插口,如: CD播放机, DAB收音机或外置音频组件。

这些输入插口只用于模拟音频信号,不应将这些插口与CD播放机或其它数字装置的数字输出端连接。

接地 如果您将唱盘机连接到功放,则需要有接地线。

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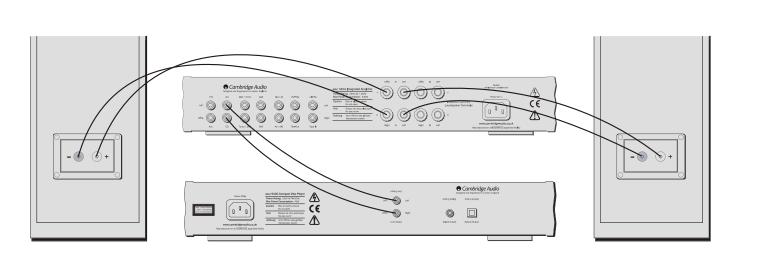
连接

在设计我们的功放时,我们已经作了尽可能的考虑,使其能够用 各种方法连接:其中已包括的功能有扬声器B的连接,意味着您可 以根据自己的要求配置音响系统。以下图例是用来指示简易连接

基本连接

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下图显示的是功放与CD播放机和一对扬声器的基本连接。



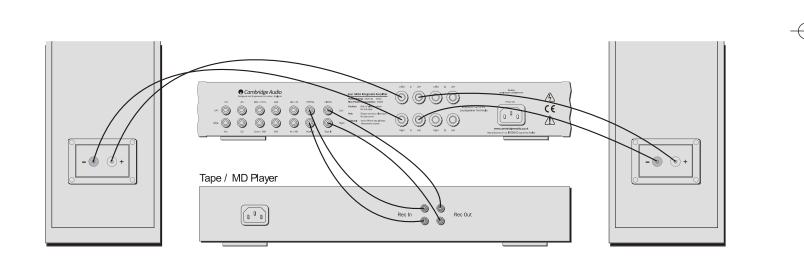
340A 集成功放

卡式机的连接

下图显示的是如何将功放连接到磁带录音机,或者将其它音响组 件与录制监测连接。

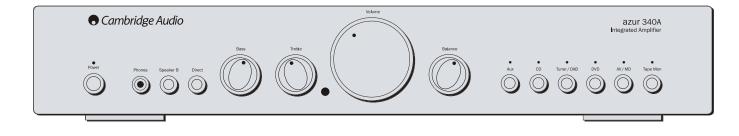
使用扬声器B

功放后面扬声器B的连接口可以再连接一对扬声器,这对扬声器可以放在另一个房间内使用。



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操作说明



电源开关 Power 将电源开启和关闭

耳机插口Headphone socket 可用一只1/4"插塞连接耳机。连接上耳机时,扬声器开关就会关 闭输出(扬声器A和B)。

扬声器B开/关 Speaker B on/off 使另一套扬声器的接线端工作或停止工作。这个功能可用在当第 二个房间用到第二套喇叭的时候。

请注意: 是否要在每个声道上选择使用两个扬声器时,应小心谨慎。如果扬声器的接线端所测到的合成电阻太低,功放机可能会

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启动过载保护系统。

注意:如果使用两对扬声器,则每对扬声器的电阻至少应额定在6欧姆(或更高)。如果使用一对以上扬声器时,则建议不要使用4欧姆的扬声器。

直通Direct

该控制键使音频信号直接通往功放,信号跳过音调控制电路,使 音质尽可能纯净。

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低音和高音控制键

可以使用这些控制键对音调平衡进行微调,当这些控制键处在中央位置 时,它们不起作用。这些键只有通过扬声器和Pre-Out插口(该功能已 被起用)对声音进行调节,它们对通过磁带机输出连接发送出的声音信 号不起作用;如果碟片是精心制作的产品而且音响系统质量很好,则不 需要使用音调控制键,可以将它们关闭;如果音乐录制质量较差和/或 扬声器/环绕喇叭有欠缺,就可能需要调整音调控制键进行补偿。

音量控制键

音量控制键提高/降低来自功放输出端的声音高低,该控制键可以控制 扬声器输出的、放大前输出的以及耳机输出的声音大小,它对磁带机输 出连接不起作用。

建议在打开功放之前,将音量控制按逆时针方向调到底。

平衡控制键

使用该控制键可以调节左右声道的相对输出电平,当该控制键处在中央 位置时,则左右声道的输出是均等的,该控制键只有通过扬声器和Pre-Out(该功能已被起用)对声音进行调节,它对磁带机输出连接发出的 信号不起作用。

输入选择按钮

按下相应的输入选择按钮,可以选择您所需要的信号源,选择的信号同时也输入到了磁带输出插口,从而使信号被录制了下来。在录制过程中不要改变输入信号,同时可以使用磁带输入磁带监测器对所录制的信号进行检查。

卡式监测选择按钮

使用该控制可以使您听到来自磁带录制机或连接到功放的磁带监测插口 的信号处理器的输出声音。选择了磁带监测时,使用输入选择按钮选择 的信号源持续与磁带输出插口连接,进行录音或处理工作。

遥控操作/功能

该功放配有一个系统遥控,其对功放和Cambridge Azur CD播放机两者 都进行控制操作。与该功放相关的遥控功能如下:

静音: 使声音处于静音状态 (输入指示灯闪)。

音量+/-: 音量按钮增加或降低功放输出音量的大小。

输入选择:可使用五个输入选择按钮和磁带监测按钮转换输入 信号源。

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保护系统

Azur 340A有以下几种保护系统:

过载和短路保护

Azur 340A有全面的针对超低负载的保护,充份考虑无功阻抗比纯阻抗 能产生更为强烈的指令影响放大器。

过载和短路保护系统持续监测每个输出装置的电压,电流和温度条件, 并与已定义好的安全工作条件(SOA)作比较。这一稳定而智能的系统会 在必要时立即启动保护,并且毫无误触发。

过热检测

Azur 340A的输出装置的即时的温度得到持续的监测,以确保温度不会 达到危险高度。当达到过热条件时,输出将会静音直到冷却下来。这一 严格控制的动作来减小输出装置的表面温度太大的变化范围,输出装置 的表面温度的变化范围太大将降低该机的可靠性能。这一动作由静音动 作完成时间相对较短,所以功放机看起来好像开机和关机。这将减少对 输出装置的冲击。

仔细定义的保护参数能确保340A免受损害,并只会在真正需要时关机。 通常这只会发生在功放机的通风孔被阻塞,而且驱动低阻抗的扬声器高 电平工作了一段时间。

直流偏置保护

在功放出现意外时,直流偏置保护系统会立即通过打开一个输出 开关来断开功放与扬声器的连接。两个声道中任意一个的极性错 都能检测出来。

钳压

当电性阻抗出现快速瞬间的极端状况,能产生比功放本身供应的整流电压大得多的脉冲电压,此举将潜在地损害输出装置。 Azur340A 有一个综合的钳压电路系统能确保此类脉冲能被功放 安全地吸收且不会造成任何破坏。

340A 集成功放

保护的指示和解决

| 现 象 | 故障/解决方法 | |
|----------------|---|--|
| 输出失真并且输出低 | 过载保护已启动 检查扬声器器阻抗是否太低 一般地低阻抗的扬声器由低电平驱动, 而不是高电平 | |
| 各自两个声道输出断断续续 | 过热保护已启动 确保通风孔没有阻住,扬声器阻抗不太低。 如有必要关闭功放15分钟冷却。 | |
| 功放无法操作,所有LED都闪 | 直流偏置保护已启动 有时可能是由过大的电源交流声干扰触发所致, 如果是就关机再开机复位重启。 如果功放无法复位,那功放本身有问题需要维修。 关机,联系你的经销商。 | |

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| 故障排除 | 技术规格 | 340A |
|---|------------------------|--|
| 没 电 确保交流电源线连接牢靠。 确保插头充分插入墙壁的插座内,并已电源经开启。 检查电源插头或多头电源插座内的保险丝。 | 输出功率 | 40W (into 8 Ω) 50W (into 4 Ω) |
| 无 声 确认功放已开机: | 最大功率损耗 | 345W |
| 检查信号源连接正确到位; 检查"卡式监测"没有打开(除非需要从卡式输入); 检查扬声器连接正确到位; 如果用的是B扬声器,请检查B扬声器是否已启动; 如果电源指示灯闪亮,将静音关闭。 | 总谐波失真 | 1kHz < 0.009% 20kHz < 0.09% |
| 如果一个声道没有声音 如果一个声道没有声音 确保平衡控制处于正确位置。 检查扬声器的连接。 检查设备之间的相互连接线。 | 频率响应 | 5Hz - 50kHz |
| 噪音很大 | 信噪比 (去加重) | 99dB |
| 检查唱盘机或者拾音器设备的接地,以及连接导线故障。 确认设备之间的连接线没有松动或问题。 确认卡式机/唱盘机离功放不要太近。 | 转换速率 | 20V/uS |
| 无 法 录制 和 播 放 磁 带 检查 卡式 监测和 卡式 输出的连接是否正确。 低音大好,声音立体感不强 | 尺寸 (Hx₩xD) 毫米 英寸 | 70 × 430 × 310 2.8 × 16.9 × 12.2 |
| 确认扬声器的接线是否不反相。 保护指示灯闪亮 请阅读保护系统的说明(第26页) | 重量 公斤 磅 | 6.2 13.6 |

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销售单据或发票作为购买本产品的凭证,能证明您需要修理的产品是否 在保修期之内,因此在要求保修服务时,必须提供购买凭证。

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