

FUSION HB70

HYBRID INTEGRATED
AMPLIFIER

~USERS MANUAL~

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Introduction

Thank you for selecting the FUSION HB70 Amplifier from Tube Technology.

Please read through this manual so you will know how to operate your Fusion HB70 properly. After you have finished reading this manual, please put it away in a safe place for future reference.

We have done our utmost in the design and build of the Fusion HB70 to ensure you a low maintenance, trouble free amplifier that will bring you many years of pleasure as an important part of your hi-fi system.

Please do not forget to complete and return the enclosed registration card.

We wish you many hours of musical enjoyment !

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Conventions

This manual uses the following conventions;

Bold indicates emphasis or a minor heading.

Italic Bold refers to a sub heading of a chapter.



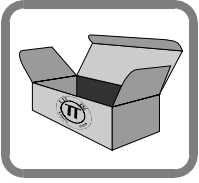
This symbol refers to Notes containing important information set off from the text.



THIS SYMBOL REFERS TO CAUTION MESSAGES AND PROCEDURES WHICH IF NOT OBSERVED CAN LEAD TO DAMAGE OR INJURY

1

Getting Started



Unpacking



This chapter contains information on;

- ***Unpacking the Fusion HB70 Amplifier***

Your Fusion HB70 is packed in "jiffy-cell" end-caps. Grip the unit from the middle and simply pull it out of the box. Remove the end-caps and polythene bag.

All packing should be retained. Equipment returned can only be accepted in the original packaging.

The following items are included in the packaging of a Fusion CD Player;

- 1 x Fusion HB70 Amplifier
- 1 x Remote Control Handset & 2 x AAA Batteries
- 1 x IEC Mains Leads
- 1 x Users Manual

Mains Connection



Mains Connection



Wiring a Mains Plug



This chapter contains information on;

- *Connecting the Fusion to a Household Mains Supply*
- *Wiring a mains plug (UK)*


Your Fusion HB70 Amplifier plugs into the mains supply via the IEC socket located on the back panel (see diagram 3). Connect your Amplifier to the wall socket using the IEC mains lead supplied in the packaging. The Amplifier has been factory set to the correct mains voltage for your country. The voltage setting is marked on the serial badge, located on the rear panel. (See diagram 1). Check that this voltage complies with your local supply. Also make sure that your mains outlet is able to deliver the required current for the equipment plugged into it. The wattage rating is also marked on the serial badge.

WARNING - THIS APPARATUS MUST BE EARTHED

DO NOT CONNECT/SWITCH-ON THE MAINS SUPPLY TO THE AMPLIFIER BEFORE COMPLETING ALL OTHER CONNECTIONS. IF YOU ARE IN ANY DOUBT REGARDING MAINS CONNECTIONS PLEASE DO NOT PROCEED ANY FURTHER WITHOUT CONSULTING YOUR DEALER.

Export units for certain markets have a moulded mains plug fitted to comply with local standards. If your mains supply lead does not have a plug fitted, the coloured wires should be connected to the appropriate plug terminals in accordance with the following code.

Wire Colour Label on Plug

GREEN/YELLOW **E** or EARTH or 
 BLUE **N** or NEUTRAL or BLACK
 BROWN **L** or LIVE or RED

If your mains plug has a fuse, please fit a fuse with **13A** rating.

If your Amplifier is not set correctly for the local supply or if you intend to move the Amplifier to a location where the supply is at a different voltage, please contact your dealer.

Audio Connection

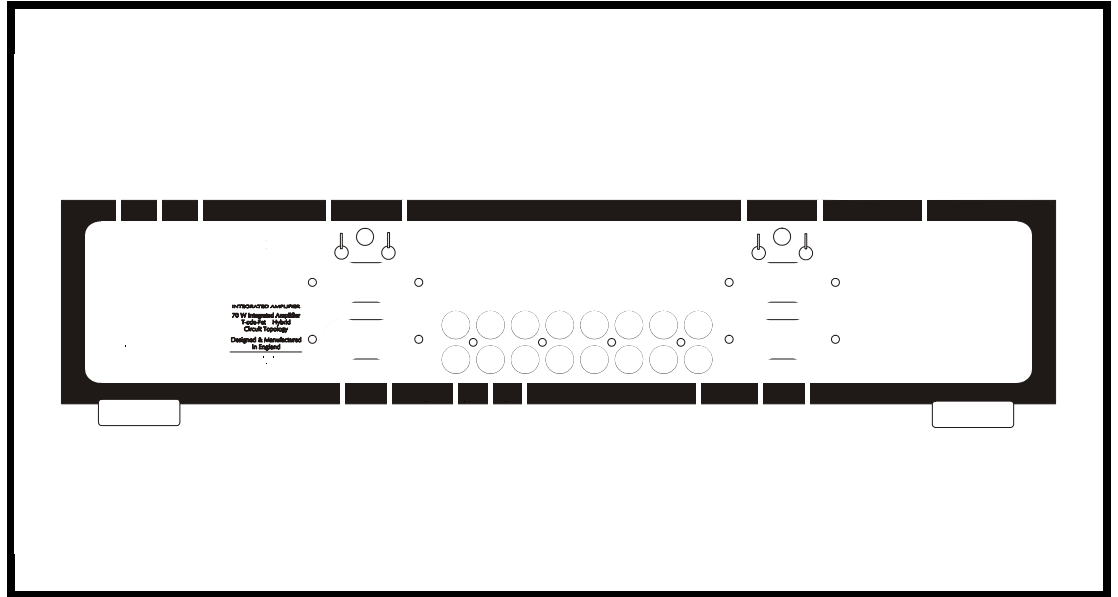


This chapter contains information on;

- **Connecting the Fusion HB70 Amplifier**

Your Amplifier uses high quality connectors to ensure that maximum signal transfer is possible, therefore ensure that all cables used for connection to the amplifier are terminated with connectors of similar quality.

Diagram 1



Connecting the Inputs

Connect all Line-Level sources in any of the six inputs labelled (7) in the diagram above. Connect your CD Player, Tape Deck, Tuner to the labelled inputs and any other line-level sources such as mini-disc or AV outputs can be connected to Aux1, Aux2 or Aux3.

Connecting the Outputs

If you have a Tape Deck or any other recording device connect its input to REC OUT (6). The desired input selected on the front panel of of the HB70 can now be recorded.

If you have other equipment such as a sub-woofer or slave amplifier which requires a variable output from the Pre-Amp connect its input to PRE OUT (5).

Connecting the Loudspeakers

Connect the Loudspeakers with either 4mm Banana Plugs or bare wire ends directly in the binding posts (4) Right Channel & (8) Left Channel for a single wire system. If Bi-Wiring connect the Bass R,L at (4) & (8), and the Treble R,L on (9) & (10).

Ensure that the Red or + lead of the speaker cable connects to the + on the Amplifier and that the Black or - of the speaker lead connects to the - on the amplifier.

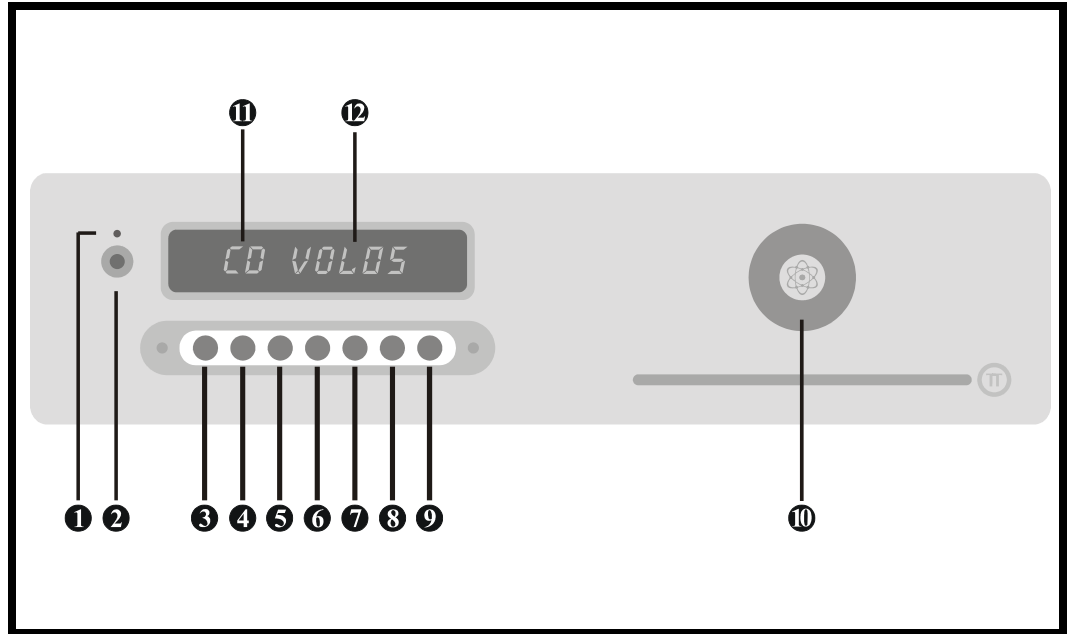
Operating your System



Diagram 2
Front Panel

This chapter contains information on;

- **Controls & Remote Functions**



1 Numbers in the circles relate to the Front Panel - *Diagram 2*

A Letters in the ellipses relate to the Remote Control Handset - *Diagram 3*

Switching ON & OFF

Switch on the Fusion HB70 by pressing the rocker MASTER SWITCH(9) *diagram 1* located on the rear panel, to ON . The amplifier will display SLEEP in the display. Pressing the Power Button **2** **A** will commence the power-up routine. The amplifier will remain in a MUTE state, for 30 seconds until the internal vacuum tubes have reached operating temperature. The Display will show WARM-UP followed by a count-down. Pressing this button again will place the amplifier in Stand-By mode, using minimum power, the ST/BY led **1** is illuminated

Controls & Remote Functions

Select the desired source to be played by pressing either the remote control handset or corresponding button on the front panel, the input selected illuminated in the display **11**

- 3** CD
- 4** AUX 1
- 5** AUX 2
- 6** AUX 3
- 7** TUNER
- 8** TAPE
- 9** MUTE

Turn the Rotary Encoder **10** on the Front Panel or press the **C** button on the remote to increase Volume, the volume setting is illuminated on the display **12** A Clockwise Turn on the control knob increases the volume and an anti-clockwise turn decreases the volume. If the knob is turned rapidly to a desired volume setting, a short delay occurs before the required volume level is set.

The brightness level of the display can be set by pushing the control knob in and turning it clockwise for increased brightness and anti-clockwise for decreased brightness. **10**



IT IS RECOMMENDED TO ALWAYS PLACE THE AMPLIFIER IN ST/BY / SLEEP BEFORE SWITCHING OFF AT THE REAR.

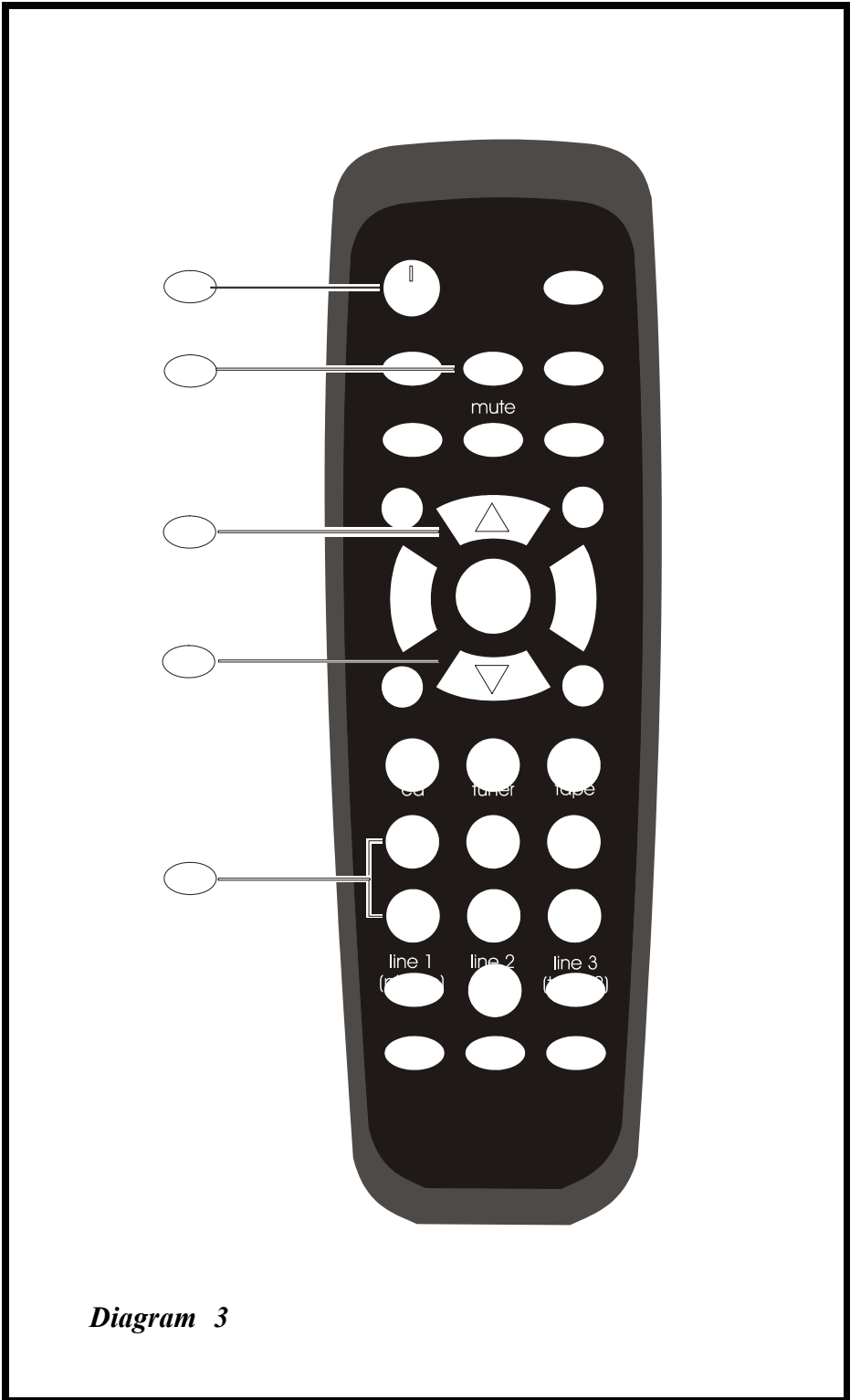
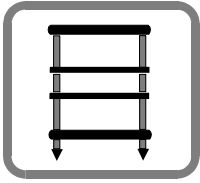


Diagram 3

Installation



This chapter contains information on;

- *Installing & Ventilation of your Amplifier*
- *Burning in your Amplifier*

Installing & Ventilation

Ensure that the Amplifier is placed in a stable location that is able to accept its weight, each unit weighs 10 kilograms.

Isolated shelves and/or isolating feet under the unit helps prevent micro-vibrations (generated in the room while playing music) from disturbing the internal vacuum tube structure, and digital electronics, implementing the use of these will further enhance sound quality.

Dedicated racks are available for housing your tube equipment, contact your dealer or Tube Technology for further information.

Do not locate the Amplifier close to radiators or any other heat source, this could increase the operating temperature.

Do not locate the Amplifier too close to a turntable, as the cartridge could pick up hum from the power transformer.



Burning-In

"Burning-In" is our generic term given to the basic 'running-in' of the Amplifier. You may notice a slight 'electronic-smell' from your Amplifier during the first few days of operation. This smell is usually caused by the heating of various surfaces on brand new electronic components which takes some time to evaporate. This is quite normal and there is no need for concern as your Amplifier has been extensively soak tested before leaving the factory. This burning-in time continues with your use of the amplifier.

This process simply allows for new components like tubes, capacitors and resistors to settle and 'sweeten' enhancing the Amplifiers sonic performance. An estimated 80 hours of operation allows your Fusion this running-in period.

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Maintenance



Care & Cleaning

Vacuum Tubes

This chapter contains information on;

- *Care and Cleaning of your CD Player*
- *Vacuum Tubes*

Anodised parts such as the front panel & Lid are best cleaned with a damp cloth then buffed with a dry cloth. Stubborn 'greasy' marks in the grain can be removed with a tiny amount of washing-up liquid worked into the grain and then carefully cleaned with a damp cloth.

The Fusion utilises 2 x 6922/E88CC or 6DJ8 vacuum tubes in it's analogue input stage. The life span of these devices is approx. 8000 operating hours after which time they should be replaced, ensuring the unit is operating at it's maximum performance. If this time is exceeded there is NO danger to the unit.

6

Troubleshooting

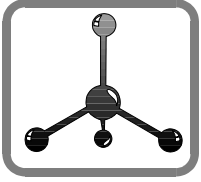
Symptom	Remedy
No Power when the POWER button is depressed.	<ol style="list-style-type: none">1. Check you have pushed the IEC mains cable firmly into the socket on the rear panel.2. Check that MASTER POWER switch on the rear panel is in the ON position.
No Sound is heard	<ol style="list-style-type: none">1. Check that MUTE is not on, and you have connected to the correct input socket which is displayed on the front panel.

Table 1



UNDER NO CIRCUMSTANCES SHOULD AN UNQUALIFIED PERSON REMOVE THE COVERS OF A CD PLAYER.

Specifications



Guarantee



Guarantee

This chapter contains information on;

- *The Guarantee of your Fusion HB70 Amplifier*
- *Tube Guarantee*
- *Registration*
- *Claims under this Guarantee*

This equipment has been fully tested and a full record of these tests made before despatch from the factory. Both the workmanship and the performance of this equipment are (*except as set out below) guaranteed against defects for a period of TWO YEARS from the date of purchase, provided that it was originally purchased from an authorised dealer under a consumer sale agreement, at or near the recommended retail price. (The words "consumer sale" shall be construed in accordance with section 15 of the Supply of Goods (Implied Terms) act 1973).

This guarantee covers both labour and parts and is transferable to subsequent purchasers but the liability of the manufacturers is limited to the cost of repair or replacement (at the discretion of the manufacturers) of the defective parts and under no circumstances extends to consequential loss, damage or shipping charges.

The manufacturers can accept no responsibility for defects arising from accident, misuse, wear and tear, neglect or through unauthorised adjustments and or repair, neither can they accept responsibility for damage or loss occurring during transit to or from the person claiming under this guarantee.

This equipment has a 6 MONTH guarantee on the tubes allowing for any manufacturing defects to arise. If a tube is found to be defective it should be returned to the dealer or failing this, directly to Tube Technology packed in its original packaging.

Registration

Please complete the registration card and return it to Tube Technology. **Your guarantee is invalid without registration.** To transfer this guarantee to subsequent purchasers, the new owner must notify Tube Technology of their name, address and serial numbers of the equipment.

Claims under this Guarantee

This equipment should be packaged in the original packaging and returned to the dealer from whom it was purchased or, failing this, any other authorised Tube Technology dealer. If it is not possible to return the equipment by hand then it should be sent carriage prepaid by a reputable carrier. Should the original packaging not be available replacement packaging can be purchased from the manufacturers. The equipment should not be sent by post.



DO NOT CONSIGN THE EQUIPMENT TO TUBE TECHNOLOGY UNLESS YOU HAVE FIRST BEEN SPECIFICALLY REQUESTED TO DO SO BY THE MANUFACTURERS TECHNICAL SERVICE DEPARTMENT. DO NOT UNDER ANY CIRCUMSTANCES ATTEMPT TO DISASSEMBLE THE EQUIPMENT BEFORE DESPATCH.

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