

Almost all the hi-fi you ever heard would have been a compromise. Even our own products, up to now, have had to be built within certain constraints: costs, time, availability of components and 'market demands'. Furthermore, other manufacturers would have had another constraint: fear. The fear of making a statement.

We have always endeavoured to break down the preconceived barriers that others have been scared of, but of course there have always been the first three constraints.

As Alchemist has grown in strength, we decided that we could, and should, make a statement. An amplifier that completely broke down all the barriers, cost no object:

## THE ALCHEMIST

This product was conceived and designed in association with Tim de Paravicini, one of the greatest minds in the business. All components have been chosen to match the design, and not the other way around. Where we could not find components of the right specification, we had them made. Even the remote control handset has been designed and built from scratch.

No hi-fi product can ever reproduce music as if it were a live performance. Manufacturers that say that they are attempting this are seriously misguided. Listening to music in your home is a completely different experience, and THE ALCHEMIST has been conceived to make that an experience of a lifetime.



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- 3 PRE-POWER AMP CONNECTIONS: THE PRE TO THE STEREO
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# NOTES AND ADVICE

1

## EC COMPATIBILITY

THE ALCHEMIST has been designed and built within the guidelines set by the EC Directive on Electro Magnetic Compatibility. It should be noted here that these design parameters in no way affect the performance capabilities of THE ALCHEMIST.

THE ALCHEMIST conforms with the protection requirements of Council Directive 89/336/EEC on the approximation of the Member States relating to electromagnetic compatibility and has passed the following EMC standard tests:

EN 50081-1 (Conducted Emissions)

EN 50081-1 (Radiated Emissions)

EN 55014 (Mains Disturbance Emissions)

EN 50082-1 (Radiated Susceptibility & Immunity)

### Notes on the above tests:

1. Only screened interconnect cables must be used between source equipment and pre-amp, and pre-amp and power amp(s).
2. The product is to be used for domestic audio use only.
3. All THE ALCHEMIST amplifier's functions are controlled by touch sensitive pads. This complex circuit is protected from ESD (Electro-Static Discharge) by switching the product to Standby Mode if there is any build up of static charge. After about twenty seconds you can turn the product back on by touching the Standby pad. To minimise the likelihood of a static charge build-up, you should stand THE ALCHEMIST on the supplied feet, on a hard surface. Specifically, you should not locate THE ALCHEMIST on a floor covering with man-made fibre content.

4. 'Pops and clicks' heard through your system could be due to mains spikes from other appliances within your home. These should be filtered and suppressed at source.

## NOTES AND ADVICE

Although THE ALCHEMIST amplifiers are built to the highest possible standard, they are also delicately balanced, and extreme ambient conditions can adversely affect their performance.

Fast changes in ambient temperature should be avoided and your amplifiers should be shaded from direct sunlight. Indeed, this applies to all of your audio equipment.

## POWER AND HEAT DISSIPATION

There are generally two types of amplifier: Class A/B and Class A.

An easy analogy to differentiate the two could be that with a Class A/B device, you press the accelerator to gain more volume: the amplifier only uses power when it needs it. On the other hand, a Class A amplifier is running at full power at switch on, but with the brakes on. To increase volume, you take your foot off the brake. That is why Class A/B amplifiers get hotter with an increase in volume, and Class A amplifiers get cooler.

THE STEREO power amplifier is a Class A/B device, and will consequently get warmer when it is playing - especially on the heat sinks. Also note that the heat sinks to the rear will get warmer than those at the front - this is due to the internal configuration of the amplifier and is perfectly normal.

THE MONO power amplifiers, being Class A devices, will be at their warmest when they are on but

not playing. Having said that, you will probably find that THE MONO doesn't get as hot as lesser Class A amps, as we have given them 1.2 metres of heatsink radiating area each.

Although neither of these power amplifiers gets excessively hot, it would be prudent to give them adequate ventilation, and they should not be kept in an enclosed space.

THE PRE preamplifier doesn't get hot, but it is warm and cuddly.

## LOUDSPEAKER CABLES

A thorny subject, and no mistake. It is easy to be confused by the information that can be gleaned from magazines, dealers and various ne'er-do-wells. This is because, yes, cables do change the sound of an audio system, and no, nobody really knows why.

This is further exacerbated by the fact that cables change their performance characteristics with different amp/speaker combinations.

Our advice would be that you talk nicely to your friendly dealer and ask him/her to let you borrow two or three types so that you can evaluate them at home.

It would be useful if you could get hold of a pair of the most sensitive audio measuring devices known to man to help with your evaluation. But as you very probably have a pair stuck to the sides of your head, that should be no problem.

## LOUDSPEAKER MATCHING

The most common misunderstanding when matching power amps with loudspeakers is with power handling.

When amplifiers are given a power rating, this refers to the maximum output. The maximum usable output will

usually be reached at about 1 - 2 o'clock on the volume control, leaving enough reserve power to deal with transients (fast increases in volume) and crescendo's. If an amplifier (yes, even THE ALCHEMIST) is driven beyond this limit it will 'clip' (literally clipping the wave form), resulting in a distorted signal. It is this distortion that usually blows up speakers, and not power. If you are in any doubt as to the suitability of your amp to drive your loudspeakers, please consult your dealer.

## GENERAL CARE

Cleaning THE ALCHEMIST should be done with a clean, dry, lint-free cloth. Do not use any solvent or silicone based cleaning solutions.

Remember to replace all your packaging in the box and reseal. Keep the box(es) for future transportation of your amplifier.

**Please note that, as with all hi-fi products, there are no user serviceable parts inside and you should refer any problems to your Alchemist dealer. Removal of any chassis cover may void your guarantee.**

## MAINS POWER CONNECTION

- UK, EUROPE and HONG KONG ONLY

In this version the supplied mains leads are fitted with a three pin mains plug. If you should need to change the plug, use a 13amp plug fitted with a 13amp fuse and follow these wiring instructions:

BROWN = Live (L): fix to the terminal coloured RED or marked '+'.  
BLUE = Neutral (N): fix to the terminal coloured BLACK or marked '0'.  
GREEN/YELLOW = Earth (E): fix to the terminal coloured GREEN, or marked 'E', or '⏏', or '⏚'.



You have invested in one of the finest amplification systems known to man.

Before you spend the rest of your life listening to fabulous musical reproduction, we would ask you to invest a little time in getting to know your new toy.

This manual has been designed to make the set up procedure as easy and straight forward as possible. So relax, fix yourself a drink, clear the immediate area of children and animals, and let's get busy.

**THE ALCHEMIST - all models**

**POSITIONING**

THE PRE does not need to dissipate any heat, but it would be best to place it on its own shelf.

On the other hand, both THE STEREO and THE MONO power amps will need adequate ventilation for heat dissipation. Place all ALCHEMIST power amps on separate strong shelves.

Given that THE PRE is remote control, it is recommended that it is placed in line of sight. Anyway, who'd want to hide it?

**MAINS POWER CONNECTION**

All units are supplied with a mains lead. For specific wiring instructions, please see page one.

There is an external replaceable fuse next to the power input: see 'Specifications' at the back of this manual for fuse values.

Before connecting any leads when you set up, ensure that the mains supply at the wall socket is turned off. If this is not possible, do not plug the mains leads into the mains supply until you are sure that your amplifiers are connected properly. This is not because THE ALCHEMIST is particularly sensitive, but that it's good practice when setting up all hi-fi units.

As THE PRE is designed to complement either THE STEREO or THE MONO power amps, a Remote Power Link cable has been provided for. However, as it would be impossible to include a lead of the right length

for everyone, we have provided the plugs. Please ask your dealer to make up a lead of the required length using these plugs. Connect this to the terminal marked 'Remote Power Link Output' on THE PRE and the terminal marked 'Remote Power Link Input' on either THE STEREO or THE MONO power amps. This will ensure that when you turn on THE PRE, the power amps will power up automatically. Of course, if you are using lesser amps with an ALCHEMIST you will forego this little luxury.

Connect the mains leads to the amps, but do not power up until you have finalised all wiring.

The mains power switch is located on the back panel of all THE ALCHEMIST amps.

See Figure 1.

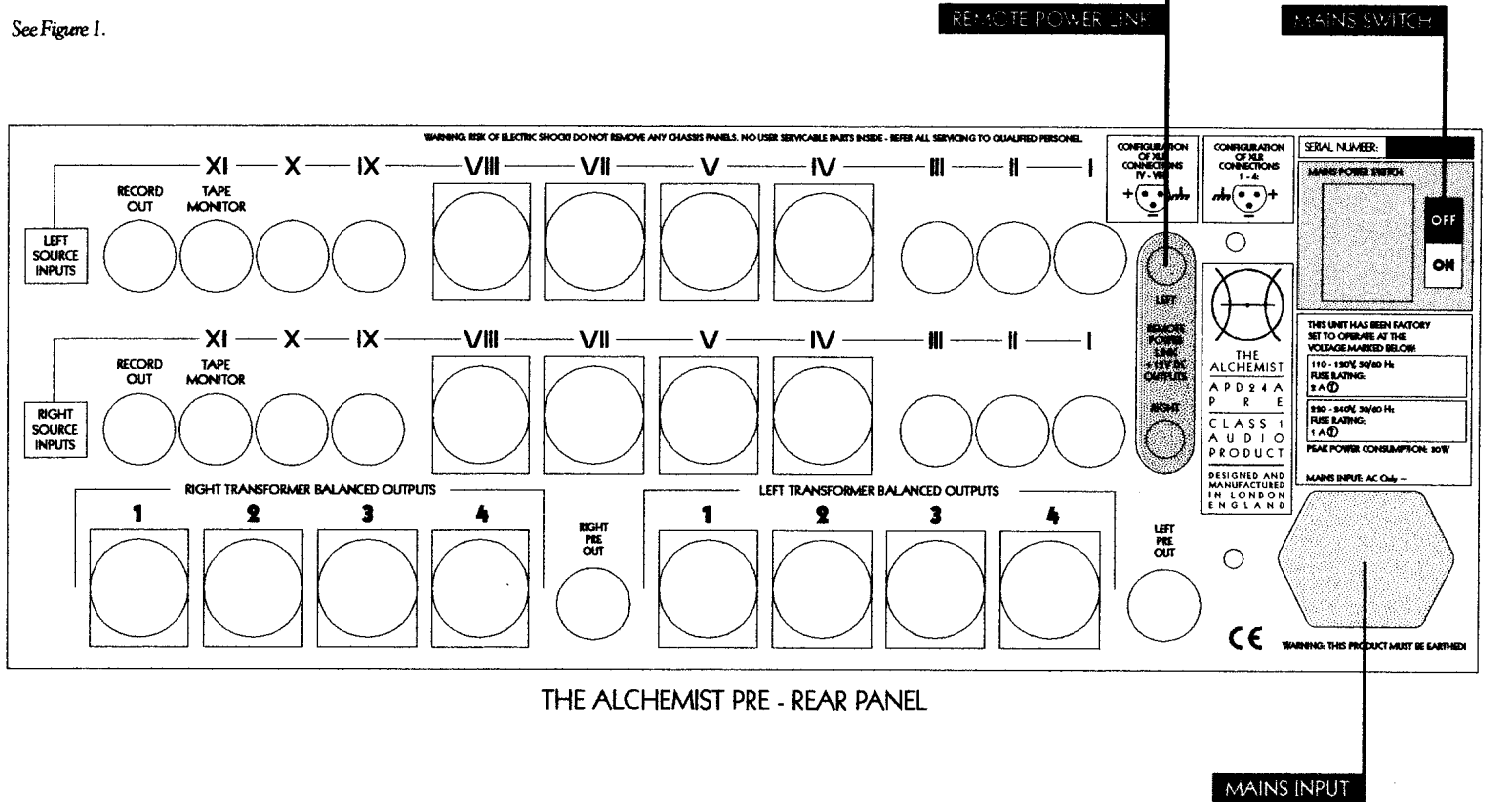
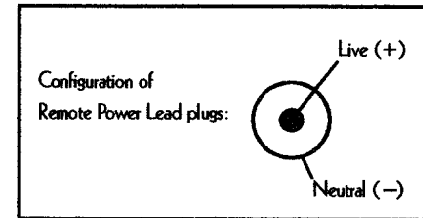


Figure 1



**PRE-POWER AMP CONNECTION**

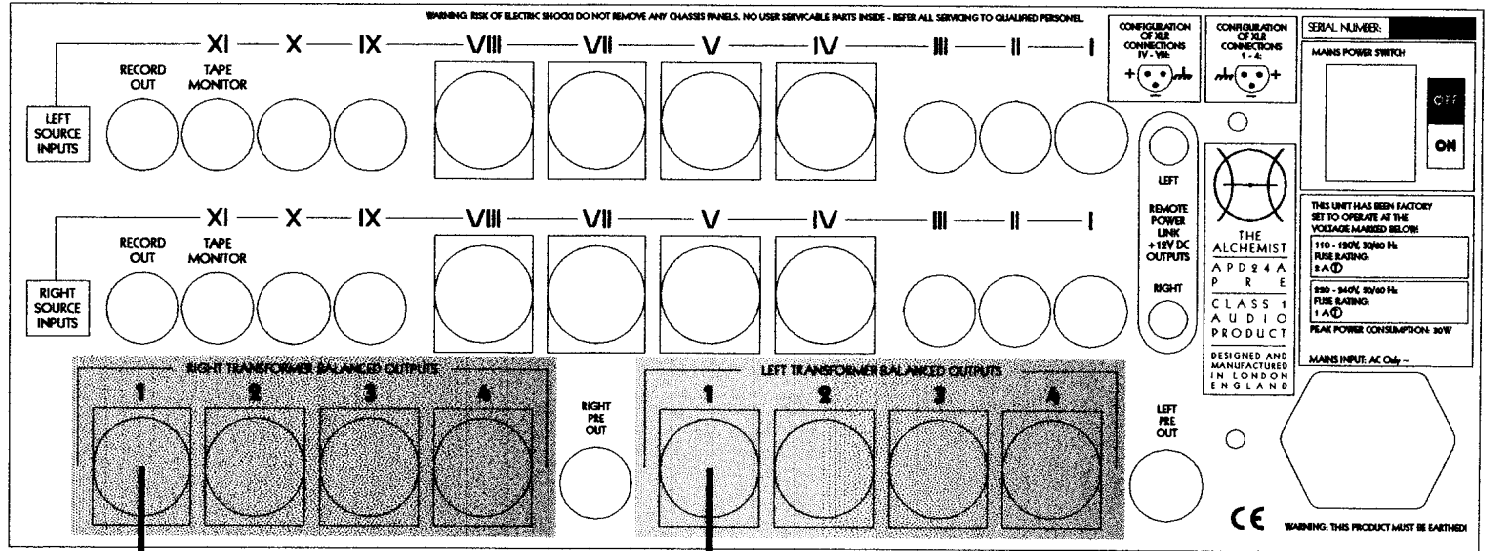
Please note that we do not supply interconnect leads as most people like to choose their own. Unbalanced (RCA) leads should not be more than 3 metres long, and balanced (XLR) leads can be any length.

If you are in any doubt as to which leads to choose, please consult your dealer. If your dealer is in any doubt, ask him or her to call us.

THE ALCHEMIST has been designed to give optimum performance implementing a technique that uses transformer balanced connections, and therefore you will only get the best out of these amps by using both THE PRE and either THE STEREO or THE MONO amps.

Furthermore, we have provided THE PRE with four sets of balanced outputs.

You can accordingly utilize up to four THE STEREO power amps or four sets (of two) of THE MONO power amps. These can either be used to run separate sets of loudspeakers, possibly in an AV configuration, or run the treble, midrange, bass and sub-bass of one set of speakers.



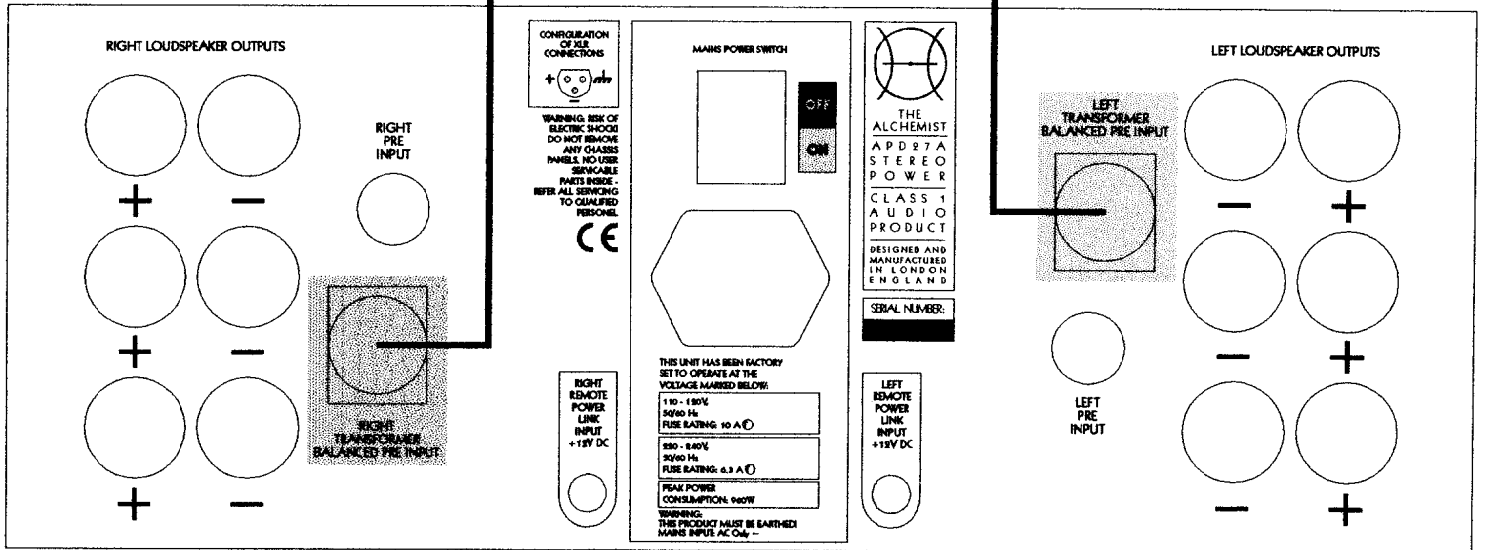
THE ALCHEMIST PRE - REAR PANEL

**PRE TO STEREO CONNECTION**

Connect the terminal marked 'Left Transformer Balanced Output 1' on THE PRE to the terminal marked 'Left Transformer Balanced Input' on THE STEREO. Repeat the procedure for the Right Channel.

See Figure 2.

If you are using more than one THE STEREO power amp, make sure that you remember which output is connected to which power amp. To this end we have provided a diagram at the back of this manual which you can annotate for your own configuration.



THE ALCHEMIST STEREO - REAR PANEL



### PRE TO MONO CONNECTION

Connect the terminal marked 'Left Transformer Balanced Output 1' to THE MONO power amp number one.

Connect the terminal marked 'Right Transformer Balanced Output 1' to THE MONO power amp number two. On THE MONO power amps there is an Input Selector button for switching between balanced and unbalanced configuration. If you are using THE ALCHEMIST PRE with balanced XLR interconnects, depress the button so that the red LED above 'Transformer Balanced Input' is lit.

See Figure 3.

Note that THE MONO amps are identical pairs - you'll have to decide which you use for Left and Right channels. It's all work, isn't it?

### THE USE OF LESSER AMPS

It is of course possible to either use THE ALCHEMIST PRE with another brand of power amp, or THE ALCHEMIST STEREO or MONO power amps with another brand of pre-amp. In this case, only use unbalanced leads.

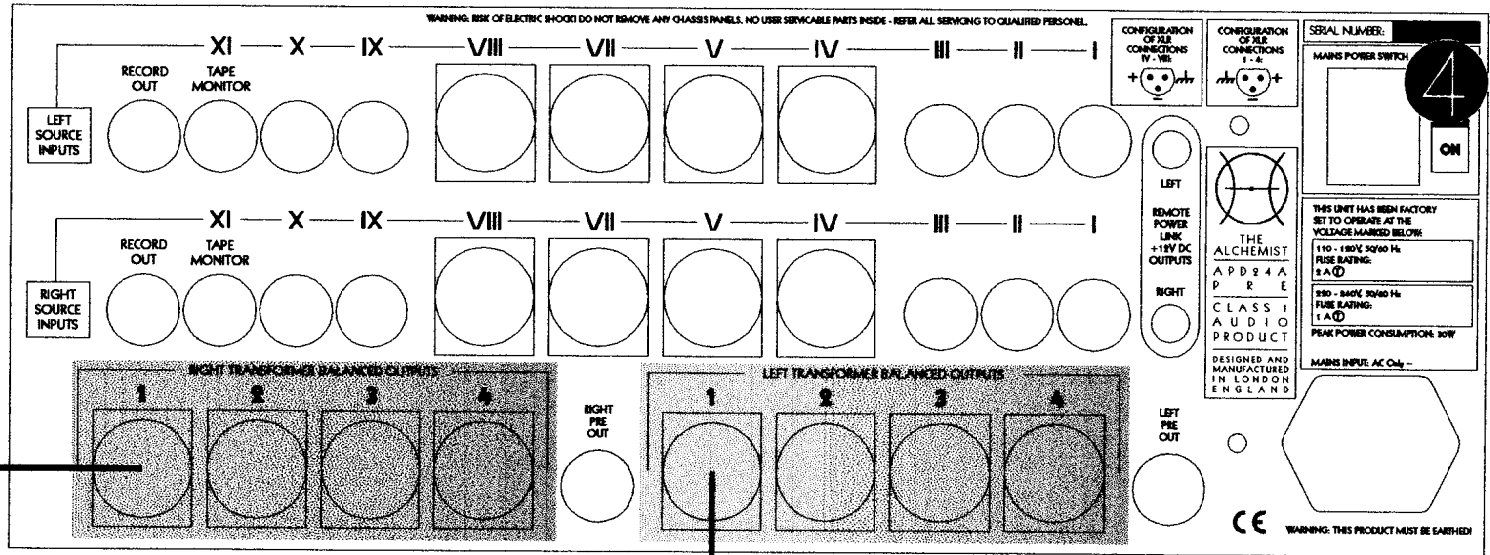
For THE PRE, connect the terminals marked 'Pre Output' to the inputs on your power amp.

For either THE STEREO or THE MONO power amps, connect the terminals marked 'Pre Input' to the output terminals on your pre-amp. If you are using a lesser pre-amp with either of THE ALCHEMIST power amps, depress the input selector button so that the green LED above 'Pre Input' is lit.

These are indicated by the areas highlighted in yellow.

See Figure 3.

### THE ALCHEMIST MONO - REAR PANELS



THE ALCHEMIST PRE - REAR PANEL

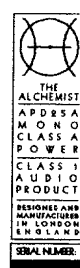
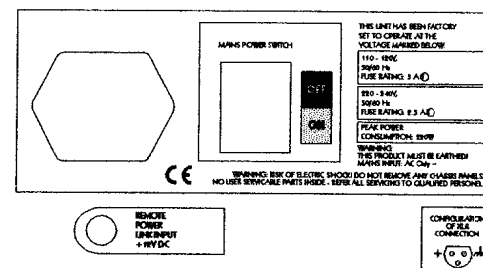
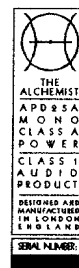
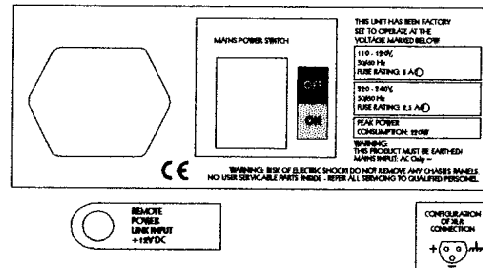
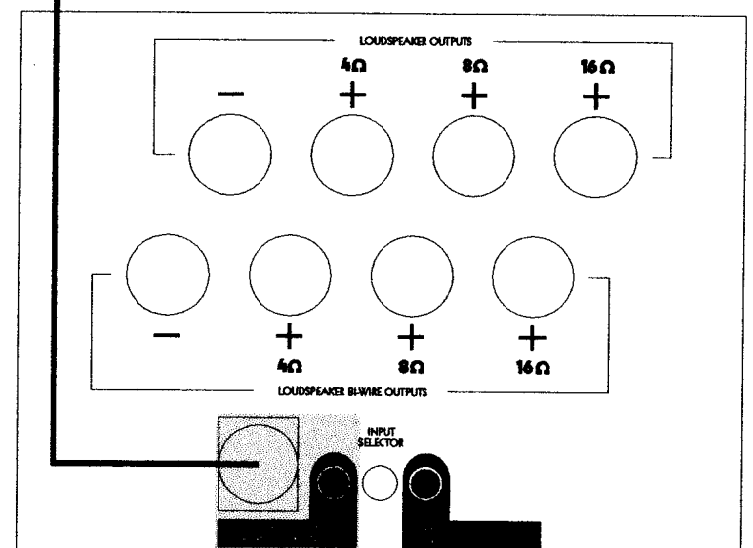
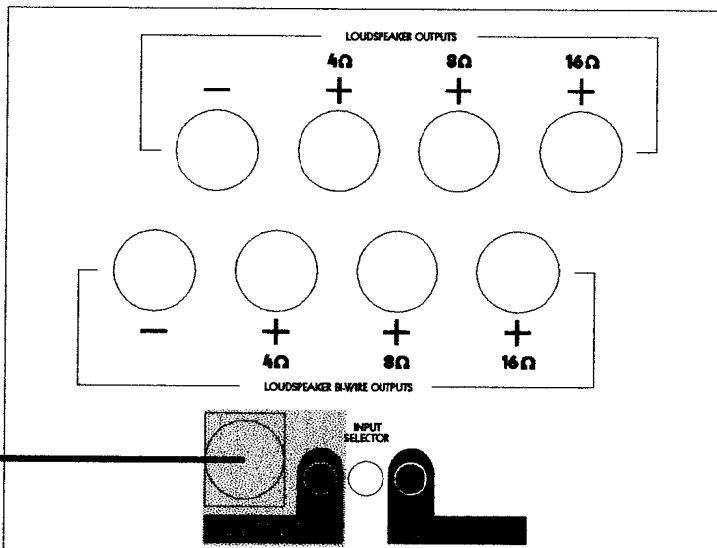


Figure 3



**SOURCE CONNECTION**

Be sure that your amplifier is turned off when connecting/disconnecting any leads.

There are ten line input terminals on THE ALCHEMIST PRE. Six of these connections are unbalanced phono (RCA), and four are balanced (XLR), which are for the highest quality sources.

As the phono sockets are gold plated, we recommend that, where possible, you use gold phono plugs on your interconnect leads. Gold to gold connections will ensure that a good electrical contact is maintained without the need for periodic cleaning.

Take care that your input leads are correctly orientated for Left and Right channels. RED is usually Right and WHITE or BLACK is usually Left.

If you are unsure as to what brand or model of lead to use, consult with your dealer.

Note that although there are ten inputs, we have numbered them from one (I) to eleven (XI), missing out six. There is no technical reason for this: we simply wanted the front of the amplifier represent a watch face.

The unbalanced input terminals are numbered: one (I), two (II), three(III), nine (IX), and ten (X).

These terminals can be used for any line level source.

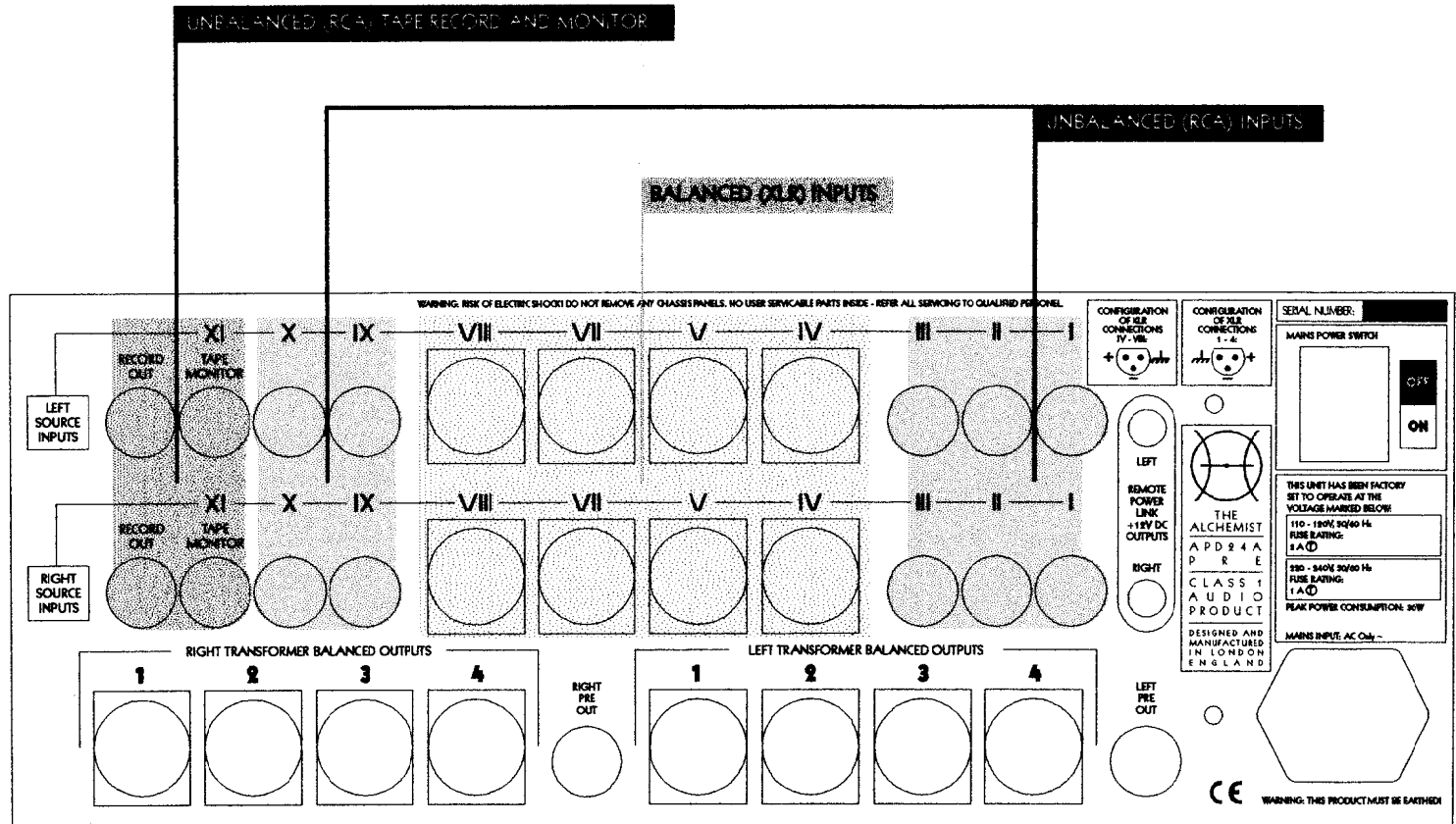
Input terminal eleven (XI) is reserved as the tape monitor.

There is also one unbalanced output terminal (not numbered - marked RECORD OUT) to be connected to a tape recorder.

The balanced input terminals are numbered: four (IV), five (V), seven (VII) and eight (VIII).

These inputs are very high quality and should be reserved for your sexiest source equipment. Note that you can only connect units that have balanced outputs. You can not use RCA to XLR interconnect leads.

See Figure 4.



THE ALCHEMIST PRE - REAR PANEL



**LOUDSPEAKER CONNECTION**

THE ALCHEMIST STEREO power amp, rated at 200W RMS is capable of driving almost any kind of loudspeaker.

However, please consult your dealer if you are unsure of your loudspeaker's suitability.

In line with new IEC regulations, we have provided touchproof loudspeaker terminals. These will accept bare wires or banana plugs by unscrewing the outer casing (making sure that when connecting with bare wires the positive and negative wires do not touch, or your amplifier and/or loudspeakers could be damaged), inserting the wire or plug and tightening the casing.

Always ensure that correct polarity is maintained: i.e. that the positive output from the amplifier is connected to the positive input on the loudspeaker. Incorrect polarity will make the system out of phase, resulting in poor stereo imaging and lack of deep, coherent bass.

Connect the top negative Right loudspeaker output to the negative terminal of the Right loudspeaker.

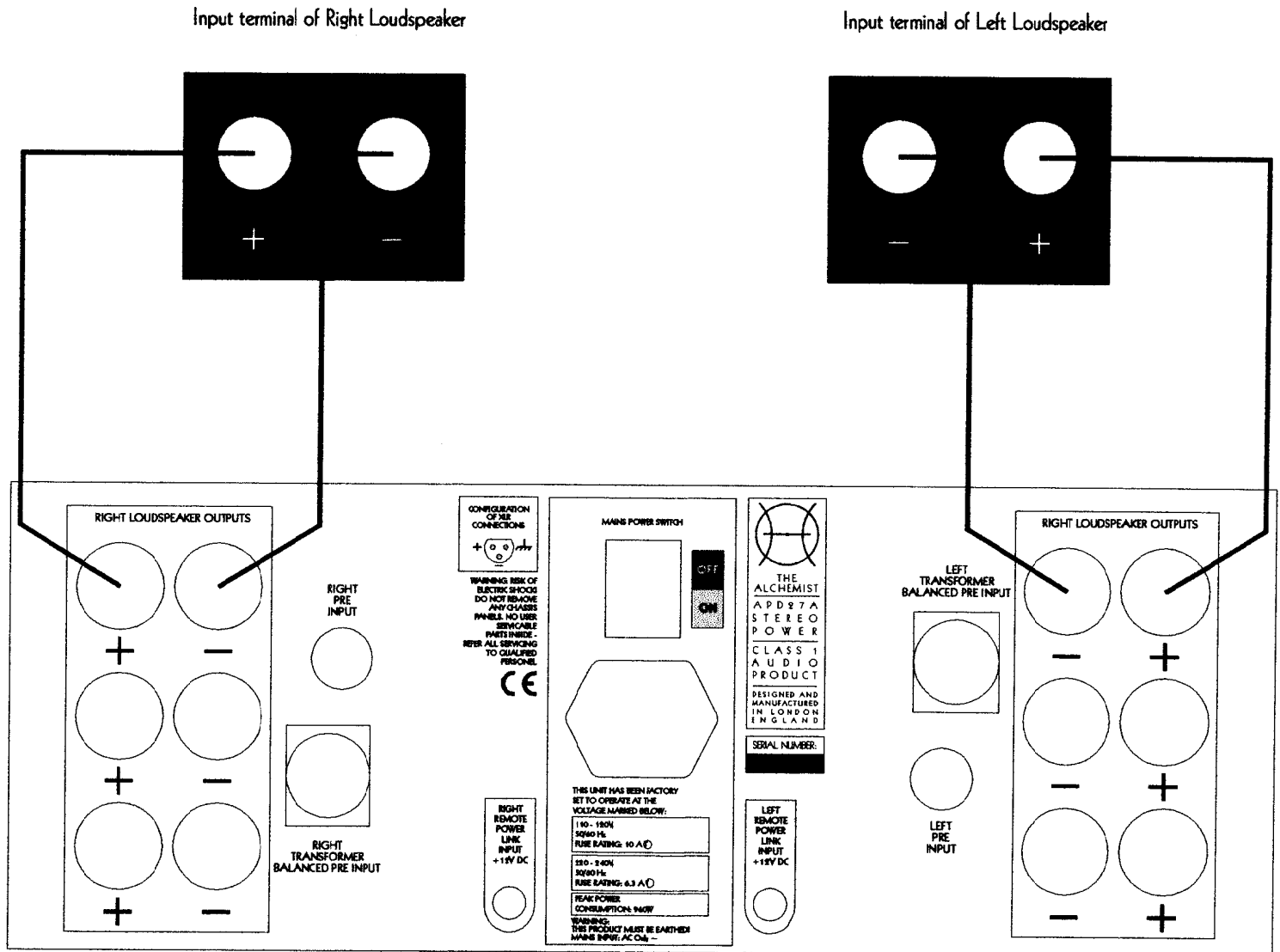
Connect the top positive Right loudspeaker output to the positive terminal of the Right loudspeaker.

Repeat this procedure for the Left loudspeaker.

To Bi-wire simply connect the top terminals to the treble inputs on your speakers, and the bottom terminals to the bass.

To Tri-wire connect the middle terminals to the mid-range inputs on your loudspeakers.

See Figure 5.



THE ALCHEMIST STEREO - REAR PANEL

Figure 5





## LOUDSPEAKER CONNECTION

### THE ALCHEMIST MONO

amplifiers are very high quality devices that can drive almost any loudspeaker in

the world. So that you can gain optimum performance from your MONO amplifiers, we have provided dedicated outputs for 4, 8 and 16 ohms. You should check in your loudspeaker instruction manual to find out the nominal impedance of your speakers. If you are in any doubt, please consult your dealer.

As with THE STEREO power amp, we have provided touchproof loudspeaker terminals. These will accept bare wires or banana plugs by unscrewing the outer casing (making sure that when connecting with bare wires the positive and negative wires do not touch, or your amplifier and/or loudspeakers could be damaged), inserting the wire or plug and tightening the casing.

Always ensure that correct polarity is maintained: i.e. that the positive output from the amplifier is connected to the positive input on the loudspeaker. Incorrect polarity will make the system out of phase, resulting in poor stereo imaging and lack of deep, coherent bass.

Connect the negative output from THE MONO amp number 1 to the negative terminal of the Left loudspeaker.

Connect the positive output (ensuring that you know the correct impedance) from THE MONO amp number 1 to the positive terminal of the Left loudspeaker.

Repeat this procedure for THE MONO amp number two and the Right loudspeaker.

To Bi-wire simply connect the top terminals to the treble inputs on your speakers, and the bottom terminals to the bass.

See Figure 6.

Input terminal of Left Loudspeaker

Input terminal of Right Loudspeaker

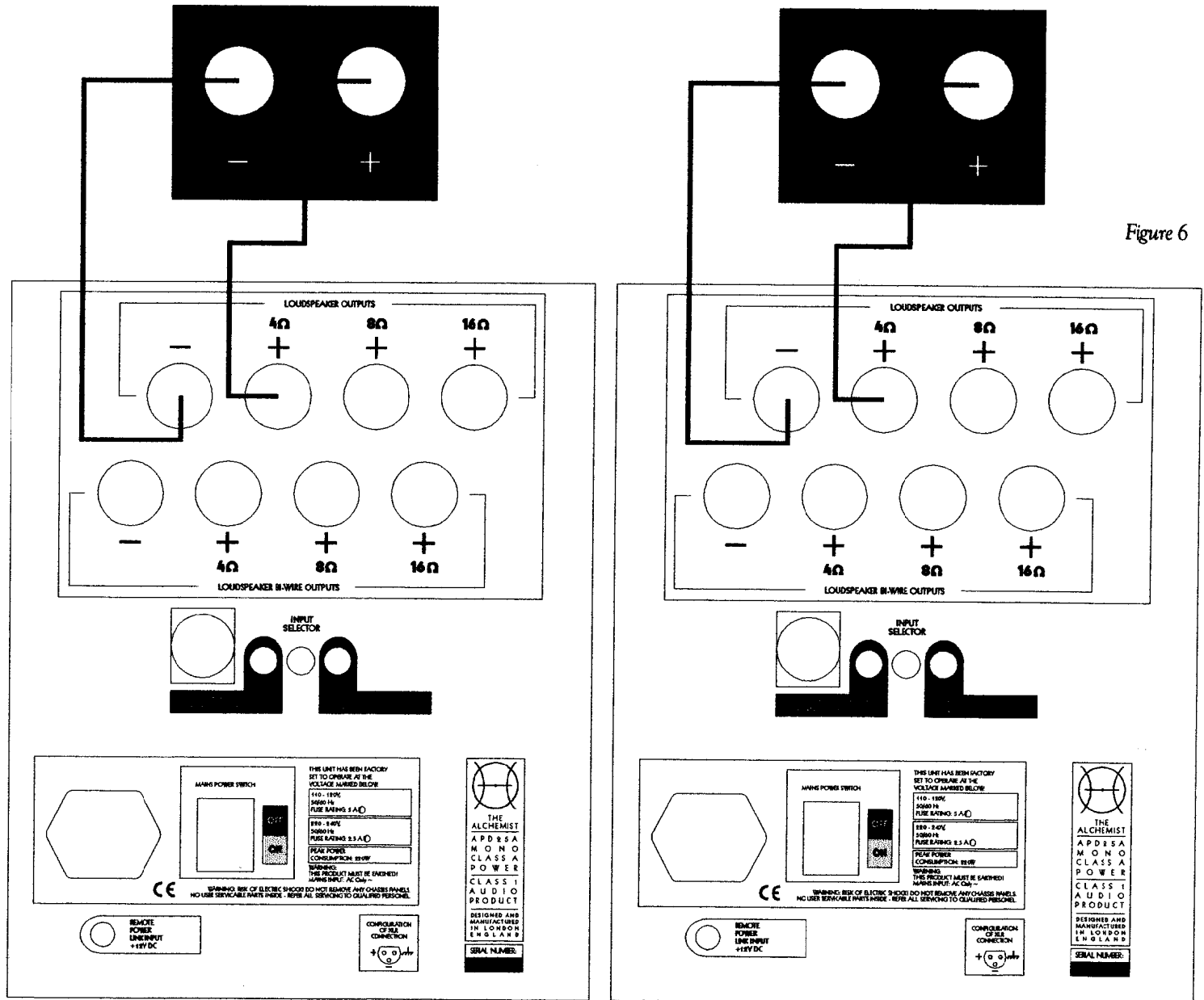


Figure 6

THE ALCHEMIST MONO Number 1

THE ALCHEMIST MONO Number 2

THIS UNIT HAS BEEN FACTORY SET TO OPERATE AT THE VOLTAGE LISTED BELOW

110 - 115V
2000W 16
FUSE RATING 5.0A

100 - 105V

2000W 16
FUSE RATING 5.5A

PEAK POWER CONSUMPTION 250W

WARNING: THIS PRODUCT MUST BE EARTHED! UNLESS NOTED OTHERWISE.

CE

WARNING: RISK OF ELECTRIC SHOCK! DO NOT REMOVE ANY CHASSIS PANELS! NO USER SERVICEABLE PARTS INSIDE - REFER ALL SERVICING TO QUALIFIED PERSONNEL.

REMOVAL OF POWER LINE INPUT +117V DC

COMPLIANCE OF SILE CONNECTION

THE ALCHEMIST AUDIO PRODUCTS CLASS 1 AUDIO PRODUCT

DESIGNED AND MANUFACTURED IN LONDON ENGLAND

SERIAL NUMBER:

THIS UNIT HAS BEEN FACTORY SET TO OPERATE AT THE VOLTAGE LISTED BELOW

110 - 115V
2000W 16
FUSE RATING 5.0A

100 - 105V

2000W 16
FUSE RATING 5.5A

PEAK POWER CONSUMPTION 250W

WARNING: THIS PRODUCT MUST BE EARTHED! UNLESS NOTED OTHERWISE.

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REMOVAL OF POWER LINE INPUT +117V DC

COMPLIANCE OF SILE CONNECTION

THE ALCHEMIST AUDIO PRODUCTS CLASS 1 AUDIO PRODUCT

DESIGNED AND MANUFACTURED IN LONDON ENGLAND

SERIAL NUMBER:



## OPERATION

This section only deals with a full ALCHEMIST amp system.

## POWER-UP

When running THE ALCHEMIST PRE with either THE STEREO or THE MONO power amps, ensure that you are using the 'Remote Power Link' connectors (see page 2).

Turn on the amplifiers with the mains switches positioned on the back panels. The power (STANDBY / ON) indicators on the fascias will glow GREEN to indicate Standby mode. These indicators are marked:

## CONTROLS

The controls on the fascias of THE ALCHEMIST are touch sensitive: you do not have to push, just brush them with your finger.

The STANDBY/ON switch is located on the far left of the PRE fascia. Touch this switch to turn THE PRE on. It will then glow AMBER. As this operation will also turn on the power amp(s), you do not have to turn them on individually. Note that when using the 'Remote Power Link' connectors the light on the power amp(s) will remain GREEN, even when switched from STANDBY to ON. However, if you are using THE MONO power amps, the LED's at the bottom will change from GREEN to AMBER, the LED's above the VU meters will glow BLUE, and the Mute LED's at the top will glow GREEN when the amplifiers are fully powered up.

When you turn on THE PRE, it will automatically mute: the output signal and return the volume to zero before activating the input and output circuits. It will also automatically default to input number one (I).

Next to the power indicator on THE PRE is the remote control receiver. Make sure that this is in line of sight for it to work effectively.

## VOLUME:

The large knob in the middle of the fascia is the volume control. The knob is motorized so that it will turn when

you are using the remote control. You will probably find that the maximum usable volume will be attained when the knob is at approximately 2 o'clock (see Loudspeaker Matching).

## INPUT:

The input selectors are arranged around the volume knob and numbered one (I) to eleven (XI), missing out six. You can assign any source to any input selector (XI is reserved for tape). When an input is selected, that indicator will glow BLUE.

In your first few weeks of using THE ALCHEMIST you might find it difficult to remember which input is which. To help jog your memory we have included a diagram of the front and back panels of THE PRE and the remote control handset at the back of this manual. You can make a note of your source equipment on this.

## TAPE:

The TAPE selector is towards the right of the fascia and is marked:

It will glow GREEN when selected.

Use this when you want to listen to the source you are recording. Note that in the interests of attaining super-clean signal paths, there is no facility to record from one source while listening to another.

## MUTE:

The mute selector turns off the signal to the power amp(s), and will glow RED when selected. It is marked:

When you turn on THE PRE, Mute will automatically be selected. Turn it off to listen to the system.

See Figure 7.



## REMOTE CONTROL

All of the controls on the fascia of THE PRE are duplicated on the remote control handset. The only difference is that you control the volume with the two buttons at the bottom of the handset:

Volume down is marked:

Volume up is marked:

See Figure 7a.

THE ALCHEMIST PRE - REMOTE CONTROL

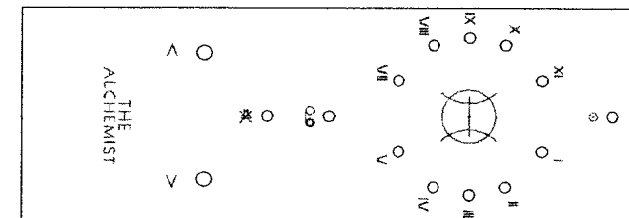


Figure 7a

THE ALCHEMIST PRE - FRONT PANEL

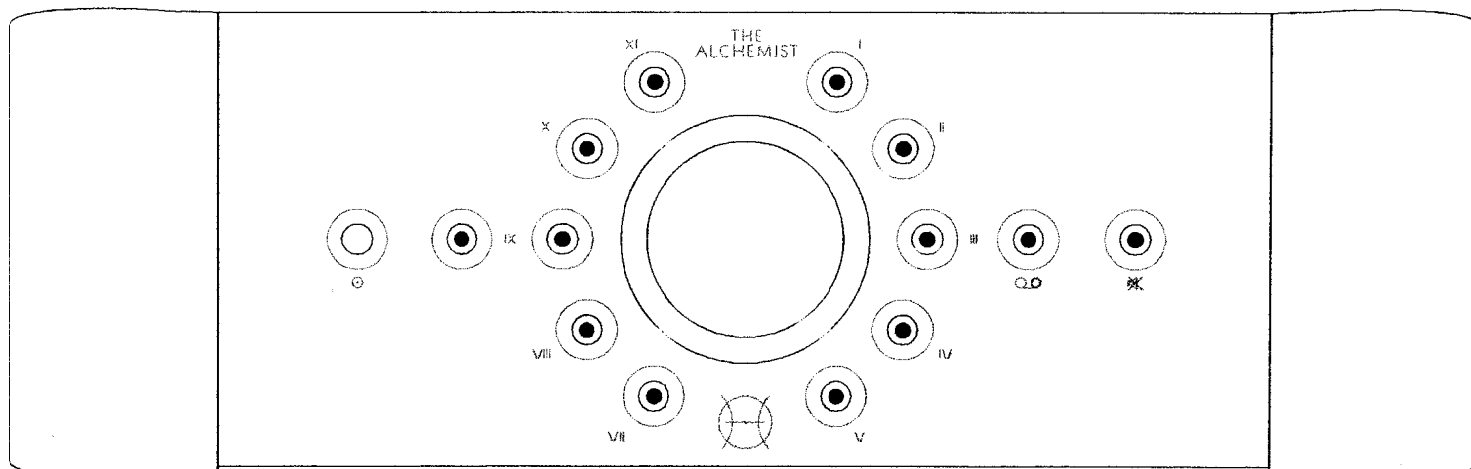


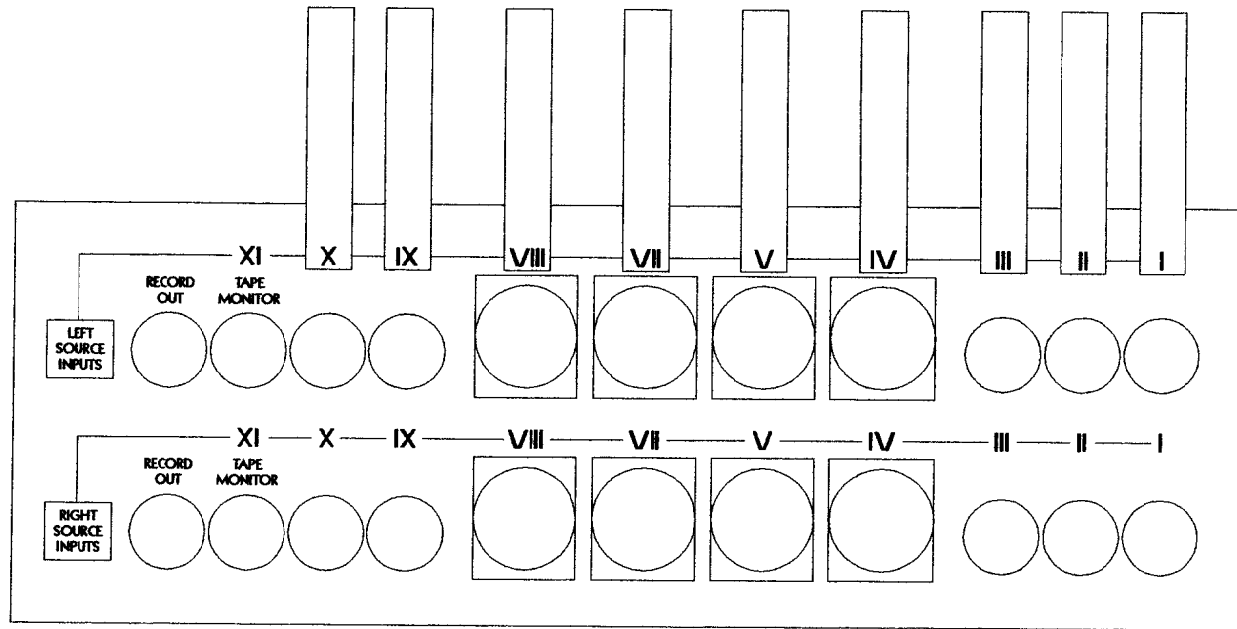
Figure 7



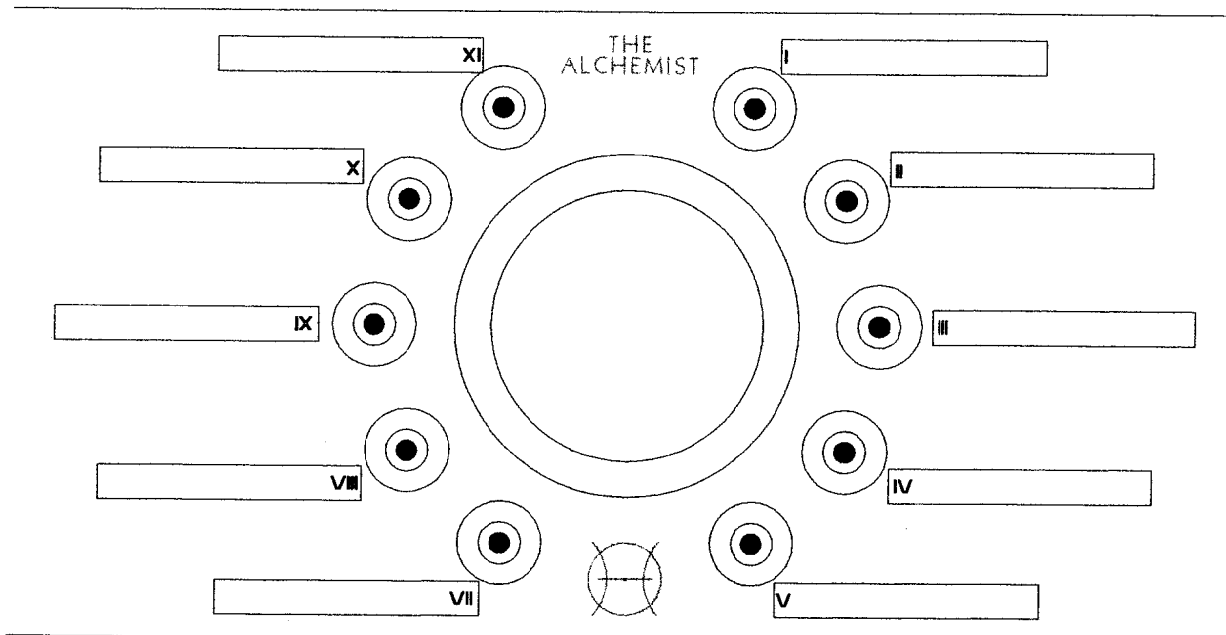
# THE PRE: USER DEFINED INPUTS



REAR PANEL



FRONT PANEL





# S P E C I F I C A T I O N S



	THE PRE	THE MONO	THE STEREO
Input Sensitivity	1V Input = 3.7V Output	850mV for Maximum Output	900mV for Maximum Output
Maximum Output	9V	21V = 55W @ 1KHz	200W, 20Hz - 20KHz
Maximum Output (Transformer Balanced)	12V		
Distortion @ 1KHz	Less than 0.3%	Less than 0.5%	Less than 0.5%
Distortion @ 10KHz	Less than 0.3%	Less than 0.5%	Less than 0.5%
Distortion @ 20KHz	Less than 0.3%	Less than 0.5%	Less than 0.5%
Input Impedance	47Kohms RCA	82Kohms	270Kohms
Noise	Less than 200mV	Less than 500mV	Less than 500mV
Frequency Response		3Hz - 100KHz (-3dB) @ 1W	3Hz - 120KHz (-3dB) @ 8W
Peak Power Consumption	30W	220W	960W
Balanced Input as for Professional Audio Equipment: AES14-1992			
Pin 1	Ground	Ground	Ground
Pin 2	+ (Positive)	+ (Positive)	+ (Positive)
Pin 3	- (Negative)	- (Negative)	- (Negative)
Dimensions (W x H x D)	462mm x 180mm x 410mm	315mm x 330mm x 530mm	462mm x 180mm x 530mm
Dimensions, packed (W x H x D)	620mm x 340mm x 550mm	480mm x 490mm x 670mm	620mm x 340mm x 670mm
Weight	18kg	48kg	33kg
Weight, packed	20kg	50kg	35kg

Alchemist reserve the right to change specifications without prior notice