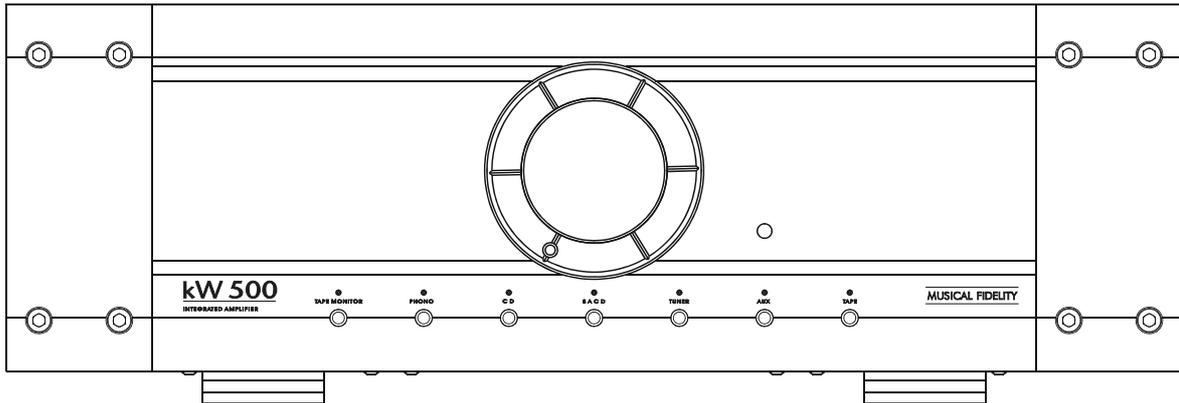


# kW 500

## DUAL MONO INTEGRATED AMPLIFIER



### ***INSTRUCTIONS FOR USE***

*Thank you for purchasing the Musical Fidelity kW 500 Integrated amplifier.*

*Used properly and carefully, it should give you many years of outstanding musical reproduction.*

*Dust regularly with a soft cloth or soft brush, but be careful when using cleaning or polishing agents - they may harm the surface finish.*

*If you have any questions about your audio system, please consult your dealer who is there to help and advise.*

MUSICAL FIDELITY

# SAFETY INFORMATION

## IMPORTANT! (U.K. only)

This unit is supplied in the U.K. with a mains lead fitted with a moulded 13 amp plug. If, for any reason, you need to cut off this plug, please remove the fuse holder and dispose of the plug safely, out of reach of children. ***It must not be plugged into a mains outlet.***

The wires in the mains lead supplied with this appliance are coloured in accordance with the following code:

Green and yellow.....Earth  
Blue.....Neutral  
Brown.....Live

### **WARNING - This appliance must be earthed**

As the colours of the wires of the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter E or coloured green or green-and-yellow, or by the earth symbol: 

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 blue must be connected to the terminal which is marked with the letter N or coloured black.

If connecting to a BS1363 plug, a 13 amp fuse must be used.

### **WARNING:**

**The kW 500 Integrated is a powerful amplifier and must necessarily supply high voltages through the loudspeaker terminals. Therefore, to avoid any possibility of an electric shock DO NOT TOUCH THE SPEAKER TERMINALS when the unit is being used. To comply with BSEN60065 safety regulations, the 4mm “banana” plug holes have been fitted with plastic blanking pieces. Removal of these will invalidate any electrical safety approval of this product.**

### **WARNING:**

**Any modifications to this product not expressly approved by Musical Fidelity who is the party responsible for standards compliance could void the user's authority to operate this equipment.**

# GENERAL ADVICE

## **INSTALLATION PRECAUTIONS and USER INFORMATION**

Your new kW 500 Integrated amplifier is designed and built to provide trouble-free performance, but as with all electronic devices it is necessary to observe a few precautions:

*Heed all warnings shown on the back of the product.*

*Only connect the kW 500 Integrated amplifier to a mains outlet having the same voltage as marked at the back of the unit.*

*Always ensure that when disconnecting and reconnecting your audio equipment the mains supply is switched off.*

*Position the mains lead and signal interconnects where they are not likely to be walked on or trapped by items placed on them.*

*Do not use near water, or place water-filled containers on the amplifier, for example, flower vases or potted plants. **If water does spill inside, immediately pull out the mains plug from the wall socket and inform your dealer, who should then check the unit before further use. Entry of liquid into the amplifier is dangerous, and may cause electric shock or fire hazard.***

*Do not place the unit near heat sources such as radiators, direct sunlight or other equipment. The case of this amplifier can run at high temperatures - operate the unit in a well ventilated area, and do not touch the cabinet sides or top after periods of use at high output power.*

*Do not remove covers or try to gain access to the inside. There are no internal user adjustments or fuses you can replace yourself. Refer all service work to an authorised Musical Fidelity agent.*

***NOTE: Unauthorised opening of the equipment will invalidate any warranty claims.***

*Dust regularly with a soft duster or soft brush, but be careful when using cleaning or polishing agents - they may harm the surface finish.*

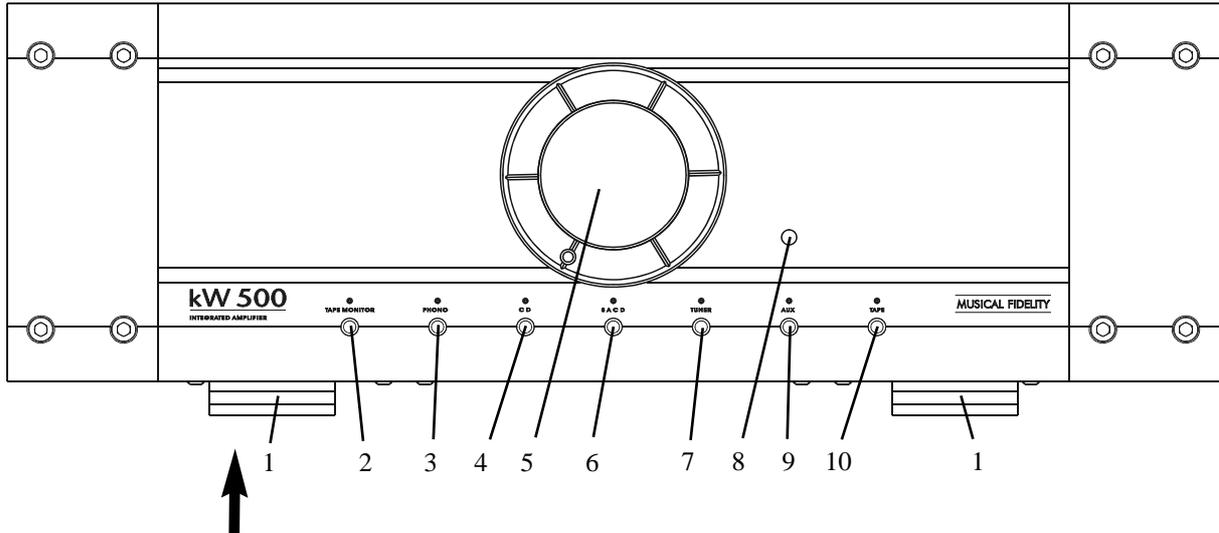
The electronics in modern hi-fi equipment is complex and may, therefore, be adversely affected or damaged by lightning. For protection of your audio system during electrical storms, remove the mains plugs and disconnect any aerial lead.

If after-sales service is required, to help your dealer identify the kW 500 Integrated amplifier please quote the serial number located on the rear panel of the unit.

## **RADIO FREQUENCY INTERFERENCE (R.F.I)**

This product has been tested to ensure that its operation is not adversely affected by normal background levels of R.F.I., and that it does not itself generate excessive amounts of interference. However, if a problem persists, please contact your Musical Fidelity agent.

# CONNECTIONS AND FACILITIES - MAIN UNIT

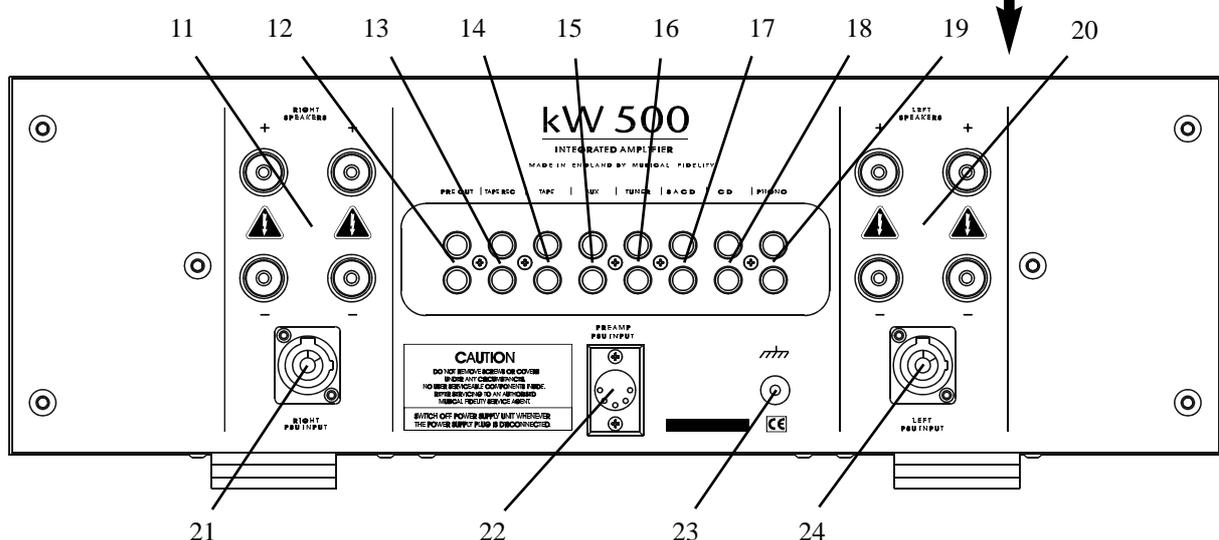


## Main unit front panel layout

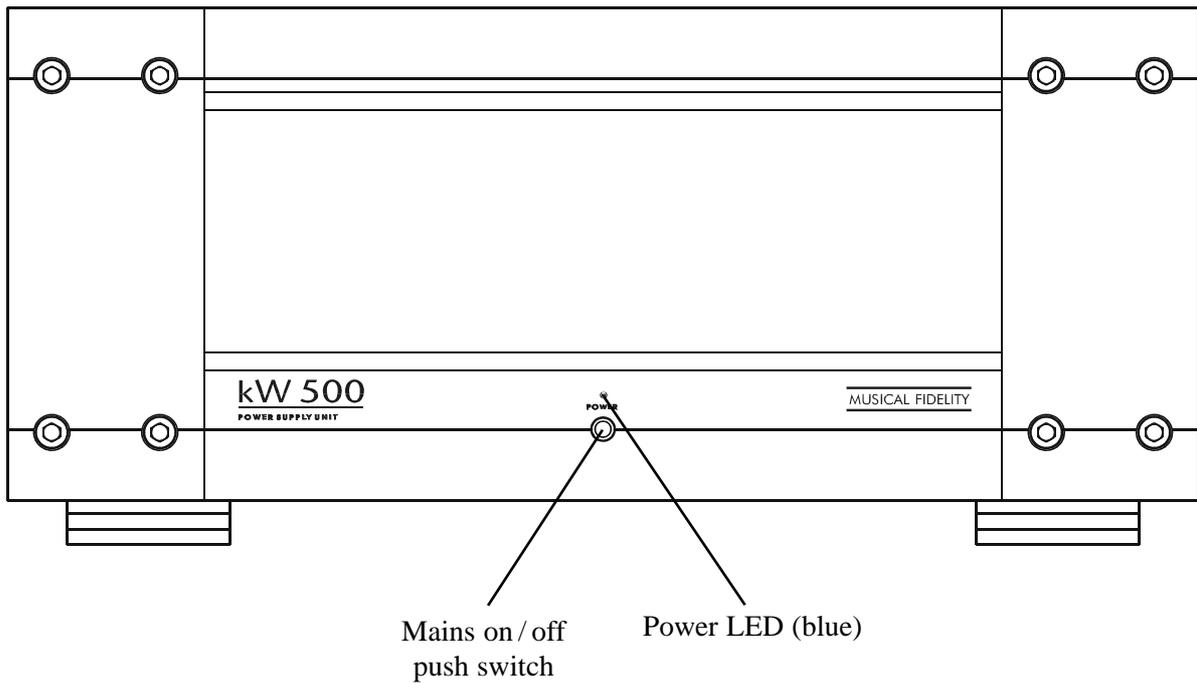
- 1 Illuminated feet with multi-colour indicator LEDs for power and mute
- 2 **TAPE MONITOR** selector button and LED
- 3 **PHONO** input selector button and LED
- 4 **CD** input selector button and LED
- 5 Volume control
- 6 **SACD** input selector button and LED
- 7 **TUNER** input selector button and LED
- 8 Infra red receiver for remote control
- 9 **AUXiliary** input selector button and LED
- 10 **TAPE** input selector button and LED

## Main unit back panel layout

- 11 Right **SPEAKER** output terminals (two pairs)
- 12 **PRE**-amplifier **OUT**put sockets
- 13 **TAPE REC**ord output sockets
- 14 **TAPE** input sockets
- 15 **AUX**iliary input sockets
- 16 **TUNER** input sockets
- 17 **SACD** input sockets
- 18 **CD** input sockets
- 19 **PHONO** input sockets
- 20 Left **SPEAKER** output terminals (two pairs)
- 21 Amplifier power inlet socket - right channel
- 22 Pre-amplifier power inlet socket
- 23 Phono earth terminal
- 24 Amplifier power inlet socket - left channel

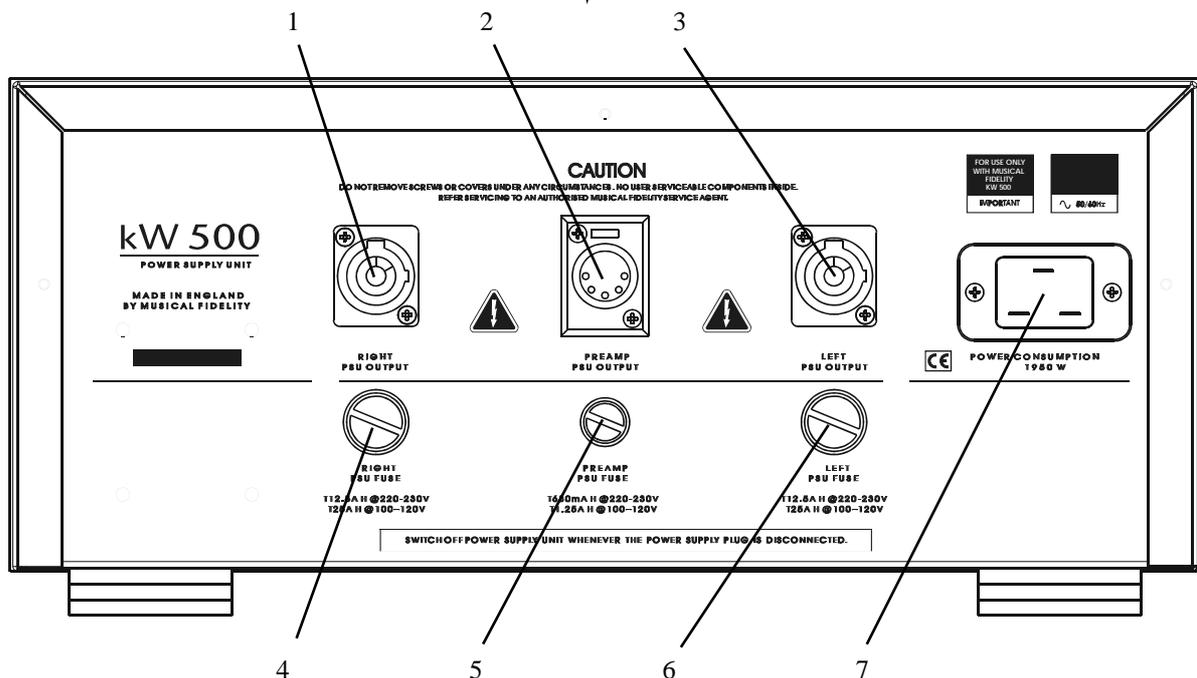


# CONNECTIONS AND FACILITIES - POWER SUPPLY



## Power supply unit back panel layout

- 1 Right power amplifier PSU output
- 2 Pre-amplifier PSU output
- 3 Left power amplifier PSU output
- 4 Right power amplifier PSU fuse
- 5 Pre-amplifier PSU fuse
- 6 Left power amplifier PSU fuse
- 7 Mains inlet - 16 Amp IEC type



# REMOTE CONTROL

## REMOTE CONTROL

The blue buttons on the remote control enable main functions of the amplifier to be operated from a convenient distance. Remaining buttons on this universal handset are for use with other Musical Fidelity products, and have no effect on the kW 500 Integrated amplifier.

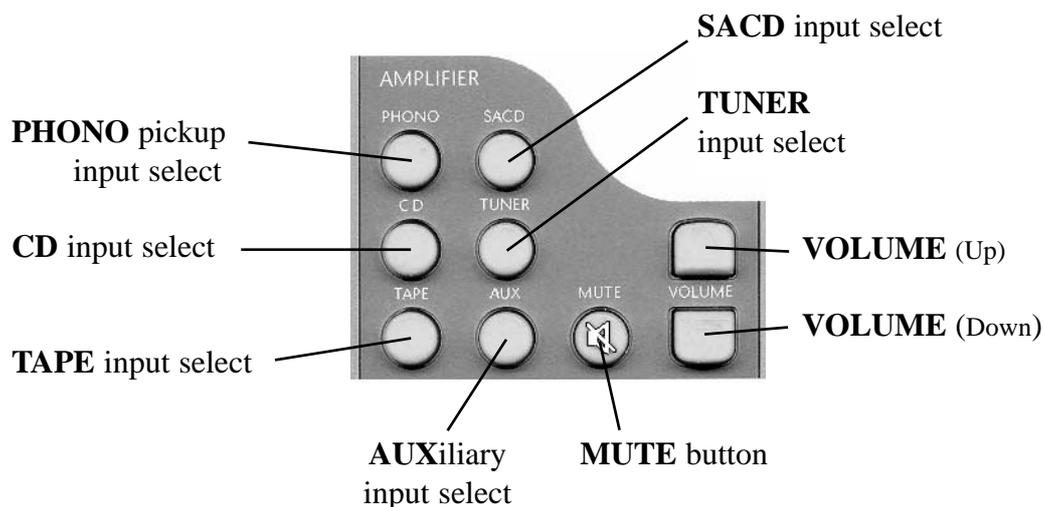
Equivalent buttons on the remote handset have the same functions as those on the front panel of the unit.

As the remote control uses an invisible infra-red light beam, the transmitter must be pointed directly towards the receiver window on the front of the amplifier, without visual obstruction between them.

Pressing the volume-up or -down buttons on the remote handset will turn the motorised volume control in the required direction.

The **MUTE** button mutes the **SPEAKER** output and **PRE-OUT** sockets. To show that the amplifier is muted, the **LEDs** in the feet will change from their current colour to red. Press the **MUTE** button again to cancel mute function, and the feet **LEDs** will revert to their previous colour (see page 8, under “Starting”).

If the range of the remote control greatly decreases, replace the batteries with new ones. Do not mix old and new batteries - two are required, type **SUM-4**, **AAA** or **LR03**. Do not dispose of used batteries in a fire.



# CONNECTIONS

All input, output and power connections should be made with the mains power switched OFF.

## INPUT CONNECTIONS

The kW 500 Integrated amplifier has a pair of phono inputs for moving magnet (MM) pickups.

Some turntable/pickup arm combinations are fitted with an extra wire for chassis earthing. This should be connected to the earth terminal on the back panel.

The kW 500 also has five “line level” inputs which are electrically identical, and therefore suitable for use with any source component having an output of at least 300mV. The sockets on the rear panel are marked **CD**, **SACD**, **TUNER**, **AUXiliary**, and **TAPE**, to correspond with function buttons on the front panel.

Using good quality co-axial audio leads, connect the left and right outputs from your CD player, tuner or phono/record deck to the appropriate RCA input sockets on the back panel.

Connect the kW 500's **TAPE** input sockets to the line output of your tape recorder, and kW 500's **TAPE RECORD** output sockets to the line input sockets of the tape deck.

## OUTPUT CONNECTIONS

Connect your loudspeakers to the terminals on the back panel marked as **LEFT** and **RIGHT SPEAKER** outputs.

## PRE-AMPLIFIER OUTPUT

The kW 500 Integrated amplifier has its pre-amplifier output available from RCA sockets on the back panel marked **PRE-OUT**, and is controlled by the volume adjustment.

This is to allow “bi-amplification” using suitable external amplifiers and crossover networks to power the speaker drive components separately, giving noticeable improvement in clarity, imaging and bass weight.

In this arrangement, typically the kW 500's speaker outputs are used to drive the speaker's “tweeter” (high audio frequencies), and an external stereo amplifier drives the “woofer” (low frequencies).

The kW 500's **PRE OUT** RCA sockets would therefore be connected to the input of the external “woofer” amplifier in this example.

If you are in doubt about bi-amplification, please contact your dealer for advice.

## BEFORE SWITCHING ON

Connect the two accessory power supply leads into the **RIGHT** and **LEFT PSU** (Power Supply Unit) **INPUT** sockets at the rear of the amplifier. The other ends of the leads plug into corresponding marked sockets on the back panel of the power supply unit.

A single lead with smaller plugs connects between the **PRE-AMP PSU** sockets on each unit.

Plug the accessory IEC mains lead into the rear PSU mains socket, then the other end into a wall outlet. Turn the volume control on the front panel to low (anticlockwise).

# OPERATION

## STARTING . . . .

Press the **POWER** button on the front panel of the kW 500 power supply unit. The blue LED above the button should now light.

The LEDs in the feet of the amplifier unit will light red for about fifteen seconds indicating that all audio outputs from the unit are muted. Feet illumination then fades over approximately fifteen seconds to amber, indicating that output is no longer muted, and that your kW 500 amplifier is now ready for use. However, after a further period of about 35 minutes, the colour fades to blue, confirming that the amplifier has fully warmed up.

Unless using your amplifier for off-tape monitoring (see paragraph opposite →) ensure that the **TAPE MONITOR** button has not been pressed accidentally, as otherwise no sound will be heard through the speakers.

Select the required audio input source by pressing an appropriate function button on the front panel, or remote control. Now adjust the volume control to obtain the preferred sound level.

## OVERLOAD PROTECTION

If for any reason, speaker output power of your kW 500 is excessive, for example at very high volume setting or due to wrong load impedance, an overload protection circuit is activated. The motorised volume control will be turned down automatically, and the four illuminated feet will change colour to violet for about five seconds, or until the problem is removed.

## TAPE RECORDING

To record, simply select the required source with the input selector button on the front panel or remote control. This source will now be routed to the kW 500's **TAPE RECORD** output for recording by the external tape deck. You will also be able to hear the selected source through the loudspeakers.

Note - adjustment of the volume control has no effect on the recording level.

## OFF TAPE MONITORING

The kW 500 Integrated amplifier has a single tape circuit with facility for off-tape monitoring with 3-head tape decks.

In conjunction with a 3-head cassette deck, off-tape monitoring allows the user to compare recorded sound with the original whilst a recording is being made. To do this, first select the required source in the normal way and start recording.

The **TAPE MONITOR** button on the front panel can now be used to switch between the original source sound and the recorded version, allowing direct comparison.

On some 3-head tape decks there is an additional 'tape/source' switch, which must be in the 'tape' position for the above to work.

If in doubt, please refer to your tape deck operating manual.

# TROUBLESHOOTING

Basic problem-solving with an amplifier is similar to troubleshooting any other electrical or electronic equipment. Always check the most obvious possible causes first. To give you a few ideas of what to look for, check the following:

<i>Problem</i>	<i>Possible Cause</i>	<i>Remedy</i>
No power when <b>POWER</b> button is pressed	Mains plug not inserted fully into rear socket	Plug in securely
No sound	Tape monitor function has been selected  Mute function is still active (feet LEDs are still red)  Wrong connections between input sources and the kW 500 amplifier  Speakers not connected, or incorrectly wired	Switch off tape monitor  Press the mute button again to cancel  Check audio input lead connections  Check speaker cables
Sound is not precise, lacking in bass and stereo image	Speakers are connected out of phase, i.e., connections to one speaker (+ and -) are reversed	Ensure speakers are connected correctly

If none of these actions effect a cure, please contact your dealer, or an authorised Musical Fidelity service agent. Remember, never open the case of the kW 500 Integrated amplifier yourself, as this will invalidate the guarantee.

# kW 500

## Dual Mono Integrated Amplifier

### SPECIFICATIONS :

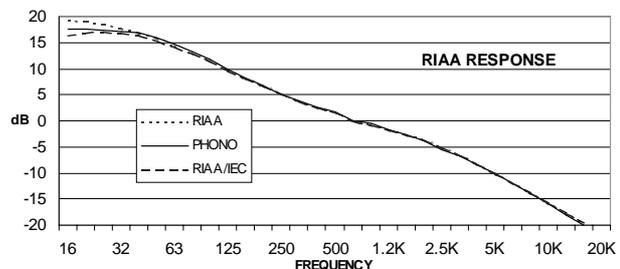
**Output:** Voltage RMS: 63.9 Volts 20Hz to 20kHz  
Voltage peak to peak: 180.6 Volts  
Power: 510 Watts per channel into 8 Ohms (27dBW),  
770 Watts per channel into 4 Ohms  
Peak-to-peak output current: 160 Amps  
Damping factor: > 200  
Output devices per channel: 8  
Pre-output impedance: 50 Ohms

#### Line inputs:

Harmonic distortion at 1kHz < 0.002% up to 90% power into 4 or 8 Ohms  
Total harmonic distortion + noise, 20Hz to 20kHz < 0.007%  
Signal / noise ratio > 102dB 'A'-weighted  
Input sensitivity for 350 Watts into 8 Ohms 330mV  
Input impedance 220K Ohms  
Overload margin 36dB  
Channel separation > 70dB 20Hz to 20kHz  
Frequency response 20Hz to 20kHz, +0, -0.0dB  
20Hz to 60kHz, +0, -1.2dB

#### Phono input:

Frequency response reference  
IEC RIAA - see graph....



Signal / noise ratio > 96dB 'A'-weighted  
Input sensitivity 2.5mV (moving magnet)  
Input impedance 47k Ohms  
Overload margin 29dB

**Power requirement:** 100 / 115 / 230Volts AC 50 / 60Hz (factory pre-set),  
1950 Watts maximum into 8 Ohms

**Inputs:** 5 pairs line level RCA connectors,  
1 pair phono (moving magnet) RCA connectors

**Outputs:** 2 amplifier channels via 2 pairs per  
channel binding posts.  
1 pair RCA audio pre-outputs controlled by  
the volume setting  
1 pair RCA tape record fixed line level output

**Weight, main unit:** 26.8 kg, 59 lbs unit only, unboxed  
31.8 kg, 70.1 lbs in shipping carton

**Dimensions, main unit:** 483 mm, 19 inches wide  
167 mm, 6.6 inches high including feet  
470 mm, 18.5 inches deep including terminals

**P.S.U:** 18.3 kg, 40.3 lbs unit only, unboxed  
21.3 kg, 47 lbs in shipping carton

**P.S.U:** 364 mm, 14.4 inches wide  
167 mm, 6.6 inches high including feet  
278 mm, 11 inches deep including rear sockets

#### Standard accessories:

IEC type mains lead,  
Power supply leads, main (two)  
Power supply lead for pre-amplifier  
Remote control (universal type)  
Two batteries (type SUM-4, AAA, LR03)



*Musical Fidelity reserves the right to make improvements which  
may result in specification or feature changes without notice*