



I N S T R U C T I O N M A N U A L

Powerhead PA Mixer

100 watt 4 channel powered PA with built-in media player and delay FX

M A N U A L V E R S I O N 1 . 0
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100 watt 4 channel powered mixer
2 band EQ with gain control per channel
3 band master EQ
4 x balanced XLR microphone inputs
3 x unbalanced 1/4 inch jack
2 x line inputs
Stereo CD/Tape input
Record output
Digital echo delay with FX mix, interval and repeat rate controls
USB and SD digital media player with LCD display
Robust touring grade carpet finish
Protective corners
Carry handle

For the latest instruction manual updates and information on the entire Kam range visit:

www.kam.co.uk

Kam products are manufactured by: **Lamba plc**, Unit 1, Southfields Road, Dunstable, Bedfordshire, United Kingdom LU6 3EJ
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If this product is ever no longer functional please take it to a recycling plant for environmentally friendly disposal.

Due to continuous product development, specifications and appearance are subject to change.

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Thank you for purchasing this product, we are sure that it will serve you for many years to come.

To optimise the performance of this product, please read these operating instructions carefully to familiarise yourself with the basic operations of this unit. After you have read the instructions, please retain them for future reference.

This unit has been tested at the factory before being shipped to you.

To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture. To prevent a fire hazard, do not expose the unit to any naked flame sources. Unplug this apparatus during lightning storms or if it is unlikely to be used for long periods of time.

When installing the unit, please ensure you leave enough space around the unit for ventilation. Slots and openings in the unit are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. To prevent fire hazard, the openings should never be blocked or covered.

Always handle the power cable by the plug. Never pull out the plug by pulling on the cable. Never touch the power cable when your hands are wet as this could cause an electric shock. Do not tie a knot in the cable. The power cable should be placed such that it is not likely to be stepped on. A damaged power cable can cause a fire or give you an electrical shock. Check the power cord periodically, if you ever find that it is damaged, replace it before using the unit again. Contact your retailer for a replacement.

The voltage of the available power supply differs according to country or region. Be sure that the power supply voltage of the area where this unit is to be used meets the required written on the unit.



The lightning flash symbol inside a triangle is intended to alert the user to the presence high voltage within the unit's enclosure that may be of sufficient power to constitute a risk of electrical shock to persons.

Caution: to prevent the risk of electric shock, do not attempt to open the unit. No user-serviceable parts inside. Refer all servicing to qualified service personnel.

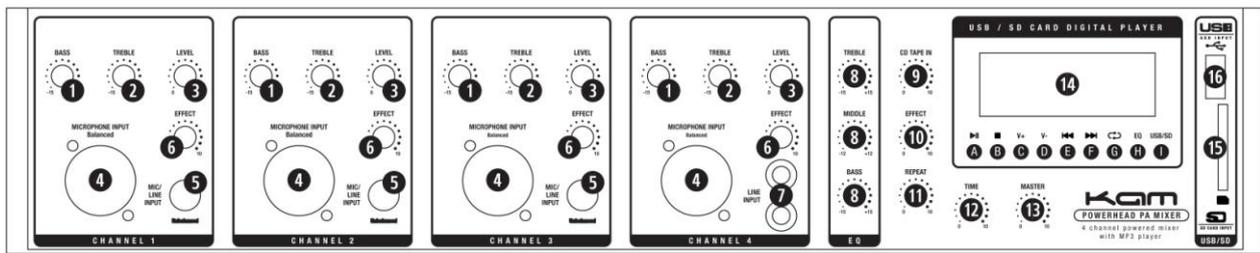
The exclamation mark inside a triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.

Any modification carried out on the unit may invalidate the unit's warranty.

Select the installation location of your unit carefully. Avoid placing it in direct sunlight or locations subject to vibration and excessive dust. Do not use the unit where there are extremes in temperature (below 41°F / 5°C or exceeding 95°F / 35°C).

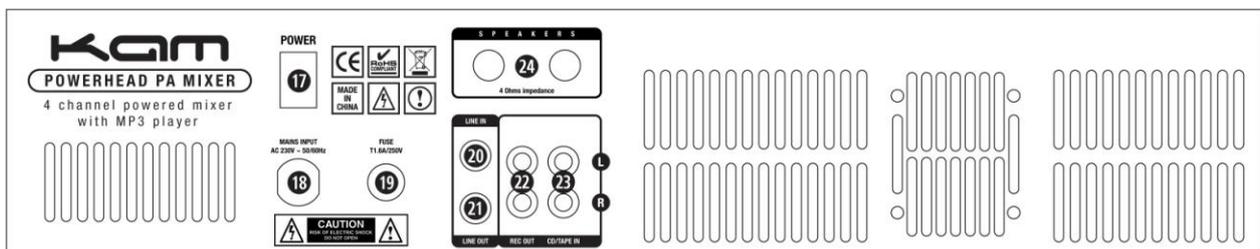
Unpacking and safety: Please unpack your new product carefully, your new product should reach you in perfect condition. Please check that no damage has occurred during transit. If any damage is found, do not operate your unit. Please contact the retailer you purchased it from immediately. If there is any damage to the mains cable do not use the device. Always disconnect the unit from the mains supply when carrying out any servicing or cleaning of the unit.

The serial number for this equipment should be located on the rear or underside of the unit. Please make a note of this number as you will need it for your warranty, it is a good idea to keep a copy of the serial number for your own records.



Front panel

1. **Bass** - This control adjusts the bass level of the channel. Turning the dial clockwise will increase the bass level, turning the dial anticlockwise will reduce the bass level.
 2. **Treble** - This control adjusts the treble level of the channel. Turning the dial clockwise will increase the treble level, turning the dial anticlockwise will reduce the treble level.
 3. **Level** - This control adjusts the gain/volume level of the individual channel.
 4. **Mic Input** (balanced) - this microphone input accepts XLR-type connectors for low impedance microphones.
 5. **Mic/Line Input** - These inputs can be connected to guitars, synthesizers, drum machines, CD players, etc. Please note this is a MONO input source, if stereo is required you would need to spread the left and right signal over two separate channels, e.g. plug the left signal into channel 1 and the right signal into channel 2. Important only use mono jacks.
 6. **Effect** - This knob controls the signal level which will be sent to the built-in digital delay effect.
 7. **Line Input** - This dual input accepts RCA type connectors for stereo line level devices. You can use both the microphone and line input simultaneously on channel 4.
 8. **EQ** - The signal from the input channels, processed by the built-in three band equaliser feeds to the master output. There are three knobs here to control the equalisation. Treble - This adjusts the high frequency range of the sound. Middle - This adjusts the middle range of the sound. Bass - This adjusts the low frequency range of the sound.
 9. **CD/Tape In** - This control adjusts the master volume of a line level input such as CD. The connection is via RCA/phono sockets on the rear panel of the unit.
 10. **Effect** - This adjusts the output level of the digital delay effects.
 11. **Repeat** - This increases the rate of the delay. If you turn this knob to the right - you will hear the signal repeat at a faster rate.
 12. **Time** - This adjusts the time interval of the delay, turn to the right to increase the time interval between the delay.
 13. **Master** - This adjusts the final level of the main master output.
14. **USB/SD Digital Player** -
- A. Play/Pause
 - B. Stop
 - C. Volume increase
 - D. Volume decrease
 - E. Track Skip backwards (holding this button will scan the track in reverse)
 - F. Track Skip forward (holding this button will scan the track forward)
 - G. Repeat - pressing once will repeat a single track over and over. Press again to repeat all the tracks on the USB or SD card after the whole track selection has been played once.
 - H. EQ this button has 8 steps, and each step has a different preset EQ level. Pressing the button once will move the function forward one step. The display shows E1-E8. Adjust this to your required sound taste. This EQ only affects the sound on the USB or SD card input.
 - I. SD/USB input selector
15. SD card slot
 16. USB input socket



Rear Panel

17. **Power** - mains power on/off switch.
18. **Mains Input** - 240v AC.
19. **Fuse** - only replace the fuse with the correct value and rating (T1.6 amp).
20. **Line In** - mono line level input (there is no volume level control via this input).
21. **Line Out** - mono line level output (level controlled by master volume) connect to an external amp.
22. **Record Output** - left and right RCA/phono sockets. Connect to the input of a recording device.
23. **CD/Tape Input** - line level input (volume controlled by CD/Tape volume on front panel).
24. **Speakers** - main master output sockets. Connect passive speakers to these sockets (NOTE: minimum of 4 Ohm load). Only one 8 Ohm speaker to be connected to each output socket.

Specifications

Input Impedance

Mic: 2K Ohm (balanced)
1K Ohm (unbalanced)
Line: 10K Ohm
Tape In: 47K Ohm

Input Channel

High EQ: $\pm 15\text{dB}$ @ 12KHz Ω
Low EQ: $\pm 15\text{dB}$ @ 80Hz

Digital time delay (ms): 140-342ms

Frequency response: 20Hz-20KHz +1dB/-3dB @ 1W output to 8 Ohm speaker

Total Harmonic Distortion (THD): <1% @ 20Hz-20KHz for 60W output to 4 Ohm speaker

Digital media player inputs: USB and SD

Audio formats: MP3 and WMA

Maximum power output: 100 watts @ 4 Ohm

Power requirement: AC 230V / 50/60Hz

Finish: Black carpet