

# MPA-626

General Purpose 150W Mixer/Amplifier



# cloud

Clearly better sound

# MPA-626 General Purpose 150W Mixer/Amplifier

*Nobody has ever provided a package as comprehensive and as complete as the Cloud MPA-626. So, that's why we did. We gave it 6 line inputs, 2 mic inputs, a huge choice of configuration options and proven Cloud power, 150 Watts of it, all in one compact and user-friendly box. It comes equipped with priority overrides, the ability to directly connect virtually any music or line level input, plus 2 microphones in pretty much any configuration a venue might demand. The Cloud MPA-626 has some of its controls, the ones you might need to vary, on the front panel, with contractor presets on the rear panel, and built-in override options.*

*If you are looking for a compact, cost effective solution to the audio requirements of any venue, it's the first place you should look. This compact, 2U package will allow you to connect what you want, play what you want, and deliver what you want throughout your venue, it comes with sufficient, long term sustainable power (at 150 Watts/4 Ohms or 120 Watts at varying low Z and line impedances) to drive several loudspeakers, of whatever type and over almost any distance. That's why, because it is from Cloud, it comes with unprecedented reliability and sonic accuracy built in, features you and your customers demand.*

## Applications

The MPA-626 is the solution to a wide range of applications including:

- Licensed venues
- Leisure venues
- Retail outlets
- Restaurants

## Line Inputs

The MPA-626 has six line inputs; for installer convenience, stereo inputs are provided and the left and right inputs are summed internally to form a mono signal. The line inputs are suitable for a wide variety of music sources such as CD players, MP3 players, hard disc systems, video sound tracks, satellite receivers, juke box, digital messaging units etc.

Connection is by way of RCA phono sockets on the rear panel. The gain of each input can be optimised by the rear panel pre-set controls.

## Microphone Inputs

Two mic inputs are provided on the MPA-626; these have electronically balanced, low noise circuitry. Connection is by way of 3 pin latching XLR type connectors. Each input is suitable for microphones with an impedance

range of 200 to 600 ohms. Adjacent to each mic input connector there is a pre-set gain control with a range of 20dB to 60dB.

Both microphone inputs can provide phantom power; this is selected by means of internal jumpers.

## Microphone Access

Microphone access contacts are provided to give the unit compatibility with standard paging microphones. One access input is provided for each microphone input. These access inputs also trigger restoration relays which allow a variety of standard 100, 70 or 50V line remote volume controls to be used without them affecting the volume of announcements made with the microphones. The restoration relays can also be used in a wide range of ways to route the output signal to different zones.

## Microphone Priority

In applications where there may be contention between the two microphone access inputs the access priority feature can be used to give mic 1 priority over mic 2.

The MPA-626 also provides two methods by which the microphones can be given priority over music signals:

A 'vox' type priority is provided for use with standard microphones; this attenuates the music by 30dB when a microphone signal is detected, then smoothly restores the music volume when the announcement ceases.

For microphones with 'press to talk' switches the access input can be set to trigger a reduction in the music level, the amount of reduction can be set to 30dB or 60dB.

Both of these 'mic over music' priority functions are configured by means of internal jumpers

## Microphone Equalisation

Pre-set treble and bass controls are provided for the microphone signals and these are located on the rear panel adjacent to the microphone input section.

The equalisation is optimised for vocal use providing  $\pm 10\text{dB}$  at 100Hz and 5kHz.

A 3-pole high pass filter operates at 100Hz; this reduces handling noises and breath blasts to a minimum and therefore improves intelligibility.

## Front Panel Controls

### Music Source Switch

This 6 position rotary control is used to select the

desired music source. A push button switch on the rear panel activates the music priority, which provides a fully automatic priority to any audio signal present on input 6, overriding the front panel selection.

### Music Level Control

This control adjusts the level of the selected music source. If the music level is to be controlled remotely, this front panel control can be defeated if required. The LED adjacent to this control indicates if the control is defeated.

### Mic Level Controls

These provide independent control of each microphone signal. The level set by these controls is not varied by the remote RL-1 controls, when fitted.

### Peak Indicator

This LED indicates that the signal level to the power amplifier section is too high and that the dynamic clip protection is operating to reduce the signal to prevent the power amplifier distorting.





### Facility Input

This input is intended to extend the capabilities of the unit by allowing the connection of the AE-1 and DM-1. The AE-1 has inputs for a microphone plus a line input for a stereo music source with a level control for each input and facilities to mute the music signal from the MPA-626. The DM-1 is a two input microphone module which can be used in multiples when wired in a 'daisy chain' format; tamperproof HF & LF controls are provided.

### Chime

The access inputs can be internally configured to trigger a pre-announcement chime, the level of which is set by means of a rear panel pre-set control.

### Music Equalisation

Rear panel pre-set controls are provided for adjusting the music signal's bass and treble. The music treble control has a range of  $\pm 10$ dB at 10kHz and the music bass control has a range of  $\pm 10$ dB at 50Hz

### Speaker Equalisation Modules

Modules are available to match the following (Note: adaptor CA963EQA may be required):

Bose loudspeaker models; M8, M16, M32, MA12, 402, 502A, 502B, 502BEX, 802, MB4, MB24, LT3302, LT4402, LT9402 & LT9702



### Remote Music Mute

In certain circumstances there may be a local authority or fire service requirement to mute the music signals via a fire alarm control panel in an alarm condition. The MPA-626 provides a facility to mute the music signals only, by using a fully isolated pair of contacts (usually a relay mounted close to the MPA-626 which is powered by the fire alarm control panel) which should close during an alarm condition.

### Auxiliary Outputs

Two auxiliary outputs are provided via RCA phono connectors. One has a fixed level, nominally 0dBu, the other has a variable level set by the adjacent pre-set, up to a nominal level of 0dB. These outputs provide a facility to add extra power amplification if required

### Speaker Outputs

The MPA-626 features a rugged convection cooled power amplifier, which can deliver its rated output for long periods without problems. A low impedance output is provided which can deliver 150 watts into its minimum load of 4 ohms. An output transformer can be switched on via a rear panel switch. This provides several additional outputs. One of these is a low impedance output with a minimum load of 2 ohms. The others are 50, 70 and 100V line outputs. The total loading on the transformer outputs should not exceed 120 watts.

### Protection

The MPA-626's power amplifier has a comprehensive set of protection circuits including a high pass filter, DCP (Dynamic clip protection), VI limiting, Switch on delay and DC protection.

The 3-pole high pass filter has a selectable cut off frequency of 20 or 70 Hz. The 70 Hz setting can be used to help protect transformers and speakers from excessive low frequency signals. The DCP detects clipping in the power amplifier and reduces the gain to limit this

clipping to an acceptable level. The VI limiting circuits protect the amplifier's output from short circuits and other adverse loads. When VI limiting occurs the DCP reduces the gain to give additional protection. The switch on delay operates in stages; a 20dB reduction in the mic and music signals is applied at switch on. After the switch on delay has connected the power amplifier to the load this gain reduction is removed, smoothly increasing the signals to their normal level.

Should a power amplifier fault result in a DC output, the protection circuits prevent damage to the speakers by disconnecting them from the amplifier.

### 24V Output

A 24V supply is provided for external relays, circuitry etc., for example restoration relays. This supply is protected from faults such as short circuits by a PTC, which can reset by removing the fault and switching off the MPA-626 for 15 seconds.

# TECHNICAL SPECIFICATIONS



## Line Inputs

Frequency response	-3dB 20Hz/70Hz (selectable filter) $\pm 0.5$ dB 20kHz
THD	<.02% @ 1kHz
Sensitivity	-12dBu (200mVrms) to +8dBu (2Vrms)
Input impedance	47k ohms
Input gain	$\pm 10$ dB
Headroom	>20dB all stages up to power output
Noise	-89dB at speaker output relative to 150W into 4 ohms 22Hz-20kHz
Equalisation	HF $\pm 10$ dB @ 10kHz
	LF $\pm 10$ dB @ 50Hz

## Microphone Inputs

Frequency response	-3dB 100Hz (filter) $\pm 0.5$ dB 20kHz
THD	<.03% @ 1kHz
Gain range	20dB-60dB
Input impedance	>2k ohms (balanced)
Headroom	>20dB all stages up to power output
Noise	-127dB EIN 22Hz-22kHz (150 $\square$ )
Equalisation	HF $\pm 10$ dB @ 5kHz
	LF $\pm 10$ dB @ 100Hz

## Zone Outputs

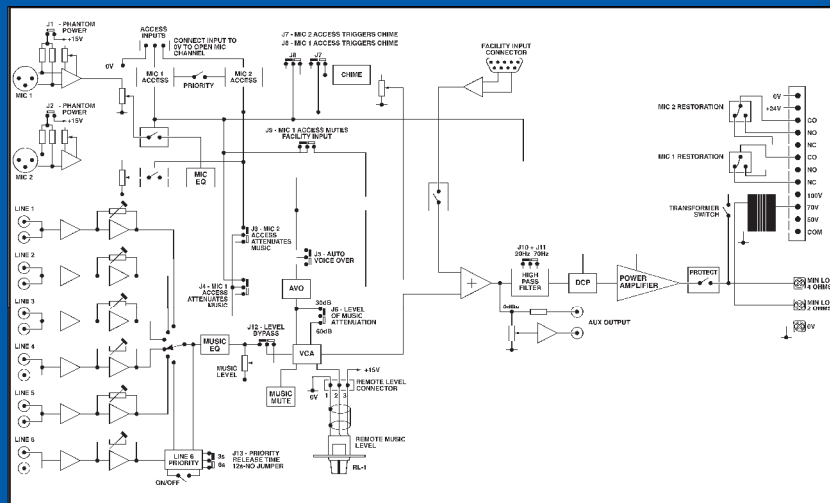
Auxiliary outputs	1 fixed 0dBu 1 variable up to 0dBu
4 ohm output	150W/4 ohm screw terminals
2 ohm output	120W/2 ohm screw terminals
50/70/100	120W/screw terminals

## Restoration Connections

24V DC output	Max current 0.4A self resetting fuse
Relay contacts	12A @ 125VAC 7A @ 250VAC, 30VDC

## General Specifications

Protection (power amplifier)	Dynamic clip protect, VI limit, DC offset, Thermal
Typical power consumption	160VA
Power requirements	230V $\pm 5\%$ or 115Vac $\pm 5\%$ 40 to 60Hz
Fuse rating	T3.15A for 230V input T6.3A for 115V input
Fuse type	20mm x 5mm class 3 T 250V
Width	482.6mm (19")
Height	88mm (+ ventilation space)
Depth	300mm (+ connectors)
Weight	8.70 Kg



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