

PA SERIES STEREO LIVE MIXERS

ALLEN&HEATH's years of 'real world' experience with large format touring desks has resulted in many innovative touches being incorporated into the design of the PA Series of stereo live compact mixers. The range brings a classic, feature-packed pro audio design with the same superior build and sound quality to an even wider audience, so that now every aspirational performer or rental company supporting them can benefit from a truly professional system.

'Walk up and go' is a perfect description for the PA Series mixer – all the controls you expect are logically placed so that you stay in control under the pressure of any performance. The 4 band EQ on inputs and outputs and clever output routing are unique and will ensure you get the best out of the system, while features such as individual phantom power switches and SPDIF recording output add professional finishing touches.

Add sparkling clarity to your performance with the superior sound quality of a PA Series mixer.

KILLER FEATURES



High Performance Preamp

The mic preamp is probably the most important stage in the console's signal path and its performance is often the measure of the quality of the console. The PA Series uses a high grade dual-stage design, developed from our top-end range of ML and GL consoles. This ensures optimum matching and very low noise when connecting mic or line sources.

Parametric Output EQ

A 4 band equaliser with swept frequency on each band provides more precise optimisation of the speaker system and control of feedback than the typical fixed frequency graphic type EQ found on similar consoles. Download the free EQ Visualiser programme from our website to learn more about using this powerful tool.

Filter

Each mono input channel is equipped with a 100Hz high-pass filter, an invaluable tool for cleaning up the mix. The majority of live sound sources have very little content below 100Hz, and modern microphones have wide frequency response and can pick up bleed from nearby low frequency sources such as bass and kick drums. The filter can be used: on vocal channels to reduce mic handling noise and close proximity 'popping'; on drum overhead mics to reduce kick and bass pick up; on higher frequency instruments such as flute and acoustic guitar; and on stage mics to reduce foot noise.

Recording Outputs

There is a digital SPDIF 2-track output available from a RCA phono socket for recording direct to digital media, such as PC soundcards, DAT and digital audio processors. The recording send can be switched pre-fade if desired. An analogue recording output is also available.



4 Band Channel EQ

Another design innovation taken from ALLEN&HEATH's flagship range, the 4 band input EQ is every bit a pro tool. The low [60Hz] and high [12kHz] bands have shelving response, while the high-midrange band is sweepable from 350Hz to 6 kHz. Low-midrange EQ has a bell response at 250Hz - a frequency chosen to provide reduction of 'muddy' sounds and enhance 'warmth'.

Lamp socket

A 4 pin lamp connector is provided on the rear of the control surface.



Easy-to-Mix Controls

The control surface is laid out in an uncomplicated format and the operator can easily see all connections for patching. Pre-fade sends (FB) and post-fade sends (FX) are clearly labelled and colour coded, and there are generous 100mm fader masters with a LED mute button, identical to the channel controls. There is a selection of 16 editable digital FX to complete the professional design.

Stereos

2 dual stereo channels with RCA and TRS connectors and independent gain controls are included for FX returns and stereo sources, such as CD players and backing tracks. The RCA inputs can feed straight to LR, so providing extra returns. The stereo channels are furnished with 2 band EQ, and can be routed to all 4 auxiliary sends.

Powered Option

The PA-CP versions contain a built-in amplifier, delivering an impressive 1 kiloWatt, able to run a regular stereo PA system with very little external equipment. Our objective was to produce a powerful, great sounding amplifier in a compact package for the high-end audio market. The result is not only a well voiced amp with loads of weighty power but also clear, transparent audio quality. ALLEN&HEATH's unique 'Constant Power' system ensures that all available power is converted into useable speaker power so we can guarantee the full 500W RMS per side into 4 ohms OR 8 ohms.

A+B Output Channels

The main outputs - XLR (PA) or amplifier (PA-CP) - derive their source from a selectable combination of LR (stereo), L+R (mono), FB1 and FB2, and provide master level trim, meters, slave outputs, patch point for external processors, and the very precise 4 band semi-parametric equalisers. This is extremely flexible and means that the PA can be operated in many different ways. For example, the user may want to run a stereo house system with separate left and right speakers and no monitors, or a mono system with a foldback monitor. Alternatively, you may patch into a bigger house system and use the built-in amplifier to provide a pair of equalised stage monitors. The PA Series takes the concept of a 'PA in a box' a versatile step further.

TECHNICAL SPECIFICATIONS

Operating Levels

Channels	0dBu Headroom +21dB
Mix	0dBu Headroom +21dB
Main Outputs	0dBu Headroom +21dB
Maximum output	+21dBu
Mic Pre-Amp Sensitivity	-60 to +10dBu
Stereo input sensitivity	-20 to +30dBu

Frequency Response (20Hz-30kHz)

Mic to Main output (+40 dB)	+0/-0.5dB
Line to Main output (0dB)	+0/-0.5dB

Distortion at 1kHz +14dBu out

THD + Noise (mic in +40dB gain)	<0.006%
THD + Noise (line in 0dB gain)	<0.006%

Crosstalk @1kHz

Adjacent Channel	<-90dB
Mute Shutoff	<-95dB
Fader Shutoff	<-95dB

Noise Performance (22Hz-22kHz unweighted)

Mic EIN with 150ohm source	-128dB
Residual output noise - main outputs	<-89dBu

Connection Impedances

Mic Inputs	2k ohms
Line Inputs	>10k ohms
Outputs	<75 ohms

Equalisation

Mono Channel Low Frequency	60Hz Shelf
Mono Channel High Mid Frequency	500Hz-15kHz Q=1.8
Mono Channel High Frequency	12kHz Shelf
Filter (mono input)	100Hz switchable

Metering

Reading referred to Main outputs	0VU = +4dBu
Peak indication threshold	5dB before clipping

System

Lamp connectors	1 x 4pin XLR-F
Power supply	Internal
Power Consumption	1600W Max (PA-CP) 75W Max (PA)

Amplifier Performance - PA-CP only

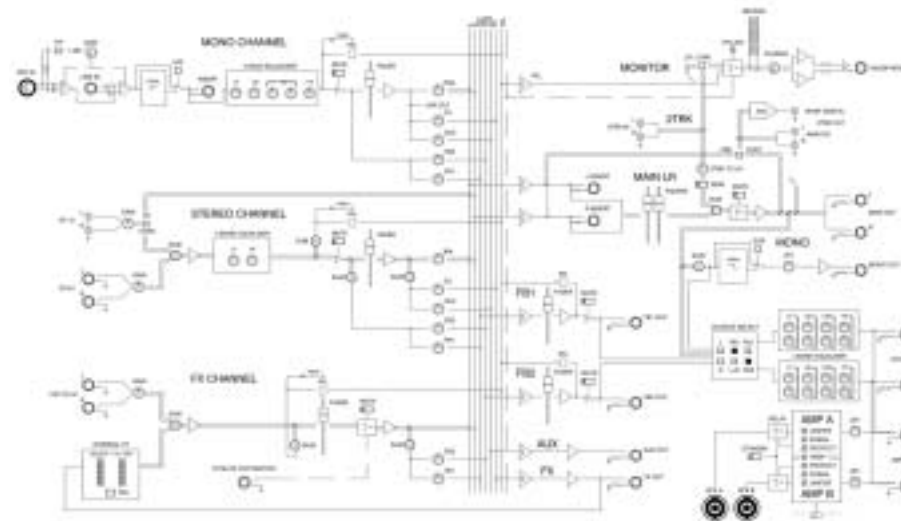
Output Power into 8 and 4 ohm loads	2x500W RMS
Frequency Response (20Hz-30kHz)	+0/-0.5dB
THD + Noise	<0.02% @ 1kHz



PA 12/20-CP



The **PA12-CP** and **PA20-CP** are sturdy, "walk up and go" powered mixers, guaranteed to deliver loads of weighty power from their 'Constant Power' amplifiers. These well thought-out mixers offer operational flexibility for any live sound situation and engineers of any experience.



FEATURES

- ▶ **'Constant Power' Amp** - a pair of 500W RMS amplifiers for use with 4 or 8 ohm speakers
- ▶ **Mono Inputs** - 8 (PA12-CP) or 16 (PA20-CP) with XLR/TRS inputs, mute and PFL switches with LEDs, individual phantom power switching and 100mm faders with dust covers
- ▶ **Two-stage Padless Preamp** - directs line sources to the second stage for improved matching and performance
- ▶ **Input EQ** - 4-band with shelving LF and HF, a fixed LM band at 250Hz and a swept HM
- ▶ **Output EQ** - 4-band semi-parametric for speaker control more precise than achieved with the typical graphic type EQ
- ▶ **4 Auxiliary Sends** - with 2 pre-fade sends for foldback, one post-fade for internal or external FX and another post-fade for additional FX or special feeds
- ▶ **Digital FX** - 16 FX programs with external MIDI editing software
- ▶ **2 Dual Stereo Channels** - each with TRS jack and RCA phono inputs with independent gain and 2-band EQ
- ▶ **Mix Output** - Source selectable AB amplifier outputs, mono sum with switchable sub bass filter and analogue and SPDIF digital recording outputs
- ▶ **Master Section** - 12 segment LED meters, standby switching to disconnect the speakers, an XLR lamp socket and background music mode switch

MECHANICAL SPECIFICATIONS

	PA12-CP	Without side trims for rackmount mm(")	Desk mount with side trims mm(")	PA20-CP	Desk mount with side trims mm(")
Width		484 (19)	525 (20)	Width	733 (29)
Height		178 (7)	178 (7)	Height	178 (7)
Depth		437 (17)	539 (21)	Depth	539 (21)
Weight		21kg (46lbs)	21kg (46lbs)	Weight	24kg (20lbs)