

# FSM 8 PLUS

## 8 CHANNEL STEREO MIXER

Eight channels configured as 4 stereo inputs (music section) and 4 mono inputs (microphone section), two of the stereo channels can be switched to mic and routed to the microphone section to give up to 6 microphone inputs. Each section having its own equalisation (tone controls) that are adjustable using faders on the front panel.

Features include auxilliary output, phones monitor, sub-bass output, voice override, remote music mute, priority input and the ability to route to external effects (reverb etc).



Illuminated push buttons are assigned to either the auxilliary output or phones monitor (by internal jumpers), allowing selected channels to be routed to the chosen output. Internal jumpers also allow the routing to be pre or post fade.

Channels 1 and 7 have front and rear panel inputs, the Jack inputs on the front panel override the rear panel connectors. Phones monitor is a front panel Jack.

All inputs have pre-set gain trims that are screwdriver adjustable through holes in the back panel.

Other features selectable by internal jumpers include phantom microphone power on any or all microphone inputs, conversion of any mono input from Mic to Line (both balanced on ch 1-4), routing channels 5 and 6 via the Microphone or Music EQ, stereo output or mono and increasing sub bass output by 6dB.



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The FSM 8 PLUS can be configured in many different ways to fulfill a wide range of applications.

Featuring 2 stereo inputs and 4 Mic inputs plus 2 inputs which can be either stereo or Mic, phantom power, phones monitoring, auxilliary buss, selectable assignment to either auxilliary or phones and balanced stereo outputs.

Other features include voice override, priority input, remote music mute, phones monitoring via front panel Jack and both front and rear panel inputs for channels 1 and 7 (front panel Jack overrides rear panel input).

Applications of the auxilliary output include allowing signals to be routed to an effects unit and returned on an input channel.

The voice override (enabled by an illuminated button on the front panel) operates when a signal is present in the Mic path, this triggers the attenuation of the music path. When the signal is removed the music will fade back up to normal level.

The voice override threshold and the amount of attenuation is internally adjustable.

### PRIORITY INPUT

The priority input is separate to the 8 main inputs, it may be stereo or mono, and when a signal is present it automatically takes priority over all other music channels. This may be a juke box input or any other input that needs to take priority such as an evacuation message triggered by a fire alarm. A pre-set gain control is also provided for this input.

The priority input fades out the music channels, and when removed (after a short delay so pauses are not treated as end of signal) the music channels are faded back up. The voice override section functions when the priority input is in use.

### REMOTE MUSIC MUTE

To cater for the increasing requirement to mute music signals in entertainment venues when the fire alarm is activated, the FSM8 PLUS also has provision to remotely mute all music sources by linking two pins on the mute connector. All Mic channels will operate normally to control evacuation.

### Internal options are available to expand the facilities.

Internal jumpers provide:

1. The option for phantom microphone power on any or all microphone inputs.
2. The option to convert of any mono input (Ch 1-4) from Mic to Line, both balanced.
3. The option to route channels 5 and 6 to the output via Mic or Music EQ.
4. The option to assign the channel pushbuttons to either the auxilliary output or the phones monitor. And further to select pre or post fade for this routing.
5. The option to switch the mixer output from stereo to mono.
6. The option to increase bass output level by 6dB.

## FSM 8 PLUS SPECIFICATIONS

### FREQUENCY RESPONSE (EQ Set flat)

20Hz - 20KHz	+/- 0.5 dB
Distortion THD @ 1KHz	O/P +20dBu < 0.01%

### EQ RANGE

(Stereo and Mic sections)	Treble +/- 12dB @ 10KHz
	Bass +/- 12dB @ 80Hz

### OUTPUTS

Main output	Connector type 2 XLR's
Output impedance	< 100R Balanced output
Maximum O/P level	+20dBu into 600R load
Balanced output is self compensating and may be linked for unbalanced operation without any degradation in performance.	
Auxilliary and sub bass	Weidmuller 3 pin (Mating part supplied)
Auxilliary output	<100R ; +20dBu max
Sub bass output	<100R ; +20dBu max
Headphone	1/4inch 3 pole Jack socket
Headphone	Max 1W at 30R

### MICROPHONE INPUTS (Channels 1-4)

Connector type XLR  
Channel 1 also has front panel 1/4" 3 pole Jack which overrides the XLR

Internally selectable phantom power (15V)  
Internally selectable to line input

Gain maximum	+64dBV
Noise ref 150R	EIN -123dBV
Maximum I/P level	
Mic at minimum gain	+15dBu
Mic channel set to line input	+25dBu
Input impedance (Mic)	>2K Ohms active balanced
Set to line	>10K Ohms active balanced

### STEREO INPUTS (Channels 5 - 8)

Twin gold plated phono sockets, channels 5 and 6 can switch to XLR  
Channel 7 also has front panel 1/4" 3 pole Jack (overrides twin phono socket)

Gain maximum	+16dBV
Noise (Din audio band) @ 10dB gain	EIN -90dBV
Maximum I/P level	+20dBV
Input impedance	10K Ohms

### PRIORITY INPUT AND FIRE ALARM INTERFACE

Priority input	Weidmuller 3 pin (Mating part supplied)
Gain maximum	+20dB
Maximum I/P level	+20dBV
Fire alarm mute	Weidmuller 2 pin (Mating part supplied)
Fire alarm switching	1 pole normally open, fully isolated low voltage.

Formula Sound Ltd reserve the right to alter specifications at any time without notice.



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