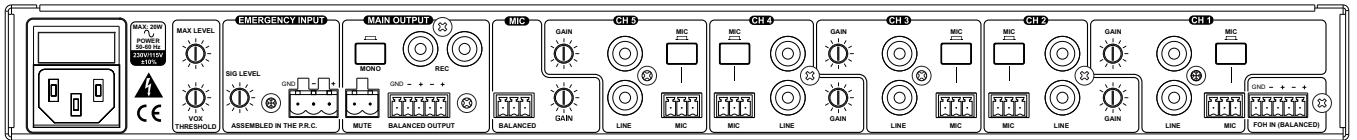
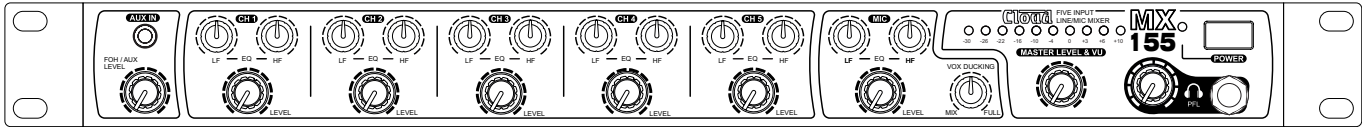


CONTRACTOR SERIES MIXER

MODEL: MX155



MX155 Front and Rear Views

General Description

The Cloud MX155 is a cost-effective, rackmounting (1U) stereo audio mixer for use in all types of commercial premises. It is simple to install and operate and provides a useful range of features and configuration options.

The mixer has five primary channels, each of which has a balanced mic input and an unbalanced stereo line input: all connections are on the rear panel. There is a further stereo auxiliary line input, with both a balanced rear panel input and an unbalanced 3.5 mm TRS jack on the front panel allowing easy connection of tablets, laptops, etc. An additional, independent mic input channel is also routed to the main output; this channel features adjustable VOX detection to allow paging use, with voice-over-programme ducking. VOX threshold is adjustable via a rear panel preset control and the depth of ducking adjustable from the front panel.

The front panel provides level and HF/LF EQ controls for each of the five main channels and the mic channel; a level control for the auxiliary line input is also fitted. 12V phantom power is available at all mic inputs, selected by internal jumpers.

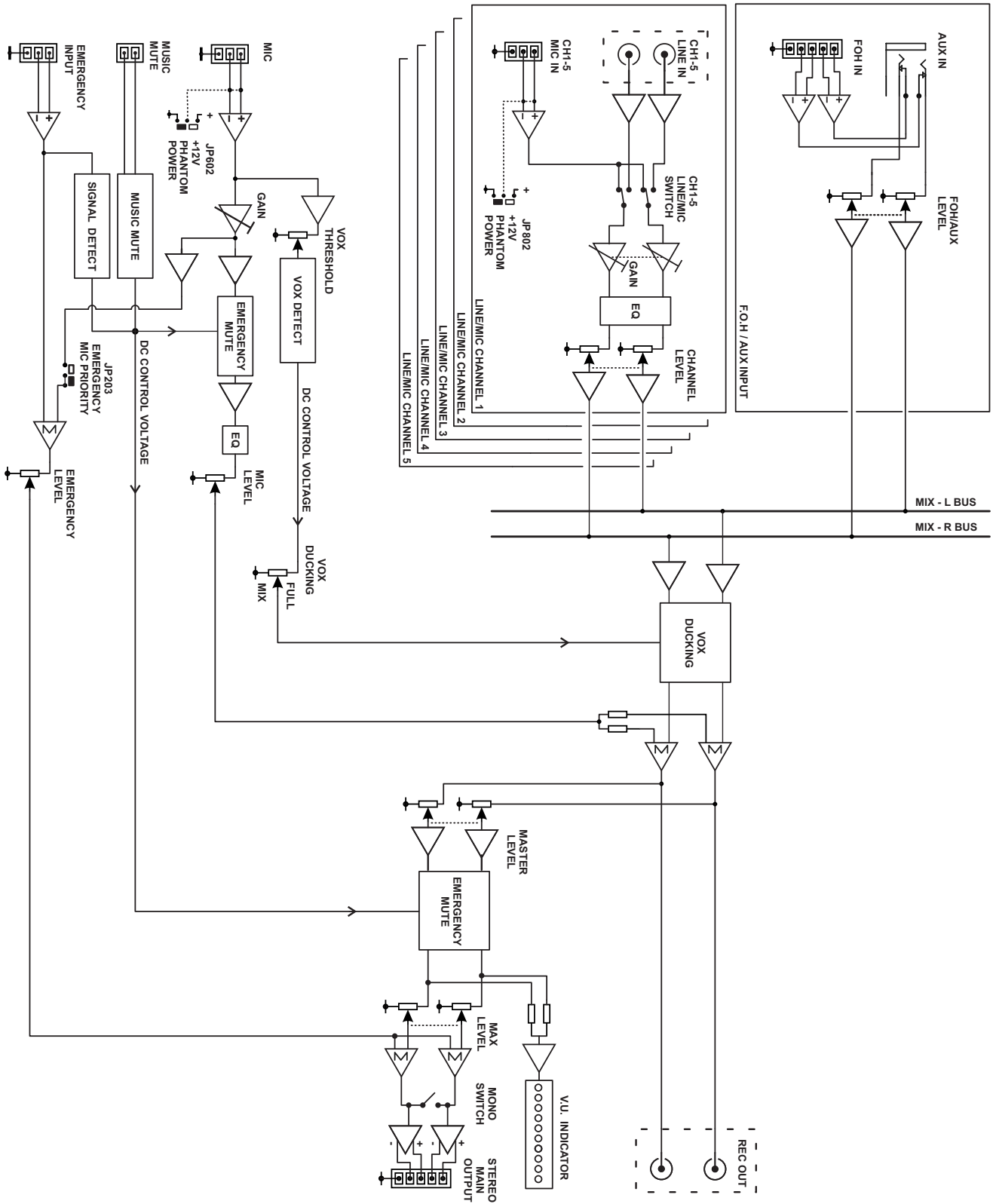
The stereo output of the mixer is balanced: the front panel has an output level control and an LED bargraph meter. A rear panel switch converts the output for mono operation. Headphone monitoring of the main output is available on the front panel, with an independent headphone volume control. Installers can set the maximum level of the main output via a rear panel preset control, to prevent inadvertent overloading of power amplifiers or damage to loudspeakers. The mixer has an additional unbalanced stereo line output carrying the main mix: VOX ducking affects this output, but the level is independent of the master output level control.

To aid compliance with PA-VA regulations, the MX155 has a dedicated emergency input (balanced): when a signal is detected at this input, all other inputs are muted and the emergency input routed directly to the mixer output. An internal jumper determines whether the mic channel should remain unmuted in this situation; this allows it to be used for announcements in an emergency. In common with most other Cloud products, a Music Mute control input is fitted; short-circuiting the terminals here will also activate the emergency muting circuitry.

MX155 main features:

- Industrial quality stereo mixer for commercial installations
- Five main channels, each with balanced mic input (multipin connector) and stereo unbalanced line input (RCA jack pairs) and mic/line switching
- Rear panel per-channel gain controls
- Front panel per-channel level and HF/LF EQ controls
- Auxiliary line channel with balanced stereo input (rear panel multipin connector) and 3.5 mm TRS jack (front panel); front panel level control
- Dedicated microphone channel; can be configured for automatic mic-over-programme ducking; front panel level and HF/LF EQ controls
- 12V phantom power available at all mic inputs (selected by internal jumpers)
- Emergency Input (balanced) with separate level control – mutes programme for critical announcements
- Balanced stereo output on multipin connector
- Mono/stereo output switch
- Master output level control and LED bargraph on front panel
- Maximum output level can be defined to protect downstream equipment
- Unbalanced post-mix stereo auxiliary output
- Headphone output with separate volume control
- Music mute control input
- 230V or 115V operation (selectable)

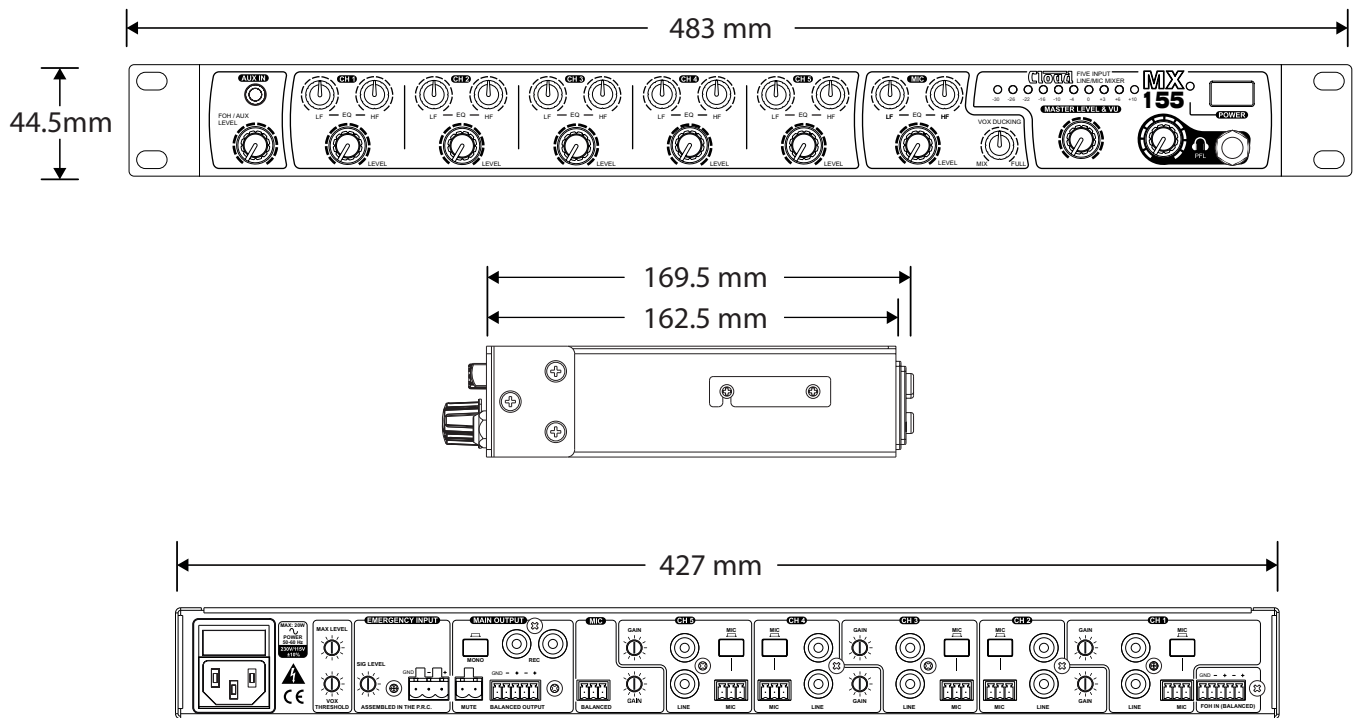
Block diagram



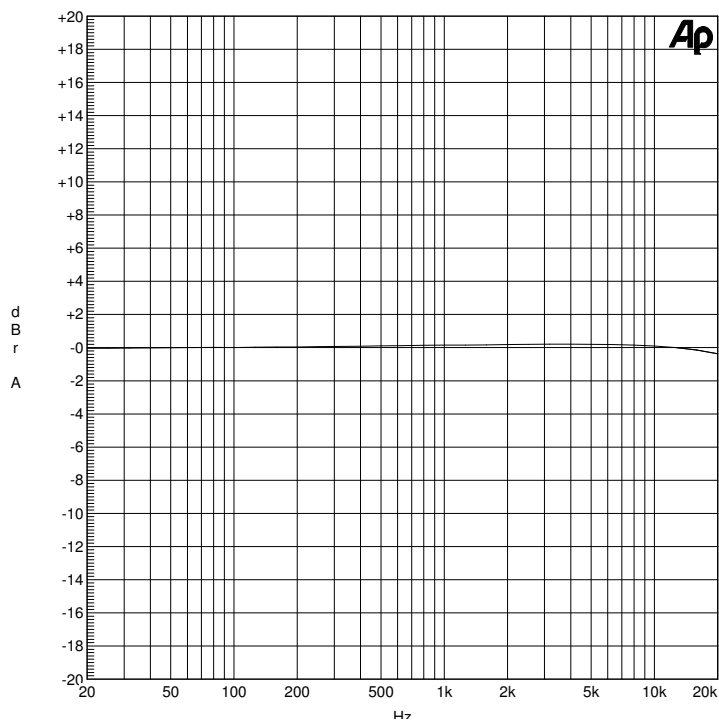
Technical Specifications

Inputs		
Mic inputs	Balanced, 40 dB gain; plug-in multipin connector	
Line inputs	Unbalanced stereo, 0 dB gain, RCA jacks (phonos)	
Auxiliary input	Balanced stereo, 0 dB gain; plug-in multipin connector	
Emergency input	Balanced mono, 0 dB gain; plug-in multipin connector	
Outputs		
Main output	Balanced stereo, max. output level +18 dBu	
Record output	Unbalanced stereo, 0 dBu typical	
Headphones	Max level 120 mW into 75 ohms @ 1% THD	
Chs 1 - 5 equalisation		
LF	+/-10 dB @ 50 Hz	
HF	+/-10 dB @ 10 kHz	
Mic channel equalisation		
LF	+/-10 dB @ 100 Hz	
HF	+/-10 dB @ 10 kHz	
Performance		
Signal-to-noise ratio	>77 dB (line inputs)	
Crosstalk	>65 dB (line inputs)	
THD	<0.1% (output <+18 dBu)	
Frequency response	20 Hz to 20 kHz, +/-3 dB	
Channel balance	<3 dB	
General		
Power input	Selectable 115 VAC or 230 VAC; 50/60 Hz	
Power consumption	20 W max.	
Fuse details	5 x 20 mm, 500mA	
Dimensions (W x H x D)	Net	483 mm x 44.5 mm (1U) x 162.5 mm 19" x 1.75" (1U) x 6.4"
	Shipping (Gross)	540 mm x 90 mm x 260 mm 21.3" x 3.5" x 10.2"
Weights	Net	2.3 kg (5.15 lb)
	Shipping (Gross)	4.5 kg (10.1 lb)

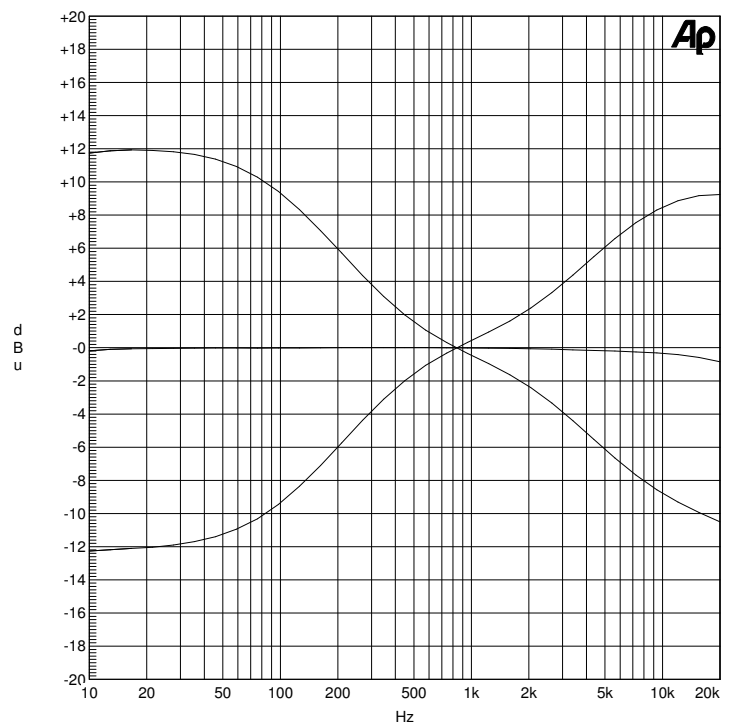
Dimensions



Performance Graphs



Frequency response



Channel EQ

Architect's and Engineer's Specification

The stereo mixer shall be equipped with seven input channels. Five channels shall be switchable for either line or mic signals: the line inputs shall be stereo and unbalanced and use phono sockets (RCA jacks) and the mic inputs shall be balanced and use detachable multipin connectors. Each channel of these channels shall be equipped with level and two-band equalisation controls accessible from the front of the unit. One channel shall have a stereo line input, with two connection options: i) a balanced input using a detachable multipin connector; ii) an unbalanced input using a 3.5 mm TRS jack socket; this shall be accessible from the front of the unit. A level control for this channel shall be accessible from the front of the unit. One channel shall have a balanced microphone input; this channel shall include a signal detection system that will cause the remaining channels to be reduced in level. The signal threshold for priority activation and the degree of programme reduction shall both be adjustable externally. All microphone inputs shall be capable of powering capacitor microphones able to operate on a 15V DC phantom power source.

The mixer shall have main and secondary stereo outputs: the main output shall be balanced and use a detachable multipin connector. Output level adjustment shall be available from the front of the unit; visual indication of post-fade signal level shall be provided by an LED bargraph meter of not less than ten segments. It shall be possible to configure the output for monaural operation. It shall be possible to set the mixer's maximum output level using a control not accessible from the front of the unit: adjustment of this control

shall not affect the meter display. An output for the connection of headphones shall be provided on the front of the unit, and the level at this output shall be adjustable independently of the main output level. The mixer's secondary output shall be stereo and unbalanced, and use phono sockets (RCA jacks): the signal fed to this output shall be the pre-fade version of the main output signal.

The mixer shall be provided with an additional balanced audio input specifically for use with an emergency system. A signal at this input shall automatically mute all other input channels, and will be routed to the mixer's main outputs: the level of this emergency signal shall be adjustable. It shall be possible to configure the unit so that the microphone channel only remains active to permit this channel to be used for live announcements in an emergency situation.

An external control input shall be provided to allow muting of all mixer channels by a fire alarm or other external emergency system using contact closure.

The mixer shall be built in a 1U steel chassis for mounting in a standard 19" rack. The front panel shall be fitted with a mechanically latching mains power switch and there shall be visual indication of the mixer's active status.

It shall be possible to configure the mixer to operate from a nominal AC mains supply voltage of either 115V or 230V.

The mixer shall be the Cloud Contractor Series MX155.