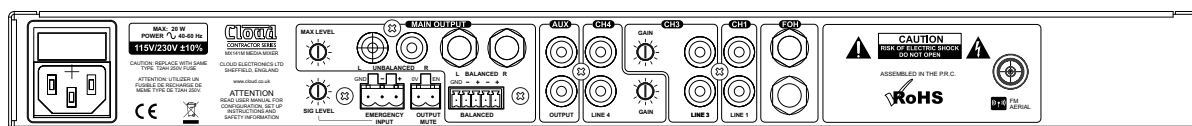
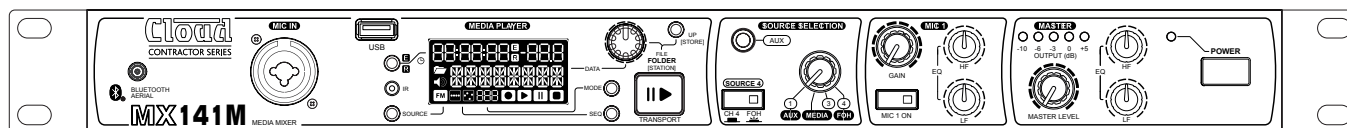


# CONTRACTOR SERIES MIXER/MEDIA PLAYER

Cloud  
CONTRACTOR SERIES

MODEL: MX141M



MX141M Front and Rear Views



## General Description

The Cloud MX141M is a cost-effective, rackmounting (1U) stereo audio mixer/media player ideal 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. It combines an audio mixer for one of four stereo music sources plus a microphone: one of the music sources is an on-board media player which incorporates both **Bluetooth**® wireless technology and an FM tuner. The MX141M is supplied with an infrared remote control for the media player functions and is the perfect centrepiece for commercial sound systems in hospitality and fitness centre applications.

The mixer has three unbalanced pairs of line inputs for external stereo music sources with connections on the rear panel: Input 1 also has a 3.5 mm TRS jack input on the front panel allowing easy connection of tablets, laptops, etc. Input 2 is dedicated to the internal media player/FM tuner. Input 4 is provided with an alternative, balanced pair of inputs, to permit the unit to be fed from a mixing console or other part of a separate sound system. A front panel switch selects the active line input.

The MX141M has a single mic input on the front panel in the form of a "Combi type" socket which can accept either XLR or 1/4" TRS jack plus. The mic signal is mixed with the selected music source; controls for level, mic on/off and HF/LF EQ are on the front panel. 12V phantom power is available at the mic input, enabled by an internal jumper.

The stereo output of the unit is available on the rear panel in balanced form on both a plug-in multipin connector and two 1/4" TRS jack sockets, and also in unbalanced form on a pair of phono sockets (RCA jacks). The front panel has an output level control, HF/LF EQ adjustment and an LED bargraph meter. Installers can set the maximum level of the main outputs via a rear panel preset control, to prevent inadvertent overloading of power amplifiers or damage to loudspeakers. The unit also has an additional unbalanced stereo line output carrying the pre-fade main mix signal.

The MX141M's integral media player plays MP3 files from FAT32-formatted USB memory sticks of up to 16 GB capacity. Most common sample rates from 128 kbps to 320 kbps are allowed and up to 2,000 files can be handled. A multifunction alphanumeric LCD display and a simple set of front panel controls allow folder navigation, file selection, random/sequential play mode and most other standard player functions. The media player will also stream stereo audio from compatible devices using Bluetooth wireless

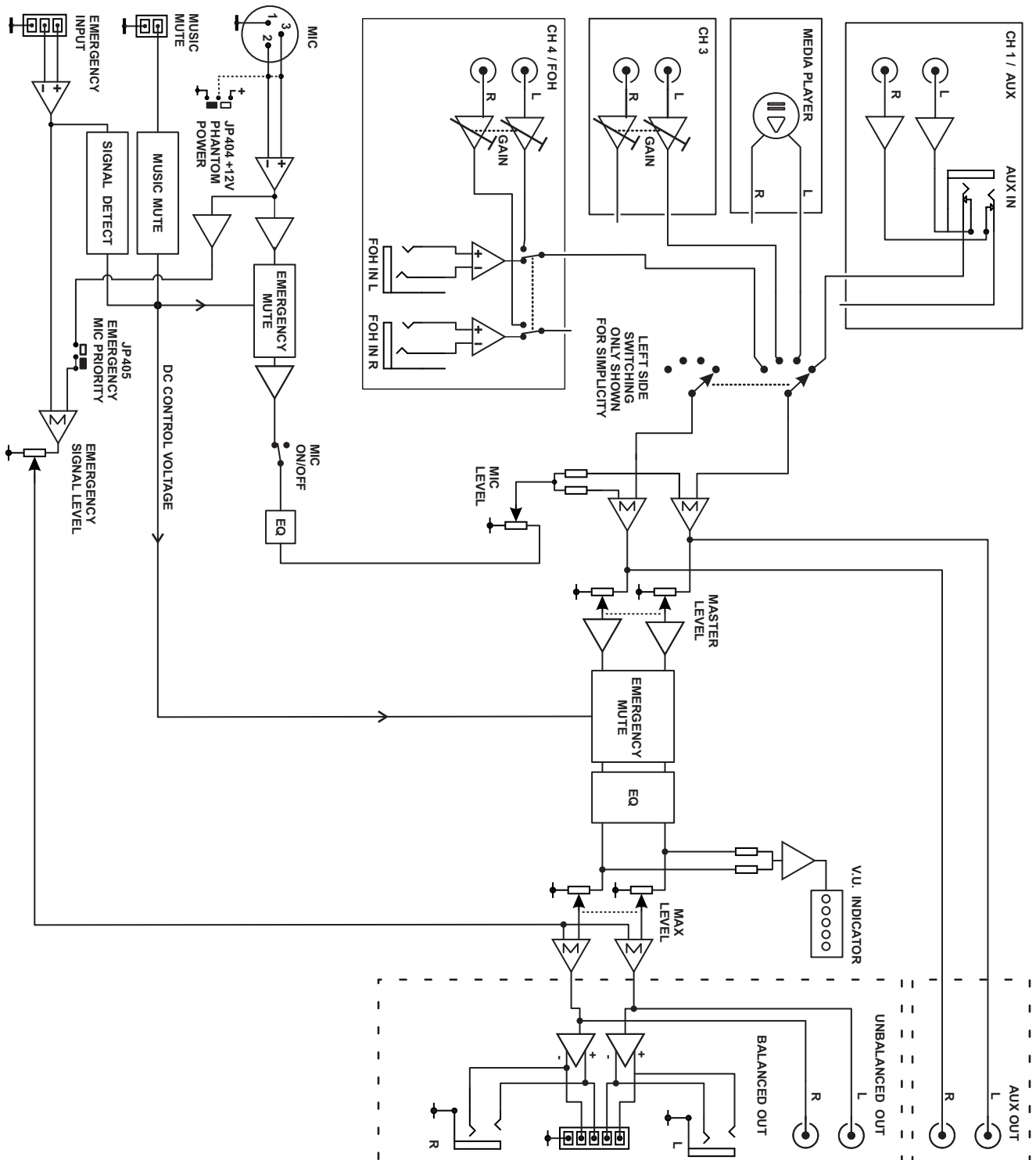
technology. A Bluetooth antenna (aerial) is included with the unit: this is plugged into a front panel socket. The media player also incorporates an FM tuner with nine station memories. An FM aerial socket is fitted to the rear panel.

To aid compliance with PA-VA regulations, the MX141M 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.

## MX141M main features:

- Industrial quality music player for commercial installations
- Three unbalanced line inputs (RCA jack pairs) for external stereo music sources
- Front panel 3.5 mm jack socket for laptop, tablet, phone, etc.
- Balanced stereo line input on multipin connector for interfacing with external audio system
- Internal media player: plays MP3 files from USB stick or streamed via Bluetooth wireless technology from compatible devices
- Integral FM tuner (87 to 108 MHz) with station presets
- Combi microphone input with on/off, level and HF/LF EQ controls, all on front panel
- 12V phantom power available at mic input (enabled by internal jumper)
- Media player/FM tuner functions controlled through LCD display and data entry wheel
- Sequential and random play modes
- Emergency Input (balanced) with separate level control – mutes programme for critical announcements
- Balanced stereo output available on multipin connector and 1/4" TRS jacks
- Unbalanced stereo output on phono sockets
- Unbalanced post-mix stereo auxiliary output
- Output level, HF/LF EQ controls and LED bargraph on front panel
- Maximum output level can be defined to protect downstream equipment
- Music mute control input
- Infra-red remote control included – operates most media player functions
- 230V or 115V operation (selectable)

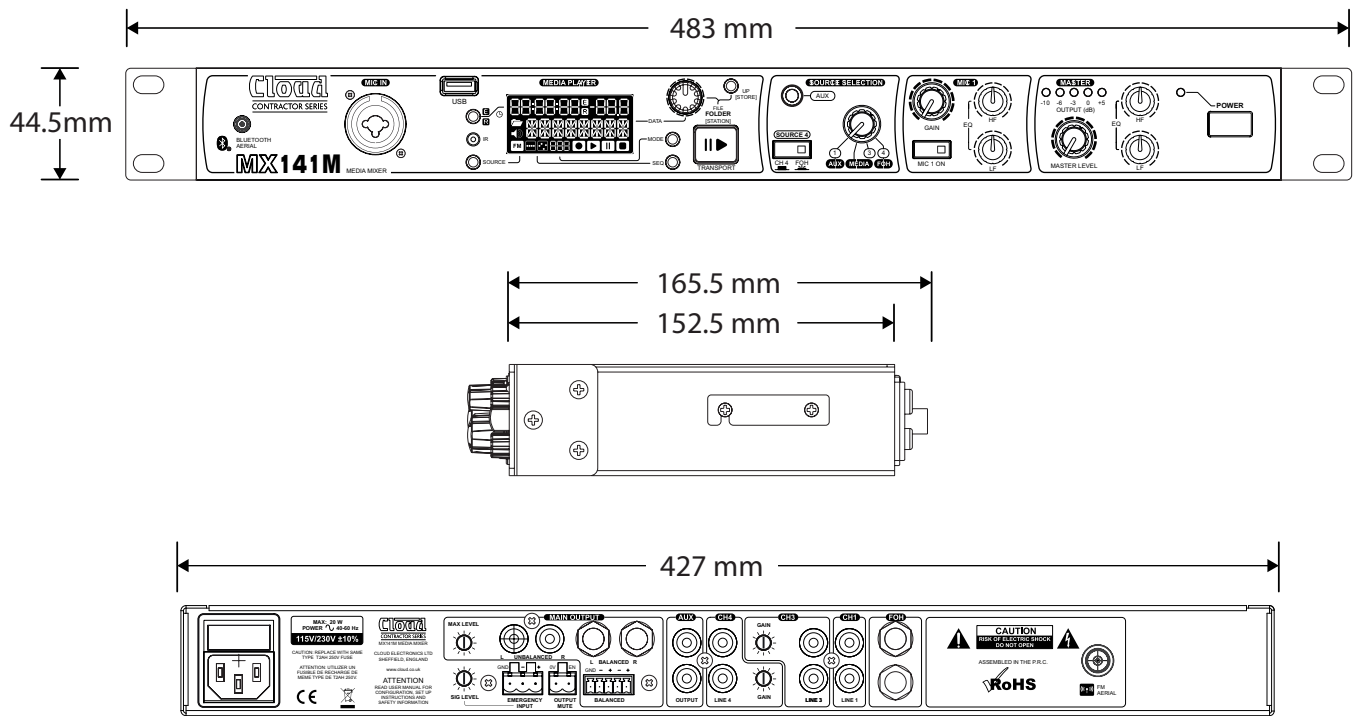
## Block diagram



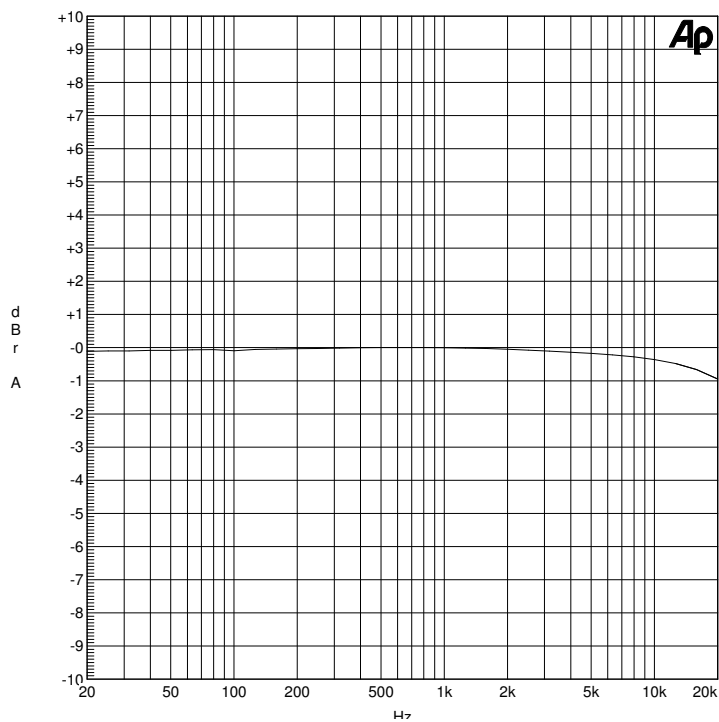
## Technical Specifications

<b>Inputs</b>		
Mic input	Balanced, 40 dB gain; Combi-type connector	
Line inputs (Chs 1, 3 & 4)	Unbalanced stereo, 0 dB gain, 2 x RCA jacks (phonos)	
Aux input (Ch 1 only)	Unbalanced stereo, 0 dB gain, 3.5 mm TRS jack	
FOH input	Balanced stereo, 0 dB gain; 2 x 1/4" TRS jacks	
Emergency input	Balanced mono, 0 dB gain; plug-in multipin connector	
<b>Outputs</b>		
Main output	Balanced stereo: max. output level +18 dBu, plug-in multipin connector and 2 x 1/4" TRS jacks Unbalanced stereo: max output level +18 dBu, 2 x RCA jacks (phonos)	
Aux output	Unbalanced stereo, 0 dBu typical, 2 x RCA jacks (phonos)	
<b>Equalisation (outputs)</b>		
LF	+/-10 dB @ 50 Hz	
HF	+/-10 dB @ 10 kHz	
<b>Mic equalisation</b>		
LF	+/-12 dB @ 60 Hz	
HF	+/-12 dB @ 12 kHz	
<b>Performance</b>		
Signal-to-noise ratio	>80 dB (line inputs)	
Crosstalk	>70 dB (line inputs)	
THD	<0.07% (output <+18 dBu)	
Frequency response	20 Hz to 22 kHz, +/-3 dB	
Channel balance	<3 dB	
<b>General</b>		
Power input	Selectable 115 VAC or 230 VAC; 50/60 Hz	
Power consumption	13 W max.	
Fuse details	5 x 20 mm, 2 A, type T2AH	
Dimensions (W x H x D)	Net	483 mm (427 mm without rack ears) x 44.5 mm (1U) x 152 mm 19" (16.8" without rack ears) x 1.75" (1U) x 6.0"
	Shipping (Gross)	540 mm x 90 mm x 260 mm 21.3" x 3.5" x 10.3"
Weights	Net	2.6 kg (5.83 lb)
	Shipping (Gross)	4.7 kg (10.4 lb)

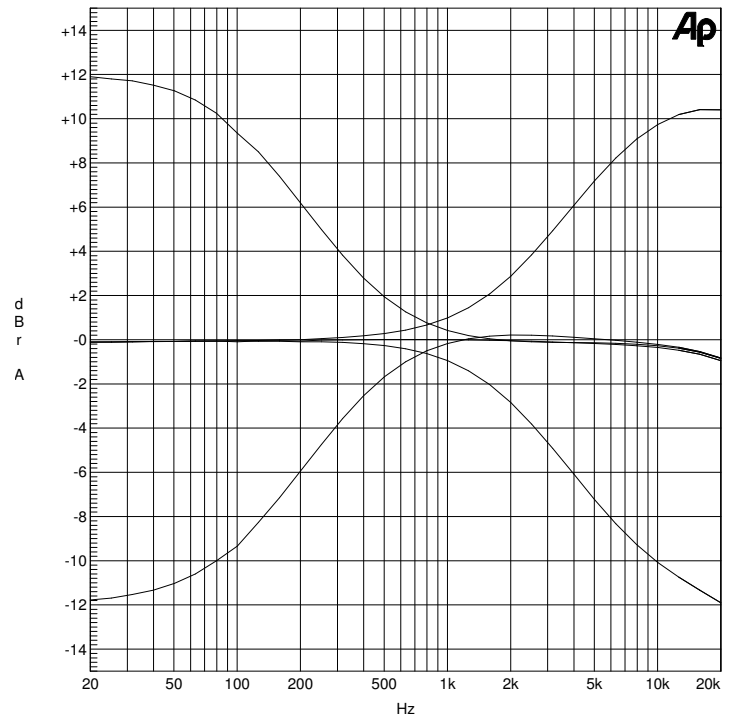
## Dimensions



## Performance Graphs



Frequency response



EQ curves

## Architect's and Engineer's Specification

The stereo mixer shall be equipped with three stereo line level inputs and one microphone input. The mixer shall also include a media player with the ability to play MP3 format audio files and to receive FM radio broadcasts; the media player shall constitute a fourth line input. It shall be possible to select the active line input from the front of the unit. The selected line input shall be mixed with the microphone signal; microphone controls shall include mic on/off, level and two-band equalisation: these controls shall all be accessible from the front of the unit. Connections for the line inputs shall be at the rear of the unit: at least two line inputs shall have gain adjustments of the preset type. One line input shall be provided with an alternative connection in the form of a 3.5 mm TRS jack socket accessible from the front of the unit. One line input shall be provided with an alternative balanced stereo connection; this input shall not be the input with the 3.5 mm jack socket.

It shall be possible to connect microphones to the front of the mixer, using either a XLR3M connector or a 1/4" TRS jack plug. The microphone input shall be balanced and capable of powering a capacitor microphone able to operate on a 12V DC phantom power source.

The mixer shall have main and secondary stereo outputs: the main output shall be balanced and available on both a detachable multipin connector and separate left and right 1/4" TRS jack sockets. The main output shall also be available in unbalanced form on RCA jacks (phono sockets). 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 five segments. The main output shall be provided with two-band equalisation controls accessible from the front of the unit. 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. 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's integral media player shall be able to play audio files recorded to MPEG 1 Layer 3, MPEG 2 Layer 3 or MPEG 2.5 Layer standards at sample rates of 128, 160, 192, 224, 256 or 320 kbps. Variable bit rate recordings shall also be supported. A Type A USB port accessible from the front of the unit shall be provided to permit connection of memory devices of the "stick" type. It shall be possible to access all compatible files on a connected USB device in a two-level folder structure. A set of user controls shall permit navigation through the file structure, accompanied by a visual display of filenames. Both sequential and random file playback modes shall be available. The display shall display either elapsed or remaining track time, the choice being user-selectable.

The media player shall also be able to stream stereo audio from compatible devices using Bluetooth wireless technology. After selecting this source option on the mixer, it shall be possible to "pair" the source device and the mixer from the device itself. The mixer shall be supplied with a detachable antenna for use with this feature: the antenna shall attach and connect to the front of the unit, and a straight-line, line-of-sight usable range of 10 m should be achievable.

The media player shall also incorporate a radio receiver capable of receiving FM broadcasts in the international standard band of 87 to 108 MHz. A connection for an FM antenna shall be provided at the rear of the unit. It shall be possible to store the frequencies of at least nine stations as presets.

The mixer shall be supplied with a remote control unit using infra-red communication; the infra-red sensor shall be integral to the front of the mixer. The remote control unit shall permit control of the following media player functions: track play, track pause, next track, restart current track, selection of media player or FM tuner, audio mute, volume adjustment and selection of stored FM stations.

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 MX141M.