

Data Sheet

MX120A DUAL CHANNEL AUDIO MIXER "Phantom" or 12Vdc Powered

Recreational Facilities
Transportation Terminals
Convention Centers
Correctional Facilities
Warehouse/Factories
Community Halls
Gymnasiums
Sports Arenas
Shopping Malls
Super Stores
Restaurants
Theatres
Schools
Churches

PHANTOM POWER OR 12 Vdc POWERING CAPABILITY

The KDM MX120A can be installed utilizing standard microphone cable (2-wire with shield) when used with KDM Interconnect modules. This permits an MX120A to be installed in an existing microphone location utilizing the existing microphone cable. The KDM MX120A can also be powered via a 12 Vdc A.C. Adapter.

LOW IMPEDANCE "MICROPHONE" AND "LINE INPUT" (MUSIC) INPUTS

The KDM MX120A has two separate inputs channels with individual volume controls per channel. The MX120A can be used for either Microphone or Line Input operation (Compact Disc, MP3, Tuner, Tape, Computer Audio etc.).

UP TO 6 CHANNEL MIXER CONFIGURATION

Up to three KDM MX120A's can be connected together (daisy chained) to form a 6 Channel mixer all powered via "Phantom Power" or a single 12 Vdc A.C. Adapter. The KDM MX120A's can be located at a distance of up to 100 feet apart. This permits 3 Dual Channel Mixers to be installed at different locations with only one cable wired back to the main system.

INTERNAL PROGRAMMING VIA DIP SWITCH & TRIMMER SETTINGS

Permits gain, power requirements and configuration to accommodate the installation requirements. For example: Maximum gain via internal trimmer to protect the sound system from being over driven, Phantom Power (via KDM Modules) or 12 Vdc power source, Single or multiple mixer format.

BUILT IN VOICE ENHANCE CIRCUITRY TO INCREASE INTELLIGIBILITY

The microphone preamp circuit has a built-in speech enhance circuit. This speech enhance circuit reduces the low frequencies created by the human voice and hence increases intelligibility.

OPTIONAL VANDAL RESISTANT CASE WITH LOCK AND COVER

Two types of vandal resistant cases are available as options to the MX120A. These cases are painted with a low sheen black splatter finish and manufactured from 18 gauge steel, complete with lock and cover.

Option 01 - Surface Mount, and **Option 02** - Flush Mount

Technical Specifications



MX120A



MX120A with OPT 01
Surface Mount Vandal Case

Gain:	52 dB \pm 1.0 dB / 2.5 mV to 1.0 V.
Response:	\pm 1 dB 1 kHz to 10 kHz, -6 dB \pm 2 dB at 100 Hz (Voice Enhance)
Noise:	Greater than 66 dB S/N (Volume control at maximum Clock Wise Rotational Position). Greater than 73 dB S/N (Volume control at 12:00 O'Clock Rotational Position).
Distortion:	Less than 0.5% T.H.D. at 1.0 V
Input Impedance:	Greater than 2 k Ω low Z mics, (50 Ω to 600 Ω)
Gain:	20 dB \pm 1.0 dB Variable via Internal Trimmer Adjustment. Maximum: 12 dB \pm 1.0 dB / 250 mV to 1.0 V (Trimmer at maximum clockwise rotation). Minimum: - 8dB \pm 1.0 dB / 2.5 V to 1.0 V. (Trimmer at maximum counter clockwise rotation).
Response:	\pm 1 dB 50 Hz to 15 kHz
Noise:	Greater than 73 dB S/N
Distortion:	Less than 0.5% T.H.D. at 1.0 V
Input Impedance:	Greater than 10 k Ω
General	
Output Impedance:	Designed to operate into 600 Ω Balanced/Unbalanced.
Temperature Range:	-20 $^{\circ}$ C to 55 $^{\circ}$ C
Power Required:	Local Power Via KDM PS120A AC Adapter 12 Vdc / 30 mA Phantom power via KDM IA330A 18 Vdc / 35 mA

Voice and Music Sound System Modules and Hardware are manufactured by the award winning company KDM Electronics Inc.
With over 25 years of experience, KDM can design a turn-key sound system to meet or exceed your sound requirements.



by KDM Electronics

MX120A DUAL CHANNEL REMOTE MIXER

Physical Specifications

MX120A

Width: 2.75" (7.0 cm)
Height: 4.50" (1.4 cm)
Depth: 2.125" (5.4 cm)
Weight: 6.5 oz (.18 kg)

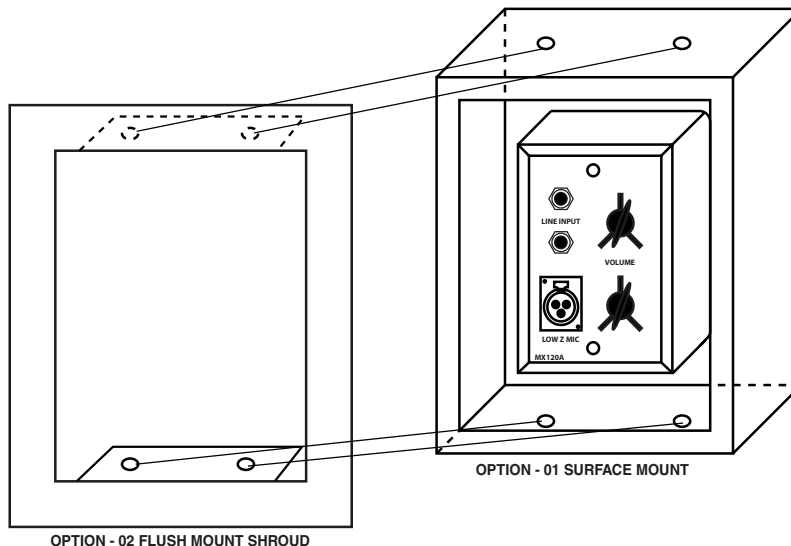
Option 01 - Surface Mount

Width: 4.00" (10.0 cm)
Height: 6.25" (15.9 cm)
Depth: 4.00" (10.0 cm)
Weight: 2 lbs 1.5 oz (.95 kg)

Option 02 - Flush Mount

Width: 6.00" (15.2 cm)
Height: 8.25" (21.0 cm)
Depth: 4.00" (10.0 cm)
Weight: 2 lbs 8.0oz (1.15 kg)

** SURFACE AND FLUSH MOUNT SHROUD FINISHED WITH A FLAT BLACK SPLATTER AND MANUFACTURED FROM 18 GAUGE STEEL



Architects and Engineer's Specifications

The mixer shall be a dual channel input remote unit with individual volume controls per channel. This mixer shall be designed for low impedance Microphones and standard Line Input devices such as Compact Disc Player, MP3 Player, FM/AM Tuner, Tape Player, Computer Audio Output, etc. and Line Inputs. The microphone input shall be via a Neutrik NC3FD connector or equivalent and the line inputs shall be dual RCA phono connectors or equivalent. The gain of the microphone and line inputs shall be the required amount to amplify the input signal level to 1.0 volts (+2 dBm) respectively. The line input shall have an internal trimmer to set the line input gain to the desired maximum that will avoid over driving the sound system. The microphone preamplifier shall have a speech enhance circuit that provides a sharp low frequency cut of greater than 6 dB \pm 2 dB at 100 Hz. The overall signal to noise ratio for the microphone channel shall be 66 dB and the line input channel 73 dB minimum. Distortion shall not exceed 0.5% T.H.D. at 1.0 volts (+ 2 dBm) output. Three mixers shall be capable of being interconnected together to form a six channel mixer powered from one phantom power source and/or 12 V_{dc} A.C. Adapter. The mixer shall be capable of operating over a temperature range of -20 °C to 55 °C. Mechanically, this mixer shall mount directly into a standard electrical utility box type 1110, 2020 or equivalent.

This mixer shall be phantom powered via a standard two wire shielded microphone cable. The output signal must be balanced audio circuit of 1.0 Volts (+2 dBm), 600 Ohms \pm 10%, and be carried over the same cable that powers the mixer. This mixer shall be a KDM Electronics Incorporated Model MX120A, and shall provide optionally, surface mount (Option - 01), and flush mount (Option-02), vandal resistant cases complete with lock and cover. These cases shall be painted with a low sheen flat black splatter finish, and be manufactured from 18 gauge steel.

This mixer shall be KDM Electronics Incorporated Model MX120A.

Ordering Information

MX120A - Dual Source Remote Audio Mixer.

OPT 01 MX120A - Surface Mount Vandal Case

OPT 02 MX120A - Flush Mount Vandal Case

PS120A - 12 Volts D.C. / 500 ma AC Adaptor to power the MX120A

* KDM Electronics Incorporated reserves the right at any time to make changes in product design, components, and specifications, as may be warranted by progress in technology



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