

# INSTALLATION INSTRUCTIONS

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

## MX120A AUDIO MIXER



**Octasound**  
SOUND ABOVE ALL

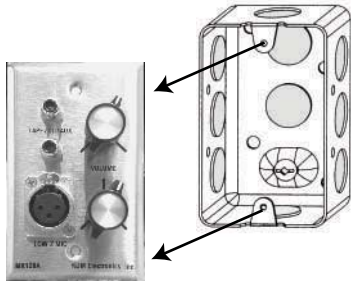


by **KDM Electronics**

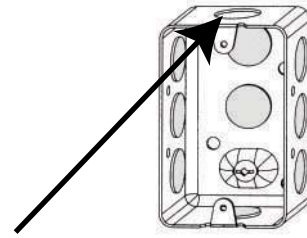
*Voice and Music Sound System Electronic Modules and Hardware are manufactured by the award winning company KDM Electronics Inc. With over 25 years of experience, KDM can design a turn-key sound system to meet or exceed your sound requirements.*

# MX120A Remote Mixer Installation

**1.** Remove the MX120A from the Electrical Box.



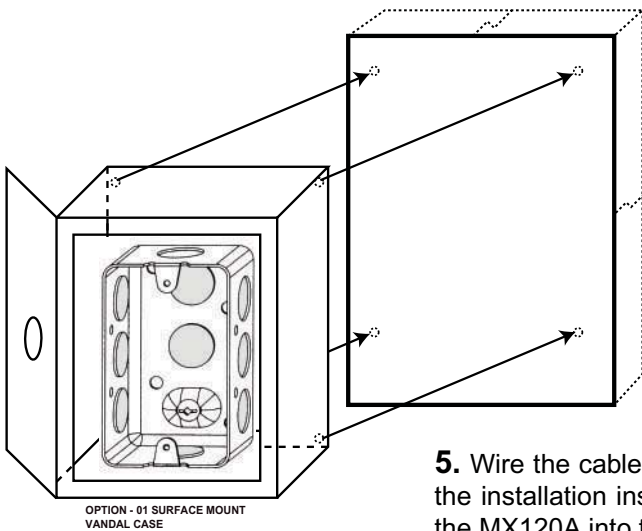
**2.** Remove the appropriate knock out on the electrical box for cable entry.



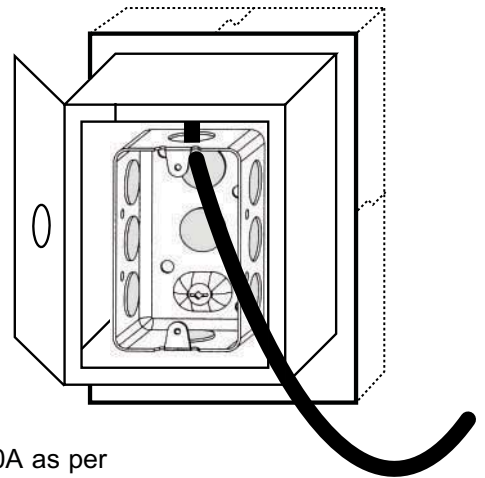
## NOTE:

When installing your MX120A Remote Mixer(s), pick a location that provides the user with easy access. It is recommended that an A.C. power outlet be within 3 to 4 feet from the MX120A to provide power for music sources or the 12Vdc adaptor (if MX120A is powered locally). If your remote mixers are supplied with a vandal case, make sure it is installed in a location that allows the door to open freely. Common installation locations are on top of counters or on walls at chest level when seated. The MX120A should also be located in order that a microphone, Compact Disc Player or Tape Deck can be easily plugged into the mixer and operated within range of the user.

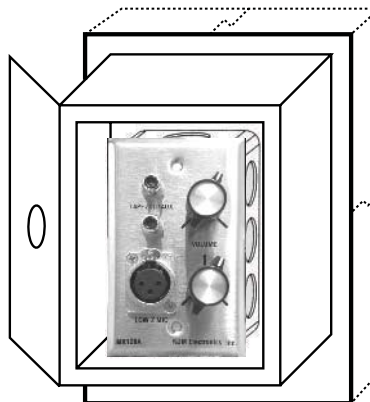
**3.** Mount the MX120A and the electrical box at the desired location. If option 01 surface mount or option 02 flush mount vandal cases have been supplied, mount as shown in the following drawings.



**4.** Bring the audio cable into the electrical box. Leave at least 2 feet (60 cm) of excess cable for wiring the MX120A.



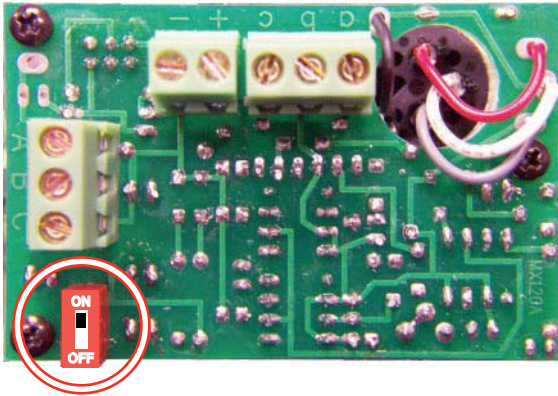
**5.** Wire the cable to the terminals of the MX120A as per the installation instructions on pages 2 and 3 and install the MX120A into the electrical box.



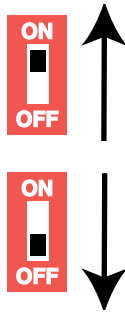
# MX120A Remote Mixer Settings

**1.** Determine if the MX120A is to be a **Primary/Single** or a **Secondary** unit.

Set the dip switch accordingly on the back of the MX120A - lower left corner.  
(Figure 1.1)



**Figure 1.1 - Dip Switch**



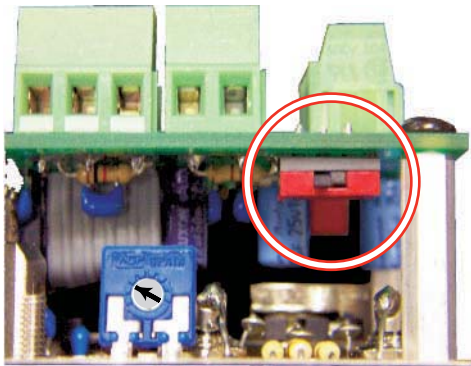
= **PRIMARY/SINGLE** The first unit in a chain of MX120A's or the only unit Installed.  
**DIP Switch "ON"**

= **SECONDARY** - Use this setting for **all** units (max 2) connected (chained) to a Primary Unit.  
**DIP Switch "OFF"**.

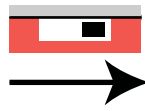
**NOTE:** A maximum of 3 units can be chained together on one wire run to the main system.

**1- Primary plus 2 - Secondary's**

**2.** Determine if the MX120A is to be phantom powered via a KDM Interconnect Module, or with an external 12Vdc A.C. Adaptor. Position the switch accordingly on the side of the MX120A - located below **a,b,c** and **+,-** terminals on the main printed circuit board. (Figure 2.1)



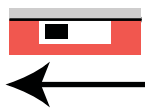
**Figure 2.1 - Power Select Switch**



= **PHANTOM POWERED PRIMARY UNIT or SECONDARY UNIT IN A CHAIN.**

This setting applies to the **primary** MX120A connected to a KDM Interconnect Module and **all** units (max 2) connected (chained) to a Primary MX120A

**Power Select Switch - "Slider pointing towards standoff"**



= **12 Vdc POWERED PRIMARY UNIT.**

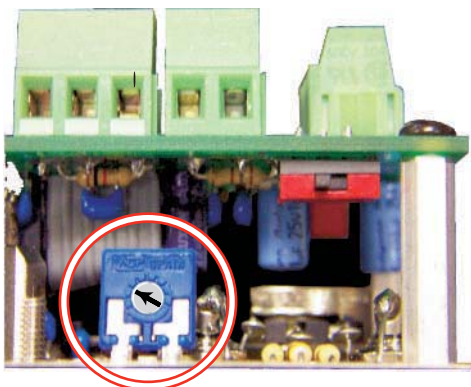
Power is supplied via a 12 Vdc Power Pack. This setting **only** applies to the Primary or Single MX120A powered Via 12 Vdc.

**Power Select Switch - "Slider pointing away from standoff"**

**3.** Set the trimmer position to adjust the input sensitivity of the music/aux inputs.

**Note:** This is only required to increase/decrease normal sensitivity to accommodate low output music/aux or to prevent the sound system from being overdriven.

Adjust the trimmer accordingly on the side of the MX120A - located below **a,b,c** and **+,-** terminals on the front panel printed circuit board. (Figure 3.1)



**Figure 3.1 - Sensitivity Trimmer**



= **10:00 o'clock (Factory Setting)**

Sensitivity = 400 mV input to obtain 1 V balanced output.



= **Full CW position**

Sensitivity = 250 mV input to obtain 1 V balanced output.



= **Full CCW position**

Sensitivity = 2.5 V input to obtain 1 V balanced output.

# MX120A Remote Mixer Wiring

SINGLE or PRIMARY  
MX120A  
#1

MX120A  
#2

MX120A  
#3

## Wire Colors

### Balanced Output to Main system



### Unbalanced Output to Main System



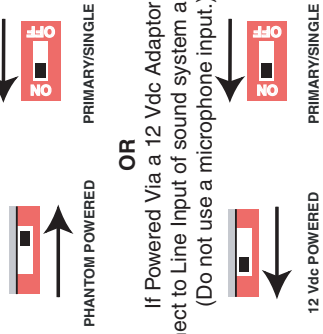
**Note:**  
Unbalanced Output can only be used if Primary or Single MX120A is powered via KDM PS120A (or equivalent) 12Vdc Adaptor.

### ONLY REQUIRED IF

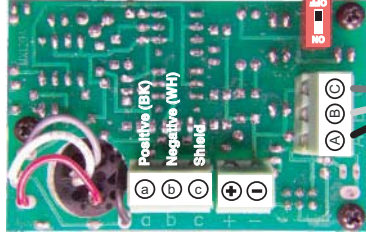
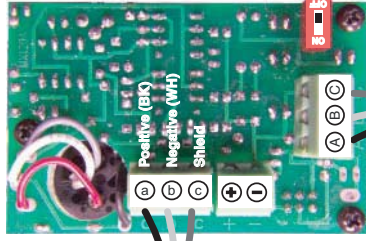
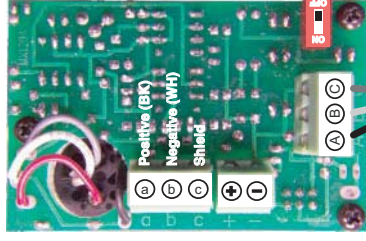
Primary or Single MX120A has to be supplied power via a KDM PS120A (or equivalent) 12 Vdc Adaptor. All additional (maximum 2) MX120A's are powered via the Primary MX120A.

If the MX120A is connected to a KDM Interconnect Module, no power connection is required.

If Phantom Powered Via a KDM Interconnect Module  
Connect to Balanced Inputs on Interconnect Module  
A - BK, B - WH, C - Shield



If Powered Via a 12 Vdc Adaptor  
Connect to Line Input of sound system amplifier.  
(Do not use a microphone input.)



Interconnect cable to join MX120A #2 to MX120A #3.  
Maximum cable length is 100 ft. Twisted Pair



Interconnect cable to join MX120A #1 to MX120A #2.  
Maximum cable length is 100 ft. Twisted Pair



### Note:

Preferably the line input of the sound system amplifier should be balanced with a fixed input sensitivity or contain a trimmer adjustment to set the required sensitivity. If an unbalanced input is required, use terminals A and C only on the Primary Unit.