

M Series Matrix Mixers

True Matrix Mixing at the Heart of Your A/V Environment



The Intelix M Series matrix mixer provides true matrix mixing and crosspoint level control for up to 128 modular inputs and outputs, making M Series the definitive audio hub at the heart of your sophisticated audio-visual environment. Each Intelix M Series matrix mixer marries the superb audio quality of an analog signal with voltage-controlled attenuators for precise, flexible program distribution.

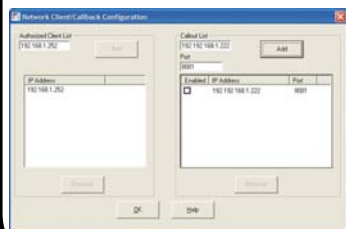
M Series utilizes a revolutionary command structure allowing multiple complex actions to be initiated with a single, simple command, and distributed central processing units allow even the largest matrix configuration to change presets in milliseconds. **Design with Intelix and design with Intelligence.**

Advanced Communication: Connectivity, Control, and Security

The Intelix M Series matrix mixer is designed for maximum communication and control versatility, and with this comes advanced security safeguards which ensure only authorized users monitor and control the M Series system.

Connectivity. Every M Series matrix facilitates serial communication via RS232, TCP/IP LAN, and the internet. Front and rear panel RS232 communication ports allow quick onsite diagnostics, and an optional PCMCIA Logic Card allows up to eight contact closure inputs with eight output indicators.

Control. Free M Series Designer Software allows you to monitor, control, and troubleshoot the entire M Series system from any remote location with an internet connection. Included real-time Event Scheduling Software allows you to program repetitive or unique audio activities in a simple platform closely resembling standard PDA scheduling software.



Security. To ensure only legitimate users connect to and control the M Series matrix, M Series Designer Software includes an authorized client list providing internal firewall protection from unauthorized ethernet connections.

Feature Focus

Crosspoint Matrix Mixing

Mic or Line Level Sources

Up to 128 Inputs by 128 Outputs

All-Inclusive Design, Installation, and Control Software

RS232 and Ethernet Control

Real-time Event Scheduling Software

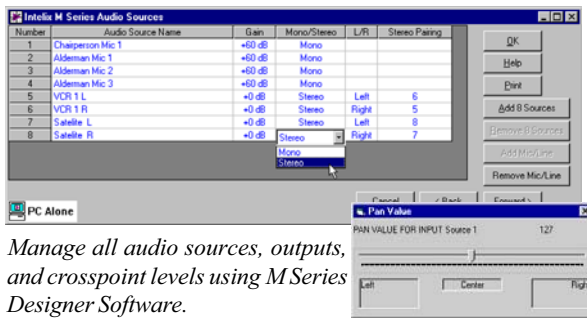
Up to 128 User Presets

Ideal for corporate, boardroom, mix-minus, council room, courtroom, and any other environment requiring audio distribution.

M Series Designer Software

Intelix M Series Designer Software is a unique, all inclusive platform designed for the system designer, programmer, and installer. Even the most complex audio routing tasks are simplified through intuitive, user-friendly software screens.

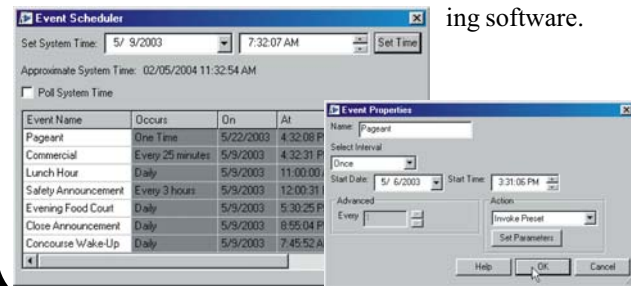
Specifically, M Series contains all the embedded complex logic for configuring crosspoint levels, up to 128 user presets, user control assignments, and repetitive or unique audio activities through included real-time event scheduling software. M Series even provides live control, monitoring, diagnostics, and troubleshooting from anywhere with an internet connection...and the software is 100% free.



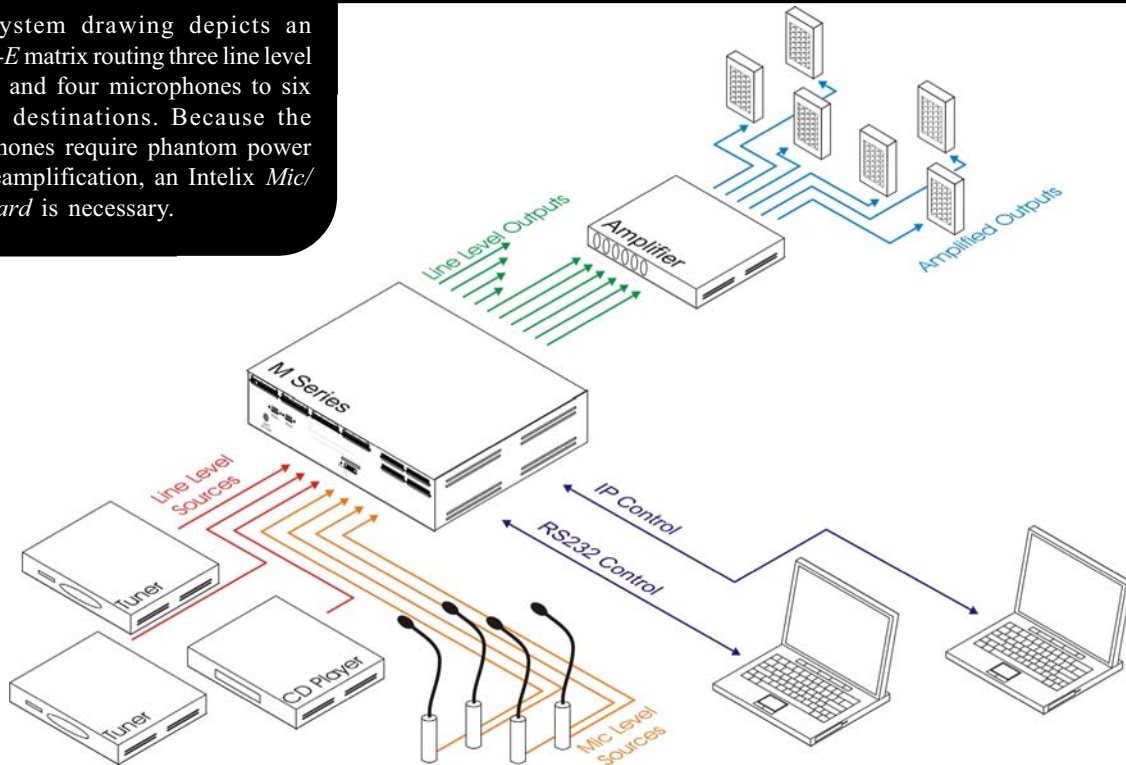
Manage all audio sources, outputs, and crosspoint levels using M Series Designer Software.

Real-Time Event Scheduling Software

Ideal for malls, production facilities, and other large spaces with periodically changing acoustic levels, Intelix Event Scheduling Software allows facility managers to easily program repetitive or unique audio activities—without the need for manual or secondary control apparatuses—in a familiar platform closely resembling standard PDA scheduling software.



This system drawing depicts an M8L8L-E matrix routing three line level sources and four microphones to six remote destinations. Because the microphones require phantom power and preamplification, an Intelix Mic/Line Card is necessary.



Additional system drawings are available in the Application Notes section of the Intelix online Technical Library.

M Series Hardware



M8L8L-E Matrix Mixer

M Series Matrix Mixer (part numbers vary; see below). The rack-mounted M Series matrix mixer is the heart of your sophisticated audio-visual environment. A true matrix mixer, M Series allows crosspoint level control of any audio input as it is routed to any audio output. Sizes range from 8 inputs by 8 outputs to 128 inputs by 128 outputs, and each unit supports up to 128 presets.

Factory-Installed Mic/Line Preamplification Card (Mic/Line Card). The factory-installed Intelix mic/line card provides +15V phantom power and up to 60 dB of gain for eight M Series input channels (specify one mic/line card per every eight inputs which require preamplification).

Creating an Intelix M Series System Purchase Order

The easiest way to prepare an M Series matrix mixer purchase order is to let the software prepare the document for you. Every time you design a system using M Series Designer Software, a complete parts list and wiring report is automatically generated, ensuring nothing is overlooked.

1 Specify the M Series Matrix Mixer

- Determine the required amount of inputs and outputs. Keep in mind that stereo sources/destinations populate two inputs/outputs.
- Round the numbers up to the nearest derivative of eight and place them within Intelix's part numbering system.
- ◆ *Note: Each mixer purchase includes the required power supply.*

M16L32L-E
System Type # of Inputs # of Outputs

2 Specify Control

- Determine if logic control is required.
 - ▶ If required, specify one PCMCIA Logic I/O Card.

3 Specify Enhancement Components

- Determine if audio preamplification or phantom power is required.
 - ▶ If required, specify one Mic/line Card for every eight channels.

Regardless of how you assemble your purchase order, remember that each system sale is personally handled by an Intelix Application Engineer who ensures your system is complete and correct.

PCMCIA Logic Input/Output Card (Logic I/O Card). The Intelix Logic I/O Card provides the M Series matrix with eight contact closure logic inputs and eight logic outputs.



Logic I/O Card

Factory Configuration

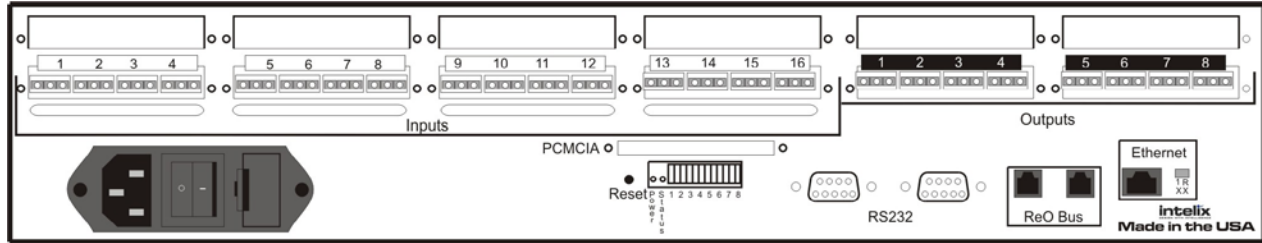
Factory configuration is a practical and affordable option which ensures your installation proceeds quickly and smoothly. The only prerequisite is a factory-approved M Series Designer Software file. Specifically, Intelix will:

- Confirm, critique, and optimize your M Series Designer Software file
- Program and load the Intelix Designer Software file onto the M Series matrix mixer
- Test the entire package as a system to ensure proper operation
- Print wiring and product reports for a trouble-free installation
- Provide technical support on a priority basis for two years from the purchase of the system

Factory Configuration is required on all opening M Series system orders unless prior training has been completed.

Part Number	System
Fact Config-E	Stock Matrix Sizes*
Fact Config-F	Custom Matrix Sizes

*Stock matrix sizes include all matrix sizes from M8L8L-E (8 inputs x 8 outputs) through M64L64L-E (64 inputs x 64 outputs).



MI6L8L-E Matrix Mixer Line Drawing

*Actual chassis size determinant on total number of inputs and outputs.

Pocket Test Tools

Tired of bulky and inconvenient audio/video test equipment? Intelix provides the perfection solution in the Toolbox Series—multiple A/V tests which fit right in your pocket.

Pocket Noise

Audio Pink Noise Tone Generator



- Full spectrum audio test signal
- True 3dB per octave roll-off
- Balanced mic level output
- Phantom power indicator
- Standard XLR Plug
- No batteries required

Pocket Tone

Multi-tone Audio Test Generator



- Five sine wave tones
- VLF sub-woofer test
- Multi-frequency pulse
- Amplitude and trace sweep
- Auto frequency stepping
- 1k, 10k, 100Hz, 250Hz, and 400Hz
- Microphone level signal
- Standard XLR plug
- No batteries required

Pocket Pattern

Color Bar Video Generator



- Battery-powered video generator for quick, easy testing of signal paths and integrity
- Generate a standard NTSC video signal
- Test coaxial continuity during installation
- Test video camera equipment
- Test and adjust color video monitors

M Series Specifications

GENERAL

Frequency Response	±.5 dB from 20 Hz to 20 kHz +0, -3 dB from 10 Hz to 30 kHz
VCA Control Range	100 dB (attenuation only)
Signal to Noise	Ref +26 dBu = 100 dB
Crosstalk	better than -80 dB

INPUTS

Input Impedance	(electronically balanced) 20 kOhms (unbalanced) 10 kOhms
Nominal Source Impedance	150 Ohms
Nominal Input Level	+4 dBu RMS
Max Input Level	+26 dBu RMS

Mic/Line 8 Input Card (optional)

Frequency Response	±.5 dB from 20 Hz to 20 kHz +0, -3 dB from 10 Hz to 30 kHz
Maximum Voltage Gain	60 dB
Signal to Noise	Ref +26 dBu @ 54 dB sys gain ±90 dB
Equivalent Input Noise	-129 dB @ 50 Ohms 20 Hz to 20 kHz
Crosstalk	better than -90 dB
Phantom Power	+15 VDC
Input Impedance	3.5 kOhms
Input Gain/Trim Range	60 dB

OUTPUTS

Output Impedance	(electronically balanced) 440 Ohms (unbalanced) 220 Ohms
Nominal Load Impedance	600 Ohms
Nominal Level	+4 dBu RMS
Maximum Level	(balanced) +26 dBu RMS (unbalanced) +20 dBu RMS

Power Requirements 18 VAC Center-Tapped, 4.5 A,
(stock models) 85 VA, ±19 VDC, 4.5 A

Dimensions 19" x 14" x 3.5"
(stock 2RU models) (48.2 cm x 8.9 cm x 35.6 cm)
Shipping Weight (average) 24 lb (10.9 kg)

