

Overview - Mi Series Audio Controllers

The Mi Series system is an audio control and distribution system by AMX Matrix Distributed Audio. It allows centralized control of common audio equipment, and provides for up to 8 independently controlled music zones per chassis - each capable of controlling the source via keypad, RS-232, IP address (Ethernet Module), SWT Speakers (equipped with IR receivers), or the DAS-IRRX-SWT Stealth IR receiver used with the (optional) DAS-MRC IR remote control.

Mi Series controllers consist of a centralized amplifier and control system, controlled locally by a Keypad. Each zone may also be configured with 2 control keypads.

Other sources such as Satellite Receivers, CD Players, MP3 Players, and any other IR Controlled Audio Source can be patched into the RCA source inputs located on the back panel.

Mi Series Audio Controllers are available in 120V (**DAS-M0404, -M0406, -M0408, -M0604, -M0606, -M0608, -M0804, -M0806, -M0808**), or 240V versions (**DAS-MI0404, -MI0406, -MI0408, -MI0604, -MI0606, -MI0608, -MI0804, -MI0806, -MI0808**).

FIG. 1 illustrates the front and rear panel component layout for the Mi Series controllers:

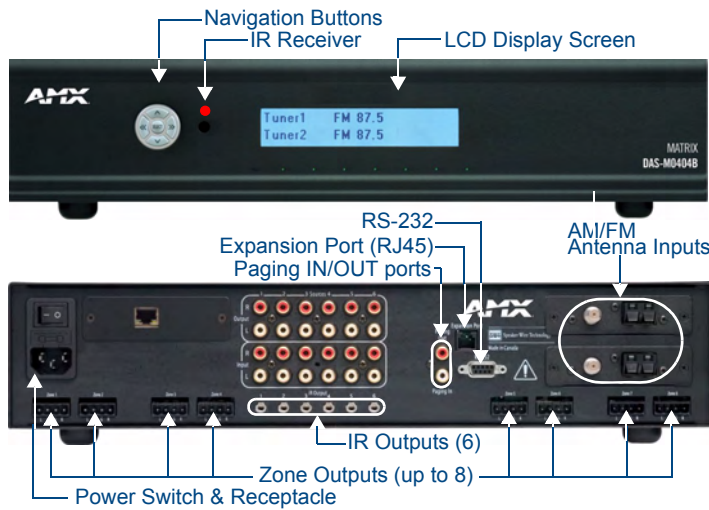


FIG. 1 Mi Series Controller Layout - Front and Rear Panel Details (DAS-M0404B shown)

Mi Series - Product Specifications

The following table provides technical specifications for the Mi Series Controllers. Unless otherwise noted, these specifications apply to Mi Series 4, 6 and 8 Controllers.

Mi Series Product Specifications	
Models Available:	
Mi Series 4 Audio Controllers	
• DAS-M(I)0404(B/S)	4 Source, 4 Zone Controller (black or silver, 120V or 240V)
• DAS-M(I)0406(B/S)	4 Source, 6 Zone Controller (black or silver, 120V or 240V)
• DAS-M(I)0408(B/S)	4 Source, 8 Zone Controller (black or silver, 120V or 240V)
Mi Series 6 Audio Controllers	
• DAS-M(I)0604(B/S)	6 Source, 4 Zone Controller (black or silver, 120V or 240V)
• DAS-M(I)0606(B/S)	6 Source, 6 Zone Controller (black or silver, 120V or 240V)
• DAS-M(I)0608(B/S)	6 Source, 8 Zone Controller (black or silver, 120V or 240V)
Mi Series 8 Audio Controllers	
• DAS-M(I)0804(B/S)	8 Source, 4 Zone Controller (black or silver, 120V or 240V)
• DAS-M(I)0806(B/S)	8 Source, 6 Zone Controller (black or silver, 120V or 240V)
• DAS-M(I)0808(B/S)	8 Source, 8 Zone Controller (black or silver, 120V or 240V)

Mi Series Product Specifications (Cont.)

Stereo Output:	25 Watts/CH stereo (20Hz to 20Khz @ .1% THD)
Power:	960W max (Actual average usage = 300W)
Zone Support:	<ul style="list-style-type: none"> • Eight independent Zones (4 X 2 Zone Modules). • Each Zone is protected thermally. • Zone grouping. • Independent Volume, Bass, Treble, Balance and SRS® controls in each zone.
Stereo Amplifiers:	<ul style="list-style-type: none"> • 40 Watts/CH stereo amplifiers (20Hz to 20Khz @ .1% THD). • Amplifiers are protected from overload and thermal runaway.
SRS/WOW®:	Standard SRS/WOW® audio enhancement technology by SRS Labs, on all zones. Note: SRS/WOW is a registered trademark of SRS labs, Inc.

Front Panel Components:

• Navigation Buttons	Allow for front panel programming, selection of sources, and tuning AM/FM radio stations (when Controller is fitted with the optional tuner board). The same array appears on the Matrix KP-4e navigational keypad.
• IR Receiver	This is where you must aim the remotes from your audio source components so the Controller can learn and emulate those commands.
• LCD Display	Displays information necessary during the programming steps and afterward is the display to indicate information about the source input and zone activity.

Rear Panel Components:

• Power Switch & Receptacle	The master power switch will remain in the ON position normally.
• Paging In/Out Ports	RCA jacks to connect to Paging devices (any audio input can be used as a paging device). The Paging device connects to the Controller via the "Paging In" connector. The "Paging Out" connector is used to carry the page to Zone Expander(s).
• RJ 45 Port	Ethernet Port for future expansion
• RS-232 Port	9-pin D connector to interface with NetLinx control systems.
• AM/FM Antenna Inputs	Connections for the AM and FM Antennas.
• Audio Inputs	Stereo Inputs, 47K impedance, buffered.
• Audio Outputs	Stereo Looping Outputs, buffered.
• IR Outputs	<ul style="list-style-type: none"> • Mi Series 4 - Four IR 3.5mm mono output jacks. • Mi Series 6 - Six IR 3.5mm mono output jacks. • Mi Series 8 - Eight IR 3.5mm mono output jacks.
• Zone Outputs	Connections for up to 8 zone outputs that connect to the keypads.
• Expansion Port	RJ 11 Port connects main Controller with Zone Expanders.
Available Colors:	Black, Silver
Dimensions (HWD): (including feet)	<ul style="list-style-type: none"> • 4" x 17" x 13.5" • 10.16 cm x 43.18 cm x 34.29 cm
Weight:	Max. weight with 8 zones - 31 lbs (14.06 kg)

System Integration Drawings

Using Four Conductor Speaker Wire

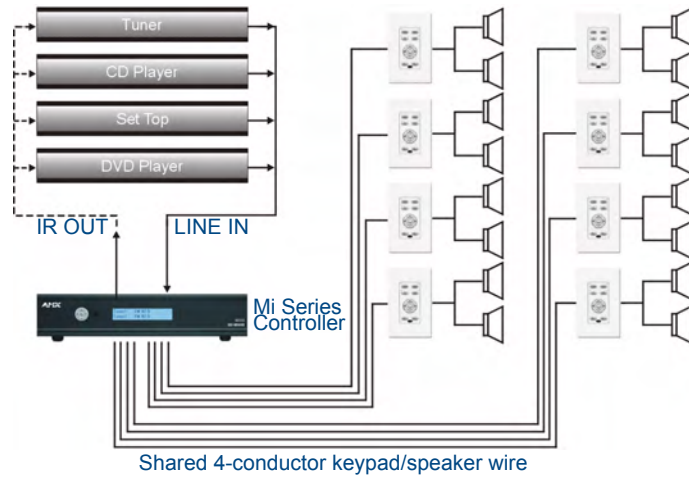


FIG. 2 System Integration Drawing Using Four Conductor Speaker Wire

Using the Audio Zone Expander

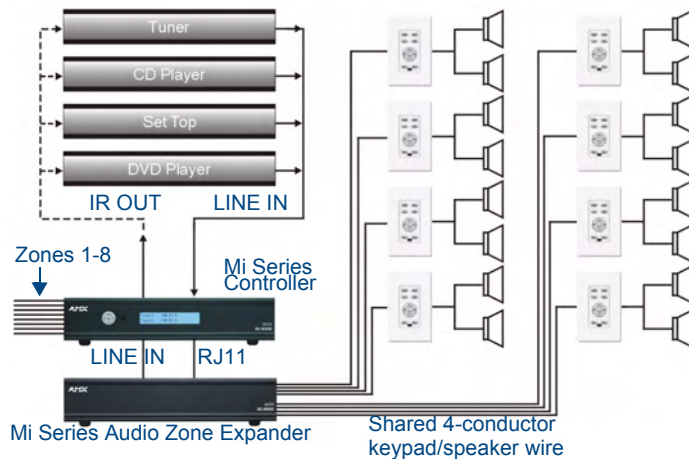


FIG. 3 System Integration Drawing Using the Audio Zone Expander

RS-232 Cable

When connecting to the RS-232 port located on the back of the Mi Series Controller, it is necessary to use a DB9 cable. The Mi Series Controller utilizes DCE protocol therefore no NULL modem adapter is necessary. You may also use a USB to DB9 adapter.

- Connector: DB9 Male
- Communications: 9600 Baud, 8 data bits, 1 stop bit, no parity

Keypad Installation

Connections points at the Mi Series Controller and Keypad are solder-less and they are completed by spring-loaded Molex connectors (provided).

Note: Each zone can be configured with either 2 pushbutton keypads (Numeric or Source), or 1 LCD Keypad and 1 pushbutton Keypad, but not 2 LCD keypads.

Molex Wiring Connections

Looking at the rear of the Keypad with the connectors at the bottom, you will see (2) plug type Molex connectors. Generally the mating part is already installed on the unit when shipped. Lifting gently and pulling the connector away from the Keypad will remove it.

The Connector on the Right Side terminates the 4 conductor wire from the Mi Series Controller and the connector on the Left Side passes the audio to the speakers in the zone (FIG. 4).

10-pin Ribbon Cable connecting the KP Keypad to the DAS-KP-NUM-G Keypad. Wire must be straight across (no twist)



FIG. 4 KP Series Keypad: (Rear View)

Note: Ensure that wire strands do not touch neighboring wires on the connectors, as this could result in malfunction or impede system performance.

Source Equipment

To meet airflow and cooling requirements, place each audio source on an individual shelf and allow a minimum of 3" clearance on the sides and top of the unit. Stacking equipment is not recommended as this presents situations in which airflow is restricted or component cooling may be impaired. Equipment should have adequate room in the rear for the cables to reside.

Zone Connections

The cables that run from each of the keypads connect to the Mi Series Controller via the same Molex connectors used at the keypads. In this case, the connectors will not already be installed in the Mi Series Controller but will be found in a bag in the equipment box. FIG. 5 provides a Molex Connector Legend

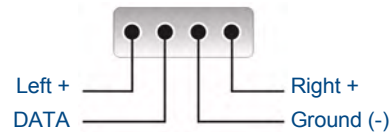


FIG. 5 Molex Connector Legend

Note: When stripping cable for use with the Molex connector, only strip away about 1/4" (6mm) of the insulation from each wire. The complete assembly should not have more than 1/32" (1mm) of bare wire exposed from the bottom of the connector.

Source Power Handling

The series Controller learns the IR commands for power on/off during the programming setup. Source components are turned on when they are selected on the Keypad. The source remains on until it has been idle in all zones for a duration of 10 minutes. The source is then turned off until selected again.

Audio Component and Emitter Lead Connections

Plug the RCA audio cables from each source device into the RCA jacks provided on the back of the Mi Series Controller. Ensure that right and left are connected correctly. The balance setup will not image properly if reversed. Then connect the IR emitter leads for each audio source into the appropriate connector on the back of the Mi Series Controller, and run the optical end of the emitter lead to the source device's IR receiver window.

Quick Functionality Test

With all the components now wired in place you should be able to power each zone on and off from the remote keypads. To test the system connections, activate one zone, and manually activate one of the audio sources such as the tuner (assuming that the programming has not yet taken place) and move through each zone and test that keypads respond to the on/ off and volume commands and that the source can be heard in all zones.

The basic functionality of the Mi Series Controller on/off, volume up/ down and treble/bass/Balance/SRS® are functions performed without programming.

You may also check the status of the Keypad and what the firmware version number is by accessing the MRC setup functions located on the front of the Mi Series Controller.

Additional Information

Refer to the *Mi Series Audio Controllers Operation/Reference Guide* and *Quick Start Guide* (available online at www.amx.com) for important safety instructions, additional product information, programming instructions, and detailed installation information.