

MACKENZIE

M2

HIGH FIDELITY MULTI-CHANNEL DIGITAL AUDIO PLAYER

Key Features:

- MPEG 1, Layer 2 audio for scaleable fidelity from voice(7kHz) to CD(20kHz) quality
- Balanced audio output(up to 2 stereo channels)
- Removable PCMCIA FLASH Memory
- Composer software allows memory cards to be created from .WAV files
- Shock and vibration resistant
- Contact Closure and RS232 Control
- Standard, Retrigger, Play Once and Play While Active modes
- Playing relay contact(Form C)
- Various configurations available



The M2 Series is Mackenzie's second generation of high fidelity digital audio players. The M2 is ideal for applications requiring a wide array of duration, fidelity, channel and message quantity combinations. This includes museum's, amusement parks, theme events as well as general public address installations.

M2 is Audio Quality - Designed with the most discerning audiophile in mind, the M2 offers 16 bit converters, up to 48kHz sampling and balanced outputs to flawlessly re-create any source material. MPEG 1 Layer 2 is offered to maintain quality while saving space.

M2 is Compatibility - The standard PCMCIA memory, MPEG compression(with Composer software) and .WAV support mean that audio programs for the M2 may be created from almost any Windows based computer.

M2 is Controllable - Contact closures and RS232 are both standard on the M2. So whether you are initiating messages from pushbuttons, relays, computer, terminal, programmable logic controller or other remote control device, the M2 has it covered.

M2 is Flexibility - The M2 offers scaleable PCMCIA memory so you only populate as much as you need. The M2 is available in 3 different configurations based on your channel and contact interface requirements. With 2 stereo outputs, the M2.1+1 is also able to support 4 mono outputs*, ideal for multiple language and sync track applications. Sophisticated repeat, delay and play modes aid in the development of complex applications.

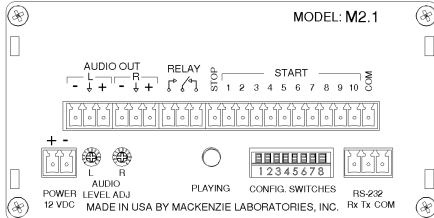
M2 represents the perfect balance of features and quality in audio message repeaters.

Making A Difference, One At A Time



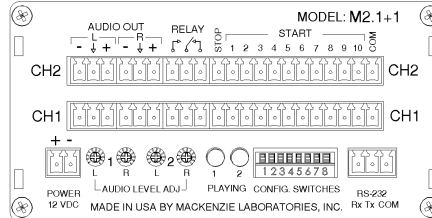
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M2 Models



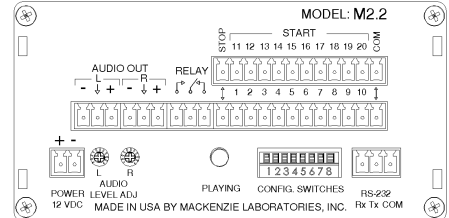
M2.1:

- Left channel balanced audio output
- Right channel balanced audio output
- Relay(Form C)
- Stop contact
- Start contacts 1 - 10
- Common start contact
- Power Connection
- Audio Level Adjustments, L/R
- Playing LED
- Configuration Switches
- RS232 Connection



M2.1+1:

- Interfaces of M2.1 PLUS,
- Channel 2(CH2):**
- Left channel balanced audio output
- Right channel balanced audio output
- Relay(Form C)
- Stop contact
- Start contacts 1 - 10
- Common start contact
- CH2 Audio Level Adjustments, L/R
- Channel 2 Playing LED



M2.2:

- Interfaces of M2.1 PLUS,
- Start contacts 11 - 20

SPECIFICATIONS

Audio Quality

- Sample Rate: 48kHz
- Dynamic Range: 90dB
- Frequency Resp.: 20Hz - 20kHz
- THD: <0.01% at 1kHz

Audio Output

- Type: Balanced, analog
- Mode: Stereo or dual mono*
- Connection: Pluggable euro terminals
- Level: +4dB max., 150 ohm
- Gain: Potentiometer

Audio Memory

- Type: Dos format PCMCIA FLASH

Power

- Input Voltage: 12VDC @ 1 amp
- Connection: 2 pin euro terminal

Audio Data Formats

- Compressed: MPEG 1 Layer II
- MPEG Data
- Rates(mono):
 - 7kHz = 32k bits per sec.
 - 15kHz = 64k bits per sec.
 - 20kHz = 128k bits per sec.

Control I/O

- Control Inputs: Individual message start, Record, Stop
- RS232: 115.2K baud, No parity, 8 bits, 1 stop bit
- Relay Outputs: Playing
- Interface: Euro terminals

Mechanical

- Wall Mount/Table top - 5.7"W x 12" L x 2.4" H
- Rack mount(optional) - 1U
- Chassis - aluminum extrusion, painted

*References to 4 mono(M2.1+1) or dual mono reflect the fact that the M2 allows separate material to be stored on the left and right channels of a stereo pair. This configuration is typically used for material routed to different zones or an audio sync track. It is important to note that the individual channels of a stereo pair are not able to be triggered independently. The channels run simultaneously from a single trigger.