

# MACKENZIE

## MacFi-mp

MP3 DIGITAL AUDIO  
RECORD / PLAY SYSTEM

## MacFi-mp<sup>e</sup>

### Features:

- MPEG 1, Layer 3 (MP3) record and playback
- Local Record capability
- User-friendly controls
- 99 independent messages(01 - 99)
- Instantaneous, random access of messages
- Flash memory, no battery backup required
- DML - Dynamic Message Length
- Line and microphone inputs
- Line and speaker outputs
- Shock and vibration resistant
- Several playback modes
- Playing relay
- Rack mount kits available as an option

### MacFi-mpe Adds:

- Serial (RS-232) control, setup and audio file transfer
- MPEG 1, Layers 1, 2 & 3 playback capability
- Synchronization relay for sequencing applications
- Front mount LED indicators and manual controls for convenience in rack applications with optional rack mount kit.



As the latest addition to the highly successful MacFi series, the MacFi-mp offers higher fidelity and larger message capacity than its predecessor. The MacFi-mp incorporates a MPEG processor for record and playback quality of up to 15kHz bandwidth. With its increased capacity, the MacFi-mp is able to store up to 99 individual messages. Mackenzie's Dynamic Message Length (DML) technology allows each of the 99 messages to be of different duration. DML also provides for replacement messages to be a different length than the original, maximizing memory efficiency and compatibility with future applications.

Local recording is accomplished through a straight forward user interface with standard line level and microphone connections. Line and amplified audio outputs are provided with level control. Eight message triggers are available on the remote control terminal while the remainder may be accessed by the user interface or the Serial (RS-232) interface of the MacFi-mpe.

The MacFi-mpe adds enhanced functionality to the standard MacFi-mp. These features include Serial (RS-232) interface and synchronization relay. Push buttons and LED indicators of the MacFi-mpe are relocated to the front of the system for better accessibility in rack mount applications. The Serial interface of the MacFi-mpe allows for complete control of recording and playback as well as customization of default settings. Audio files may be mastered on a Personal Computer then digitally transferred to the MacFi-mpe in MPEG 1 Layer 1, Layer 2 or Layer 3(MP3) formats.

The MacFi-mp utilizes solid state, non-volatile, FLASH memory which stores messages until they are re-written. Message data is protected from power outages and no battery is required. The system contains no moving parts and offers unsurpassed reliability.

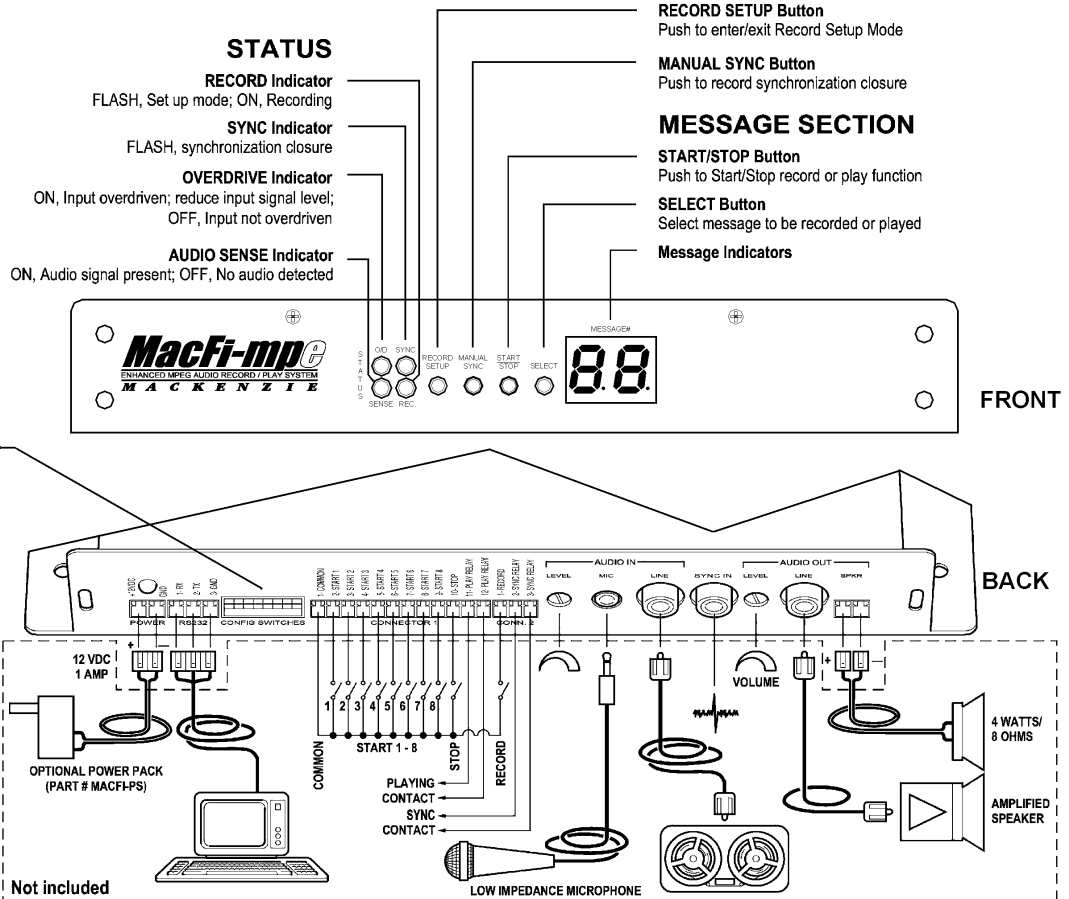
The MacFi-mp offers a standard one year warranty and is proudly manufactured in the USA.

### Models and Accessories Available:

MacFi-mp 40	Standard version, 40 minutes of local recording (32MB)
MacFi-mpe 40	Enhanced version (RS-232, sync relay), 40 minutes of local recording (32MB)
ICM-25	Adds 25 start contacts to the MacFi-mpe. Multiple units may be used.

## *Making A Difference, One At A Time*

- CONFIG SWITCHES**  
 OFF    ON
- 1 2 Repeat**  
 Play message **One** time  
 Play message **Two** times  
 Play message **Three** times  
 Play message **Four** times \*
- 3 4 Delay**  
 1 sec delay  
 5 sec delay  
 10 sec delay  
 30 sec delay \*
- 5 6 Operation Mode**  
 Standard Operation  
 Play one sequence per closure  
 Play while active  
 Re-trigger \*
- 7 Play Next**  
 Disable  
 Enable
- 8 Memory Protect**  
 Enable record  
 Disable record
- \* Configurable Over R232



### SPECIFICATIONS

#### Audio Coding:

Recording: MPEG 1, Layer 3(VBR)  
 Playback: MPEG 1, Layer 3(VBR) or MPEG 1, Layer 1, 2 & 3 via audio file transfer capability of the MacFi-mp

#### Audio Quality:

Dynamic Range: 80dB, Typical  
 Signal to Noise: 80dB, Typical  
 Frequency Resp.: 50Hz to 15kHz  
 THD: <0.5% at 1kHz, Typical

#### Audio Input:

Line: 10k ohm, RCA  
 Mic: 1.5k ohm, 1/8" mini jack  
 Level: +4dBm max., potentiometer

#### Sync Input(MacFi-mp<sup>e</sup> Only):

Interface: 10k ohm, RCA  
 Mode: Audio sensor detects tones 100mS in duration

#### Audio Output:

Line: 600 ohm(+4dBm max.), transformer isolated, RCA  
 Amplified: 4 watts into 8 ohm, 2 pin pluggable terminal  
 Level: Potentiometer

#### Audio Memory:

Type: FLASH EPROM  
 Capacity: 32MB, 40 min local record

#### Power Requirement:

Input Voltage: 12vdc, 1 amp  
 Connection: 2 pin pluggable terminal

#### Serial Interface (MacFi-mp<sup>e</sup> version only):

Type: RS-232  
 Mode: 9,600 or 115,200 baud, 8 data bits, 1 stop bit, no parity, no flow control  
 Commands: Play, Record, Stop, File Download, Status, etc.  
 Connection: 3 pin pluggable terminal

#### Control I/O:

Control Inputs: Record, Stop, 8 individual message Start contacts.  
 ICM-25(Optional): Add to the MacFi-mp<sup>e</sup> for 25 more start inputs per module.  
 Status Outputs: Playing, Sync(MacFi-mp<sup>e</sup> version only)  
 Output Type: Dry relay contact, 1A @24VDC non-inductive load  
 Connection: Pluggable terminal

#### Mechanical:

Package: Wall mount chassis, 10" W x 8" D x 1.5" H  
 Material: 18 gauge cold rolled steel chassis; black powder coat, white silkscreen  
 Rack mount(option): 1U adapter

#### Regulatory Agency Approvals:

FCC, Part 15, Class A; UL/CSA approval on external power pack(sold separately)

Specifications and Pricing are subject to change without notice