

# MACKENZIE

## MacFi-SE

### MP3 DIGITAL AUDIO RECORD / PLAY SYSTEM

#### 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
- SD Card memory, no battery backup required
- Completely dynamic message lengths
- Line and Microphone inputs
- Line and Speaker outputs
- Shock and vibration resistant
- Several playback modes
- Playing and Sync relay
- Rack mount kits available as an option
- Serial control, setup and audio file transfer
- MPEG 1, Layers 1, 2 & 3 playback capability
- USB port for transferring audio files using memory key
- 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-SE offers higher fidelity and larger message capacity than its predecessor. The MacFi-SE incorporates a MPEG processor for record and playback quality of up to 15kHz bandwidth. With its increased capacity, the MacFi-SE 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. A FAT formatted SD memory Card allows 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 trigger inputs are available on the remote control terminal while the remainder may be accessed by the pushbutton user interface, the Serial (RS-232) interface, or through use of ICM25 input extenders.

The MacFi-SE includes extended functionality in the base model that includes a Serial (RS-232) interface and synchronization relay. Push buttons and LED indicators of the MacFi-SE are located on the front of the system for better accessibility in rack mount applications. The Serial interface of the MacFi-SE allows for complete control of recording and playback as well as customization of default operational settings. Audio files may be mastered on a PC and then digitally transferred to the MacFi-SE in MPEG 1 Layer 1, Layer 2, Layer 3 (MP3), or WAV file formats.

The MacFi-SE utilizes an internal SD Card 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-SE offers a standard one year warranty and is proudly manufactured in the USA.

#### Models and Accessories Available:

MacFi-SE	Standard version, 30+ hours of local recording (2GB)
ICM-25	Adds 25 start contacts to the MacFi-SE. Multiple units may be used.

*Making A Difference, One At A Time*

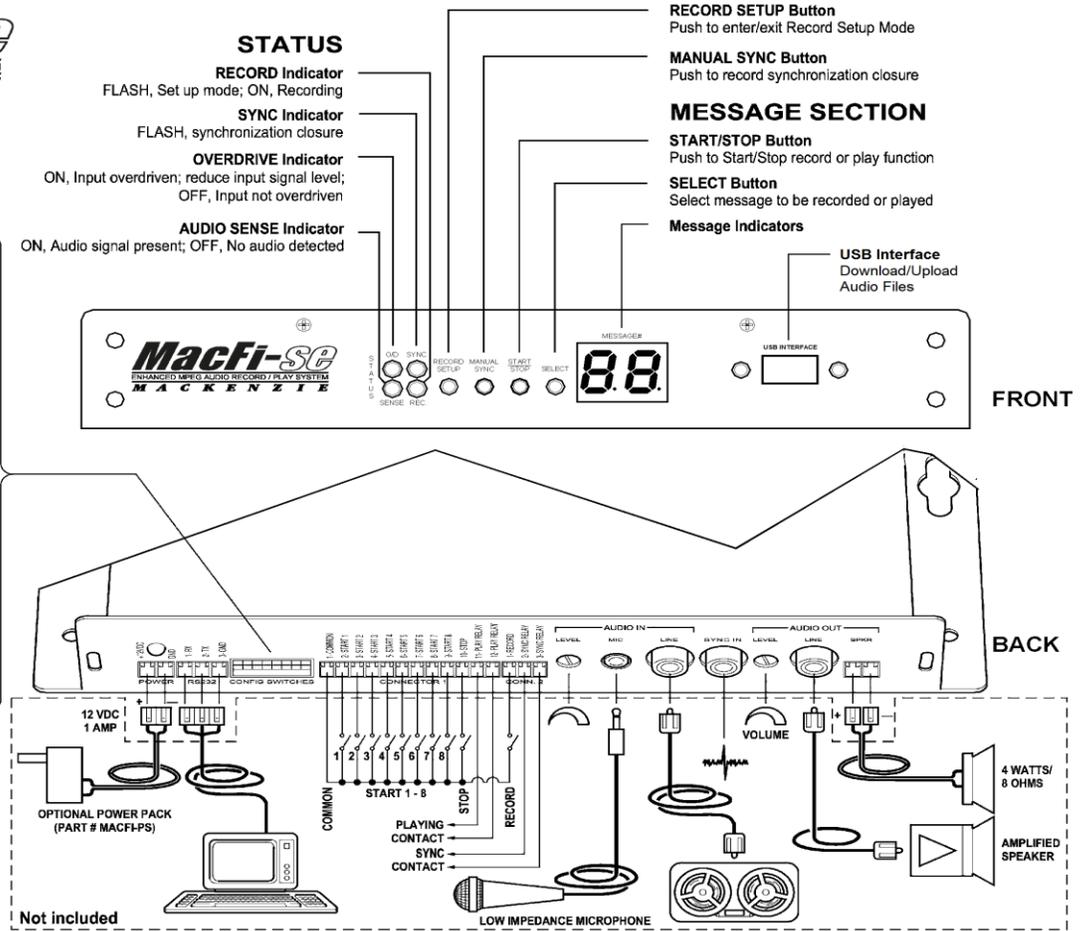


### CONFIG SWITCHES

☐ OFF    ☑ ON

- |   |   |                                  |
|---|---|----------------------------------|
| 1 | 2 | <b>Repeat</b>                    |
| ☐ | ☐ | Play message <b>One</b> time     |
| ☐ | ☐ | Play message <b>Two</b> times    |
| ☐ | ☐ | Play message <b>Three</b> times  |
| ☐ | ☐ | Play message <b>Four</b> times * |
| 3 | 4 | <b>Delay</b>                     |
| ☐ | ☐ | 1 sec delay                      |
| ☐ | ☐ | 5 sec delay                      |
| ☐ | ☐ | 10 sec delay                     |
| ☐ | ☐ | 30 sec delay *                   |
| 5 | 6 | <b>Operation Mode</b>            |
| ☐ | ☐ | Standard Operation               |
| ☐ | ☐ | Play one sequence per closure    |
| ☐ | ☐ | Play while active                |
| ☐ | ☐ | Re-trigger                       |
| 7 |   | <b>Play Next</b>                 |
| ☐ |   | Disable                          |
| ☐ |   | Enable                           |
| 8 |   | <b>Memory Protect</b>            |
| ☐ |   | 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-SE, and 16 bit WAV files

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

#### Sync Input:

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

#### Audio Output:

Line: 600Ω, transformer isolated, RCA  
 Amplified: 4 watts into 8 ohm, 2 pin pluggable terminal  
 Level: Potentiometer

#### Audio Memory:

Type: SD Card  
 Capacity: 2GB minimum, 30+ hours of storage time

#### Serial Interface:

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

#### Power Requirement:

Input Voltage: 12VDC, 1 Amp  
 Connection: 2 pin pluggable terminal

#### Control I/O:

Control Inputs: Record, Stop, 8 Message Start contacts.  
 ICM-25 (Option): Add to the MacFi-SE for 25 more start inputs per module.  
 Status Outputs: Playing, Sync  
 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  
 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

**MACKENZIE LABORATORIES, INC.**

1163 Nicole Court  
 Glendora, CA 91740 ■ USA

Tel: (909) 394-9007 ■ Fax: (909) 394-9411

Web: [www.macklabs.com](http://www.macklabs.com)

Email: [info@macklabs.com](mailto:info@macklabs.com)