

RAD-01

Dual Compact Flash MP3 Player

Australian Designed
And Made

By **ELAN** Audio



The Elan Audio RAD-01 Dual Compact Flash MP3 Player, is a logical development of the very popular REP-01 Emergency Program Source, designed primarily for installation on Radio Broadcast Transmitter Sites as a reliable Back -Up Program Source to replace CD Players

The RAD-01 is virtually a self contained Digital Audio Delivery System and will not only serve as an emergency player, but also suitable as a full or part time Programme Source for Broadcast and Public Address applications

Envisaged Applications for the RAD-01 Dual Compact Flash MP3 Player

- * Night Time Broadcast Audio Delivery System
- * Emergency Program Delivery during upgrade or failure of Digital Studio System
- * HPON or LPON Broadcast Program Audio Source
- * Broadcast or Wired Tourist or other Information Services
- * Stores Background Music System with Commercials
- * Hotel Background Music System with Messages
- * Advanced Transmitter Site Emergency Program Delivery System
- * Audio Delivery System during Test Transmissions

Technical Features

Attractive 1 RU Rackmount Casing - Switchmode Power Supply accepting 90 to 260 V AC - Outputs Switchable from Stereo to Mono - Balanced XLR + 4 dBu Stereo or Mono Outputs - Unbalanced RCA 300 mV Stereo or Mono Outputs - Pre Emphasized BNC Mono Output for feed direct to FM Transmission System - Diagnostic or Special Function RS-232 Control Port on DB-9 Connector - Front Mounted Stereo Headphone Socket - Run on Power Up Switch - External Run on Contact Closure Input

Operational Features

Two Compact Flash MP3 Players - Each Player will accept up to 4 GB Compact Flash Media Card - Removal of Media prevented by Screw On Cover - Media Copy Protection Facility - Left Player normally used for "Music" - Right Player normally used for "Spots" - Music to Spot Ratio selectable from 1:1 to 15:1 - Plays 64 K Bit/Sec to 256 K Bit/Sec MP3 Audio Files - Music Tracks Delivered in Pseudo Random Sequence - Spot Tracks Delivered in Actual File Sequence - Ready and Run LED Status Indicators for each Compact Flash Player - Step Switch to test Sequence and Audio Files

Operational Advantages

Highly Reliable Design - No Hard Drives or other Moving Parts - Unlike a PC Mains Power Failure will not Upset or Corrupt Program or Settings - Up and Running in 6 Seconds after Mains Power is Restored - Extremely Easy to Use and Operate - Suitable for Unattended Operation

Special Background Music Version

A Special version of the RAD-01 intended for Background Music Applications, Housed in a Component Hi-Fi Style Cabinet with "Custom Labeling" is available to special large quantity orders

RAD-01 designed and Manufactured in Western Australia by

Elan Audio. 2 Steel Court. South Guildford. Western Australia. 6055
Phone 08 9277 3500. Fax 08 9478 2266. Email sales@elan.com.au
www.elan.com.au

RAD-01 Basic Technicalities

The Block Diagram on the bottom of this page show essential technical details of the RAD-01 Dual MP3 Audio Delivery System

The two Compact Flash MP3 Players are substantially identical with one dedicated to playback of "Music", and the other dedicated to playback of recorded "Spots" such as Station Idents, Announcements, Commercials etc. The Music Player delivers audio tracks in a "Pseudo Random" File Sequence making it impossible for a Music Track to play Back to Back.

The Spot Player delivers audio tracks in strict File Sequence to ensure that all recorded material is played

As supplied from the factory, both CF Players are set to play ordinary MP3 Audio Files

An internal 8 way DIP Switch, 4 switches per player is provided to handle MP3 files “Copy Protected” by special Data Bits and File Extensions

For near CD Audio Quality, a minimum Bit Rate of 160 K Bit/Sec is suggested which will on a 512 MB CF Card give about 6 Hours 50 Minutes or 110 normal Pop Music Tracks or a staggering 55 Hours 20 Minutes or 900 Songs on a 4 GB Compact Flash Card

For pleasant and non fatiguing sound, particularly for Background Music, we strongly suggest that the volume level of all audio files be adjusted to provide subjectively constant loudness or volume

This can be done by using an expensive Broadcast Audio Processor, or MP3GAIN, a free Computer Program available from several internet sites

MP3GAIN works by first assessing the subjective loudness of an audio file, and then adjusts the audio level or gain of the file to give correct and pleasant constant loudness or volume

Unfortunately, the majority of the so called “Normalizing” programs sense the loudest peaks in an audio file, adjust the gain to handle these and may in fact increase the the subjective level differences between different audio files and is for that reason not satisfactory

Other features include indicator LED's for each CF Player and a Step Switch to assist in checking operation

An 8 way DIP Switch located on the rear panel selects various functions

Switch 1 to 4, Select Music to Spot Ratio from 1:1 to 15:1, Switch 5 Start where stopped or Start from Track 1, Switch 6, Select Random or Sequential, Switch 7, Run on Power Up or Run on External Contact Closure, Switch 8, Select Stereo or Mono Output

Program Outputs are

+4 dBu Balanced Stereo or Mono as selected via XLR Male Connectors

300 mV Unbalanced Stereo or Mono as selected via RCA Connectors

Adjustable 0 dBu (0.775V RMS) to 3.5V PP Mono Pre Emphasized via BNC Connector

RAD-01 Block Diagram

