

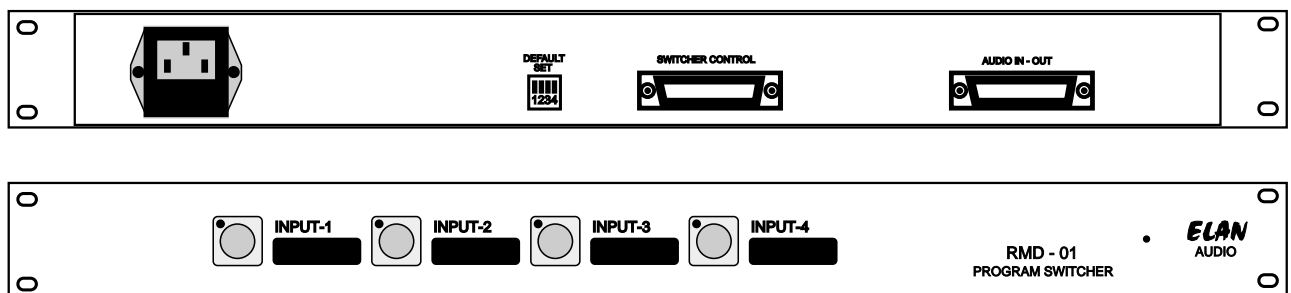
# ELAN Audio

## PROMOTIONAL

### Rack Mounting Program Switcher

Stereo 4 Input 1 Output  
Audio Program Switcher  
with Local and External Control

## Type RMD-01



Front and Back view

RMD-01 4 input Stereo Program Switcher

Manufactured in Western Australia

By Elan Audio 2 Steel Court South Guildford W.A.

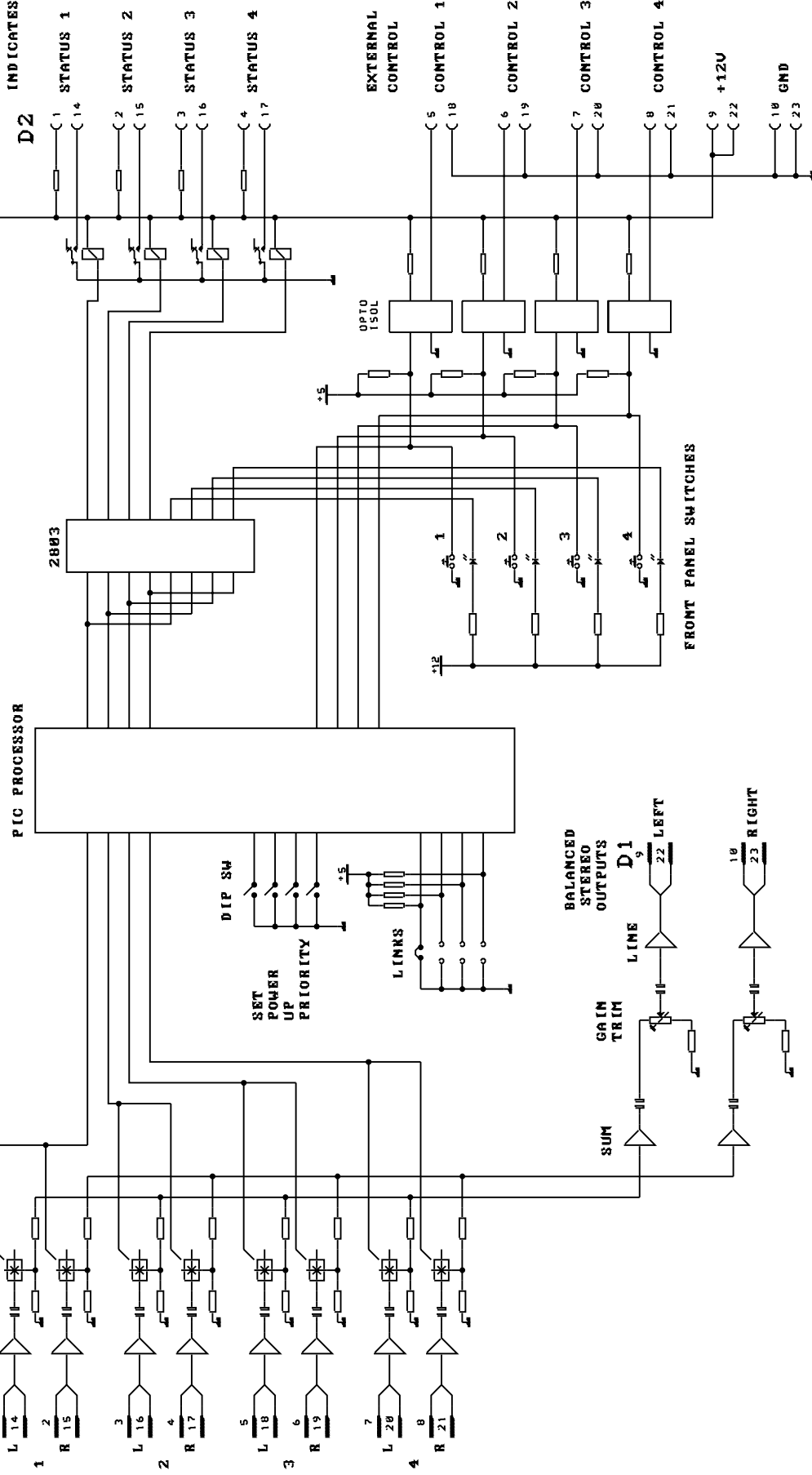
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BALANCED  
STEREO  
INPUTS

D1  
1 2 3 4 5 6 7 8



**ELAN AUDIO**  
AUSTRALIA

Title RACKMOUNTING MINI STEREO  
DELEGATION SWITCHER

Size Number RMD-01 Revision

A3

Date: 6-NOV-2008 Sheet 01

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## RMD-01 Program Switcher.

### Functional description.

The RMD-01 Program Switcher, is a versatile Program Switcher provided with 4 balanced Stereo Inputs and 1 balanced Stereo Output.

It has a built in AC Power Supply and is constructed as a self-contained 19" Rackmounting unit occupying 1 RU of Rack space.

The RMD-01, although designed primarily as a simple and economical "Mini Delegation Switcher" for use in small Commercial and Community Radio Broadcast Stations have many other potential applications.

All Audio Inputs are Differential Balanced and Bridging.

Audio Switching is accomplished by SSM 2404, click free Audio Switching IC's, and arranged to allow Mixing as well as Excluding operation (1 input active at a time).

Line outputs are Differential Balanced using the SSM 2142 Balanced Line driver IC's.

The RMD-01 is extremely versatile and have as standard 5 distinct functional modes of operation set internally by moveable links and controlled by a PIC Microprocessor.

In addition, a 4 position DIP Switch accessed from the rear panel will program the RMD-01 to switch or default to a particular input or combination of inputs to the output on Power-Up.

This is a particularly useful feature for Radio Stations operating an unattended Automation Program, where a temporary Mains Power failure could upset pre-set switch conditions, and cause loss of program when Mains Power is returned.

Control is direct from the Front Panel Mounted Push-Button switches on the RMD-01, and by external control switches connected to the unit via the rear panel mounted Female "D" connector D2.

Control from a Personal Computer via a suitable interface, from other digital equipment or Time Clocks etc is also possible and limited only by the users imagination.

Control inputs are effectively in parallel with the front panel switches, and protected by Opto-couplers, polarised to 12V DC, and are active low.

Indication of switched status is shown by LED's on the front panel switches, and also appear on Relay Contacts on the rear panel via D2.

The Relay Contacts switch to ground to indicate an active audio input.

### Modes of Operation.

#### Mode-1; No Link Inserted. (Excluding Operation).

1 input only, active at one time.

Momentary press of front panel or external switch will activate input crosspoint.

Any other active input will clear.

Input selected by DIP switch on rear panel will activate as default on Power Up.  
Only 1 DIP switch allowed to be set for default input.

**Mode-2; Link 1 only inserted. (Excluding operation).**

1 input only, active at a time.  
Intended for 2 Studio, Automation and Satellite feed operation as a Pre-Release/Take system.  
Momentary press of front panel or external switch for Studio 1 or 2 will take active input from Automation or Satellite and transfer to Studio 1 or 2.  
To release Studio 1 to Studio 2, press Studio 1 switch, indicator will flash slowly for 60 seconds.  
Studio 2 can take input while indicator is flashing.  
Flashing will stop after 60 seconds, Studio 2 cannot take input if indicator is not flashing.  
To release Studio 2 to Studio 1, press Studio 2 switch, indicator will flash slowly for 60 seconds.  
Studio 1 can take input while indicator is flashing.  
Flashing will stop after 60 seconds, Studio 1 cannot take input if indicator is not flashing.  
To release Studio to Automation or Satellite feed, same principle as above.  
Set DIP switch for wanted default input.  
Only 1 DIP switch allowed to be set for default input.

**Mode-3; Link 2 only inserted. (Combined Mix and Excluding operation).**

Input 1 is main program input, 2,3 and 4 are Automation Mix Default.  
Maintained closure to ground of control line 1 will activate 1 and deactivate 2, 3 and 4.  
Release control line 1 will activate 2, 3 and 4.  
Set DIP Switch 2, 3 and 4 to on.  
Inputs 2, 3 and 4 will default to output on Power Up.

**Mode-4; Link 3 only inserted. (Mixing operation).**

Inputs 1 and 2 can be active at the same time, and mix audio.  
Maintained closure to ground of control lines 1 or 2 or both will activate one or both input crosspoints.  
Release both maintained closures will switch input crosspoint 3 on.  
Input 3 or 4 may be selected by DIP switch as default input on Power Up.  
Only 1 DIP switch allowed to be set.

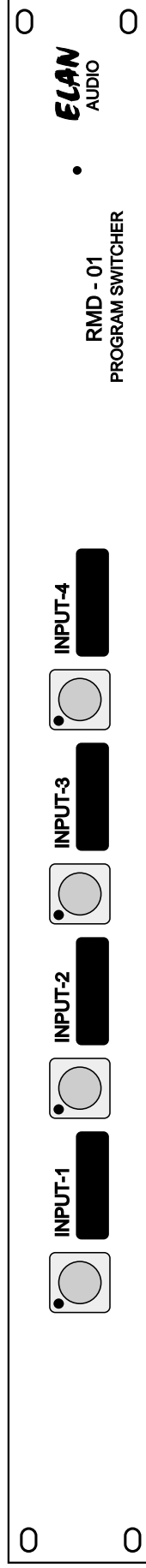
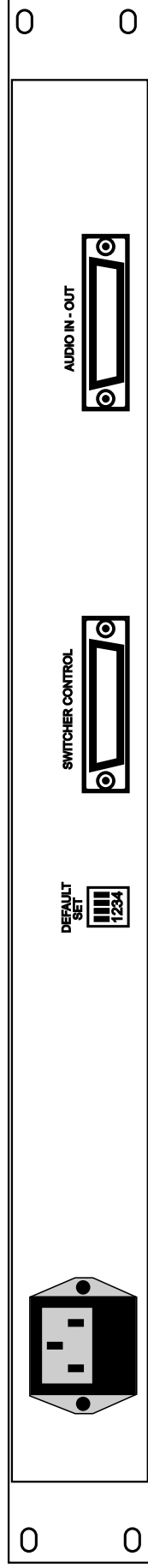
**Mode-5; Link 4 only inserted. (Mixing Operation).**

All inputs can be active at the same time, and mix audio.  
Maintained closure to ground of any of the control lines will activate its associated crosspoint.  
All DIP Switch positions should be set to Off.

**Technical Specifications.**

Inputs; Differential Balanced Bridging.  
Outputs; Differential Balanced 50 Ohms.  
Operating Level; Nominal +4 dBu. Maximum + 26 dBu. (Clip Level)  
Freq Response; +0 –1 dB 10 Hz to 80 KHz.  
THD; 0.01%.  
Signal to noise; 105 dB WRT +12 dBu 20 Hz to 20 KHz.  
Off Isolation @ 20 KHz: 80 dB.  
Crosstalk @ 20 KHz; Left to Right 71 dB Right to Left 75 dB.

Power supply; 230-250 V AC 50 Hz 15 VA.



Front and Back view

## RMD-01 4 input Stereo Program Switcher

# Suggested applications for RMD-01 as Delegation Switcher

