RDL® Radio Design Labs™

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

RACK-UP® SERIES
Model *max* RU-SPD4
Digital Audio Distributor

ANYWHERE YOU NEED...
- SPDIF Signal Distribution (1 x 4)
- Operation Up to 24 bits, 96 kHz
- Exclusive *Sure-Lok*™ Auto-Recovery Sentinel
- Transformer Isolated Input / Outputs
- Digital Signal *Reclocking*
- Digital Signal **LOCK** Indication

You Need The RU-SPD4!

The RU-SPD4 is part of the group of versatile *Max Series* RACK-UP products from Radio Design Labs. *Max Series* RACK-UPs feature all metal chassis and the advanced circuitry for which RDL products are known, combined with accessible, user-friendly controls and displays. The compact design permits high-density installations, with *three* products mounted in a single rack unit! Optional brackets permit mounting a *Max Series* RACK-UP module above, below, or in front of any flat surface. Optional rack-mount adapters (RU-RA3) are available for *Max Series* RACK-UP series installation. *Max Series* RACK-UP modules may be used freestanding as well.

APPLICATION: The RU-SPD4 is the ideal choice in installations requiring high quality distribution of a digital SPDIF signal. A single SPDIF input is decoded, reclocked and retransmitted to four individually buffered, transformer-isolated, electrical SPDIF outputs and four corresponding optical outputs.

The RU-SPD4 features two electrical inputs (phono and BNC) and one optical input. The electrical inputs are 75 Ω terminated. Any one of the three input jacks may be used. Four distributed SPDIF outputs are available. Each output is available on a phono jack, BNC jack or optical connector. Separate buffer amplifiers and output transformers for each output provide isolation between electrical outputs. The RU-SPD4 is powered from 24 Vdc which may be connected through the barrier block or through the dc power jack. A front-panel power switch is provided. All inputs and outputs are available on the rear panel.

The RU-SPD4 front panel provides a **POWER** LED and a green **LOCK** LED. The **LOCK** indicator is illuminated whenever the module is locked to a valid AES/EBU digital source without any phase-lock or bit errors.

A frequent problem encountered with consumer and professional quality digital audio equipment is unpredictable latch-up when digital signals are switched or connected to the input. *Sure-Lok*™ auto-recovery circuitry unique to the RU-SPD4 monitors the most frequent causes of latch-up and reinitiates digital signal lock, bringing a new higher level of stability to digital audio signal distribution under the variety of conditions encountered in professional environments.
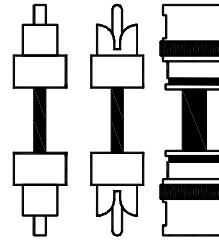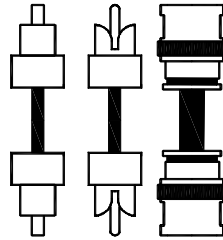
Wherever broadcast quality digital signal distribution is required, the RU-SPD4 is the ideal choice. Use the RU-SPD4 individually, or combine it with other RDL products as part of a complete audio/video system.

RU-SPD4
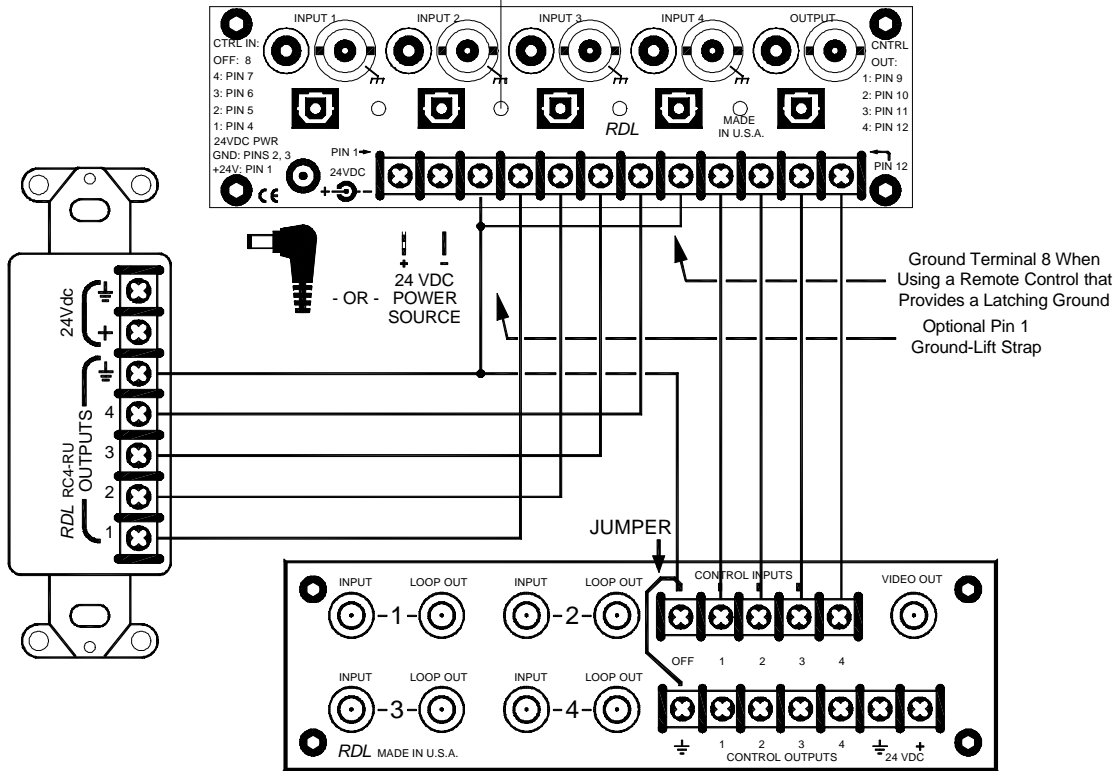## Typical Connections

Consumer
SPDIF Source
Use only one of the available input
formats on a channel at a time

Install Screw (provided)
to Ground Input Shields
(recommended for RF
suppression)

SPDIF Output to
Other SPDIF
Equipment
Use only one of the
available outputs at a time

INPUT 1   INPUT 2   INPUT 3   INPUT 4   OUTPUT

CTRL IN:
OFF: 8
4: PIN 7
3: PIN 6
2: PIN 5
1: PIN 4
24VDC PWR
GND: PINS 2, 3
+24V: PIN 1

CNTRL
OUT:
1: PIN 9
2: PIN 10
3: PIN 11
4: PIN 12

PIN 1
24VDC

RDL

MADE
IN U.S.A.

PIN 12

- OR -

24 VDC
POWER
SOURCE

Ground Terminal 8 When
Using a Remote Control that
Provides a Latching Ground

Optional Pin 1
Ground-Lift Strap

24Vdc

RDL RC4-RU
OUTPUTS
4
3
2
1

JUMPER

INPUT   LOOP OUT   INPUT   LOOP OUT   CONTROL INPUTS   VIDEO OUT

-1-   -2-

OFF   1   2   3   4

INPUT   LOOP OUT   INPUT   LOOP OUT

-3-   -4-

RDL MADE IN U.S.A.

1   2   3   4
CONTROL OUTPUTS   24 VDC

TYPICAL PERFORMANCE

Input:	75 Ω SPDIF phono, BNC (transformer isolated), or optical		
Outputs (4):	75 Ω SPDIF phono, BNC (transformer isolated), or optical		
Sample Rate:	32 kHz – 96 kHz		
Resolution:	16 to 24 bits		
Indicators (2):	**POWER** LED and **LOCK** LED (**LOCK** indicates locked to a valid signal)		
Standards:	IEC958, S/PDIF and EIAJCP340/1201		
Power Requirement:	24 to 33 Vdc @ 160 mA, Ground-referenced		
Mounting:	Rack-mount using optional rack adapters such as RU-RA3; or operate freestanding		
Dimensions:	Height:	1.7 in	4.3 cm
	Length:	5.8 in	15.0 cm
	Depth:	3.5 in	8.9 cm
EMC:	CE		