ᵐᵃˣRACK-UP® SERIES
Model RU-ADL2
Professional Audio Delay

ANYWHERE YOU NEED...

- Studio Quality, Low Noise DSP Audio Delay
- Separate Time Delays for Two Audio Outputs
- Adjustable Delay from 0 to 135 mS
- Large Numeric Display of Time Delay
- Keyboard Style Buttons to Adjust Time Delay
- Fully Remote Controllable Audio Delay
- Provision to Disable Front Panel Adjustment
- XLR and Terminal Block Audio Connections
- Exclusive RDL 𝗦𝘂𝗿𝗲-𝗟𝗼𝗸™ Supervision

You Need The RU-ADL2!

The RU-ADL2 is a DSP based dual-output delay for an analog audio source. 96 kHz sampling provides exceptional audio performance for the most critical applications in a professional audio environment. Proprietary RDL 𝗦𝘂𝗿𝗲-𝗟𝗼𝗸 circuitry and coding supervises audio and data signals for the accuracy and stability demanded in professional installations. The RU-ADL2 is part of the group of RDL RACK-UP products. The compact design permits high-density installations, with three products mounted in a single rack unit. The RU-ADL2 may be used alone, or mounted using a wide variety of RACK-UP series options.

APPLICATION: The RU-ADL2 is the ideal choice in most applications where one or two delayed balanced or unbalanced line-level signals are required. All audio connections are made through XLR connectors or on full sized barrier block terminals provided on the rear panel. The RU-ADL2 may be used as a standalone delay, or its input may be connected in parallel with multiple RU-ADL2 modules to provide additional delayed outputs.

The RU-ADL2 accepts a single monaural audio input and provides two separate monaural outputs. The time delay on each output is individually adjustable from 0 to 135 mS. A large, bright 3-digit LED numeric display on the front panel shows the time delay set for each of the two outputs. A locking pushbutton switch selects the output to be displayed and adjusted. Time adjustment is made using durable keyboard style pushbuttons on the front panel. A separate button is provided to increase or decrease delay. Pressing a button will change the time delay in 1 mS increments. If a button is held, the time will first ramp slowly, then more rapidly permitting easy coarse and fine adjustment of the time delay. A locking pushbutton permits the user to completely bypass the DSP time delay section without losing the stored delay values.

Rear panel terminals provide full remote control of the RU-ADL2. Each function is activated by pulling the associated terminal to ground, either through a switch or open-collector circuit common to RDL modules and many OEM products. The output to be adjusted may be selected by remote control, then the time delay for that output may be ramped up or down. Time delay values are stored in non-volatile memory so the RU-ADL2 returns to the correct settings following any interruption of power. In fixed installations, it is often desirable to set the correct delay times and not permit user adjustment of these values. After initial setup, the installer may connect a jumper from the **LOCKOUT** terminal to ground to disable the operation of the front-panel time adjustment buttons. Those buttons remain disabled and the **LOCKOUT** indicator remains illuminated until the jumper is disconnected. The front-panel time display and **BYPASS** buttons remain active when the **LOCKOUT** jumper is installed.

The **INPUT GAIN** is adjustable and is equipped with a front-panel dual-LED **LEVEL** meter that follows standard VU ballistics. A green LED illuminates at 15 dB below +4 dBu, becoming progressively brighter with increasing audio level. The adjacent red LED illuminates when the audio level exceeds +4 dBu. The output levels are fixed at nominal unity gain. The RU-ADL2 operates from ground-referenced 24 VDC power, connected either to barrier block terminals or through a power jack on the rear panel.

The easy front-panel time adjustment makes the RU-ADL2 ideal in studio, remote or satellite downlink applications requiring manual synchronization of audio with video. The small size of the RU-ADL2 accommodates portable use in temporary sound reinforcement applications. The front-panel lockout provision is ideal in many fixed sound installations. Mounting options and studio-quality audio performance make this module the ideal choice in a wide variety of systems. Wherever an economical yet superior performance line-level audio delay is needed to provide synchronization, speaker array time alignment, acoustic effects or feedback suppression, the RU-ADL2 is the ideal choice. Use the RU-RA3HD rack-mount adapter to mount multiple RU-ADL2 Audio Delays, or to combine related products (such as audio or video distribution, or audio metering) into a single rack unit!
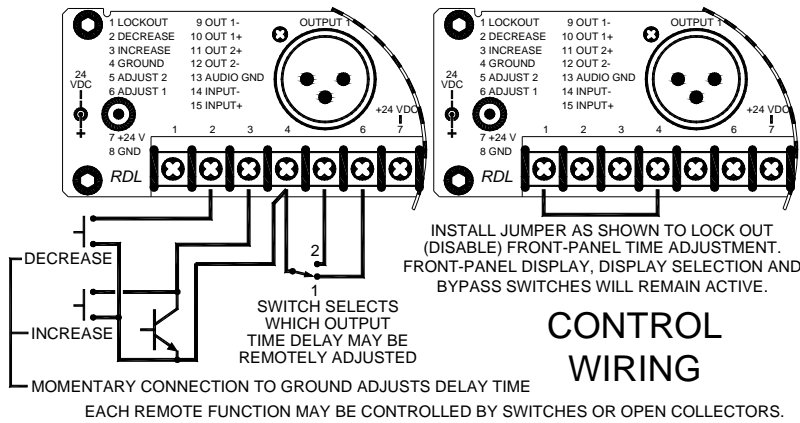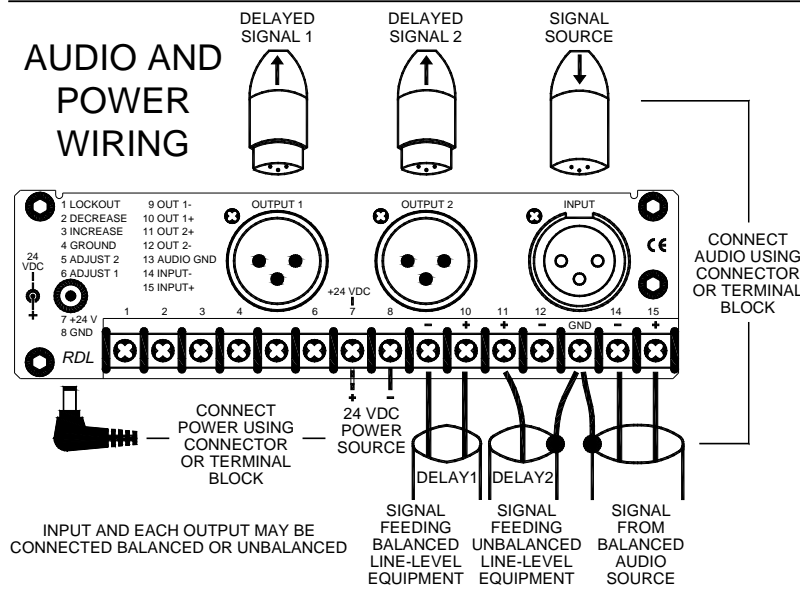
*max*RACK-UP® SERIES
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Installation/Operation

EN55103-1 E1-E5; EN55103-2 E1-E4
Typical Performance reflects product at publication time exclusive of EMC data, if any, supplied with product. Specifications are subject to change without notice.

AUDIO AND POWER WIRING

CONTROL WIRING

TYPICAL PERFORMANCE

Line Input:	+4 dBu nominal, 40 kΩ balanced (may be connected unbalanced)
Maximum Line Input Level:	+26 dBu
Gain Adjustment:	Off to 16 dB gain
Frequency Response:	20 Hz to 20 kHz (+/- 0.5 dB)
THD+N:	< 0.05%
Residual Noise (below +4 dBu output):	< -80 dB
Outputs (2):	+4 dBu nominal, 150 Ω balanced (may be connected unbalanced)
Delay Adjustment Range:	0 to 135 mS in 1 mS steps
Propagation Delay:	None (1 to 135 mS delay); 180 uS (0 mS delay)
Headroom (above +4 dBu output):	>18 dB
Indicators (5):	Dual-LED VU meter for input
	LOCKOUT indicator
	BYPASS indicator
	TIME DISPLAY (2)
Display:	3 digit display, Height: 0.4 in. (1 cm); 0 to 135 mS in 1 mS increments
Power Requirement:	24 Vdc @ 275 mA, Ground-referenced

Overall Dimensions:			
	Height:	1.7 in.	4.3 cm
	Length:	5.8 in.	15.0 cm
	Depth:	5.3 in.	13.4 cm

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rule. These limits are designed to provide reasonable protection against harmful interference in a residential installation. The equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off an on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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