



**RDL**<sup>®</sup>  
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

## RACK-UP<sup>®</sup> SERIES

### Model RU-SC2

### Serial Converter

#### ANYWHERE YOU NEED...

- Conversion From RS-232 to RS-422
- Full-Duplex Communication
- Serial Data Up To 4000 Feet
- Simultaneous Transmit/Receive
- Rack-Mountable Convenience



#### *You Need The RU-SC2!*

The RU-SC2 is part of the group of versatile RACK-UP products from Radio Design Labs. The RACK-UP series features the advanced circuitry for which RDL products are known, combined with accessible, user-friendly controls and displays. The ultra-compact design permits high-density installations, with *three* products mounted in a single rack unit! Single RACK-UPs can be mounted right where they are needed using the adhesive methods popularized by RDL's STICK-ON<sup>®</sup> series of products. Optional brackets permit mounting a RACK-UP module above, below, or in front of any flat surface. Optional rack-mount adapters (RU-RA3, RC-1U) are available for conventional RACK-UP series installation.

**APPLICATION:** The RU-SC2 is the ideal choice in installations when two RS-232 devices requiring full-duplex communication are to be connected at a long distance. Connection to the RS-232 device is made on the front panel. The RS-422 input and output connections and power connections are made on the rear panel through clearly identified, full-size barrier block terminals. When used with the optional RU-FP1, the RS-232 jack is accessible from the rear of the rack.

Two RU-SC2s may be connected (using the RS-422 connections) over a long distance using balanced, twisted-pair line to permit feeding data between two RS-232 ports. This allows serial communications over much greater distances than with conventional RS-232 serial cables.

The RU-SC2 converts both the RS-232 transmit and receive lines to RS-422 balanced, differential format. A separate balanced connection pair is provided for **TRANSMIT** and **RECEIVE**. Each converter in the RU-SC2 operates independently permitting transmit and receive data to be exchanged simultaneously.

Since communication can flow in both directions at the same time, there is no need for baud rate jumpers. The RU-SC2 operates at the speed of the data presented via the RS-232 connection. Separate front panel LEDs are provided to indicate when data is being transmitted and received.

The RU-SC2s are intended to be operated in pairs, extending the distance between two RS-232 devices. Two balanced pairs are required to interconnect the RU-SC2s. In applications requiring multiple users on a single pair, refer to the RU-SC1A RS-485 half-duplex interface.

The RU-SC2 is the ideal choice wherever serial protocol conversion or serial data transmission over extended distances is required. Use the RU-SC2 individually, or combine it with other RDL RACK-UP or STICK-ON products as part of a complete system.



**RDL**<sup>®</sup>  
Radio Design Labs

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™



## Installation/Operation

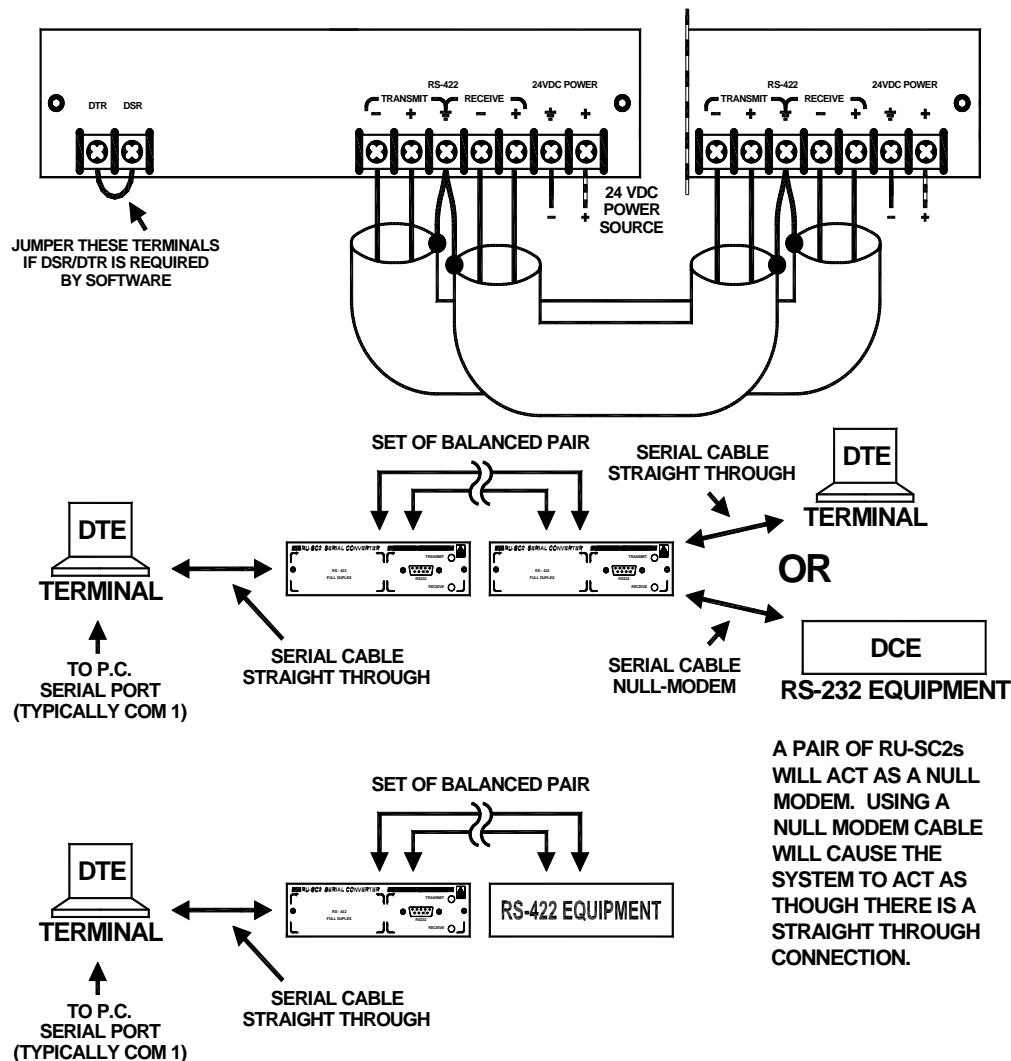
# RACK-UP<sup>®</sup> SERIES

## Model RU-SC2

### Serial Converter



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.



### TYPICAL PERFORMANCE

Input/Output (bi-directional):

Baud Rate:

Indicators (2):

Power Requirement:

Dimensions:

RS-232 (front panel-DB9 Female) to RS-422 (rear panel terminal block),  
Determined by RS-232 device, (up to 100 k baud)

LED indicators; **TRANSMIT** and **RECEIVE**

24 to 33 Vdc @ 125 mA, Ground-referenced

Height: 1.7 in. 4.3 cm

Length: 5.8 in. 15.0 cm

Depth: 2.0 in. 5.1 cm (case only)

2.5 in. 6.4 cm (including barrier block)

Radio Design Labs Technical Support Centers

U.S.A. (800) 933-1780, (928) 778-3554; Fax: (928) 778-3506

Europe [NH Amsterdam] (+31) 20-6238 983; Fax: (+31) 20-6225-287