RDL® Radio Design Labs®

SPECIALISTS IN PRACTICAL PRECISION ENGINEERING™

RACK-UP® SERIES
Model RU-SC1A
Serial Converter

ANYWHERE YOU NEED...

- Conversion From RS-232 to RS-485
- Conversion From RS-485 to RS-232
- Serial Data Up To 4000 Feet
- A Bi-Directional, Half-Duplex Serial Link
- A Fully Connectorized Interface
- Low or High Baud Rate

You Need The RU-SC1A!

The RU-SC1A 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® 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-SC1A is the ideal choice in installations where both RS-232 and RS-485 serial communications protocols are used. Both the RS-485 port and the RS-232 port are provided on the front panel of the RU-SC1A. 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 and RS-485 jacks are accessible from the rear of the rack.

The RU-SC1A is a bi-directional, half-duplex serial converter, exchanging data between the RS-232 and RS-485 ports.

Rear panel jumpers may be connected for operation at speeds below 9600. Front-panel LEDs are provided to show the direction of data flow when data is present from either the RS-232 or RS-485 sources.

Two RU-SC1As may be connected (via the RS-485 ports) over a long distance using balanced, twisted-pair line to permit feeding data between two RS-232 ports, This permits serial communications over much greater distances than with conventional RS-232 serial cables.

The RU-SC1A is the ideal choice wherever serial protocol conversion or serial data transmission over extended distances is required. Use the RU-SC1A individually, or combine it with other RDL RACK-UP or STICK-ON products as part of a complete system.
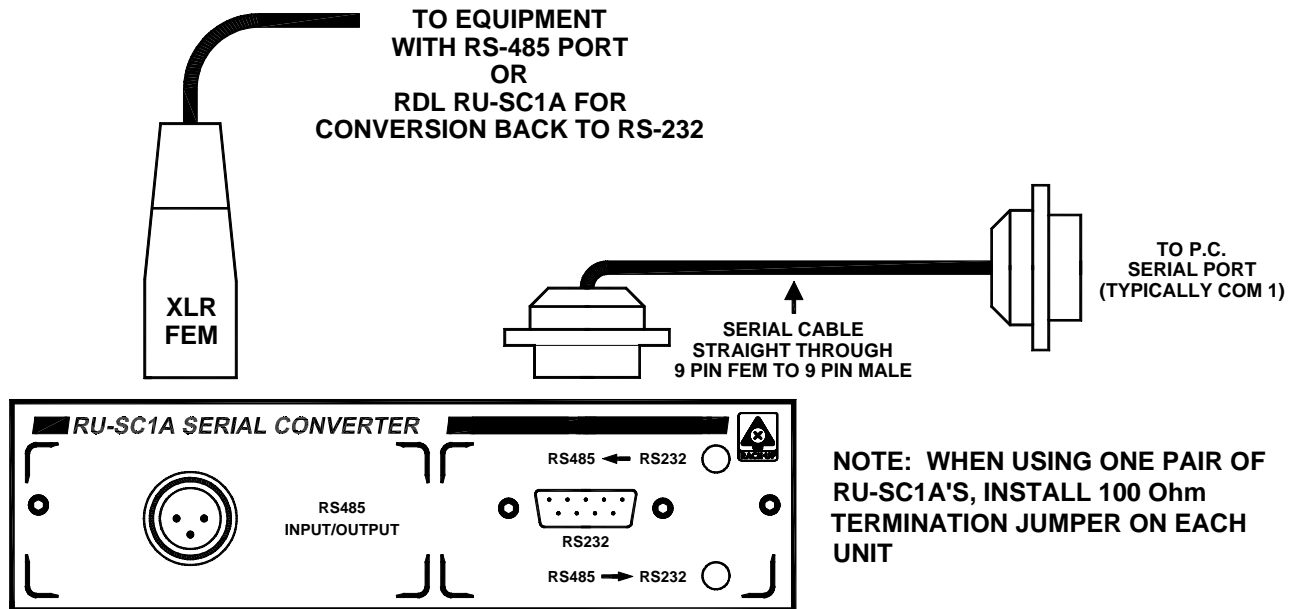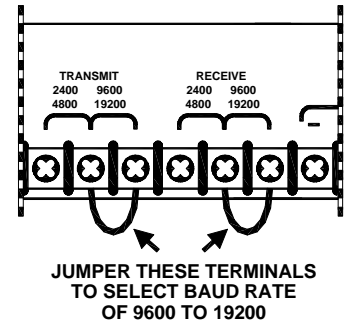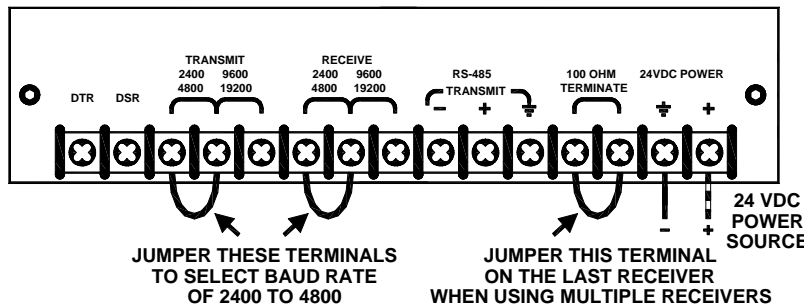
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Installation/Operation

$C\epsilon$ **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.

JUMPER THESE TERMINALS TO SELECT BAUD RATE OF 2400 TO 4800

JUMPER THIS TERMINAL ON THE LAST RECEIVER WHEN USING MULTIPLE RECEIVERS

24 VDC POWER SOURCE

JUMPER THESE TERMINALS TO SELECT BAUD RATE OF 9600 TO 19200

TO EQUIPMENT WITH RS-485 PORT
OR
RDL RU-SC1A FOR CONVERSION BACK TO RS-232

XLR FEM

TO P.C. SERIAL PORT (TYPICALLY COM 1)

SERIAL CABLE STRAIGHT THROUGH 9 PIN FEM TO 9 PIN MALE

RU-SC1A SERIAL CONVERTER

RS485 ← RS232

RS485 INPUT/OUTPUT

RS232

RS485 → RS232

NOTE: WHEN USING ONE PAIR OF RU-SC1A'S, INSTALL 100 Ohm TERMINATION JUMPER ON EACH UNIT

TYPICAL PERFORMANCE
Input/Output (Bi-Directional):	RS-232 (DB9 Female) and RS-485 (XLR Male)
Baud Rate:	9,600 through 19,200 (factory setting)
Alternate Baud Rate:	2,400 to 9,600 (rear terminal jumper selectable)
Indicators:	2 LED indicators; Data transfer **RS-485** to **RS-232**; **RS-485** to **RS-232**
Power Requirement:	24 to 33 Vdc @ 150 mA, Ground-referenced
Mounting:	Rack-mount using any one of several rack mount chassis accessories or other mounting accessories listed in the short form catalog or product CD-ROM

Dimensions:
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 and jack)