

+ QUICK START GUIDE



Model 422LCOR

2-Channel RS-232 to RS-422 Converter

Before you begin, be
sure you have the following:

- + 422LCOR Serial Converter
- + 12VDC Power Supply (sold separately)

Recommended Accessories

12 VDC Power Supply, 6 W,
Int'l AC Input, 2.5mm Plug
SMI6-12-V-P230-C1



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Product Overview

Extend RS-232 lines up to 4000 ft (1219 m)



422LCOR SPECIFICATIONS

Signals	Converts two RS-232 channels to RS-422
Signals Supported	TD, RD
LEDs	TD, RD
Power	10-30 VDC (required, sold separately)

1 Getting Started

Model 422LCOR, RS-232 to RS-422 converter converts unbalanced RS-232 signals to balanced RS-422 signals. The RS-422 Standard uses a balanced voltage digital interface to allow communications of 90k bits per second on cable lengths of 4000 feet (1200 m). Ten receivers can be connected to any one driver for use in multi-drop systems.

The RS-232 port uses a DB-25 female connector with pins 2 (TD input) and 3 (RD output) supported. Protective Ground (pin 1) and Signal Ground (pin 7) are also connected.

The RS-422 port uses a DB-25 male connector with the Send Data outputs on pins 2 and 14, and the Receive Data inputs on pins 5 and 17.

Protective Ground (pin 1) and Signal Ground (pin 7) are connected through to the RS-232 connector.

2 Polarity

The polarity of the two RS-422 lines must be correct. With no data being sent, the RS-232 line should be negative and the RS-422 "A" terminal should be negative with respect to the "B" terminal.

3 Termination Resistor

The wire recommended in the RS-422 Standard is number 24 AWG copper conductor, twisted-pair telephone cable with a shunt capacitance of 16pF per foot.

For long runs and/or high rates, it is recommended that the wires be terminated with a resistor at the receive end. The twisted pair usually used has an impedance of about 100 Ohms, therefore a 100 Ohm resistor is normally used for the termination. The RS-422 side requires more power as the transmission line is increased and as the termination resistor value is reduced, therefore it may be necessary to use a termination resistor larger than 100 Ohms.

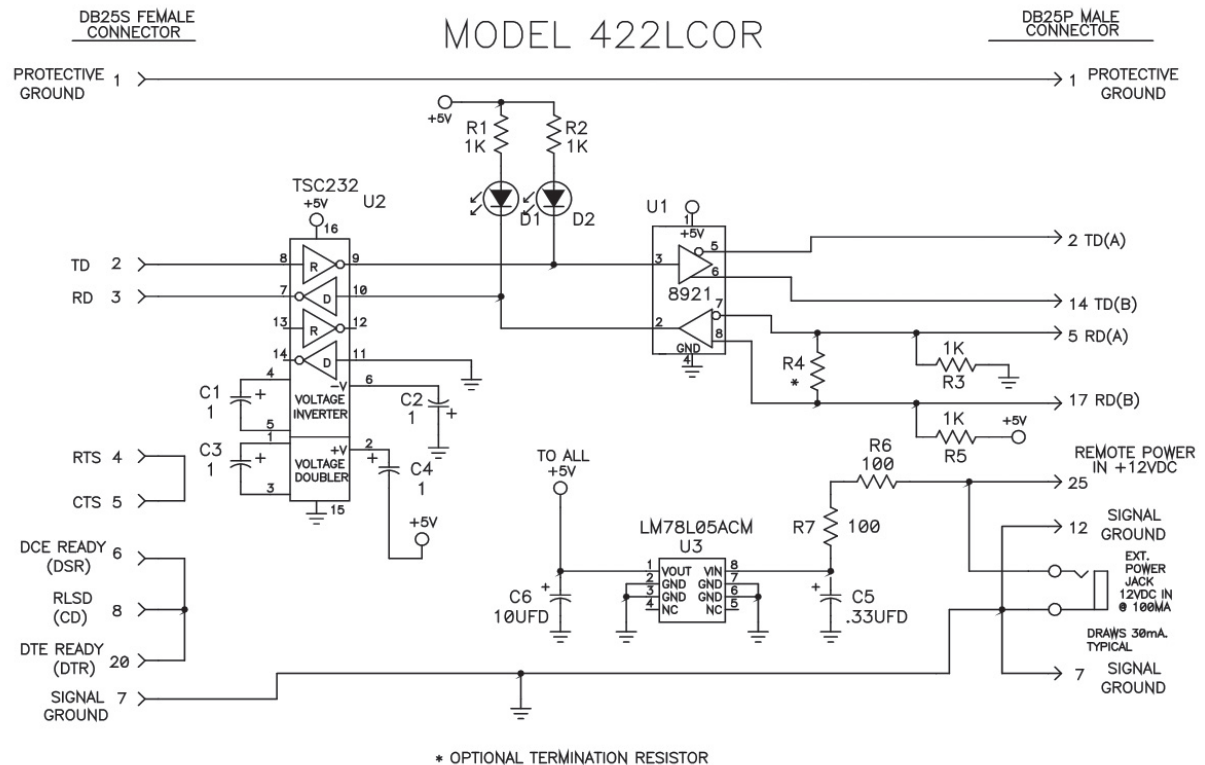


The RS-422 driver has the ability to drive 10 RS-422 receivers connected in parallel. A system of multiple receivers may require some experimentation with resistors, line lengths, grounding, etc.

4 Protective Ground

The RS-422 Standard recommends that Protective Ground (pin 1) be connected to a good "green wire" ground. This may be already connected in your RS-232 equipment.

Protective Ground and Signal Ground should be connected through to each end of the system and be connected to each other using a 100 Ohm 1/2 Watt resistor at one end only. If a shielded twisted pair is used the shield should be connected to Protective Ground.



422LCOR Schematic Diagram