

## Model 900 EIA/TIA RS-530 Interface Analyzer

- Led's Display Red, Green, & Off To Indicate Signal Status
- Easy to use; plug and play!
- Easy determination of proper data cable design.
- Ask about DB9 EIA/TIA RS-422 and EIA/TIA RS-485 adapter kits!

### INTRODUCTION

The Model 900 EIA/TIA RS-530 Interface Analyzer is a diagnostic tool designed for use at the standard EIA/TIA RS-530 data interface of modems, multiplexers, terminals, and computers. It is simply inserted in series between the DTE (Data Terminal Equipment) and the DCE (Data Communications Equipment) to provide access to and monitoring of all data, timing, and control signals.

The unit is of optimum design. It utilizes red and green light emitting diodes to clearly display polarity, activity, and validity of all interface signals. Miniature slide switches allow the user to program a 'make' or 'break' for each signal at the DCE/DTE interface. Mini-patchcords are provided for cross-patching or loopback patching of signals at the front panel test point array.

A complete table of EIA/TIA RS-530/530-A standard interface signal descriptions is provided inside the unit for ready reference during testing. A covered compartment provides secure storage for mini-patchcords and an EIA/TIA ribbon cable. The Model 900 is battery powered for complete portability, pocket sized for convenience, and packaged in a sturdy aluminum case with metal hinge for durability in field use.

### FEATURES:

- Logic face plate utilizes red and green LED's to clearly display polarity, activity, and validity of all interface signals.
- Displays all EIA/TIA RS-530/530-A interface signals.
- Supports EIA/TIA RS-530 and EIA/TIA RS-530-A.
- Separate EIA/TIA cable facilitates use at either DCE or DTE end.
- Test points to access all 25 pins of both DCE and DTE connector.
- Can also be utilized to determine custom cable designs.
- Portable: lightweight, pocket-sized, battery powered.
- External power supply optional. (Cat No 527205R)
- Rugged aluminum case and metal hinge that will NOT break!
- Tests synch or asynch modems, terminals, muxes.
- Eight mini-patchcords provided for cross-patching or loopback patching of signals at front panel test point array.
- Miniature slide switches allow the user to program a 'make' or 'break' for each signal at the DCE/DTE interface.
- DB25 ribbon extension cable conveniently permits installation into any application.
- Comprehensive User's Manual.
- **Municipalities, schools, government: This product on GSA Schedule!**

### EIA/TIA RS-530 Interface Analyzer



### POWER REQUIREMENTS:

The Model 900 is powered by two 9-volt batteries that are housed within the unit. The Model 900 may also be powered by an external DC power supply that is offered as an option. (See Cat No 527205R)

### WHEN POWERED BY 9 VOLT BATTERIES:

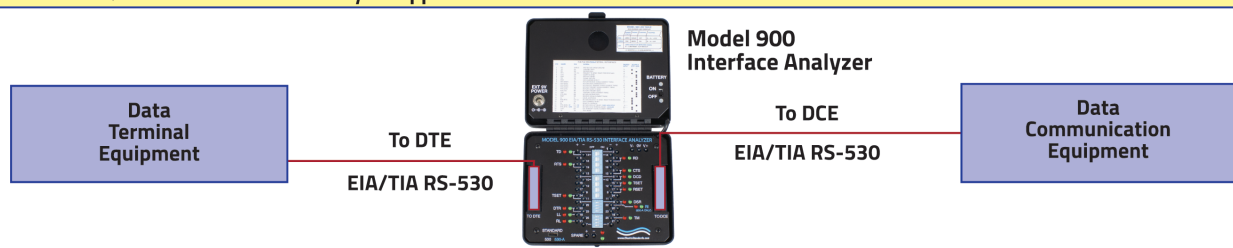
The included 9-volt batteries will provide 30 plus hours of use. The POWER switch must be turned ON in order to operate the unit. When not operating the Model 900, the POWER switch must be turned OFF in order to prevent battery drainage. Additional 9-volt batteries can be ordered, Cat No 525914

### OPTION: WIDE RANGE POWER MODULE

(Cat No 527205R) **CE, RoHS, and UL** listed table mount power module, 100VAC-240VAC, 50Hz-60Hz supplies 9 VDC to the unit. Has IEC 60320 C14 inlet. **Ideal for international applications.**

Note: When this external power supply module is used to power the Model 900, the batteries will automatically be disconnected in order to extend battery life.

### Model 900 EIA/TIA RS530 Interface Analyzer Application



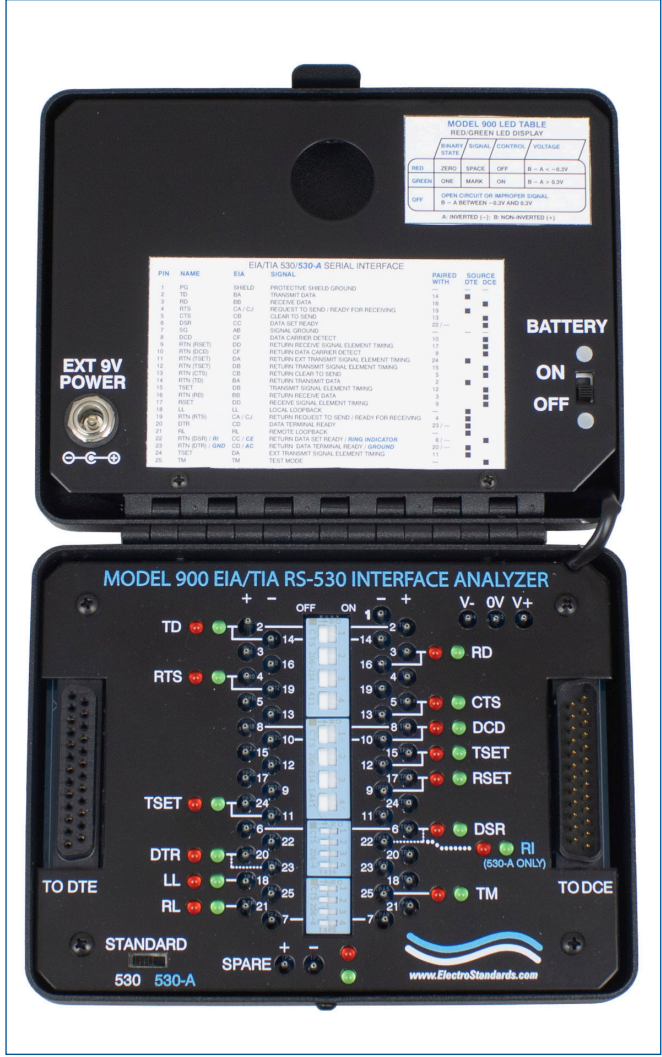
**INDICATORS:**

The Model 900 utilizes red and green light emitting diodes to indicate the status of key signals at the EIA/TIA data interface. The use of red and green indicators allows the maximum efficient monitoring of bipolar interface signals. They present the user with a maximum of signal status information.

MODEL 900 LED TABLE RED/GREEN LED DISPLAY				
	BINARY STATE	SIGNAL	CONTROL	VOLTAGE
RED	ZERO	SPACE	OFF	B - A < -0.3V
GREEN	ONE	MARK	ON	B - A > 0.3V
OFF	OPEN CIRCUIT OR IMPROPER SIGNAL B - A BETWEEN -0.3V AND 0.3V			

A: INVERTED (-); B: NON-INVERTED (+)

EIA/TIA 530/530-A SERIAL INTERFACE					
PIN	NAME	EIA	SIGNAL	PAIRED WITH	SOURCE DTE DCE
1	PG	SHIELD	PROTECTIVE SHIELD GROUND	—	—
2	TD	BA	TRANSMIT DATA	14	■
3	RD	BB	RECEIVE DATA	16	■
4	RTS	CA / CJ	REQUEST TO SEND / READY FOR RECEIVING	19	■
5	CTS	CB	CLEAR TO SEND	13	■
6	DSR	CC	DATA SET READY	22 / —	■
7	SG	AB	SIGNAL GROUND	—	—
8	DCD	CF	DATA CARRIER DETECT	10	■
9	RTN (RSET)	DD	RETURN RECEIVE SIGNAL ELEMENT TIMING	17	■
10	RTN (DCD)	CF	RETURN DATA CARRIER DETECT	8	■
11	RTN (TSET)	DA	RETURN EXT TRANSMIT SIGNAL ELEMENT TIMING	24	■
12	RTN (TSET)	DB	RETURN TRANSMIT SIGNAL ELEMENT TIMING	15	■
13	RTN (CTS)	CB	RETURN CLEAR TO SEND	5	■
14	RTN (TD)	BA	RETURN TRANSMIT DATA	2	■
15	TSET	DB	TRANSMIT SIGNAL ELEMENT TIMING	12	■
16	RTN (RD)	BB	RETURN RECEIVE DATA	3	■
17	RSET	DD	RECEIVE SIGNAL ELEMENT TIMING	9	■
18	LL	LL	LOCAL LOOPBACK	—	■
19	RTN (RTS)	CA / CJ	RETURN REQUEST TO SEND / READY FOR RECEIVING	4	■
20	DTR	CD	DATA TERMINAL READY	23 / —	■
21	RL	RL	REMOTE LOOPBACK	—	■
22	RTN (DSR) / RI	CC / CE	RETURN DATA SET READY / RING INDICATOR	6 / —	■
23	RTN (DTR) / GND	CD / AC	RETURN DATA TERMINAL READY / GROUND	20 / —	■
24	TSET	DA	EXT TRANSMIT SIGNAL ELEMENT TIMING	11	■
25	TM	TM	TEST MODE	—	■



**SPECIFICATIONS:**

**Input Signal:** ±12V per EIA/TIA RS-422/485  
 B - A < -0.3V = Red indication ("SPACE")  
 B - A > 0.3V = Green indication ("MARK")  
 A: Inverted (-); B: Non-Inverted (+)

**LED Circuit Input Impedance:** 120 ohm termination

**Operating Temperature:** 0°C to 50°C

**Storage Temperature:** -40°C to 90°C

**Humidity:** 10% to 90% without condensation

**Size:** 4.0 x 5.25 x 1.75 inches, (10.2 x 13.3 x 4.5 cm)

**Weight:** 1.1 lb (501.5 grams)

**Power:** Two 9V batteries

**Display:** (15) Red and (15) Green LED indicators

**Test Points:** 49 test points access all 25 pins on both DTE & DCE connector; One pair spare LED access test points; One set of three voltage test points (V-)(0V)(V+).

**Switches:** 8 double pole, 8 single pole mini-slide switches for on-off control of all signals between DTE and DCE.

EIA/TIA RS-530/530-A selector slide switch

**I/O Connectors:** To DCE, a 25-pin EIA/TIA socket.  
 To DTE, a 25-pin EIA/TIA plug.

**Cables & Patchcords:** One 10-inch EIA/TIA cable.  
 Six single (1-to-1) mini-patchcords.  
 Two triple (3-to-1) mini-patchcords.

**EIA/TIA RS-530/530-A Serial Interface Label:**  
 Attached to upper panel. Describes relationship between EIA/TIA RS530/530-A Signal Nomenclature, and Signal Source.  
**Package:** Aluminum case, metal hinge and clasp. Storage compartment for cable and mini-patchcords. Scuff-proof.