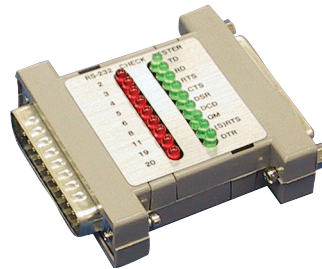


## Displays all RS-232 Lines

- Displays all RS-232 Data and Handshaking Lines  
*Takes the guesswork out of your RS-232 connections.*
- Red-Green LEDs show RS-232 signal states.  
*Visually confirm data and signal line states.*
- Male-Female connectors for easy insertion in any RS-232 cable.  
*Quickly plugs in series with our existing cable.*
- Use 25 to 9 pin adapters for 9-pin connectors.  
*Saves hours of troubleshooting time.*

### Description

ICS's 232 Tracker is an invaluable tool for debugging RS-232 connections. The 232 Tracker is a small 2 inch long module that displays all nine RS-232 Data and Handshake Lines so that you can quickly see and diagnose connection problems. Just plug the 232 Tracker into your serial line and it is ready to use. The LEDs are powered by the RS-232 signal states as long as the input voltage is greater than the 3 Volt minimum RS-232 signal level.



**232 TRACKER**

The 232 Tracker displays the TD, RD, CTS, DSR, DCD, QM, RTS, and DTR signals on both sides of a DB-25 serial connection. Signals that are present will light the LEDs on the Tracker. Both LEDs will be off if the signal is absent or grounded.

### LED Meanings

Green (Green LED on and Red LED off) means that the RS-232 signal is more negative than -3 Vdc. This is the normal Mark state for the TD and RD data lines. Red (Red LED on and Green LED off) means that the RS-232 signal is more positive than +3 Vdc. This is the ON or logic true state for the CTS, DSR, DCD, QM, RTS, and DTR signals.

### Basic Diagnostics

For a good RS-232 connection with no data flowing, the TD and RD lines will both be green showing that the signals are held at their negative Mark state. If there is only one green LED, the TD lines from both RS-232 devices are probably connected together. Verify this by connecting the 232 Tracker to one RS-232 device at a time to test for the pin with the TX data line. The green LED is only turned on by the TX line from a RS-232 device. If they are both on the same pin, rewire the cable or insert a null-modem adapter.

Handshake lines will all be red when they are in their true or logical ON state. The number of handshake lines used will vary with different RS-232 devices so it is hard to generalize on the state of all of the lines. However, all of the lines present need to be red to pass data. Sometimes the RTS line will be green indicating that the sending device is not ready to transmit data. Both lines of a handshake pair (RTS-CTR or DSR-DTR) should be lit. If a line is missing, one device may not transmit or receive data.

### Time Savings

Anyone who has ever spend hours troubleshooting RS-232 connection problems will appreciate how quickly they are solved with the 232 Tracker. Once you can see the signal states, you have the ability to quickly isolate and fix the problem.

#### ORDERING INFORMATION

RS-232 Nine Signal LED dispaly module

#### Part Number

232Tracker

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