

SPECIFICATIONS:

Protocol: Asynchronous

Speed: 300 to 19.2 Kbps (no strapping)

Operation: 4-wire, Full-or Half-Duplex, point-to-point

Transmit Level: 0 dBm

Surge Protection: 600W power dissipation at 1 ms and response time of 1 picoseconds

Control Signals: CTS (pin 8) turns ON immediately after the terminal raises RTS (pin 7). DSR (pin 6) and DCD (pin 1) turn ON immediately after the terminal raises DTR (pin 4).

Interface: RS-232C/CCITT V.24

Connectors: (1) DB9 male/female (depending on model);
(1) 5-Screw Terminal Block and strain-relief.

Power: No external power supply required; uses ultra-low power (+5VDC required, with current draw of 3 to 5 ma at +10VDC) from EIA data and control signals: Pins 3,4 and 7.

DATA RATE (BPS)	DISTANCE IN MILES (km)		
	19 AWG	24 AWG	26 AWG
19,200	6.2 (10)	3.7 (6)	1.2 (1.9)
9,600	7.5 (12.1)	4.9 (7.9)	2.5 (4)
4,800	8.7 (14)	5.6 (9)	3.7 (6)
2,400	11.8 (19)	8 (12.9)	4.9 (7.9)
1,200	17 (27.4)	11.8 (19)	8 (12.9)

DESCRIPTION:

The DB9 Microdriver lets two asynchronous RS-232 devices with DB9 connectors communicate at distances up to 17 miles (27 km). Operating full-duplex over two unconditioned twisted-pair wires, the Microdriver supports data rate from 300 to 19,200 bps. The unit draws all power from the RS-232 interface and requires no AC power or batteries.

It's tiny size lets the Microdriver fit in very tight installation spaces. And you can make twisted-pair connections using the terminal block. For added flexibility, the Microdriver is compatible with the ME771A-773A and the ME731A-733A.

These units use the latest in bi-directional, clamping transient suppressors to guard itself and connected equipment from data line transients. Providing 600 watts per wire of transient protection, this unit is recommended for environments prone to lightning storms, static discharge, and other forms of EMR.

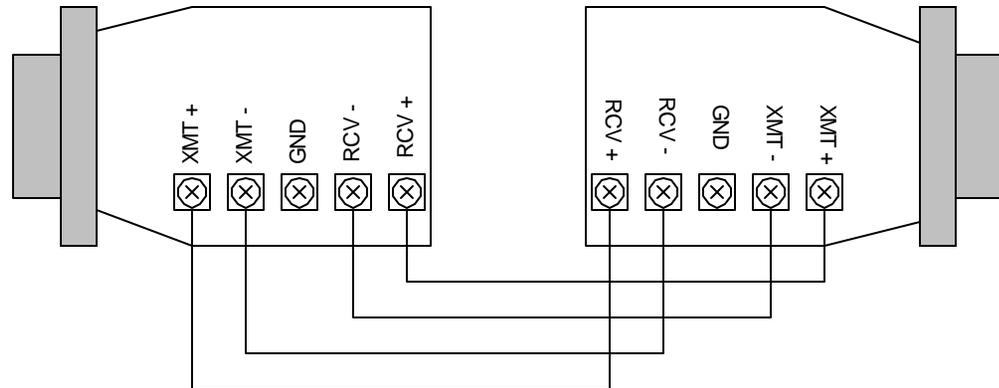
INSTALLATION:

The Microdriver is easy to install and requires no pre-configuration. This section tells you how to properly connect the Microdriver to the twisted-pair and RS-232 interfaces, and how to operate it.

The DB9 Microdriver operates full-duplex in point-to-point environments. It passes both data and X-ON/X-OFF (software) handshaking signals. There are two essential requirements for installing the Microdriver.

1. You must use Microdrivers in pairs. You must have one unit at each end of a two twisted-pair interface.
2. You must use two twisted pairs of metallic wire. These pairs must be unconditioned dry, metallic wire, between 19 and 26 AWG (lower-number gauges allow greater distances). **Do not** use standard dial-up telephone circuits or leased circuits that run through signal equalization equipment.

Open the unit by gently inserting a screwdriver between the DB9 connector and the lip of the plastic case. You don't have to worry about breaking the plastic, but be careful not to bend the D-sub connector. Once you've opened the unit, you'll be able to see the terminal block located at the rear of the PC board. Strip the outer insulation from the twisted-pair wires about one inch (2.5 cm) from the end. Strip back the insulation on each of the (2) twisted-pair wires about 1/4 inch (0.6 cm). Connect one pair of wires to XMT + and XMT - (transmit positive and negative) on the terminal block, making careful note of which color is positive and which color is negative. Connect the other pair of wires to RCV + and RCV - (receive positive and negative) on the terminal block, again making careful note of which color is positive and which color is negative. Ultimately you will want to construct a two-pair cross-over cable that makes a connection between the Microdrivers like the diagram below.



Connection to ground is optional. If there is a shield around the telephone cable, it may be connected to "G" (GND) on the terminal block. Connect the shield only at the computer end to avoid ground loops. A ground wire is not necessary for proper operation of these units.

ME793A-M/F WITH SURGE PROTECTION