ME791A-M/F

ME791A

BLACK BOX

MICRODRIVER

DB9 M/F CONNECTOR

ME791A

⊗ XMT +
⊗ XMT -
⊗ GND
⊗ RCV -
⊗ RCV +

SPECIFICATIONS:

Protocol: Asynchronous

Speed: Up to 19.2 Kbps

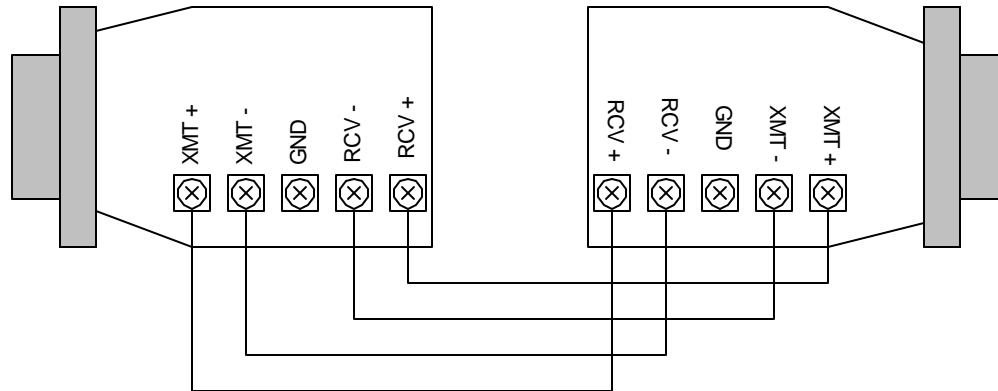Operation: Full Duplex, point-to-point

Transmit Level: 0 dBm

Transmit Line: 4-wire, unloaded/unconditioned line
(2-twisted pairs)

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) Terminal Block

Power: No external power supply required; devices power
from the RS-232 interface (+6 VDC minimum on
Pin 4 or 7 of the DB9 connector; current draw is
3 to 5 milliamps with 10 volts.

DATA RATE (BPS)	DISTANCE IN MILES		
	19 AWG	24 AWG	26 AWG
19,200	6.2	3.7	1.2
9,600	7.5	4.9	2.5
4,800	8.7	5.6	3.7
2,400	11.8	8	4.9
1,200	17	11.8	8

DESCRIPTION:

The Microdriver is a small, short-range, asynchronous, point-to-point, full-duplex line driver that plugs directly into your computer or terminal port. The Microdriver is designed to be used on the IBM, AT and compatibles, NCR Tower, UNISYS 700 series, and other devices with DB9 connectors. You must have one Microdriver at each end of your cabling.

It operates asynchronously up to 17 miles at 1,200 bps and up to 6 miles at 19,200 bps over 4-wire twisted pair cabling.

The Microdrivers are very small in size due to the use of surface mount technology.

The Microdriver/Terminal Block (ME791A) has a 5-screw terminal block to connect to the twisted pair-lines and a male or female DB9 connector (depending on the model chosen) to connect to your computer port.

INSTALLATION:

Proceed as follows to install the Microdirver/Terminal Post at each end of your line.
1. Use a small, flat-blade screwdriver to pry the top half of the Microdriver case from the bottom half.
2. Strip the outer insulation from the twisted pairs about on inch from the end.
3. Strip back the insulation on each of the 4-wires about 1/4 inch.
4.   Insert each wire into the proper terminal post and tighten the screw. Be careful to observe the polarity. See drawing below.
5. Place the two halves of the strain-relief assembly on either side of the telephone wire and press together very lightly. Slide the assembly so that it is about (2) inches from the terminal posts and press together firmly.
6.   Insert the strain-relief assembly (with the wire going through it) into the slot in the bottom half of the Microdriver case and set it into the recess in the case. If the telephone wire is too thin to be held by the strain-relief assembly, use tape to increase it's diameter. If the wire is too large, it may be necessary to drill out the strain-relief slightly.
7. Bend the top half of the case as necessary to place it over the strain-relief assembly. Do not snap the case together.
8. Insert each screw through a saddle washer and then insert each screw with the washer on it, through the holes in the DB9 end of the case. Snap the case closed.
9. Plug the unit directly into a mating RS-232C connector on your terminal or computer and tighten the two connectors screws.
10. Repeat steps 1-9 for the Microdriver at the other end of the twisted-pair cable.
11. Installation is now complete. The Microdriver requires no external power supply or batteries and will work automatically at any data rate from 0 to 19,200 bps as long as there is a data or control voltage being applied (+6VDC minimum on Pin 4 or 7 of the DB9 connector).

XMT + XMT - GND RCV - RCV +   RCV + RCV - GND XMT - XMT +

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.