



APPROXIMATE TRANSMISSION RANGE

DATA RATE	WIRE GAUGE					
	19		22		24	
	KM	MILES	KM	MILES	KM	MILES
0 to 19,200 bps	15.0	9.4	9.0	5.6	7.0	4.4
38,400 bps	9.0	5.6	5.0	3.1	4.0	2.5

ME745A-M/F-R2

SPECIFICATIONS:

Interface: EIA RS-232/CCITT V.24, Configured as "DCE"

Protocol: Asynchronous

Data Format: Transparent to data format.

Operation: 2-wire half-duplex or 4-wire full- or half-duplex.

Data Rate: Up to 38,400 bps.

Maximum Distance (Transmission Range): See Approximate Transmission Range Chart.

Transmission Line: 2- or 4-wire unconditioned telco-type line.

Transmission Level: 0 dBm.

Transmission Controls: DSR turns on immediately after DTE raises DTR; DCD turns on after recognizing the receive signal from the line; CTS turns on 8 milliseconds after DTE raises RTS.

Carrier Control: Carrier can be continuously held high or controlled by RTS (user-selectable).

Receive Impedance: High (100 k ohm) or low (120 ohms), user-selectable.

User Controls: (4) Internal straps (jumpers).

Connectors: DTE side: Side-mounted DB25 male or female.
Line side: Internal 5-screw terminal block (for one ground wire and up to four data wires) with cable-strain relief.

Power: +6 VDC, 25 milliwatts from 2,4 or 20 of the RS-232 interface.

INTRODUCTION:

The Mini Driver V (Mini Driver MP with 5-screw Terminal Block) is intended to be used for Local data distribution: Two or more of them carry asynchronous communication between computers and terminals. The Driver operates full- or half-duplex over 4-wire, and half-duplex only over 2-wire, telco-type lines.

The Mini Driver V meets the RS-485 pinning standards for a multipoint environment. However, the Driver does not meet the electrical standards for the RS-485 interface and should not be used as an RS-485 to RS-232 converter.

You can strap the Mini Driver V's carrier to be constantly ON or to follow (be controlled by) the RTS signal. Operating with controlled carrier allows you to connect Drivers in multipoint configurations over 2 or 4 wires. (Special circuitry isolates inactive transmit pairs of wires). You can set a separate jumper for high or low impedance on the receive circuit. This enables the Driver to work properly in multipoint configurations of up to 50 polled modems without degrading distance. You can also use controlled carrier in applications that require passing of a control signal end to end (RTS on one Driver is passed to DCD on the other Driver). A circuit enables a user working in half-duplex to receive an echo from the Driver if the terminals or computer programs used do not have an echo option.

The Mini Driver V operates without a power-supply transformer. It receives its power from the RS-232 signals Receive Data (RD, Pin 2), Request to Send (RTS, Pin 4), and Data Terminal Ready (DTR, Pin 20).

INSTALLATION:

To install the Mini Driver V, Take these steps:

1. Separate the two halves of the Driver's plastic cover by pressing the marked areas on the sides of the cover. (Start at the cable end).
2. **For a 2-wire connection:**
Connect the 2-wire telco-type line to the XMT pair of terminals on the Driver's screw-terminal block. Note the correct polarities:
XMT+ on the local Mini Driver V must be connected to XMT+ on the remote Mini Driver V.
XMT- on the local Mini Driver V must be connected to XMT- on the remote Mini Driver V.
For a 4-wire connection:
Connect the 4-wire telco-type line to the XMT and RCV pairs of terminals on the Driver's screw-terminal block. Note the correct polarities:
XMT+ on the local Mini Driver V must be connected to RCV+ on the remote Mini Driver V.
XMT- on the local Mini Driver V must be connected to RCV- on the remote Mini Driver V.
RCV+ on the local Mini Driver V must be connected to XMT+ on the remote Mini Driver V.
RCV- on the local Mini Driver V must be connected to XMT- on the remote Mini Driver V.
3. If you are using a shielded cable, connect the cable's shield to the GND terminal on the Drivers terminal block.
4. Set the Driver's straps (jumpers) to suit your application.
5. Plug the Driver directly into the DTE's RS-232 serial port.

The MINI DRIVER V should now be ready for operation.