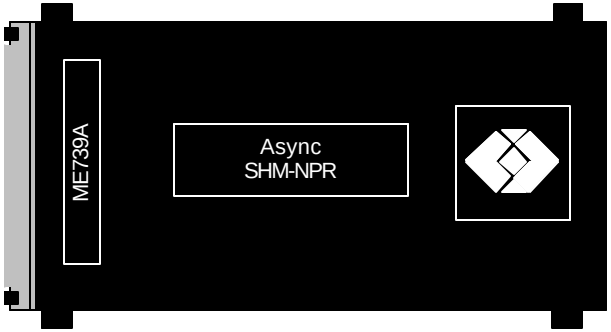

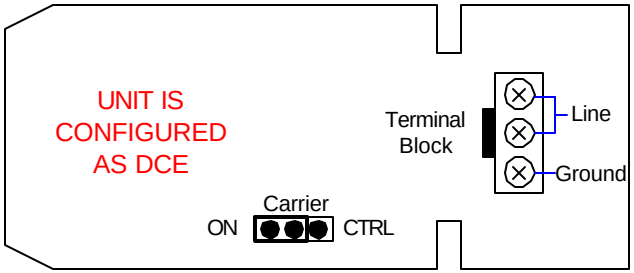

ME739A-M/F

INTRODUCTION:

The SHM-NPR Plus (Short -Haul Modem Non-powered) is intended to be used for local data distribution: Two of them carry asynchronous communication between computers and terminals. The SHM-NPR Plus operates full-duplex over two twisted pairs or a single coax line.

You can strap the SHM-NPR plus's transmit carrier to be constantly on or to follow (be controlled by) the DTR signal. In controlled operation, the local SHM-NPR plus raises carrier as soon as it sees DTR from the local DTE; when the remote SHM-NPR Plus sees carrier, it raises DSR to the remote DTE. In this way, one control signal can be passed end-to-end across the link. (DCD is always on regardless of how transmit carrier is strapped).

The SHM-NPR Plus operates without a power-supply transformer. To operate properly, it must at least be connected to a DTE's Transmit Data (TD, Pin 2), Receive Data (RD, Pin 3), and Signal Ground (SGND, Pin 7) lines. In compliance with the RS-232/V.24 standard, the SHM-NPR Plus generates positive and negative signals regardless of the state of Transmit Data; that is, the line may be constantly high or constantly low.

INSTALLATION:

To install the SHM-NPR Plus, take these steps:

1. Separate the two halves of the unit's plastic cover by pressing the marked areas on the sides of the cover
2. ***For a coax connection:***
   Connect the coax cable's shielding and center wire to the pair of connectors marked LINE on the SHM-NPR Plus's screw-terminal block. (The SHM-NPR Plus isn't polarity sensitive: It doesn't matter which of the LINE terminals you attach shield to and which one you attach the center wire to). Don't attach anything to the SHM-NPR Plus's GND terminal
   For a twisted-pair connection:
   Connect the twisted-pair cable's two wires to the pair of connectors marked LINE on the SHM-NPR Plus's screw-terminal block. (The SHM-NPR Plus isn't polarity-sensitive: It doesn't matter which of the LINE terminals you attach which wire to). If the twisted-pair cable is shielded, attach the shield to the SHM-NPR Plus's GND terminal.
3. Set the driver's transmit-carrier strap (jumper) to suit your application: ON for carrier constantly on, CTRL for carrier controlled by RTS.
4. Press the two halves of the cover back together.

SPECIFICATIONS:

Transmission Mode: Asynchronous, full-duplex, point-to-point

Transmission Line: 2-wire unconditioned telephone line (one twisted pair) or single coaxial cable.

Data Rates: Up to 19,200 bps; transparent to data format.

Transmission Level: 0 dBm

Transmission Controls: DCD always on; DTR can control carrier; DSR turns on immediately after carrier detection; CTS turns on immediately after computer or terminal raises RTS

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

User Control: (1) Internal strap (jumper) for carrier control.

Transmission Range: See Chart below:

Terminal Interface: EIA RS-232C/CCITT V.24, integral 25-pin connector, choice of male or female.

Telephone Line Interface: 3-screw terminal block (for one ground wire and two data wires) with cable strain relief.

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

Wire Gauge			
19-AWG	22-AWG	24-AWG	RG-62 COAX
3300 ft. (1 km)	2000 ft. (.6 km)	1300 ft. (.4 km)	1650 ft. (.5 km)

FOR A TWISTED-PAIR CONNECTION

FOR A COAX CONNECTION