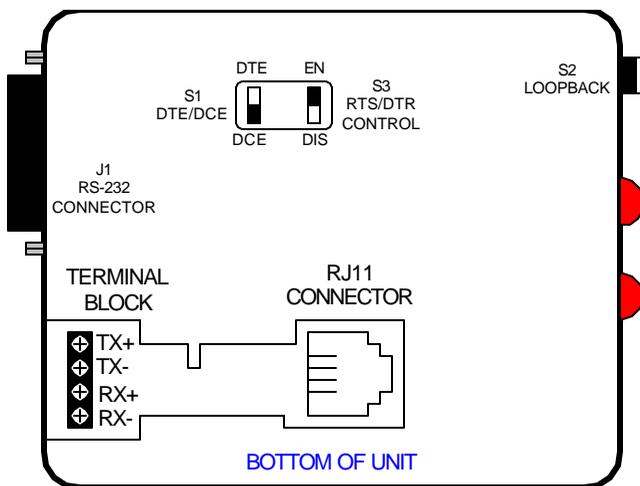


# ME800A-PLUS



## SPECIFICATIONS:

**Interface:** RS-232

**Protocol:** Asynchronous

**Operation:** 4-wire, Full Duplex, point-to-point

**Line Interface:** Balanced current loop; Receive lines are protected through optical isolators rated at 1500 volts.

**Connectors:** (1) DB25 Female connector; (1) 4-screw terminal block; (1) RJ11 (6 position) connector

**Diagnostics:** Loopbacks provided by a front-panel switch: Analog loopback on a 4-wire loop and digital loopback on equipment interface (EIA-232).

**Status Indication:** Two bi-color LED's indicate the status of the transmitter and receiver. A green light indicates a "low" logic level (-3 to -15V) on the 232 interface; a red light indicates a "high" logic level (+3 to +15V).

**Power:** Power is supplied by a wall-mounted power transformer. Primary 115VAC +/- 10%, 60 Hz, 5 watts. Primary 230VAC +/- 10%, 50 Hz Secondary: 17 VAC, 700 ma

**REPLACEMENT POWER SUPPLY = Z1Z1119159**

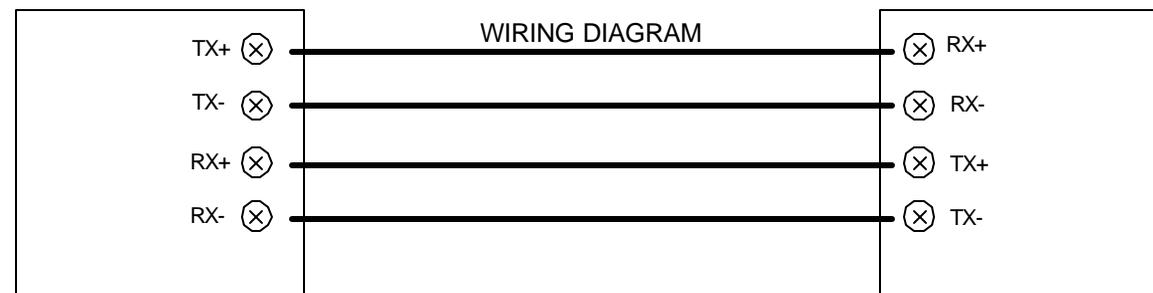
MAXIMUM DISTANCE:		
DATA RATE	24 awg	26 awg
	DISTANCE IN MILES	
115.2 Kbps	.8	.7
57.6 Kbps	1.2	.8
38.4 Kbps	1.3	.9
19.2 Kbps	1.5	1.2
9600 bps	2	1.5
4800 bps	2.6	2
2400 bps	4	3
1200 bps	4.8	4

## DTE/DCE Switch:

Switch S1 is used to reverse the TD, RD, and hardware flow control lines on the RS-232 interface. This eliminates the need to swap these signals in your EIA-232 cables. If you connect the SHM-B to your equipment using a "straight through" cable, the S1 must be set to the opposite of your device's configuration. For example, if your device is configured as DTE, select DCE on S1. If you use a null modem cable to connect the SHM-B to your equipment, then the setting for S1 will be identical to your equipment's setting.

## X-on/X-off (RTS/DTR control switch) (S3):

If X-on/X-off characters are used for handshaking control, rather than hardware logic levels, move the RTS/DTR control switch to the DIS position. Typically, units that use software X-on/X-off flow control do not want RTS to affect DCD on the remote SHM-B. Moving the switch to the "DIS" position disables the RTS/DTR relationship. The only thing that will force DCD low with the switch in the "DIS" position is the absence of power on the remote SHM-B or a broken twisted-pair



## INTRODUCTION:

The Short Haul Modem Model B Async Plus (SHM-B ASYNC) is an asynchronous full-duplex 4-wire line driver/receiver which allows two RS-232 devices to communicate at distances of up to 4 miles and at data speeds of up to 115.2 Kbps. In addition to the transmitter and receiver circuits, the SHM-B Async Plus includes RS-232 control line interfaces, status monitor LED's, and a loopback switch. The SHM-B is available as a standalone version.

The SHM-B is designed to operate over a 4-wire metallic circuit. Optimum performance is obtained with twisted-pair cable. Most types of twisted-pair cable may be used, often with little or no performance degradation.

The SHM-B Async is designed for maximum operator safety. There are no voltages greater than 12 VDC or 16 VAC present on the circuit board of the unit. The Receive lines are protected from potential ground differences through optical isolators rated at 1500 volts.

## INSTALLATION:

Four-Wire Connections: Connect pairs of modems using the terminal block or RJ11 connectors provided.

a.) Terminal Block:

Refer to wiring diagram above to make proper connections between the two SHM-B units using the terminal block

b.) RJ11 Jack:

Connect pairs of modems using a crossover RJ11 cable. A crossover cable has the RJ11 tabs on the same side of the cable.



1	=====	6	
TX+	=====	5	RX+
TX-	=====	4	RX-
RX-	=====	3	TX-
RX+	=====	2	TX+
6	=====	1	