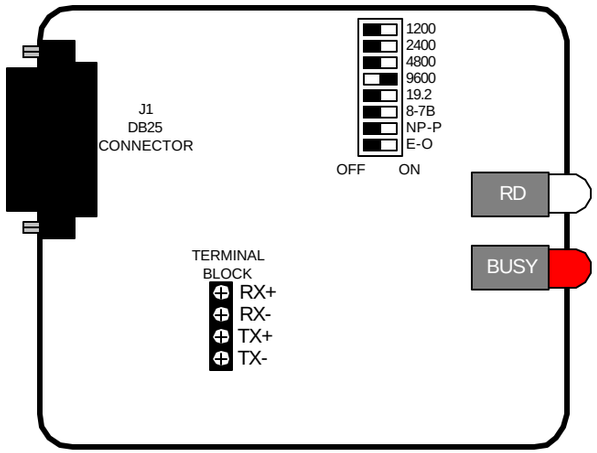
ME807A



SPECIFICATIONS:

Interface: Parallel

Connectors: (1) DB25 Female connector; (1) 4-screw terminal block.

Indicators: (2); (1) TD and (1) Busy
RD Green and Red = Data Transmission
Green = Mark (idle state)
Red = Error condition. Check cabling
Busy Red = Printer is not online or not ready to receive data.
Off = Printer is ready to receive data and cabling is installed correctly.
Red = Printer is not online or not ready to receive data.

Power: 120 VAC +/- 10%, 60 Hz, 1 watts, wall-mount transformer

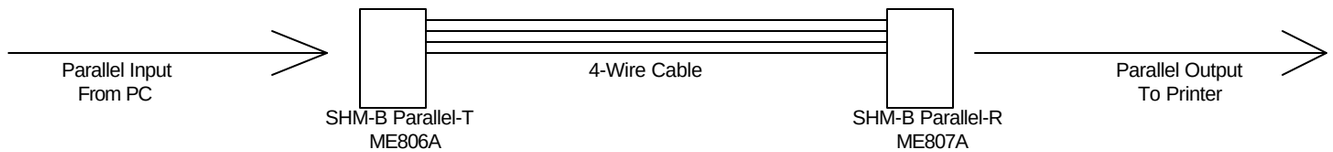
	Bit Rate (bps)			
	2400	4800	9600	19.2K
Distance in miles	5	3	2	1.1

NOTE:
These specifications are valid for unshielded twisted-pair cabling having 24 or 26 AWG connectors. Shielded twisted-pair cable will reduce the distance to 1/3 of the table value.

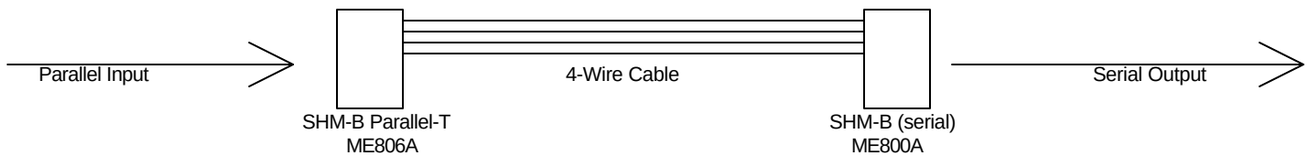
DESCRIPTION:

The SHM-B Parallel performs three functions:

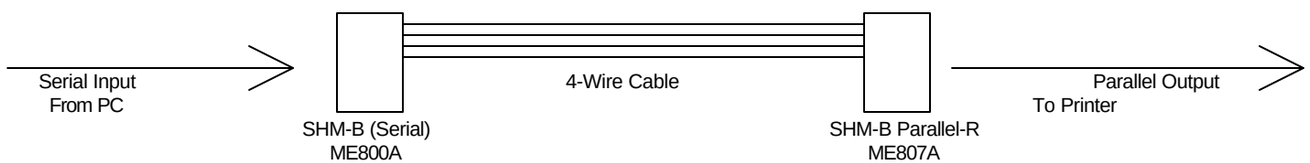
The SHM-B Parallel-T accepts parallel data from the PC, converts it to serial data, and sends the serial data over twisted-pair cable to the SHM-B Parallel-R. The SHM-B Parallel-R receives the serial data, converts it back to parallel data, and sends it to the parallel printer.



The SHM-B Parallel-T accepts parallel data from the PC, converts it to serial data, and sends the serial data over twisted-pair cable to the SHM-B (serial). The Serial SHM-B receives the serial data, converts it to RS-232 specifications, and sends the data to the RS-232 serial printer.



The Serial SHM-B accepts the RS-232 data from the PC, converts it to serial data, and sends it over the twisted-pair cable to the SHM-B Parallel-R. The SHM-B Parallel-R receives the serial data, converts it to parallel data, and sends it to the parallel printer.



The SHM-B Parallel performs data transmission at bit rates from 1200 to 19,200 baud. It can be configured for either 7 or 8-bit word length and Even, Odd, or No parity. The SHM-B Parallel features advanced optically-isolated integrated circuitry, which eliminates damaging ground-loop currents and substantially reduces signal noise for improved data integrity.
The SHM-B Parallel transmitter/receiver pair requires only two twisted-pair wires to transmit and receive data. Optimum performance is obtained with 24 or 26 AWG twisted-pair cabling, but nearly any twisted-pair cable can be used with little or no performance degradation.

NOTE:
When operating serial to parallel or parallel to serial, the serial device has to run hardware flow control. Software flow control (X-ON/X-OFF) is not supported

******THIS UNIT WILL NOT SUPPORT BI-DIRECTIONAL DATA******

INSTALLATION:

The SHM-B Parallel is available in a standalone version and a rackmount version. The standalone transmitter and receiver are packaged in small, lightweight ABS plastic cases and equipped with wall-mount transformers, for use on a desktop or shelf. The printed circuit card can be removed from the case and the transformer and modular plug discarded, enabling the card to be installed in a rack is desired. The rackmount version slips easily into a 8- or 16-card rack or enclosure.

Connectors:

Each unit is equipped with a DB25 connector and a 4-wire terminal block with a modular plug. The modular plug can be removed if desired. The DB25 connector conforms to the IBM PC Parallel interface pinout, utilizing the Centronics interface protocol. The 4-wire terminal block is the serial interface to the twisted-pair line.

Installation Procedure:

Before installing the receiver or transmitter, make certain the unit is not plugged into the power source, and the equipment that you are going to attach to them is turned off. Each unit is ready to use as it comes from the factory. No changes are necessary when used as a modem set to transmit data from a parallel device to another parallel device at distances of up to 1.1 miles. However, for installations in which the loop-length exceeds 1.1 miles, data corruption may occur due to excessive line noise and /or capacitance. In this case, reduce the transmission baud rate, using configuration procedure.

Installation is accomplished in the following three steps:

1. Connect Cabling: For installation utilizing modular cables, connect a 4-wire twisted-pair cable into the modular connector on the back of each SHM-B Parallel. For installations that do not use modular cables, remove the modular adapter from the terminal block (located on the printed circuit card) and use a 4-wire twisted-pair cable. Remove the card from the case or rack and unscrew the lead from the plug to the terminal connector on the card. Strip 1/8 to 3/16 inch of the insulation from the end of all four of the cable wires. Insert the wires into the terminal block and tighten the screw terminals. Connect the terminals on the transmitter to the terminals on the receiver as shown below.