

BPT73 4-4 WIRE PASSIVE DATA INTERFACE UNIT (NCDI080AXX) DATA SHEET

"OMNIPOINT"™ NETWORK CHANNEL TERMINATING EQUIPMENT

The BPT73 is a 4-4 wire passive terminal repeater with a maintenance loopback feature for use on private line voice-frequency data circuits. The BPT73 can be mounted in any OMNIPOINT Network Channel Terminating Equipment mounting, or equivalent.

The BPT73 provides 1 to 16 dB of attenuation in both directions of transmission in 1-dB steps. The unit presents a 600-ohm impedance to the customer equipment and a switch selectable 600- or 1200-ohm impedance to the network facility.

The maintenance loopback feature is remotely activated on removal of a 2-second or longer 2713-Hz tone and remotely deactivated either by applying a 1-second 2713-Hz tone or allowing the feature to time

out after 20 minutes. The loopback is locally activated by connecting the MLB and MLBG leads together and is deactivated by removing the connection between the MLB and MLBG leads.

A line power option allows the unit to be powered from the central office over the network facility. Power can also be provided by -48 or ±12 volt dc power supplies at the customer premises.

The TRANS MON and REC MON jacks on the unit faceplate provide test access to the customer side of the unit.

A block diagram of the unit is shown in Fig. 1 and the unit controls and faceplate are shown in Fig. 2. Detailed information is given in AT&T Practice 332-620-137.

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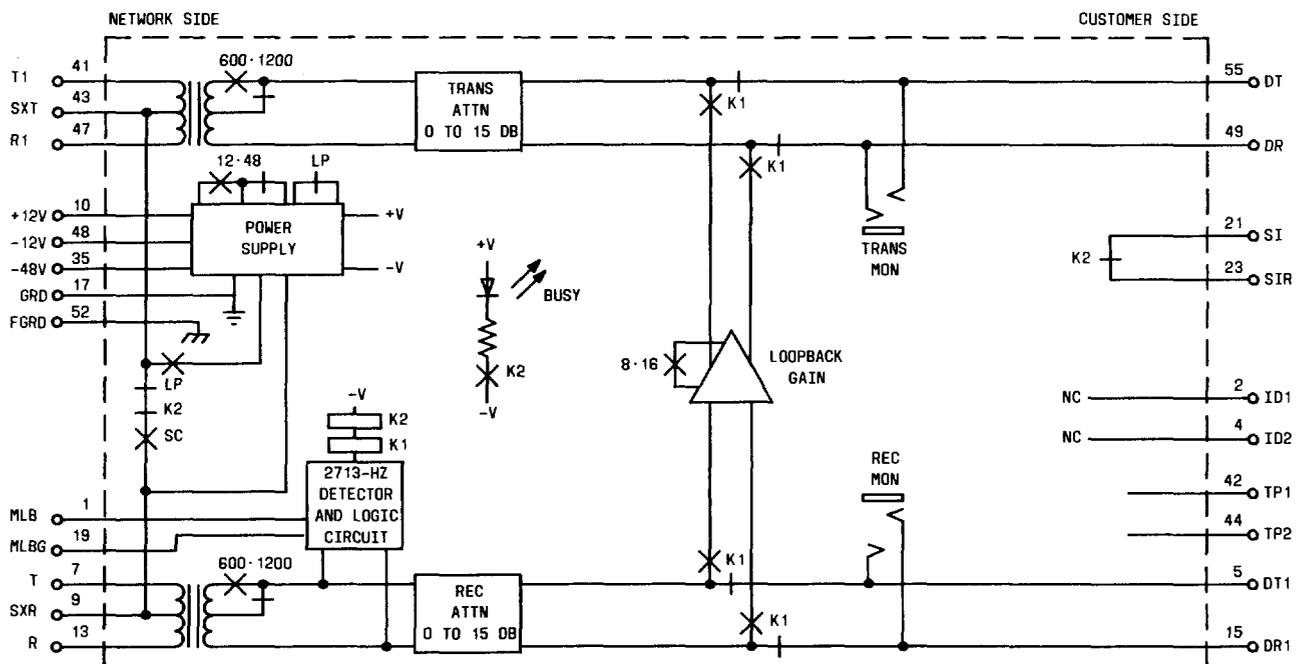


Fig. 1—Block Diagram of BPT73

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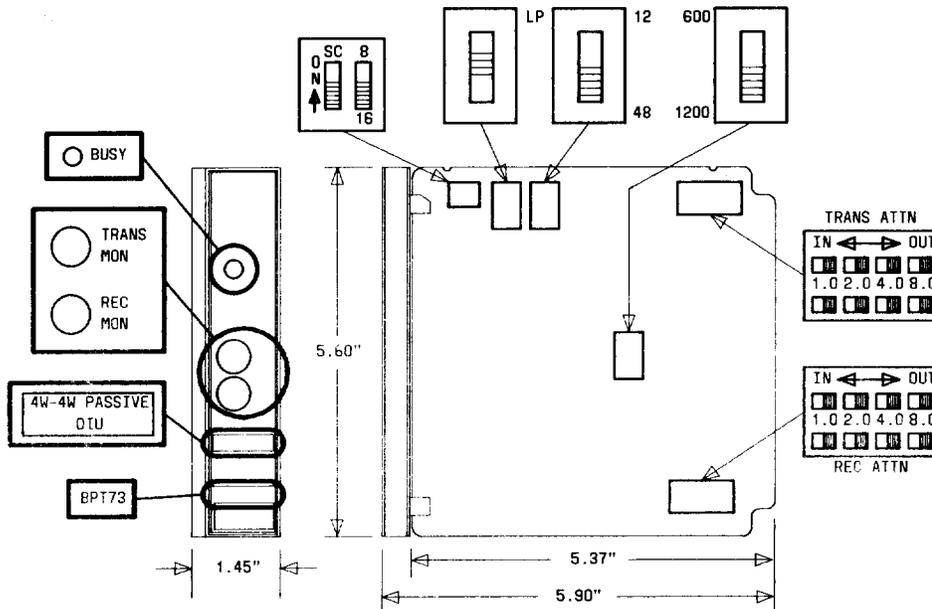


Fig. 2—BPT73 Unit Controls and Faceplate

Unit Controls

BUSY: This indicator on the unit faceplate will light when the maintenance feature is in use and -48 or ±12 volts dc power is provided at the mounting.

48·12: Set the switch in the 48 position if -48 volts dc is supplied at the customer premises, or in the 12 position if ±12 volts dc is supplied.

LP: This switch selects the line power option when set in the LP position. Setting the switch in the LP position overrides the 48·12 switch. To conserve power the BUSY indicator is not powered by the line power option. However, the indicator will function if -48 or ±12 volts dc is available at the mounting.

600·1200: Set the switch in the 600 position to match nonloaded cable or in the 1200 position to match loaded cable.

SC: This option provides a sealing current return path when the switch is in the ON position.

8·16: This switch selects the amount of gain provided in the loopback path. Set the switch in the 8 or 16 position to provide 8 or 16 dB of loopback gain.

TRANS ATTN and REC ATTN: The TRANS ATTN and REC ATTN switches (1.0, 2.0, 4.0, and 8.0) control 1 to 16 dB of attenuation in the transmit and receive directions, respectively. Set the switches so the sum of the switches in the IN position equals 1 dB less than the desired loss (the unit includes a 1-dB loss to result in the desired circuit loss).

Table A contains attenuation factors for calculating cable loss. For mixed-gauge cable, the sum of the values calculated for each gauge equals the overall cable loss. Subtract the cable loss and 1 dB of unit loss from the required circuit loss to obtain the attenuator setting.

| TABLE A | |
|-------------------------|--------------------|
| CABLE TYPE | 1-KHZ LOSS PER KFT |
| H88 LOADED CABLE | |
| 22 Gauge | 0.15 dB |
| 24 Gauge | 0.23 dB |
| 26 Gauge | 0.34 dB |
| NONLOADED CABLE | |
| 22 Gauge | 0.34 dB |
| 24 Gauge | 0.44 dB |
| 26 Gauge | 0.54 dB |