BPT72 2/4-4 WIRE DATA INTERFACE UNIT (NCDI060AXX)

DATA SHEET

"OMNIPORT* " NETWORK CHANNEL TERMINATING EQUIPMENT

The BPT72 is a switch selectable 2-4 or 4-4 wire terminal repeater with a maintenance loopback feature for use on private line voice-frequency data circuits. The BPT72 can be mounted in any OMNIPORT Network Channel Terminating Equipment mounting, or equivalent, that supplies −48 or ±12 volts dc power to the unit.

The BPT72 provides −20 to +26.5 dB of gain in both directions of transmission, and 0 to 15 dB of 2804-Hz post-equalization in the receive direction. The unit presents a 600-ohm impedance to the customer equipment and a switch selectable 150-, 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 can be remotely deactivated either by applying a 1-second 2713-Hz tone or by allowing the feature to time out after 20 minutes. The maintenance feature is locally activated by connecting the MLB and MLBG leads together and will remain activated as long as the leads are connected together.

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 332-620-136.

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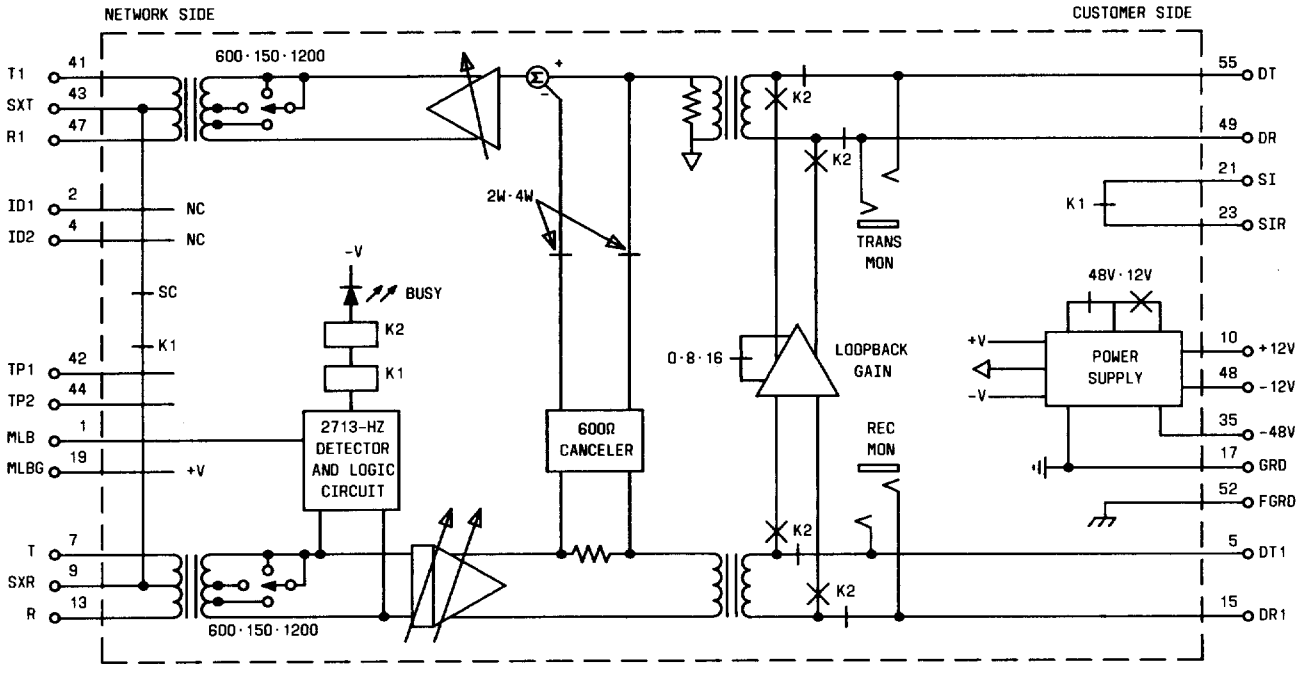

Fig. 1—Block Diagram of BPT72

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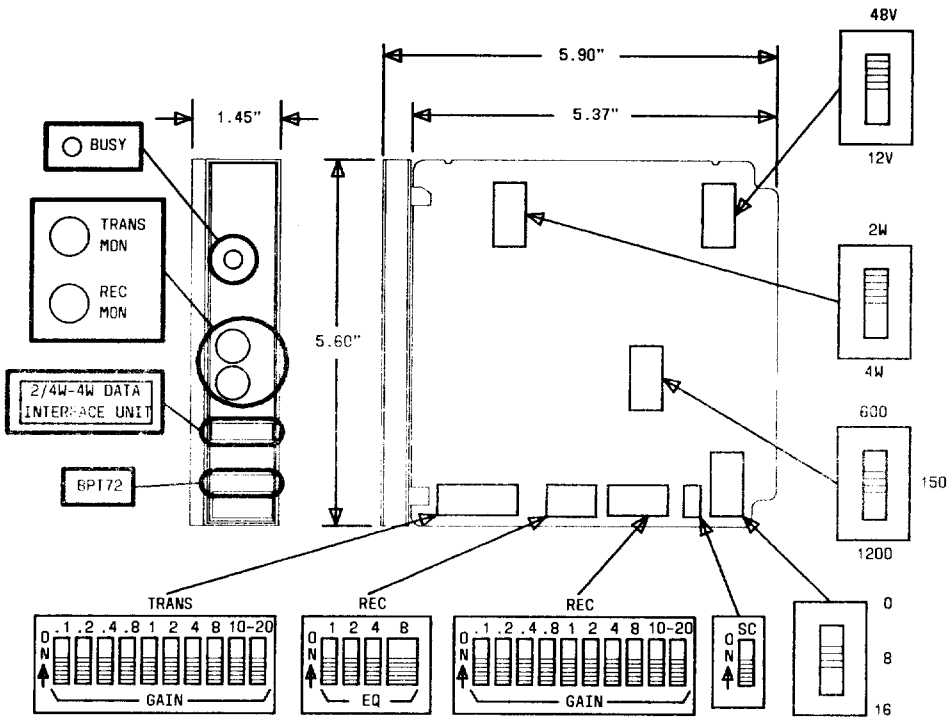

Fig. 2—BPT72 Unit Controls and Faceplate

Unit Controls

BUSY: This indicator on the unit faceplate will light when the maintenance feature is in use.

48V·12V: Set the switch in the 48V position if −48 volts dc is supplied to the unit or in the 12V position if ±12 volts dc is supplied.

2W·4W: Set the switch in the 2W position to provide a 2-wire customer interface or in the 4W position to provide a 4-wire customer interface.

600·150·1200: Set the switch in the 600 position to match nonloaded cable or in the 1200 position to match loaded cable. Set the switch in the 150 position to provide mismatch equalization.

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

0·8·16: This switch selects the amount of gain provided in the loopback path. Set the switch in the 0, 8, or 16 position to provide 0, 8, or 16 dB of loopback gain.

TRANS GAIN and REC GAIN: The TRANS GAIN and REC GAIN switches (.1, .2, .4, .8, 1, 2, 4, 8, 10, and −20) control −20 to +26.5 dB of gain in the transmit and receive directions, respectively. Set the switches so the sum of the switches in the ON position equals the desired gain (or loss).

REC EQ: These switches (1, 2, 4, and 8) control 0 to 15 dB of post-equalization in the receive direction. Set the switches so the sum of the switches in the ON position equals the desired equalization.

Table A contains information for setting the GAIN and EQ switches. (For mixed-gauge cable, the sum of the values calculated for each gauge equals the required gain or equalization.)

TABLE A

CABLE TYPE	1-KHZ GAIN REQUIRED PER KFT	EQUALIZATION REQUIRED PER KFT
H88 LOADED CABLE		
22 Gauge	0.15 dB	0.0 dB
24 Gauge	0.23 dB	0.0 dB
26 Gauge	0.34 dB	0.0 dB
NONLOADED CABLE		
22 Gauge	0.34 dB	0.25 dB
24 Gauge	0.44 dB	0.25 dB
26 Gauge	0.54 dB	0.25 dB