

BPT61 4-4 WIRE DATA INTERFACE UNIT (NCDI020AXX)

DATA SHEET

"OMNIPOINT*" " NETWORK CHANNEL TERMINATING EQUIPMENT

The BPT61 is a 4-4 wire terminal repeater with maintenance loopback for use on private line voice-frequency data circuits. This unit can be used as a replacement for 829-type data auxiliary sets and the BPT60 data interface unit. The BPT61 can be mounted in any OMNIPOINT Network Channel Terminating Equipment mounting, or equivalent, that supplies -48 or ±12 volts dc power to the unit.

The BPT61 provides -20 to +26.5 dB of gain in both directions of transmission, and 0 to 7 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

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and can be 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 deactivated by removing the connection between the MLB and MLBG leads.

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 Section 332-620-133.

Unit Controls

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

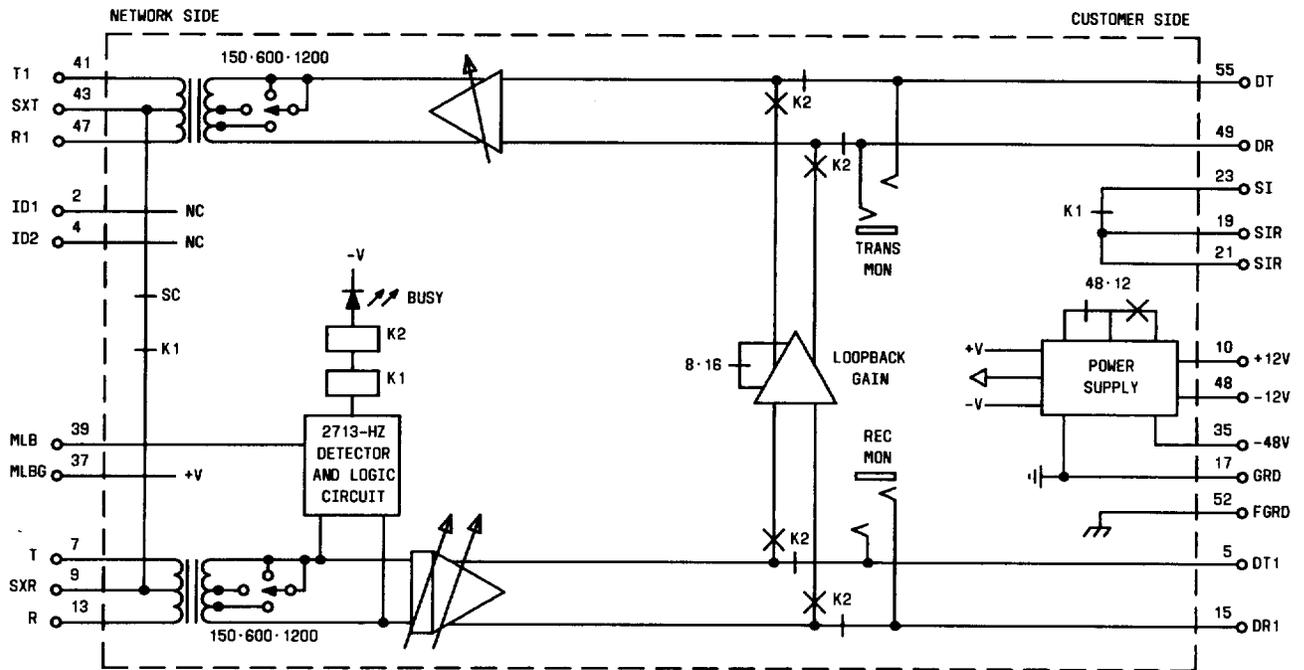


Fig. 1—Block Diagram of BPT61

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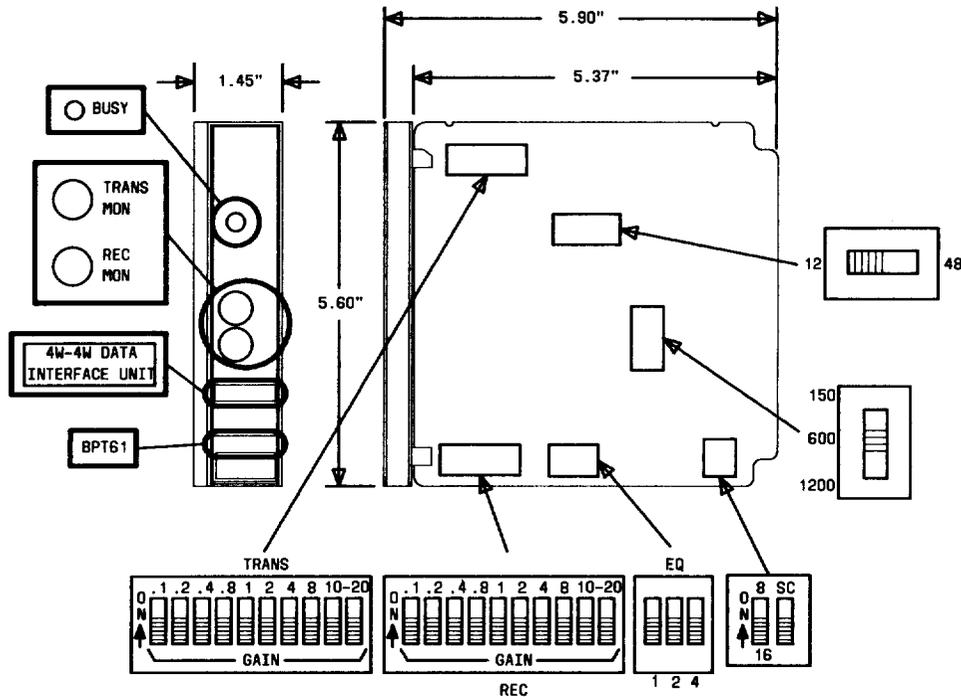


Fig. 2—BPT61 Unit Controls and Faceplate

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

150·600·1200: 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.

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 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, and 4) control 0 to 7 dB of post-equalization in the receive direction. Set the switches so the sum of the switches set toward the numbers on the printed wiring board 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 (SEE NOTE)
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
Note: For equalization setting, multiply the sum of cable length, in kilofeet, by equalization factor 1.25.		