

## J99343BF-1,L1 2-4 WIRE TRANSMISSION UNIT (600-OHM)

### DATA SHEET

### METALLIC FACILITY TERMINAL

The J99343BF-1,L1 2-4 wire transmission unit terminates 4-wire facilities (600 or 1200 ohms) in 600 ohms when gain and equalization are not required. The transmission level in this passive unit is controlled by attenuators in the transmit and receive circuits. The loss in each 4-wire leg is adjustable from 0.0 to 16.5 dB in 0.1 dB steps. The unit consists of a 2-transformer hybrid, two attenuator pads, two output impedance matching transformers, two midpoint capacitors, and a network build-out capacitance section. For a detailed description of this unit, see Section 332-912-102, CD-1C359-01, and SD-1C359-01 (CPS 41). A block diagram and lead plan are shown in Fig. 1 and switch locations are shown in Fig. 2.

**ATTENUATOR:** These slide switches are used to insert loss into the transmit and/or receive paths. Loss is

inserted by operating the switches to the desired position. The designations associated with each slide switch correspond to the loss in dB that will be inserted when that switch is operated.

**OUT:** This switch selects a 600- or 1200-ohm impedance on the facility (B-side). The 600 setting is normally used for nonloaded cable and the 1200 setting, for loaded cable.

**NOR/SX REV:** This switch reverses the SX and SX1 lead connections of the output transformers on the B-side when the switch is operated to the SX REV position.

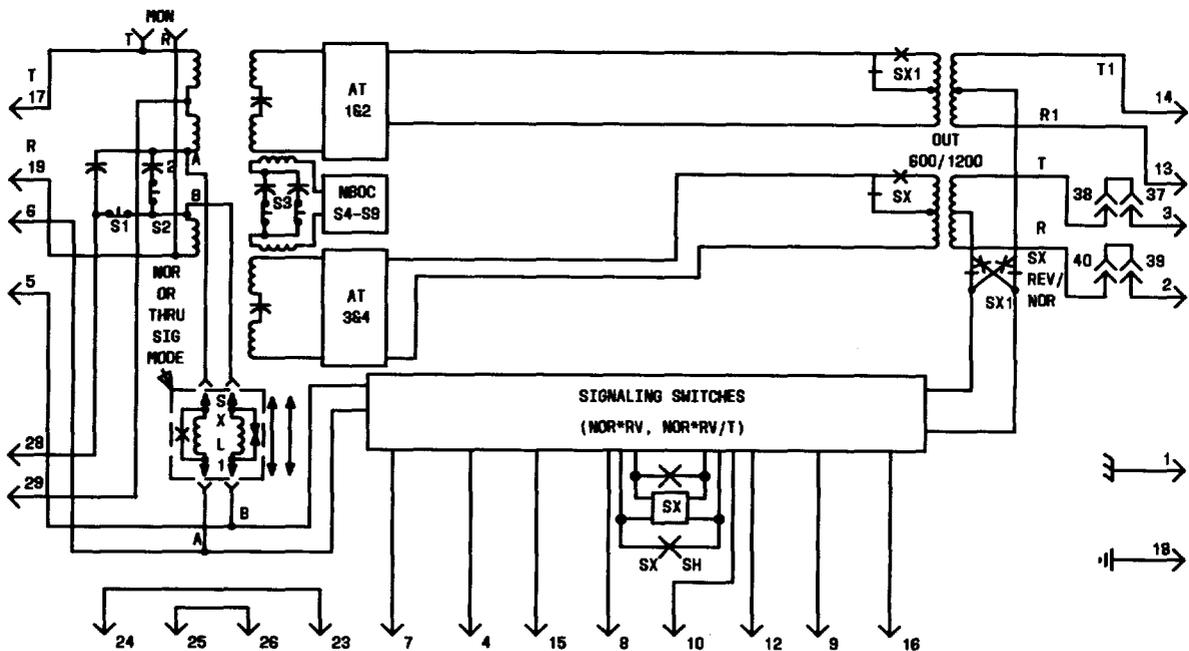


Fig. 1—J99343BF-1, L1 Block Diagram

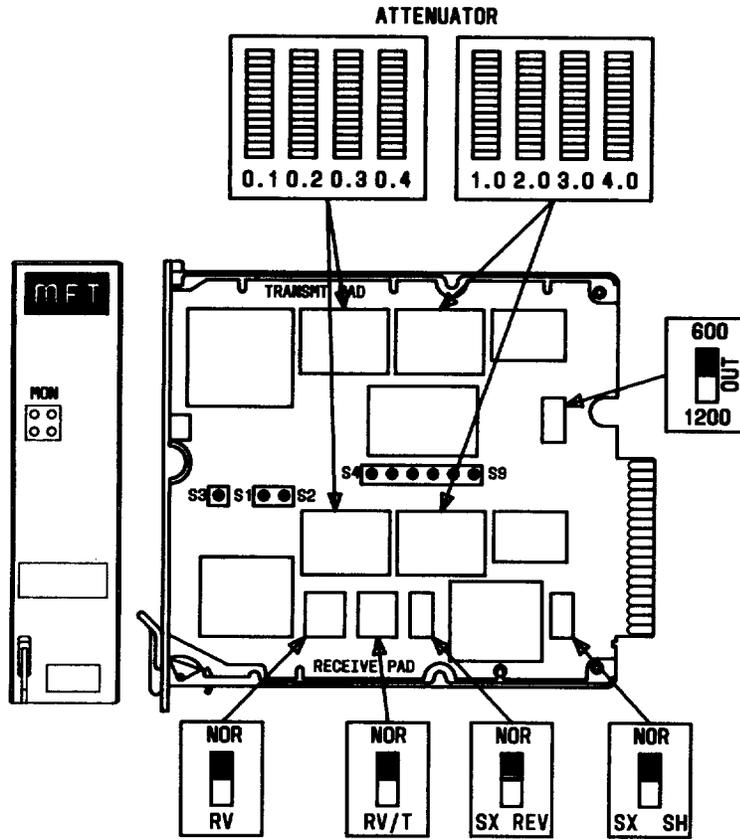


Fig. 2—J99343BF-1, L1 Component Layout

**NOR/SX SH:** This switch shorts the A-side simplex (SX) inductor when it is not required. The inductor is shorted when the switch is set in the SX SH position.

**NOR/RV and NOR-RV/T:** These switches are used to control the signaling mode of either NORMAL, REVERSED, or THROUGH. Table A gives the required switch positions to achieve a prescribed mode.

**NBOC:** These screw switches are used to balance the office cabling capacitance on the 2-wire (A) side of the repeater. The NBOC adjustment consists of a selector block with six switches labeled S4 through S9 which control selection of 0 to 0.126  $\mu\text{F}$  in 0.002  $\mu\text{F}$  increments. Capacitance is added by tightening the screws.

**MPC:** These screw switches are labeled S1, S2, and S3. The S1 and S2 switches are used to set midpoint capacitance for the line side. Switch S3 sets matching capacitance for the network side. The capacitance values are given in Table B.

TABLE A		
SIGNALING MODE	RV SWITCH	RV/T SWITCH
NORMAL	NOR	NOR
REVERSED	RV	RV/T
THROUGH	NOR	RV/T

TABLE B			
CAPACITANCE ( $\mu\text{F}$ )	LINE SIDE DESIGNATORS		NETWORK SIDE DESIGNATORS
	S1	S2	S3
0.00	OUT	OUT	—
1.06	IN	OUT	OUT
3.24	OUT	IN	—
4.30	IN	IN	IN