

849H NETWORK DESCRIPTION

1. GENERAL

1.01 This section describes the 849H network which was designed for use in the 424V4A (rated manufacture discontinued) and 424V4B repeaters.

1.02 Whenever this section is reissued, the reason for reissue will be given in this paragraph.

1.03 The 849H network is used in the NET 1 and NET 2 positions of the 424V4A and B repeaters to derive simplex signaling leads for use in the traffic service position system (TSPS). With the 849H network, simplex current may be fed on the 4-wire pairs.

2. EQUIPMENT DESCRIPTION

2.01 The 849H network, Fig. 1, is a plug-in unit equipped with a 15-pin connector plug and is inserted directly into the repeater mounting shelf network positions of the 424V4 repeater.

2.02 The 849H network consists of two center-tapped inductors, L1 and L2, housed in an aluminum can approximately 1-3/4 inches wide by 1-3/4 inches high by 7 inches long.

2.03 Metal tabs on the front of the network facilitate removal of the network from its mounting by the use of the 602C or 602D tool.

3. CIRCUIT DESCRIPTION

3.01 A schematic of the 849H network is shown in Fig. 2. This schematic may be cut out

and used in the 424V4 SWIFTEC board (E4899) until the 849H insert is available.

3.02 When inserted in the 424V4 repeater network sockets, the L1 and L2 inductors are bridged across the 4-wire transmission leads as shown in Fig. 3. The large inductance of the 849H network

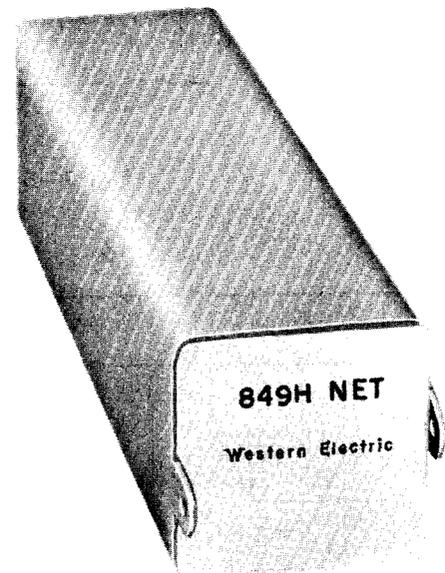


Fig. 1—849H Network

yields a very high impedance in shunt with the 600-ohm amplifiers. The loss contributed by each inductor, L1 and L2, to the transmission path is shown in Table A.

NOTICE

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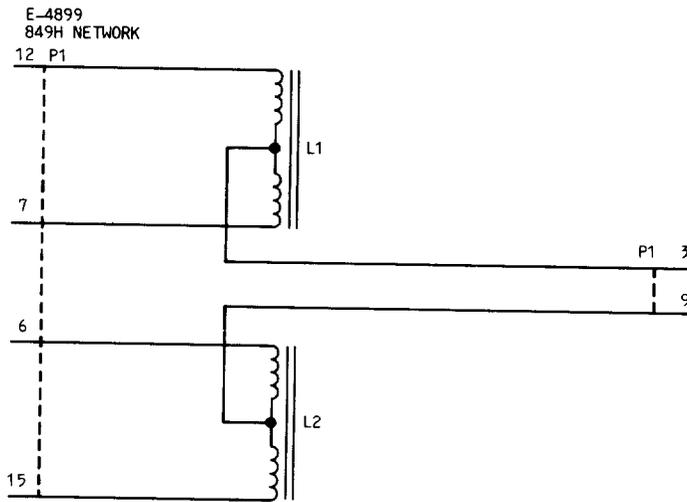


Fig. 2—849H Network—Swiftec Schematic

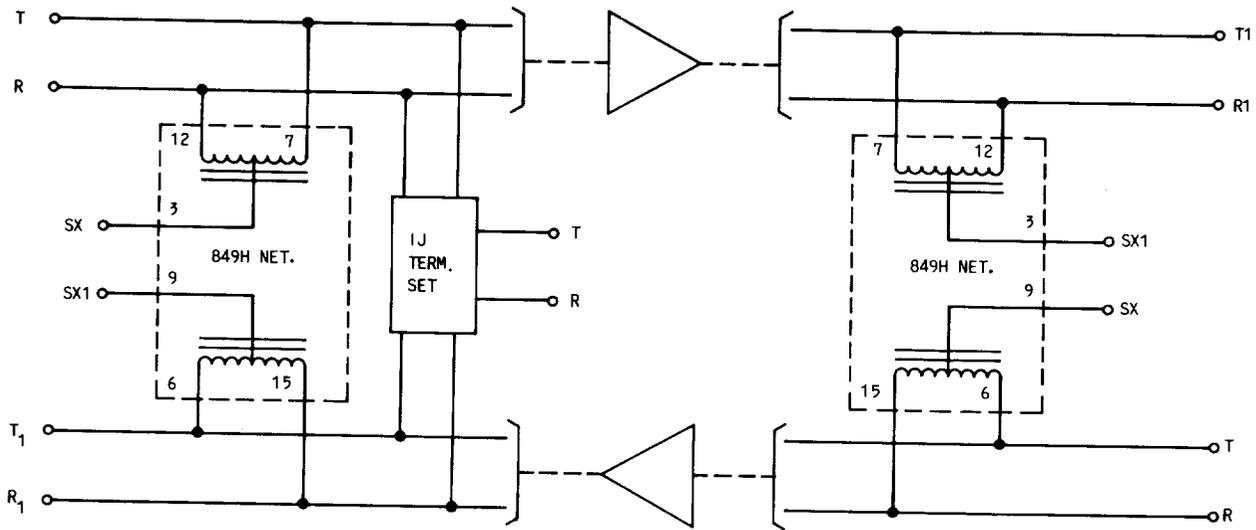


Fig. 3—Partial Sketch of 424V4 Repeater Showing 849H Network

TABLE A
LOSS TO TRANSMISSION PATH CAUSED BY
849H NETWORK

FREQUENCY (Hz)	LOSS (dB)
100	0.16
200	0.04
300	0.02
400	0.01
500	0.01
700	0.0
1000	0.0