837A NETWORK

DESCRIPTION

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1. GENERAL

1.01 This section describes the 837A network (Fig. 1). This network is intended as an impedance compensator for use on 19-, 22-, and 24-gauge high-capacitance cable with H88 loading; 19- and 24-gauge low-capacitance cable with H88 loading; or any gauge high-capacitance cable with D88 loading. Adjustment for gauge, end section, and building-out capacitance (BOC) is made by tightening screw switches.

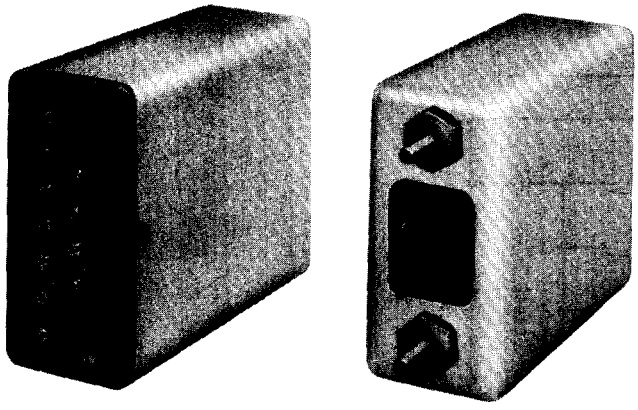

Fig. 1—837A Network

1.02 The 837A network transforms the variable impedance of the H88 or D88 loaded cable to an impedance of 900 ohms in series with 2.16 μF over the usable voice-frequency range.

2. EQUIPMENT DESCRIPTION

2.01 The 837A network fits into an aluminum can that measures approximately 1.7 inches wide, 3.3 inches high, and 4.4 inches deep. The network is stud-mounted on a shelf near where the cable pairs are brought out to the panel wiring boards. On the front of the 837A are located 11 screws for BOC to variable end sections and for the cable gauge being used.

2.02 A built-in 239C jack is provided for testing; it also isolates the facility and the compensator from the office wiring and equipment.

3. CIRCUIT DESCRIPTION

3.01 The circuit arrangement of the 837A network is shown in Fig. 2. Terminals 1 and 2 connect to the cable pair, and terminals 3 and 4 connect to the trunk equipment.

3.02 The 837A consists of a fixed high-frequency corrector; low-frequency correctors for 19-, 22-, and 24-gauge cable; and a building-out capacitor adjustable for end sections from 0 to 5 kft for H88 cable and 0 to 4.4 kft for D88 cable. The dc resistance of the network is approximately 22 ohms.

3.03 The lineup of the 837A network will be through the use of prescription settings. Touch-up for maximum return loss may be made through the use of the KS-20501 return loss measuring set (RLMS) if the terminal balance requirement is not met.

3.04 The building-out capacitor should be set in accordance with the tables contained in Section 851-300-101.

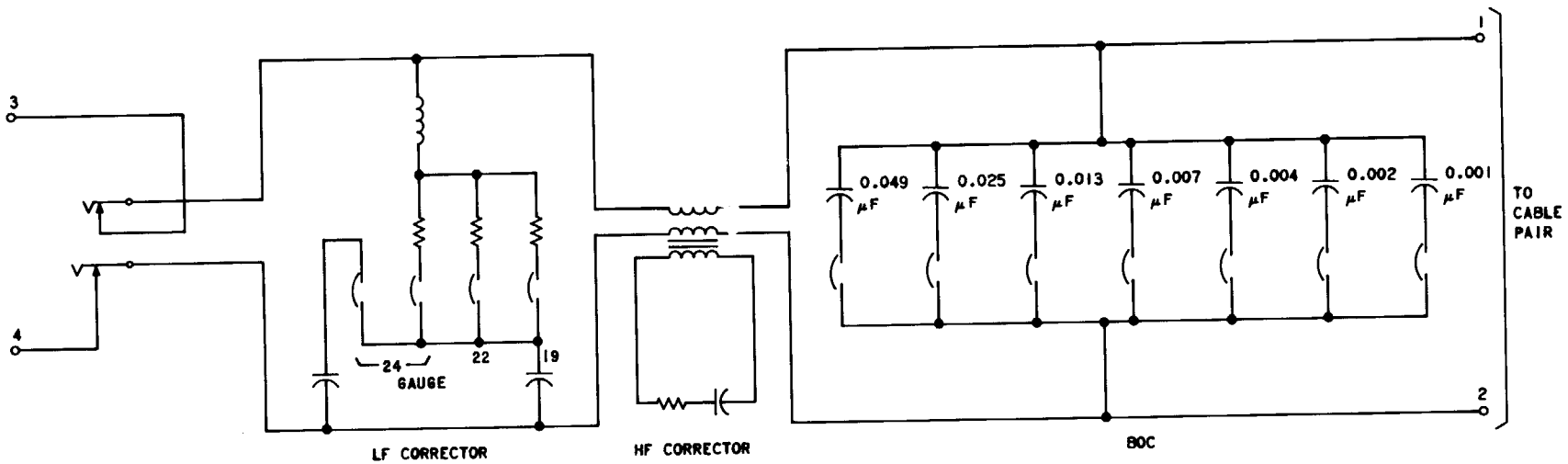

Fig. 2—837A Network—Schematic