

## J99343DB-1, L2 DUPLEX SIGNALING UNIT (DX1/DX2)

### DATA SHEET

### METALLIC FACILITY TERMINAL

The J99343DB-1, L2 Duplex Signaling Unit (DX1/DX2) is an E&M to DX signaling converter for use with either a trunk circuit (DX1) or with another signaling circuit as a signal lead extension (DX2). Light emitting diodes on the front panel indicate the selector switch setting. For the DX1 function, the unit accepts an M lead signal from the trunk circuit. This function can accommodate either type I, II, or III E&M lead interfaces. For the DX2 function, the unit accepts an E lead signal from the connecting circuit. This function can accommodate types I and II E&M lead interfaces. The DX signals are connected to the wire facility through the A&B or SX leads of the associated transmission unit or the BS1 and BS2 leads. For a detailed description of this unit, see Section 332-911-103, CD-1C359-01, and SD-1C359-01 (CPS 15). A block diagram and lead plan are shown in Fig. 1 and switch locations are shown in Fig. 2.

**R BAL:** These screw switches select the variable portion of balance resistance. This resistance is the sum of the conductor loop resistance plus the resistance of the associated and far end transmission units. When the switches are down, the resistors are shorted. Resistance is added by turning the screw switches up.

**C BAL:** These screw switches adjust the balance capacitance. The balance capacitance is equal to the sum of the loop conductor capacitance, plus transmission unit midpoint capacitance, plus  $1 \mu\text{F}$ . When the screw switches are up, the capacitors are open-circuited. Capacitance is added to the circuit by turning the screw switches down.

**MPC:** This switch connects a  $4 \mu\text{F}$  midpoint capacitor across the DX signal path (A&B leads). This ca-

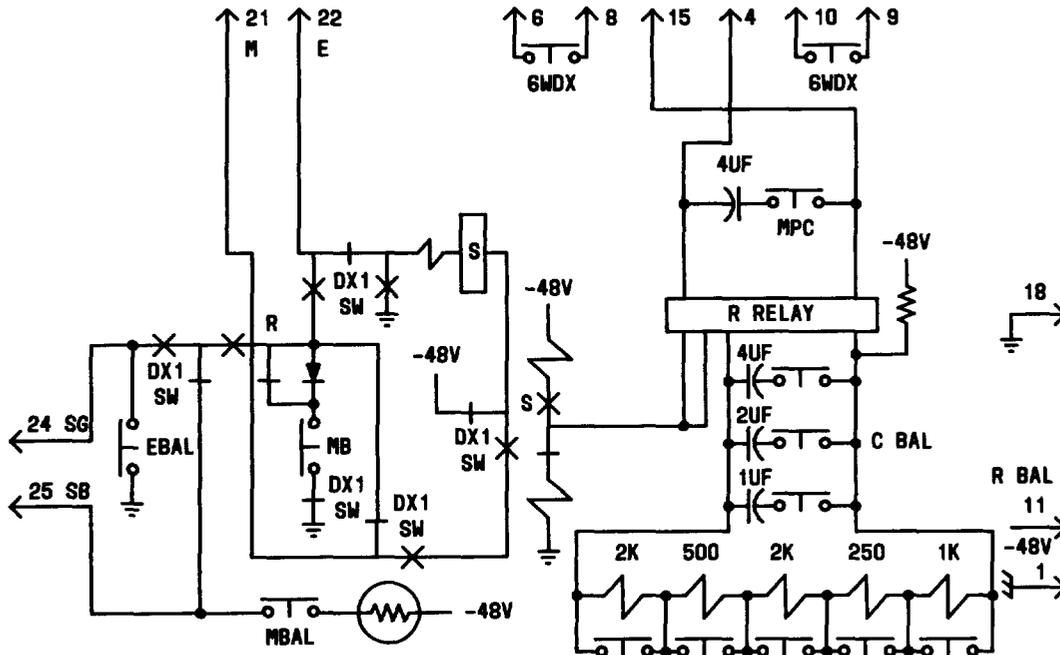


Fig. 1—J99343DB-1, L2 Block Diagram

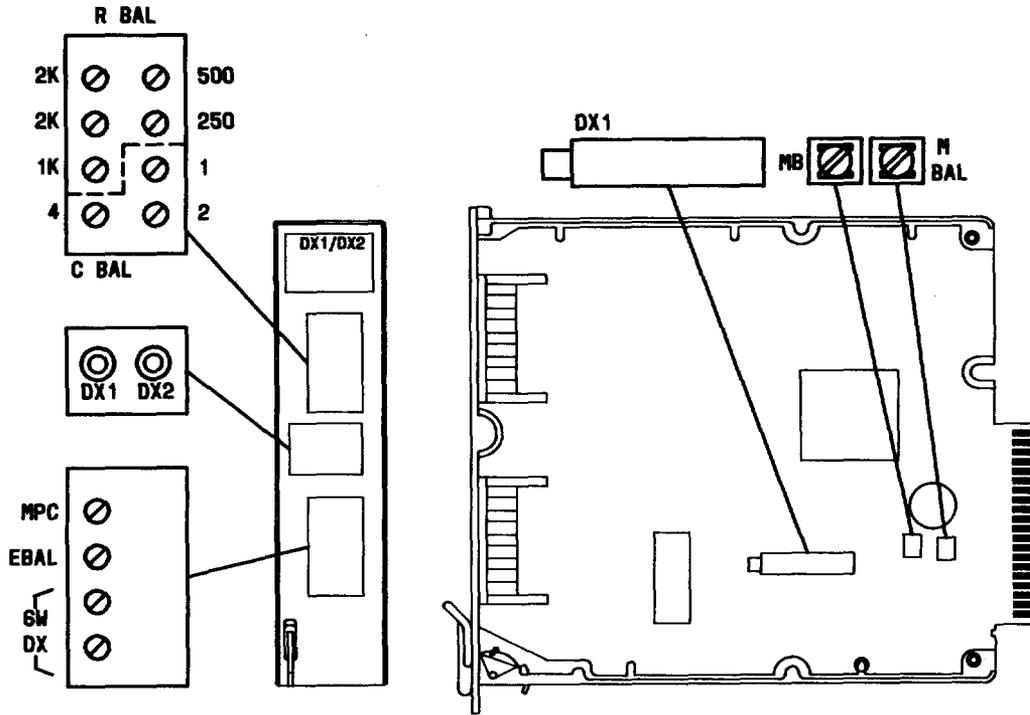


Fig. 2—J99343DB-1, L2 Component Layout

capacitor should be used when transmission unit midpoint capacitance is less than  $2 \mu\text{F}$  or with 4-wire circuits. When the screw switch is down, the capacitor is connected. The capacitor is disconnected when the screw switch is up.

**E BAL:** This switch allows selection of either a single-ended E-lead output or a looped E-lead/SG-lead output.

**6W DX:** These screw switches are used to disconnect the DX signaling path leads (BS1 and BS2) from the associated transmission unit when different cable pairs are used for signaling and voice transmission. When the screw switches are down, the leads are connected; when up, the leads are disconnected.

**DX1:** This function selector switch selects the desired signaling mode of either DX1 or DX2. The selec-

tor switch changes the DX1 E-lead output and M-lead input to DX2 E-lead input and M-lead output, or vice versa.

**MB:** This switch is used to allow the DX2 unit to generate an isolated open/closure for looped M-lead outputs. The switch is closed when the screw is down, open when the screw is up.

**M BAL:** This switch is used to disconnect the resistance lamp battery from the MB-lead for M-lead outputs. The switch is closed when the screw is down, open when the screw is up.

**DX1/DX2:** These LEDs indicate the mode of operation. When the unit is in position, the appropriate LED will be lighted.