

## J99343SD 4-4 WIRE T/I REPEATER PLUS SEALING CURRENT MT44321

### DATA SHEET

#### METALLIC FACILITY TERMINAL

The J99343SD 4-4 wire transmission terminal/intermediate repeater unit supersedes the J99343BG unit for terminal and intermediate applications. The J99343SD merges the transmission circuitry of the SC unit with the capability to sink or source-sealing current in either or both directions. The SD repeater provides gain or loss and equalization in both directions of transmission.

The J99343SD unit is designed for use in the transmission slot of any MFT frame. The SD unit does not provide conventional signaling access; therefore, the unit is not compatible with a companion signaling unit. Section 332-912-101 contains additional information on the MFT mounting arrangements. For detailed information on this unit, see Section 332-912-136, CD- and SD-X050-01 (CPS 29). Figure

1 illustrates the block diagram and lead plan of the J99343SD unit. Figure 2 illustrates the location of the switches.

**GAIN SW:** Ten miniature switches, designated GAIN control the gain of the repeater. There is a separate gain switch in each direction of transmission. These switches are labeled .1, .2, .4, .8, 1, 2, 4, 8, +10, and -20. The gain is adjustable from -20 dB to +23.5 dB in 0.1 dB increments with respect to the received signal level.

**Note:** The sum of rocker switches 1, 2, 4, and 8 should not exceed 12.

**SLOPE:** Five rocker switches, designated SLOPE, control the equalization of the repeater. There is a separate

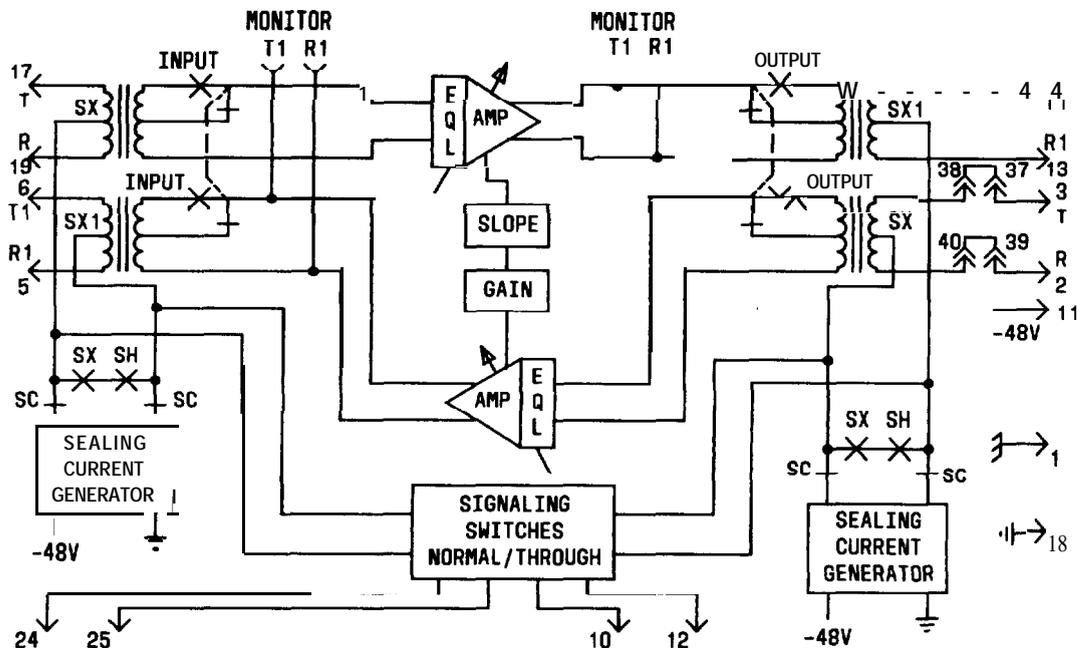


Fig. 1 -Block Diagram of J99343SD Unit

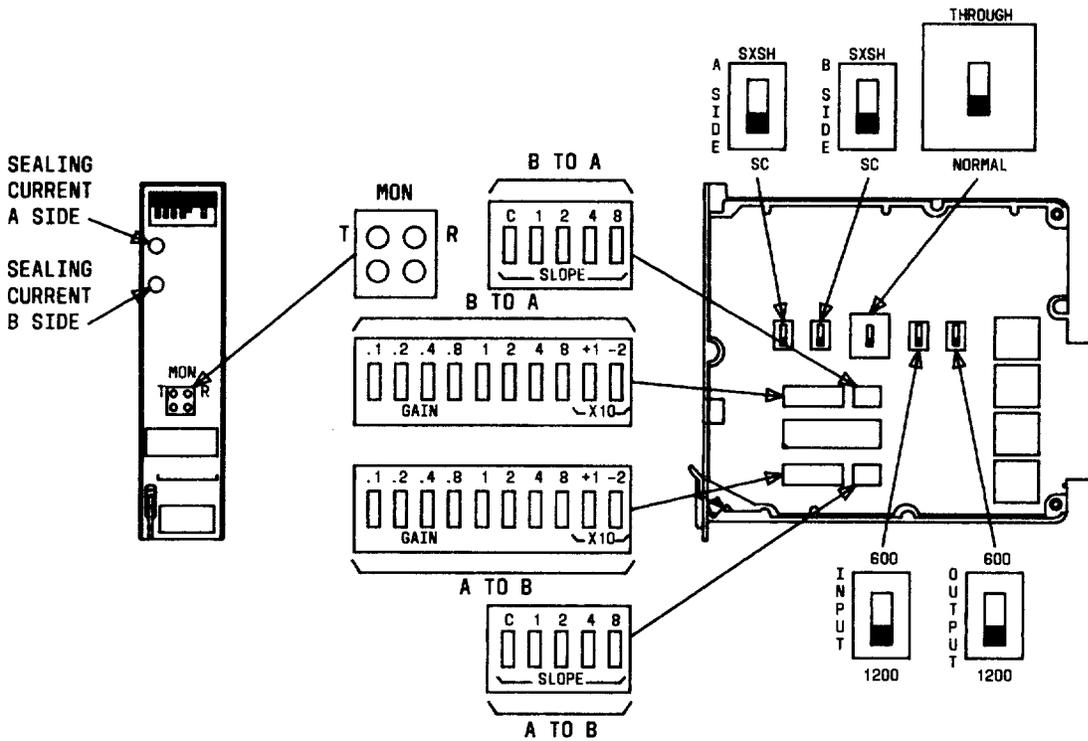


Fig. 2—Illustration of J99343SD Showing Location of Switches and Sealing-Current Indicators

rate slope switch in each direction of transmission. These switches are labeled C, 1, 2, 4, and 8. A separate equalizer is provided for each direction of transmission. The sum of these switches determines the equalization. The C switch acts as a range selector and, when operated, provides a steeper degree of equalization. See Section 332-912-212 for prescription settings of the SLOPE switches.

**NORMAL-THROUGH:** The normal/through switch controls the routing of the simplex leads. In the **normal** mode, the simplex leads are connected to the sealing current function. In the **through** mode, the sealing current is removed from the 4-wire ports and the unit is connected in the conventional through signaling

mode. In the **through** mode, the SC current functions are available on the external signaling leads.

**SC-SX SH:** This switch determines whether the simplex leads are connected to the sealing current generators to source current, or are shorted together to furnish a sealing current sink.

**INPUT-OUTPUT:** The input and output transformers that interface the cable facility are provided with a 600/1200-ohm impedance selection switch. The 1200 ohms is used for loaded cable and the 600 ohms for nonloaded cable. The impedance option switches are provided on both the A-side (INPUT) and the B-side (OUTPUT).