

J99343GR 2-2 WIRE UNIVERSAL ADAPTIVE REPEATER/LOOP SIGNALING

EXTENDER COMBINED FUNCTION UNIT MTC2280BAA

DATA SHEET

METALLIC FACILITY TERMINAL

The J99343GR CFU (combined function unit) provides continuous automatic balancing for both H88 loaded and 19-, 22-, 24-, 25-, and 26-gauge nonloaded 2-wire facilities on the A- and B-sides using digital techniques. There are no manual balance controls. However, the gain and equalization for both directions of transmission are adjusted manually using controls that interface with the digital electronics of the CFU. In addition to interfacing with loaded and nonloaded cable, the J99343GR CFU can impedance-match 600-ohm 2-wire switches and equipment or 900-ohm 2-wire switches and equipment. The J99343GR CFU is designed to be a substitute for the J99343GB and GE CFUs. Modification or wiring

changes of the MFT (metallic facility terminal) bay will not be required for the J99343GR CFU.

The signaling section of the J99343GR CFU provides a 12-volt battery boost in both tip and ring conductors enabling signaling range to be extended to a total loop resistance of 3000 ohms. Both wink and steady-state battery reversals are repeated. Battery boost is also provided during ringing.

The J99343GR CFU can be used in either a single- or double-module mounting arrangement. It can be mounted in any slot of a single-module shelf. When this CFU is used in the double-module arrangement,

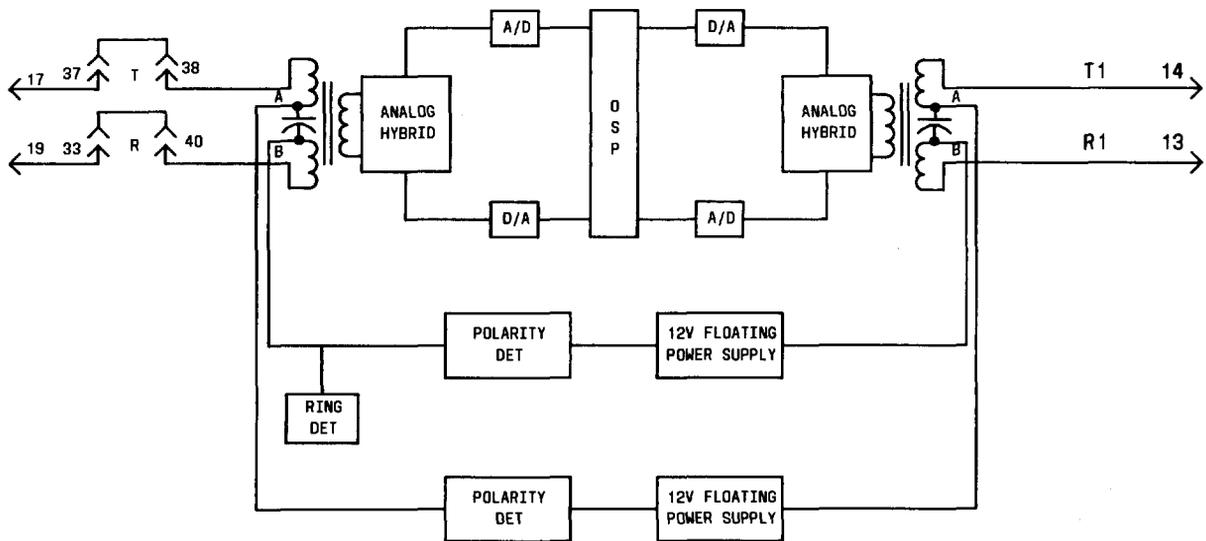


Fig. 1—Block Diagram of the J99343GR CFU

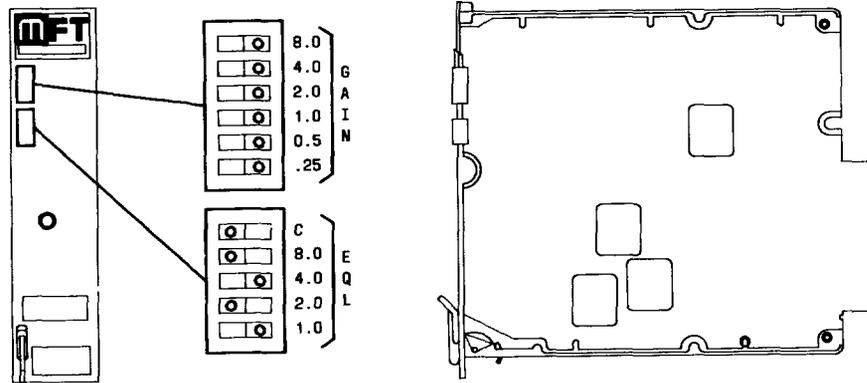


Fig. 2—J99343GR CFU - Component Layout

it is mounted in the transmission unit slot. The companion signaling unit slot must be left vacant. For a detailed discussion of the J99343GR CFU, see AT&T Practice 332-912-164, CD-7C122-01, and SD-7C122-01. A block diagram is shown in Fig. 1. Figure 2 gives switch designations.

GAIN: Six miniature switches, labeled GAIN, control the gain of the CFU. The GAIN switches, accessible through the front faceplate, are individually designated 8.0, 4.0, 2.0, 1.0, .50, and .25 (dB). These switches provide the same gain in both directions of transmission simultaneously.

EQL: Five slide switches, labeled EQL and individually designated C, 8, 4, 2, and 1, adjust the equalization for both directions of transmission simultaneously. The C switch acts as a range selector. When the C switch is operated toward its designation, a steeper degree of equalization or slope across the voiceband is introduced. The other four numerical switches (1, 2, 4, and 8) allow selection of 16 different equalizer shapes for each position of the C switch. The operated sum of the values of the numerical switches and the C-switch position determine the equalization. See Section 332-912-212 for prescription settings of the equalization switches.