

**J99343JA AND JB 2-WIRE PRIVATE LINE AUTOMATIC RINGDOWN
COMBINED FUNCTION UNIT
INSTALLATION AND TESTS
METALLIC FACILITY TERMINAL**

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D. J99343JB—Unit Controls	3	1.01 This section presents the installation and maintenance procedures for the MFT (metal- lic facility terminal) 2-Wire Private Line Automatic Ringdown Combined Function Unit (2-W PLAR CFU).	
3. APPLICATION GUIDELINES	5	1.02 This practice is being reissued to include the J99343JB 2-Wire Private Line Automatic Ringdown Combined Function Unit. Revision arrows are used to emphasize the more significant changes. The Equipment Test List is not affected. The specific reasons for reissue are listed as follows:	
A. General	5	(a) To include the JB CFU in the applicable parts of this practice giving appropriate descriptions or explanations	
B. Performance and Range Information	5	(b) To add a figure of the JB CFU showing the internal switch location	
4. TESTS AND ADJUSTMENTS	5	(c) To delete the part identifying additional references for this practice.	
5. MAINTENANCE	5	1.03 The J99343JA and JB 2-W PLAR CFUs shown in Fig. 1 and 2 provide passive trans- mission treatment and automatic ringdown service for application on 2-station private line circuits.	
Figures			
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More detailed descriptive information on these units is provided in Section 332-912-159.

2. INSTALLATION

A. Mounting Arrangements

2.01 ♦The J99343JA and JB CFUs♦ provide the functions of a 2-wire passive transmission unit and a PLAR signaling unit on a single MFT plug-in. These CFUs can be used in either a single- or double-module mounting arrangement. The J99343JA CFU can be mounted in any slot of a single-module shelf or in the TU (transmission unit) slot of a double-module shelf. In double-module applications, the companion SU (signaling unit) slot must be left vacant. ♦With the proper switch setting (see paragraph 2.06), the J99343JB CFU can be mounted in either the TU or SU slot of a double-module shelf or the TU slot

of a single-module shelf. If the J99343JB CFU is mounted in the SU slot of a double-module shelf, the accompanying TU slot must contain a companion transmission unit.♦ Section 332-910-101 contains additional information for MFT mounting arrangements.

B. Initial Settings

2.02 ♦Figures 1 and 2 show the location of the individual unit controls for the J99343JA and JB CFUs.♦ The initial settings are determined by circuit application and are to be provided by the local circuit layout organization. Figure 3 illustrates a typical decision process to aid in determining the initial switch settings of the JA CFU. The following paragraphs provide a brief description of the individual unit controls.

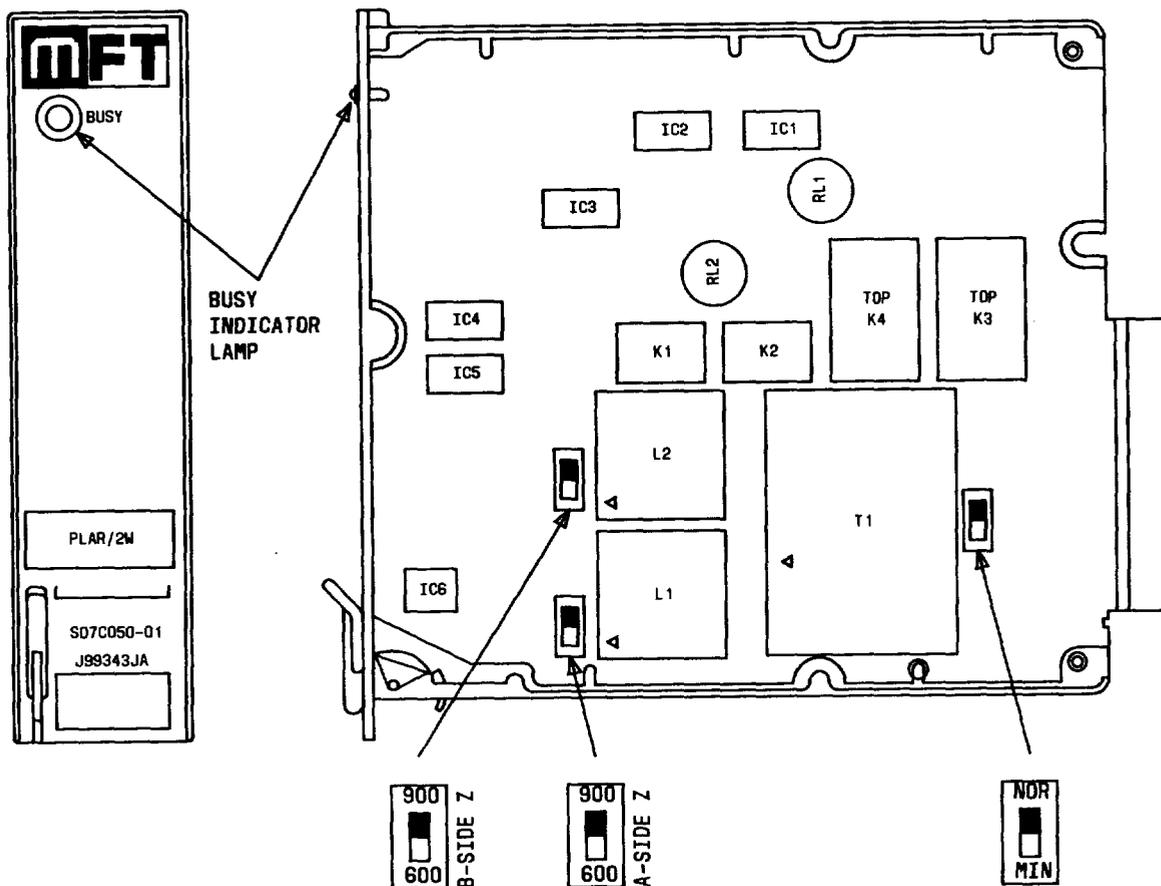
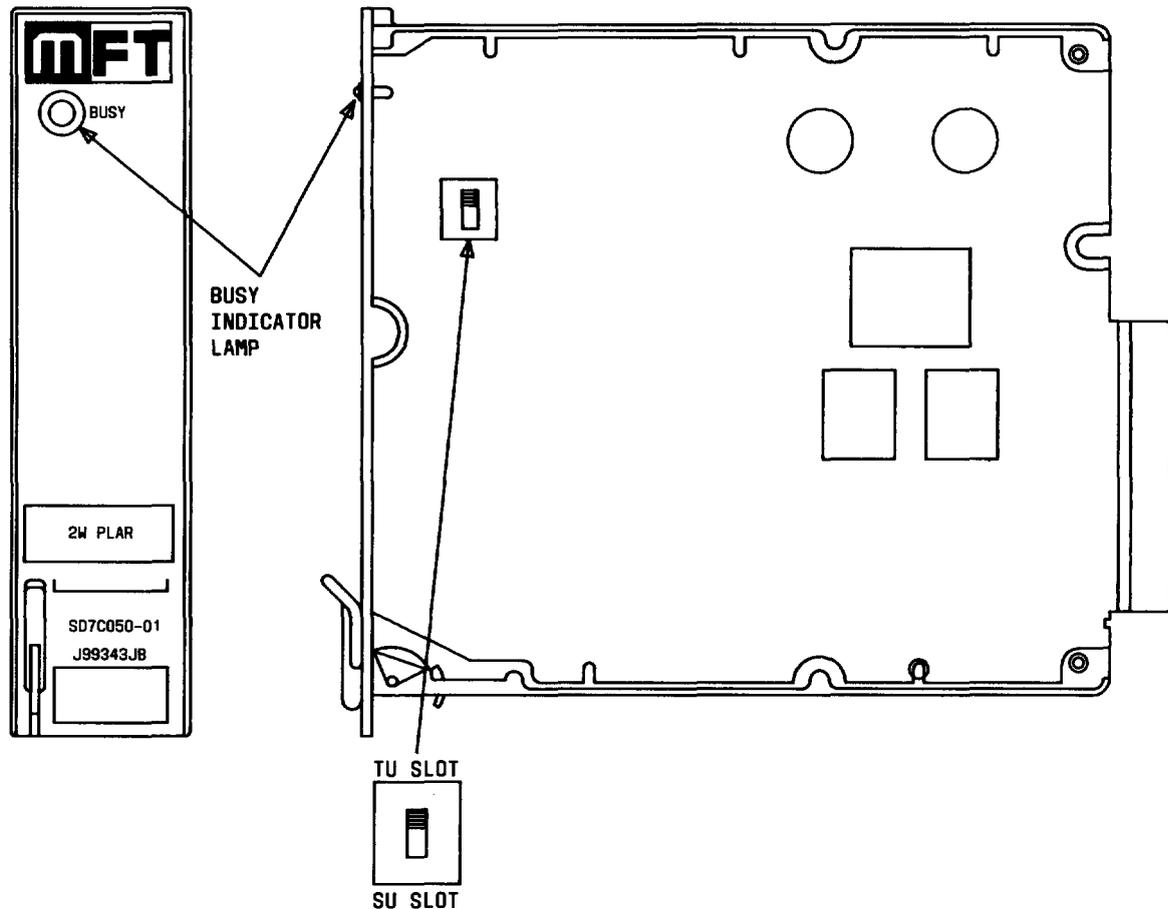


Fig. 1—J99343JA 2-W PLAR CFU—Switch Layout



◆Fig. 2—J99343JB 2-W PLAR CFU—Switch Layout◆

C. J99343JA—Unit Controls

Transmission

2.03 A-SIDE Z and B-SIDE Z: Impedance selections are made by slide switches on the component board designated A-SIDE Z and B-SIDE Z.

2.04 NOR-MIN: A switch designated NOR-MIN is provided to change the loss characteristics of the JA CFU. When the switch is in the NOR position, the return loss of the unit is optimized with an increase in insertion loss. When in the MIN position, the insertion loss is minimized with a reduction in return loss as shown in Table A.

Signaling

2.05 This unit contains no signaling related switch controls.

D. J99343JB—Unit Controls

2.06 TU SLOT/SU SLOT: ◆When the J99343JB unit is used in the transmission unit slot of any frame, the **TU SLOT/SU SLOT** switch must be operated to the **TU SLOT** position. When used in this configuration, talk-battery and ringing connections to the transmission slot are required. When the JB unit is used in the signaling slot of a double-module bay, the **TU SLOT/SU SLOT** switch must be in the **SU SLOT** position. When the JB unit is used in the signaling slot, a companion transmission unit must be mounted in the transmission unit slot.

2.07 The transmission characteristics of the J99343JB CFU are shown in Table B.◆

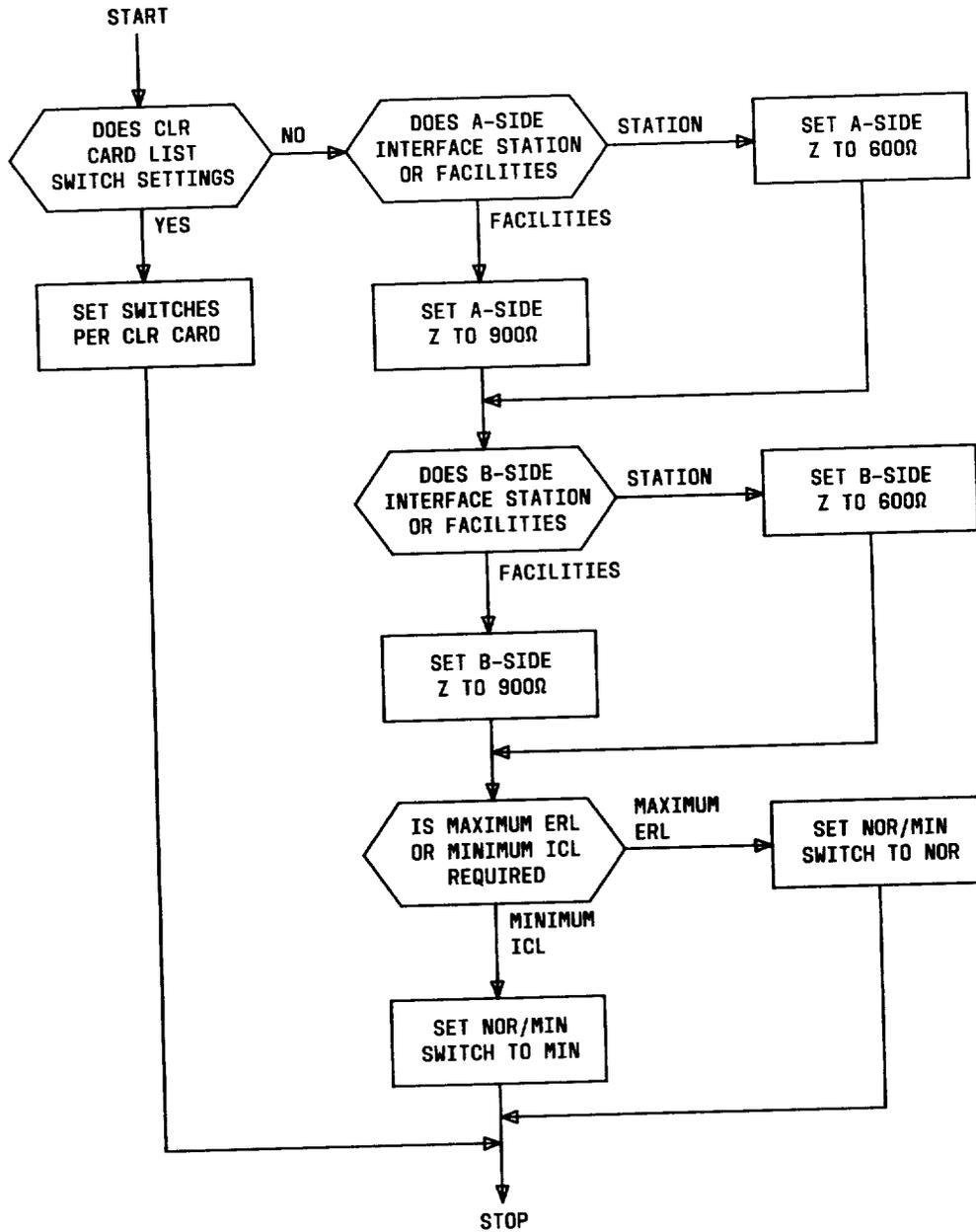


Fig. 3—Typical Switch Setting Decision Process for the J99343JA 2-W PLAR CFU

3. APPLICATION GUIDELINES

A. General

3.01 The PLAR operation between two station sets is summarized by the following statements:

- (a) When one phone goes off-hook, the other phone rings in a one-second on, three-seconds off pattern, provided that both phones were initially on-hook.
- (b) Ringing and ringback stop when both phones are either off-hook or on-hook.

B. Performance and Range Information

3.02 The performance characteristics of the J99343JA and JB CFUs are presented in Fig. 4 which provides ringing and supervision ranges for the CFUs.

4. TESTS AND ADJUSTMENTS

4.01 This unit requires no additional installation adjustments other than the initial unit control settings discussed in Part 2 of this practice.

5. MAINTENANCE

5.01 The MFT units require no routine maintenance. If a unit is determined to be faulty, it should be removed from service and replaced with a spare. The defective unit should be sent to the appropriate AT&T service center for repair.

TABLE A

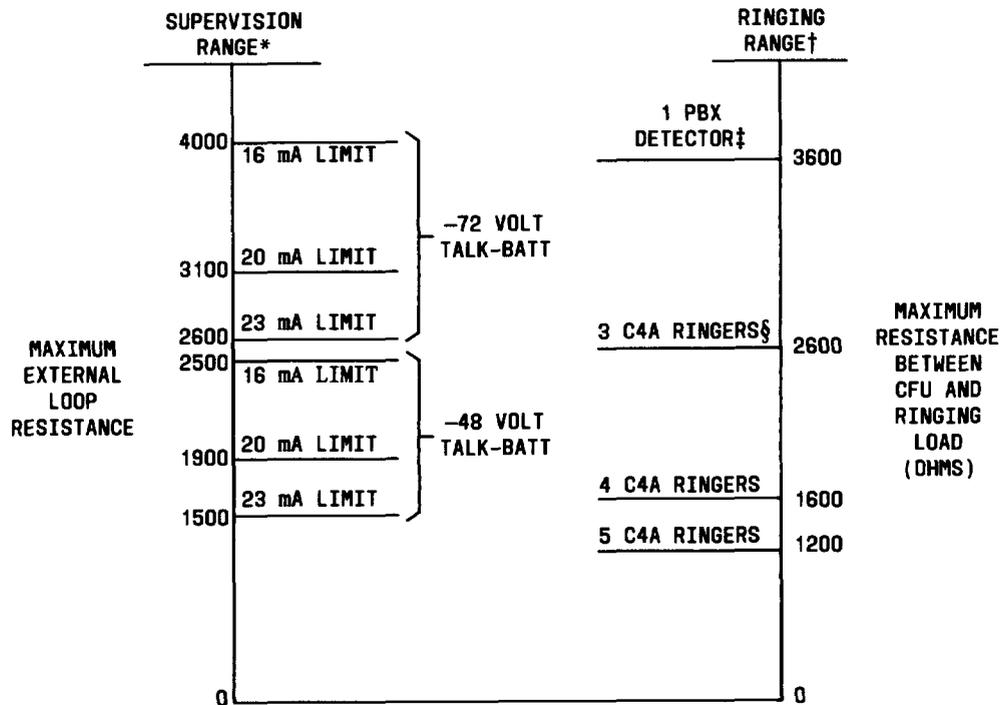
TRANSMISSION CHARACTERISTICS OF THE J99343JA CFU

NOMINAL INSERTION LOSS AT 1 KHZ				
A-SIDE Z	B-SIDE Z		NOR	MIN LOSS
900	900		0.8 dB	0.4 dB
600	600		1.0 dB	0.6 dB
A-SIDE ERL (B-SIDE TERMINATED AS SHOWN)				
A-SIDE Z	B-SIDE Z	B-SIDE TERM	NOR	MIN LOSS
900	900	900Ω +2.15 μF	29 dB	24 dB
600	600	600Ω +2.15 μF	24 dB	20 dB
600	900	900Ω +2.15 μF	29 dB	24 dB
900	600	600Ω +2.15 μF	24 dB	20 dB

TABLE B

TRANSMISSION CHARACTERISTICS OF THE J99343JB CFU

FUNCTION	VALUE
Insertion Loss (1000 Hz)	1.3 dB maximum
Longitudinal Balance (200-3000 Hz)	53 dB minimum
Ringback Tone Level (900 ohms)	-21 dBm nominal



NOTE:
 THESE RANGES ASSUME OPERATION OF THE J99343JB CFU IN A TRANSMISSION SLOT. WHEN OPERATED IN A SIGNALING SLOT IN A DOUBLE MODULE ARRANGEMENT, THE SUPERVISION RANGE FOR THE JB CFU MUST BE DECREASED BY 185 OHMS, AND THE RINGING RANGE MUST BE DECREASED BY ONE RINGER.

- * THE SUPERVISION RANGE INCLUDES THE RESISTANCE OF THE STATION SET OR TERMINATING EQUIPMENT.
- † RINGING RANGES ASSUME A 20 HZ RINGING SOURCE OF 84 TO 88 V RMS AND A SERIES 13L RESISTANCE LAMP.
- ‡ RINGING RANGES TO A PBX ARE BASED ON TYPICAL PBX RELAY DETECTORS SUCH AS THE CIRCUITS USED IN SD-5E016 AND SD-1E340.
- § RINGING RANGES TO STATION SETS WITH C4A RINGERS ASSUME A SERIES 0.5 MICROFARAD CAPACITOR AND A WEAK NOTCH SETTING.

◆Fig. 4—J99343JA and JB—Ringing and Supervision Ranges (Note)◆