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**J98713F LINE TERMINATING UNIT AND  
ED-3C570-( ) LINE POWERING AUXILIARY UNIT  
TESTS  
T1 DIGITAL LINE  
DIGITAL TRANSMISSION SYSTEMS**

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This section describes the tests for verifying the operation of the J98713F line terminating unit (LTU) Fig. 1 and the ED-3C570-( ) line powering auxiliary unit (LPAU) Fig. 2.

This section is being reissued to eliminate the use of the 265C tool (contact burnisher) and 266C tool (steel music wire) in performing the fuse alarm tests. Revision arrows are used to emphasize the more significant changes. Equipment Test Lists are not affected.

The LTU is a miniature version of the T1 carrier office repeater bay and serves two T1 carrier lines. Each line is directly connected to a 206-type repeater mounted in the LTU designated REGULAR and SPARE. The LTU serves as a connecting link between the T1 digital equipment and the T1 lines.

Fault-Locating Procedures and The Installation and Replacement of Office Repeaters in the T1 digital line are covered in Section 365-800-002 (TOP). ♦If the requirement for any test is not met, refer to SD-3C089 to clear trouble or replace the application unit.♦ If trouble is suspected in these areas, reference should be made to the respective sections. There are no initial alignments or adjustments to be made in the LTU besides power option selection of the repeaters and verification that the proper line buildout (LBO) network is installed in nonintegrated circuit-type repeaters.

The tests presented in this section are out-of-service tests.

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**APPARATUS:**

- 1 — KS-14510 Volt-Ohm-Milliammeter, or equivalent
- 1 — 2W28A Cord (required only when rear access is not possible)
- 1 — ♦70-Type Blown Fuse (used for checking fuse alarms)♦

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**NOTICE**

Not for use or disclosure outside the  
Bell System except under written agreement

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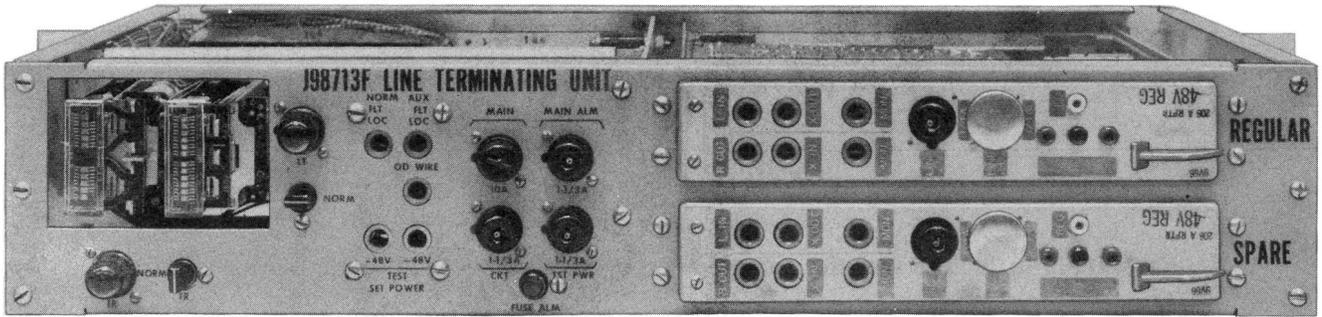
STEP	PROCEDURE
	<b>-48 Volt Power Test</b>
1	If access to the rear of the LTU is not possible, connect the 2W28A cord to the voltmeter and insert the plug end of the cord into the -48 volt TST PWR jack on the LTU front panel. <b>Note:</b> The plug tip connects to -48 volts and the sleeve to ground.
2	Measure the voltage level. <b>Requirement:</b> -48 ±5.0 volts dc.
3	If rear access to the LTU can be obtained, measure the voltage between ground (+) and terminals 3, 4, and 5 of TB6. <b>Requirement:</b> -48 ±5.0 volts at each terminal.
	<b>Alarm Tests</b>
4	◆Remove one of the 70-type fuses on the LTU.
5	Install blown 70-type fuse in its place.◆ <b>Requirement:</b> The alarm relay (upper half of AK47 relay as viewed through the viewing port on the front panel of the LTU) operates, FUSE ALM lamp lights, and the audible alarm (if provided) sounds while each fuse is shorted.
6	◆Reinstall original 70-type fuse.
7	Repeat Steps 4 through 6 for each remaining 70-type fuse on the LTU.◆
	<b>Looping Relay Test</b>
8	Operate the looping (LT) turnkey to the LT position (vertical) while observing the lower half of the AK47 relay through the viewing port. <b>Requirement:</b> The LT relay operates and the LT lamp lights.
9	Operate the LT key to the NORM (horizontal) position. <b>Requirement:</b> The LT relay releases and the LT lamp extinguishes.
10	If remote looping control is provided, establish order-wire communications with the remote (far) end and repeat Steps 6 and 7 from the remote location while observing the requirements from the local (near) end.
	<b>Transfer Relay Test</b>
11	Operate the transfer (TR) turnkey to the TR (vertical) position while observing the transfer relay (AJ5) through the viewing port.

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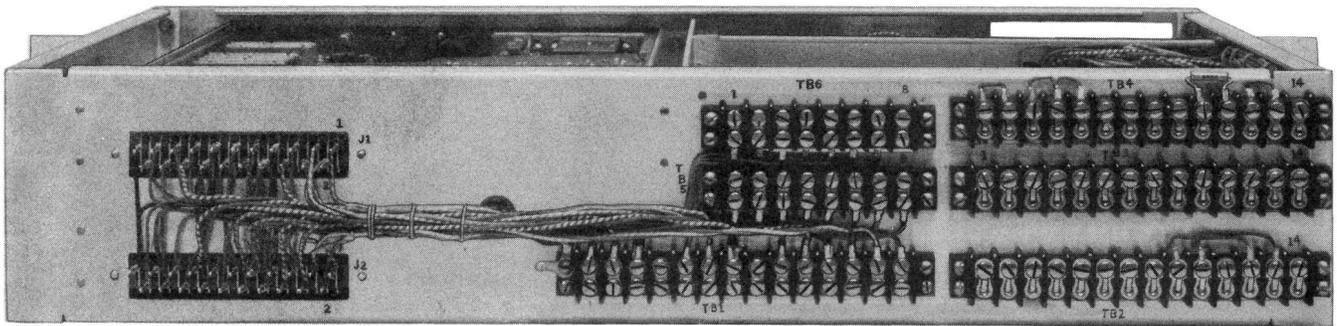
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STEP	PROCEDURE
	<b>Requirement:</b> The transfer relay operates and the yellow TR lamp lights.
12	Operate the TR key to the NORM (horizontal) position. <b>Requirement:</b> The transfer relay releases and the TR lamp extinguishes.
13	If remote transfer control is provided, establish order-wire communications with the remote end and repeat Steps 9 and 10 from the remote location while observing the requirements from the local end.  <b>LPAU Test</b> <b>Note:</b> This test is applicable only if the LPAU is installed for use with the LTU.
14	With the voltmeter, measure the voltage between TB3 terminals 1 (+) and 2 (-) on the LPAU. <b>Requirement:</b> +130V $\pm$ 10.0V.
15	Measure the voltage between TB3 terminals 6 (-) and 2 (+), if connected. <b>Requirement:</b> -130V $\pm$ 10.0V. <b>Note:</b> This voltage is connected only if the powering requirement of the line is 260 volts.
16	◆Remove one of the 70-type fuses on the LPAU.
17	Install blown 70-type fuse in its place.◆ <b>Requirement:</b> The alarm relay (upper half of AK47 relay as viewed through the viewing port on the front of the LTU) operates, the FUSE ALM lamp on the LTU lights, and the audible alarm (if provided) sounds momentarily.
18	◆Reinstall original 70-type fuse.
19	Repeat Steps 16 through 18 for each remaining 70-type fuse on the LPAU.◆

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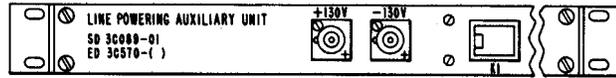


FRONT VIEW



REAR VIEW

Fig. 1—Line Terminating Unit (LTU)



**Fig. 2—Line Powering Auxiliary Unit (LPAU)**