REPLACING PAGE ADDENDUM
Filing Instructions:

1. REMOVE FROM THE SECTION THE PAGES NUMBERED THE SAME AS THOSE ATTACHED TO THIS PINK SHEET.
2. INSERT THE ATTACHED PAGES INTO THE SECTION IN THEIR PLACE.
3. PLACE THIS PINK SHEET AHEAD OF PAGE 1 OF THE SECTION.

2600-HZ E1D, E2D, or E3D SINGLE-FREQUENCY SIGNALING CIRCUIT OUT-OF-SERVICE TESTS USING TESTING CIRCUIT SD-96519-01 OR SD-96519-02 AND 2B SIGNALING TEST SET J-64730B

1. GENERAL

1.001 This addendum supplements Section 179-322-502, Issue 6. The attached pages must be inserted in accordance with the filing instructions above.

1.002 This addendeum is issued to:

(a) Change the title to include the 2B signaling test set J-64730B.

(b) Change Step 50e of Test D to read—Block RG relay nonoperated.

(c) Add verification for Step 55e of Test D.

This addendum does not affect the Equipment Test List.

Attached:

Page 1 dated June 1973—Revised
Page 2 dated June 1973—Reissued
Page 11 dated June 1973—Revised
Page 12 dated June 1973—Revised

2600-HZ E1D, E2D, OR E3D SINGLE-FREQUENCY SIGNALING CIRCUIT OUT-OF-SERVICE TESTS USING TESTING CIRCUIT SD-96519-01 OR SD-96519-02 AND 2B SIGNALING TEST SET J-64730B

1. GENERAL

1.01 This section describes methods of making out-of-service tests of 2600-Hz single-frequency signaling circuits per SD-98087-01 or SD-98087-02 using testing circuit per SD-96519-01 or SD-96519-02. It also describes methods of making potentiometer adjustments to correct for changes in the characteristics of some circuit elements. If the requirements of this section cannot be met after readjustment of potentiometers or relays, the units should be returned to a repair center because of special techniques involved in testing and clearing trouble on some of the components.

Note: 291- and 303-type relays shall be maintained in an upright position not less than 1 minute before beginning any tests.

1.02 This section is reissued to correct information in Tests D and F. This reissue does not affect the Equipment Test List.

1.03 The tests covered are:

1.04 The 13A or the J94021A (21A) transmission measuring set is referred to in this section as the TMS.

1.05 The dial switch on the 13A TMS or the DET INPUT switch on the 21A TMS is referred to in this section as the TMS attenuator switch. The specific settings of the TMS attenuator switch are not given in the procedure unless necessary to prevent overload and possible damage to the instrument. The proper setting will be that which results in an on-scale reading on the TMS meter and will depend upon whether the 13A or 21A TMS is used and the specific value to be measured.

1.06 The 2B signaling test set is referred to in this section as 2B test set.

1.07 The J98613AY test panel (SD-96519-01 or SD-96519-02) is referred to in this section as test circuit. KEYERS switch 1 and RECEIVER switch 2 on this panel are referred to as SW1 and SW2, respectively. Jacks and keys mentioned in this practice are part of the test circuit unless otherwise specified.

1.08 Percent break adjustments above 70 percent on the 2B test set should be made slowly. Incorrect values will be obtained if the rate of vibration of the PERCENT BREAK meter pointer is not the same as that of the PULSES PER SECOND meter pointer. To restore correct percent break values, turn the ADJ % BK control counterclockwise until both pointers are vibrating at the same rate, then turn the control more slowly clockwise until the desired percent break value is obtained. It may also be necessary to change the coarse ADJ % BK switch from S, M, or L setting to obtain the desired range on the PERCENT BREAK meter.

1.09 Since this section covers E1D units with different wiring arrangements, the following designations are used to identify the units. All E2D and E3D units, regardless of dash numbers, are referred to as E2D and E3D, respectively.

DESIGNATION	DESCRIPTION
E1D	E1D units without series number (unmodified)
E1D-#	A specific numbered unit
E1D-( )	All E1D units with series numbers
No Designation	All units with or without series numbers

1.10 ***Lettered Steps:*** A letter ***a, b, c,*** etc, added to a step number in Part 3 or 4 of this section, indicates an action which may or may not be required depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column, and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

1.11 ***A Brief Test for New or Modified Units:*** A brief test may be used to check new or modified units prior to placing them in service. The brief test is to be used only when it is reasonably certain that units have not suffered damage. These limited tests are not extensive enough to ensure that a unit will meet all requirements; however, they provide a reasonable degree of assurance of proper operation. If the unit fails to meet these test requirements, a complete test must be performed. Brief test steps in this section are designated with a bullet mark (•) preceeding the steps in Tests A, D, E, F, and PREPARATION.

2. APPARATUS

2.01 The apparatus required for each test is shown in Table A. The details of each item are covered in the paragraph indicated by the number in parentheses.

2.02 Test circuit, J98613AY (SD-96519-01 or SD-96519-02) including folding test fixture, J98613AC.

2.03 The 2B test set, J64730B (SD-56134-02) ***W*** option or later, includes power cords and patch cords for E and M leads (2P1D and 2P3B cords).

2.04 The 13A or the J94021A (21A) transmission measuring set (TMS).

2.05 Patching cord, P2A cord, 6 feet long, equipped with two 347A plugs (2P1D cord).

2.06 Patching cord, P2A cord, 6 feet long, equipped with two 347B plugs (2P3B cord).

2.07 Patching cord, P3E cord, 6 feet long, equipped with two 310 plugs (3P7A cord).

2.08 Testing cord: for 13A TMS, W2DL cord, 6 feet long, equipped with 310 plug and two 35 cord tips (2W42A cord); for 21A TMS, P3N cord, 6 feet long, equipped with a 241A plug and a 310 plug (3P17B cord).

STEP	ACTION	VERIFICATION
	Note: To recheck this requirement, restore LP CUR 2 key and operate LP CUR 1 key, then repeat Steps 22c and 23c.	
	Reading in Step 21 is removed, but reappears in about 1 second.	
	Note: If this requirement is not met, the unit must be replaced.	
24c	Restore LP CUR 2 key and operate LP CUR 1 key.	
25	Release TMS A, TMS B keys.	
26	Restore 1000~A key to normal.	
4-Wire to 2-Wire Loss		
27	Operate 1000 B key.	
28	Set REC or RCV potentiometer fully counterclockwise.	TMS indicates −39 dB or less power.
29	Set attenuator switch of TMS to 0 ***red*** scale.	
30	Adjust REC or RCV potentiometer to full clockwise position.	TMS indicates +1 dBm or greater power.
31	Adjust REC or RCV potentiometer to obtain exactly 0 dB.	TMS indicates 0 dB on ***red*** scale.
2-Wire Loss		
32	Press TMS A, TMS B keys simultaneously.	TMS indicates between −14 and −18 dB.
33	Operate 2W TER key.	TMS reading at least 15-dB below that of Step 32.
34	Set TMS attenduator switch to 0.	
35	Release TMS A, TMS B keys.	
36	Restore 2W TER key to normal.	
37	Restore LP CUR 1, 1000~B keys to normal.	
38	Operate, then release LP CUR 2 key.	CS relay releases.
39	Set SW1 to position 6, SW2 to position 4.	
40	Set ATT attenuator to 10.	TMS indicates 0. See Step 41d.
	Note: See Step 7a of PREPARATION.	

STEP	ACTION	VERIFICATION
41d	If requirement of Step 40 is not met— Adjust gain potentiometer of TEST AMPL to obtain 0 dB.	
Electronic Cut		
42	Set SW1 to position 5, SW2 to position 3.	
43	Operate LP CUR 1 key.	CS relay operated.
44	Block RG relay nonoperated.	
45	Set SW1 to position 6.	TMS indicates −40 dBm or less power.
46	Remove blocking tool from RG relay.	RG relay operated. CS relay releases. ***Note:*** Operation of RG relay depends on sensitivity adjustment. If RG relay does not operate, perform Test E, then repeat Steps 39 through 46 of this test.
47	Restore LP CUR 1 key to normal.	TMS indicates −45 dBm or less power.
48e	If testing E2D or E3D unit— Set SW1 to position 5, SW2 to position 2.	
49e	Operate 1000∼A key.	
50e	Block RG relay nonoperated.	
51e	Set attenuator switch of TMS to 10 or 15.	
52e	Press TMS A and TMS B keys simultaneously.	CS relay should be released. If not, release manually. TMS indicates between −15.4 and −16.2 dB.
53e	Set SW1 to position 6.	TMS indicates −40 dB or less power. ***Note:*** If this requirement is not met, the unit must be replaced.
54e	Release TMS A and TMS B keys.	
55e	Remove blocking tool from RG relay.	RG relay operated.
56e	Restore 1000∼A key to normal.	
57	Set SW1 to position 5, SW2 to position 2.	RG relay releases.
58	Set attenuator switch of TMS to 0.	
59	Operate LP CUR 1 key.	CS relay operates.
60	Operate 1000 B key.	TMS indicates 0 dBm.