DIMENSION 2000 AND CUSTOM PBX
CSS 201L
X-RAY TEST 10
(ETC STATION TESTS)

1. GENERAL INFORMATION
2. RECORDS
3. TEST EQUIPMENT
4. TEST PROCEDURES
5. MINIMUM CIRCUIT PACK REQUIREMENTS

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1. GENERAL INFORMATION

1.1 Description

1.11 This section describes the procedures to be followed to perform X-Ray Test 10.

1.12 X-Ray Test 10 tests the Electronic Key Telephone sets that are connected to the ETC's. Without manual intervention by the craftsperson the test takes approximately 30 seconds per ETC. This test need only be performed if an EKT/ETC station test is desired.

1.2 Test Description

1.21 X-Ray Test 10 tests the ETC station and steering circuits only and is designed to run in a faulty station environment. A continuous search for new stations is made, therefore as new stations are plugged in or wiring connections are made, the station will be found in a few seconds.

1.22 Wiring information for connecting stations can be found in Section 250.09 of Handbook 282.

1.23 This test, tests both the EKT (Electronic Key Telephone) and ECT (Electronic Controlled Telephone) - sets. The difference between the two is that on ETC sets the red I-Use lamps are disabled.

2. RECORDS

2.1 Form SD-97-1313 is required for recording the results of this test.

3. EQUIPMENT

3.1 Test Sets - See Section 400 of Handbook 281.

PRIVATE

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4.   TEST PROCEDURES

4.1   Preliminary

4.11   Prior to performing this test, X-Ray Test 07 should have passed.

4.2   Test Execution

4.21   To execute X-Ray Test 10, at the MAAP, momentarily operate <u>EXECUTE</u>, 1, 0 keys.

4.22   After step 4.21 has been performed, the "status" (green) lamps on each Electronic Telephone Set at the first controller under test should light sequentially from bottom to top and then extinguish in the same manner. Next, the I-Use (red) lamps are then lit and extinguished the same way.·

4.23   Ten seconds after step 4.22 has been completed, the test proceeds to the next ETC.

4.24   Steps 4.22 and 4.23 are repeated until all ETC's are tested; the test then starts over at the first controller.

4.3   Manual EKT/ECT Station Tests

4.31   Initially all sets are defined as 10 button sets; therefore all 5, 20, and 30 button sets should be redefined as follows:

a)   At the set to be redefined, momentarily operate the RECALL button.

b)   Redefine the set by momentarily operating one of the four lower buttons at the leftmost row.

BUTTON	SET TYPE
1	5 Button Set
2	10 Button Set
3	20 Button Set
4	30 Button Set

c)   Momentarily operate the RECALL button again.

d)   Wait a few seconds and verify that the number of green lamps lit agrees with the new set definition.

4.32   With the aid of the COD, verify that each set is plugged into the correct steering circuits via the following procedures.

a)   At a station set, momentarily operate the RECALL button. The lower leftmost 7 buttons indicate the steering circuit (slot and circuit number) to which the set is connected in binary. The lower 3 buttons indicate the circuit number and the next 4 upper buttons indicate the slot number. (See Table A).

4.33   Verify that the set responds to the switchhook and button operations
        in the following manner:

      SWITCHHOOK - OFF -   All green status lamps light.
                                         All red I-Use lamps extinguish.

      SWITCHHOOK - ON -   All status lamps extinguished.
                                         All I-Use lamps light.

      BUTTONS 1 to 30 -   On EKT sets the I-Use lamp should light when
                                       the button is depressed and extinguish when
                                     another one is depressed.

      BUTTONS 5 - 30 -   Status lamp should light when the button is
                                       depressed and extinguish when another button
                                     is depressed.

      BUTTON 1 -   Status lamp should wink, Ringer should ring at a
                             normal muted rate.

      BUTTON 2 -   Status lamp should flash, Ringer should ring at a
                             distinctive rate.

      BUTTON 3 -   Status lamp should flutter, Ringer should ring at a
                             priority rate.

      BUTTON 4 -   Status lamp should wink, Ringer should ring at a
                             normal rate.

      NOTE: See Table B for definition of ringing and lamp indications.

4.34   Steps 4.32 and 4.33 should be performed at each set.

4.35   After each set has been verified, as a final check, at the MAAP,
        momentarily operate the DISPLAY, 0, and then operate the NEXT DATA
        key three times. Format F20 should now be displayed, verify that the proper
        set numbers are displayed.

4.36   If more ETC's were tested, at the MAAP, momentarily operate the NEXT
        DATA key and verify that the proper set numbers are again displayed.

4.37   Repeat steps 4.36 until all ETC's have been verified.

4.4   Test Pass Indications

4.41   When all EKT/ECT sets have been tested, X-Ray Test 10 has passed.

4.42   This completes X-Ray testing per X-Ray Test 10.

5.   MINIMUM CIRCUIT PACK REQUIREMENTS

5.1   The system should be equipped per the COD for this test.

STEERING CIRCUIT ADDRESS (OCTAL)	BASIC CARRIER SLOT
0-7	00
10-17	01
20-27	02
30-37	03
40-47	04
50-57	05
60-67	06
70-77	07
	SUPP CARRIER SLOT
100-107	13
110-117	14
120-127	15
130-137	16
140-147	17
150-157	18
160-167	19
170-177	20

Example: Control Buttons BP2, BP4 and BP6 lit.

8 7	6 5 4	3 2 1	BP
0 0	1 0 1	0 1 0	Binary
0	5	2	Octal

Indicates Slot 05, Circuit 2 in the basic carrier.

TABLE A

BUTTON NUMBER	STATUS LAMP INDICATION	IN-USE LAMP INDICATION	RINGER		
			20HZ RING RATE	FREQ	VOL
1	WINK (0.45 SEC ON, 0.05 SEC OFF)	STEADY	STA-TO-STA (1 SEC ON, 3 SEC OFF)	LOW (750 HZ)	LOW
2	FLASH (0.5 SEC ON, 0.5 SEC OFF)	STEADY	DID-ATND (0.3 SEC ON, 0.4 SEC OFF, 0.3 SEC ON, 3 SEC OFF)	HIGH (1500 HZ)	LOW
3	FLUTTER (0.05 SEC ON, 0.05 SEC OFF)	STEADY	PRIORITY (0.2 SEC ON 0.2 SEC OFF, 0.2 SEC ON, 0.2 SEC OFF, 0.2 SEC ON, 3 SEC OFF)	HIGH	FULL
4	WINK (0.45 SEC ON, 0.05 SEC OFF)	STEADY	INTERCOM (AS ASSIGNED BY PROC 061)	LOW	FULL

TABLE B

Reason for Issue:
New Section

Manager, Denver PBX PECC