DIMENSION® 2000 AND CUSTOM PBX
(CSS 201L)
X-Ray Test 04
(Time Division Network Test)

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 04.

1.12 X-Ray Test 04 checks the digital network circuit in each cabinet. This test takes approximately 2 to 30 seconds to perform.

1.2 Test Description

1.21 X-Ray Test 04 executes subroutine "NETWORK" which verifies the time division network control, network clock, digital portions of the buffer boards and the time division network shift registers on all equipped line and trunk circuits. Stuck active board and port selects are also detected.

1.22 The principal tests are:

a) Clear and verify all shift registers.
b) Find all shift registers.
c) Check each shift register for stuck bit.
d) Check for board or port select stuck active.
e) Check for inactive ports on each board.
f) Assign and clear all time slots.
g) Verify speed and operation of network commands.

Note: The LC105 is not included in this test.

2. RECORDS

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

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3.   TEST EQUIPMENT

3.1   Test Sets - See Section 400 of Handbook 281.

4.   TEST PROCEDURES

4.1   Preliminary

4.11   Before executing this test, X-Ray Test 03 should have passed.

4.2   Test Execution

4.21   To execute X-Ray Test 04, momentarily operate the EXECUTE, 0, 4 keys
        at the MAAP.

4.3   Test Pass Indication

4.31   The SEE NOTE, MAAP LED lighting (or the Alarm Panel - PASS lighting)
        indicates that X-Ray 04 has passed.

4.32   At the MAAP, momentarily operate the DISPLAY, 0 keys, verify that the
        displayed Network Carrier counts and Network Board counts agree with the
        actual equipment configuration.

4.4   This completes the x-ray testing per X-Ray Test 04.

5.   MINIMUM CIRCUIT PACK REQUIREMENTS (8K Memory, Low Speed, MD)

X-RAY Test 04

Basic Control Carrier
J58882AA

CARRIER SLOT	CIRCUIT PACK CODE	FUNCTION
00	LC35	RAM Bit Swap
01	LC28B or C	RAM (0-1FFF*)
02	LC28B or C	RAM (2000-3FFF*)
03	LC28B or C	RAM (4000-5FFF*)
04	LC28B or C	RAM (6000-7FFF*)
05	LC28B or C	RAM (8000-9FFF*)
06	LC28B or C	RAM (A000-BFFF*)
07	LC28B or C	RAM (C000-DFFF*)
08	LC28B or C	RAM (E000-FFFF*)
09	LC28B or C	RAM (10000-11FFF*)
10	LC28B or C	RAM (12000-13FFF*)
11	LC28B or C	RAM (14000-15FFF*)
12	LC28B or C	RAM (16000-17FFF*)
13	LC28B or C	RAM (18000-19FFF*)
14	None Required	
15	None Required	
16	None Required	
17	LC36	RAM Data Buffer
18	LC37	RAM Control
19	LC147	Alarm Control
20	LC143	Processor
21	LC143	Processor
22	LC142	ROM
23	None Required	
24	LC133	I/O Memory Decode
25	LC132	I/O Buffer
26	LC29B	Tape Controller II
27	LC30B	Tape Controller I
28	None Required	
29	None Required	
30	LC34B or LC172	Data Link**
31	None Required	
32	None Required	
33	None Required	
34	None Required	
35	None Required	
36	None Required	
37	None Required	
38	None Required	
39	LC130	4-MHZ Channel Control
40	LC131	4-MHZ Subchannel
41	None Required	

*Memory locations
**The tape will load and the processor x-ray will run without this circuit pack;
however, MAAP I/O is not possible.

5.   MINIMUM CIRCUIT PACK REQUIREMENTS (8K Memory, High Speed)

X-RAY Test 04

Basic Control Carrier
J58882AA

CARRIER SLOT	CIRCUIT PACK CODE	FUNCTION
00	LC135	RAM Bit Swap
01	LC28C	RAM (0-1FFF*)
02	LC28C	RAM (2000-3FFF*)
03	LC28C	RAM (4000-5FFF*)
04	LC28C	RAM (6000-7FFF*)
05	LC28C	RAM (8000-9FFF*)
06	LC28C	RAM (A000-BFFF*)
07	LC28C	RAM (C000-DFFF*)
08	LC28C	RAM (E000-FFFF*)
09	LC28C	RAM (10000-11FFF*)
10	LC28C	RAM (12000-13FFF*)
11	LC28C	RAM (14000-15FFF*)
12	LC28C	RAM (16000-17FFF*)
13	LC28C	RAM (18000-19FFF*)
14	None Required	
15	None Required	
16	None Required	
17	LC136	RAM Data Buffer
18	LC137	RAM Control
19	LC147	Alarm Control
20	LC143	Processor
21	LC143	Processor
22	LC142	ROM
23	None Required	
24	LC133	I/O Memory Decode
25	LC134	I/O Buffer
26	LC29B	Tape Controller II
27	LC30B	Tape Controller I
28	None Required	
29	None Required	
30	LC34B or LC172	Data Link**
31	None Required	
32	None Required	
33	None Required	
34	None Required	
35	None Required	
36	None Required	
37	None Required	
38	None Required	
39	LC130	4-MHZ Channel Control
40	LC131	4-MHZ Subchannel
41	None Required	

*Memory locations
**The tape will load and the processor x-ray will run without this circuit pack;
   however, MAAP I/O is not possible.

5.   MINIMUM CIRCUIT PACK REQUIREMENTS (16K Memory, High Speed)

X-RAY Test 04

Basic Control Carrier
J58882AA

CARRIER SLOT	CIRCUIT PACK CODE	FUNCTION
00	LC135	RAM Bit Swap
01	LC128B	RAM (0-3FFF*)
02	LC128B	RAM (4000-7FFF*)
03	LC128B	RAM (8000-BFFF*)
04	LC128B	RAM ((C000-FFFF*)
05	LC128B	RAM (10000-13FFF*)
06	LC128B	RAM (14000-17FFF*)
07	LC128B	RAM (18000-1BFFF*)
08	None Required	
09	None Required	
10	None Required	
11	None Required	
12	None Required	
13	None Required	
14	None Required	
15	None Required	
16	None Required	
17	LC136	RAM Data Buffer
18	LC138	RAM Control
19	LC147	Alarm Control
20	LC143	Processor
21	LC143	Processor
22	LC142	ROM
23	None Required	
24	LC133	I/O Memory Decode
25	LC134	I/O Buffer
26	LC29B	Tape Controller II
27	LC30B	Tape Controller I
28	None Required	
29	None Required	
30	LC34B or LC172	Data Link**
31	None Required	
32	None Required	
33	None Required	
34	None Required	
35	None Required	
36	None Required	
37	None Required	
38	None Required	
39	LC130	4-MHZ Channel Control
40	LC131	4-MHZ Subchannel
41	None Required	

*Memory locations
**The tape will load and the processor x-ray will run without this circuit pack;
however, MAAP I/O is not possible.

5.   MINIMUM CIRCUIT PACK REQUIREMENTS

X-RAY Test 04

Line Group Control Carrier
J58882BB

CARRIER SLOT	CIRCUIT PACK CODE	FUNCTION
01	None Required	
02	None Required	
03	None Required	
04	LC101	Carrier PAM Amp.
05	None Required	
06	None Required	
07	LC02	Line Circuit
08	None Required	
09	None Required	
10	None Required	
11	None Required	
12	None Required	
13	None Required	
14	None Required	
15	None Required	
16	None Required	
17	None Required	
18	None Required	
19	LC122	Network Control
20	LC46	Scan/Dist.
21	LC123	Network/I/O
22	LC124	Network Data

5.   MINIMUM CIRCUIT PACK REQUIREMENTS

X-RAY Test 04

Module Control Carrier
J58882BA

CARRIER SLOT	CIRCUIT PACK CODE	FUNCTION
00	None Required	
01	None Required	
02	None Required	
03	None Required	
04	None Required	
05	None Required	
06	None Required	
07	None Required	
08	None Required	
09	None Required	
10	None Required	
11	None Required	
12	None Required	
13	None Required	
14	None Required	
15	None Required	
16	None Required	
17	None Required	
18	None Required	
19	None Required	
20	None Required	
21	None Required	
22	None Required	
23	None Required	
24	None Required	
25	None Required	
26	None Required	
27	LC121	Network Clock
28	None Required	
29	None Required	
30	None Required	
31	None Required	

Reason for Issue:
    New Section

Manager, Denver PBX PECC