DIMENSION® 2000 PBX
AUXILIARY TONE TESTS
(PROC 540)

1. GENERAL
2. RECORDS
3. VALID MAAP KEY SEQUENCE
4. TROUBLESHOOTING AIDS

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1. GENERAL

1.1 After testing tone plants in procedure 509 or 553, the craftsperson loads procedure 540 in order to:

  1. Display the failure history for LC17B plants recorded by on-line tone maintenance program (on-line tone testing is turned off when this procedure is running).

  2. Test all the Auxiliary Tone plants.

  3. Continuously test the displayed LC17B plant or individual tone specified.

  4. Clear the LC17B plant failure history. Turn off the "OTHER" fault indicator and related MINOR alarm if no other fault causes are present when test 2 is run with no failures detected.

1.2 Procedure 540 includes three tests:

  TEST 1 - This test is default test, occurring when this procedure is called for the first time or "RESET" key is operated. This test displays and clears the failure history recorded by on-line tone testing.

  TEST 2 - This test is used to test all of the LC17B plants.

  TEST 3 - This test tests the displayed LC17B plant in fields 2-5 (see Figure 1). If a failure was displayed in either test 1 or 2 before selecting test 3, the failed circuit will be displayed in the equipment location fields 2-5 with the Module field (2) blinking. All other fields, except field 10, are dashed (-).

2. RECORD

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

Printed in U.S.A.

3.   VALID MAAP KEY SEQUENCE

3.1   PROC NO., 540, ENTER - loads program into memory from tape. When program
is fully loaded into memory, the WAIT lamp will be extinguished.

3.1.1 TEST 1 (default test) will be called in. The initial display will be either:

1.   The lowest equipment location of failed LC17B in fields 2-5, the tone status
word in fields 6-8, the failure code in field 9, the number of LC17B in field 10,
the number of failed LC17B in field 11, the LC17B failure index in field 12,
and the circuit unplugged code in field 13 (see Figure 1).

Or

2.   The number of LC17B in field 10, zero LC17B failures in field 11, and dashes
(-) in all other fields if the failure history has no failed circuits logged.

Operation of "NEXT CIRCUIT" key will advance the failure index in field 12, and
display the next failed LC17B. Continue to operate "NEXT CIRCUIT" until the fail-
ure index is equal to the number of failures in field 11. Operating "NEXT CIRCUIT"
key when the number of failed LC17B is equal to the failure index will cause a display
with fields 2-9 and 11-13 dashed (-), indicating the end of on-line recorded LC17B
failures. Operating "NEXT CIRCUIT" key with a dashed display will yield the same
result as pressing "EXECUTE" key in that the failure history will be displayed once
again.

Operate the "CLEAR DATA", "EXECUTE" to clear the on-line recorded failure history.
Upon completion of the sequence, fields 2-9 and 12-13 are dashed, field 10 displays
the number of LC17B's, and the number of LC17B failures (field 11) will be zeroed.
The failure history will also be cleared if no failures occur after all LC17B's are
tested in test 2.

If "NEXT CIRCUIT" or the "CLEAR DATA, "EXECUTE" is operated before "EXECUTE"
is pressed once, error code 00 will be displayed (key operated at the wrong time).

3.1.2 Using "NEXT TEST" key, test number will increment to test 2:

In Test 2, testing of each tone progresses from left to right. A flashing field (6-8)
indicates that the tone is active. Only the "STOP" key may be operated during the testing
process. Any other key will cause error code 00 to be displayed. On the other hand,
operating the "STOP" key when testing is not in process will also cause error code
00 to be displayed.

When testing is completed, the WAIT lamp will be turned off and the first failed
LC17B will be displayed as in test 1. Operation of "NEXT CIRCUIT" key will display
the next failed LC17B and advance the failure index in field 12. When the failure
index equals the total failed LC17B's and "NEXT CIRCUIT" is passed again, dashes
will be displayed in fields 2-9 and 11-13 indicating that all failed circuits have been
displayed. Operation of "NEXT CIRCUIT" with a dashed display will display the first
failed circuit once again.

3.1.2 (Cont'd)

The MINOR ALARM and the "OTHER" lamps are turned on as soon as a fault is detected. The lamps are turned off if, after all circuits have been tested, no failures are detected. The maximum number of failed LC17B's that can be displayed in test 2 is limited to 50.

3.1.3 Using "NEXT TEST" key, test number will increment to test 3, which tests the displayed LC17B (fields 2-5).

If a failure was displayed in either test 1 or 2 before selecting test 3, the failed circuit will be displayed in the equipment location fields 2-5 with the field 2 blinking. All other fields, except field 10, are dashed. If no failed circuit was detected in test 1 or 2, the test 3 will be initialized with dashes in fields 3-9 and 11-13, and field 2 is blinking.

The LC17B to be tested may be selected at this time by operating the "NEXT CIRCUIT" key, or the craftsperson may enter the appropriate LC17B equipment location using the "CHANGE FIELD" sequence.

The selection of a single tone for testing may be chosen by the craftsperson by entering a "2" in field 6, 7, or 8 using the "CHANGE FIELD" sequence. A special code (996) will be displayed in field 9 (failure code) if only one tone is tested. If single tone testing is not chosen, testing will begin with the leftmost tone in field 6. In either case, fields 11 and 12 do not apply in test 3 and will be dashed.

Pressing "EXECUTE" key will run the test continuously, displaying the test results at 12 second intervals. A flashing field (6-8) indicates that the tone is active. Only the "STOP" key may be used during the testing process. Operation of any other key will cause the error code 00 to be displayed. On the other hand, operation of the "STOP" key when testng is not in process will also cause error code 00 to be displayed.

Changing from the single tone test mode (after tone testing has been stopped), can be accomplished by using the "CHANGE FIELD" sequence and pressing "ENTER" key in place of "2", "ENTER". Pressing "EXECUTE" key will now start testing with the leftmost tone in fields 6-8. All tones are now continuously tested. The Minor Alarm and "OTHER" lamps are turned on as soon as a fault is detected. To clear the alarms, test 2 must be run again with no failures detected.

4.   TROUBLESHOOTING AIDS

4.1   Some of the error codes:

ERROR	DESCRIPTION
00	Wrong Control Key
03	Data Error
10	Wrong Specification
11	Is Not Assigned
71	Feature Not In Program
74	Equipent Not Part of System

Also for detail troubleshooting call PROC. 554 (see Section 554 of Handbook 281).

TEST 1:	TEST 2:	TEST 3:	FAILURE CODES:
DISPLAYS FAILURE HISTORY. USE 'NEXT CIRCUIT' TO DISPLAY NEXT FAILED CIRCUIT. USE 'CLEAR DATA','EXECUTE' TO CLEAR FAILURE HISTORY.	TESTS ALL AUXILIARY TONE PLANTS. USE 'NEXT CIRCUIT' TO DISPLAY NEXT FAILED CIRCUIT.	TESTS A PARTICULAR CIRCUIT. USE 'NEXT CIRCUIT' TO ADVANCE TO NEXT CIRCUIT. ENTER A '2' TO SELECT A PARTICULAR TONE IN FIELDS 6-8.	0=PASS 1-7=CCE TOP 996=CIC TONE TESTED 997=NO TONE MONITOR CORRECTION 998=NTWK ORDER INCOMPLETE 999=NO TIME SLOT

ISSUE L8.3
FLIPCHART

PROC 540

FLIPCHART
ISSUE L8.3

AUXILIARY TONE TESTS

PROC
540

TEST NO		EQUIPMENT LOCATION				TEST 3				FAILURE CODE		NUMBER OF AUXILIARY TONE PLANTS	NUMBER OF FAILED AUXILIARY TONE PLANTS	FAILED AUXILIARY TONE PLANT INDEX		CP OUT SLOT	
		TEST 3	C A B I N E T	C A R R I E R	SLOT	IMM. AUD. RING	ZIP TONE	REM HOLD									
		MODULE															
1		2	3	4	5	6	7	8		9		10	11	12		10 13	

* Binary equivalent of tone(s) that failed (fields 6-8). For detail troubleshooting, call PROC. 554 (see Section 554 of Handbook 281).

Figure 1 - PROC. 540 FLIPCHART

Reason for Issue:
  New Section.   Manager, Denver PBX PECC