

COMBINED AND COMPLETING MARKER CIRCUITS—PART 25
TESTS USING MASTER TEST FRAME
NO. 5 CROSSBAR OFFICES

1. GENERAL

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1.01 This section is Part 25 in a series of sections for testing combined and completing markers.

that ringing is to be supplied from a line or trunk. (2) The ability of the marker to recognize the terminating treatment required on a call to a preemptable line, a line having off-hook service, a line not requiring any special service, or a call to a listed directory number.

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1.02 The reasons for reissuing this section are listed below. Revision arrows are used to emphasize the more significant changes. This issue affects the Equipment Test Lists.

(a) To indicate that Tests CO, CP, and CQ do not apply in offices equipped with Electronic Translation System (ETS).

(b) To exclude under verification in all tests, reference to "class of test" lamps.

(c) To make minor changes as required.

1.04 Lettered Steps: A letter a, b, c, etc, added to a step number in Part 3 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.

1.03 The tests covered are:

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CO. Trunk Group Rotation Test—Polygrid Routing—ETS Not Provided: This test checks that the marker can control the order of selection of route relays in a triple.

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CP. Polygrid Routing—ETS Not Provided: This test provides a method of testing all available routes associated with a code point or code grouping point.

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CQ. Four-Wire Tens Block Screening Features—ETS Not Provided: The following features are checked: (1) The ability of the marker to recognize

1.05 The manner of selecting some circuits and test conditions at the master test frame (MTF) and its associated circuits varies depending on the apparatus options furnished with these circuits. Therefore, where variable means of selection are provided, precise instructions for the selection of circuits and test conditions are not given. Precise instructions for the use of these variable means are given in Section 218-106-301.

1.06 The location statement, At MTF—, is used to refer to all apparatus located on the four basic bays of the MTF.

1.07 On issue 76D of SD-25800-01, a group of 18 "class of test" lamps was replaced by a single "start test" lamp designated STT. Since

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the designation given to the lamp is not specific, the lamp will not be called out in the section, as well as the 18 discontinued lamps, DT, ORIG, ITDO, ITNP, OGT, INC, OR, SDR, IR, MISC, IAO, MLV, LT, IMS, PTT, TVT, ATNT, and IMT.¶

2. APPARATUS

2.01 Master test control circuit, SD-25800-01.

3. METHOD

STEP	ACTION	VERIFICATION
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Note: Refer to paragraphs 1.04 through 1.07.

CO. Trunk Group Rotation Test—Polygrid Routing—ETS Not Provided¶

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|---|---|-------------------------|
| 1 | At MTF—
Restore all keys and switches. | |
| 2 | Momentarily operate RL key. | All lamps extinguished. |
| 3 | Select ORIG class of test. | |
| 4 | Select A_ through K_ digits as required to direct call to outgoing route. | |
| 5 | Select originating class of call with translator indication as required for access to selected route. | |
| 6 | Select line location having access to selected route. | |
| 7 | Select class of service and rate treatment as required for access to selected route. | |
| 8 | Select route advance for first trunk group within a triple. | |

Note: Triple selected may be the best alternate, second best alternate, or most direct triple as long as it has a full complement of three trunk groups. (Consult office records for this information.)

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|----|---|--|
| 9 | Set STS_ switch to 5. | |
| 10 | Select CDP_, CD_ control digits as required for access to selected route. | |
| 11 | Select marker under test. | |
| 12 | Operate 4W, REC keys. | |
| 13 | Select junctor sequence 0. | |

STEP	ACTION	VERIFICATION
14	Momentarily operate ST key.	MRL lamp lighted. RA_ lamp(s) lighted for number of route advances selected. Trouble record taken. ROT, RO1, SR1, TB_, TG_ designations perforated.
15	Momentarily operate RL key.	All lamps extinguished.
16	Select route advance for second trunk group within a triple.	
17	Select junctor sequence 3.	
18	Momentarily operate ST key.	MRL lamp lighted. RA_ lamp(s) lighted for number of route advances selected. Trouble record taken. ROT, RO1, SR2, TB_, TG_ designations perforated.
19	Momentarily operate RL key.	All lamps extinguished.
20	Select route advance as required for third trunk group within a triple.	
21	Momentarily operate ST key.	MRL lamp lighted. RA_ lamp(s) lighted for number of route advances selected. Trouble record taken. ROT, RO1, SR3, TB_, TG_ designations perforated.
22	Momentarily operate RL key.	All lamps extinguished.
23	Select route advance for first trunk group within a triple.	
24	Select junctor sequence 1.	
25	Momentarily operate ST key.	MRL lamp lighted. RA_ lamp(s) lighted for number of route advances selected. Trouble record taken. ROT, RO2, SR1, TB_, TG_ designations perforated.
26	Momentarily operate RL key.	All lamps extinguished.
27	Select route advance for second trunk group within a triple.	

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STEP	ACTION	VERIFICATION
28	Select junctor sequence 4.	
29	Momentarily operate ST key.	MRL lamp lighted. RA_ lamp(s) lighted for number of route advances selected. Trouble record taken. ROT, RO2, SR2, TB_, TG_ designations perforated.
30	Momentarily operate RL key.	All lamps extinguished.
31	Select route advance for third trunk group within a triple.	
32	Momentarily operate ST key.	MRL lamp lighted. RA_ lamp(s) lighted for number of route advances selected. Trouble record taken. ROT, RO2, SR3, TB_, TG_ designations perforated.
33	Momentarily operate RL key.	All lamps extinguished.
34	Select route advance for first trunk group within a triple.	
35	Select junctor sequence 2.	
36	Momentarily operate ST key.	MRL lamp lighted. RA_ lamp(s) lighted for number of route advances selected. Trouble record taken. ROT, RO3, SR1, TB_, TG_ designations perforated.
37	Momentarily operate RL key.	All lamps extinguished.
38	Select route advance for second trunk group within a triple.	
39	Select junctor sequence 5.	
40	Momentarily operate ST key.	MRL lamp lighted. RA_ lamp(s) lighted for number of route advances selected. Trouble record taken. ROT, RO3, SR2, TB_, TG_ designations perforated.
41	Momentarily operate RL key.	All lamps extinguished.

STEP	ACTION	VERIFICATION
42	Select route advance for third trunk group within a triple.	
43	Momentarily operate ST key.	MRL lamp lighted. RA_ lamp(s) lighted for number of route advances selected. Trouble record taken. ROT, RO3, SR3, TB_, TG_ designations perforated.
44	Momentarily operate RL key.	All lamps extinguished.
45	Restore all keys and switches.	
CP. Polygrid Routing—ETS Not Provided		
1	At MTF— Restore all keys and switches.	
2	Momentarily operate RL key.	All lamps extinguished.
3	Select A_ through K_ digits as required for outgoing route.	
4a	If subscriber outgoing (SOG) type call— Select ORIG class of test.	
5a	Select line location for line having access to selected route.	
6a	Select class of service and rate treatment as required for access to selected route.	
7a	Select originating class of call with translator indication as required for access to selected route.	
8b	If tandem outgoing (TOG) type call— Select INC class of test.	
9b	Select TOL incoming class of call with translator indication as required for access to selected route.	
10b	Select incoming trunk number.	
11b	Operate AD key.	
12	Select route advance for access to selected route.	
13	Set STS_ switch to 5.	

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STEP	ACTION	VERIFICATION
14	Select CDA_ control digit as required for route control digit desired (Column 1, Table A).	
15	Select CDP_, CD_ control digits as required for priority digit desired (Column 2, Table A).	
16	Select junctor sequence 0.	
17c	If testing on preempt search— Operate CNR key.	
18	Select marker under test.	
19	Operate 4W, REC keys.	
20	Momentarily operate ST key.	MRL lamp lighted. RA_ lamp(s) lighted for number of route advances selected. Trouble record taken. TG_, TB_ designations perforated should agree with information recorded in columns 3 through 19 of Table A.
21	Momentarily operate RL key.	All lamps extinguished.
22d	If other tests are required to test more variables associated with the code point or code grouping point— Repeat Steps 3 through 21.	
23e	If testing on routine search— Select route advance one more than the number of route advances for the selected route.	
24e	Momentarily operate ST key.	PE, MRL lamps lighted. RA_ lamp(s) lighted for number of route advances selected.
25e	Momentarily operate RL key.	All lamps extinguished.
26	Restore all keys and switches.	

CQ. Four-Wire Tens Block Screening Features—ETS Not Provided

Nonpreemptable Line—Nonhunting—Ring From Trunk—Multilevel Preemption Provided

- 1 At MTF—
Restore all keys and switches.

STEP	ACTION	VERIFICATION
2	Momentarily operate RL key.	All lamps extinguished.
3	Select INC class of test.	
4	Select A_ through G_ digits as required to direct call to nonpreemptable line in nonhunting group.	
5	Select TOL incoming class of call with translator indication as required for completion to called line.	
6	Select incoming trunk class for completion to called line.	
7	Select any trunk link frame.	
8	Select CDP_, CD_, CDA control digits as required for completion to called line.	
9	Select marker under test.	
10	Operate 4W, AD, REC keys.	
11	Set ATMT switch to LNPR.	
12	Momentarily operate ST key.	4W, DIS1, LK2, MRL lamps lighted. Trouble record taken. FTT_, FUT_, VGT_ or VGT/T_, VGT/U_, HGT_, VFT_ designations perforated indicating location of called line. LNPR, RCT/T-0, RCT/U-1, RCK3 designations perforated.
13	Momentarily operate RL key.	All lamps extinguished.
14	Restore all keys and switches.	
Nonpreemptable Line—Hunting—Ring From Trunk—Multilevel Preemption Provided		
15	Perform Steps 1 through 3.	
16	Select A_ through G_ digits as required to direct call to nonpreemptable line in a hunting group.	
17	Perform Steps 5 through 11.	
18	Momentarily operate ST key.	4W, DIS1, LK2, MRL lamps lighted. Trouble record taken. FTT_, FUT_, VGT_ or VGT/T_, VGT/U_

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STEP	ACTION	VERIFICATION
		HGT_, VFT_ designations perforated indicating location of called line. LNPR, RCT/T-1, RCT/U-0, RCK3 designations perforated.
19	Momentarily operate RL key.	All lamps extinguished.
20	Restore all keys and switches.	

Nonpreemptable Line—Nonhunting—Ring From Line—Multilevel Preemption Provided

21	Perform Steps 1 through 3.	
22	Select A_ through G_ digits as required to direct call to nonpreemptable line in nonhunting group.	
23	Perform Steps 5 through 10.	
24	Set ATMT switch to LNP.	
25	Momentarily operate ST key.	4W, DIS1, LK2, MRL lamps lighted. Trouble record taken. FTT_, FUT_, VGT_, or VGT/T_, VGT/U_, HGT_, VFT_ designations perforated indicating location of called line. LNP, RCT/T-0, RCT/U-1, CSW, RCK3 designations perforated.
26	Momentarily operate RL key.	All lamps extinguished.
27	Restore all keys and switches.	

Nonpreemptable Line—Hunting—Ring From Line—Multilevel Preemption Provided

28	Perform Steps 1 through 3.	
29	Select A_ through G_ digits as required to direct call to nonpreemptable line in hunting group.	
30	Perform Steps 5 through 10.	
31	Set ATMT switch to LNP.	
32	Momentarily operate ST key.	4W, DIS1, LK2, MRL lamps lighted. Trouble record taken. FTT_, FUT_, VGT_, or VGT/T_, VGT/U_, HGT_, VFT_ designations perforated indicating location of called line.

STEP	ACTION	VERIFICATION
		LNP, RCT/T-1, RCT/U-0, CSW, RCK3 designations perforated.
33	Momentarily operate RL key.	All lamps extinguished.
34	Restore all keys and switches.	
Preemptable Line—Nonhunting—Multilevel Preemption Provided		
35	Perform Steps 1 through 3.	
36	Select A_ through G_ digits as required to direct call to a preemptable line in nonhunting group.	
37	Perform Steps 5 through 10.	
38	Set ATMT switch to PML.	
39	Momentarily operate ST key.	4W, DIS1, LK2, MRL lamps lighted. Trouble record taken. FTT_, FUT_, VGT_ or VGT/T_, VGT/U_, HGT_, VFT_ designations perforated indicating location of called line. PML, RCT/T-0, RCT/U-1, CSW, RCK3 designations perforated.
40	Momentarily operate RL key.	All lamps extinguished.
41	Restore all keys and switches.	
Preemptable Line—Hunting—Multilevel Preemption Provided		
42	Perform Steps 1 through 3.	
43	Select A_ through G_ digits as required to direct call to preemptable line in hunting group.	
44	Perform Steps 5 through 10.	
45	Set ATMT switch to PML.	
46	Momentarily operate ST key.	4W, DIS1, LK2, MRL lamps lighted. Trouble record taken. FTT_, FUT_, VGT_ or VGT/T_, VGT/U_, HGT_, VFT_ designations perforated indicating location of called line. PML, RCT/T-1, RCT/U-0, CSW, RCK3 designations perforated.

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STEP	ACTION	VERIFICATION
47	Momentarily operate RL key.	All lamps extinguished.
48	Restore all keys and switches.	
Off-Hook Service Line—Multilevel Preemption Provided		
49	Perform Steps 1 through 3.	
50	Select A_ through G_ digits as required to direct call to a line with off-hook service feature.	
51	Perform Steps 5 through 10.	
52	Momentarily operate ST key.	4W, DIS1, LK2, MRL lamps lighted. Trouble record taken. FTT_, FUT_, VGT_ or VGT/T_, VGT/U_, HGT_, VFT_ designations perforated indicating location of called line. OHS, PML, RCT/T-0, RCT/U-1, CSW, RCK3 designations perforated.
53	Momentarily operate RL key.	All lamps extinguished.
54	Restore all keys and switches.	
Listed Directory Number—Multilevel Preemption Provided		
55	Perform Steps 1 through 3.	
56	Select A_ through G_ digits as required to direct call to listed directory number.	
57	Perform Steps 5 through 11.	
58	Momentarily operate ST key.	4W, DIS1, LK2, MRL, OPR lamps lighted. Trouble record taken. FTT_, FUT_, VGT_ or VGT/T_, VGT/U_, HGT_, VFT_ designations perforated indicating location of called line. DN, LNPR, RCT/T-, RCT/U-, RCK3 designations perforated.
59	Momentarily operate RL key.	All lamps extinguished.
60	Restore all keys and switches.	
61	Select ORIG class of test.	
62	Select A_ through G_ digits to direct call to listed directory number.	

STEP	ACTION	VERIFICATION
63	Select line location as required for line having originating service.	
64	Select class of service and rate treatment as required for access to selected route.	
65	Select OR class of call with LT translator indication.	
66	Select route advance for access to selected route.	
67	Select CDP_, CD_ control digits as required for access to selected route.	
68	Operate 4W, REC keys.	
69	Select marker under test.	
70	Momentarily operate ST key.	4W, DIS1, LK2, MRL lamps lighted. Trouble record taken. FTT_, FUT_, VGT_ or VGT/T_, VGT/U_, HGT_, VFT_ designations perforated indicating location of intercept trunk. RI designation perforated.
71	Momentarily operate RL key.	All lamps extinguished.
72	Restore all keys and switches.	

Line Requires No Special Services

73	Perform Steps 1 through 3.	
74	Select A_ through G_ digits as required to direct call to a line not requiring special features.	
75	Perform Steps 5 through 9.	
76	Operate 4W, OD, REC keys.	
77	Momentarily operate ST key.	4W, DIS1, LK2, MRL lamps lighted. Trouble record taken. FTT_, FUT_, VGT_ or VGT/T_, VGT/U_, HGT_, VFT_ designations perforated indicating location of called line. POTS, RCT/T-0, RCT/U-1, RCK3 designations perforated.
78	Momentarily operate RL key.	All lamps extinguished.

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STEP	ACTION	VERIFICATION
79	Restore all keys and switches.	

