

COMBINED AND COMPLETING MARKER CIRCUITS—PART 32
TESTS USING MASTER TEST FRAME
NO. 5 CROSSBAR OFFICES

1. GENERAL

1.01 This section is Part 32 in a series of sections for testing combined and completing markers.

1.02 The reasons for reissuing this section are listed below. Revision arrows are used to emphasize the more significant changes. Equipment Test Lists are not affected.

(a) To change part of Test DJ. The change applies to belt line testing of the auxiliary line circuit.

(b) To rearrange paragraphs 1.03 and 1.04 to paragraphs 1.04 and 1.03, respectively.

(c) To make minor changes as required.

1.03 The tests covered are:

**DH. Directory Assistance Charging—LAMA
(LAMA-C or ETS not provided):**

This test checks the routing and screening features of the marker for 411 and 555-1212 directory assistance calls originated by customers in a marker group arranged for AMA.

**DI. Directory Assistance Charging—CAMA
(CAMA-C or ETS not provided):**

This test checks the routing and screening features of the marker for 411 and 555-1212 directory assistance calls originated by customers in distant offices, by four party or rural customers in the same marker group, and by customers in another marker group in the same office.

**DJ. Hotel—Motel Billing—Multimessage
Units—Message Register Pulsing**

(LAMA-C or ETS not provided): This test checks the proper operation of the junctor circuit for surcharge MMU message register

billing (MRB), message register pulse(s) MMU—MRB and checking overtime pulsing MMU billing. These may be arranged with or without timing and with or without surcharging.

1.04 On issue 76D of SD-25800-01, a group of 18 "class of test" lamps were replaced by a single "start test" lamp designated STT. Since 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, such as DT, ORIG, ITDO, ITNP, OGT, etc.

1.05 **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, the steps designated by that letter should be omitted.

1.06 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.

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

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

2. APPARATUS

All Tests

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

Test DJ

2.02 Trunk test circuit, SD-25918-01.

2.03 Auxiliary line circuit, SD-28109-01.

2.04 Patch cord, P3K, equipped with two 310 plugs (3P15A cord) for patching MRP- jack

of the auxiliary line circuit and the MRPB jack on the auxiliary line circuit frame.

2.05 One 1014A dial hand test set, equipped with a 2W38A cord assembly consisting of one W2CK cord, one 310 plug, and one 471 jack.

Note: This circuit shall not be associated with a line link frame equipped with Phase III centrex transfer line identifier and connector circuit.

Note: Refer to paragraphs 1.04 through 1.07.

DH. Directory Assistance Charging—LAMA (LAMA-C or ETS not provided)

Local Information

STEP	ACTION	VERIFICATION
1	At MTF— Restore all keys and switches.	
2	Momentarily operate RL key.	All lamps extinguished.
3	Select marker under test.	
4	Select ORIG class of test.	
5	Select originating class of call with local translator indication as required.	
6	Select A_, B_, C_ digits for access to route of 411 local information.	
7	Select line location for line identification of line having originating service.	
8	Select class of service and rate treatment as required for access to selected route.	
9	Operate REC key.	
10	Momentarily operate ST key.	LK2, DIS1, MRL lamps lighted. Trouble record taken. SOG, SON; X11, OSG_, LST, AMA, CP1, 2; MB2, 4; RN_, CL_, RPK designations perforated. TB_, TG_, FS_, TS_, LV_, LC_, FAK or FBK designations perforated identifying location of local information trunk.

3. METHOD

STEP	ACTION	VERIFICATION
11	Momentarily operate RL key.	All lamps extinguished.
12	Restore all keys and switches.	
Home NPA Information		
13	At MTF— Restore all keys and switches.	
14	Momentarily operate RL key.	All lamps extinguished.
15	Select marker under test.	
16	Select ORIG class of test.	
17	Select originating class of call with local translator indication as required.	
18	Select A_ through G_ digits for access to route of 555-1212 home NPA information.	
19	Select line location for line identification of line having originating service.	
20	Select class of service and rate treatment as required for access to selected route.	
21	Operate REC key.	
22	Momentarily operate ST key.	LK2, DIS1, MRL lamps lighted. Trouble record taken. SOG, SON, OSG_, AMA, RN_, CL_, RPK designations perforated. TB_, TG_, FS_, TS_, LV_, LC_, FAK or FBK designations perforated identifying location of home NPA information trunk. If bulk billing (2-line entry) is provided— CP1, 2; LST designations perforated. If detail billing (4-line entry) is provided— CP1,2; 4DG designations perforated.
23	Momentarily operate RL key.	All lamps extinguished.
24	Restore all keys and switches.	
Foreign Area Information		
25	At MTF— Restore all keys and switches.	
26	Momentarily operate RL key.	All lamps extinguished.

STEP	ACTION	VERIFICATION
27	Select marker under test.	
28	Select ORIG class of test.	
29	Select originating class of call with local translator indication as required.	
30	Select A_ through K_ digits for access to NPA + 555-1212 foreign NPA information.	
31	Select line location for line identification of line having originating service.	
32	Select class of service and rate treatment as required for access to selected route.	
33	Operate REC key.	
34	Momentarily operate ST key.	LK2, DIS1, MRL lamps lighted. Trouble record taken. SOG, SON, OSG_ 4DG, AMA, CP2, 7; MB2, 7; RN_ RPK designations perforated. TB_ TG_ FS_ TS_ LV_ LC_ FAK or FBK designations perforated identifying location of foreign area information trunk.
35	Momentarily operate RL key.	All lamps extinguished.
36	Restore all keys and switches.	
DI.	Directory Assistance Charging—CAMA (CAMA-C or ETS not provided)	

Local, Home NPA, and Foreign NPA Information

Incoming Call—Tandem Supervision (First Marker Usage)

1	At MTF— Restore all keys and switches.	
2	Momentarily operate RL key.	All lamps extinguished.
3	Select marker under test.	
4	Select INC class of test.	
5	Select A_ B_ C_ digits for access to route of 411 local information.	
6	Select trunk number of an assigned tandem incoming trunk.	

STEP	ACTION	VERIFICATION
7a	If marker group is arranged for more than 1000 trunk numbers with CAMA trunks in more than one block of trunk numbers— Operate THT1, 2, or 3 key as required for trunk number thousands digit.	
8	Select CAMA incoming class of call with translator indication for access to CAMA <i>first</i> marker usage with tandem supervision.	
9	Operate CAM0 key.	CAMA lamp lighted.
10	Select CAMA sender group.	
11	Select recorder number.	
12	Operate AD or OD, REC keys.	
13	Operate ORC0, 1, or 2 key as required to select originating rate class.	
14	Momentarily operate ST key.	LK2, DIS1, MRL lamps lighted. Trouble record taken. CAMA, TCB, CAMF, OSG_, ORC_ designations perforated.
15	Momentarily operate RL key.	All lamps extinguished except CAMA.
16	Select A_ through G_ digits for access to route of 555-1212 home NPA information.	
17	Repeat Steps 14 and 15.	
18	Select A_ through K_ digits for access to route of NPA + 555-1212 foreign NPA information.	
19	Repeat Steps 14 and 15.	
20	Restore all keys and switches.	CAMA lamp extinguished.
<i>Incoming Call—Tandem Supervision (Second Marker Usage)</i>		
21	At MTF— Restore all keys and switches.	
22	Momentarily operate RL key.	All lamps extinguished.
23	Select marker under test.	
24	Select INC class of test.	

STEP	ACTION	VERIFICATION
25	Select A_, B_, C_ digits for access to route of 411 local information.	
26	Select trunk number of an assigned tandem incoming trunk.	
27a	If marker group is arranged for more than 1000 trunk numbers with CAMA trunks in more than one block of trunk numbers— Operate THT1, 2, or 3 key as required for trunk number thousands digit.	
28	Select CAMA incoming class of call with translator indication for access to CAMA second marker usage with tandem supervision.	
29	Operate CAM2 key.	CAMA lamp lighted.
30	Operate ACD or LCD_, REC keys.	
31	Select trunk link frame associated with information trunk.	
32	Momentarily operate ST key.	LK2, DIS1, MRL lamps lighted. Trouble record taken. TCB, PCD, CMS designations perforated. TB_, TG_, FS_, TS_, LV_, LC_, FAK or FBK designations perforated identifying location of selected information trunk.
33	Momentarily operate RL key.	All lamps extinguished except CAMA.
34	Select A_ through G_ digits for access to route of 555-1212 home NPA information.	
35	Repeat Steps 32 and 33.	
36	Select A_ through K_ digits for access to route of NPA + 555-1212 foreign NPA information.	
37	Repeat Steps 32 and 33.	
38	Restore all keys and switches.	CAMA lamp extinguished.
Incoming Call—Toll Supervision (First Marker Usage)		
39	At MTF— Restore all keys and switches.	
40	Momentarily operate RL key.	All lamps extinguished.

STEP	ACTION	VERIFICATION
41	Select marker under test.	
42	Select INC class of test.	
43	Select A_, B_, C_ digits for access to route of 411 local information.	
44	Select trunk number of an assigned toll incoming trunk.	
45a	If marker group is arranged for more than 1000 trunk numbers with CAMA trunks in more than one block of trunk numbers— Operate THT1, 2, or 3 key as required for trunk number thousands digit.	
46	Select CAMA incoming class of call with translator indication for access to CAMA <i>first</i> marker usage with toll supervision.	
47	Operate TCB, CAM1 keys.	CAMA lamp lighted.
48	Select CAMA sender group.	
49	Select recorder number.	
50	Operate ORC0, 1, or 2 key as required to select originating rate class.	
51	Momentarily operate ST key.	LK2, DIS1, MRL lamps lighted. Trouble record taken. CAMA, TCB, TT, CAMF, OSG_, ORC_ designations perforated.
52	Momentarily operate RL key.	All lamps extinguished except CAMA.
53	Select A_ through G_ digits for access to route of 555-1212 home NPA information.	
54	Repeat Steps 51 and 52.	
55	Select A_ through K_ digits for access to route of NPA + 555-1212 foreign area information.	
56	Repeat Steps 51 and 52.	
57	Restore all keys and switches.	CAMA lamp extinguished.

STEP	ACTION	VERIFICATION
<i>Incoming Call—Toll Supervision (Second Marker Usage)</i>		
58	At MTF— Restore all keys and switches.	
59	Momentarily operate RL key.	All lamps extinguished.
60	Select marker under test.	
61	Select INC class of test.	
62	Select A_, B_, C_ digits for access to route of 411 local information.	
63	Select trunk number of an assigned toll incoming trunk.	
64a	If marker group is arranged for more than 1000 trunk numbers with CAMA trunks in more than one block of trunk numbers— Operate THT1, 2, or 3 key as required for trunk number thousands digit.	
65	Select CAMA incoming class of call with translator indication for access to CAMA <i>second</i> marker usage with toll supervision.	
66	Operate CAM3 key.	CAMA lamp lighted.
67	Operate ACD, LCD_, REC keys.	
68	Select trunk link frame associated with information trunk.	
69	Momentarily operate ST key.	LK2, DIS1, MRL lamps lighted. Trouble record taken. TCB, TT, PCD1, CMS designations perforated. TB_, TG_, FS_, TS_, LV_, LC_, FAK or FBK designations perforated identifying location of selected information trunk.
70	Momentarily operate RL key.	All lamps extinguished except CAMA.
71	Select A_ through G_ digits for access to route of 555-1212 home NPA information.	
72	Repeat Steps 69 and 70.	
73	Select A_ through K_ digits for access to route of NPA + 555-1212 foreign NPA information.	

STEP	ACTION	VERIFICATION
74	Repeat Steps 69 and 70.	
75	Restore all keys and switches.	CAMA lamp extinguished.
<i>CAMA Junctor or CAMA Intermarker Group Route</i>		
76	At MTF— Restore all keys and switches.	
77	Momentarily operate RL key.	All lamps extinguished.
78	Select marker under test.	
79	Select ORIG class of test.	
80	Select originating class of call with local translator indication as required.	
81	Select A_, B_, C_ digits as required for access to route of 411 local information.	
82	Select line location for identification of four party or rural customer having originating service.	
83	Select class of service and rate treatment as required for access to selected route.	
84	Operate REC key.	
85	Momentarily operate ST key.	LK2, DIS1, MRL lamps lighted. Trouble record taken. SOG, SON, CAMA; X11, OSG_ designations perforated. TB_, TG_, FS_, TS_, LV_, LC_, FAK or FBK designations perforated identifying location of CAMA junctor or CAMA intermarker group trunk.
86	Momentarily operate RL key.	All lamps extinguished.
87	Select A_ through G_ digits for access to route of 555-1212 home NPA information.	
88	Select OR class of call and translator indication as required.	
89	Repeat Steps 85 and 86.	
90	Select A_ through K_ digits for access to route of NPA + 555-1212 foreign NPA information.	

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STEP	ACTION	VERIFICATION
91	Repeat Steps 85 and 86.	
92	Restore all keys and switches.	
DJ.	Hotel—Motel Billing Multimessage Unit—Message Register Pulsing—(LAMA-C or ETS not provided)	
1	At MTF— Restore all keys.	
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 selected route.	
5	Select originating class of call with translator indication as required for access to selected route.	
6	Select line location as required for line identification of line having access to selected route.	
7	Select class of service and rate treatment as required for access to selected route.	
8	Select marker for use in test.	
9	Set SU switch to 2 (two surcharge units).	
10	Set MMU switch to 3 (three multimessage units).	
11	Operate MRP or MPR-TMG key to MRP.	
12	Operate MISC key.	
13	Operate ANS key.	
14	Operate REC key.	
15	Momentarily operate ST key.	MRL lamp lighted. Trouble record taken. FS_ TS_ TG_ TB_ LC_ LV_ FAK/FAB, MRPK designations perforated indicating location of MMU junctor and successful completion of test.
16	Momentarily operate RL key.	All lamps extinguished.

STEP	ACTION	VERIFICATION
17	Restore all keys and switches.	
<i>MMU-MRP Initial and Overtime Pulsing</i>		
18	Set SU switch to 0 (no surcharge units).	
19	Set MMU switch to number of pulses expected.	
20	Operate MRP-TMG key to TMG.	
21	All other keys remain as shown in Steps 3 to 14 above.	
22	Momentarily operate ST key.	MRL lamp lighted. Trouble record taken. FS_ TS_ TG_ TB_ LC_ LV_ FAK/FBK, OMRP, EOP, ET designations perforated indicating location of MMU junctor and successful completion of test.
23	Momentarily operate RL key.	All lamps extinguished.
24	Restore all keys and switches.	
<i>MMU-MRP Junctor Test Without Surcharge and With Timing</i>		
25	At MTF— Restore all keys.	
26	Momentarily operate RL key.	All lamps extinguished.
27	Set SU switch to 0 (zero surcharge units).	
28	All other keys and switches remain as shown in Steps 3 to 8, 10 through 14 above.	
29	Momentarily operate ST key.	MRL lamp lighted. Trouble record taken. FS_ TS_ TG_ TB_ LC_ LV_ FAK/FAB, MRPK designations perforated indicating location of MMU junctor and a successful test of the MRP test.
30	Momentarily operate RL key.	All lamps extinguished.

STEP	ACTION	VERIFICATION
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Dial Through Tests—Auxiliary Line Circuit for Remote Message Registration—With Dial Handset (LAMA-C or ETS Not Provided)

Note: ♦Upon completion of this test the proper forms should be filled out crediting the customer for all test calls made, and forward forms to the AMA accounting department.♦

31	At auxiliary line circuit frame, insert the dial handset plug, with switch in the MON position, into the MRP jack.	
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32	Set handset switch to TALK.	Dial tone heard.
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Note: ♦If line circuit is wired for ground start, the tip side of the line must be momentarily grounded until dial tone is heard.♦

33	Dial digits assigned to 1 KHZ tone.	1 KHZ tone heard.
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34	Restore handset switch to MON.	1 KHZ tone silenced.
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35	Remove handset plug from MRP jack.	
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Belt Line Testing—ALC for Remote Message Registration Using Trunk Test Frame (LAMA-C or ETS Not Provided)

36	At auxiliary line circuit frame patch MRPB jack to the MRP-jack of circuit test under test.	♦At MTF— MRPB lamp lighted.
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37	Restore all keys.	
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38	Momentarily operate RL key.	All lamps extinguished.
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39	Set SU switch to surcharge.	
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40	Set MMU switch to proper charge for terminating test line.	
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41	Insert handset with switch in the MON position into the MRPB jack.	
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42	Set handset switch to TALK.	Dial tone heard.
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Note: If line circuit is wired for ground start, the tip side of the line must be momentarily grounded until dial tone is heard

STEP	ACTION	VERIFICATION
43	Dial digits assigned to terminating test line.	TS lamp lighted. Ringing tone heard.
44	Operate TSW key.	MRP lamp flashes. Ringing tone silenced.
45	Restore TSW key.	TS lamp extinguished.
46	Operate handset switch to MON.	
47	Remove handset from MRPB jack.	
48	At auxiliary line circuit frame— Remove patch cord from MRPB and MRP—jacks.	At MTF— MRPB lamp extinguished.
49	Restore all keys and switches.♦	

