

MESSAGE RATE TRUNK CIRCUITS
OPERATION TESTS USING TEST SET SD-31858-01 (J34701A)
355A COMMUNITY DIAL OFFICES

1. GENERAL

1.01 This section describes a method of testing trunk circuits of the message rate type in No. 355A community dial offices using the SD-31858-01 test set.

1.02 This section is reissued to:

- (a) Revise Test B to include a test step for overtime registration test on individual party message rate calls when using message rate trunk circuit SD-32082-01.
- (b) Make minor revisions in all tests for clarification.

This revision does not affect the Equipment Test List.

1.03 The tests covered are:

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|---|-------------|
| A. Class-of-Service Tone: This test check that the proper class-of-service indication is given to the operator when the associated line finder is arranged for more than one class-of-service. | 2 |
| B. Message Register Operation: This test checks that the trunk functions as required to operate the message register. | 3 |

1.04 The test equipment specified in this section is designed to apply proper marginal tests (simulated critical conditions) when the circuit under test and the test equipment have an applied voltage

of 48.5 to 50. In those offices where power plants are normally operated at more than 50 volts, the battery voltage should be reduced and maintained within the required limits while the tests are being made.

1.05 Lettered Steps: A letter a, b, c, etc, added to a step number in Part 3 or 4 of this section, indicates an action which may or may not be required depending upon local conditions. The condition under which a lettered step or 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.

2. APPARATUS

All Tests

- 2.01** Trunk test set, J34701A (SD-31858-01).
- 2.02** Read telephone set, 52S or equivalent.
- 2.03** W3A cord, 12 feet long, equipped with one 310 plug and three KS-6780 connecting clips (3W3A cord) for connecting test set to trunk circuit.
- 2.04** W1B cord, 10 feet long, equipped with a 310 plug and a KS-6780 connecting clip (1W5A cord) for connecting test set to A lead of trunk circuit.
- 2.05** P3E cord, 6 feet long, equipped with two 310 plugs (3P6D cord) for connecting battery and ground to the test set.

3. PREPARATION

STEP	ACTION	VERIFICATION
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Tests A and B

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| 1 | Restore all test keys to normal. | |
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STEP	ACTION	VERIFICATION
2	At test set— Using P3E cord, patch BAT G jack to 48V frame battery supply jack.	
	<i>Note:</i> To avoid possible grounding of battery supply lead, connect cord to test set first and, when disconnecting, remove from test set last.	
3	Connect head telephone set to TEL jack.	
	<i>Note:</i> Leave TRS key normal except when necessary to talk.	
4	Using W3A cord, connect 310 plug into T jack of test set.	
5	Using W1B cord, connect 310 plug into CL jack of test set.	
6	Operate BY key.	
7a	If line finder associated with trunk under test is equipped with line finder control circuit arranged for mate operation— Operate MB key of line finder.	
8	At unit terminal strip of trunk circuit to be tested— Using W3A cord, connect KS-6780 clip of sleeve (red) conductor to sleeve terminal.	BY lamp does <i>not</i> light. <i>Note:</i> If busy lamp lights, wait until circuit is idle, or proceed to another trunk circuit.
9	Using W3A cord, connect KS-6780 clip of tip (white) conductor to tip terminal and KS-6780 clip of ring (blue) conductor to ring terminal.	
10	Using W1B cord, connect KS-6780 clip to A terminal.	
11	Operate DL ST key.	SL lamp lighted.
12	Restore DL ST key.	

4. METHOD

STEP	ACTION	VERIFICATION
A. Class-of-Service Tone		
13	Operate TRS key.	

STEP	ACTION	VERIFICATION
14	Dial number to reach operator.	Operator receives class-of-service tone corresponding to 3000-ohm ground.
15	Operate TR key.	
16	Request operator to momentarily disconnect.	Operator receives class-of-service tone corresponding to 3000-ohm ground. <i>Note:</i> If C lamp lights, disregard.
17	Restore TR key.	
18	Operate PTR or NTR key.	Operator receives class-of-service tone corresponding to direct ground.
19	Restore BY, PTR, or NTR key.	
20	Operate and hold FL key.	Operator disconnects. SL lamp extinguished.
21	Release FL key.	
22	Restore TRS key.	
23	Restore line finder MB key (if operated).	
24b	If other trunks are to be tested— Repeat Steps 6 through 23a.	
25c	If no further tests are to be performed— Remove all patching cords, restore all keys.	

B. Message Register Operation

13	Operate PTR or NTR, LK keys.	C lamp lighted.
14	Restore LK key.	C lamp extinguished.
15b	If office is arranged for 1400- or 1500-ohm range— Dial connector test line (99 terminal) which has been selected for test and immediately operate 1200 key.	REV lamp flashes and lighted steadily. After a 2- to 5.5-second delay— C lamp lighted for approximately 1/2 second.
	<i>Note:</i> If ring tripping does not occur during first or second ringing interval, operate TRS key remain on the connection a short time, and if a subscriber or operator answers, advise that a test is being made.	
16c	If offices is <i>not</i> arranged for 1400- or 1500-ohm range—	REV lamp flashes and then lights steadily. After a 2 to 5.5 second delay—

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STEP	ACTION	VERIFICATION
	Dial connector test line (99 terminal) which has been selected for test and immediately operate 600 key.	C lamp lighted for approximately 1/2 second.
	<i>Note:</i> If ring tripping does not occur during first or second ringing interval, operate TRS key remain on the connecton a short time, and if a subscriber or operator answers, advise that a test is being made.	
17	Operate LK key.	C lamp lighted.
18	Restore LK key.	C lamp extinguished.
19d	◆If trunk is arranged for overtime registration on individual party message rate calls— Remain on connection while timer times 5 minutes interval.	At completion of 5-minute interval— C lamp lighted for approximately 1/2 second.◆
20	Operate LK key.	C lamp lighted.
21	Restore BY key.	C lamp extinguished.
22	Operate and hold FL key.	SL lamp extinguished.
23	Restore FL, LK, PTR, or NTR key.	
24	Restore line finder MB key (if operated).	
25e	If other trunks are to be tested— Repeat Steps 6 through 24d.	
26f	If no further tests are to be performed— Remove all patching cords; restore all keys.	