

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 incorporate material from the addendum in its proper location. In this process marginal arrows have been omitted.

1.03 The tests covered are:

(A) Class-of-Service Tone: This test checks 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.

(B) Message Register Operation: This test checks that the trunk functions as required to operate the message register.

1.04 The test equipment specified in this section is designed to apply proper marginal tests (simulated critical circuit 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.

3. PREPARATION

STEP

ACTION

VERIFICATION

Tests (A) and (B)

- 1 Restore all test set keys to normal.
- 2 Patch BAT-G jack to a 48V battery supply jack using P3E cord.

Note: To avoid possible grounding of battery supply lead, connect cord to test set first. When disconnecting remove cord from test set last.
- 3 Insert No. 310 plug of W3A cord into T jack.
- 4 Insert No. 310 plug of WLB cord into CL jack.
- 5 Connect head telephone set to TEL jack.

1.05 Lettered Steps: A letter a, b, c, etc, added to a step number in Part 4 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 conditions are designated by the same letter within a test. When a condition does not apply, all steps designated by that letter are omitted.

2. APPARATUS

Tests (A) and (B)

2.01 Test Set J34701A (SD-31858-01).

2.02 Head Telephone Set.

2.03 Testing Cord - W3A Cord, 12 feet long, equipped with one No. 310 Plug and three KS-6780 Clips (3W3A Cord).

2.04 Testing Cord - WLB Cord, 10 feet long equipped with one No. 310 Plug and one KS-6780 Clip (1W5A Cord).

2.05 Patching Cord - P3E Cord, 6 feet long, equipped with two No. 310 Plugs (3P6D Cord).

SECTION 225-330-500

4. METHOD

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
	<u>(A) Class-of-Service Tone</u>	
6	Operate BY key.	
7	At unit terminal strip of trunk circuit to be tested - Connect KS-6780 clip of sleeve (red) conductor of W3A cord to sleeve (No. 3 punching).	BY lamp does not light. <u>Note:</u> If busy lamp lights, wait until circuit is idle, or proceed to another trunk circuit.
8	Connect clip of tip (white) conductor of W3A cord to tip (No. 1 punching).	
9	Connect clip of ring (blue) conductor of W3A cord to ring (No. 2 punching).	
10	Connect clip of W1B cord to No. 4 punching.	
11a	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.	
12	Operate DL ST key.	SL lamp lights.
13	Restore DL ST key.	
14	Operate TRS key.	
15	Dial number to reach operator.	Operator receives class-of-service tone corresponding to 3000-ohm ground.
16	Operate TR key.	
17	Request operator to momentarily disconnect.	Operator receives class-of-service tone corresponding to 3000-ohm ground. <u>Note:</u> If C lamp lights, disregard.
18	Restore TR key.	
19	Operate PTR or NTR key.	Operator receives class-of-service tone corresponding to direct ground. <u>Note:</u> If C lamp lights, disregard.
20	Restore BY, PTR or NTR keys.	
21	Operate and hold FL key.	SL lamp extinguished.
22	Release FL key.	
23	Restore TRS key.	
24	Restore line finder MB key, if operated.	
25b	If this test is to be applied to additional circuits - Repeat Steps 6 through 24, as required.	

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
26	Remove all test connections.	
	<u>(B) Message Register Operation</u>	
6	Operate BY key.	
7	At unit terminal strip of trunk circuit to be tested - Connect KS-6780 clip of sleeve (red) conductor of W3A cord to sleeve (No. 3 punching).	BY lamp does not light. <u>Note:</u> If busy lamp lights, wait until the circuit is idle, or proceed to another trunk circuit.
8	Connect clip of tip (white) conductor of 3W3A cord to tip (No. 1 punching).	
9	Connect clip of ring (blue) conductor of 3W3A cord to ring (No. 2 punching).	
10	Connect clip of WLB cord to No. 4 punching.	
11a	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.	
12	Operate DL ST key.	SL lamp lights.
13	Restore DL ST key.	
14	Operate PTR or NTR, LK keys.	C lamp lights.
15	Restore LK key.	C lamp extinguished.
16b	If office is arranged for 1400- or 1500-ohm range - Dial number of connector multiple test line and immediately operate 1200 key.	REV lamp flashes and then lights steadily. 2 to 5.5 seconds later - C lamp lights for approximately one-half second.
17c	If office is not arranged for 1400- or 1500-ohm range - Dial number of connector multiple test line and immediately operate 600 key.	REV lamp flashes and then lights steadily. 2 to 5.5 seconds later - C lamp lights for approximately one-half second.
18	Operate LK key.	C lamp lights.
19	Restore BY key.	C lamp extinguished.
20	Operate and hold FL key.	SL lamp extinguished.
21	Restore FL key.	
22	Restore LK, PTR, or NTR keys.	
23	Restore line finder MB key, if operated.	
24d	If this test is to be applied to additional circuits - Repeat Steps 6 through 23, as required.	
25	Remove all test connections.	