30-IPM INTERRUPTER CIRCUIT SD-27637-01

TESTS

NO. 5 CROSSBAR OFFICES

1. GENERAL

1.01 This section is reissued for the following reasons:

(a) To revise Tests C and D verifications.

This reissue does not affect Equipment Test Lists.

1.02 The test covered are:

1.03 ***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.

2. APPARATUS

All Tests

2.01 Testing cord, 893 cord, 6 feet long, equipped with two 360A tools (1W13B cord), one 419A tool and/or one KS-6278 connecting clip (for connecting ground to relay winding terminals or to terminal strip terminals).

Test A

2.02 KS-3008 stopwatch or equivalent.

Tests A, C, D

2.03 Blocking and insulating tools as required. Use tools and apply as covered in Section 069-020-801.

3. METHOD

STEP	ACTION	VERIFICATION

A. Rate of Interruptions

Note: Interruptions should be counted for approximately 1 minute at a rate of once every 2 seconds, or 30 ipm.

STEP	ACTION	VERIFICATION
1a	If circuit under test serves trunk circuits requiring ground interruptions— At interrupter circuit— When circuit under test is idle— Connect ground to upper winding terminal of first STG_ relay; ***start timing.***	STG_, TT relays operated. SGF_ relay associated with STG_ relay under test operated and released at 30-ipm rate.
2a	Remove connection from STG_ relay.	STG_, TT, SGF_ relays released. ***Note:*** If circuit under test was service-seized, STG_, TT relays will remain operated and SGF_ relay will continue to operate and release.
3a	Repeat Steps 1a and 2a for each remaining STG_ relay. ***Note:*** Interruption rate does not require counting for remaining STG_ relays.	
4a	Block nonoperated AL relay.	
5a	Operate TR key.	
6a	When circuit under test is idle— Connect ground to upper winding terminal of first STG_ relay; ***start timing.***	STG_, TTA relays operated. SGF_ relay associated with STG_ relay under test operated and released at 30-ipm rate.
7a	Remove connection from STG_ relay.	STG_, TTA, SGF_ relays released. ***Note:*** If circuit under test was service-seized, STG_, TTA relays will remain operated and SGF_ relay will continue to operate and release.
8a	Repeat Steps 6a and 7a for each remaining STG_ relay. ***Note:*** Interruption rate does not require counting for remaining STG_ relays.	
9a	Restore TR key.	
10a	Remove blocking tool from AL relay. ***Note:*** When interrupter circuit under test supplies ***both*** ground and battery interruptions, further interruption rate counts are not required.	
11b	If circuit under test serves trunk circuits requiring battery interruptions— At interrupter circuit— When circuit under test is idle—	STB_, TT relays operated. SBF_ relay associated with STB_ relay under test operated and released at 30-ipm rate.

STEP	ACTION	VERIFICATION
	Connect ground to upper winding terminal of first STB_ relay; ***start timing.***	
12b	Remove connection from STB_ relay.	STB_, TT, SBF_ relays released. ***Note:*** If circuit under test was service-seized, STB_, TT relays will remain operated and SBF_ relay will continue to operate and release.
13b	Repeat Steps 11b and 12b for each remaining STB_ relay. ***Note:*** Interruption rate does not require counting for remaining STB_ relays.	
14b	Block nonoperated AL relay.	
15b	Operate TR key.	
16b	When circuit under test is idle— Connect ground to upper winding terminal of first STB_ relay; ***start timing.***	STB_, TTA relays operated. SBF_ relay associated with STB_ relay under test operated and released at 30-ipm rate.
17b	Remove connection from STB_ relay.	STB_, TTA, SBF_ relays released. ***Note:*** If circuit under test was service-seized, STB_, TTA relays will remain operated and SBF_ relay will continue to operate and release.
18b	Repeat Steps 16b and 17b for each remaining STB_ relay. ***Note:*** Interruption rate does not require counting for remaining STB_ relays.	
19b	Restore TR key.	
20b	Remove blocking tool from AL relay.	

B. False Ground Check

1a	If circuit under test provides ground pulses— At interrupter circuit— Momentarily connect ground to terminal 15 of terminal strip A.	Major alarm sounds. GT lamp lighted.
2a	Momentarily operate AL key.	Major alarm silenced. GT lamp extinguished.

STEP	ACTION	VERIFICATION
C. Short Timer Check and Automatic Transfer		
	Note: Perform this test without delay because interrupter circuit test conditions will interfere with service.	
1	At interrupter circuit— Connect ground to terminal 13 of terminal strip A.	STG_, TT relays operated.
2	Block nonoperated B relay.	Major alarm sounds. AL lamp lighted. ♦STM relay momentarily operated.♦ TTA, AL relays operated. ♦TT, A relays released.♦
3	Remove connection from terminal 13 of terminal strip A.	♦STG_, TTA relays released.♦
4	Remove blocking tool from B relay.	
5	Momentarily operate AL key.	Major alarm silenced. AL lamp extinguished.
6	Operate TR key.	
7	Connect ground to terminal 13 of terminal strip A.	♦STG_, TTA relays operated.♦
8	Block nonoperated BA relay.	Major alarm sounds. AL lamp lighted. ♦STM relay momentarily operated.♦ TT relay operated. ♦TTA, AA relays released.♦
9	Remove connection from terminal 13 of terminal strip A.	♦STG_, TT relays released.♦
10	Remove blocking tool from BA relay.	
11	Momentarily operate AL key.	Major alarm silenced. AL lamp extinguished.
12	Restore TR key.	
13	♦At interrupter circuit— Connect ground to terminal 35 of terminal strip B.	STB_, TT relays operated.
14	Block nonoperated B relay.	Major alarm sounds. AL lamp lighted. STM relay momentarily operated.

STEP	ACTION	VERIFICATION
		TTA, AL relays operated. TT, A relays released.
15	Remove connection from terminal 35 of terminal strip B.	STB_, TTA relays released.
16	Remove blocking tool from B relay.	
17	Momentarily operate AL key.	Major alarm silenced. AL lamp extinguished.
18	Operate TR key.	
19	Connect ground to terminal 35 of terminal strip B.	STB_, TTA relays operated.
20	Block nonoperated BA relay.	Major alarm sounds. AL lamp lighted. STM relay momentarily operated. TT relay operated. TTA, AA relays released.
21	Remove connection from terminal 35 of terminal strip B.	STB_, TT relays released.
22	Remove blocking tool from BA relay.	
23	Momentarily operate AL key.	Major alarm silenced. AL lamp extinguished.
24	Restore TR key.◀	

D. Long Timer Check and Automatic Transfer

	Note: Perform this test without delay because interrupter circuit test conditions will interfere with service.	
1	At interrupter circuit— Block nonoperated SGF_ relays associated with first STG_ relay.	
2	Connect ground to terminal 13 of terminal strip A.	▶STG_ relay operated.◀
3	Block operated B relay.	Major alarm sounds. AL lamp lighted. ▶LTM relay momentarily operated.◀ TTA relay operated.
4	Remove connections from terminal 13 of terminal strip A.	▶STG_, TTA relays released.◀

STEP	ACTION	VERIFICATION
5	Remove blocking tool from B relay.	
6	Momentarily operate AL key.	Major alarm silenced. AL lamp extinguished.
7	Operate TR key.	
8	Connect ground to terminal 13 of terminal strip A.	♦STG_ relay operated.♦
9	Block operated BA relay.	Major alarm sounds. AL lamp lighted. ♦LTM relay momentarily operated.♦ TT relay operated.
10	Remove connection from terminal 13 of terminal strip A.	♦STG_, TT relays released.♦
11	Remove blocking tool from BA relay.	
12	Momentarily operate AL key.	Major alarm silenced. AL lamp extinguished.
13	Remove blocking tools from SGF_ relays.	
14	Restore TR key.	
15	♦At interrupter circuit— Block nonoperated SBF_ relays associated with first STB_ relay.	
16	Connect ground to terminal 35 of terminal strip B.	STB_ relay operated.
17	Block operated B relay.	Major alarm sounds. AL lamp lighted. LTM relay momentarily operated. TTA relay operated.
18	Remove connections from terminal 35 of terminal strip B.	STB_, TTA relays released.
19	Remove blocking tool from B relay.	
20	Momentarily operate AL key.	Major alarm silenced. AL lamp extinguished.
21	Operate TR key.	
22	Connect ground to terminal 35 of terminal strip B.	STB_ relay operated.

STEP	ACTION	VERIFICATION
23	Block operated BA relay.	Major alarm sounds. AL lamp lighted. LTM relay momentarily operated. TT relay operated.
24	Remove connection from terminal 35 of terminal strip B.	STB_, TT relays released.
25	Remove blocking tool from BA relay.	
26	Momentarily operate AL key.	Major alarm silenced. AL lamp extinguished.
27	Remove blocking tools from SBF_ relays.	
28	Restore TR key.	