

SAGE DATA TRANSMISSION SYSTEMS — PRIVATE SERVICE SYSTEMS  
AIR-GROUND VOICE COMMUNICATION SYSTEM  
DUAL FACILITY TRUNKS  
LOCAL TESTS OF A/G TRUNKS AT SITE TESTBOARD

1. GENERAL

1.01 This section describes methods of making local tests of dual-facility trunk circuits at a radio site from the air-ground testboard using test circuit SD-1G034-01.

1.02 This test checks the transmission of push-to-talk and codan signals over both channels of a dual-facility automatic throw over when either of the channels fail, and throw over in response to a line transfer signal. The test is made from the air-ground testboard at the radio site.

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

2.01 Test circuit SD-1G034-01 (for air-ground testboard located at radio site).

2.02 One No. 3P6E patching cord (P3E cord, 8 feet long, equipped with two No. 310 plugs).

2.03 Three No. 6P8A patching cords (P6C cord, 6 feet long, equipped with two No. 338A plugs) where spare dual-facility trunk is available.

2.04 One No. 3P6E patching cord (P3E cord, 8 feet long, equipped with two No. 310 plugs) when spare dual-facility trunk is available.

3. METHOD

STEP	ACTION	VERIFICATION
1	Obtain release of channel to be tested.	
2	At air-ground testboard — Connect 2-wire test cord OT2 to TRK IN jack of dual-facility trunk under test.	
3	Connect 2-wire test cord OT1 to PT COD TRK jack of dual-facility trunk under test.	
4	Patch a 600-ohm termination jack to TRK OUT jack of dual-facility trunk under test.	
5a	If spare dual-facility trunk circuit is available — Patch B LINE TRANS and B LINE REC jacks of dual-facility trunk under test to B DROP TRANS and B DROP REC jacks respectively of spare dual-facility trunk.	STB lamp lights or remains lighted.

STEP	ACTION	VERIFICATION
6a	Patch A LINE TRANS and A LINE REC jacks of dual-facility trunk under test to A DROP TRANS and A DROP REC jacks, respectively, of spare dual-facility trunk.	STA lamp lights or remains lighted.
7a	Patch R EQ OUT and R EQ IN jacks of dual-facility trunk under test to TRK IN and TRK OUT jacks respectively of spare dual-facility trunk.	
8a	Patch PT COD R EQ jack of dual-facility trunk under test to PT COD TRK jack of spare dual-facility trunk.	
9	Operate ON key of 4-wire test cord circuit.	R, FA, FR lamps in keyshelf light.
10	Connect R test cord to A DROP REC and A DROP TRANS jacks of dual-facility trunk under test.	FR lamp in keyshelf extinguished.
11	Connect A test cord to B DROP REC and B DROP TRANS jacks of dual-facility trunk under test.	FA lamp in keyshelf extinguished.
12	Operate TTR key momentarily.	A lamp in keyshelf lights. R lamp in keyshelf extinguished. SWA or SWB lamp in jack field lights. SWB or SWA lamp in jack field extinguished.
13	Operate PT key.	PT lamp in keyshelf lights.
14	Release PT key.	PT lamp in keyshelf extinguished.
15	Operate COD key.	COD lamp in keyshelf lights.
16	Release COD key.	COD lamp in keyshelf lights. SWA or SWB lamp in jack field lit.  Note whether trunk switching SW relay is in A or B route position by observing SWA and SWB lamps for trunk under test.
17	Operate TTR key momentarily.	Note trunk transfer indicated by change in SW lamp lit.
18	Repeat Steps 13 through 16.	
19	Operate RR or RA key corresponding to SW lamp lit.	STA lamp in jack field lights if RR key is operated. STB lamp in jack field lights if RA key is operated. Change in SW lamp lit. STA, STB lamps lit indicate "no tone" failures on "regular" and "alternate channels," respectively.

<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
20	Release RR or RA key.	STA or STB lamp extinguished.
21	Repeat Steps 17 through 20.	
22	Operate TTR key momentarily.	Change in SW lamp lit.
23	Release ON key of 4-wire test cord.	R lamp in keyshelf lights.
24	Remove all test and patching cords.	