

VIDEO SUPERVISORY SIGNAL SUPPLY CIRCUIT SD-27909-01 ASSOCIATED WITH WIDEBAND REMOTE SWITCH CIRCUIT SD-27900-01

TESTS

1. GENERAL

PAGE

1.01 This section describes a method of testing the video supervisory signal (VSS) supply circuit SD-27909-01 when it is associated with a wideband remote switch circuit SD-27900-01.

1.02 This issue affects Equipment Test Lists.

1.03 The tests covered are:

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A. Manual Transfer: This test checks the ability of the circuit to manually transfer the circuits associated with one VSS source to the other. 2

B. Manual Check of Level Monitoring Circuit: This test checks the ability of the circuit to indicate a circuit failure when the output signal level is below the reference level of VSS source A or B. 2

C. Automatic Transfer—Single Source Failure: This test checks the ability of the circuit to automatically transfer the associated circuits and give a minor alarm indication whenever VSS source A or B has a circuit failure. 2

D. Automatic Transfer—Double Source Failure: This test checks the following: (1) Ability of the circuit to automatically transfer the associated circuits of either VSS source A or B to the VSS source that remains on the line when both sources are indicating circuit failure. (2) A major alarm indication is given while both VSS sources indicate circuit failure. 4

1.04 Tests C and D require actions and verifications at the master test frame (MTF) jack, lamp, and key circuit and at the VSS circuit under test.

2. APPARATUS

All Tests

2.01 Jack, lamp, and key circuit SD-25762-01.

Tests B, C, D

2.02 KS-3008 stopwatch or equivalent.

Tests C, D

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

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3. METHOD

STEP	ACTION	VERIFICATION
A. Manual Transfer		
1	At VSS circuit under test— Momentarily operate A key.	VSA lamp lighted.
2	Momentarily operate RL key.	VSA lamp extinguished.
3	Momentarily operate B key.	VSB lamp lighted.
4	Momentarily operate RL key.	VSB lamp extinguished.
B. Manual Check of Level Monitoring Circuit		
1	At VSS circuit under test— Momentarily operate A key.	VSA lamp lighted.
2	Operate and hold LO key; <i>start timing</i> .	In approximately 15 seconds— LCK lamp lighted.
3	Release LO key.	LCK lamp extinguished.
4	Operate and hold HI key; <i>start timing</i> .	In approximately 15 seconds— LCK lamp remains extinguished.
5	Release HI key.	
6	Momentarily operate RL key.	VSA lamp extinguished.
7	Momentarily operate B key.	VSB lamp lighted.
8	Repeat Steps 2 through 5.	
9	Momentarily operate RL key.	VSB lamp extinguished.
C. Automatic Transfer—Single Source Failure		
1	Establish talking path between remote location of VSS circuit under test and MTF of control office.	
2	At VSS circuit under test— Block operated EA relay; <i>start timing</i> .	In approximately 15 seconds— VSA lamp lighted. At MTF jack, lamp, and key circuit of control office— Minor alarm sounds. RS-MN lamp of remote switch circuit associated with VSS circuit under test lighted.
3	Request assistant to momentarily operate RS-AR key.	Minor alarm still sounds. RS-MN lamp remains lighted.

STEP	ACTION	VERIFICATION
		At VSS circuit under test— VSA lamp remains lighted.
4	Momentarily operate RL key.	VSA lamp remains lighted. At MTF jack, lamp, and key circuit of control office— Minor alarm still sounds. RS-MN lamp remains lighted.
5	At VSS circuit under test— Remove blocking tool from EA relay.	
6	Momentarily operate RL key.	VSA lamp extinguished. At MTF jack, lamp, and key circuit of control office— Minor alarm still sounds. RS-MN lamp remains lighted.
7	Request assistant to momentarily operate RS-AR key.	Minor alarm silenced. RS-MN lamp extinguished.
8	At VSS circuit under test— Block operated EB relay; <i>start timing.</i>	In approximately 15 seconds— VSB lamp lighted. At MTF jack, lamp, and key circuit of control office— Minor alarm sounds. RS-MN lamp of remote switch circuit associated with VSS circuit under test lighted.
9	Request assistant to momentarily operate RS-AR key.	Minor alarm still sounds. RS-MN lamp remains lighted. At VSS circuit under test— VSB lamp remains lighted.
10	Momentarily operate RL key.	VSB lamp remains lighted. At MTF jack, lamp, and key circuit of control office— Minor alarm still sounds. RS-MN lamp remains lighted.
11	At VSS circuit under test— Remove blocking tool from EB relay.	
12	Momentarily operate RL key.	VSB lamp extinguished. At MTF jack, lamp, and key circuit of control office— Minor alarm still sounds. RS-MN lamp remains lighted.
13	Request assistant to momentarily operate RS-AR key.	Minor alarm silenced. RS-MN lamp extinguished.

STEP	ACTION	VERIFICATION
14	Disconnect talking path between remote location of VSS circuit under test and MTF of control office.	
D. Automatic Transfer—Double Source Failure		
1	Establish talking path between remote location of VSS circuit under test and MTF of control office.	
2	At VSS circuit under test— Block operated EA relay; <i>start timing</i> .	In approximately 15 seconds— VSA lamp lighted. At MTF jack, lamp, and key circuit of control office— Minor alarm sounds. RS-MN lamp of remote switch circuit associated with VSS circuit under test lighted.
3	At VSS circuit under test— Block operated EB relay; <i>start timing</i> .	In approximately 15 seconds— VSB lamp lighted. B relay remains released. At MTF jack, lamp, and key circuit of control office— Major alarm sounds. RS-MJ lamp of remote switch circuit associated with VSS circuit under test lighted. Minor alarm silenced. RS-MN lamp extinguished.
4	Request assistant to momentarily operate RS-AR key.	Major alarm still sounds. RS-MJ lamp remains lighted. At VSS circuit under test— VSA, VSB lamps remain lighted.
5	Momentarily operate RL key.	VSA, VSB lamps remain lighted. At MTF jack, lamp, and key circuit of control office— Major alarm still sounds. RS-MJ lamp remains lighted.
6	At VSS circuit under test— Remove blocking tools from EA, EB relays.	VSA or VSB lamp remains lighted. At MTF jack, lamp, and key circuit of control office— Major alarm silenced. RS-MJ lamp extinguished. Minor alarm sounds. RS-MN lamp of remote switch circuit associated with VSS circuit under test lighted.
7	At VSS circuit under test— Momentarily operate RL key.	VSA or VSB lamp extinguished.

STEP	ACTION	VERIFICATION
8	Request assistant to momentarily operate RS-AR key.	At MTF jack, lamp, and key circuit of control office— Minor alarm silenced. RS-MN lamp extinguished.
9	At VSS circuit under test— Block operated EB relay; <i>start timing</i> .	In approximately 15 seconds— VSB lamp lighted. At MTF jack, lamp, and key circuit of control office— Minor alarm sounds. RS-MN lamp of remote switch circuit associated with VSS circuit under test lighted.
10	At VSS circuit under test— Block operated EA relay; <i>start timing</i> .	In approximately 15 seconds— VSA lamp lighted. A relay remains released. At MTF jack, lamp, and key circuit of control office— Major alarm sounds. RS-MJ lamp of remote switch circuit associated with VSS circuit under test lighted. Minor alarm silenced. RS-MN lamp extinguished.
11	Request assistant to momentarily operate RS-AR key.	Major alarm still sounds. RS-MJ lamp remains lighted. At VSS circuit under test— VSA, VSB lamps remain lighted.
12	Momentarily operate RL key.	VSA, VSB lamps remain lighted. At MTF jack, lamp, and key circuit of control office— Major alarm still sounds. RS-MJ lamp remains lighted.
13	At VSS circuit under test— Remove blocking tools from EA, EB relays.	VSA or VSB lamp remains lighted. At MTF jack, lamp, and key circuit of control office— Major alarm silenced. RS-MJ lamp extinguished. Minor alarm sounds. RS-MN lamp of remote switch circuit associated with VSS circuit under test lighted.
14	At VSS circuit under test— Momentarily operate RL key.	VSA or VSB lamp extinguished.
15	Request assistant to momentarily operate RS-AR key.	At MTF jack, lamp, and key circuit of control office— Minor alarm silenced. RS-MN lamp extinguished.

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STEP	ACTION	VERIFICATION
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16	Disconnect talking path between remote location of VSS circuit under test and MTF of control office.	
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