

VIDEO SUPERVISORY SIGNAL SUPPLY CIRCUIT TESTS

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- 1. GENERAL
 - 1.1 This section provides tests of the Video Supervisory Signal Generator Circuit (SD-27909-01).
 - 1.2 CP's 1 through 6 should not be installed until instructed in Paragraph 3.
 - 1.3 Paragraph 3.1 provides a voltage check of all connector terminals to insure no false potentials exists on the terminals.
 - 1.4 Paragraph 3.2 verifies the Video Supervisory Signal is present at the input to all CP - 5's.
 - 1.5 Paragraph 4 checks the Automatic and Manual Transfer Features.
- 2. TEST EQUIPMENT
 - 2.1 Test Set

<u>Amt</u>	<u>ITE</u>	<u>Description</u>
1	4442	Volt-Ohmmeter
*1	4662	Tektronix Oscilloscope (Type 545)
*1	4664	Type CA - Dual Trace Plug-in Unit

* An Equivalent Dual Trace Oscilloscope can be used in place of the ITE-4662 and 4664.
 - 2.2 Cords

<u>Amt</u>	<u>Code</u>	<u>Cdrs</u>	<u>Length</u>	<u>Both Ends</u>
2	ITE-9533	1	1'	ITE-8507 Clips
- 3. FS1 - VSS SOURCE AND LEVEL MONITOR CIRCUIT
 - 3.1 Verification of Potentials on the Circuit Pack Connectors
 - 3.101 Table A lists the 929A connector terminals and the potentials that should be on these terminals for CP's 1, 2, 3, 4 and 6.
 - 3.102 The connector terminals for CP's 1, 2, 3, 4 and 6 which do not appear in Table A should not have any wires connected to them. Check this while performing this test.
 - 3.103 CP's 1, 2, 3, 4 and 6 should be removed and CP 5's for source A should be plugged into their associated connectors.
 - 3.104 Install A and CA fuses for source A.
 - 3.105 Set the ITE-4442 on the 60 VDC scale.
 - 3.106 Connect one lead of the ITE-4442 to ground.
 - 3.107 Verify all terminals listed in Table A for the indicated voltages. Clear immediately any false potentials.
 - 3.108 Set the ITE-4442 to read ohms (R X 10 scale).

NOTE: Adjust meter for 0 ohms.
 - 3.109 Check the indicated terminals for the ohmmeter readings listed in Table A.

NOTE: Do not connect the ohmmeter to the terminals with 48 volts on them.

- 3.225 If the signal does not appear on the scope, check test points 3 and 11 on CP2.
- NOTE: If signal still does not appear on scope or the amplitude is not shown on Figure 1, follow the instructions outlined in Section 801C to determine the cause.
- 3.226 Repeat Paragraphs 3.22 to 3.225 using terminals 21 (A Channel) and 22 (B Channel) of the E0 Connector. This will check the B source's output.
- 3.227 Repeat Paragraphs 3.22 to 3.226 for all equipped E-Connectors.
4. FS2 - TRANSFER CONTROL CIRCUIT
- 4.1 Manual Transfer
- 4.11 Momentarily operate key A. Relays AK, A, and AX lock operated and lamp VSA lights on the unit.
- 4.111 Hold operated key L0. In approximately 15 seconds lamp LCK lights. This checks the Output Level Monitor (CP's 3 & 4) for its ability to recognize a low level output.
- NOTE: If lamp LCK does not light, follow the instructions outlined in Section 801C to determine the cause.
- 4.112 Release key L0. Lamp LCK extinguished.
- 4.113 Operate key HI. Check that lamp LCK does not light. Wait at least 15 seconds before releasing key HI.
- NOTE: If lamp LCK does light, follow the instructions outlined in Section 801C to determine the cause.
- 4.12 Momentarily operate key RL. Relay AK (slow release), A and AX release. Lamp VSA is extinguished.
- 4.13 Momentarily operate key B. Relays BK, B and BX operate and lamp VSB lights on unit.
- 4.131 Repeat Paragraphs 4.111 to 4.113.
- 4.14 Momentarily operate key RL. Relays BK (slow release), B and BX release. Lamp VSB is extinguished.
- 4.2 Automatic Transfer Operation
- 4.21 Single Source Failure: Block operated relay EA. In approximately 12 seconds relay TMA operates followed by relays A and AX. Lamp VSA lights and a minor alarm is sounded.
- NOTE: If VSS under test is in the Remote Office, the alarms are sounded in the Control Office.
- 4.22 Double Source Failure: Block operated relay EB. In approximately 12 seconds relay TMB operates, lamp VSB lights and a major alarm is sounded. Verify that relay B does not operate.
- 4.23 Release relay EA and momentarily operate key RL. Relays TMA, A and AX release, major alarm is silenced and lamp VSA is extinguished. Relays B and BX operate and the minor alarm remains activated.
- 4.24 Reoperate relay EA long enough to verify a major alarm is sounded in approximately 12 seconds.
- 4.25 Momentarily operate key RL. Major alarm is silenced.
- 4.26 Release relay EB. Relays TMB, B and BX release, the minor alarm is silenced and lamp VSB is extinguished.