

TEST OF THE MISCELLANEOUS
 CIRCUITS FOR AUTOMATIC INTERCEPT SERVICE

CONTENTS

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| 1. GENERAL INFORMATION | 5. CONTACT PROTECTION |
| 2. RECORDS AND REQUIREMENTS | 6. MISCELLANEOUS CIRCUITS (SD-27966-01) |
| 3. TEST EQUIPMENT | 7. TRAFFIC REGISTERS (SD-25317-01 AND SD-25942-01) |
| 4. FUSE VERIFICATION | 8. TRAFFIC USAGE RECORDER (SD-95738-01) |

- | <p>1. <u>GENERAL INFORMATION</u></p> <p>1.1 <u>Description of Tests:</u> This section describes tests of the Automatic Intercept Service Miscellaneous Circuit (SD-27966-01), Traffic Register (SD-25317 and SD-25942) and the Traffic Usage Recorder (SD-95738).</p> <p>2. <u>RECORDS AND REQUIREMENTS</u></p> <p>2.1 <u>Records:</u> Forms SD-4-1313 and SD-4-1315 are required for recording the results of these tests.</p> <p>2.2 <u>Requirements:</u> The tests of this section must be applied to meet the equipment performance requirements per BSP 816-007-181.</p> <p>3. <u>TEST EQUIPMENT</u></p> <p>3.1 <u>Test Sets and Accessories</u></p> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><u>Amt</u></th> <th style="text-align: left;"><u>Code</u></th> <th style="text-align: left;"><u>Description</u></th> <th style="text-align: left;"><u>With ITE</u></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>ITE-4442</td> <td>Volt-ohmmeter</td> <td></td> </tr> <tr> <td>1</td> <td>R-9572</td> <td>Test Receiver</td> <td>4023</td> </tr> <tr> <td>2</td> <td>ITE-9650</td> <td>Operator's Tel. Set.</td> <td>4023</td> </tr> <tr> <td>As Req'd</td> <td>KS-16887L1 or 768A</td> <td>Blocking Wedge</td> <td>4023</td> </tr> </tbody> </table> <p>4. <u>FUSE VERIFICATION</u></p> <p>4.1 <u>Test Procedure - General</u></p> <p><u>CAUTION: TO ELIMINATE A FIRE HAZARD, VERIFY THAT DIRECT GROUND IS NOT PRESENT ON THE ALARM BAR OR STUD ON A FUSE PANEL BEFORE INSTALLING ITS FEEDER FUSE.</u></p> <p><u>NOTE:</u> Use ITE-4442 Volt-ohmmeter. To avoid damaging the meter, first verify that battery is not present on the</p> | <u>Amt</u> | <u>Code</u> | <u>Description</u> | <u>With ITE</u> | 1 | ITE-4442 | Volt-ohmmeter | | 1 | R-9572 | Test Receiver | 4023 | 2 | ITE-9650 | Operator's Tel. Set. | 4023 | As Req'd | KS-16887L1 or 768A | Blocking Wedge | 4023 | <p>alarm bar by using the voltmeter portion of the ITE-4442. If clear, switch to ohmmeter portion for the resistance reading which should be either infinity or approximately 600 ohms.</p> <p>4.11 Fuse verification is, ordinarily, only required on fuse panels wired by the installer.</p> <p>4.12 On shop wired and fused fuse panels, inspect the panel for missing or operated fuses. If a fuse is missing or operated, test the fuse terminal for the absence of low resistance ground. Clear any grounded condition and install the proper fuse. At the completion of this test all fuse panels should be fully equipped with proper fuses. These may be either the proper specified type or a dummy.</p> <p>4.13 The operation of relays in circuits when fuses or potentials are applied is normal in some circuits. Oscillations, chatter, and signs of overheating should be analyzed and cleared immediately.</p> <p>4.14 ITE-4442 Volt-ohmmeter should be used to verify all potentials at fused terminals to insure that polarity and voltages are correct. Many errors are caused by the use of the R-9572 Test Receiver on potentials other than -48 volts. Handbook 100, TMO-4442, provides full instructions for the use of the volt-ohmmeter.</p> <p>4.15 When the R-9572 Test Receiver is used, avoid placing it directly on the ear.</p> <p>4.2 <u>Fusing Tests</u></p> <p>4.21 Using fuse of the correct type, as indicated by the circuit drawing and fuse panel designations, install the</p> |
|---|--------------------|----------------------|--------------------|-----------------|---|----------|---------------|--|---|--------|---------------|------|---|----------|----------------------|------|----------|--------------------|----------------|------|---|
| <u>Amt</u> | <u>Code</u> | <u>Description</u> | <u>With ITE</u> | | | | | | | | | | | | | | | | | | |
| 1 | ITE-4442 | Volt-ohmmeter | | | | | | | | | | | | | | | | | | | |
| 1 | R-9572 | Test Receiver | 4023 | | | | | | | | | | | | | | | | | | |
| 2 | ITE-9650 | Operator's Tel. Set. | 4023 | | | | | | | | | | | | | | | | | | |
| As Req'd | KS-16887L1 or 768A | Blocking Wedge | 4023 | | | | | | | | | | | | | | | | | | |

fuses listed in Table A one at a time. Verify that each fuse is associated with the correct circuit and is free from cross with other unfused posts on the panel.

4.3 Fuse Alarms

- 4.31 Connect -48V battery through test receiver R-9572 to the alarm bar for the 20 ampere frame fuse. Observe that the major alarm sounds and that lamps 20A and the associated aisle pilot light. Lamp FA and AL do not light.
- 4.32 Disconnect the battery from the alarm bar and observe that the alarm is silenced, the lighted lamps extinguished, and lamp AL lights. Momentarily operate key AR to extinguish lamp AL.
- 4.33 Connect -48 volt battery through test receiver R-9572 to the frame fuse panel alarm bar. Observe that the major alarm sounds, that lamp FA and the associated aisle pilot lights. Lamps 20A and AL do not light.
- 4.34 Remove the battery and observe that the alarm is silenced, the aisle pilot and FA lamps are extinguished and lamp AL lights. Momentarily operate key AR to extinguish lamp AL.

5. CONTACT PROTECTION

- 5.1 For those contact protection networks installed on the job, test in accordance with Handbook 61, Section 0.2.
- 5.2 Where a network is directly across a relay winding, the resistance of the relay used in the standard should be the same as that in the circuit under test.

6. MISCELLANEOUS CIRCUITS

6.1 Test Battery Jack and Supply

- 6.11 Using the R-9572 Test Receiver, check test battery terminals and the tip of jack A for presence of -48 volts.
- 6.12 Using R-9572 Test Receiver, check test terminal G for direct ground and terminal HRG for a high resistance ground.

6.2 Remote Control Jack

- 6.21 Using R-9572 Test Receiver, check the sleeve of jack F for direct ground.

- 6.22 Make a continuity and cross test of the tip and ring leads of the F jack to all associated F jacks and to the Terminating Trouble Indicator Circuit.

6.3 Spare Jack

- 6.31 Make a continuity and cross test of the tip, ring and sleeve leads of the B jack to all associated B jacks and to the Main Distribution Frame.

6.4 Frame Line Telephone Jacks

- 6.41 Connect an operator's telephone set (ITE-9650) to the frame line telephone jack and to any multiple frame line telephone jack. Make a talking test of the circuit.
- 6.42 Repeat Paragraph 6.41 to all other multiple frame line telephone jacks.

7. TRAFFIC REGISTERS

- 7.1 *Using the R-9572 test receiver, momentarily ground punchings of Terminal Strip CC at AIS Control and Connector Circuit and verify that the associated REGISTER at the Traffic Register Circuit has scored once as follows:*

<u>PCH</u>	<u>LEAD</u>	<u>TRAFFIC REG</u>
211	ASB	OVFL - All Senders Busy
212	ALB	OVFL - All Line Ckts Busy (OFFA)
213	AIPC	PC - AIS Service Call (OFFA)
214	ALB1	OVFL - All Line Ckts Busy (OFFB)
215	AIPC1	PC - AIS Service Call (OFFB)

- 7.2 Select Sender under test with sender select switch at AIS Sender Test Circuit. Block operated relays SB and AV. Verify associated PC Traffic Register at the Traffic Register Circuit has registered once.

- 7.3 Turn sender select switch to off position. Verify associated MFCA Traffic Register at the Sender Make Busy Frame has registered once.

- 7.4 Momentarily make contacts 3 and 4 of traffic register MFCA. Verify traffic register MFC registered once.

- 7.5 Release relays SB and AV.

- 7.6 Select sender under test with sender select switch.

7.7 Block operated relays ON and TRL. Turn sender select switch to off position. Verify audible alarm and alarm indication lamps MA and A light.

7.8 Momentarily operate relay SR. Verify audible alarm is silenced and lamps extinguished while relay SR is operated. Register AISS at Sender Make Busy Frame scores.

7.9 Release relays ON and TRL. Audible alarm is silenced and lamp indications extinguished.

8. TRAFFIC USAGE RECORDER

8.1 Select sender under test with sender select switch at AIS Sender Test Circuit. Using the Traffic Usage Re-

coder wiring list, determine leads SB and SMB connections. Using a R-9572 test receiver, verify ground on the SB and SMB connections in the Traffic Usage Recorder.

8.2 Block operated relay SB. Turn sender select switch to off position. Verify ground is present on SB connection and absent on SMB connection in the Traffic Usage Recorder.

8.3 Release relay SB.

8.4 Using Traffic Usage Recorder wiring list, determine AIS Line Circuit TU connections. Verify continuity from Traffic Usage Recorder TU connection to 1 break relay SDT in Line Circuit.

Lines presented in Script indicate new or changed information.

ATTACHMENT
Table A on Page 4.

Manager, Product Engineering
Control Center

Reason for Reissue:
To update Paragraph 7.1.

