

DYNAMIC OVERLOAD CONTROL  
 SD-27970-01

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1. GENERAL INFORMATION

- 1.1 This section describes a test of the Dynamic Overload Control circuit SD-27970-01. This circuit provides dynamic overload control (DOC) for Toll or XBT offices by effecting route transfer in the Marker or Decoder of offices associated with the circuit.
- 1.2 The incoming signal from the Toll or XBT office can be one of five signals, depending on type of facility used.
1. -48 volts on T1-- lead (Z option)
  2. Loop closure on T1-/R1- leads (Y option)
  3. Ground on E-lead (K option)
  4. Current on T1-/R1- leads (ZA option)
  5. Current on RL- lead of VFCD interface (ZC option)
- 1.3 When the circuit receives a signal, it sends out a signal which may be used as an acknowledge receipt signal to the Toll or XBT office, or a control signal to another DOC circuit. This signal can be one of five signals, depending on type of facility used.
1. -48 volts on T- lead (X option)
  2. Loop closure on T-/R- leads (S option)
  3. -48 volts on H-lead (J option)
  4. Closure on T-/R- leads - 43A1TELEG facility (ZB option)
  5. Ground on SLA- lead or loop on SLA/SLB- leads (ZD option)
- 1.4 The tests of this section should be performed before the jumpers associating this circuit to the controlling office and controlled offices are installed. Alarm circuits should be connected.

1.5 For ease in trouble clearing, it is recommended that Handbook 69C, Section 587B08, Paragraph 2.172 (Route Transfer Controlled by DOC circuit) be applied prior to this Section.

2. TEST EQUIPMENT

2.1 Accessories

<u>Amt</u>	<u>Code</u>	<u>Description</u>
1	R-9572	Test Receiver
1	R-1824	Pencil Lamp
As Req.	768A	Blocking Tool
As Req.	ITE-9533	1' Cord E/W Allig. Clips

3. TESTS

- 3.1 False Route Transfer Signal (DOC in Elect-Mech office)
- 3.11 Block operated relay RTC00 in DOC circuit. In 13-38 seconds relay TM should operate. In 13-32 seconds after relay TM operates lamp DOC lights and major alarm sounds.
- 3.12 Release relay RTC00. Momentarily operate key DOC-AR. Lamp DOC extinguished and alarm.
- 3.13 Repeat Paragraphs 2.11 and 2.12 on each equipped RTC-- relay.
- 3.2 False Ground on C- Leads to Elect-Mech Office
- 3.21 At MTF Jack Bay momentarily ground C00 cross connection terminal. Verify associated RTCX lamp lights and MJ alarm sounds. If C- to CA- cross connection has been installed verify correct RTCA- lamp momentarily lights.

- 3.22 Repeat Paragraphs 2.21 and 2.22 on each equipped C- lead.
- 3.3 Incoming Route Transfer Signals
- 3.31 Z Option Provided
- 3.311 Momentarily apply -48V to lead T1-- of first signal unit (TS B, term 56). Verify associated RTC-- relay operates while battery is applied.
- 3.312 Repeat test on each equipped signal unit.
- 3.32 Y Option Provided
- 3.321 Momentarily short leads T1/R1 on first signal unit (TS B, term 46/56). Verify associated RTC-- relay operates while short is applied.
- 3.322 Repeat test on each equipped signal unit.
- 3.33 K Option Provided
- 3.331 Momentarily apply ground to lead E of first signal unit (TS B, term 56). Verify associated RTC-- relay operates while ground is applied.
- 3.332 Repeat test on each equipped signal unit.
- 3.34 ZA Option Provided
- 3.341 Connect ground to lead R1-- of first signal unit (TS B, term 46). Associated RTC-- relay should not operate. Momentarily apply -48V to lead T1-- (TS B, term 56). Verify associated RTC-- relay operates while battery is applied. Remove ground from lead R1--.
- 3.342 Repeat test on each equipped signal unit.
- 3.4 Outgoing Route Transfer Signals
- 3.41 X Option Provided
- 3.411 At first signal unit connect pencil lamp to ground and lead T-- (TS B, term 36). Momentarily operate associated relay RTC--. Verify pencil lamp lights while relay RTC-- is operated. Remove pencil lamp.
- 3.412 Repeat test on each equipped signal unit.
- 3.42 S Option Provided
- 3.421 Connect pencil loop to -48V and T-- lead of first signal unit (TS B, term 36). Connect ground to R-- lead of first signal unit (TS B, term 26). Lamp should not light.
- 3.422 Momentarily operate associated relay RTC--. Verify lamp lights while relay is operated. Remove lamp and ground level.
- 3.423 Repeat test on each equipped signal unit.
- 3.43 J Option Provided
- 3.431 Connect pencil lamp to ground and M-- lead of first signal unit (TS B term 36). Lamp should not light.
- 3.432 Momentarily operate associated relay RTC--. Verify lamp lights while relay is operated. Remove lamp.
- 3.433 Repeat test on each equipped signal unit.
- 3.44 ZB Option Provided
- 3.441 Connect pencil lamp to -48V and T-- lead of first signal unit (TS B, term 36). Connect ground to R-- lead of first signal unit (TS B, term 26). Lamp should not light.
- 3.442 Momentarily operate associated relay RTC--. Verify lamp lights while relay is operated. Remove lamp and ground lead.
- 3.443 Repeat test on each equipped signal unit.
- 3.45 ZD Option Provided
- 3.451 Momentarily operate relay RTC-- on first signal unit. Verify relay associated RTC6-- relay operates while relay RTC-- is operated.
- 3.452 Repeat test on each equipped signal unit.

No changes are indicated due to extensive revision.

Manager, Product Engineering  
Control Center

Reason for Reissue:

To revise test procedure for standard arrangement.