# LINE MESSAGE REGISTERS

## 355A STEP-BY-STEP OFFICE

# USING TEST SETS SD-25190-01 (J24750A) AND HS-1171

## 1. GENERAL

- 1.01 This section describes methods of checking the continuity of line message register crossconnections and of making operation tests of line message registers. The tests covered in this Section are as follows:
  - (A) Checking Continuity of Cross-Connections
  - (B) Current Flow Tests of Registers
  - (C) Interrupter Tests of Registers
  - (D) Call Through Test of Registers
- 1.02 It is reissued to:
  - Update the format to conform to Pacific Bell standards.
  - Include the appropriate legend on Page 1 in accordance with System Instruction (SI) 178.

Note: Marginal arrows used to denote changes are omitted.

- 1.03 Message registers placed in service in connection with new service orders shall be tested as outlined in (A), (B), and (C). Message registers associated with stations shall be tested as outlined in (A), and (D).
- 1.04 The message register reading on a working subscriber line shall be recorded on the proper form just before starting and immediately upon completion of an individual test.
- 1.05 The reliability of registers associated with subscriber lines so directly concerns the subscriber that its operating features are of unusual importance and should any register fail to meet the various operation tests described in this section, it shall be replaced with a register that will meet the test requirements.

### 2. APPARATUS

- 2.01 Message register test set, SD-25190-01, J24750A.
- 2.02 Message register checking set, HS-1171.
- 2.03 F2A-3 hand set (for use with HS-1171).
- 2.04 One cord, No. P2J.
- 2.05 One cord, No. 1W8A.
- 2.06 One test clip, EES-4570.
- 2.07 Two cords, No. P3E.

### 3. PREPARATION

- 3.01 Place the message register test and checking sets on a table-type wagon and locate immediately in front of the register to be tested.
- 3.02 See that all keys on both test sets are in a "normal" position and the sliders on the SD-25190-01 set are at the extreme right.
- 3.03 By means of the P2J cord, connect the A jack of the SD-25190-01 test set to the battery jack on the message register rack.
- 3.04 Insert the No. 47 B plug of the 1W8A cord into the T jack of the SD-25190-01 test set and after attaching the EES-4570 clip to the No. 360 tool at the other end of the cord attach the clip to the register under test.
- 3.05 Insert the plug of the F2A hand set into the TEL jack of HS-1171 set.
- 3.06 By means of a P3E cord, connect the TEST jack of the HS-1171 set to the TEST jack on the message register rack.

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3.07 By means of a P3E cord, connect the OPR jack of the HS-1171 set to the OPR jack on the message register rack.

### 4. METHOD

# (A) Checking Continuity of Cross-Connections

- **4.01** Operate the TR key of the SD-25190-01 set and note that the milliameter reads approximately M.A. 210-220.
- 4.02 Operate the DIAL key of the HS-1171 set and dial the multiple number associated with the register under test. After the number has been dialed, operate the HOLD and TEST TR keys while watching the milliameter. When the line finder finds the line under test, the reading of the milliameter should increase by at least 5 M.A. This indicates the continuity of the message register circuit from the connector multiple to the message register. Recheck if desired by restoring and reoperating the TEST TR and watching the deflection of the milliameter. Restore all keys on both test sets.

## (B) Current Flow Test of Registers

- (1) Operate Test
- 4.03 Operate the OPR key of the SD-25190-01 set. Adjust the No. 1 slide for the specified operate value of the register. Restore the OPR key.
- 4.04 Operate and release the OPR key two or three times and note that each time the key is operated the register advances.

- (2) Non-Operate Test
- 4.05 Operate the NO key of the SD-25190-01 set and adjust the No. 2 slide to the specified non-operate value of the register. Restore the NO key.
- **4.06** Operate and restore the NO key two or three times and note that the register does not advance.

# (C) Interrupter Test of Registers

- 4.07 Operate the OPR key and check the milliameter is set at the specified operate value of the register. Restore the operate key.
- 4.08 Record the register reading.
- 4.09 Operate the interrupter key lever of the SD-25190-01 set to the extreme downward position; then release it. After the interrupter has stopped, as indicated by a zero reading on the milliameter, check that the register has operated 100 times.

## (D) Call Through Test of Registers

- 4.10 With the HS-1171 set connected, as described in Paragraphs 3.01 to 3.07, operate the DIAL key and dial the multiple number of the register under test.
- 4.11 Operate the HOLD and TEST TR keys and when dial tone is received dial a test number in a reverse battery group. Note that the register advances one digit when the relatively long (approximately five seconds) closure of the buzzer tone is heard. Restore the DIAL, HOLD, and TEST TR keys.