

## TIMING INTERVALS FOR COIN AND MESSAGE RATE OVERTIME CHARGING USING TEST SET SD-32031-01 (J34723) STEP-BY-STEP SYSTEMS

### 1. GENERAL

1.01 This section covers a method of checking the timing intervals of trunk timing circuits for overtime charging in No. 1 and No. 350A step-by-step dial offices using J34723 (SD-32031-01) test set.

1.02 This section is reissued to incorporate material from the addendum in its proper location. In this process marginal arrows have been omitted.

1.03 The tests covered are:

- (A) Timing Interval of Coin Overtime Charging Timers
- (B) Timing Interval of Individual Line Message Rate Trunks Used with Line Finders
- (C) Timing Interval of Individual Line Message Rate Trunks Used with Line Switches
- (D) Timing Interval of Two Party Message Rate Trunks

1.04 The test equipment specified in this section is designed to apply proper marginal tests (simulated critical circuit conditions) when the circuit under test and the test equipment have an applied voltage of 48.5 to 50. In those offices where power plants are normally operated at more than 50 volts, the battery voltage should be reduced and maintained within the required limits while the tests are being made.

### 2. APPARATUS

- 2.01 One P2A cord 6 feet long equipped with two No. 347A plugs (2P1D cord).
- 2.02 Three P3E cords 6 feet long equipped with two No. 310 plugs (3P6F cord).
- 2.03 One W4AE cord 6 feet long equipped with one No. 289A plug and one No. 240A plug (4W5A cord).
- 2.04 One No. 258C plug.
- 2.05 Test set J34723 (SD-32031-01)

### 3. PREPARATION

#### All Tests

3.01 If any keys of the test set are operated, restore them to normal.

3.02 By means of a P3E cord, connect the BAT (battery) jack of the test set to the 48 volt battery supply jack on the frame. Also, connect the 22V jack of the test set to the 22V (22 volt 60 cycle) supply jack by means of the P2A cord.

Note: To avoid possible grounding of the battery and voltage supply leads, connect the cords to the test set first and when disconnecting, remove the cords from the test set last.

3.03 If, when the test set is connected to the trunk under test, the red A lamp lights, this indicates that the trunk is busy.

Caution: Do not operate any keys on the test set to start a test until the lamp is extinguished as this might cause a subscriber on the connection to be charged falsely.

### 4. METHOD

#### (A) Timing Interval of Coin Overtime Charging Timers

4.01 By means of P3E cords, connect the test set COT (coin overtime) and CT (coin timer) jacks to the OT (overtime) and T (test) jacks of the trunk associated with the timer under test.

4.02 Make sure that the test set A lamp is extinguished, and then operate the CN (coin) key. The test set B lamp will light when the timing test starts and will be extinguished at the end of the 5 minute period when the coin monitor circuit tests for the deposit of a coin.

4.03 Read the test set timer after the B lamp is extinguished. The time indicated on the test set timer should be from 5 minutes to 5 minutes and 11 seconds.

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4.04 Operate the reset lever on the test set timer to restore the timer to normal. Release the CN key.

4.05 If it is desired to stop a test at any time, release the CN key. The trunk circuit under test will restore to normal.

(B) Timing Interval of Individual Line Message Rate Trunks Used with Line Finders

4.06 By means of a P3E cord, connect the test set LF (line finder) jack to the T jack of the trunk under test.

4.07 Make sure that the test set A lamp is extinguished and then operate the LF (line finder) key. The test set B lamp should light.

4.08 The test set timer will start when the initial registration is received from the trunk and continue timing until the initial 5 minute interval has elapsed. Read the test set timer. This reading should be from 5 minutes to 5 minutes and 16 seconds.

4.09 The test set B lamp should remain lighted until shortly before the second 5 minute interval has elapsed. This checks that if the called party disconnects and the calling party does not disconnect, the connection is released at the end of the first 5 minute interval after the called party disconnects. When the B lamp is extinguished, release the LF key.

4.10 Operate the reset lever on the test set timer to restore the timer to normal.

4.11 If it is desired to stop a test at any time, release the LF key. The trunk circuit under test will restore to normal.

(C) Timing Interval of Individual Line Message Rate Trunks Used With Line Switches

4.12 By means of a W4AE cord, connect the test set LS (line switch) jack to the T jack of the trunk under test. In inserting the No. 289A plug of this cord into the test set LS jack, take care that the stay cord is on the under side.

4.13 Proceed as outlined in 4.07 to 4.11, inclusive except that the test is controlled by the LS (line switch)-key instead of the LF key and the test set timer should

indicate from 5 minutes to 5 minutes and 11 seconds.

(D) Timing Interval of 2 Party Message Rate Trunks

4.14 Make busy the associated line finder by inserting a No. 358C plug into the line finder test and make busy jack.

4.15 By means of a P3E cord, connect the test set A jack to the A jack of the trunk under test.

4.16 Make sure that the test set A lamp is extinguished and then operate the 2PT (2 party) key. Connect the test set POT (party overtime) jack to the OT jack of the trunk under test. The test set B lamp should light.

4.17 The test set timer will start when the cord is inserted into the trunk OT jack and continue timing until the initial 5 minute interval has elapsed. Read the test set timer. This reading should be from 5 minutes to 5 minutes and 10 seconds.

4.18 The test set B lamp should remain lighted until shortly before the second 5 minute interval has elapsed. This checks that if the called party disconnects and the calling party does not disconnect, the connection is released at the end of the first 5 minute interval after the called party disconnects. When the B lamp is extinguished, release the 2PT key.

4.19 Operate the reset lever on the test set timer to restore the timer to normal.

4.20 If it is desired to stop a test at any time, release the 2PT key and remove the cord from the trunk OT jack. The trunk circuit under test will restore to normal.

Note: In the case of trunks arranged for delayed charge interval, it is not necessary to remove the cord from the OT jack.

5. REPORTS

5.01 The required record of these tests should be entered on the proper form.