

OPERATION TESTS

DIVISION OF REVENUE COUNTER CIRCUIT

(DS-90137-01)

STEP-BY-STEP AMA

1. GENERAL

1.01 This section describes a method of performing operation tests of the Division of Revenue Counter circuit (DS-90137-01).

1.02 The Division of Revenue Counter is a three decade, Hundreds, Tens and Units digital counter. It is arranged to cause, at a predetermined count, a detailed (4L) initial entry on the next AMA call.

1.03 This circuit consists of a counter circuit wired to the Call Count Process Control circuit, and to a chain circuit consisting of a relay in each transverter in a recorder group. All initial entries will be counted by the Counter circuit. At a predetermined count (established by a cross-connection) the counter will condition the lowest numbered idle transverter to cause a detail initial entry of the next AMA call. At the same time, it will make all other transverters busy until this entry is completed.

1.04 The tests covered are:

A. Counter Circuit Test: This test checks the counting sequence of the counter circuit and verifies the operating path of the DVR (Division of Revenue) relay at a predetermined count.

B. Transverter and Overall Operation Test: This test checks the functions of the counter circuit including the chain and busy circuit of the transverters.

CAUTION: Tests should be performed during light traffic, that is: when one transverter will handle the office load.

2. APPARATUS

2.01 Test receiver 716C or equivalent (used to check for the presence or absence of battery or ground).

2.02 Blocking tools as required (Use tools and apply as covered in Section 069-020-801).

2.03 No. 322A (make-busy) plugs as required.

2.04 Two 1011G handsets or equivalent (for communicating over switchmans talk circuit).

3. PREPARATION

3.01 Two men will be required to perform these tests.

3.02 Establish a talking connection between the counter circuit and the call count register location for Test (A) and between the counter circuit and transverter location for Test (B).

4. METHOD

| Step | Action | Verification |
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A. COUNTER CIRCUIT TEST

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| 1. | Remove cross-connection, if there is one, of the hundreds punching to the (D) punching on the counter circuit. | Without cross-connections; the DVR relay in the counter should operate and release every 1000 calls. This will be verified in Step 4(b). |
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| Step | Action | Verification |
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| 2. | Temporarily cross-connect, punching (100) to punching (D) on terminal strip (D3A) of the counter circuit. A. When DVR relay of counter operates (on 100th count) and recycles counter, have man at call count register, record reading of register. (This is your base register reading to be used as a starting point for checking register count against counting accurateness of counter circuit.) | Counter circuit recycles and starts counting AMA initial entries simultaneously with call count register. |
| 3. | Remove temporary cross-connect on counter. | |
| 4. | While counter circuit and call count register are simultaneously counting AMA initial entries, verify accuracy of the counter. NOTE: In a non-working office, substitute for AMA initial entries, by manual operation of (C-) relays at the call count process control. | A. Cross connect punching 100, 200, etc., to 900 should become grounded at 100th, 200th, etc., to 900th count of call count register (starting from base count taken on step 2). NOTE: Counter circuit and call count register should count simultaneously. If test at 100th count fails observe counter, units (U1-5, 10) tens (1-5, 10) and Hundreds (H1-5, 10) relays for counting sequence. B. Observe the (DVR) relay in the counter circuit operates on 1000th registration of the call count register. |
| 5. | Replace cross connect if required. | |
| B. TRANSVERTER AND OVERALL OPERATION TEST | | |
| 1. | Block the (DR) relay non-operated in all transverters. | |
| 2. | Manually operate the (DVR) relay in the counter circuit. | DVR relay locks operated. |
| 3. | Remove blocking tool from lowest numbered transverter (not made-busy). | Observe that the transverter (DR) relay operates and the counter (DVR) relay releases. |
| 4. | Make busy the transverter under test at the (TVMB-) jack (repeat Steps 2, 3, and 4 for each transverter until all transverters have been tested.) | |
| 5. | Remove all the busy plugs at the (TVMB-) jacks. | |

| Step | Action | Verification |
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| 6. | Manually operate the (DR) relay of the lowest numbered transverter to be tested. | Observe that the (RB) relay in this transverter does not operate unless it is handling a call and the (RB) relay does operate in all other transverters when they are not handling a call. Observe that the (4L) relay in this transverter operates on every call. NOTE: In a non-working office calls can be originated at the master test frame. |
| 7. | Release (DR) relay of this transverter and repeat Step 6 on succeeding transverters until all transverters have been tested. | |