PLANT AND TRAFFIC REGISTER

TESTS

STEP-BY-STEP COMMON CONTROL OFFICES

1. GENERAL

1.01 This section describes a method of testing plant and traffic registers for step-by-step offices equipped for common control operation.

1.02 The tests covered are:

A. Register Trunk and Link Peg Count: This test checks that the all register busy (ARB) register operates when all TOUCH-TONE registers and rotary dial registers are busy in a register subgroup. The TOUCH-TONE all busy register (TAB) operates when all TOUCH-TONE registers are busy in a subgroup. The rotary dial all busy register (DAB) operates when all rotary dial registers are busy in a subgroup.

B. Originating Register and Outpulsing Controller Peg Count: This test checks that the assigned traffic register operates when the following functions are used:

   (1) Partial Key (KP)

   (2) Permanent Signal (PS)

   (3) Dial Pulse Call (DP)

   (4) TOUCH-TONE Call (TTC)

   (5) Seizure (SPC)

   (6) Reorder (ROD)

   (7) Alternate Route Available (ARA)

   (8) Controlled Outpulsing (SDO)

C. Translator Peg Count: This test checks that the PC traffic register is scored upon seizure.

D. Decoder Peg Count: This test checks the operation of traffic registers assigned to route relays and code points.

E. Trouble Ticketer Peg Count: This test checks that the TTE traffic register is scored upon seizure.

F. Foreign Area Translator Peg Count: This test checks the operation of traffic registers assigned to code points.

G. Outgoing Trunk Circuit SD-32367-01 Peg Count: This test checks that the assigned traffic register scores each time the trunk is seized.

H. Originating Register and Outpulsing Controller Plant Register: This test checks the operation of time-out plant registers.

I. Translator Plant Register: This test checks the operation of trouble release plant registers.

J. Decoder Plant Register: This test checks the operation of display lost plant registers.

1.03 The traffic department should be notified before starting and after completing these tests so that any signals caused by performing these tests may be disregarded. Local instructions should be followed for recording register operations caused by performing these tests.

1.04 These tests require verification at the plant register circuit or the traffic register cabinet.

1.05 The assigned battery cut-off key should be operated before testing registers at the traffic register cabinet.

2. APPARATUS

Tests A through D, F, H, I, and J

2.01 322A (shorted) make-busy plug.

Tests B, D, I, and J

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

Tests D and F

2.03 One testing cord, 893 cord, 3 feet long, equipped with two 360A tools (1W13A cord), one KS-6278 connecting clip, and one 624B (terminal connector) tool (for applying ground connections to terminal strips).

Tests E and J

2.04 375A (shorted) make-busy plug.

Test G

2.05 258-type (insulated) make-busy plug.

---

3. METHOD

STEP	ACTION	VERIFICATION

A. Register Trunk and Link Peg Count

TOUCH-TONE TAB Peg Count

1	At jack, key, and lamp circuit — Insert 322A make-busy plug into all OR MB- jacks associated with TOUCH-TONE registers for a subgroup.	At traffic register cabinet — Register scores once.
2	Remove plugs from OR MB- jacks.	
3	Repeat Steps 1 and 2 for other register subgroups.	

Rotary Dial DAB Peg Count

4	Insert 322A make-busy plug into all OR MB- jacks associated with rotary dial registers for a subgroup.	At traffic register cabinet — Register scores once.
5	Remove plugs from OR MB- jacks.	
6	Repeat Steps 4 and 5 for other register subgroups.	

All Registers Busy ARB Peg Count

7	Insert 322A make-busy plug into all OR MB- jacks for a subgroup.	At traffic register cabinet — Register scores once.
		Note: Associated TAB and DAB registers also score.
8	Remove plugs from OR MB- jacks.	

STEP	ACTION	VERIFICATION

B. Originating Register and Outpulsing Controller Peg Count

1   At jack, key, and lamp circuit —
Insert 322A make-busy plug into OR
MB- jack.

Partial Key (PK) Peg Count

2   At selected originating register —
Momentarily operate PK relay.

    At traffic register cabinet —
Register scores once.

3   At jack, key, and lamp circuit —
Momentarily insert 322A make-busy plug
into OR RL- jack.

Permanent Signal (PS) Peg Count

4   At selected originating register —
Block operated RL relay.

5   Momentarily operate PS relay.

    At traffic register cabinet —
Register scores once.

6   Remove blocking tool from RL relay.

Dial Pulse (DP) Peg Count

7   At selected originating register —
Block operated RL relay.

8   Momentarily operate DP relay.

    At traffic register cabinet —
Register scores once.

9   Remove blocking tool from RL relay.

TOUCH-TONE Call (TTC) Peg Count

10   At selected originating register —
Block operated RL relay.

11   Momentarily operate MF1 relay.

    At traffic register cabinet —
Register scores once.

12   Remove blocking tool from RL relay.

Seizure (SPC) Peg Count

13   At selected originating register —
Momentarily operate ON relay.

    At traffic register cabinet —
Register scores once.

STEP	ACTION	VERIFICATION
14	At jack, key, and lamp circuit — Momentarily insert 322A make-busy plug into OR RL- jack.	

Reorder (ROD) Peg Count

15	At selected originating register — Momentarily operate ROD relay.	At traffic register cabinet — Register scores once.
16	At jack, key, and lamp circuit — Momentarily insert 322A make-busy plug into OR RL- jack.	

Alternate Route Available (ARA) Peg Count

17	At selected originating register — Block operated 2S relay.	
18	Momentarily operate ARA relay.	At traffic register cabinet — Register scores once.
19	Remove blocking tool from 2S relay.	
20	At jack, key, and lamp circuit — Momentarily insert 322A make-busy plug into OR RL- jack.	

Controlled Outpulsing (SD0) Peg Count

21	At selected originating register — Block operated RCA relay.	
22	Momentarily operate SD0 relay.	At traffic register cabinet — Register scores once.
23	Remove blocking tool from RCA relay.	
24	At jack, key, and lamp circuit — Momentarily insert 322A make-busy plug into OR RL- jack.	
25	Remove plug from OR MB- jack.	

C. Translator Peg Count

Seizure (PC) Peg Count

1	At jack, key, and lamp circuit — Insert 322A make-busy plug into TMB- jack.	
2	At selected translator — Momentarily operate ON relay.	At traffic register cabinet — Register scores once.

STEP	ACTION	VERIFICATION
3	At jack, key, and lamp circuit — Remove plug from TMB- jack.	

D. Decoder Circuit Peg Count

1	At jack, key, and lamp circuit — Insert 322A make-busy plug into TMB- jack.	

Route Relay (R-) Peg Count

2	At decoder under test — Block operated TKA relay.	
3	Momentarily operate R- relay for route under test.	At traffic register cabinet — Register scores once.

Code Point (PC) Peg Count

4	At terminal strip TB — Apply ground momentarily to code point assigned to PC0 relay.	At traffic register cabinet — Register scores once.
5	Repeat Step 4 for other PC- relays, as required.	Corresponding PC- register scores once.
6	Remove blocking tool from TKA relay.	
7	At jack, key, and lamp circuit — Remove plug from TMB- jack.	

E. Trouble Ticketer Peg Count

Seizure Peg Count

1	At jack, key, and lamp circuit — Insert 375A make-busy plug into TTMB- jack.	
2	At trouble ticketer circuit — Momentarily operate ON relay.	At jack, key, and lamp circuit — TTE register scores once.
3	At jack, key, and lamp circuit — Remove plug from TTMB- jack.	

F. Foreign Area Translator Peg Count

Code Point (CPC-) Peg Count

1	At jack, key, and lamp circuit — Insert 322A make-busy plug into TMB- jack for translator associated with foreign area translator under test.	

STEP	ACTION	VERIFICATION
2	At selected foreign area translator terminal strip FA — Apply ground to code point associated with PC0 relay.	At traffic register cabinet — Register scores once.
3	Repeat Step 2 for code points associated with other PC relays, as required.	Register scores once.
4	At jack, key, and lamp circuit — Remove plug from TMB- jack.	

G. Outgoing Trunk Circuit SD-32367-01 Peg Count

Seizure Peg Count

1	Check the trunk for busy condition.	
2	When trunk is idle — Momentarily insert 258-type make-busy plug into T jack.	At traffic register cabinet — Register scores once.

H. Originating Register Outpulsing Controller Circuit Plant Register

Time Out (TO)

1	At jack, key, and lamp circuit — Insert 322A make-busy plug into OR MB- jack for register under test.	
2	At selected register — Momentarily operate TA1 relay.	At plant register circuit — OR TO- register scores once.
3	At jack, key, and lamp circuit — Momentarily insert 322A make-busy plug into OR RL- jack.	
4	Remove plug from OR MB- jack.	

I. Translator Plant Register

Trouble Release (TRR-)

1	At jack, key, and lamp circuit — Insert 322A make-busy plug into TMB- jack.	
2	At selected translator — Insulate 10M of TR relay.	
3	Momentarily operate TR relay.	At plant register circuit — TRR- register scores once.

STEP	ACTION	VERIFICATION

4   Remove insulating tool from TR relay.

5   At jack, key, and lamp circuit —
Remove plug from TMB- jack.

J. Decoder Plant Register

Display Lost (DL-) Plant Register

1   At jack, key, and lamp circuit —
Insert 322A make-busy plug into TMB- jack.

2   Insert 375A make-busy plug into TTMB DR- jack.

3   At translator associated with decoder under test —
Block nonoperated TR relay.

4   At decoder under test —
Momentarily operate TS relay.   At plant register circuit —
DL register scores once.
DL- lamp lights.

5   At jack, key, and lamp circuit —
Momentarily operate DL- AR key.   DL- lamp extinguishes.

6   At translator associated with decoder under test —
Remove blocking tool from TR relay.

7   At jack, key, and lamp circuit —
Remove plugs from TMB- and TTMB DR- jacks.