This Practice Revised on.....
List # Part 1 Date 2-4-64
B.S.P.M. #..... C. & E. List #.....

DART APPLIQUE CIRCUIT PSD-68002-01 OPERATION TESTS

1. GENERAL

1.01 This section describes the method of testing the operating functions of the DART applique circuit, PSD-68002-01. This circuit is used when connecting the data analysis of reorder traps system (DART), built by the Teletype Corporation, to a 4A or a 4M toll switching office.

1.02 The tests covered are:

A. Start Indication: This checks the ability of the circuit to send a start indication to the DART in case of reorders, stuck senders, or vacant code attempts.

B. Alarm Indication: This checks the ability of the circuit to give a minor office alarm should the DART not complete its scanning process in about 1 second.

C. Completed Trouble Indication: This checks the ability of the circuit to recognize the end of a trouble indication received by the DART, to activate the master timer circuit, when provided, and to operate the magnetic counter.

1.03 Lettered Steps: A letter a, b, c, etc., added to a step number in Parts 3 or 4 of this section, indicates an action which may or may not be required depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column, and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

2. APPARATUS

All Tests

2.01 Two testing cords, one-conductor cord, 1 foot 1/2 inch long, equipped with two No. 30 Mueller minigator clips and two No. 32 Mueller insulators, one red and one black (W1AP cord).

Test A

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

Test C

2.03 KS-14510, List 1, Volt-ohm-milliammeter.

2.04 Testing cord, one-conductor cord, 1 foot 1/2 inch long, equipped with two Mueller minigator clips and two No. 32 Mueller insulators, black (W1AP cord).

3. PREPARATION

All Tests

STEP	ACTION	VERIFICATION
1	At trouble recorder - Busy trouble recorder.	
2	At DART console - Connect BA, BB, BC-A, BC-B, CA, CB and CC connectors to DART console.	

STEP	ACTION	VERIFICATION
3	Operate rectifier ON-OFF switch to ON position. Note: If ALM lamp lights when rectifier is turned on, operate and release ALM-RLS key.	At DART console - Rectifier ON lamp lights.
4	Release RO, SS, and VC keys.	
Test C		
5	At DART console - Operate power switch to ON position.	At DART console - Reperforator motor starts. Low-speed transmitter motor starts.

4. METHOD

A. Start Indication

5	In applique circuit - Connect ground to terminal 36 of BC TS.	
6	At DART console - Operate RO key.	
7	In applique circuit - Block nonoperated ALM relay.	
8	Connect testing cord from terminal 41 to terminal 35 of A TS.	In applique circuit - ROT relay operates.
9	Remove testing cord.	ROT relay releases. At DART console - ALM lamp lights.
10	At DART console - Operate and release ALM-RLS key.	ALM lamp extinguished.
11	Release RO key.	
12	Operate SS key.	
13	In applique circuit - Connect testing cord from terminal 41 to terminal 36 of A TS.	In applique circuit - ROT relay operates.
14	Remove testing cord.	ROT relay releases. At DART console - ALM lamp lights.

STEP	ACTION	VERIFICATION
15	At DART console - Operate and release ALM-RLS key.	ALM lamp extinguished.
16	Release SS key.	
17	Operate VC key.	
18	In applique circuit - Connect testing cord from terminal 41 of A TS to terminal 35 of BC TS.	In applique circuit - ROT relay operates.
19	Remove testing cord.	ROT relay releases. At DART console - ALM lamp lights.
20	At DART console - Operate and release ALM-RLS key.	ALM lamp extinguished.
21	Release VC key.	
22	In applique circuit - Remove blocking tool from ALM relay.	
23	Remove ground from terminal 36 of BC TS.	
	B. Alarm Indication	
5	In applique circuit - Connect ground to terminal 36 of BC TS.	
6	At DART console - Operate RO key.	
7	In applique circuit - Connect testing cord from terminal 41 to terminal 35 of A TS.	In applique circuit - ROT relay operates. In about 1 second ALM and END relays operate. At DART console - ALM lamp lights. At trouble recorder - MN relay operates - Minor office alarm activated.
8	Remove testing cord.	In applique circuit - ROT and END relays release.

STEP	ACTION	VERIFICATION
9	At DART console - Operate and release ALM-RLS key.	ALM relay releases. At DART console - ALM lamp extinguished. At trouble recorder - MN relay releases. Minor office alarm silenced.
10	Release RO key.	
11	In applique circuit - Remove ground from terminal 36 of BC TS.	
	C. Completed Trouble Indication	
6	In applique circuit - Connect ground to terminal 36 of BC TS.	
7	At DART console - Operate TFO key momentarily.	At DART console - Reperforator feeds out about 1 foot of tape.
8	Operate RO key.	
9	Read MR counter.	Record reading.
10	In applique circuit - Connect testing cord from terminal 41 to terminal 35 of A TS.	In applique circuit - ROT relay operates. At DART console - Scanning circuit activated and tape perforated. In applique circuit - END relay operates.
11	Using 60VDC scale, connect positive lead of volt-ohm-milliammeter to terminal 27 of A TS and negative lead to terminal 38.	Meter reads between 46 and 50 volts.
12	Remove meter leads.	
13	Connect testing cord from terminal 41 to terminal 26 of A TS.	At trouble recorder - STR2 relay does not operate.
14	Remove testing cord used in Step 13.	
15	Remove testing cord used in Step 10.	In applique circuit - ROT and END relays release.
16	At DART console - Read MR counter.	At DART console - MR counter reads one more than in Step 9.

STEP	ACTION	VERIFICATION
17a	When master timer circuit connections are provided - Operate and hold operated TFO key until enough tape feeds out to allow the received trouble indication to run thru low-speed transmitter.	Transmitter sends tape. At 28 teletypewriter - Date and time printed.
18	Release RO key.	
19	In applique circuit - Remove ground from terminal 36 or BC TS.	