

**TRUNKS AND TIE TRUNKS - OPERATION TESTS FROM SELECTOR LEVELS**  
**740E PBX**

**1. GENERAL**

1.01 This section describes a method of testing the operating features of trunks and tie trunks from selector and selector connector levels in a No. 740E PBX

1.02 The tests covered are:

**(A) Trunk from Selectors and Selector Connectors.**

This test checks the operation features of trunks from selector and selector connector levels to various types of central offices or PBX's and to distant PBX stations.

**(B) Toll Diversion from Selector and Selector Connector Levels.**

This test checks that toll calls originated at unauthorized stations are diverted to the PBX attendant or to a tone circuit.

1.03 These tests should be made from selector and selector connector switches having direct access to the trunks and tie trunks. A different switch should be used each time these tests are performed, so that all trunks and tie trunks will eventually be tested from all switches.

1.04 In test (A) arrangements should be made to have the station at the distant end answered, when making tie trunk tests to incoming selectors, incoming selector connectors, or incoming connectors.

1.05 **Lettered Steps.** The letters a, b, c, etc. are added to a step number to indicate that the steps cover an action which may or may not be required, depending on local conditions. The conditions under which a lettered step or series of steps should be made are given in the action column, and all other steps governed by the same condition are designated by the same letter. Where a condition does not apply, the associated steps should be omitted.

**2. APPARATUS**

2.01 No. 1011G dial hand test set equipped with a 2W39A cord assembly consisting of a W2CL cord, a No. 471A jack and a No. 240A plug (or equivalent).

2.02 No. 477A (or No. 375A) (make busy) tools as required.

**3. PREPARATION**

<u>Step</u>	<u>Action</u>	<u>Verification</u>
1	When testing from selector levels, operate MS key on line frame	
2	Operate cord assembly switch of dial hand test set to ON position	
3	Operate hand set MON switch	
4	Connect hand set to test jack of idle selector or selector connector and monitor	No conversation heard

**4. METHOD**

**(A) Trunks from Selectors and Selector Connectors**

Trunks to Manual Central Office or to Local PBX Attendant

5	Operate TALK switch	P.B.X. dial tone heard
6	Dial required level Note: With selector connectors, if level is arranged for two digit operation, dial the first terminal of the group of trunks	Switch stops on 1st idle terminal, central office operator or P.B.X. attendant answers

<u>Step</u>	<u>Action</u>	<u>Verification</u>
7	When convenient, record busy trunks stepped over, for subsequent testing	
8	Obtain trunk number from operator or PBX attendant	Trunk number checks
9	Request operator or attendant to observe supervision test. Operate MON - TALK switch rapidly two or more times, stopping at TALK	Supervisory lamp flashes in unison with switch operation
10	Request operator or attendant to release when she receives disconnect signal and then operate MON switch	Click heard, switch releases approximately two seconds after click
11	Repeat steps 5 to 10 inclusive for each trunk on level	

**Note: For Selectors** — If switch stops on a trunk that has been tested previously, rotate switch to next idle trunk by manually operating the vertical off normal lever momentarily

**For Selector Connectors**—If switch stops on a trunk that has been tested previously, insert make busy tool between sleeve and ground springs of selector connector test jack. Operate MON switch. Manually rotate switch to next idle trunk, and operate TALK switch. Remove make busy tool

Tie Trunks to Distant PBX Attendant

12	Operate TALK switch	Dial tone heard
13	Dial required level. See note of step 6	Switch stops on 1st idle terminal — attendant answers
14	When convenient, record busy trunks stepped over, for subsequent testing	
15	Ask attendant number of trunk	Trunk number checks
16	Request attendant to release when she receives disconnect signal. Operate MON switch	Click heard, switch releases approximately two seconds after click
17	Repeat steps 12 to 16 inclusive for each trunk on level. See note of step 11	

Trunks to Panel or Crossbar Central Office

18	Operate TALK switch	Dial tone heard
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<u>Step</u>	<u>Action</u>	<u>Verification</u>
19	Dial required level. See note of step 6	Switch stops on 1st idle terminal Central office dial tone heard
20	Record busy trunks stepped over for subsequent testing	
21	Dial permanently made busy number	Busy tone heard
22	Operate MON switch	Switch releases in approximately two seconds
23	Repeat steps 18 to 22 for each trunk on the level. See note of step 11	
<b>Trunks to Step by Step Central Office</b>		
24	Operate TALK switch	Dial tone heard
25	Dial required level. See note of step 6	Switch stops on 1st idle terminal Central office dial tone heard
26	Record busy trunks stepped over for subsequent testing	
27	Dial test line number in non-reverse battery connector group	Interrupted tone heard in receiver
28	Operate MON switch	Switch releases in approximately two seconds
29	Repeat steps 24 to 28 for each trunk on the level. See note of step 11	
<b>Tie Trunks to Incoming Selectors, Incoming Selector Connectors or Incoming Connectors</b>		
30	Operate TALK switch	Dial tone heard
31	Dial required level. See note of step 6	Switch stops on 1st idle terminal
32	Record busy trunks stepped over for subsequent testing	
33	Dial test station at distant P B X	Audible ringing signal heard. Assistant answers. Note: On tie trunks arranged for battery reversal, tester at No. 740E P B X will hear a click in hand test set receiver, indicating that battery has reversed
34	Operate MON switch	Switch releases
35	Repeat steps 30 to 34 for each trunk on the level. See note of step 11	
<b>Tie Trunks also Appearing in Manual Positions at the Distant P B X</b>		
36	Operate TALK switch	Dial tone heard
37	Dial required level. See note of step 6	Switch steps to 1st idle terminal
38	Record busy trunks stepped over for subsequent testing	

<u>Step</u>	<u>Action</u>	<u>Verification</u>
39	Dial zero	Attendant answers Note: On tie trunks arranged for battery reversal, tester at No. 740E P B X will hear a click in hand test set receiver, indicating that battery has reversed
40	Ask attendant number of tie trunk	Trunk number checks
41	Request operator to release when she receives disconnect signal	Click heard, switch releases approximately 2 seconds after click
	Operate MON switch	
42	Repeat steps 36 to 41 for each trunk on the level. See note of step 11	
43	Disconnect dial hand test set	
44	Restore MS key if operated	
<b>(B) Toll Diversion from Selector or Selector Connector Levels</b>		
5	Operate TALK switch	P B X dial tone heard
6	Dial selector level or selector connector level of central office trunk on which toll diversion is provided	Central office dial tone heard
7	When convenient, make record of busy trunk terminals stepped over, for subsequent testing	
8a	If P B X is equipped with toll diverting tone circuit—dial toll code of central office	Toll diverting tone heard
9a	Operate MON switch Note: If selector or selector connector switch does not release, it is an indication that some other trunk circuit is connected to the tone circuit. Disconnect hand set, manually release selector or selector connector switch and re-test trunk later	Selector or selector connector switch releases
10b	If P B X is equipped for toll diversion to P B X attendant—dial toll code of central office Note: If toll diverting trunk is busy due to another call, as indicated by conversation on the trunk, disconnect hand set, manually release selector or selector connector switch, and re-test trunk later	P B X attendant answers

<u>Step</u>	<u>Action</u>	<u>Verification</u>
11b	Operate MON switch	Selector or selector connector switch releases
12	Repeat steps 5 to 11b for each trunk on the level <b>Note: For Selectors</b> — If switch stops on a trunk that has been tested previously, rotate switch to next idle trunk by manually operating the vertical off normal lever momentarily <b>For Selector Connectors</b> —If switch stops on a trunk that has been tested previously, insert make busy tool between sleeve and ground springs of selector connector test jack. Operate MON switch. Manually rotate switch to next idle trunk, and operate TALK switch. Remove make busy tool.	
13	Disconnect dial hand test set	
14	Restore MS key if operated	