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PBX SYSTEMS  
NO. 701A, 701B, 701PK, 711A, 711B, OR 711PK  
TEST LINE CIRCUIT  
FOR TESTING CONNECTOR  
AND SELECTOR CONNECTOR CIRCUITS

CHANGES

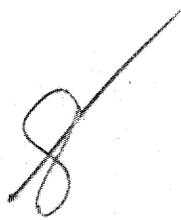
D. Description of Circuit Changes

D.1 "CAD" Figures 51 and 52 are rerated  
from "Manufacture Discontinued" to  
"A&M Only".

All other headings under Changes, no change.

BELL TELEPHONE LABORATORIES, INCORPORATED

(WECO-2120HW-RLS/FAA-WIK)  
DEPT 5337-LAH



PBX SYSTEMS  
NO. 701A, 701B, 701PK, 711A, 711B OR 711PK  
TEST LINE CIRCUIT  
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CHANGES

B. Changes in Apparatus

<u>B.1 Superseded</u>	<u>Superseded By</u>
C Resistor 18DS Fig. 1, B Option	D Resistor 18FC Fig. 1, A Option
D Resistor 18BK Fig. 1, B Option	

D. Description of Changes

- D.1 Option B is designated and rated  
Manufacture Discontinued.
- D.2 Option A is added and rated Standard  
in order to increase total resistance  
in the circuit to eliminate a false ring  
trip condition in Connector Circuit -  
SD-65949-01.

BELL TELEPHONE LABORATORIES, INCORPORATED

(WECO 2120HW-RWH-WHK)  
DEPT 5337-LAH

CIRCUIT DESCRIPTION

CD-66037-01  
Issue 5D  
Appendix 5D  
Dwg. Issue 23D

FBX SYSTEMS  
NO. 701A, 701B, 701FK, 711A, 711B, OR 711PK  
TEST LINE CIRCUIT  
FOR TESTING CONNECTOR  
AND SELECTOR CONNECTOR CIRCUITS

CHANGES

D. DESCRIPTION OF CHANGES

- D.1 The title is revised to change 701C and 711C FBX Systems to read 701FK and 711PK respectively.
- D.2 Figure 61 is changed.
- D.3 All references to 701C and 711C are changed to read 701FK and 711PK .

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT. 5336-JJH-3vdL-EP

FBX SYSTEMS  
NO. 701A, 701B, 701C, 711A, 711B, 711C  
TEST LINE CIRCUIT  
FOR TESTING CONNECTOR  
AND SELECTOR CONNECTOR CIRCUITS

CHANGES

D. DESCRIPTION OF CHANGES

- D.1 The title is changed to include 701C  
and 711C PBX Systems.
- D.2 Figure 57 is changed
- D.3 Figures 60 and 61 are added.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT. 5336-JJH-EvdL-DB

CIRCUIT DESCRIPTION

CD-66037-01  
Issue 5-D  
Appendix 3-D  
Dwg. Issue 21-D

PBX SYSTEMS  
NO. 701A, 701B, 711A OR 711B  
TEST LINE CIRCUIT  
FOR TESTING CONNECTOR  
AND SELECTOR CONNECTOR CIRCUITS

CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

- D.1 Resistor E and Options Y & Z removed in error on Issue 20-B.
- D.2 Issue 21-D replaces resistor and options.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT. 5332-JMV-HFH-DC

PBX SYSTEMS  
NO. 701A, 701B, 711A, OR 711B  
TEST LINE CIRCUIT  
FOR TESTING CONNECTOR  
AND SELECTOR CONNECTOR CIRCUITS

CHANGES

B. CHANGES IN APPARATUS

B.1 Superseded            Superseded by

I Relay  
R824  
OPT F

I Relay  
R318  
OPT E

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 Connectors which are arranged to  
camp-on a busy terminal, will hold

to the test line during tests. In order  
to enable testman to release the connector,  
option E is added and rated standard,  
option F is rated Mfr. Disc.

D.2 With option F, connectors arranged for  
camp-on hold to the D&C resistors  
across the T&R.

D.3 With option E the D&C resistors are  
removed from across the T&R when  
relay I releases, allowing the connectors  
to release.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT. 5332-JMW-RDW-EA

PBX SYSTEMS  
NO. 701A, 701B, 711A OR 711B  
TEST LINE CIRCUIT  
FOR TESTING CONNECTOR  
AND SELECTOR CONNECTOR CIRCUITS

CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 In Fig. 58 terminals numbered 44, 45, 46  
were numbered 43, 44, & 45 respectively.

In Fig. 59 terminals numbered 41, 42, & 43  
were numbered 40, 41 & 42 respectively.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT. 2242-FWW-RDW-KB

AE

PBX SYSTEMS  
NO. 701A, 701B, 711A OR 711B  
TEST LINE CIRCUIT  
FOR TESTING CONNECTOR  
AND SELECTOR CONNECTOR CIRCUITS

## CHANGES

## B. CHANGES IN APPARATUS

- |     |  |   |
|-----|--|---|
| B.1 | Superseded<br><br>97A Rep.<br>Coil<br>Option "H" | Superseded By<br><br>307R Indr.<br>Option "G" |
|-----|--|---|

## D. DESCRIPTION OF CIRCUIT CHANGES

- D.1 In Figure 1, Option "H" is designated and rated Mfr. Disc. and Option "G" is added.
- D.2 Prior to Issue 18-D, Figure 2 was part of Figure 1.
- D.3 The multiple is removed from leads "DT" and "MS".
- D.4 Multiple is added to leads "T, R, MS and S".
- D.5 Circuit Notes 107 and 108 are added.
- D.6 Cad. Figs. 51, 52, 53, 55, 58 and 59 are changed.
- D.7 Equipment Note 201 is changed and Note 205 is added.

All other headings under Changes, no change.

## 1. PURPOSE OF CIRCUIT

- 1.1 This circuit is used in a 701A, 711A, 701B and 711B PBX for testing connectors and selector connectors.

## 2. WORKING LIMITS

- 2.1 None.

## 3. FUNCTIONS

- 3.1 To place conditions on the connector or selector connector banks which will test the ability of those switches to:
- 3.11 Make a busy test.
- 3.12 Cut through to the test line.
- 3.13 To ring the subset in the test line.
- 3.14 Pre-trip.

- 3.15 Trip machine ringing.

- 3.16 Talking condition.

- 3.2 To ground the motor start lead when a patching cord is plugged into the TL jack.

- 3.3 To check for ringing current on the tip from attendant connectors and on the ring from other connectors.

## 4. CONNECTING CIRCUITS

When this circuit is listed on a key sheet the connecting information thereon is to be followed.

- 4.1 Test set circuits such as SD-90416-01 or SD-66073-01.
- 4.2 Connectors such as SD-66049-01 and SD-66143-01.
- 4.3 Selector Connectors such as SD-65721-01.
- 4.4 Attendant connectors such as SD-66643-01.
- 4.5 Power ringing circuit such as SD-80946-01.

## DESCRIPTION OF OPERATION

## 5. GENERAL

Before this circuit is used the (TL) jack of this circuit should be connected to the (TL) jack of the test set by means of a patching cord. If T option is in use ground will be connected to lead MS; thus starting the ringing machine.

## 6. BUSY

Ground is normally connected to the sleeve terminal. If the test man dials the terminal assigned to the test line, he should receive the busy tone.

## 7. IDLE

The test man should now release the connector or selector connector and operate the idle key of the test set. That will operate the (I) relay which removes the busy ground and furnishes battery to the

sleeve thru resistances (E) to enable the switch to cut thru. The test man should redial the test line. The connector or selector connector should cut through to the test line.

8. PRE-TRIP TEST

Ring current from the connector or selector connector should now cause the subset to ring. Regular connectors and selector connectors will ring the (R) subset while attendant connectors will ring the (T) subset. The subset and the (C) and (D) resistances provide the pre-trip test.

9. TRIPPING

The trip key in the test set should now be operated during the silent interval, operating the (TP) relay which connects the (A) and (B) resistances across the line to test the (F) relay in the connector or selector connector for tripping.

10. TALKING CONDITION

The operation of the (Tone) key in the test set operates the (TN) relay and releases the (TP) relay, connecting tone to the tip and ring of the test line as an indication that the switch is in the talking condition.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT. 2725-WVS-HHA-YJ