

American Telephone and Telegraph Company

BELL SYSTEM PRACTICES  
Teletypewriter and Manual  
Telegraph Station and PBX  
Installation and Maintenance

SECTION P65.902  
Appendix 3  
Issue A, 10-15-43  
Long Line Department  
Dist. Class. 400AC-600AC

APPLIQUE CIRCUIT PER

DRAWING 21045-124

TO BE USED IN CONJUNCTION WITH THE

SELECTIVE RECEIVING CIRCUIT

PER BSP SECTION P90.982

1. GENERAL

1.01 This appendix contains a description of an applique circuit to be used in conjunction with the selective receiving circuit shown in BSP Section P90.982. The schematic of this applique circuit is covered by Drawing 21045-124.

1.02 The power for Figure "B" of this applique circuit is obtained from the selective receiving circuit covered by Section P90.982. The power for Figure "A" of this applique circuit is obtained by use of central office battery tape.

2. FUNCTIONS

2.01 The functions provided by this applique circuit, when used in conjunction with the selective receiving circuit installed at a central office are as follows:

(a) Receipt of the assigned 22 impulse disconnect code, will disconnect a customer's loop from the teletypewriter line circuit at the central office, terminate the loop to battery and light a lamp at the customer's station indicating that the station has been disconnected.

(b) Receipt of the assigned 24 impulse connect code, will connect the customer's loop to the teletypewriter line circuit at the central office, and extinguish the lamp at the customer's station, indicating that the station has been connected.

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### 3. EQUIPMENT ARRANGEMENT

3.01 The equipment for this applique circuit, with the exception of the indicator lamp, is installed at the central office. As indicated on the drawing, the equipment for Figure (B) is furnished with the selective receiving circuit and is installed in the selective receiving circuit cabinet.

3.02 The indicator lamp is installed at the customer's office and consists of a 15A-3 indicator with B-2 lamp.

### 4. CIRCUIT DESCRIPTION

4.01 Drawing 21045-124 covering this circuit shows the relays released. As a result the customer's loop is connected to the line circuit through leads (A), (B) and (C), (D). The indicating lamp circuit leads (E) and (F) extended to the customer's station over a separate loop are open, thus the lamp at the customer's station is extinguished.

#### 4.02 Receipt of Disconnect Code

(a) Upon receipt of the assigned 22 impulse disconnect code by the selective receiving circuit, (Figure 1, P90.982), Relay (B) of that figure will be operated due to the closure of (A) Selector Contacts 1-3. The operating path is from the negative side of the power supply on Terminal 22 of the (B) terminal strip to Terminal 1 of the (B) terminal strip, through the (A) selector Contacts 1-3, Terminal 3 of the (B) terminal strip, to Terminal 11 of the (B) terminal strip, the winding of Relay (B), the (B) resistance to the positive side of the power supply.

(b) Relay (B) operates and locks up through its bottom Contacts 2-1 to Terminal 14 of the (B) terminal strip to the negative side of the power supply on Terminal 22 of the (B) terminal strip.

(c) Relay (B) operated also provides an operating path for Relay (A) of the applique circuit, through closure of the top Contacts 1-2 of Relay (B). The path is from negative 24-volt supply through winding of Relay (A), Terminal 12 of the (B) terminal strip, top Contacts 2-1 of the (B) relay, Terminal 13 of the (B) terminal strip to ground.

(d) Relay (A) operates and its top Contacts 6-7 close the indicating lamp leads (E) and (F) and lights the lamp at the customer's station. Also, through leads (C) and (D) the customer's loop is terminated to negative and positive battery through the top and bottom Contacts 4-5 of the relay and potentiometers (A) and (B) respectively. The teletypewriter line circuit leads (A) and (B) are connected together through the top and bottom Contacts 1-2 of relay (A), and potentiometer (C) which acts as a loop compensating resistance.

#### 4.03 Receipt of Connect Code

(a) Upon receipt of the assigned 24 impulse connect code by the selective receiving circuit, (Figure 1, P90.982), relay (G) will be operated due to the closure of (A) selector Contacts 1-4. The operating path is from the negative side of the power supply on Terminal 22 of the (B) terminal strip to Terminal 1 of the (B) terminal strip, through Contacts 1-4 of the (A) selector, Terminal 4 of the (B) terminal strip, the winding of the (G) relay, the (P) resistance to the positive side of the power supply on Terminal 23 of the (B) terminal strip.

(b) Relay (G) operates and its top Contacts 1-2 provide a short circuit across the winding of relay (B), (Figure 1, P90.982), thus releasing relay (B). The path being from Terminal 15 of the (B) terminal strip, through Contacts 2-1 of relay (G), to Terminal 14 of the (B) terminal strip.

(c) Relay (B) released, also releases relay (A) of the applique circuit and places the circuit in the condition described in Paragraph 4.01.

### 5. INSTALLATION

5.01 The selective receiving circuit equipment and the equipment comprising the applique circuit shall be installed in the central office designated by the Private Line Service Order.

5.02 The location of the selective receiving circuit equipment and the applique circuit equipment in the central office, shall be determined locally. In this connection, the above equipment shall be rack mounted. The cabinet, from which

the receiving circuit equipment is removed to permit relay rack mounting, should be retained for possible future use with this equipment.

5.03 The indicating lamp at the customer's station shall be mounted in a location suitable to the customer, and connected to the loop provided for this purpose. The current in this loop should be adjusted in the testroom to a value of .040 to .045 amperes.

## 6. MAINTENANCE

6.01 All equipment associated with this circuit shall be maintained in accordance with the instructions contained in Bell System Practices.

## 7. TESTING

7.01 Before placing this circuit in service, its correct operation, as described in this appendix, shall be checked in conjunction with the selective receiving circuit.

## 8. REFERENCES

8.01 This applique circuit is covered by the following drawings:

(Drawing 21045-124) Schematic  
(Drawing 21045-T- ) Wiring

8.02 A complete list of BSP Sections and drawings pertaining to the 64C1 selector system will be found in Section P65.902.