American Telephone and Telegraph Company

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

SECTION P65.902
Appendix 2
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Long Lines Department
Dist. Class. 400AC-600AC

APPLIQUE CIRCUIT PER BSP SECTION P90.984 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 Section P90.982. The schematic of this applique circuit is covered by Section P90.984.

1.02 The power for the operation of this applique circuit is obtained from the selective receiving circuit covered by Section P90.982.

2. FUNCTIONS

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

(a) Receipt of the assigned 20 impulse station code will operate a buzzer and turn "ON" the power of a teletypewriter at the called station. The buzzer will continue to operate until silenced by operation of the nonlocking key (A) or until the 22 impulse master disconnect code for turning "OFF" the power, is received.

(b) Receipt of the 20 impulse master connect code will perform simultaneously at all stations the same functions as in (a) above.

(c) Receipt of the 22 impulse master disconnect code will turn "OFF" the power of the teletypewriter at each station. The buzzer will be silenced if it is operating.

Note: The contacts of the power control relay are connected in parallel with the teletypewriter table power switch. The teletypewriter power, therefore, is not under control of the applique circuit when the teletypewriter table power switch is in the "ON" position. In order that the attendant may shut off the teletypewriter motor to change paper, ribbons, etc., the power switch on the teletypewriter base is left operative.

3. EQUIPMENT ARRANGEMENT

3.01 This applique circuit is comprised of the equipment shown as Figure 2 in Section P90.982 which is furnished and installed in the selective receiving circuit cabinet; it also includes a power control relay, a buzzer and a nonlocking key.

4. CIRCUIT DESCRIPTION

4.01 The drawing, as shown in Section P90.984, shows all relays released. In this condition, the buzzer circuit stands open and the teletypewriter power is not under control of the applique circuit.

4.02 Receipt of Station Code

(a) Upon receipt of the assigned 20 impulse station code by the selective receiving circuit (Figure 1, P90.982), relay (G) of the applique circuit will be operated due to the closure of the (A) selector Contacts 1-2 (P90.982). The operating path is from the negative side of the power supply on Terminal 22 of the (A) terminal strip to Terminal 1 of the (A) terminal strip, through the (A) selector Contacts 1-2, Terminal 2 of the (A) terminal strip to 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) operated provides operating paths for the (A) and (B) relays (Figure 1, P90.982). The path for relay (A) is from the negative side of the power supply on Terminal

22 of the (B) terminal strip through the bottom Contacts 1-2 of the (C) relay, Terminal 10 of the (B) terminal strip to Terminal 6 of the (A) terminal strip, winding of the (A) relay, the (A) resistance to the positive side of the power supply. The path for operation of relay (B) is from the negative side of the power supply on Terminal 22 of the (B) terminal strip through the top Contacts 1-2 of the (C) relay, Terminal 15 of the (B) terminal strip to Terminal 11 of terminal strip (A), the winding of relay (B), the (B) resistance to the positive side of the power supply.

(c) Relay (A) (Figure 1, P90.982) operates and locks up through its bottom Contacts 2-1 to Terminal 9 of the (A) terminal strip to the negative side of the power supply on Terminal 22 of the (A) terminal strip.

(d) Relay (B) (Figure 1, P90.982) operates and locks up through its bottom Contacts 2-1 to Terminal 14 of the (A) terminal strip, through the contacts of the nonlocking key (A) to Terminal 1 of the (A) terminal strip, to the negative side of the power supply on Terminal 22 of the (A) terminal strip.

(e) Relay (A) operated provides an operating path for the S.E.M. power control relay (A) from the negative side of the power supply on Terminal 22 of the (A) terminal strip to Terminal 8 of the (A) terminal strip, through top Contacts 1-2 of the (A) relay, Terminal 7 of the (A) terminal strip, the S.E.M. power control relay winding to the positive side of the power supply on Terminal 23 of the (A) terminal strip.

(f) The power control relay operated will close a source of power to the teletypewriter.

(g) Relay (B) operated in Paragraph (d) provides an operating path for the buzzer from one side of the low voltage power supply on Terminal 19 of the (A) terminal strip to Terminal 13 of the (A) terminal strip, through top Contacts 1-2 of the (B) relay to Terminal 12 of the (A) terminal strip, through the buzzer to the other side of the low voltage power supply on Terminal 20 of the (A) terminal strip.

(h) The buzzer may be silenced by operating the nonlocking key (A), thus releasing relay (B).

4.03 Receipt of Master Connect Code

Assuming the circuit is again in the condition described in Paragraph 4.01; i.e., all relays released. Upon receipt of the 20 impulse master connect code by the selective receiving circuit, Contacts 1-2 of the (A) selector (Figure 1, P90.982) close at all stations and will perform the same functions as in Paragraph 4.02.

4.04 Receipt of Master Disconnect Code

(a) Upon receipt of the 22 impulse master disconnect code by selective receiving circuit, (Figure 1, P90.982), Contacts 1-3 of the (A) selector at all stations will close. This closure places a short circuit across the winding of the (A) and (B) relays, and releases them. The short circuit is caused by Contacts 1-3 of the (A) selector connecting the negative side of the power supply from Terminal 22 of terminal strip (A) to Terminals 10 and 15 of terminal strip (A).

(b) Relay (A) released will open the circuit to the winding of the S.E.M. power control relay (A). The power control relay will release and open the source of power to the teletypewriter providing the teletypewriter table power switch is not in the "ON" position.

(c) Relay (B) released will silence the buzzer if it is operating.

5. INSTALLATION

5.01 The mounting and wiring of the equipment are shown on BSP's in the P90 series.

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 BSP Section P90.984.

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