

P.B.X. SYSTEMS
NO. 605-A
FUSE AND POWER ALARM CIRCUIT

CHANGES

A. CHANGED AND ADDED FUNCTIONS

A.1 No change.

B. CHANGES IN APPARATUS

B.1 No change.

C. CHANGES IN CIRCUIT REQUIREMENTS OTHER THAN THOSE APPLYING TO
ADDED OR REMOVED APPARATUS

C.1 No change.

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 Reissued to change the rating from "A. T. & T. Co. Standard"
to "A & M Only" and to add the replacement note: "Replaced
by SD-66426-01 except for additions".

1. PURPOSE OF CIRCUIT

1.1 No change.

2. WORKING LIMITS

2.1 No change.

3. FUNCTIONS

3.1 No change.

4. CONNECTING CIRCUITS

4.1 No change.

DESCRIPTION OF OPERATION

5. No change.

BELL TELEPHONE LABORATORIES, INC.

DEPT. 332

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CIRCUIT DESCRIPTION
SYSTEMS DEVELOPMENT DEPARTMENT
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NO. 605-A
FUSE AND POWER ALARM CIRCUIT

CHANGES

A. CHANGES AND ADDED FUNCTIONS

A.1 No change.

B. CHANGES IN APPARATUS

B.1 No change.

C. CHANGES IN CIRCUIT REQUIREMENTS OTHER THAN THOSE APPLY-
ING TO ADDED OR REMOVED APPARATUS

C.1 No change.

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 The cross connection diagram has been changed.

1. PURPOSE OF CIRCUIT

1.1 No change.

2. WORKING LIMITS

2.1 No change.

3. FUNCTIONS

3.1 No change.

4. CONNECTING CIRCUITS

4.1 No change.

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PBX SYSTEMS
NO. 605-A
FUSE AND POWER ALARM CIRCUIT

CHANGES:

A. CHANGED AND ADDED FUNCTIONS

- A.1 A means is provided for an alarm for use with Automatic Power Plants.

B. CHANGES IN APPARATUS

- B.1 Removed Replaced by Added
2T Lamp (AHM)

C. CHANGES IN CIRCUIT REQUIREMENTS OTHER THAN THOSE APPLYING TO ADDED OR REMOVED APPARATUS

- C.1 Reference to "X" Spec. in Test Note 1 changed to "R.A.P."
C.2 Test Note 2 added.
C.3 Heading under "Remarks" removed.
C.4 Insulate "IT"(FA) and Insulate "IT"(SA) added to Remarks after (FA) and (SA) relays, respectively.
C.5 Reference to (P) relay added to Test Note 1.

D. DESCRIPTION OF CIRCUIT CHANGES

- D.1 Figure 3 has been added for use with Automatic Power Plants.
D.2 Notes 103 and 104 have been added and Fig. 1 and Fig. 3 referred to in Note 101.
D.3 Designation of 2T lamp (Fig. 1) changed from (PWR) to (PWR.FA.) and "AL" lead changed to FA(ALM).
D.4 Cross connection diagram changed.
D.5 Rating changed from Provisional to Provisional Standard.
D.6 Leads "G" and "H" added to Fig. 1.

1. PURPOSE OF CIRCUIT

- 1.1 This circuit is used to provide an audible and visual signal to the attendant whenever a fuse at the relay rack or at one of the positions operates or when there is trouble in the power circuit.

2. WORKING LIMITS

- 2.1 None.

3. FUNCTIONS

- 3.1 Provides a visual and audible signal whenever a fuse operates.
- 3.2 Provides a visual and audible signal in case of power trouble.
- 3.3 Provides means for silencing the audible signal.

4. CONNECTING CIRCUITS

- 4.1 Ringing Leads Circuit.
- 4.2 Charge and Discharge Circuit.

DESCRIPTION OF OPERATION

5. OPERATION OF CIRCUIT WHEN FUSE OPERATES - FIG. 1

When a fuse operates the battery alarm bus bar is connected to battery and the (FA) relay operates. The (FA) relay operated, lights the (Al) lamp and operates the (A) relay. The (A) relay operated causes the bells of the (S) subset to ring if the contacts of the (FA) key are closed. When the contacts of the (FA) key are opened the bells of the (S) subset are silenced. When the operated fuse is replaced by a new fuse the (FA) relay releases, extinguishing the (Al) lamp and releasing the (A) relay. When the contacts of the (FA) key are closed the circuit is restored to normal. When a fuse operates in the ground lead the ground alarm bus bar is grounded, lighting the (Al) lamp and operating the (A) relay. The (A) relay operated functions as previously described. When the operated fuse is replaced the (FA) relay releases if operated, the (Al) lamp is extinguished and the (A) relay releases. When the contacts of the (FA) key are closed the circuit is restored to normal.

6. OPERATION OF CIRCUIT WHEN FUSE OPERATES AT THE RELAY RACK OR AT ANY ONE OF THE POSITIONS

When a fuse operates in a battery lead the battery alarm bus bar is connected to battery and the (SA) relay operates. The (SA) relay operated lights the (A2) lamp and operates the (A) relay. The (A) relay performs the function previously described.

7. OPERATION OF CIRCUIT WHEN FUSE OF (A) RELAY OPERATES

When the fuse in the battery lead of the (A) relay operates the (FA) relay operates. The (FA) relay operated causes the bells of the (S) subset to ring if the contacts of the (FA) key are closed. In this case however, the (A) relay will not operate and no visual signal is given to the attendant. When the contacts of the (FA) key are opened the bells of the (S) subset are silenced. When the operated fuse is replaced by a new fuse the (FA) relay releases. When the contacts of the (FA) key are closed the circuit is restored to normal.

8. POWER ALARM FIG. 1

When a power trouble occurs battery is connected to the FA(ALM) lead, lighting the (PWR.FA) lamp and operating the (P) relay. The (P) relay causes the bell in the (S) subset to ring if the (FA) key is normal.

9. POWER ALARM FIG. 3

When a power trouble occurs where an automatic power plant is furnished, ground is connected to the "AHM" lead, lighting the (AHM) lamp. A relay in the power circuit causes the bell in the (S) subset to ring if the (FA) key is normal.

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