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PBX SYSTEMS
NO. 701B, 701PK, 711B OR 711PK
TRAFFIC REGISTER CIRCUIT
NO. 607A, 607B OR 608A
SWITCHBOARD PEG COUNT CIRCUIT

SECTION I - GENERAL DESCRIPTION

1. PURPOSE OF CIRCUIT

1.01 This circuit provides means for obtaining peg count on switchboards, all trunks busy, last trunk busy and all finders busy registration on the various switches, trunk circuits and tie trunk circuits used in the 701B, 711B, 607A or 607B PBX.

SECTION II - DETAILED DESCRIPTION

1. PEG COUNT FIGS. 1, 4 & 5

1.01 Whenever peg count readings are to be taken, the PC BAT key is operated which connects battery to the winding of the PC registers. With each circuit connected to PC register functions, ground will be connected to the PC or R lead causing the armature of the PC register to operate. Upon removal of ground from the PC or R lead the armature of the register will be released causing the number wheel to be advanced.

1.02 Fig. 5 is a key placed at each switchboard position which allows the attendant operating the key to make a count of telephone calls handled at that position. Operation of the key by the attendant places ground on the PC or R lead of Fig. 1 producing the same effect stated in Par. 1.01.

2. ALL OR LAST TRUNK BUSY REGISTER FIG.2

2.01 All trunks busy. When the BSY register is connected to a group of trunks or tie trunks arranged for all trunks busy registration, register BSY is held operated by a ground on lead K which is common to each trunk within the group. When all the trunks become busy, the ground is removed from lead K to release register BSY. As the armature of the register releases the number wheel is advanced and the short circuit is removed from the 8C thermistor. As soon as any one of the trunks become idle a ground is placed on lead K. Register BSY will be slow to operate due to the 8C thermistor, but this serves no useful purpose on all trunks busy registration.

2.02 Last trunk busy. When Fig. 2 is used for last trunk busy registration the register is connected to the S lead of the last circuit in the group. When this last circuit is busy, the ground on its S lead causes current to flow through the register and thermistor in series, thus heating the thermistor. After a short time its resistance decreases sufficiently to allow the register to operate. The operated register short circuits the thermistor to permit it to cool in preparation for the next seizure of the associated circuit. When the associated trunk becomes idle the register releases, advancing the number wheel. The slow operate feature of the thermistor prevents false registration due to wiper overthrow or to passage of a sleeve wiper advancing to the 11th rotary step when the calling extension is restricted from using this group of trunks.

3. ALL FINDERS BUSY REGISTRATION

3.01 When all the line finders within a group become busy, ground is connected to the AFB lead of the AFB register, which operates. As soon as any finder within the groups becomes idle, ground is removed from lead AFB and the register releases. The release of the register advances the number wheel.

SECTION III - REFERENCE DATA

1. WORKING LIMITS

1.01 None.

2. FUNCTIONS

2.01 Provides a battery control key to control operation of peg count registers.

2.02 Provides for peg count registration.

2.03 Provides for all trunks busy registration.

2.04 Provides for last trunks busy registration.

2.05 Provides for all finders busy registration.

2.06 Provides for switchboard position registration.

3. CONNECTING CIRCUITS

3.01 When this circuit is listed on a keysheet, the connecting information thereon shall be followed.

3.02 First Selector Circuit - SD-66359-01.

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3.03 Incoming First Selector Circuit - SD-66360-01*.

3.04 Second Selector Circuit - SD-66010-01.

3.05 Two Digit Rotary Hunting Selector Circuit - SD-66302-01.

3.06 Digit Absorbing Selector Circuit - SD-65900-01.

3.07 Selector Connector Circuit - SD-65721-01.

3.08 One Ring Rotary Hunting Connector Circuit - SD-66144-01.

3.09 Incoming Connector Circuit - SD-66596-01.

3.10 Line Finder Circuit - SD-65901-01.

3.11 Miscellaneous Alarm Circuit - SD-65761-01.

3.12 Two Way Trunk Circuit - SD-65657-01*.

3.13 Repeating Tie Trunk Circuit - SD-65535-01*.

*Typical Circuit

4. MANUFACTURING TESTING REQUIREMENTS

4.C1 This circuit shall be capable of performing all functions specified in this circuit description.

SECTION IV - REASONS FOR REISSUE

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 Drawing rating is changed to rate use with the 607A and 607B PBX switchboards A & M only.

BELL TELEPHONE LABORATORIES, INCORPORATED

(WECo 7120HW-RGB-JGW)
DEPT 5337-RAV

600mm

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