

CIRCUIT INDEX

GENERAL DESCRIPTION

THE 757A PBX SYSTEM IS A CROSSBAR DIAL SWITCHING SYSTEM SIMILAR IN DESIGN TO THE 756A BUT WITH LARGER CAPACITY AND NEW SERVICE FEATURES.

THE 757A PBX SYSTEM PROVIDES A PACKAGED PBX SYSTEM WHICH CAN READILY BE INCREASED IN SIZE FROM A 40-LINE CAPACITY TO A MAXIMUM 200-LINE CAPACITY ON A BUILDING BLOCK BASIS.

THE PREASSEMBLED PACKAGES ARE ARRANGED SO THAT THEY MAY BE ORDERED BY THE TELEPHONE COMPANY WITH A MINIMUM OF DETAILED ENGINEERING.

EACH 757A PACKAGE CONTAINS OPTIONAL ARRANGEMENTS TO SATISFY VARYING CUSTOMER REQUIREMENTS, AND THEREFORE, MINOR TERMINAL STRIP WIRING OPTIONS WILL BE REQUIRED IN SOME CASES ON AN "ON-THE-JOB" BASIS.

THE EQUIPMENT HAS BEEN DISTRIBUTED AMONG A NUMBER OF CABINETS WHICH ARE ARRANGED SO THAT ONE GROUP PROVIDES THE BASIC REQUIREMENTS FOR A 40-LINE SYSTEM. OTHER CABINETS ARE ADDED IN SEQUENCE TO THE BASIC GROUP, TO INCREASE THE TRAFFIC CAPACITY OR TO INCREASE THE LINE CAPACITY (IN STEPS OF 40 LINES) AS REQUIRED. THE ONLY TIME A CABINET MUST BE REMOVED IS WHEN A 40-LINE SIZE WITH TRAFFIC CAPACITY "A" IS BEING EXPANDED TO HANDLE HEAVIER TRAFFIC OR ANOTHER LINE GROUP.

THIS SYSTEM IS PRIMARILY DESIGNED TO OPERATE WITH CORDLESS ATTENDANT EQUIPMENT. HOWEVER, IT CAN ALSO BE EQUIPPED WITH A 600-TYPE CORD SWITCHBOARD WHEN REQUIRED, OR IT MAY BE ARRANGED FOR UNATTENDED OPERATION.

EACH LINE SIZE IS NORMALLY CAPABLE OF HANDLING HEAVY TRAFFIC, BUT CAN BE ARRANGED TO HANDLE EXTRA-HEAVY CENTRAL OFFICE TRAFFIC.

A COMMERCIAL 230-VOLT OR 117-VOLT SUPPLY IS THE ONLY POWER INPUT NORMALLY REQUIRED. THE SYSTEM IS ARRANGED TO CONVERT THIS SUPPLY TO THE VARIOUS AC AND DC VOLTAGES NECESSARY FOR SYSTEM OPERATION. AN OPTIONAL BATTERY RESERVE SUPPLY IS AVAILABLE FOR USE WHERE SERVICE INTERRUPTIONS DUE TO COMMERCIAL POWER FAILURE CANNOT BE TOLERATED.

THE 757A PBX WILL OPERATE WITH ANY STANDARD CENTRAL OFFICE, AND WITH FOREIGN EXCHANGE TRUNKS, TIE TRUNKS, PAGING TRUNKS, RECORDED TELEPHONE DICTATION, CONFERENCE AND CODE CALLING FACILITIES.

CIRCUIT NAME	DRAWING NUMBER	BLOCK LOC(1)	CIRCUIT NAME	DRAWING NUMBER	BLOCK LOC(1)
ALARM	SD-66734-01	1B8, 2C0, 3G0, 4J7, 8F2, 4J8, 8B5, 2J6	STATION MESSAGE REGISTER PULSE CIRCUIT	SD-66894-01	300, 4H7, 4H8
ATTENDANT LOOP & CONTROLLER	SD-66737-01	1E5, 3A0, 4F3	RINGING CIRCUIT	SD-81337-01	4B6
CABLING DIAGRAM	SD-66735-01	3H0, 1H4	RELAY TIME DELAY	SD-66793-01	1E6, 3F0, 4C3
CONFERENCE			TRUNKS		
ATTENDANT CONTROL	SD-66881-01	2G1	AUXILIARY INCOMING TRUNK EXT	SD-66896-01	4D1, 4E1
STATION CONTROL	SD-66880-01	2F1	2-WAY CENTRAL OFFICE	SD-66749-01	3B1
DIAL	SD-66761-01	2H1	2-WAY CENTRAL OFFICE TRUNK FOR USE WITH DIAL TRANSFER	SD-1E002-01	3C1
DIRECT STATION SELECTION	SD-66745-01	1C5	1-WAY DIAL SELECTED CENTRAL OFFICE TRUNK OR 2-WAY DIAL AND MANUAL SELECTED INCOMING RINGDOWN FOR USE WITH 600 PBX	SD-66750-01	2E1, 2H5
DIAL TRANSFER			BUSY VERIFICATION	SD-66751-01	1D7
TRUNK	SD-66752-01	3D1	BUSY TONE	SD-66746-01	1E7
CONTROLLER	SD-66753-01	3D2	ATTENDANT	SD-66748-01	1H7
DIRECT INWARD DIALING			ATTENDANT TRUNK TO 600 PBX TO TOLL OPERATOR	SD-66876-01	2F5
TRUNK, REVERSE BATTERY SUPPLY	SD-1E004-01	4E2		SD-67006-01	3F1
TRUNK, BYLINK REVERSE BATTERY SUPPLY	SD-1E003-01	4D2	TRUNKS, MISCELLANEOUS		
INCOMING REGISTER LINK CIRCUIT	SD-66738-01	4D3	3A CODE CALL AUXILIARY	SD-66764-01	2B1
INCOMING DIAL PULSE REGISTER	SD-66739-01	4D4	RECORDED TELEPHONE DICTATION AUXILIARY	SD-66763-01	2C1
JUNCTOR	SD-66747-01	1J7	LOUDSPEAKER PAGING EXECUTIVE	SD-66762-01	2D1
LINE, LINK AND MARKER	SD-66733-01	1B5, 1B6, 1C6, 1B7, 3B0, 4E4, 2A0, 2F4,		SD-1E000-01	2J1
LINK RESEIZURE DELAY	SD-66675-01	4C2	TRUNKS, TIE		
POSITION	SD-66736-01	1D5, 3G2, 4E3, 2B0	AUXILIARY	SD-66765-01	2A1
POSITION, AUXILIARY	SD-66874-01	1D6	RINGDOWN DIAL AND MANUAL SELECTED WITH 2 SECOND OUTGOING RING FOR USE WITH 600A PBX	SD-66897-01	2G5
POWER			RINGDOWN DIAL SELECTED WITH 2 SECOND OUTGOING RING	SD-66766-01	2E1
SUPPLY CIRCUIT NO BATTERY OPERATION	SD-81349-01	4C6			
SUPPLY CIRCUIT BATTERY RESERVE	SD-81387-01	4A6			
POSITIVE 48V RECTIFIER AND 10V AC SUPPLY	SD-81574-01	4A7			
NEGATIVE 48V RECTIFIER NO. 1 & 2	SD-81581-01	4B7, 4C7			
NEGATIVE 48V RECTIFIER NO. 3, 4 & 5	SD-81582-01	4D7, 4E7, 4F7			
NEGATIVE 48V RECTIFIER NO. 6	SD-81583-01	4G7			
REGISTER					
ORIGINATING	SD-66744-01	1C7, 3C0			

(1) SHOWN ON "8" SHEETS

SD-66743-01-A2

PBX SYSTEMS NO. 757A KEY SHEET		 SD-66743-01-A2
BELL TELEPHONE LABORATORIES INCORPORATED		

CONNECTING CIRCUITS INDICATED BY REFERENCE NUMBERS AT CIRCUIT BLOCKS

REF NO.	DWG NO. IN BLOCK (1)	TITLE	DWG NO.
1.	SD-66733-01 (1B5)	MESSAGE WAITING SERVICE KEY, INTERRUPTER AND POWER SUPPLY DIAL LONG LINE TO DRZO PPS REPEATING FOR PBX STATION LINES OR PBX. MANUALLY SELECTED TRUNKS DIAL CENTRAL OFFICE OR PBX DIAL LONG LINE 10PPS REPEATING FOR LONG PBX STATION LINES. VOLTAGE RANGE 32-45V OR 44-52V DIAL LONG LINE COMPOSITE SIGNALLING TYPE B. TYPE B TALK BATTERY SUPPLY FOR PBX STATION LINES WITH OR WITHOUT TELEPHONE REPEATER	SD-65784-01 SD-96555-01 SD-66060-01 SD-96252-01
2.	SD-66749-01 (3B1)	LONG TRUNK REPEATS RINGING WITH RERING FEATURE LONG TRUNK OUTGOING AUTOMATIC LONG TRUNK FOR USE WITH DIAL AND MANUALLY SELECTED TRUNKS MANUAL OR DIAL LONG TRUNK CIRCUIT REPEATS RINGING OR DIAL PULSES WITH RERING 40-65 VOLTS LONG TRUNK CIRCUIT FOR DIAL SELECTED TRUNKS FOR USE AT TERMINATING OFFICE	SD-66474-01 SD-66275-01 SD-66192-01 SD-66474-01 SD-96371-01
3.	SD-66734-01 (1B8)	EXTENSION ALARM	SD-95484-01
4.	SD-66744-01 (1C7)	TOUCH-TONE CALLING RECEIVER	SD-95287-01
5.	SD-66761-01 (2H1)	TRANSISTORIZED CONFERENCE CIRCUIT	SD-96595-01
6.	SD-66763-01 (2C1)	RECORDED TELEPHONE DICTATION TRUNK	SD-63788-01
7.	SD-66764-01 (2B1)	3A CODE CALL	SD-66610-01
8.	SD-66765-01 (2A1)	TIE TRUNK OUTGOING DIAL SELECTED AND DIAL REPEATING, INCOMING PULSE CORRECTING WITH OR WITHOUT E AND M LEADS SUPERVISION TIE TRUNK OUTGOING DIAL SELECTED, INCOMING DIAL PULSE REVERSE BATTERY SUPERVISION TIE TRUNK OUTGOING DIAL REPEATING, INCOMING DIAL PULSE TIE TRUNK OUTGOING DIAL REPEATING, INCOMING DIAL PULSE	SD-65718-01 SD-65755-01 SD-65535-01 SD-65531-01

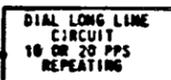
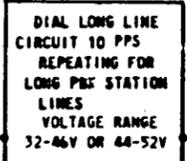
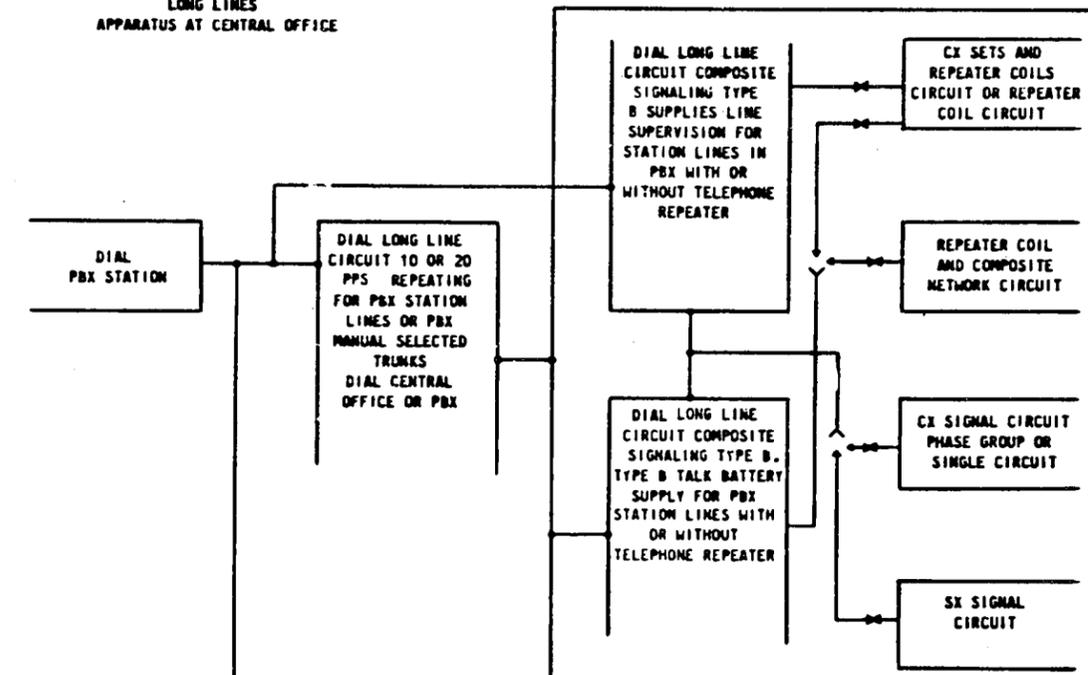
REF NO.	DWG NO. IN BLOCK (1)	TITLE	DWG NO.
9.	SD-66897-01 (2G5)	4-WIRE TERM SET VA TELEPHONE REPEATER 608A PBX LAMP RELAY 608A PBX AUXILIARY SIG. FA, BCO, AND MISC 608A JACK	SD-97138-01 SD-97047-01 SD-66724-01 SD-66722-01 SD-65788-01
10.	SD-66876-01 (2F5)	608A PBX LAMP RELAY 608A PBX AUXILIARY SIG. FA, BCO, AND MISC 608A JACK	SD-66724-01 SD-66722-01 SD-65788-01
11.	SD-66750-01 (2H5, 3E1)	608A PBX LAMP RELAY 608A PBX AUXILIARY SIG. FA, BCO, AND MISC 608A JACK LONG TRUNK REPEATS RINGING WITH RERING FEATURE LONG TRUNK OUTGOING AUTOMATIC LONG TRUNK FOR USE WITH DIAL AND MANUALLY SELECTED TRUNKS MANUAL OR DIAL LONG TRUNK CIRCUIT REPEATS RINGING OR DIAL PULSES WITH RERING 40-65 VOLTS LONG TRUNK CIRCUIT FOR DIAL SELECTED TRUNKS FOR USE AT TERMINATING OFFICE	SD-66724-01 SD-66722-01 SD-65788-01 SD-66274-01 SD-66275-01 SD-66192-01 SD-66474-01 SD-96371-01
12.	SD-67006-01 (3F1)	TOLL SUBSCRIBERS LINE	SD-56501-01
13.	SD-1E002-01 (3C1)	LONG TRUNK REPEATS RINGING WITH RERING FEATURE LONG TRUNK OUTGOING AUTOMATIC LONG TRUNK FOR USE WITH DIAL AND MANUALLY SELECTED TRUNKS MANUAL OR DIAL LONG TRUNK CIRCUIT REPEATS RINGING OR DIAL PULSES WITH RERING 40-65 VOLTS LONG TRUNK CIRCUIT FOR DIAL SELECTED TRUNKS FOR USE AT TERMINATING OFFICE	SD-66474-01 SD-66275-01 SD-66192-01 SD-66474-01 SD-96371-01
14.	SD-66736-01 (1D5)	TELEPHONE CIRCUIT	SD-67001-01

SD-66745-01-A3

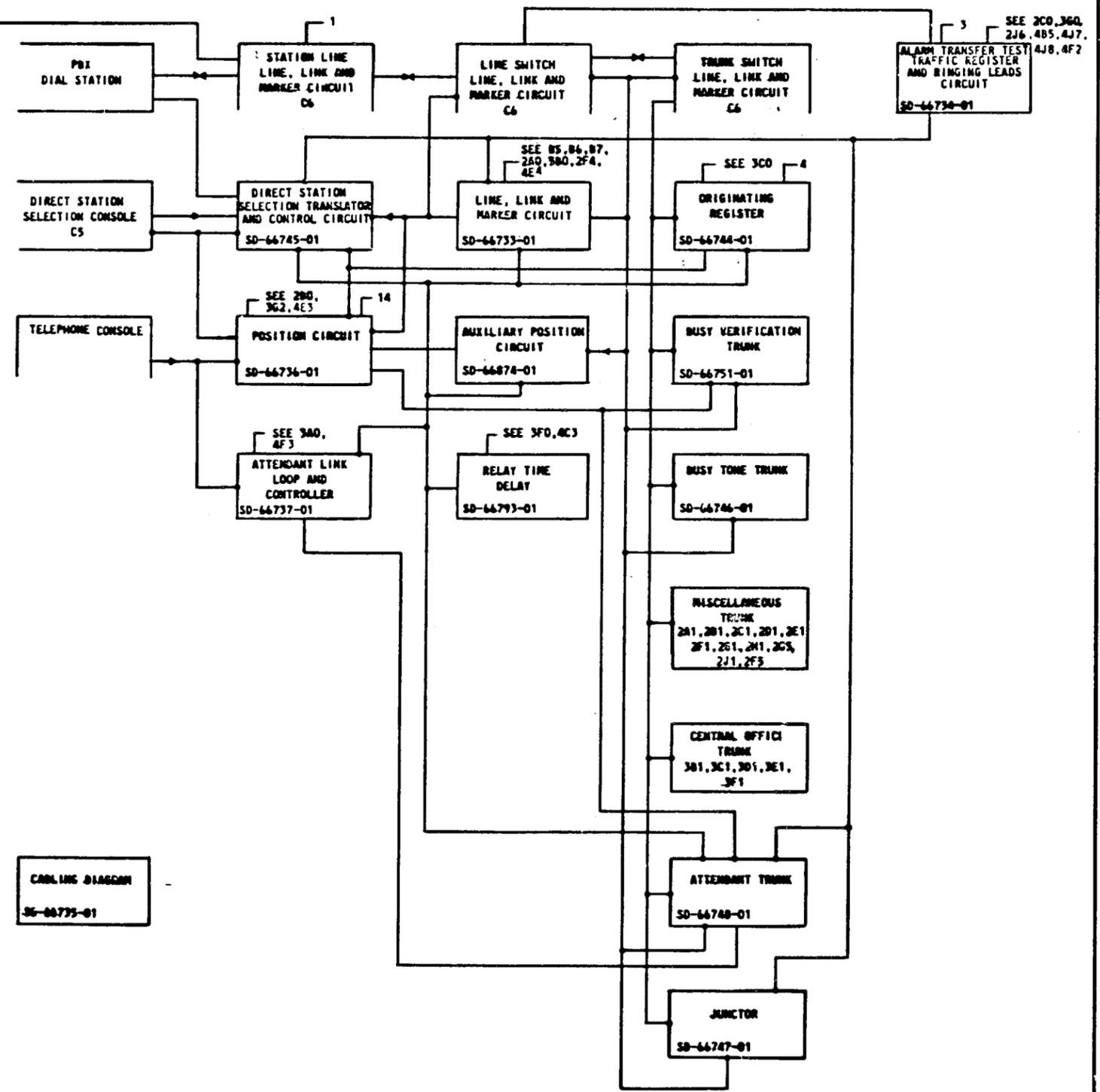
(1) SHOWN ON "B" SHEETS

PBX SYSTEMS		SD-66745-01-A3
NO. 757A KEY SHEET		
BELL TELEPHONE LABORATORIES INCORPORATED		65

LONG LINES APPARATUS AT CENTRAL OFFICE



LONG LINES APPARATUS AT PBX



SD-66743-01-B1

LONG LINES FOR USE WITH DIAL STATION

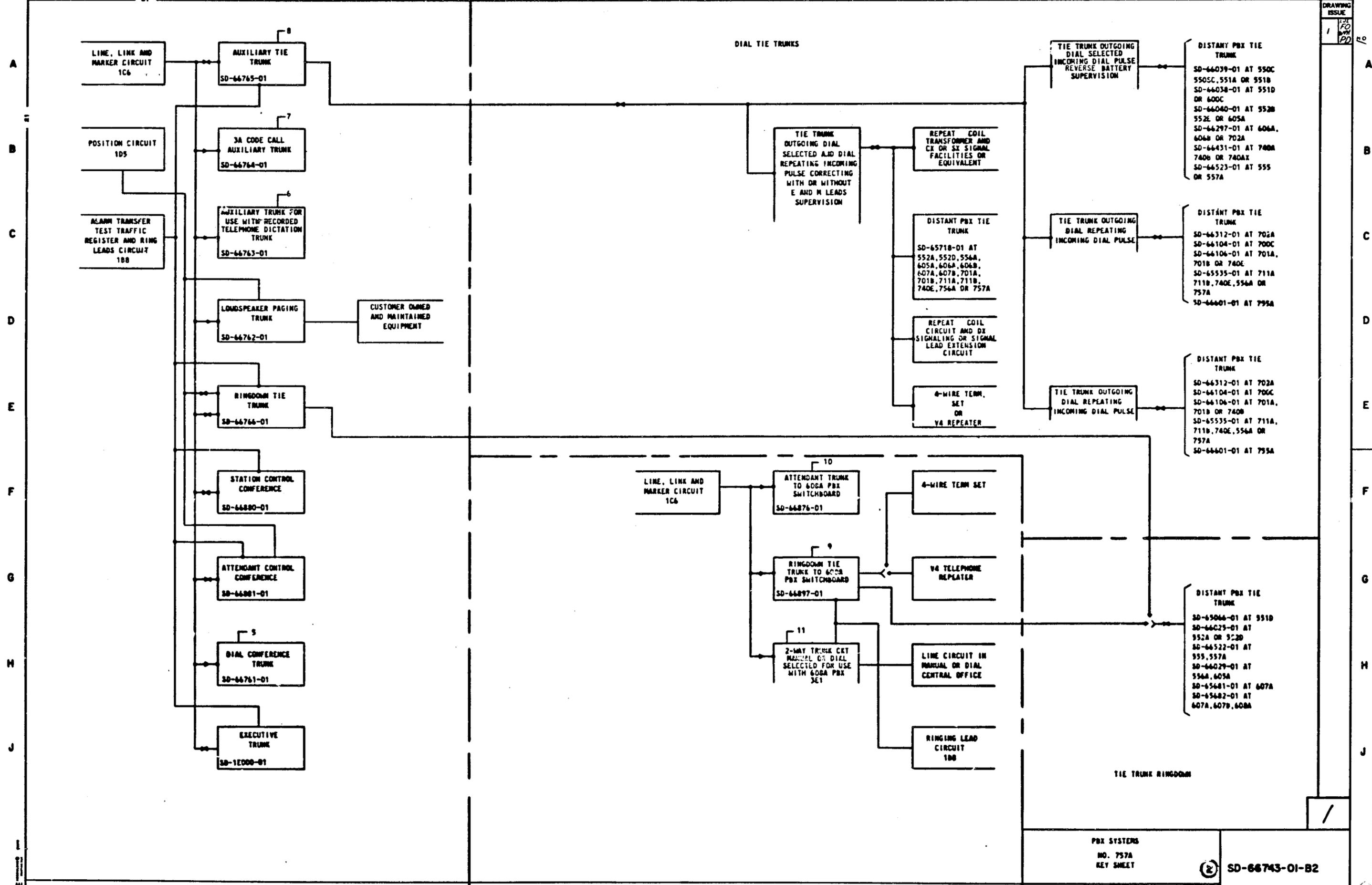
PULL SELECTOR

PBX SYSTEMS
NO. 757A
K&A SHEET

BELL TELEPHONE LABORATORIES
INCORPORATED

SD-66743-01-B1

6S



LINE, LINK AND
MARKER CIRCUIT
1C6

POSITION CIRCUIT
1D5

ALARM TRANSFER
TEST TRAFFIC
REGISTER AND RING
LEADS CIRCUIT
1B8

AUXILIARY TIE
TRUNK
SD-66765-01

3A CODE CALL
AUXILIARY TRUNK
SD-66764-01

AUXILIARY TRUNK FOR
USE WITH RECORDED
TELEPHONE DICTATION
TRUNK
SD-66763-01

LOUDSPEAKER PAGING
TRUNK
SD-66762-01

RINGDOWN TIE
TRUNK
SD-66766-01

STATION CONTROL
CONFERENCE
SD-66890-01

ATTENDANT CONTROL
CONFERENCE
SD-66881-01

DIAL CONFERENCE
TRUNK
SD-66761-01

EXECUTIVE
TRUNK
SD-1E000-01

CUSTOMER OWNED
AND MAINTAINED
EQUIPMENT

DIAL TIE TRUNKS

TIE TRUNK
OUTGOING DIAL
SELECTED AND DIAL
REPEATING INCOMING
PULSE CORRECTING
WITH OR WITHOUT
E AND M LEADS
SUPERVISION

REPEAT COIL
TRANSFORMER AND
CX OR SX SIGNAL
FACILITIES OR
EQUIVALENT

DISTANT PBX TIE
TRUNK
SD-65718-01 AT
552A, 552D, 556A,
605A, 606A, 606B,
607A, 607B, 701A,
701B, 711A, 711B,
740E, 756A OR 757A

REPEAT COIL
CIRCUIT AND D2
SIGNALING OR SIGNAL
LEAD EXTENSION
CIRCUIT

4-WIRE TERM.
SET
OR
V4 REPEATER

TIE TRUNK OUTGOING
DIAL SELECTED
INCOMING DIAL PULSE
REVERSE BATTERY
SUPERVISION

TIE TRUNK OUTGOING
DIAL REPEATING
INCOMING DIAL PULSE

TIE TRUNK OUTGOING
DIAL REPEATING
INCOMING DIAL PULSE

DISTANT PBX TIE
TRUNK
SD-66039-01 AT 550C
5505C, 551A OR 551B
SD-66038-01 AT 551D
OR 600C
SD-66040-01 AT 552B
552E OR 605A
SD-66297-01 AT 606A,
606B OR 702A
SD-66451-01 AT 700A
740B OR 740AX
SD-66523-01 AT 555
OR 557A

DISTANT PBX TIE
TRUNK
SD-66312-01 AT 702A
SD-66104-01 AT 700C
SD-66104-01 AT 701A,
701B OR 740E
SD-65535-01 AT 711A
711B, 740E, 556A OR
757A
SD-66601-01 AT 755A

DISTANT PBX TIE
TRUNK
SD-66312-01 AT 702A
SD-66104-01 AT 700C
SD-66104-01 AT 701A,
701B OR 740B
SD-65535-01 AT 711A,
711B, 740E, 556A OR
757A
SD-66601-01 AT 755A

LINE, LINK AND
MARKER CIRCUIT
1C6

ATTENDANT TRUNK
TO 608A PBX
SWITCHBOARD
SD-66876-01

RINGDOWN TIE
TRUNK TO 608A
PBX SWITCHBOARD
SD-66897-01

2-WAY TRUNK CBT
MANUAL OR DIAL
SELECTED FOR USE
WITH 608A PBX
SET

4-WIRE TERM SET

V4 TELEPHONE
REPEATER

LINE CIRCUIT IN
MANUAL OR DIAL
CENTRAL OFFICE

RINGING LEAD
CIRCUIT
1B8

DISTANT PBX TIE
TRUNK
SD-65066-01 AT 951D
SD-66025-01 AT
952A OR 952B
SD-66522-01 AT
955, 557A
SD-66029-01 AT
556A, 605A
SD-65681-01 AT 607A
SD-65682-01 AT
607A, 607B, 608A

TIE TRUNK RINGDOWN

PBX SYSTEMS
NO. 757A
KEY SHEET

SD-66743-01-B2

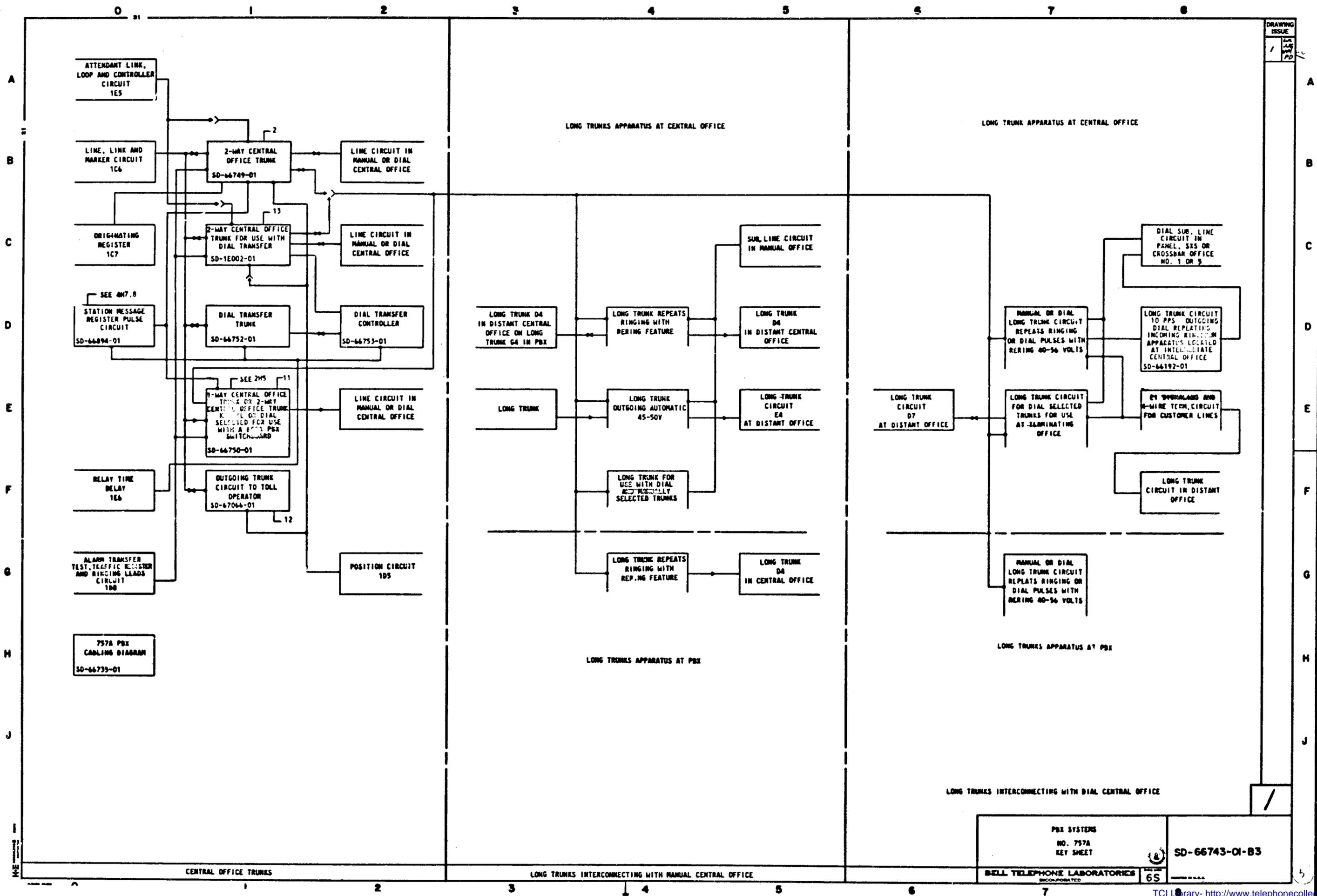
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MISCELLANEOUS TRUNKS

TRUNKS ASSOCIATED WITH 608A PBX SWITCHBOARD

4

SD-66743-01-83



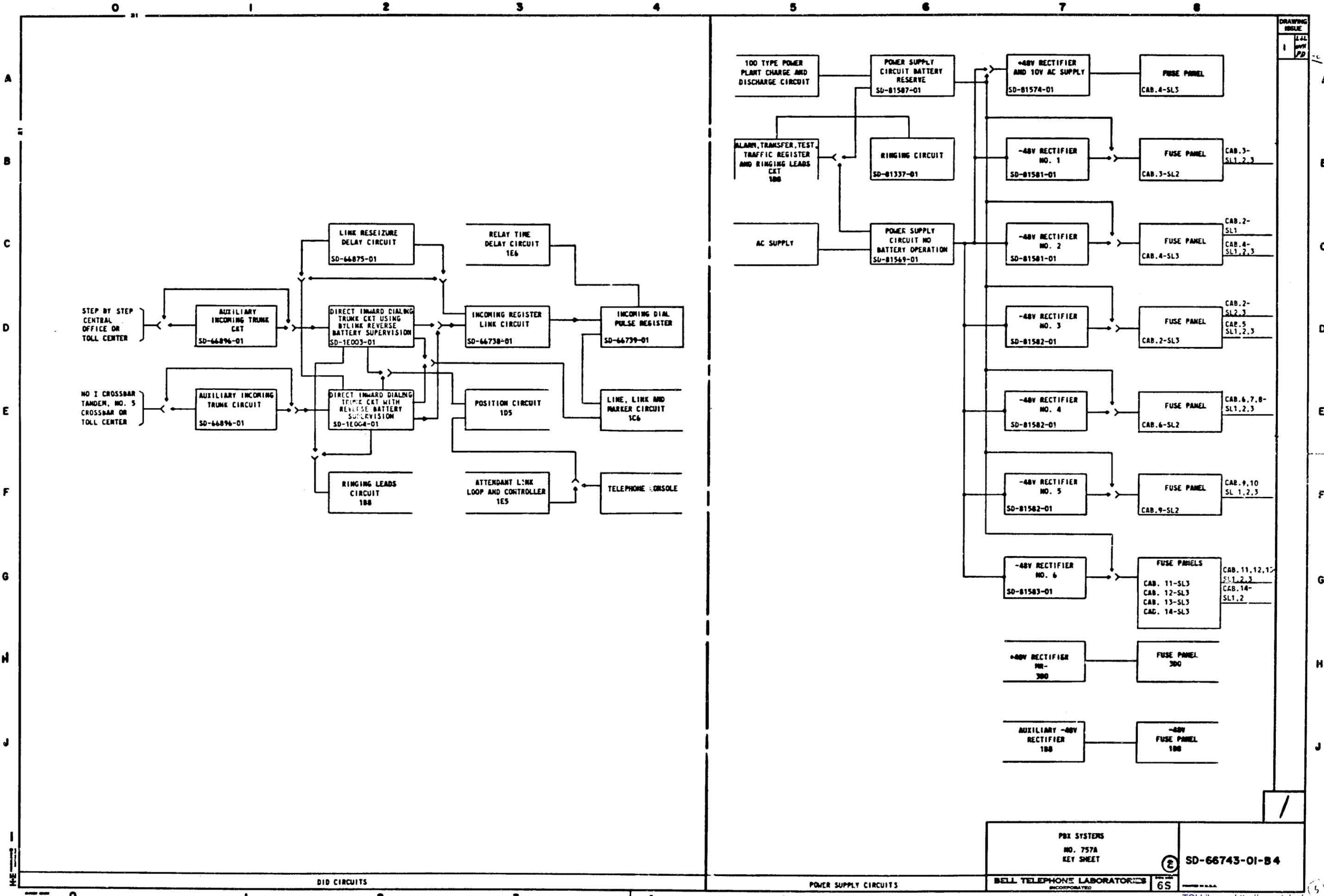
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PBX SYSTEMS
NO. 757A
KEY SHEET

BELL TELEPHONE LABORATORIES
INCORPORATED

SD-66743-01-83

65



DRAWING ISSUE
1
L.L.L.
P.W.V.
P.D.

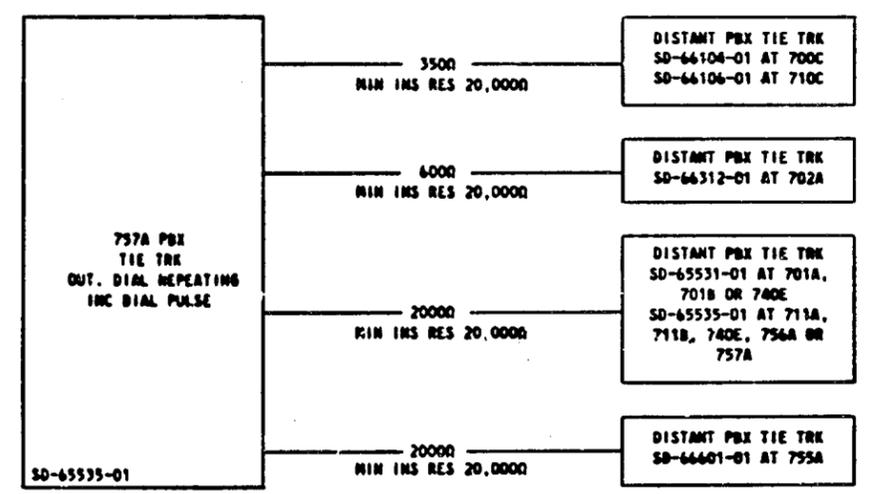
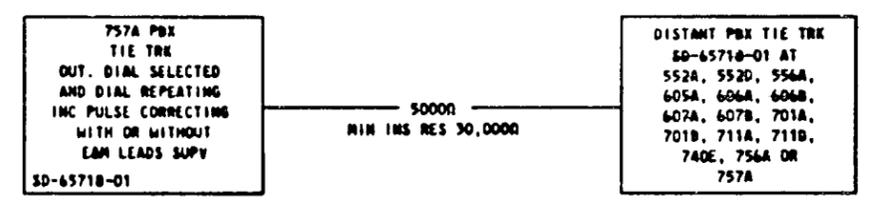
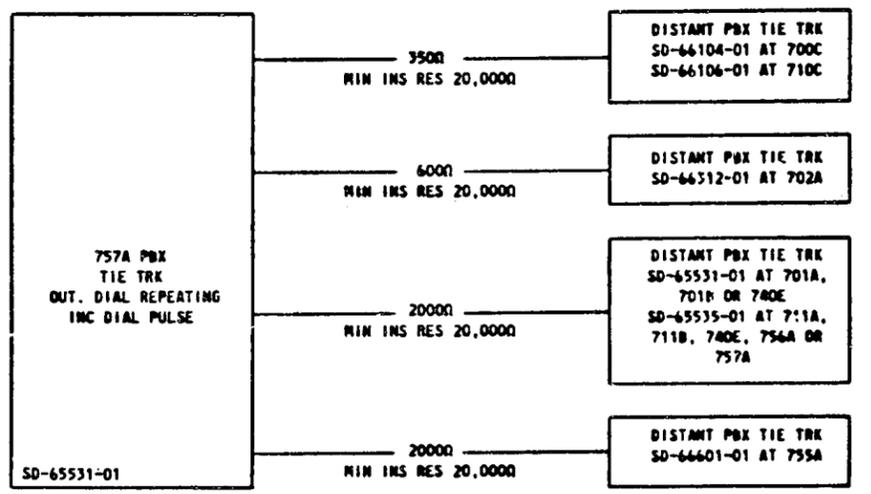
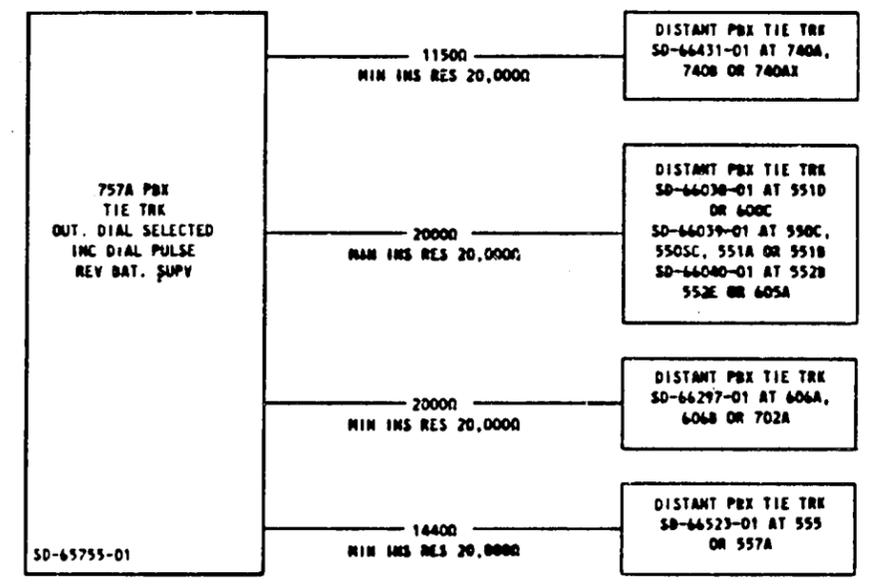
PBX SYSTEMS
NO. 757A
KEY SHEET

BELL TELEPHONE LABORATORIES
INCORPORATED

SD-66743-01-B4

65

RANGE CHART



NOTES:
1. ALL TIE TRK RANGES SHOWN ON THE RANGE CHART INCLUDE THE RESISTANCE OF THE OUTSIDE CABLING, THE WIRING AT THE PBX AND THE HEAT COILS. THE RESISTANCE OF THE PBX APPARATUS IS NOT INCLUDED. VALUES ARE SHOWN IN TERMS OF CONDUCTOR LOOP BETWEEN PBX.

SD-66743-01-C1

PBX SYSTEMS NO. 757A KEY SHEET		SD-66743-01-C1
BELL TELEPHONE LABORATORIES INCORPORATED		

6S