

SD-62404-01

BELL TELEPHONE LABORATORIES, INC.

TOLL SYSTEMS
 TELEPHONE REPEATER
 2 WIRE
 LINE AND BALANCING
 KEY SHEET

DWG. ISS.	C.D. ISSUE	DATE OF ISSUE	APPROVED	
1	1	5-2-28	B.W.K. F	S.P.S. 6-11-28
2	+2	10-16-28	B.W.K. F	W.E.D. 1-26-31
3	+3	5-8-30	B.W.K. W	W.E.D. 1-26-31
4	+4	7-7-30	B.W.K. M	W.E.D. 1-26-31
5	+5	11-17-30	B.W.K. J	W.E.D. 1-26-31
6	+6	1-26-31	B.W.K. J	W.E.D. 2-24-31
7	7	6-30-31	B.W.K. M	S.P.S. 10-20-33
8	8	12-1-31	B.W.K. M	S.P.S. 10-20-33
9	9	11-2-32	B.W.K. M	S.P.S. 10-20-33
10	10	11-1-34	R.S.W. J	W.E.D.
11	11	3-17-36	F.J.S. I	D.L.M.
12	12	9-22-39	W.L.F. I	D.C.M.
13	13	8-25-41	W.L.F. I	D.C.M.

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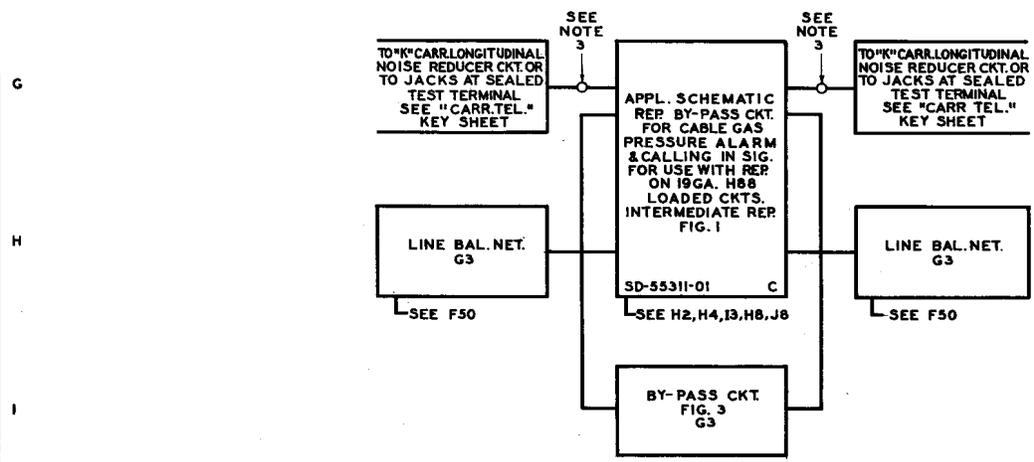
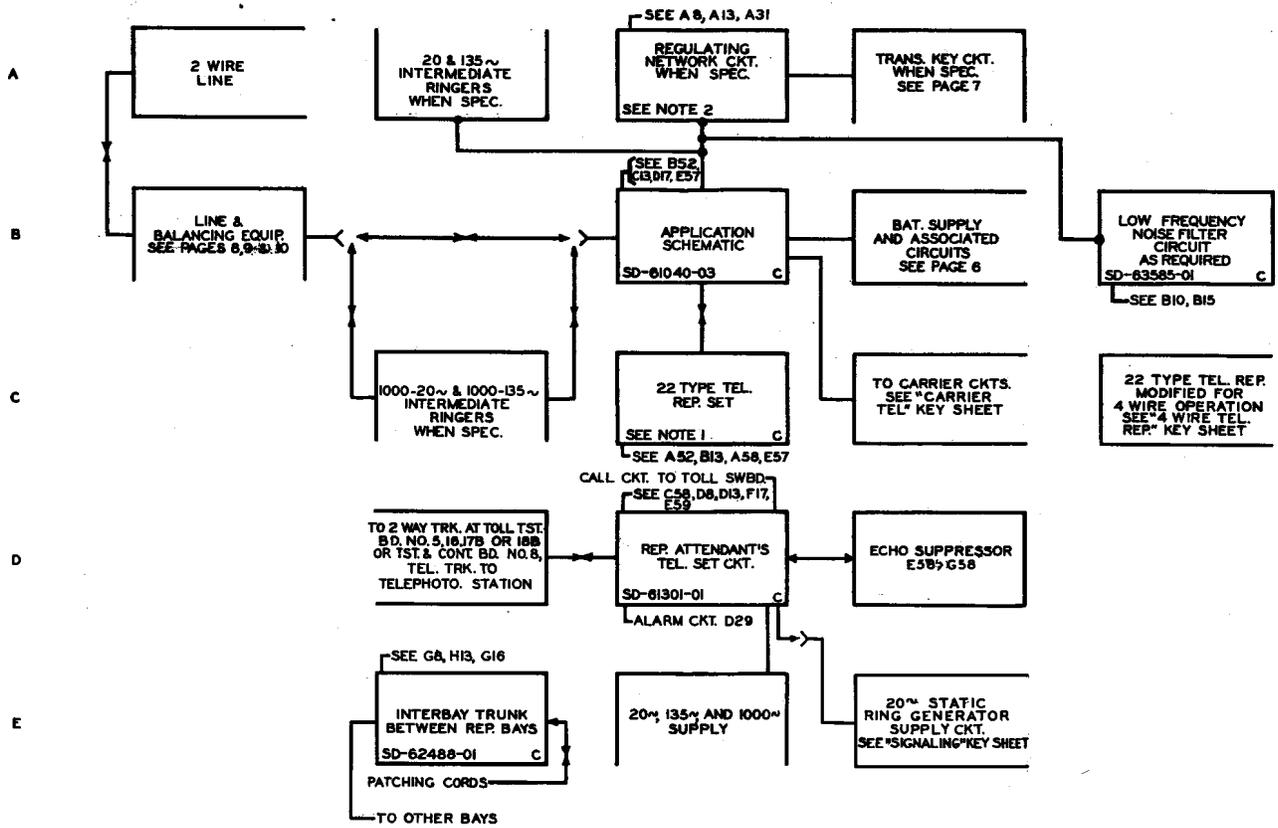
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AT&TCO
 STANDARD
 MFR.DISC.FOR TEL.REP

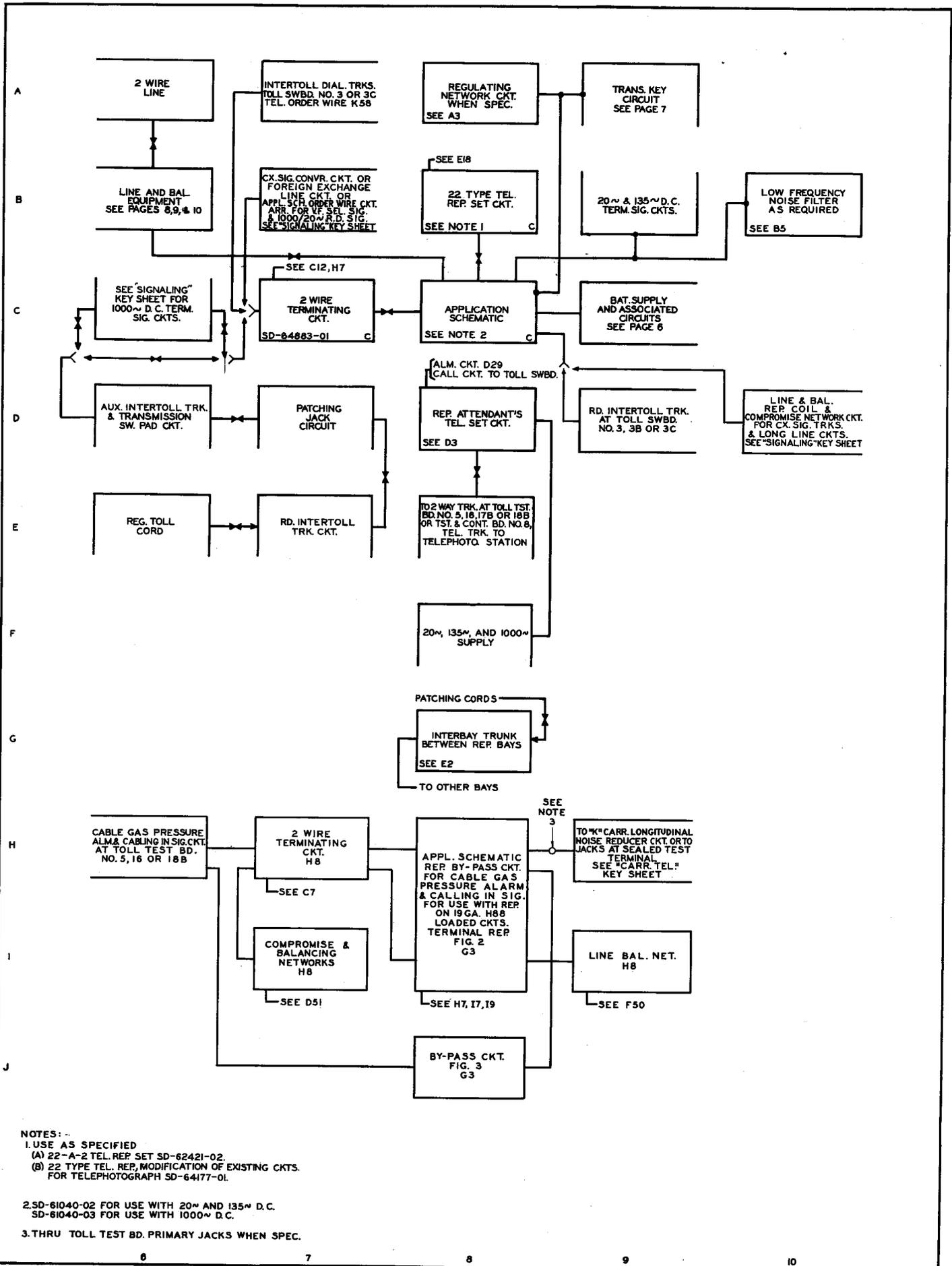
REPLACING SD-64102-01 FOR TESTING AND MAINTENANCE.

SD-62404-01

J. J. DARMODX



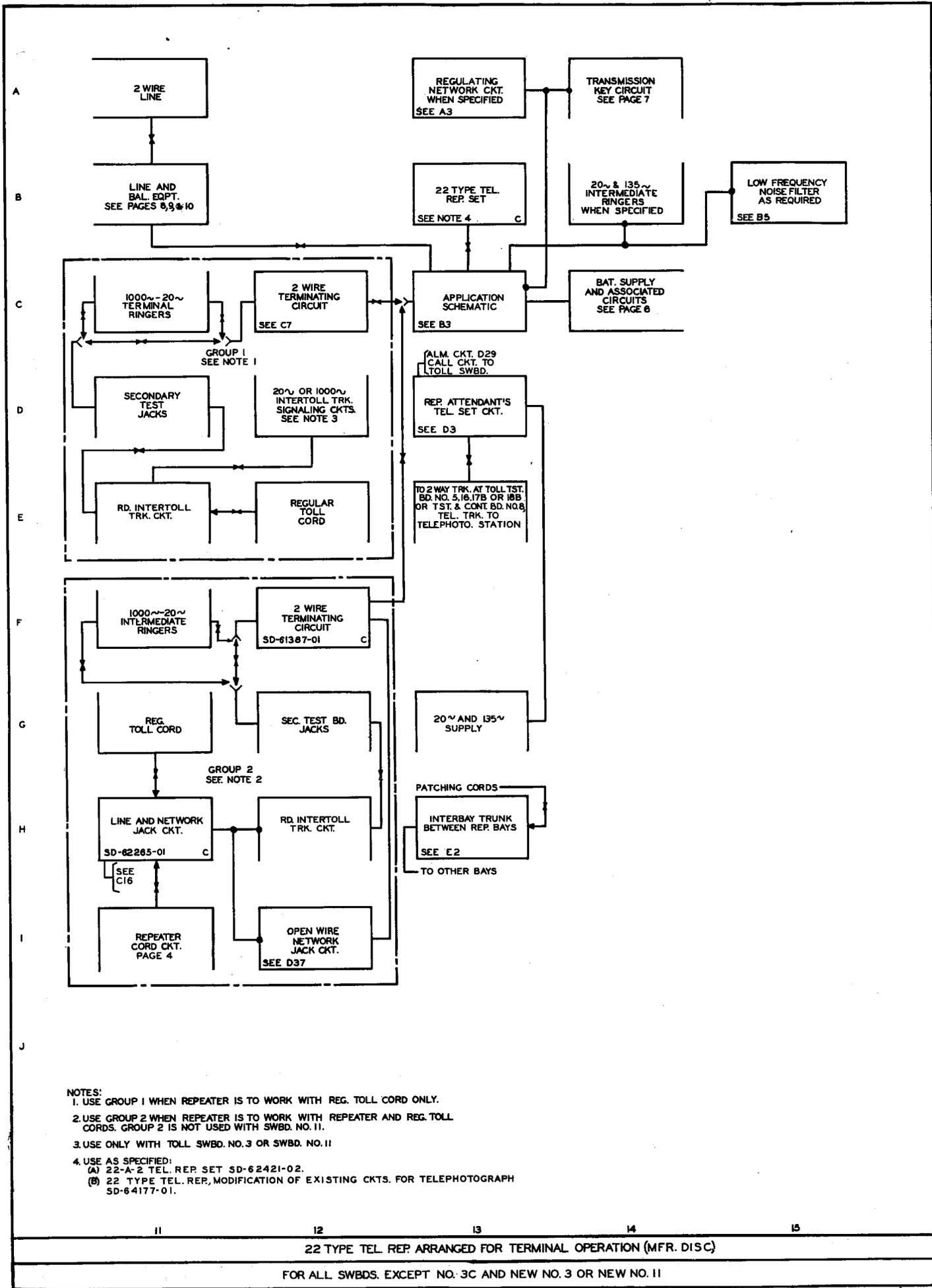
NOTES:
 1. USE AS SPECIFIED:
 (A) 22-A-2 TEL. REP. SET SD-62421-02.
 (B) 22 TYPE TEL. REP. MODIFICATION OF EXISTING CKTS. FOR TELEPHOTOGRAPH SD-64177-01.
 2. FOR 16 GAUGE H-25-P AND H-44-S CABLE CIRCUITS AND 19 GAUGE B-50-P, B-88-S, H-174-S, H-83-P AND H-106-P CABLE CIRCUITS USE SD-62757-02. FOR 19 GAUGE H-88-S AND H-50-P CABLE CIRCUITS USE SD-62757-03.
 3. THRU TOLL TEST BD. PRIMARY JACKS WHEN SPEC.



NOTES: -
 1. USE AS SPECIFIED
 (A) 22-A-2 TEL. REP. SET SD-62421-02.
 (B) 22 TYPE TEL. REP. MODIFICATION OF EXISTING CKTS.
 FOR TELEPHOTOGRAPH SD-64177-01.
 2. SD-61040-02 FOR USE WITH 20^v AND 135^v D.C.
 SD-61040-03 FOR USE WITH 1000^v D.C.
 3. THRU TOLL TEST BD. PRIMARY JACKS WHEN SPEC.

22 TYPE TEL. REP. ARRANGED FOR TERMINAL OPERATION (MFR. DISC)

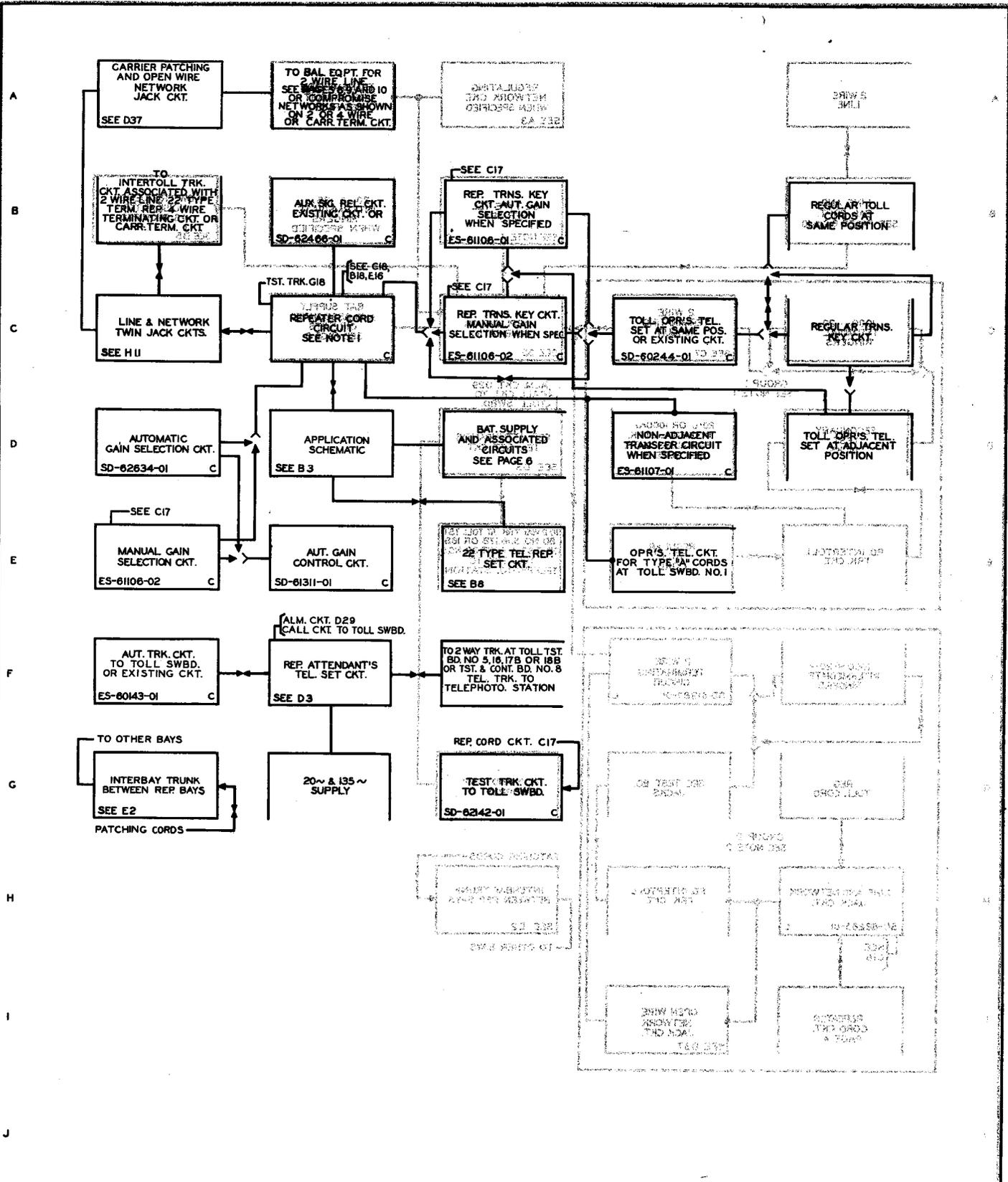
FOR TOLL SWBD. NO. 3C OR TOLL SWBD. NO. 3 & SWBD. NO. 11-NEW INSTALLATIONS



- NOTES:
1. USE GROUP 1 WHEN REPEATER IS TO WORK WITH REG. TOLL CORD ONLY.
 2. USE GROUP 2 WHEN REPEATER IS TO WORK WITH REPEATER AND REG. TOLL CORDS. GROUP 2 IS NOT USED WITH SWBD. NO. 11.
 3. USE ONLY WITH TOLL SWBD. NO. 3 OR SWBD. NO. 11
 4. USE AS SPECIFIED:
 - (A) 22-A-2 TEL. REP. SET SD-62421-02.
 - (B) 22 TYPE TEL. REP. MODIFICATION OF EXISTING CKTS. FOR TELEPHOTOGRAPH SD-64177-01.

11 12 13 14 15
 22 TYPE TEL. REP ARRANGED FOR TERMINAL OPERATION (MFR. DISC)

FOR ALL SWBDS. EXCEPT NO. 3C AND NEW NO. 3 OR NEW NO. 11



NOTES:
 I. USE EITHER:
 (A) TWIN PLUG-REPEATER CORD CIRCUIT AUTOMATIC GAIN SELECTION PER ES-81108-01.
 (B) TWIN PLUG-REPEATER CORD CIRCUIT MANUAL GAIN SELECTION PER ES-81108-02.

THRU LINE OPERATION WITH AUTO. REP. CUT OUT

A

INTERMEDIATE RINGER & ASSOC. SIGNALING & POWER SUPPLY FOR USE WITH A-C TEL. REP.

APPLICATION SCHEMATIC 22 TYPE TEL. REP SET
SD-64192-01 C
SEE B24, C23, C24

B

FILTER CKT FOR DIALING OR FOR FILTERING BATTERY SUPPLY
SD-64192-01 C

LINE ACTIVITY TEST CKT FOR VOICE FREQUENCY CHGTS WHEN SPEC. CHGTS ARE MADE
SEE H24

BAT SUPPLY CKT FOR 20-0-200-00 IN NON-REGULATED REPEATER
SD-64192-01 C

TEL. REPEATER
SEE A25

POWER SUPPLY CIRCUIT
SEE G28

C

PLATE BATTERY SUPPLY TO TELEPHONE TRANSMISSION LINE
SD-64192-01 C

REP. COIL GROUP, 20-0 RING BY-PASS, BY-PASS BALANCING NETWORKS
SEE A25

SWITCHING CKT TO SECOND REPEATER
SEE A25

TO SECOND REPEATER

D

ALARM CKT AND DISTRIBUTION FUSE
SD-64192-01 C

BAT SUPPLY CKT FOR 20-0-200-00 IN NON-REGULATED REPEATER
SD-64192-01 C

E

BAT SUPPLY CKT FOR 20-0-200-00 IN REGULATED REPEATER
SD-64192-01 C

WITH SINGLE BY-PASS AND AUTO. REP. CUT OUT

F

TO TELEPHONE TRANSMISSION LINE

POWER SUPPLY CKT AND SWITCHING CKT
SEE F25

TEL. REPEATER
SEE F25

APPLICATION SCHEMATIC 22 TYPE TEL. REP SET
SD-64045-01 C
SEE F23, F24

G

SECOND REPEATER FOR A-C OPERATION
SD-64192-01 C

POWER SUPPLY CIRCUIT
SEE G28

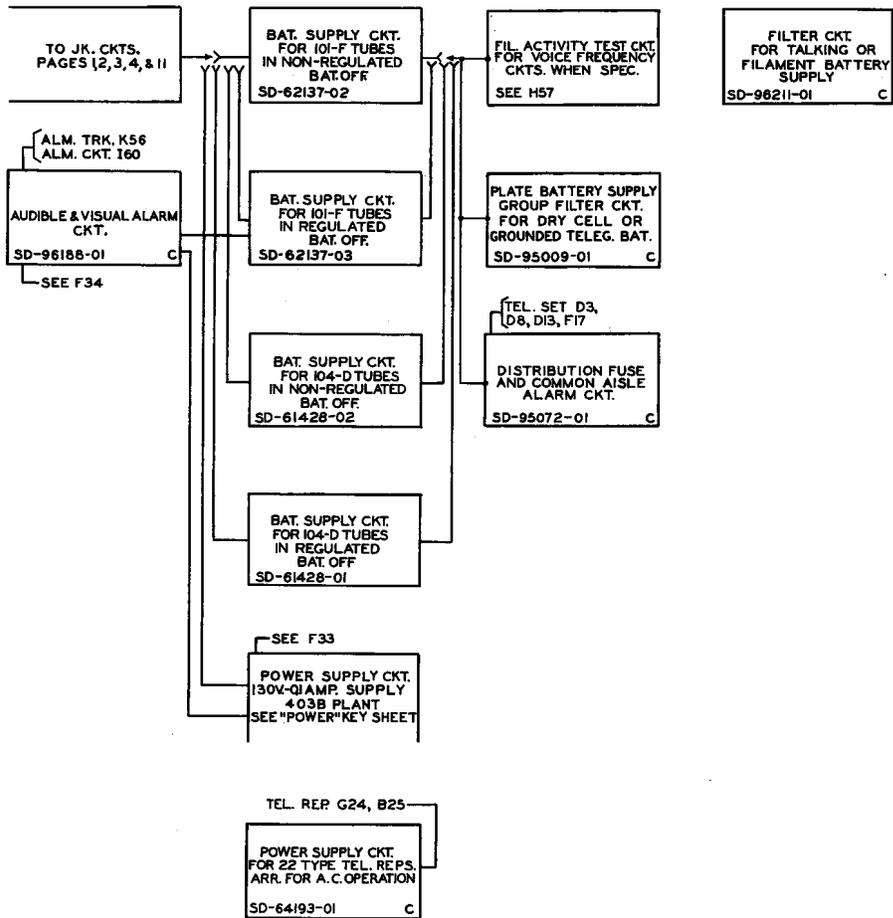
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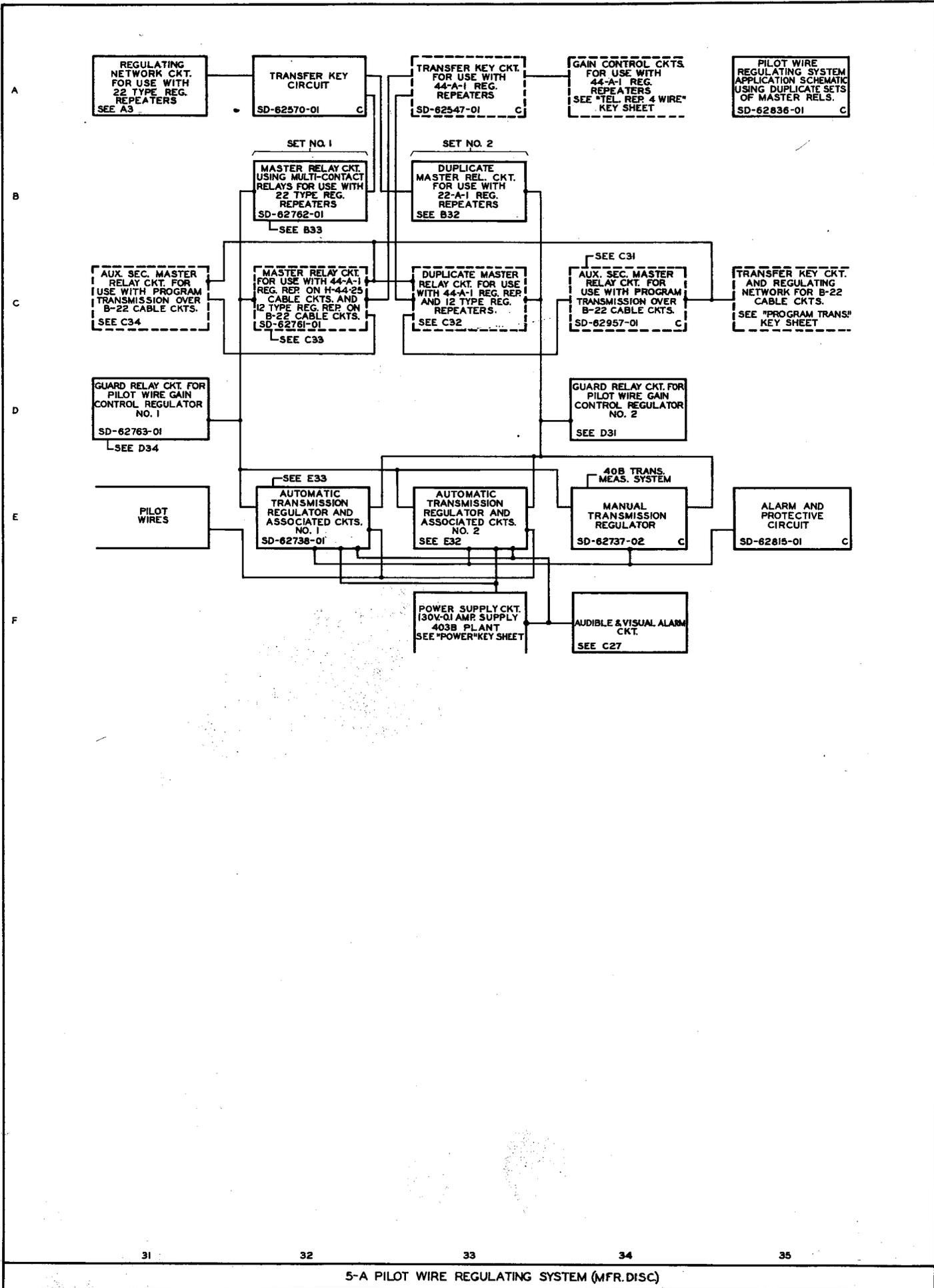
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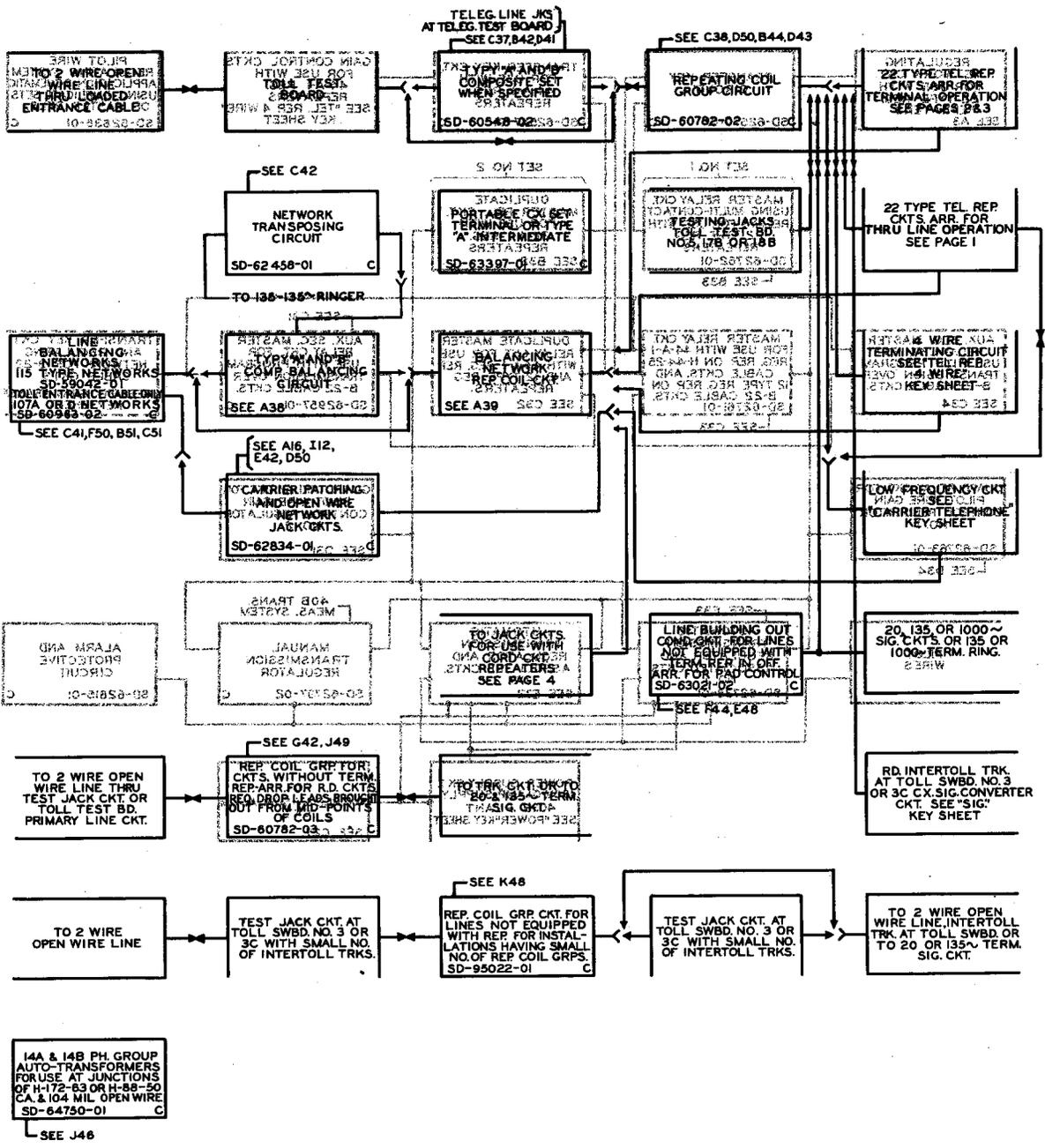
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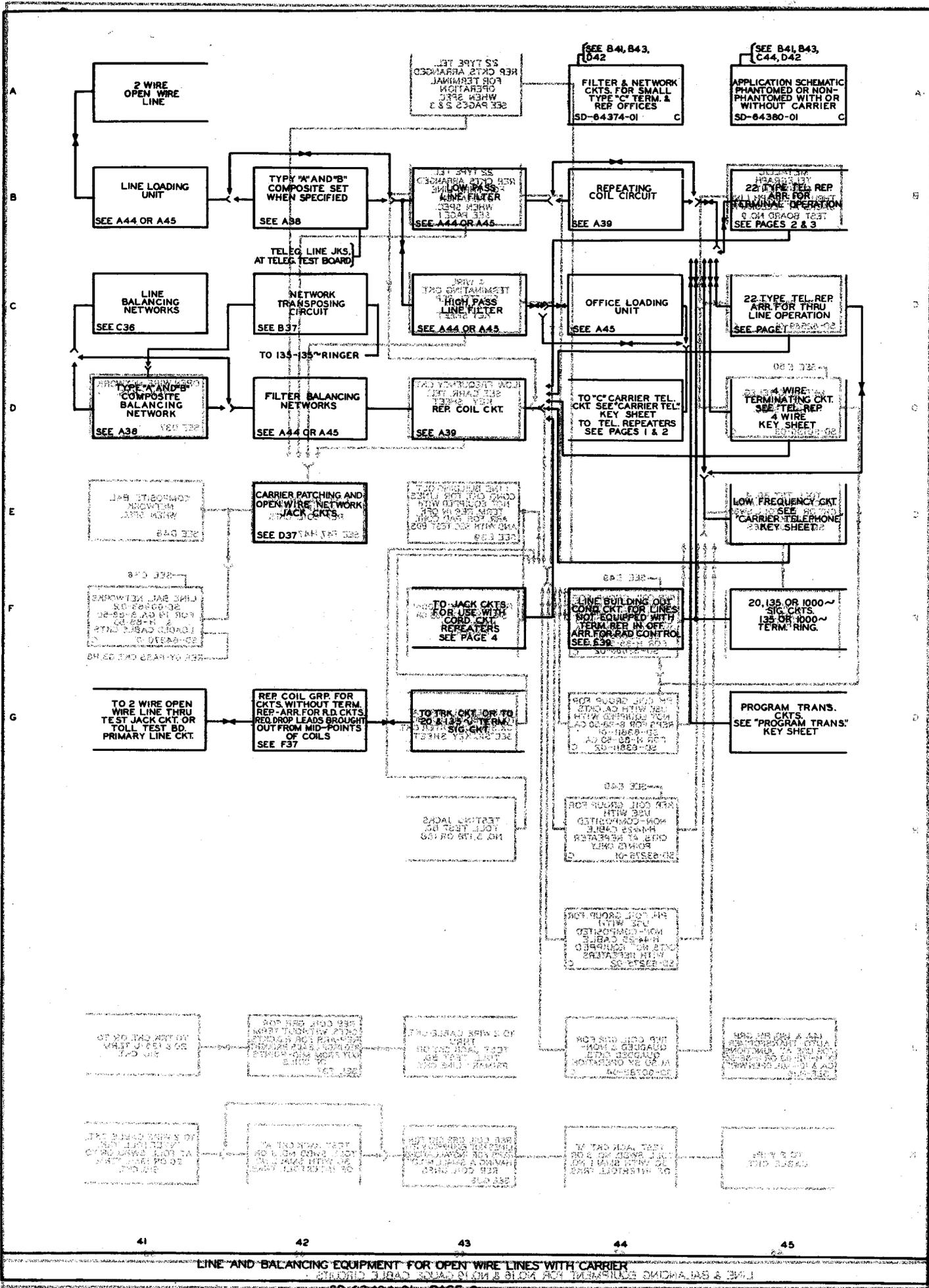
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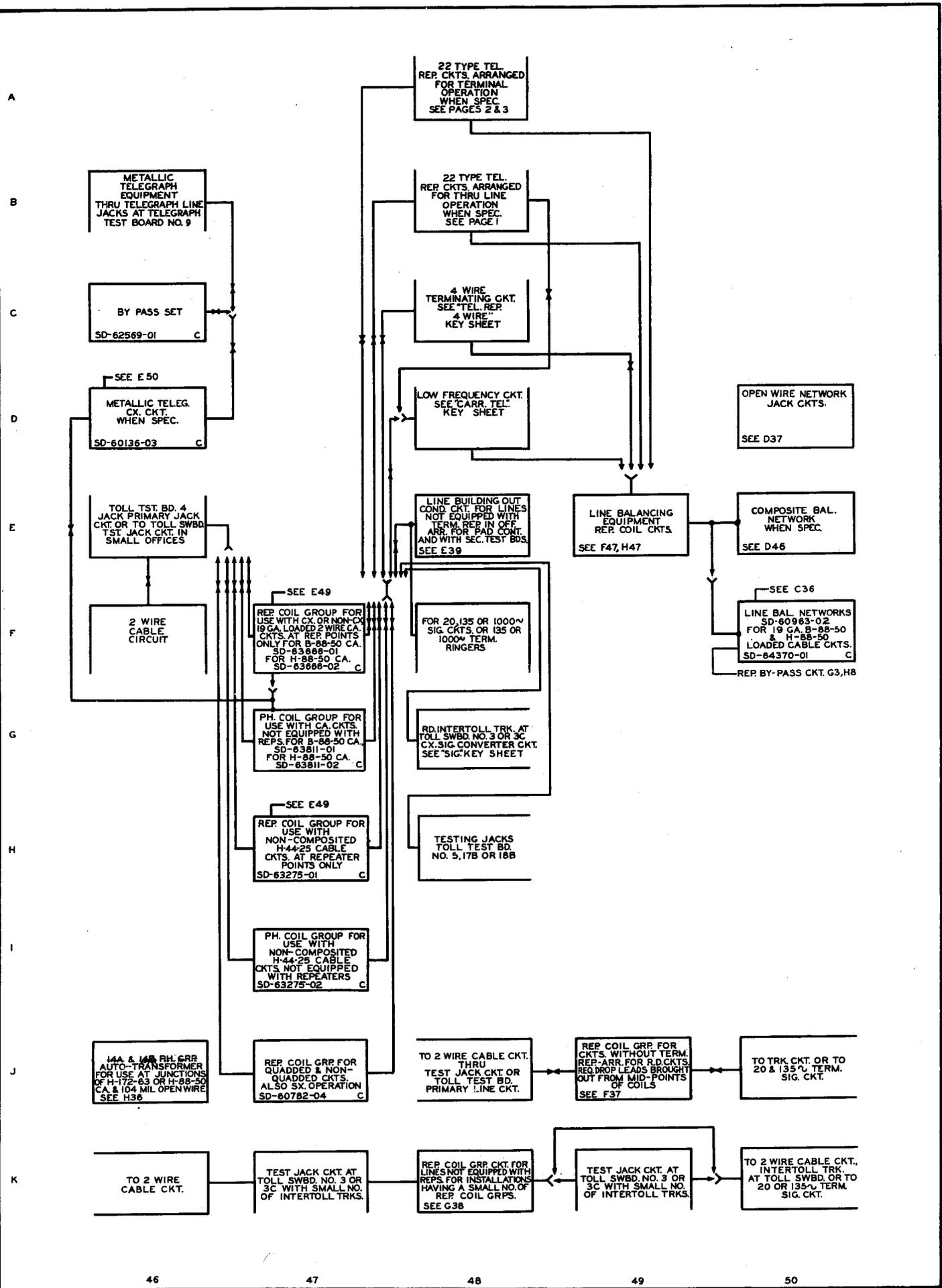








LINE AND BALANCING EQUIPMENT FOR OPEN WIRE LINES WITH CARRIER



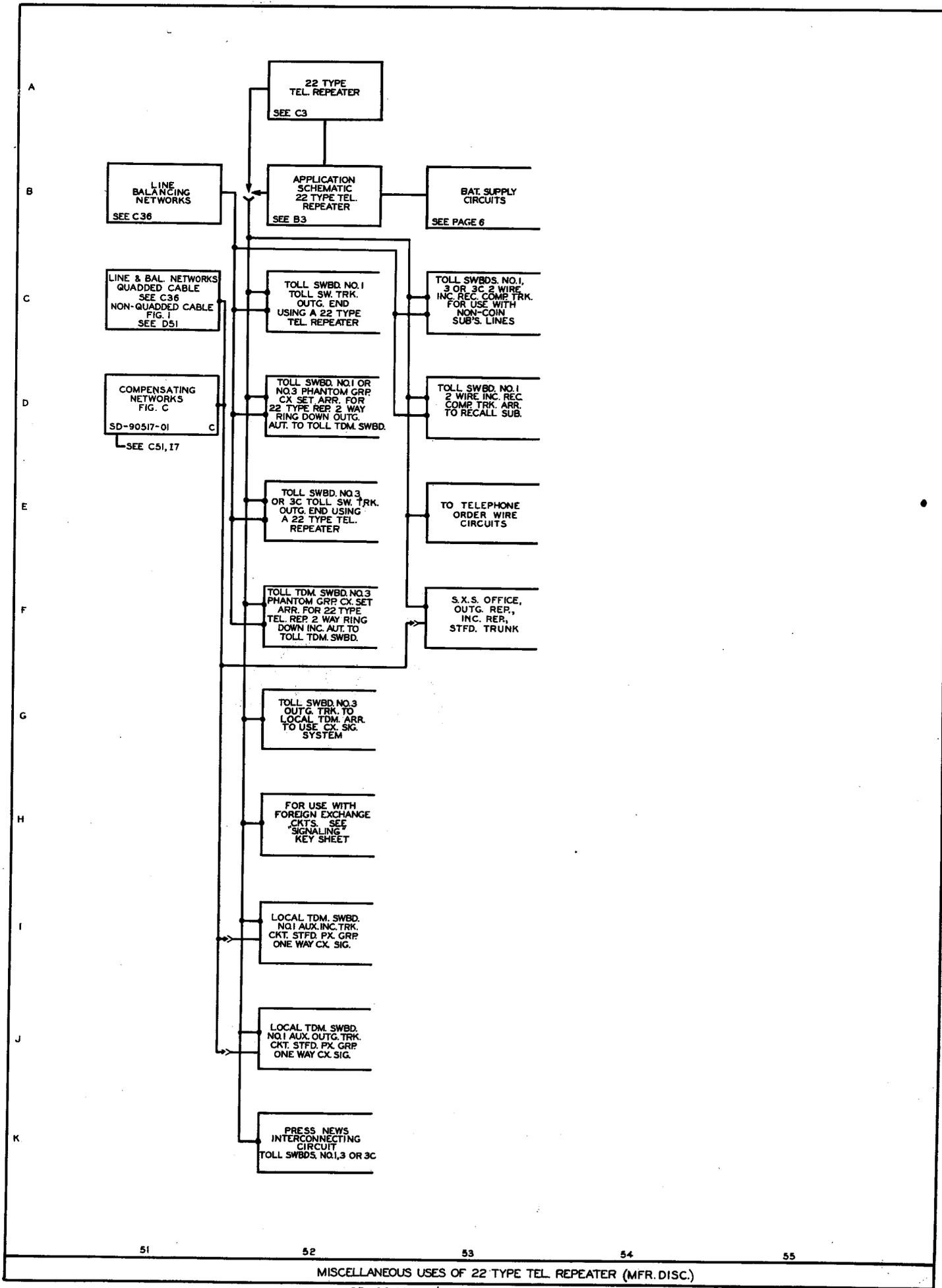
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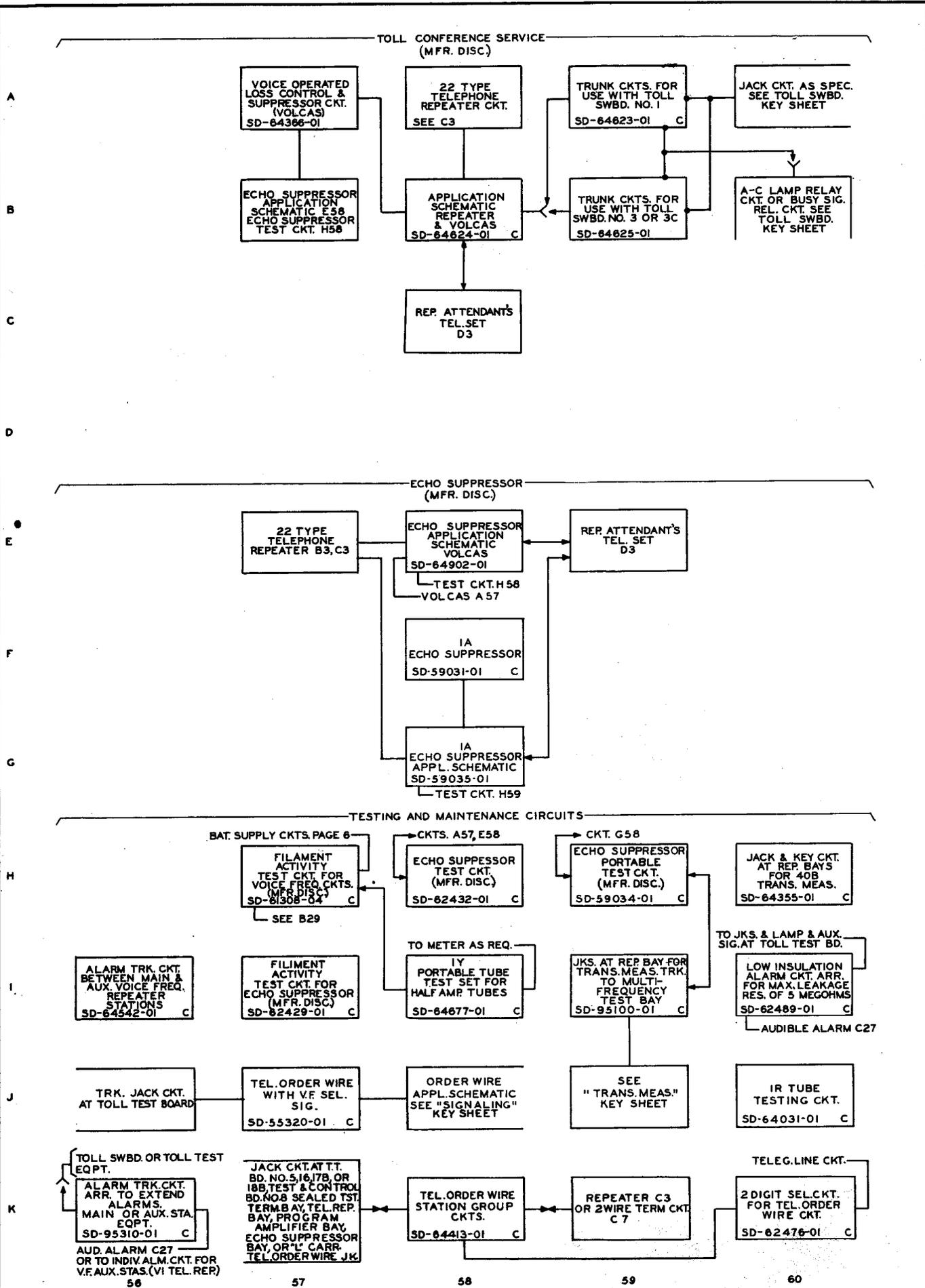
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TOLL CONFERENCE, ECHO SUPPRESSOR AND TESTING AND MAINTENANCE CKTS.

CURRENT DRAIN
AMPERE HOURS PER BUSY HOUR

CIRCUIT DRAWINGS		SEE NOTE NO.	REMARKS	DRAINS LIST 1 AND LIST 2									
				130V. PLT.		48V. BAT.	48V. GRD.		24V. BAT.		24V. GRD.		
CIRCUIT TITLE	CIRCUIT NO.			BAT.	GRD.		R.R.	F.B.	SIG.	FIL.	FIL.	R.R.	F.B.
BATTERY SUPPLY	SD-61428-01			.088					1.0	1.0			
" "	SD-61428-02			.044					1.0	1.0			
" "	SD-62137-02			.024				.010	0.5	0.5			.010
" "	SD-62137-03			.024				.016	0.5	0.5			.018
ECHO SUPPRESSOR	SD-64902-01		SEE VOLCAS SD-64366-01										
ECHO SUPPRESSOR - 1A	SD-59035-01		24V REG. BAT. OFF.	.010				.096	.640		.096	.630	
			24V NON REG. BAT. OFF.	.010				.096	.850		.096	.840	
GUARD RELAY	SD-62763-01							.082					
PILOT WIRE - MASTER RELAY	SD-62761-01		PER SET OF PRI.RELS.-FIG.1					.040					
			" " " SEC. " -FIG.2					.840			1.440		
PILOT WIRE - MASTER RELAY	SD-62762-01		PER SET OF PRI.RELS.-FIG.1					.040					
			" " " SEC. " -FIG.2					.840			1.640		
PILOT WIRE - REGULATOR	SD-62738-01			.025				.585			.330	.400	
REGULATING NETWORK	SD-62757-02							.100					
" "	SD-62757-03							.100					
TRUNK CKT. - CONFERENCE	SD-64625-01		FIG. 1					.093			.106		
			FIG. 2					.160			.185		
			FIG. 5					.018			.031		
			FIG. 6					.017			.030		
VOLCAS	SD-64366-01		GRD. AT FUSE BD.	.051					.640	.589			