

SD-62405-01

BELL TELEPHONE LABORATORIES, INC.

**COMMON SYSTEMS
SIGNALING
LINE, COMPOSITE, SIMPLEX,
AND SINGLE FREQUENCY
KEY SHEET**

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J. J. DARMODY

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AT&TCO
STANDARD

FOR EXPLANATION OF CONVENTIONS SEE MASTER KEY SHEET SD-90250-01.

REPLACING SD-62213-01, SD-60017-01, SD-60032-01, SD-62214-01, SD-62215-01, AND SD-63391-01. REPLACING SD-64102-01 FOR TESTING AND MAINTENANCE.

SD-62405-01

ADVANCE INFORMATION ON CHANGES AND
ADDITIONS TO BE MADE TO KEY SHEET SD-62405-01, ISSUE 20

COMMON SYSTEMS
SIGNALING
LINE, COMPOSITE, SIMPLEX,
AND SINGLE FREQUENCY

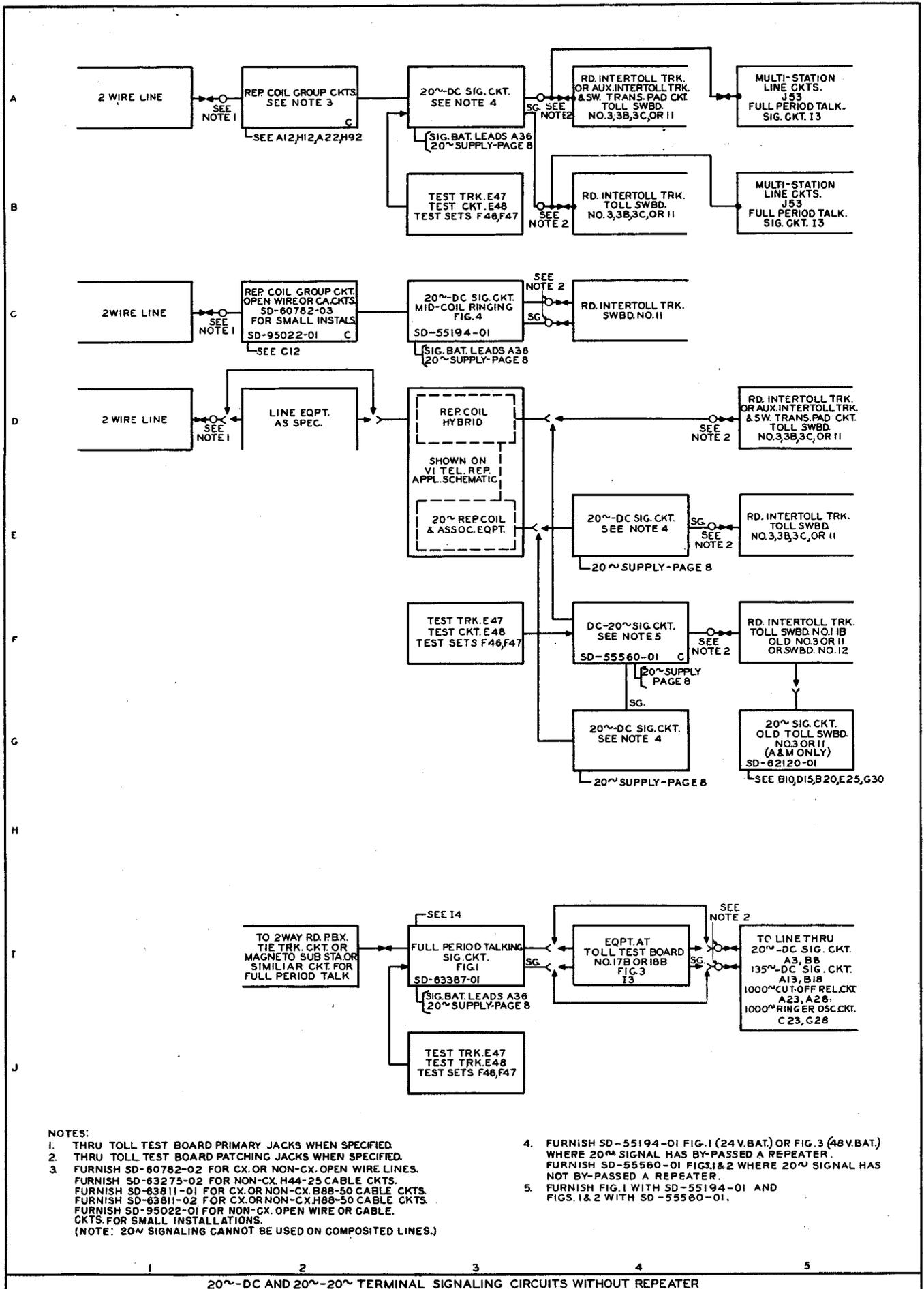
CHANGES

C. CURRENT DRAIN DATA FOR THE CIRCUITS LISTED BELOW WILL BE CHANGED OR ADDED AS FOLLOWS:

Ckt. Title	Ckt. No.	Drains Lists 1 & 2						Notes
		130V. Plt. Bat.	48V. Bat. Sig.	48V. Grd. R.R.	24V. Bat. Fil.	24V. Grd. Fil.	+130V. Sig. Bat.	
Composite Signaling	SD-95048-01		.045	.100				5
Link-Aux. Pulse	SD-95043-01		.100	.070				
Signaling-1000 Cycle-Receiver	SD-55392-01	.017 .011			.275 .525	.275 .525		1 2
Signaling-1600 Or 2000 Cycle-Single Freq.	SD-56202-01	.029 .006	.505 .071	.547 .060			.011	3 4

Notes:

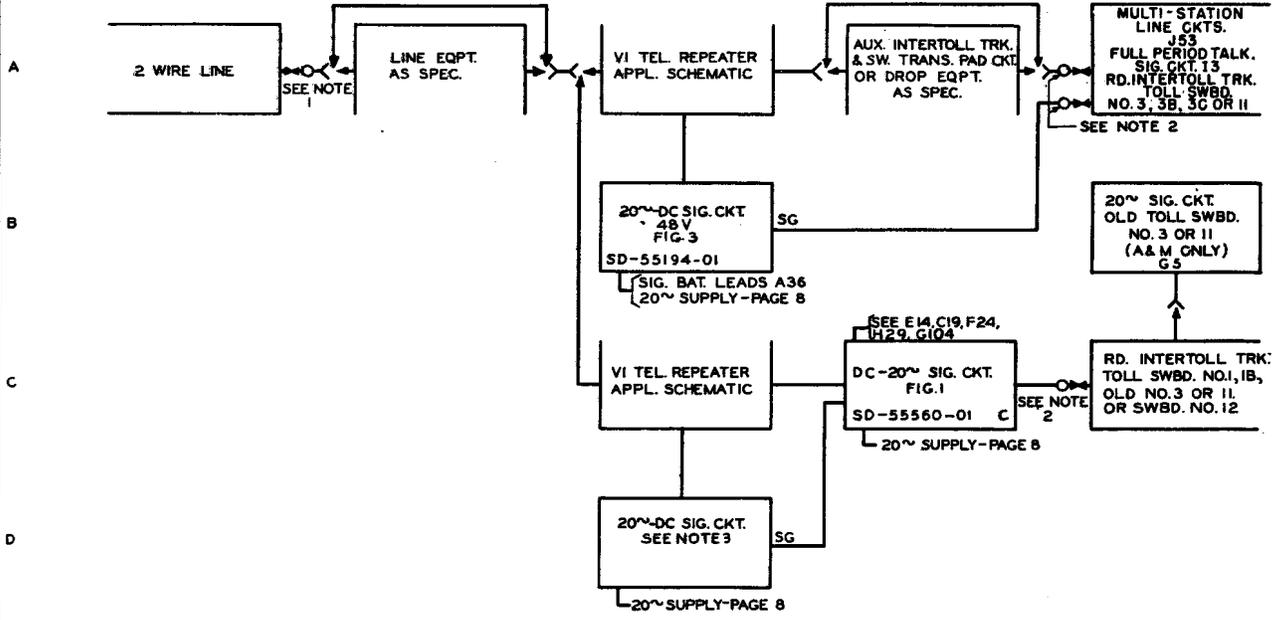
1. Reg. Battery.
 2. Non-Reg. Battery.
 3. For Fig. 1.
 4. For Figs. 3 & 4.
 5. Per Trunk.
- Dept. 3440-BP-EWO-AM



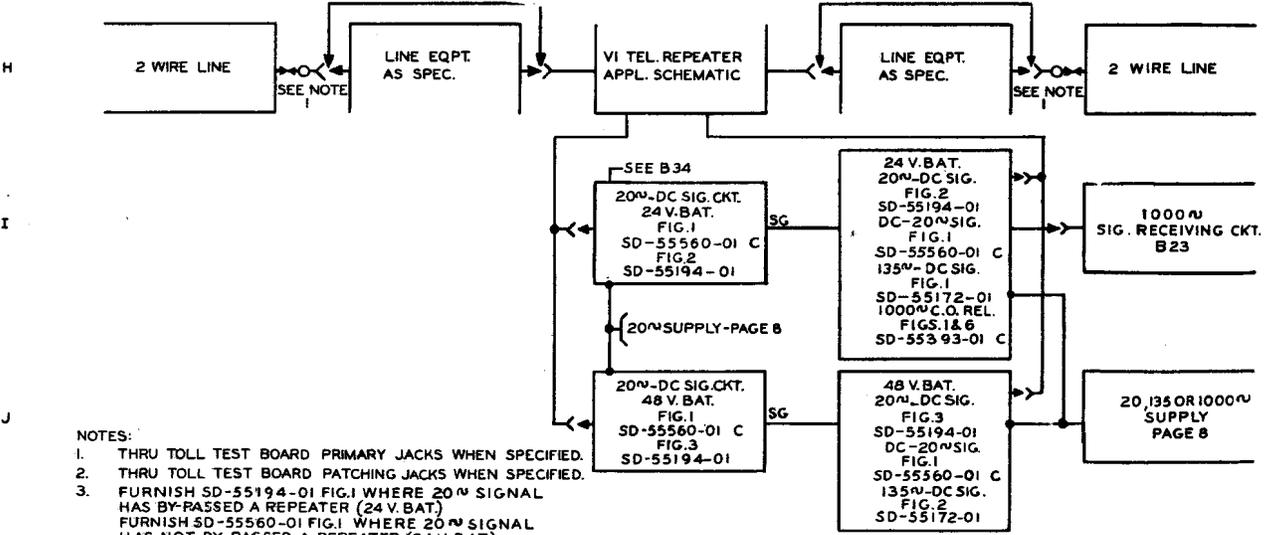
NOTES:

1. THRU TOLL TEST BOARD PRIMARY JACKS WHEN SPECIFIED.
2. THRU TOLL TEST BOARD PATCHING JACKS WHEN SPECIFIED.
3. FURNISH SD-60782-02 FOR CX. OR NON-CX. OPEN WIRE LINES. FURNISH SD-63275-02 FOR NON-CX. H44-25 CABLE CKTS. FURNISH SD-63811-01 FOR CX. OR NON-CX. B88-50 CABLE CKTS. FURNISH SD-63811-02 FOR CX. OR NON-CX. H88-50 CABLE CKTS. FURNISH SD-95022-01 FOR NON-CX. OPEN WIRE OR CABLE CKTS. FOR SMALL INSTALLATIONS. (NOTE: 20~ SIGNALING CANNOT BE USED ON COMPOSITED LINES.)
4. FURNISH SD-55194-01 FIG. 1 (24V. BAT.) OR FIG. 3 (48V. BAT.) WHERE 20~ SIGNAL HAS BY-PASSED A REPEATER. FURNISH SD-55560-01 FIGS. 1 & 2 WHERE 20~ SIGNAL HAS NOT BY-PASSED A REPEATER.
5. FURNISH FIG. 1 WITH SD-55194-01 AND FIGS. 1 & 2 WITH SD-55560-01.

TERMINAL SIGNALING CIRCUITS

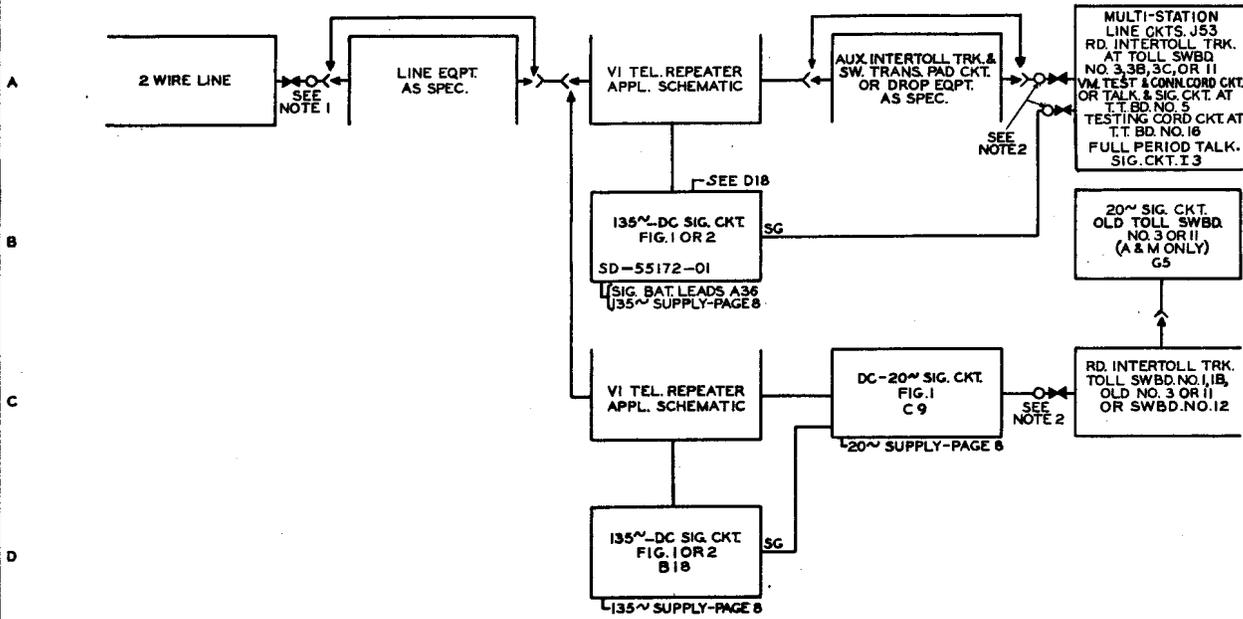


INTERMEDIATE SIGNALING CIRCUITS

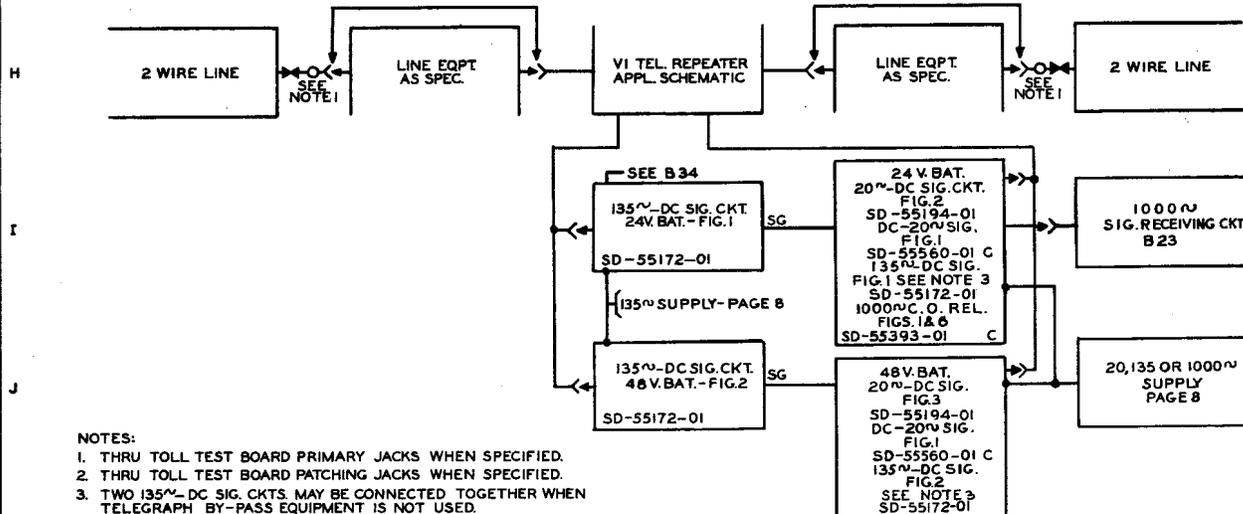


- NOTES:
1. THRU TOLL TEST BOARD PRIMARY JACKS WHEN SPECIFIED.
 2. THRU TOLL TEST BOARD PATCHING JACKS WHEN SPECIFIED.
 3. FURNISH SD-55194-01 FIG. 1 WHERE 20~ SIGNAL HAS BY-PASSED A REPEATER (24 V. BAT.) FURNISH SD-55560-01 FIG. 1 WHERE 20~ SIGNAL HAS NOT BY-PASSED A REPEATER (24 V. BAT.) FURNISH SD-55194-01 FIG. 3 FOR 48V. BAT. CKT.

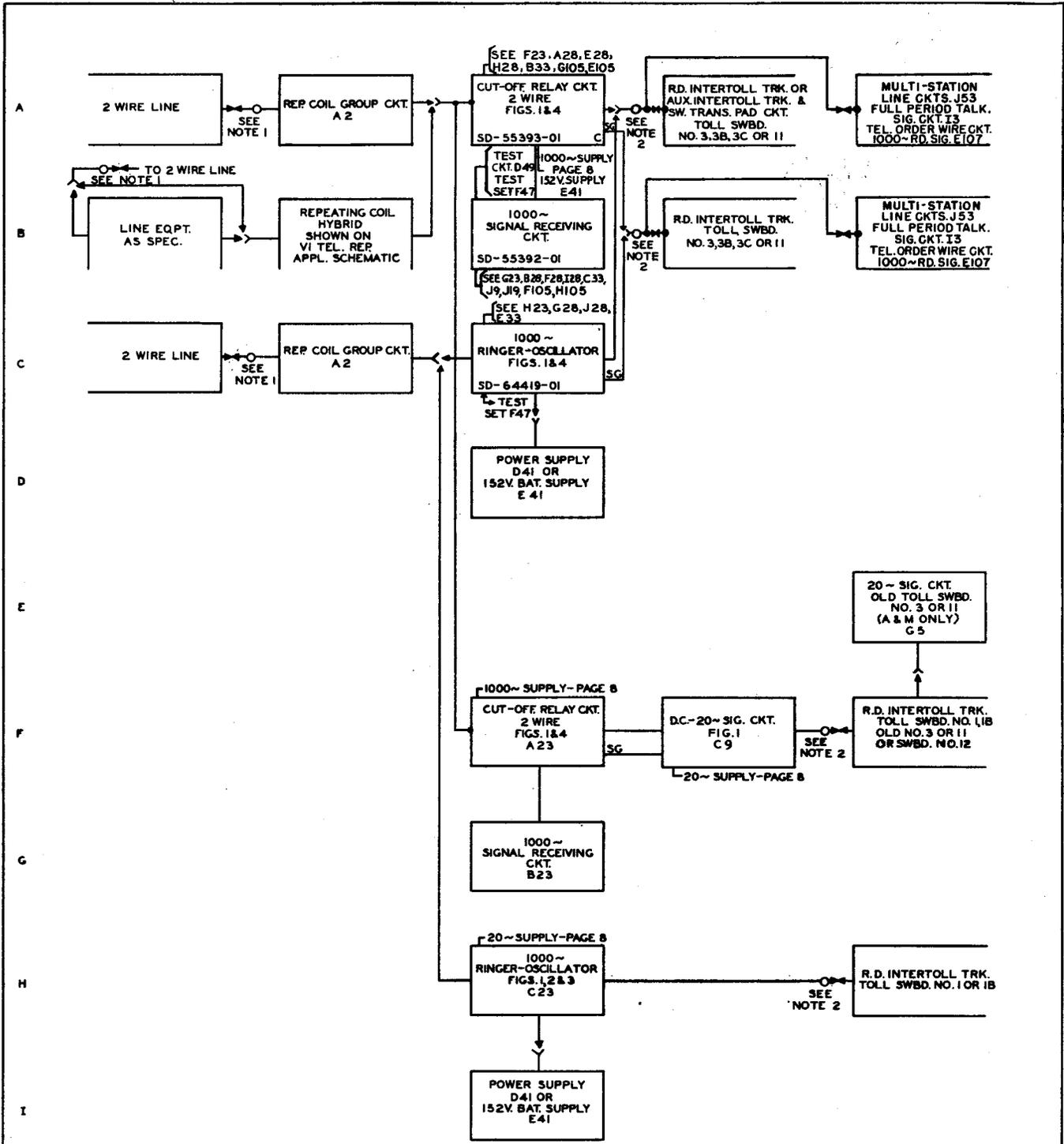
TERMINAL SIGNALING CIRCUITS



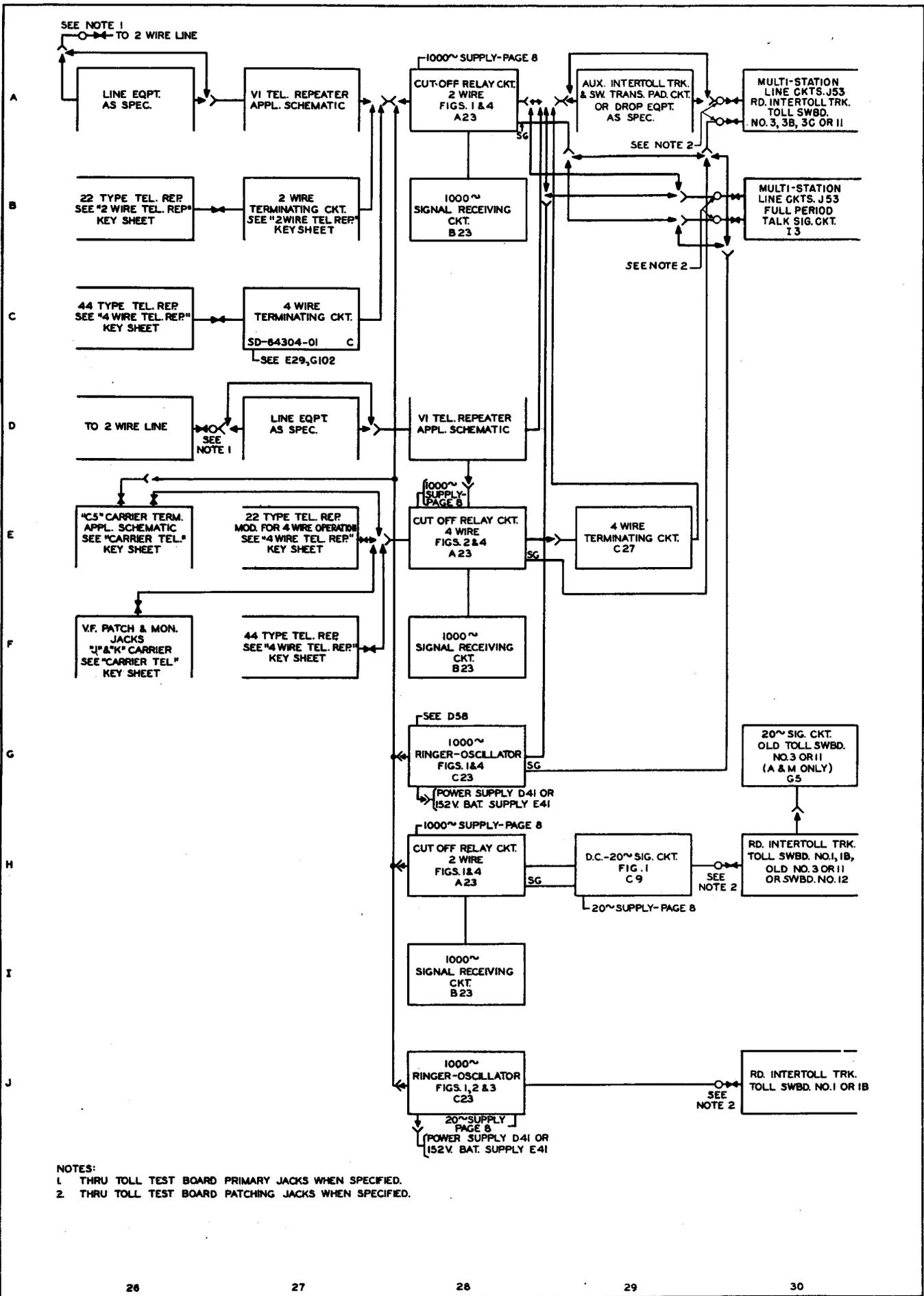
INTERMEDIATE SIGNALING CIRCUITS



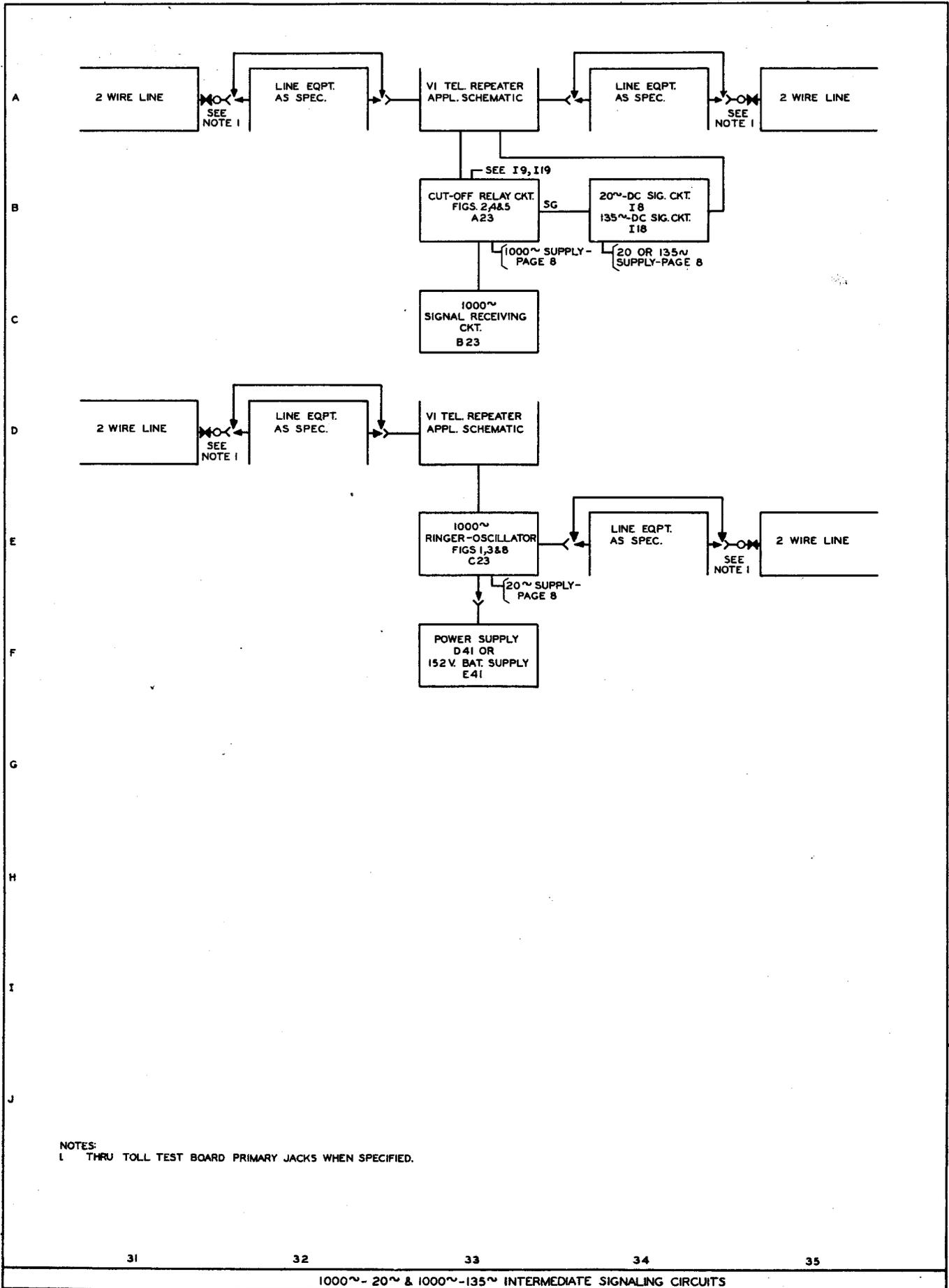
- NOTES:
 1. THRU TOLL TEST BOARD PRIMARY JACKS WHEN SPECIFIED.
 2. THRU TOLL TEST BOARD PATCHING JACKS WHEN SPECIFIED.
 3. TWO 135 \sim -DC SIG. CKTS. MAY BE CONNECTED TOGETHER WHEN TELEGRAPH BY-PASS EQUIPMENT IS NOT USED.



- NOTES:
 1. THRU TOLL TEST BOARD PRIMARY JACKS WHEN SPECIFIED.
 2. THRU TOLL TEST BOARD PATCHING JACKS WHEN SPECIFIED.



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 I THRU TOLL TEST BOARD PRIMARY JACKS WHEN SPECIFIED.

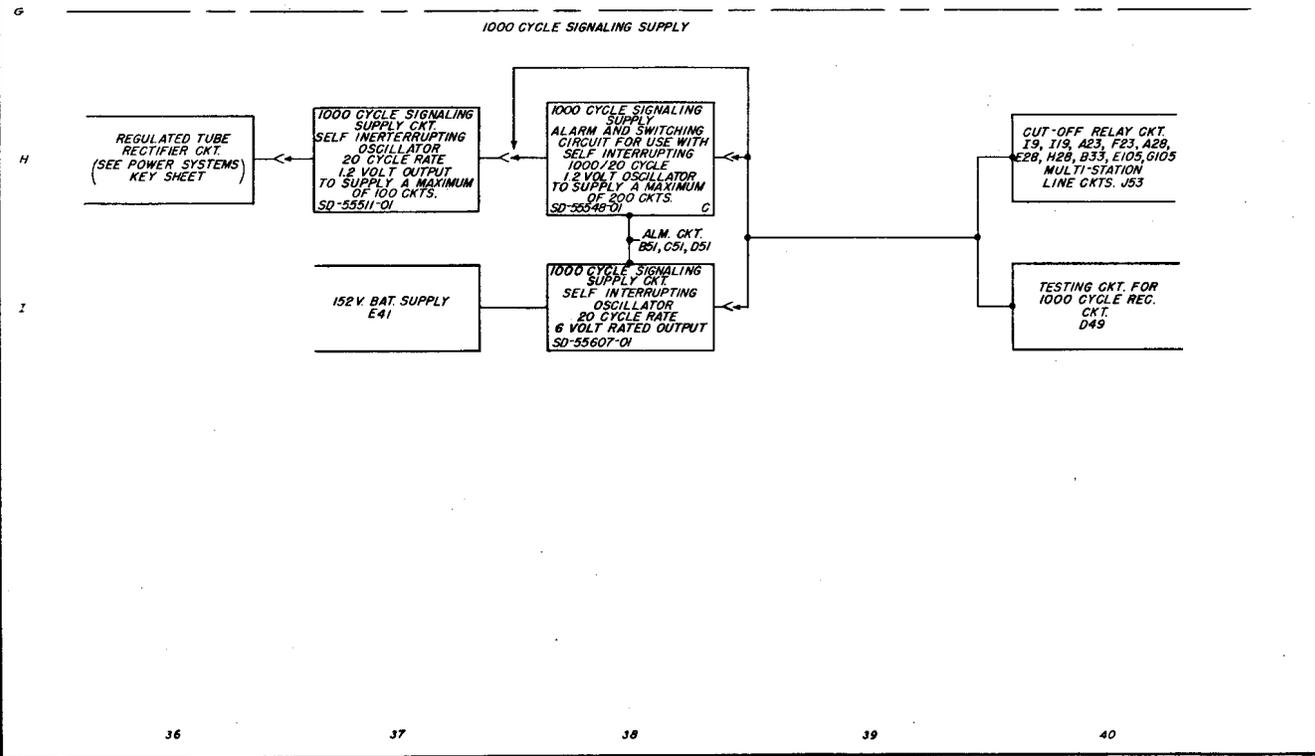
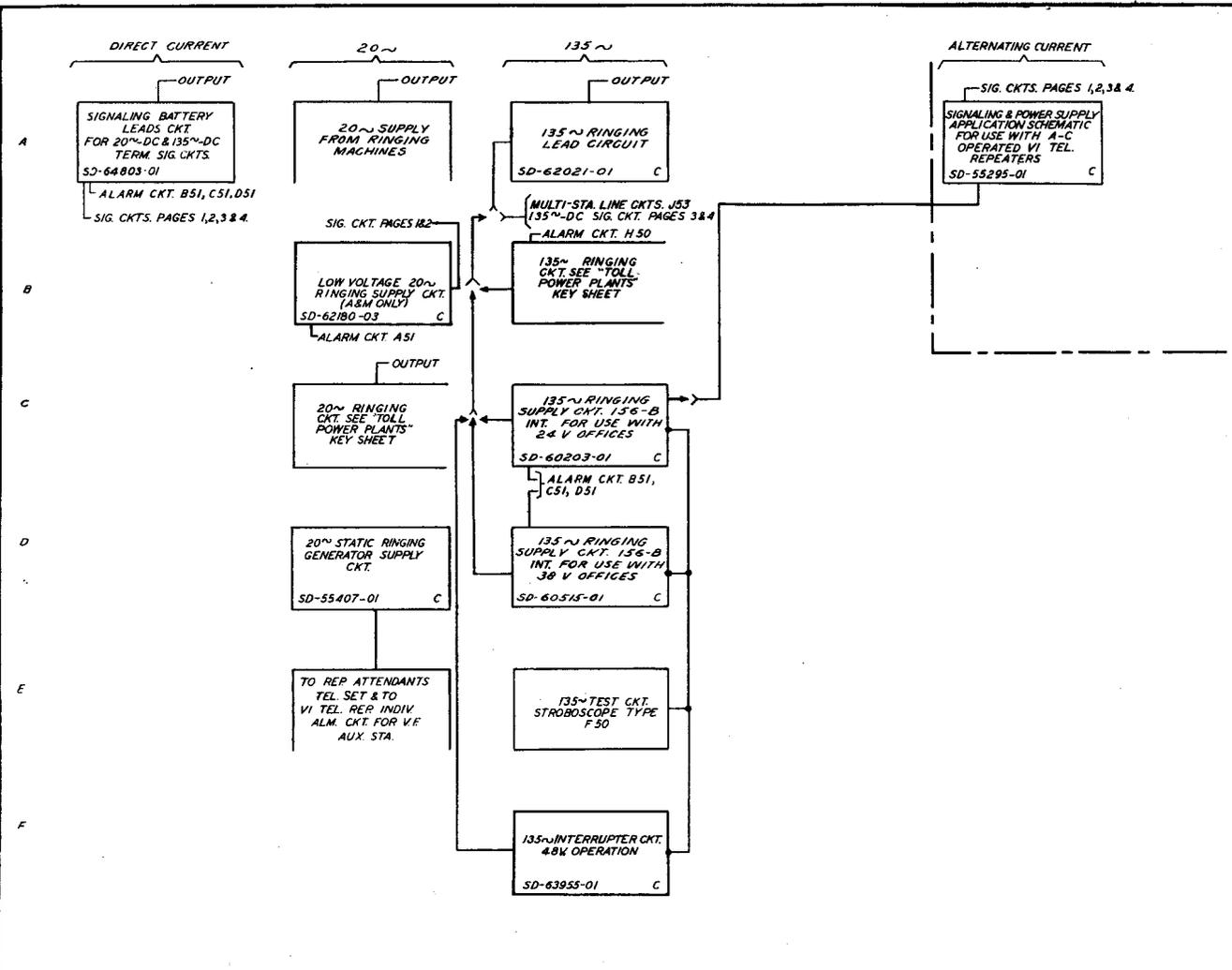
31

32

33

34

35



SOURCES OF SIG. SUPPLY CURRENTS

A

B

C

130V 0.1 AMP
POWER SUPPLY
400 TYPE PLANTS
SEE POWER KEY SHEET

D

RINGER-OSCILLATOR PAGES 5,6 & 7

A-C
POWER SUPPLY FOR
1000^W RINGER
OSCILLATORS
SD-64298-01 C

SEE D23 T23,F33

E

1000^W SI6 REC. CKT. B23

BAT. SUPPLY CKT.
152V SINGLE
BAT. OFFICE
SD-59001-01

SEE D23, I23, F33 I37

F

G

H

I

J

41

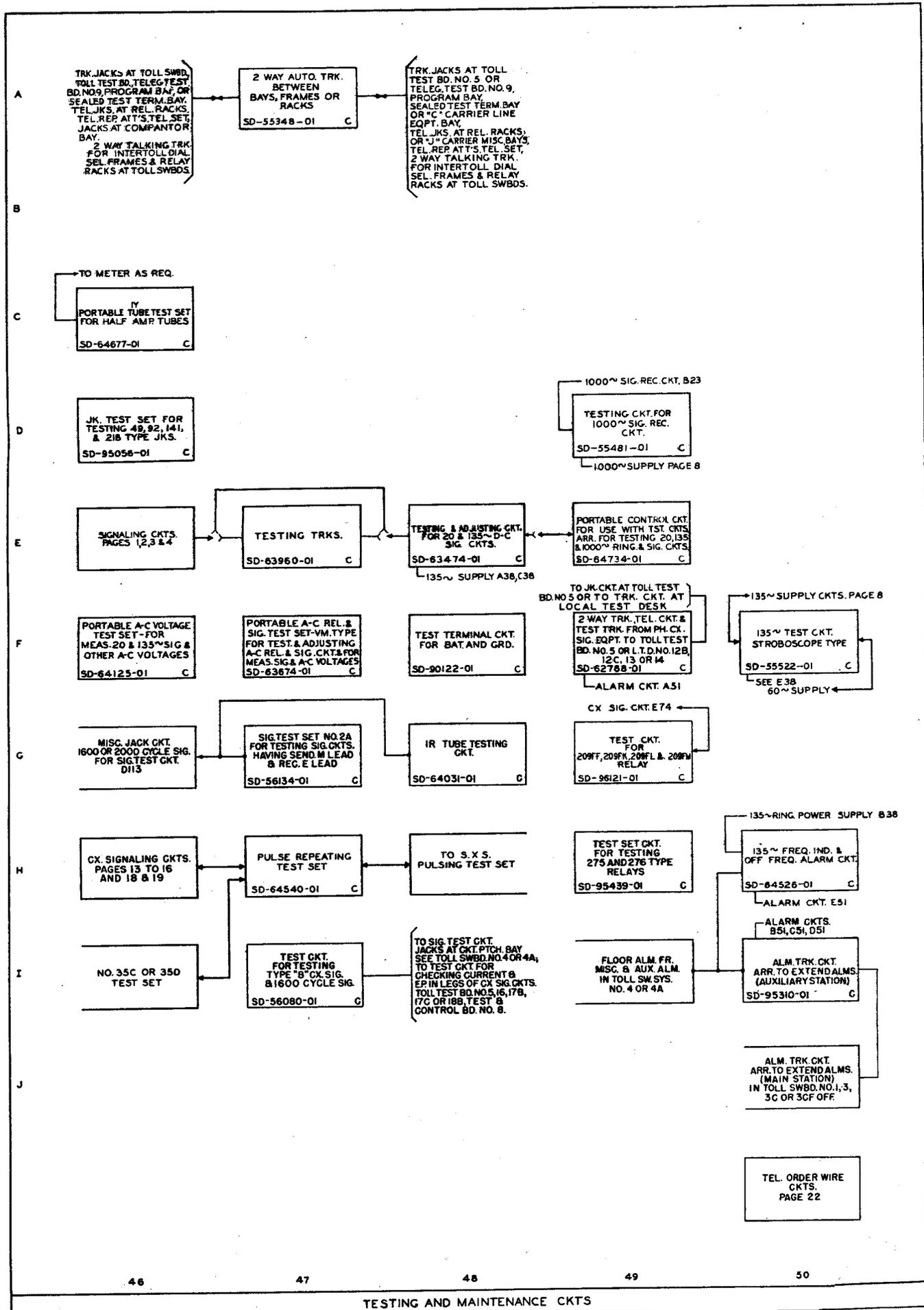
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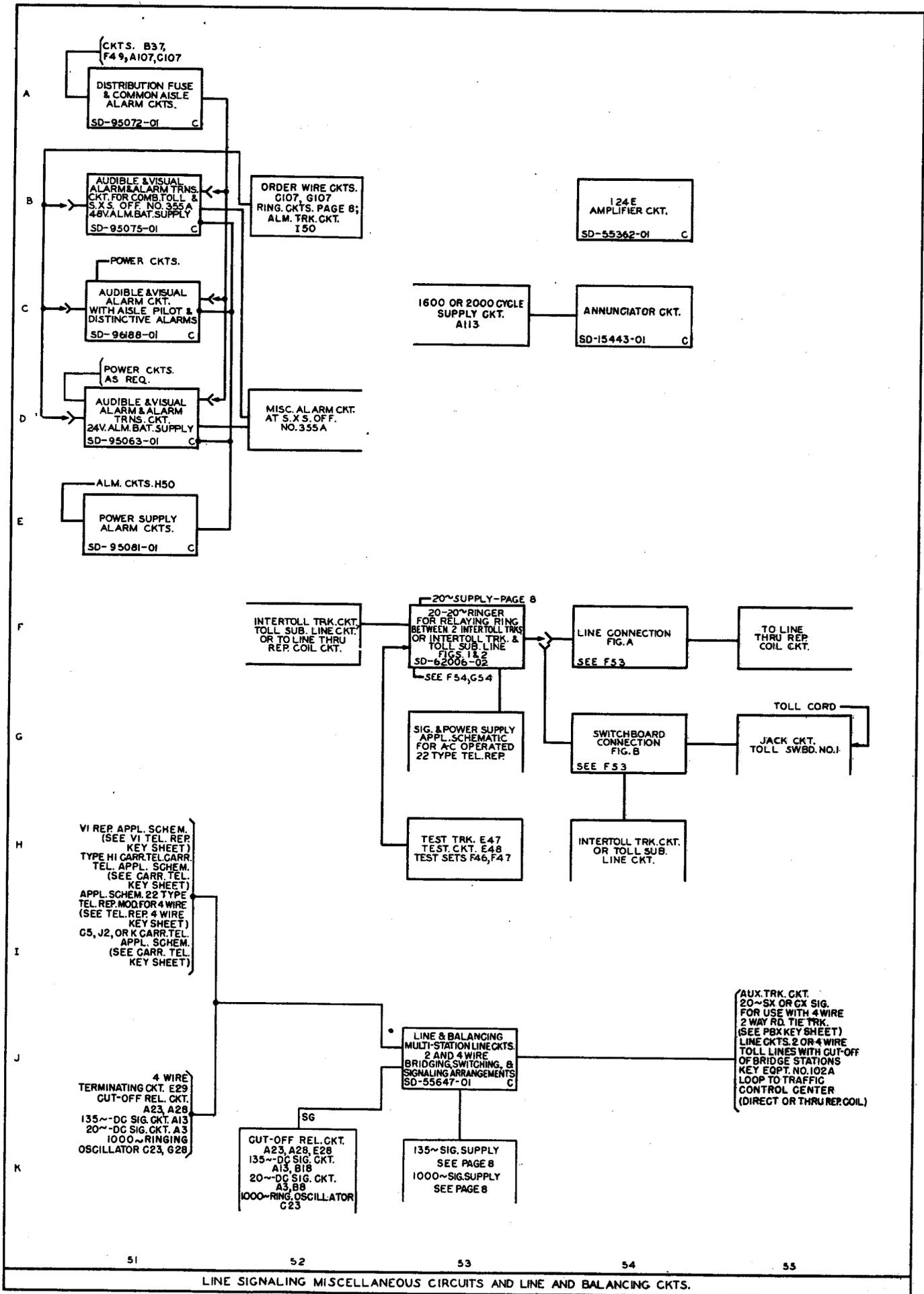
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BATTERY SUPPLY AND ASSOCIATED CIRCUITS



TESTING AND MAINTENANCE CKTS



51

52

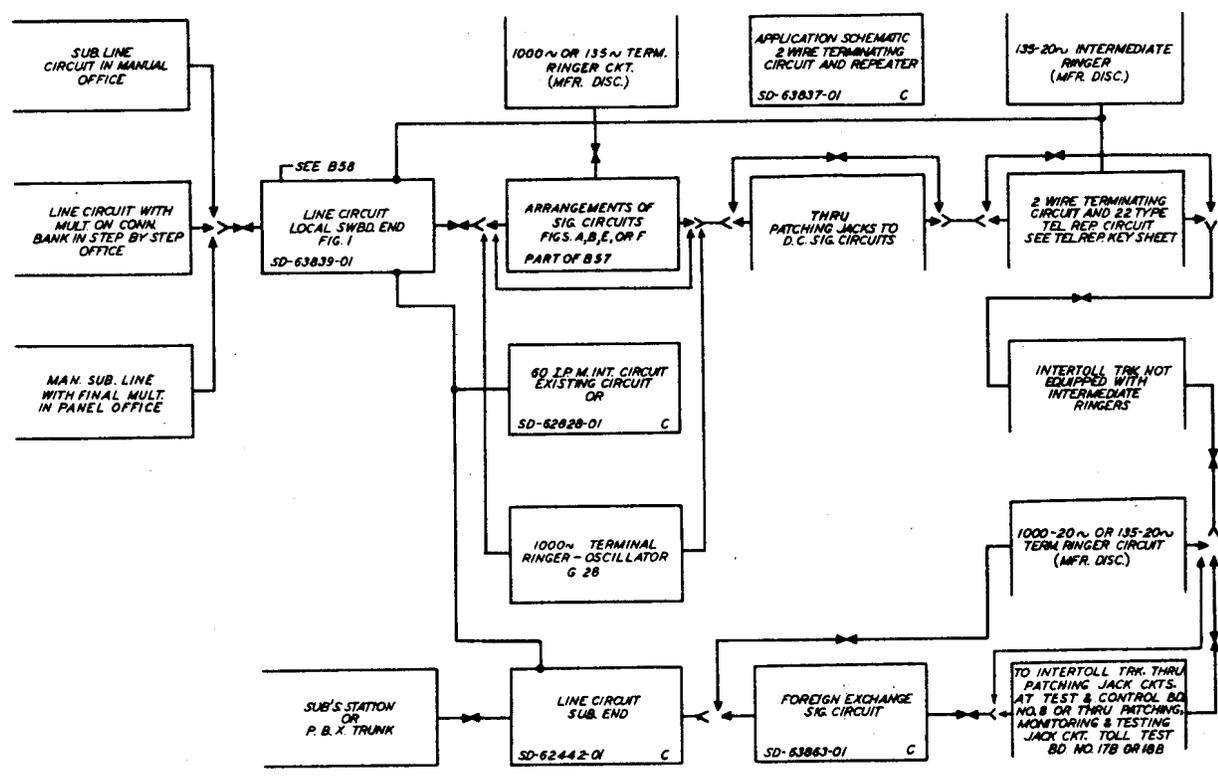
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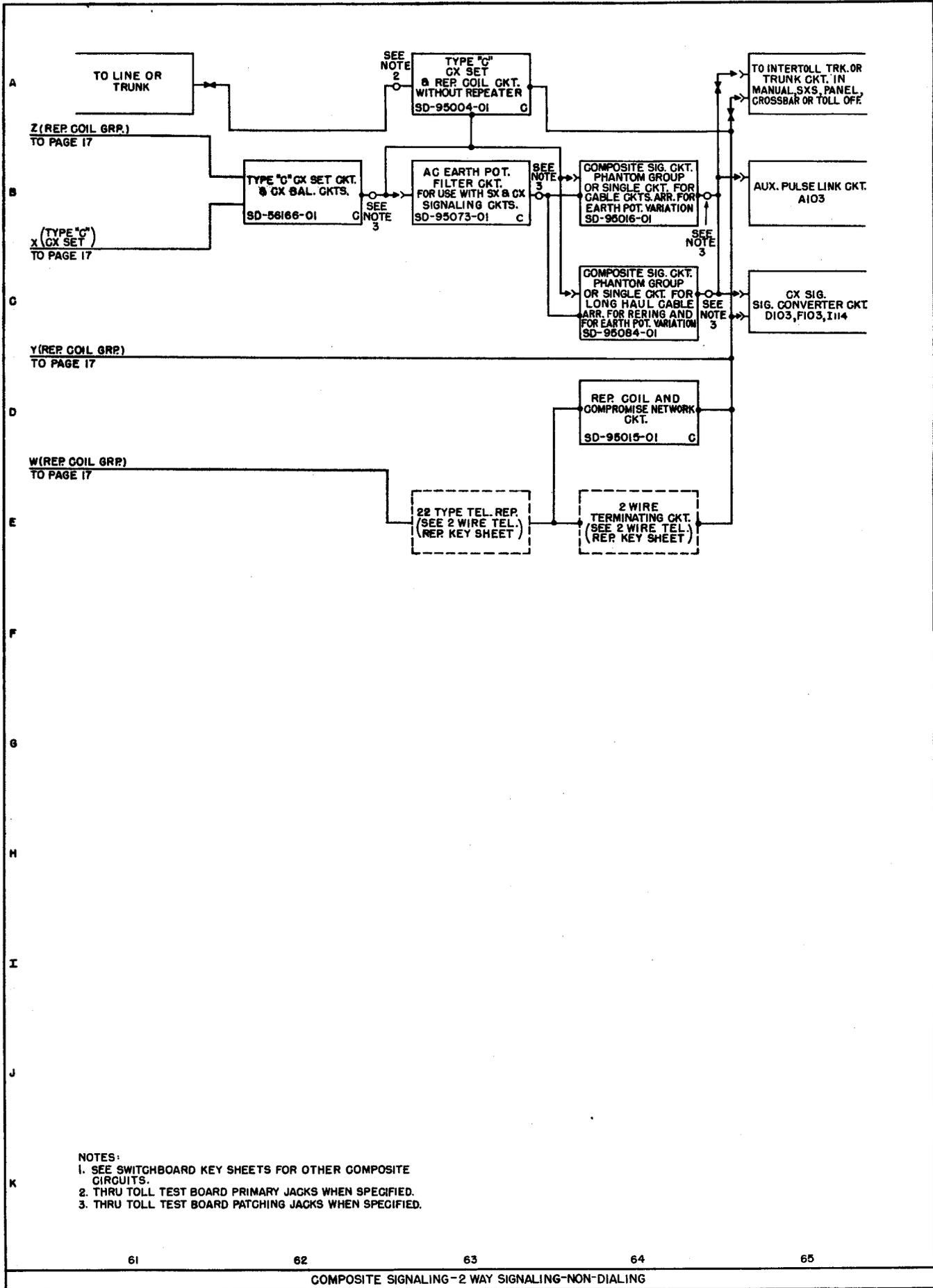
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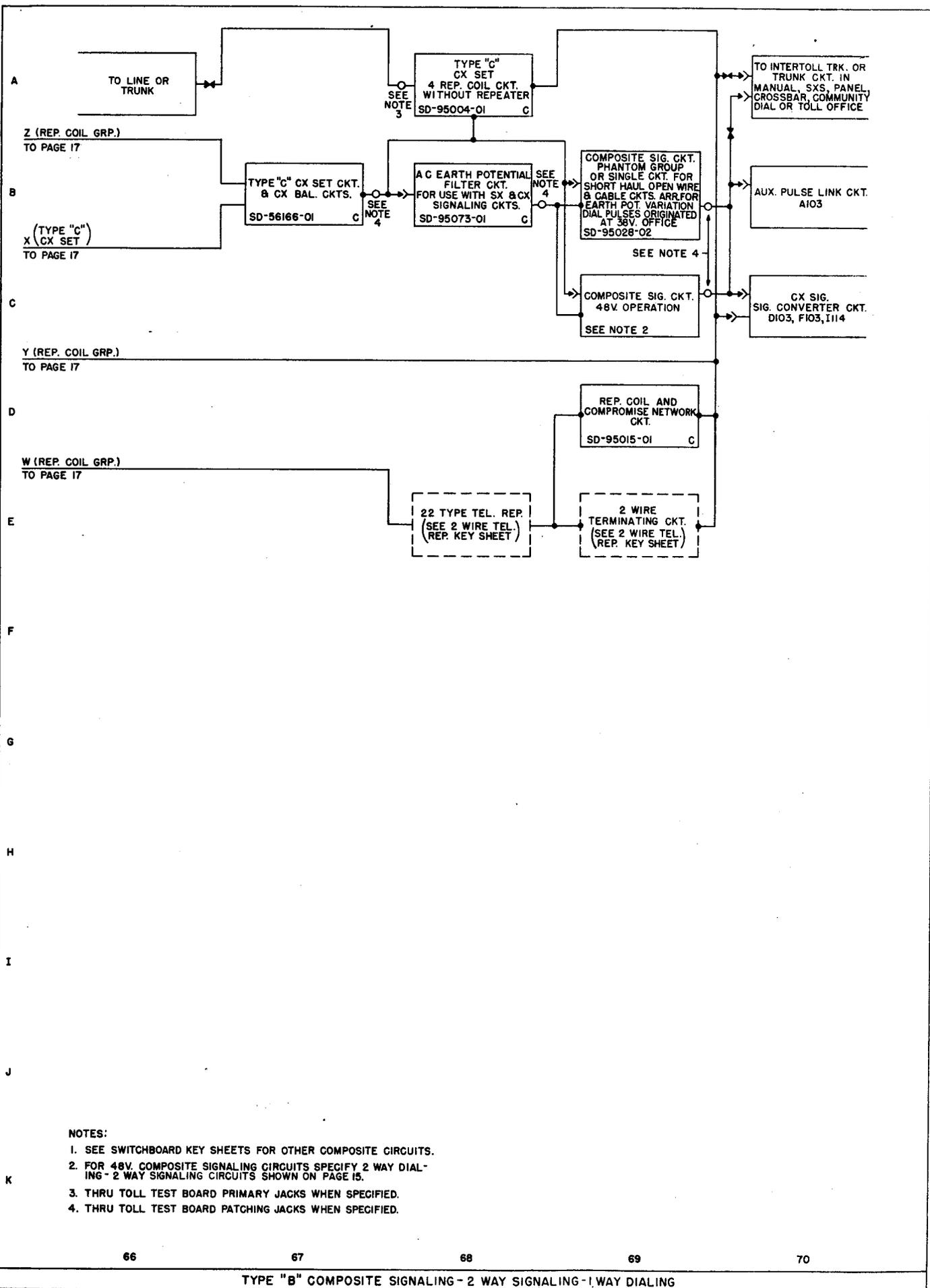
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LINE SIGNALING MISCELLANEOUS CIRCUITS AND LINE AND BALANCING CKTS.

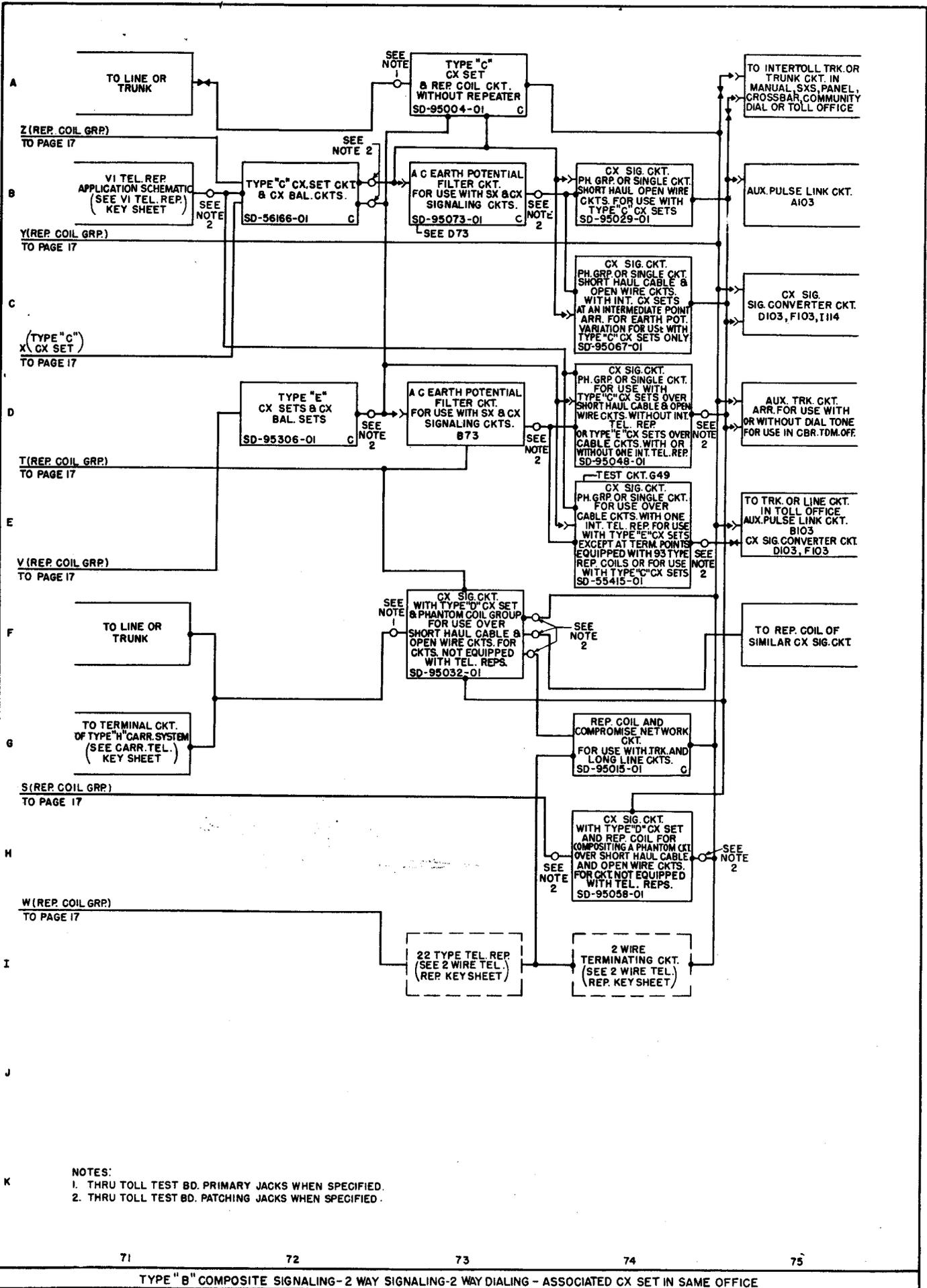
A
B
C
D
E
F
G
H
I
J



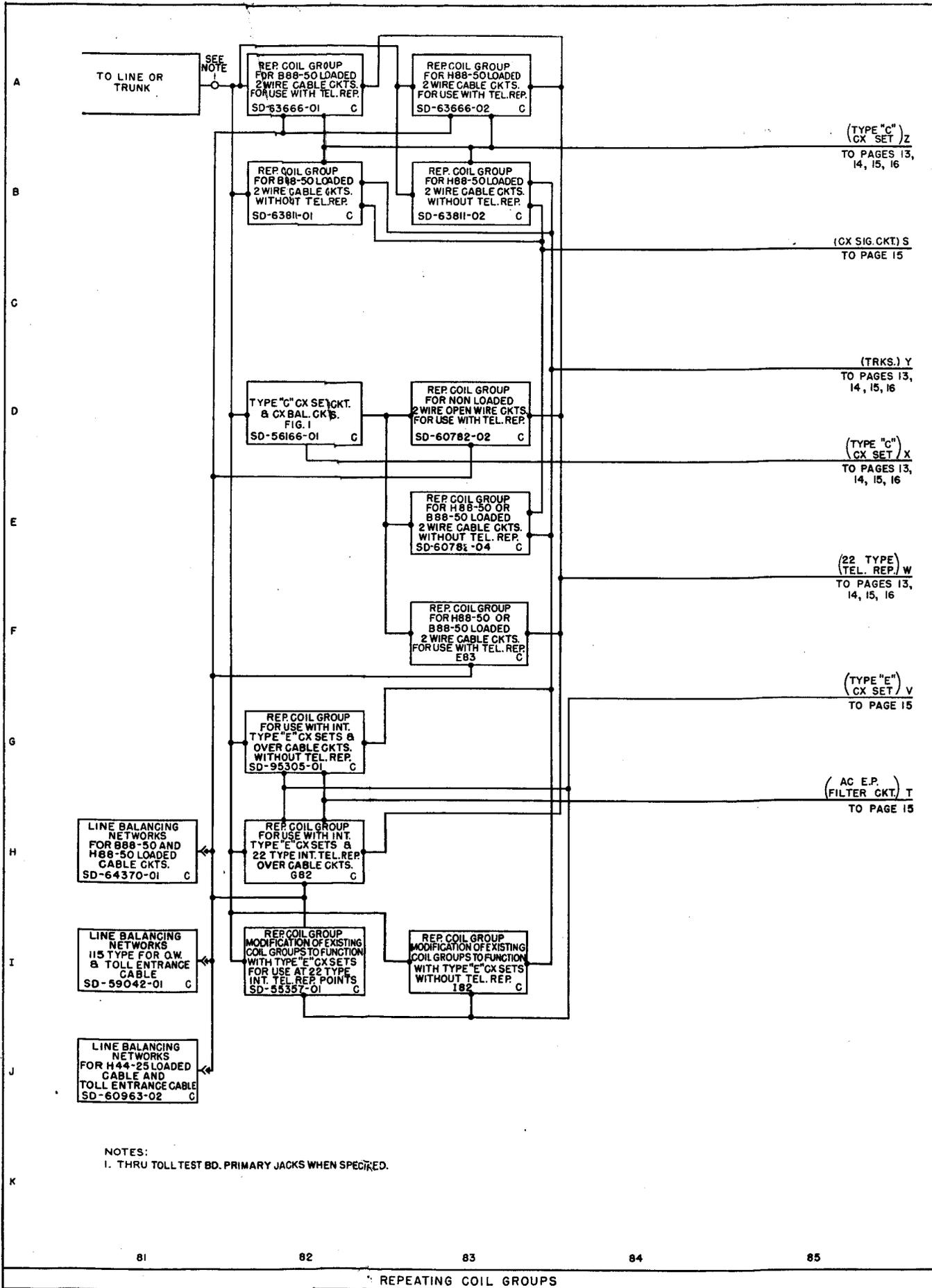




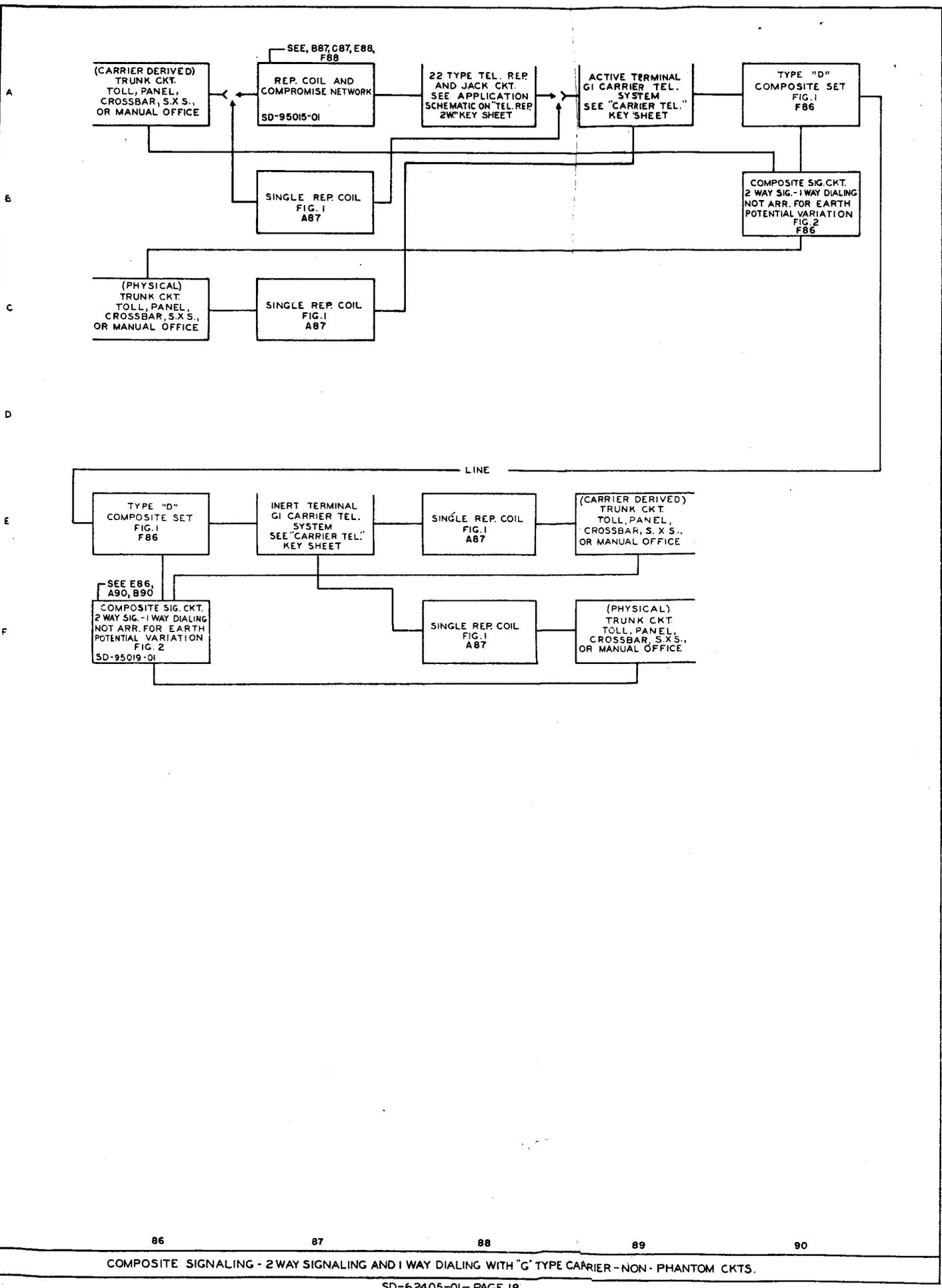
- NOTES:
1. SEE SWITCHBOARD KEY SHEETS FOR OTHER COMPOSITE CIRCUITS.
 2. FOR 48V. COMPOSITE SIGNALING CIRCUITS SPECIFY 2 WAY DIALING - 2 WAY SIGNALING CIRCUITS SHOWN ON PAGE 15.
 3. THRU TOLL TEST BOARD PRIMARY JACKS WHEN SPECIFIED.
 4. THRU TOLL TEST BOARD PATCHING JACKS WHEN SPECIFIED.



NOTES:
 1. THRU TOLL TEST BD. PRIMARY JACKS WHEN SPECIFIED.
 2. THRU TOLL TEST BD. PATCHING JACKS WHEN SPECIFIED.



NOTES:
 1. THRU TOLL TEST BD. PRIMARY JACKS WHEN SPECIFIED.



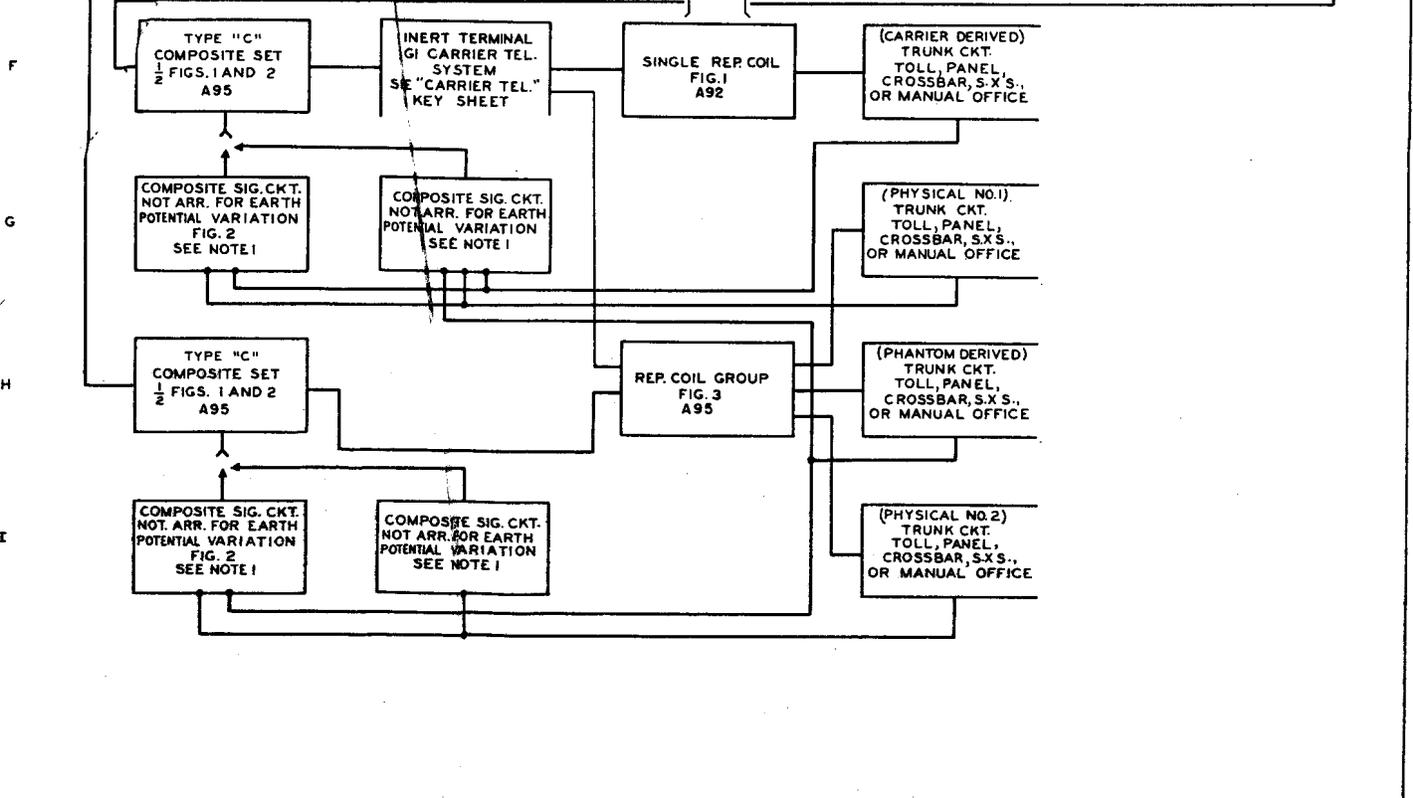
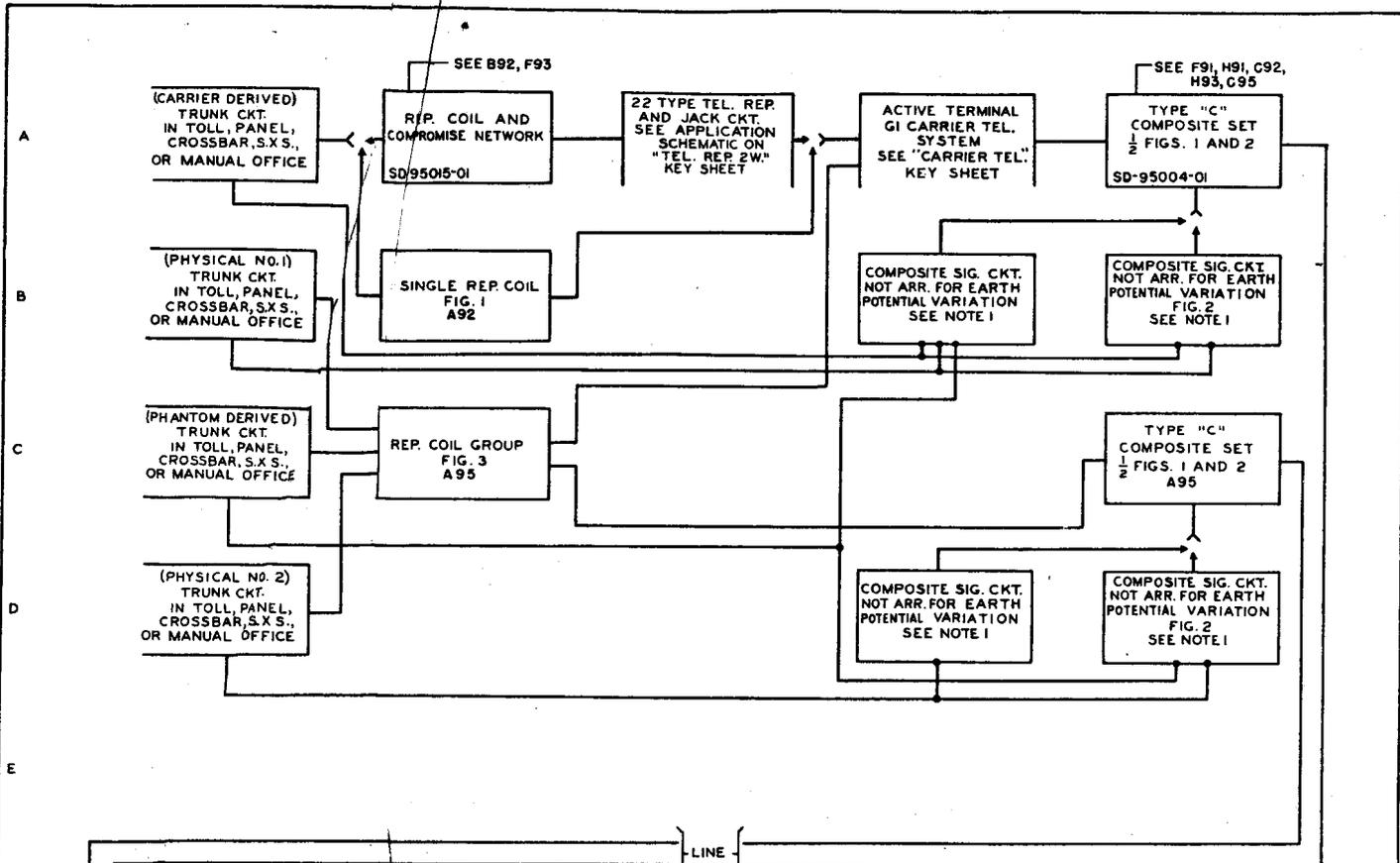
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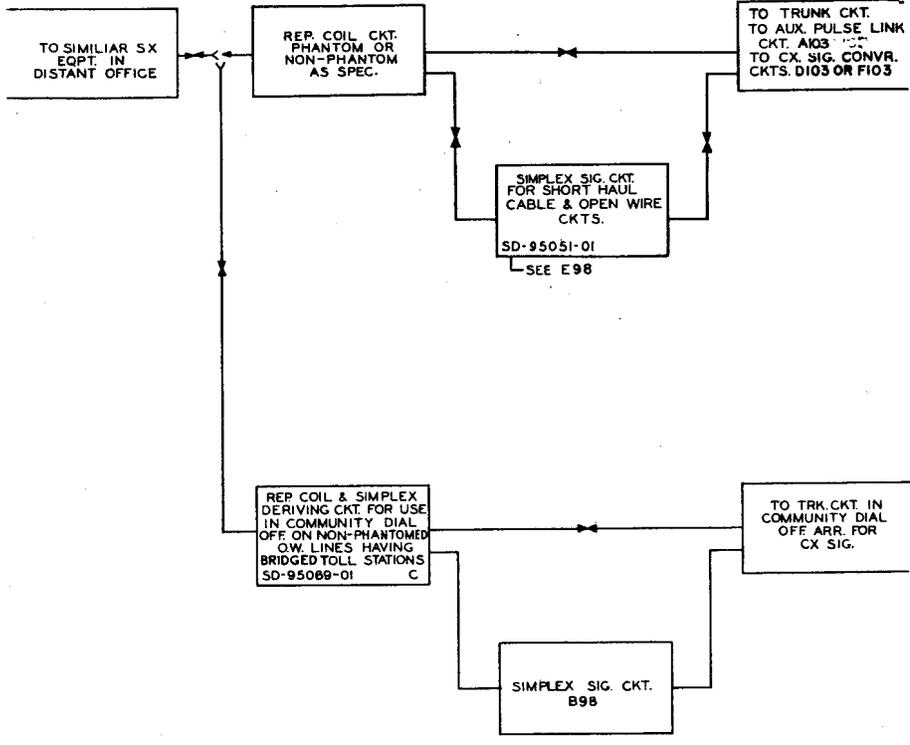
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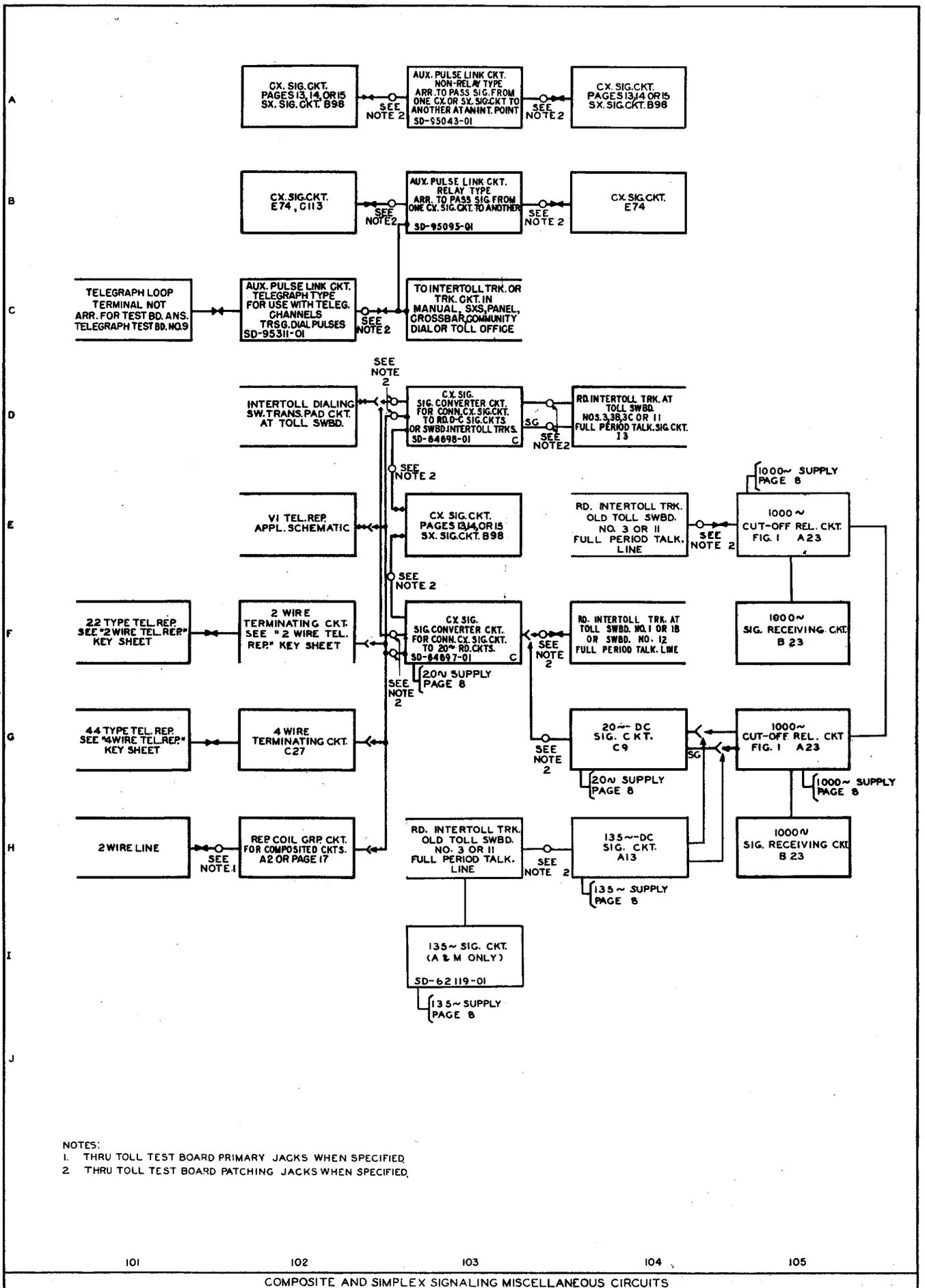


NOTES:
 1. FURNISH SD-95029-01 UNLESS SPARE CIRCUITS PER SD-95019-01 ARE AVAILABLE.

SIMPLEX SIG. CKTS.

A
B
C
D
E
F
G
H
I
J





- NOTES:
 1. THRU TOLL TEST BOARD PRIMARY JACKS WHEN SPECIFIED.
 2. THRU TOLL TEST BOARD PATCHING JACKS WHEN SPECIFIED.

101

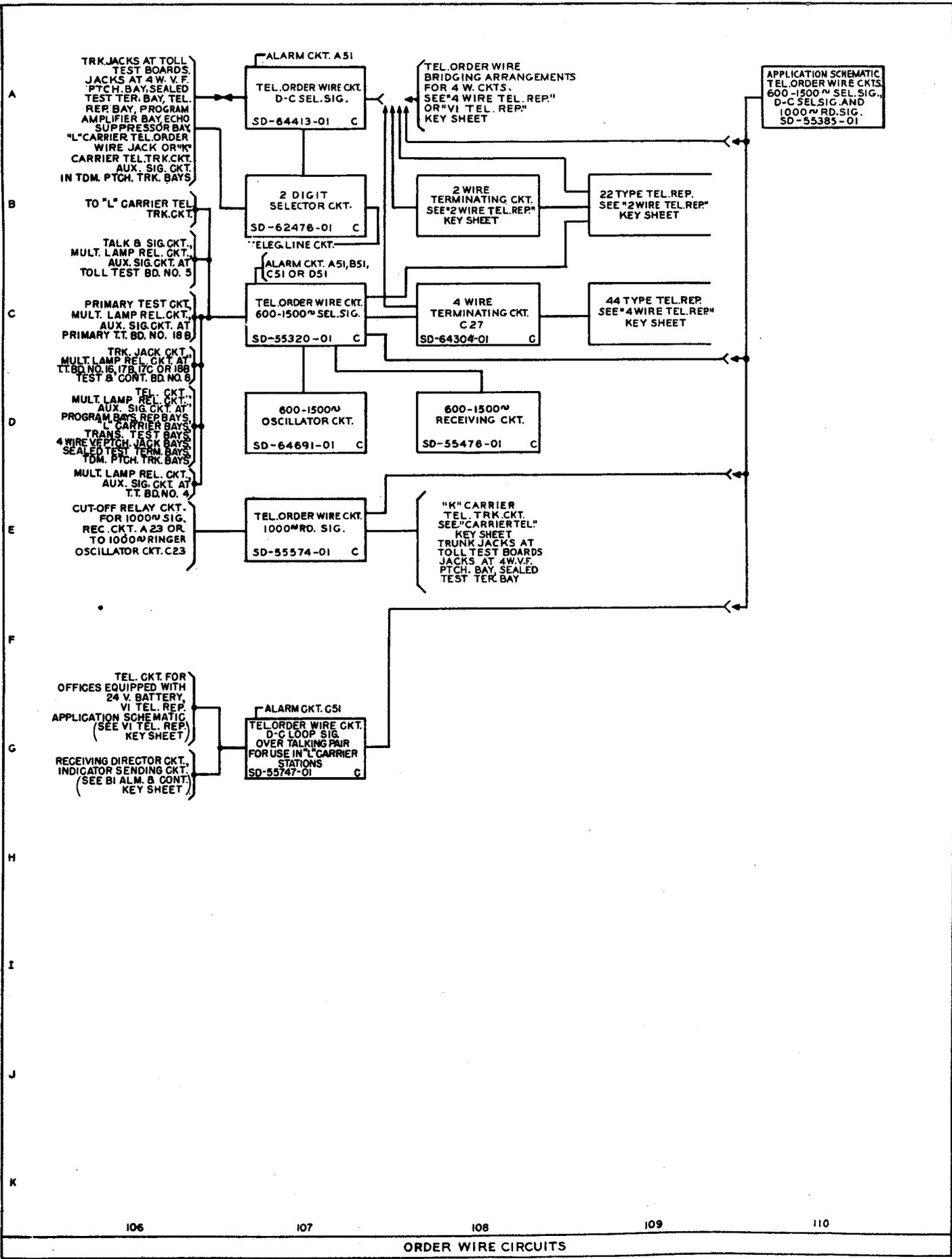
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COMPOSITE AND SIMPLEX SIGNALING MISCELLANEOUS CIRCUITS



106

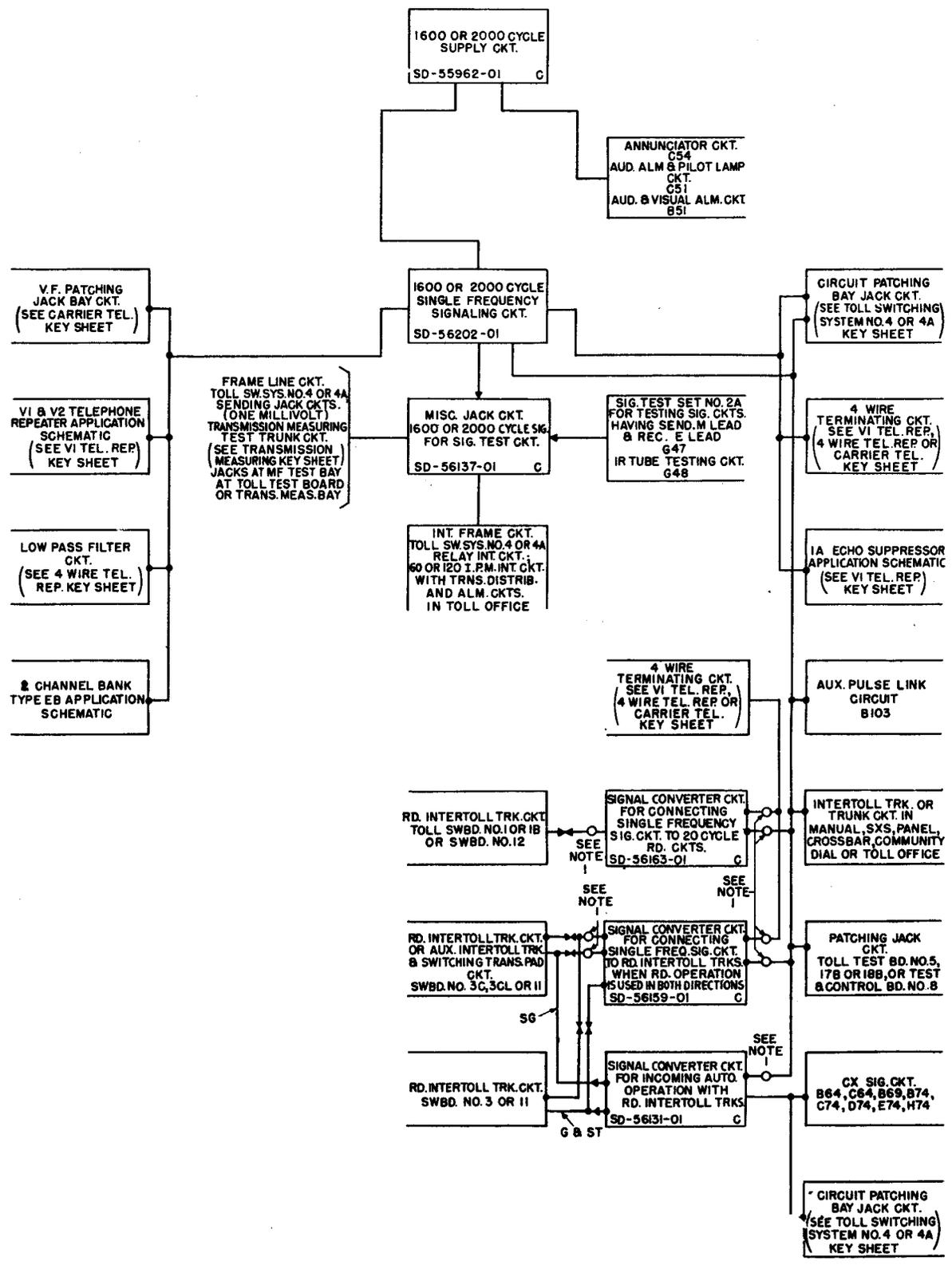
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108

109

110

A
B
C
D
E
F
G
H
I
J
K



NOTES:
I. THRU TOLL TEST BOARD PATCHING JACKS WHEN SPECIFIED.

111 112 113 114 115

1600 OR 2000 CYCLES SINGLE FREQUENCY SIGNALING

**CURRENT DRAIN
AMPERE HOURS PER BUSY HOUR**

CIRCUIT DRAWINGS		SEE NOTE NO.	REMARKS	DRAINS LISTS 1 & 2									
CIRCUIT TITLE	CIRCUIT NO.			130V. PLT. BAT.	48V. BAT.		48V. GRD.		24V. BAT.		24 V. GRD.		
					SIG.	TALK.	R.R.	F.B.	SIG.	FIL.	FIL.	R.R.	F.B.
BATTERY SUPPLY-1000~SELF-INT. OSC.	SD-55607-01	REG. BAT.	.065					.640	.705				
		NON REG. BAT.	.065					.850	.915				
BATTERY SUPPLY-1000~SELF-INT. OSC.	SD-55511-01	REG. BAT.	.031					.640	.671				
		NON REG. BAT.	.031					.850	.881				
BATTERY SUPPLY-RING OSC.	SD-59001-01	1	152V. SINGLE BAT. OFF.										
BATTERY SUPPLY- DC	SD-64803-01		PER FIG. 1 OR 4					.050		.050			
			PER FIG. 2					.127		.127			
			PER FIG. 3					.035		.035			
COMPOSITE SIGNALING	SD-55415-01		PER PHANTOM GROUP	.100		.220							
			NON-PHANTOM-PER TRK.	.060		.100							
	SD-95016-01		PER TRUNK			.023							
	SD-95019-01		PER FIG. 2	.022		.080							
	SD-95028-02		PER TRUNK	.030		.080							
	SD-95028-03		PER TRUNK	.030		.080							
	SD-95029-01		PER TRUNK	.030		.080							
	SD-95032-01		PER TRUNK	.030		.055							
	SD-95048-01		PER TRUNK	.030		.038							
	SD-95058-01		PER TRUNK	.030		.055							
SD-95067-01		PER TRUNK	.030		.080								
SD-95084-01		PER TRUNK	.030		.080								
LINE - FOREIGN EX.	SD-63839-01		PER LINE CKT.					.090		.090			
LINK-AUX.PULSE	SD-95043-01			.100		.086							
LINK-AUX.PULSE - REL.TYPE	SD-95095-01			.165		.086							
LINK-AUX.PULSE - TELEG. TYPE	SD-95311-01			.050		.100							
RINGER - 20 - 20~	SD-62006-02							.025		.025			
RINGER - TERMINAL	SD-63846-01	2						.007		.007			
RINGER OSCILLATOR	SD-64419-01		REG. FIL. BAT.	.012				.320	.320				
			NON-REG. FIL. BAT.					.870	.870				
SIGNALING - 135~-DC	SD-55172-01		24 V. CKT.					.026		.026			
			48V. CKT.	.022		.022							
SIGNALING - 20~-DC	SD-55194-01		24V. CKT.					.028		.028			
			48V. CKT.	.024		.024							
SIGNALING-1000~-REC.	SD-55392-01	3	REG. BAT.	.017				.275	.275				
		4	NON-REG. BAT.	.017				.525	.525				
SIGNALING - 1600 OR 2000~ SINGLE FREQ.	SD-56202-01												
SIGNALING - 135~	SD-62119-01							.009		.009			
SIGNALING - 20~	SD-62120-01							.023		.023			
SIGNALING - FULL PERIOD	SD-63387-01							.035		.035			
SIMPLEX SIGNALING	SD-95051-01			.024		.075							

- NOTES:
1. 152V. BAT., .390 AMP, 152V. F. BD. GRD., .390 AMP.
2. DRAINS ARE FOR 24V., 38V., OR 48V. BAT.
3. PER FIG. 2
4. PER FIG. 4

Alarms

1000 Cycle & Switching Ckt. SD-55548-01 H38
 135 Cycle Freq. Ind. & Off. Freq. SD-64526-01 H50
 Audible & Visual with Alm. Trns. - 24V. Bat. SD-95063-01 D51
 Distrib. Fuse & Common Aisle SD-95072-01 A51
 Audible & Visual with Alm. Trns. for Comb. Toll & 355A - 48V. Bat. SD-95075-01 B51
 Power Supply SD-95081-01 E51
 Audible & Visual with Aisle Pilot & Distinctive Alms. SD-96188-01 C51
 Amplifier - 124E SD-55362-01 B54
 Annunciator SD-15443-01 C54
 Composite Sets & Bal. Sets
 Type "C" SD-56166-01
 Type "E" SD-95306-01
 Composite Set & Repeating Coil Ckt.
 Type "C" - With Tel. Rep. SD-95004-01
 Type "D" - Without Tel. Rep. SD-95032-01
 Type "D" - With Tel. Rep. SD-95058-01
 Composite Signaling
 Ph. Group or Single Ckt. For Use Over Cable Ckts. With One Int. Tel. Rep. For Use With Type "E" CX Sets except at Terminal Points Eqpt. With 93 Type Rep. Coils or For Use With Type "C" Sets - Two-way Sig. - Two-way Dial SD-55415-01
 Ph. Group or Single Ckt. For Cable Ckts. Arr. For E.P. Variation - Two-way Sig. - Non Dial SD-95016-01
 With Type "D" CX Sets For Use with Ckt. Eqpt. with "G" Type Carrier Tel. System Arranged for Two-way Sig. & One-way Dial - Not Arr. for E.P. Variation SD-95019-01

Ph. Group or Single Ckt. for Short Haul Open Wire & Cable Ckts. Arr. for E.P. Variation - Dial Pulses Originated at 38V. Off. - Two-way Sig. - One-way Dial SD-95028-02
 Ph. Group or Single Ckt. Short Haul Cable & Open Wire Ckts. - CX Set in Distant Off. arr. for E.P. Variation - Two-way Sig. - Two-way Dial SD-95028-03
 Ph. Group or Single Ckt. Short Haul Open Wire Ckts. for Use With Type "C" CX Sets - Two-way Sig. - Two-way Dial SD-95029-01
 With Type "D" CX Set & Ph. Group for Use Over Short Haul Cable & Open Wire Ckts. - With Tel. Rep. - Two-way Sig. - Two-way Dial SD-95032-01
 Ph. Group or Single Ckt. For Use With Type "C" CX Sets Over Short Haul Cable & Open Wire Ckts. Without Int. Tel. Rep. Or Type "E" CX Sets Over Cable Ckts. With Or Without One Int. Tel. Rep. - Two-way Sig. - Two-way Dial SD-95048-01
 With Type "D" CX Set & Rep. Coil For Compositing a Phantom Ckt. Over Short Haul Cable & Open Wire Ckts. - For Ckts. Not Eqpt. With Tel Reps. - Two-way Signaling - Two-way Dial SD-95058-01
 Ph. Group or Single Ckt. Short Haul Cable & Open Wire Ckts. With Int. CX Sets At Intermediate Point Arr. For E.P. Variation For Use With Type "C" CX Sets Only Two-way Sig. - Two-way Dial SD-95067-01
 Ph. Group or Single Ckt. For Long Haul Cable Arr. For Rering, and E.P. Variation - Two-way Sig. - Non Dial SD-95084-01

Composite Signaling (Cont'd)

Converter - Signal See Fig. Conv.

Control
 For 20, 135 & 1000
 Cycle Test Ckts. SD-64734-01 E49

Cut-off Relay - 1000
 Cycles See Signaling

Filter B63,
 B68,
 B73,
 D73,
 AC Earth Potential SD-95073-01 C78
 For Use With SX
 & CX Sig. Ckts.

Frequency Indicator See Alarms

Interrupter
 60 I.P.M. Relay for
 Foreign Exchange SD-62828-01 C58
 135 Cycle - 48V. SD-63955-01 F38

Jack
 Misc. - 1600-2000 Cycle
 Sig. for Signal Test
 Ckt. SD-56137-01 D113

Leads
 135 Cycle Ringing SD-62021-01 A38
 Signal Bat. for 20
 Cycle DC & 135 Cycle
 DC Term. Signal Ckts. SD-62803-01 A36

Line
 Foreign Exchange -
 Subscriber End SD-62442-01 E58
 Foreign Exchange -
 Local Swbd. End SD-63839-01 B57

Line & Balancing
 Multi-station Lines
 2 and 4 Wire Bridging,
 Switching & Signaling
 Arrangements SD-55647-01 J53

Link
 Aux. Pulse - Non-Relay
 Type - Arr. To Pass
 Sig. From One CX or
 SX Sig. Ckt. to
 Another at An Inter-
 mediate Point SD-95043-01 A103
 Aux. Pulse - Relay Type
 To Pass Sig. From One
 CX Sig. Ckt. to
 Another SD-95095-01 B103
 Aux. Pulse - Telegraph
 Type For Use With
 Telegraph Channels -
 Transmitting Dial
 Pulses SD-95311-01 C102

Networks

115 Type for Open Wire
 & Toll Entrance Cable SD-59042-01 I81
 For H44-25 Loaded Cable
 & Toll Entrance Cable SD-60963-02 J81
 Line Balancing For B88-
 50 & H88-50 Loaded
 Cable Ckts. SD-64370-01 H81
 Compromise & Balancing SD-90517-01 E78

Order Wire

600-1500 Cycle Sig. SD-55320-01 C107
 Application Schematic
 600-1500 Cycle Sel.
 Sig. - DC Sel. Sig.
 & 1000 Cycle RD Sig. SD-55385-01 A110
 1000 Cycle RD Sig. SD-55574-01 E107
 DC Loop Sig. Over
 Talking Pair For Use
 in "L" Carrier
 Stations SD-55747-01 G107
 DC Sel. Sig. SD-64413-01 A107

Oscillator

Self Interrupting -
 20 Cycle Rate - 6V.
 Rated Output SD-55607-01 I38
 1000 Cycle Ringer -
 Term. - Without Tel.
 Rep. SD-64419-01 C23,
 H23
 1000 Cycle Ringer -
 Term. - With Tel.
 Rep. SD-64419-01 G28,
 J28
 1000 Cycle Ringer -
 Intermediate
 600-1500 Cycle SD-64419-01 E33
 SD-64691-01 D107

Receiving

1000 Cycle See Signaling
 600-1500 Cycle SD-55476-01 D108

Repeating Coil Groups

Modification of exist-
 ing Coil Groups to
 Function With Type
 "E" CX Sets For Use
 at 22 Type Int. Tel.
 Rep. Points SD-55357-01 I82
 Modification of exist-
 ing Coil Groups to
 Function With Type
 "E" CX Sets Without
 Tel. Rep. SD-55357-01 I83
 For Non-loaded - Open
 Wire Lines - Without
 Tel. Rep. SD-60782-02 A2
 For Non-loaded 2 Wire -
 Open Wire Ckts. For
 Use With Tel. Rep. SD-60782-02 D83
 For H88-50 or
 B88-50 Loaded -
 2 Wire Cable
 Ckts. - Without Tel.
 Rep. SD-60782-04 F83

Repeating Coil Groups (Cont'd)

For H88-50 or B88-50
Loaded - 2 Wire Cable
Ckts. - With Tel. Rep. SD-60732-04 F83
For Non-CX H44-25
Loaded Cable - With-
out Tel. Rep. SD-63275-02 A2
For B88-50 Loaded -
2 Wire Cable Ckts. -
With Tel. Rep. SD-63666-01 A82
For H88-50 Loaded -
2 Wire Cable Ckts.
With Tel. Rep. SD-63666-02 A83
For CX or Non-CX -
B88-50 Loaded Cable -
With Tel. Rep. SD-63811-01 A2,
B82
For CX or Non-CX -
H88-50 Loaded Cable -
Without Tel. Rep. SD-63811-02 A2,
B83
With Type "C" CX Set -
For Open Wire or A63,
Cable - CX or SX Sig. A68,
or Comb. of RD & CX A73,
or SX Sig. - Without A78,
Tel. Rep. SD-95004-01 A95
For Non-CX Open Wire or
Non-Loaded Cable Ckts.
Without Tel. Rep. -
For Installations
having a small number
of Repeating Coil
Groups SD-95022-01 A2,
C2
Repeating Coil & SX
Deriving Ckt. For
Use in Community
Dial Office on Non-
Ph Open Wire Lines
having bridged Toll
Stations SD-95069-01 D97
For Use With Int. Type
"E" CX Sets & Over
Cable Ckts. - With-
out Tel. Rep. SD-95305-01 G82
For Use With Int. Type
"E" CX Sets & 22 Type
Int. Tel. Rep. Over
Cable Ckts. SD-95305-01 H82,
D64,
D69,
G74,
A79,
A87,
A92
Repeating Coil & Com-
promised Network SD-95015-01
Ringer
20-20 Cycle - For Re-
laying rings between
Intertoll Trks. or
between Intertoll
Trk. & Toll Sub. Line SD-62006-02 F53
135-20 Cycle Terminal
& Assoc. Cut-off Rel.
Ckt. For 24V. Dry
Cell Operation or for
24, 38 or 48V. Off -
For Small Installa-
tions SD-63846-01 H13,
I13

Selector

2 Digit SD-62476-01 B107
Signal Converter
For Incoming Auto.
Operation With RD
Intertoll Trks. SD-56131-01 I114
For Connecting Single
Frequency Sig. Ckt.
to RD Intertoll Trk.
When RD Operation is
Used in both
Directions SD-56159-01 H114
For Connecting Single
Frequency Sig. Ckt.
to 20 Cycle RD Ckts. SD-56163-01 G114
For Connecting CX Sig.
Ckt. to 20 Cycle RD
Ckts. SD-64697-01 F103
For Connecting CX Sig.
Ckt. to RD Sig. Ckts.
or Swbd. Intertoll
Trks. SD-64698-01 D103
Signaling
135 Cycle - DC
Intermediate
Term. - Without Tel. SD-55172-01 I9,
I18,
I19
Rep. SD-55172-01 A13
Term. - With Tel. Rep. SD-55172-01 B18
20 Cycle DC When 20
Cycle Sig. has by-
passed a Tel Rep.
Intermediate SD-55194-01 I8
Term. - Without Tel.
Rep. SD-55194-01 A3,
C3,
E3
Term. - With Tel. Rep. SD-55194-01 B8,
D8
1000 Cycle Receiving
Intermediate SD-55392-01 C33
Term. - Without Tel.
Rep. SD-55392-01 B23
Term. - With Tel.
Rep. SD-55392-01 B28
1000 Cycle Cut-off
Relay
Intermediate SD-55393-01 I9,
I19,
B33
Term. - Without Tel. Rep. SD-55393-01 A23
Term. - With Tel. Rep. SD-55393-01 A28
20 Cycle DC When 20
Cycle Sig. has not
by-passed a Tel. Rep.
Intermediate SD-55560-01 I8
Term. - Without Tel.
Rep. SD-55560-01 A3,
E4,
F4
Term. - With Tel. Rep. SD-55560-01 D8,
C9
1600 or 2000 Cycle
Single Frequency SD-56202-01 C113
135 Cycle for Old
No. 3 & 11 Swbds. SD-62119-01 I103

Signaling (Cont'd)

20 Cycle For Old No.
3 & 11 Swbds. SD-62120-01 G5
Full Period Talking SD-63387-01 I3
Foreign Exch. - Local
Swbd. End SD-63839-01 B58
Foreign Exch. - between
Sub. Line & Toll Sig.
Ckts. SD-63863-01 E59

Supply

Signaling & Power -
Appl. Schematic For
20 DC & 135 Cycle DC
Sig. Ckts. Used With
AC Operated V1 Tel.
Rep. SD-55295-01 A40
20 Cycle Static Ring-
ing Generator SD-55407-01 D37
1000 Cycle - Self Int.
Osc. 20 Cycle Rate
-1.2V Output to
Supply Max. 100 Ckts. SD-55511-01 H37
1000 Cycle - Alm. &
Switching For Use
With Self Int. 1000/20
Cycle -1.2V. Osc. to
Supply Max..of 200
Ckts. SD-55548-01 H38
1000 Cycle - Self Int.
Osc. 20 Cycle Rate
-6V. Rated Output SD-55607-01 I37
1600 or 2000 Cycle SD-55962-01 All3
152V. Bat. For Single
Bat. Off. SD-59001-01 E41
135 Cycle Ringing -
156B Int. - 24V.
Bat. Off. SD-60203-01 C38
135 Cycle Ringing -
156B Int. - 38V.
Bat. Off. SD-60515-01 D38
20 Cycle Ringing - Low
Voltage SD-62180-03 B37
AC Power For 1000 Cycle
Ringer Oscillator SD-64298-01 D41

Simplex Signaling

2 Way Sig. - 2 Way Dial
Over Short Haul Open
Wire and Cable Ckts. SD-95051-01 B98

Telephone

With 2 Way & Test Trks.
From Ph. CX Sig. Eqpt.
to T.T. Bd. No. 5 or
Local Test Desks SD-62768-01 F49

Terminal - Test For Bat.
& Grd. SD-90122-01 F48

Terminating

2 Wire - Appl. Sche-
matic With Tel. Rep.
Ckt. - For Foreign
Exch. SD-63837-01 A59
C27,
E27
4 Wire SD-64304-01

Testing

1000 Cycle Sig. Rec.
Ckt. SD-55481-01 D49
135 Cycle Strobo-
scope Type SD-55522-01 F50
For Testing Type B
CX Sig. & 1600
Cycle Sig. SD-56080-01 I47
For Testing & Adjust-
ing 20 & 135 Cycle
Sig. Ckts. SD-63474-01 E48
SD-64031-01 G48
IR Tube Testing Ckt.
Terminal For Bat.
& Grd. SD-90122-01 F48
209FF, FK, FL & FM
Relays SD-96121-01 G49

Test Set

No. 2A for Testing Sig.
Ckts. having Send.
M Lead & Rec. E Lead SD-56134-01 G47
Portable - VM Type For
Testing & Adjusting
AC Rel. & Sig. Ckts.
& For Meas. AC and
Sig. Voltages SD-63674-01 F47
Portable - For Measur-
ing AC Voltages and
20 & 135 Cycle Sig.
Voltages SD-64125-01 F46
SD-64540-01 H47
Pulse Repeating
Portable - No. 1Y For
Half Amp. Tubes SD-64677-01 C46
For Testing 49, 92,
141 & 218 Type Jacks SD-95056-01 D46
For Testing 275 & 276
Relays SD-95439-01 H49

Trunk

2 Way Auto. between
Bays, Frames or
Racks SD-55348-01 A47
2 Way & Test - With
Tel. Ckt. - From
Ph. CX Sig. Eqpt.
to T.T. Bd. No. 500
Local Test Desk SD-62768-01 F49

Alarm - Arr. to extend
Alms. (Aux. Station) SD-95310-01 I50