

SHEET INDEX

FIG.	CONTENTS	SHEET NO.	ISSUE NO																			
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	SHEET INDEX SUPPORTING INFORMATION	A1	1	2	3	4																
	CIRCUIT NOTES EQUIPMENT NOTES INFORMATION NOTES FIGS. AND OPTIONS TABLE	B1	1	2	2	2																
FIG. 301	BLOCK DIAGRAM SELECTOR ONLY	B2	1	2	2	2																
FIG. 302	BLOCK DIAGRAM SINGLE-TALKING LINK	B3	1	2	2	2																
FIG. 303	BLOCK DIAGRAM TWO-TALKING LINK	B4	1	2	2	2																
FIG. 304	BLOCK DIAGRAM 23RA KEY TELEPHONE UNIT	B5		2	2	2																
1	SELECTOR CIRCUIT	C1	1	2	2	4																
2	TRANSLATOR CKT	C2	1	2	3	3																
	CIRCUIT REQUIREMENTS	D1	1	2	3	3																

DWG	CD	DATE	ISSUED	BY	APPD
1	1	7-27-60		CHC	LHA
2A	2A	12-16-60		CHC	LHA
3A	3A	3-12-61		RJT	CHC
4D	4D	5-15-61		RJT	CHC

SUPPORTING INFORMATION

CATEGORY	NO.

SHEET INDEX NOTES

1. WHEN CHANGES ARE MADE IN THIS DRAWING, ONLY THOSE SHEETS AFFECTED WILL BE REISSUED.
2. THIS SHEET INDEX WILL BE REISSUED AND BROUGHT UP TO DATE EACH TIME ANY SHEET OF THE DRAWING IS REISSUED, OR A NEW SHEET IS ADDED.
3. THE ISSUE NUMBER ASSIGNED TO A CHANGED OR NEW SHEET WILL BE THE SAME ISSUE NUMBER AS THAT OF THE SHEET INDEX.
4. SHEETS THAT ARE NOT CHANGED WILL RETAIN THEIR EXISTING ISSUE NUMBER.
5. THE LAST ISSUE NUMBER OF THE SHEET INDEX IS RECOGNIZED AS THE LATEST ISSUE NUMBER OF THE DRAWING AS A WHOLE.

SD-69411-01

Station Systems
KEY TELEPHONE SYSTEM NO. 6A
Touch-Tone Adapter

AT&T CO
PROVISIONAL

SD-69411-01-A1

SHEET INDEX
9 SHEETS
PRINTED IN U.S.A.

BELL TELEPHONE LABORATORIES
INCORPORATED

IS

CIRCUIT NOTES:

101.

DESIG	AMP	POTENTIAL FUSED	ONE PER
B	1-1/3	20V	FIG. 1 AND 2
BATTERY SYMBOL -20		VOLTAGE RANGE 20-26V	

102.

FEATURE OR OPTION	PROVIDE	
	APP FIG. OR WIRE	QUANTITY
SELECTOR CIRCUIT	1	1 PER 6A SYS
TRANSLATOR CIRCUIT	2	1 PER 6A SYS
SELECTOR ONLY ARRANGEMENT	Z	
SINGLE-LINK ARRANGEMENT	X	
DOUBLE-LINK ARRANGEMENT	Y	
234A KEY TELEPHONE UNIT	W	
SINGLE-DIGIT STATION CODE	V	PER DIGIT USED
WHEN 216A KTU IS NOT PROVIDED	T	
105 VOLT AC SIGNALING	S	
18 VOLT AC SIGNALING	R	
BATTERY SIGNALING	Q	

103.

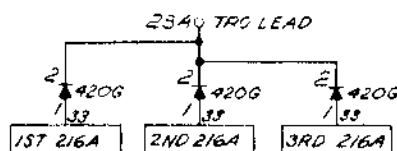
NETWORK VALUES			
NETWORK		RESISTANCE IN OHMS	CAPACITANCE IN UF
NO.	CODE		

104.

RECORD OF FIGURES, WIRING AND APPARATUS CHANGES						
CHANGED ON ISS	IF JOB RECORDS DO NOT SPECIFY	THIS OPTION WAS FURN	SEE NOTE	USED IN CIRCUIT		
				STD	A&M	MD

CIRCUIT NOTES: (CONT)

105. WHEN ONE OR MORE 216A KEY TELEPHONE UNITS ARE USED, THE LEADS ATTACHING THE 216A KEY TELEPHONE UNITS TO THE ADAPTER UNIT TRO LEAD MUST HAVE DIODES INSERTED AS SHOWN:



106. THE DIGIT 1 CAN NEVER BE USED AS AN INITIAL DIGIT. A CODE CANNOT BE USED AS A SINGLE DIGIT IF IT APPLIES AS THE FIRST DIGIT OF A 2-DIGIT NUMBER. REFER TO TABLE A FOR TERMINALS TO BE STRAPPED FOR EACH SINGLE DIGIT NUMBER SELECTED FOR USE.

TABLE A

SINGLE DIGIT TABLE			
DIGIT USED	CODE RELAY OPERATED	CONNECT TERMINAL	TO TERMINAL
1	H1, L1	CANNOT BE USED	
2	H2, L1	27A	24A
3	H3, L1	28A	24A
4	H1, L2	36A	24A
5	H2, L2	35A	24A
6	H3, L2	37A	24A
7	H1, L3	5B	24A
8	H2, L3	4B	24A
9	H3, L3	6B	24A
0	H2, L4	33A	24A

107. Z OPTION REFERS TO SELECTOR ONLY CONNECTION.

Y OPTION REFERS TO 2-LINK CONNECTION.

X OPTION REFERS TO SINGLE-LINK CONNECTION.

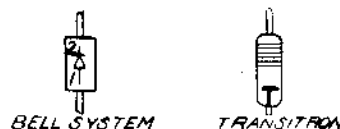
W OPTION REFERS TO 234A KEY TELEPHONE UNIT CONNECTION.

108. REMOVE THE LEAD FROM TERMINAL 18B OF THE 207C KEY TELEPHONE UNIT TO TERMINAL 35 OF THE 216A KEY TELEPHONE UNIT, AND THE LEAD FROM TERMINAL 11A OF THE 207C KEY TELEPHONE UNIT TO TERMINAL 1 OF THE 1ST 216A KEY TELEPHONE UNIT.

109. REMOVE EXISTING STRAP AND INSTALL DIODE AS SHOWN.

EQUIPMENT NOTES:

201. DIODES D1 THROUGH D7 IN FIG. 2 ARE TRANSITRON T25G DIODES, AND DO NOT HAVE BELL SYSTEM DESIGNATIONS. THE END OF THE DIODE DESIGNATED BY THE NUMERAL 1 ON BELL SYSTEM DIODES CORRESPONDS TO THE END OF THE TRANSITRON DIODE IDENTIFIED BY A YELLOW "T".



INFORMATION NOTES:

301. UNLESS OTHERWISE SPECIFIED:
ALL RESISTANCES ARE IN OHMS,
ALL CAPACITANCES ARE IN MICROFARADS.

FIGURES AND OPTIONS ON THIS DWG	
CKT FIG.	APP OR WIRING
1	Z
2	Y
	X
	W
	V
	T
	S
	R
	Q

KEY TELEPHONE SYSTEM NO. 6A

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BELL TELEPHONE LABORATORIES
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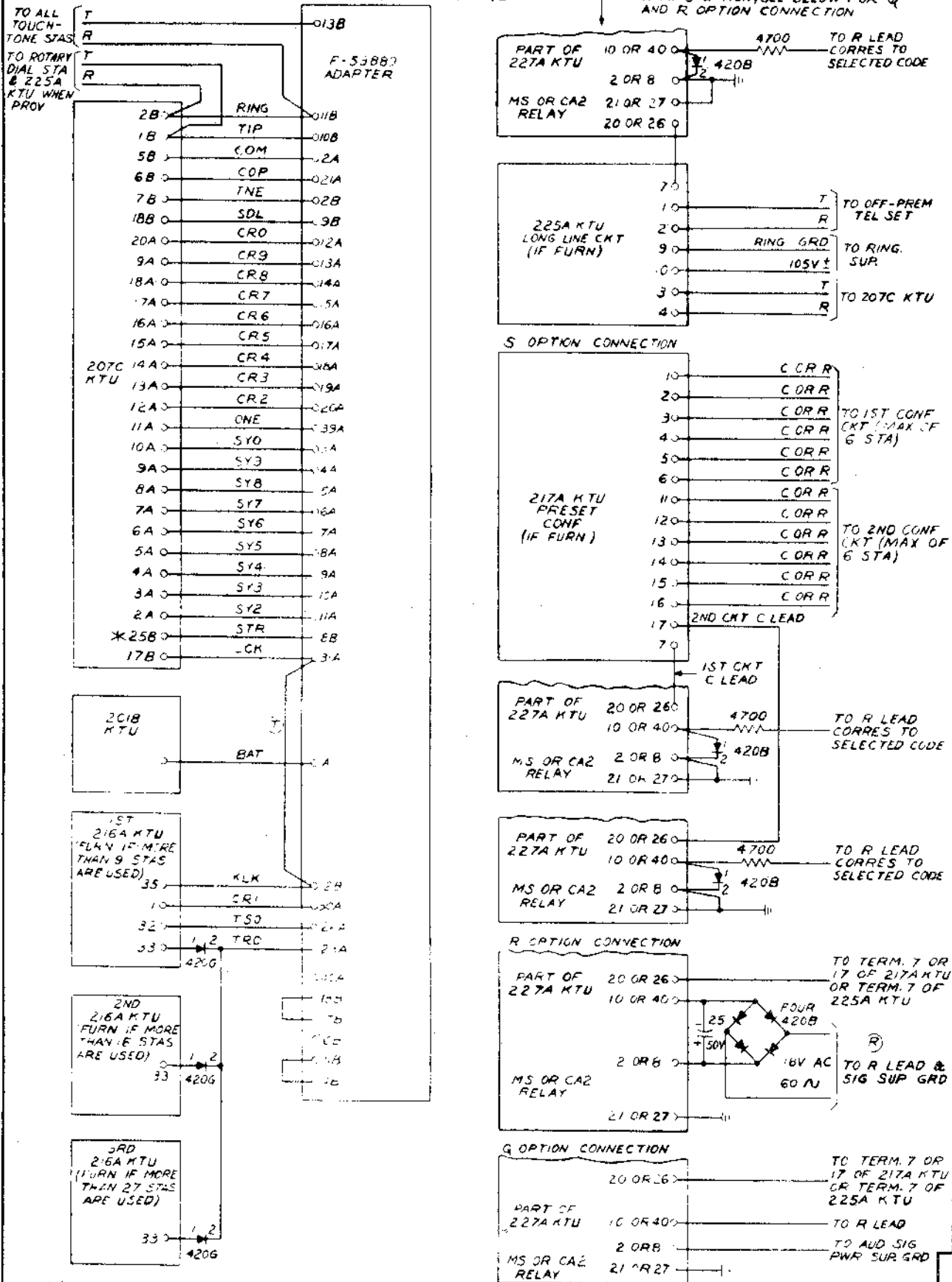
DRAWING

ISSUE

/

2A

FIG. 301

SELECTOR ONLY
BLOCK DIAGRAM, Z OPTIONDRAWING
ISSUE
2 AUG 1966

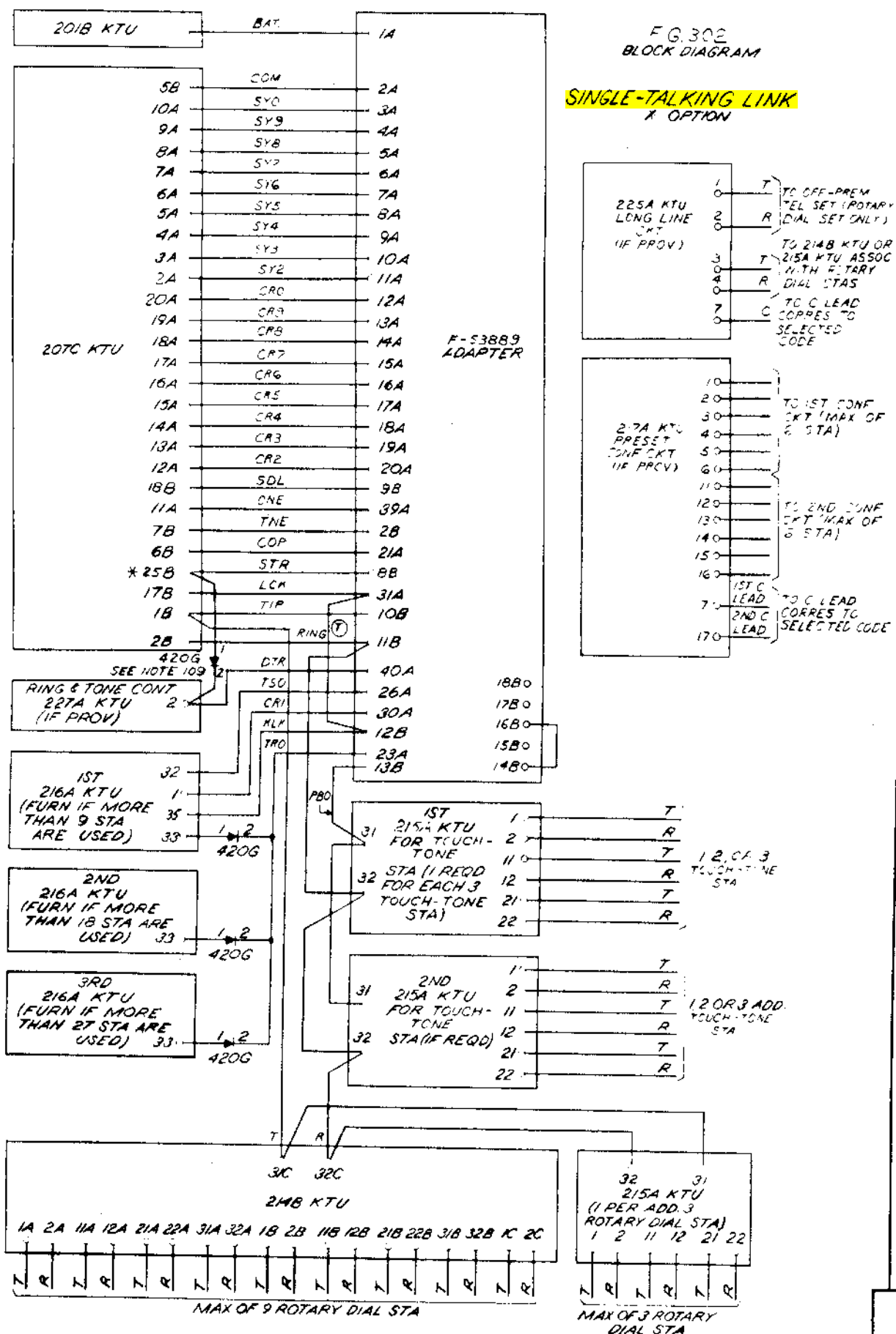
X WHEN USING 207B KTU, THE STR LEAD WILL NOT ATTACH TO TERMINAL 25B, IT MUST HAVE A DIODE PLACED IN SERIES AND ATTACHED TO TERMINAL 55 OF 207B.

KEY TELEPHONE SYSTEM No. 6A

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BELL TELEPHONE LABORATORIES
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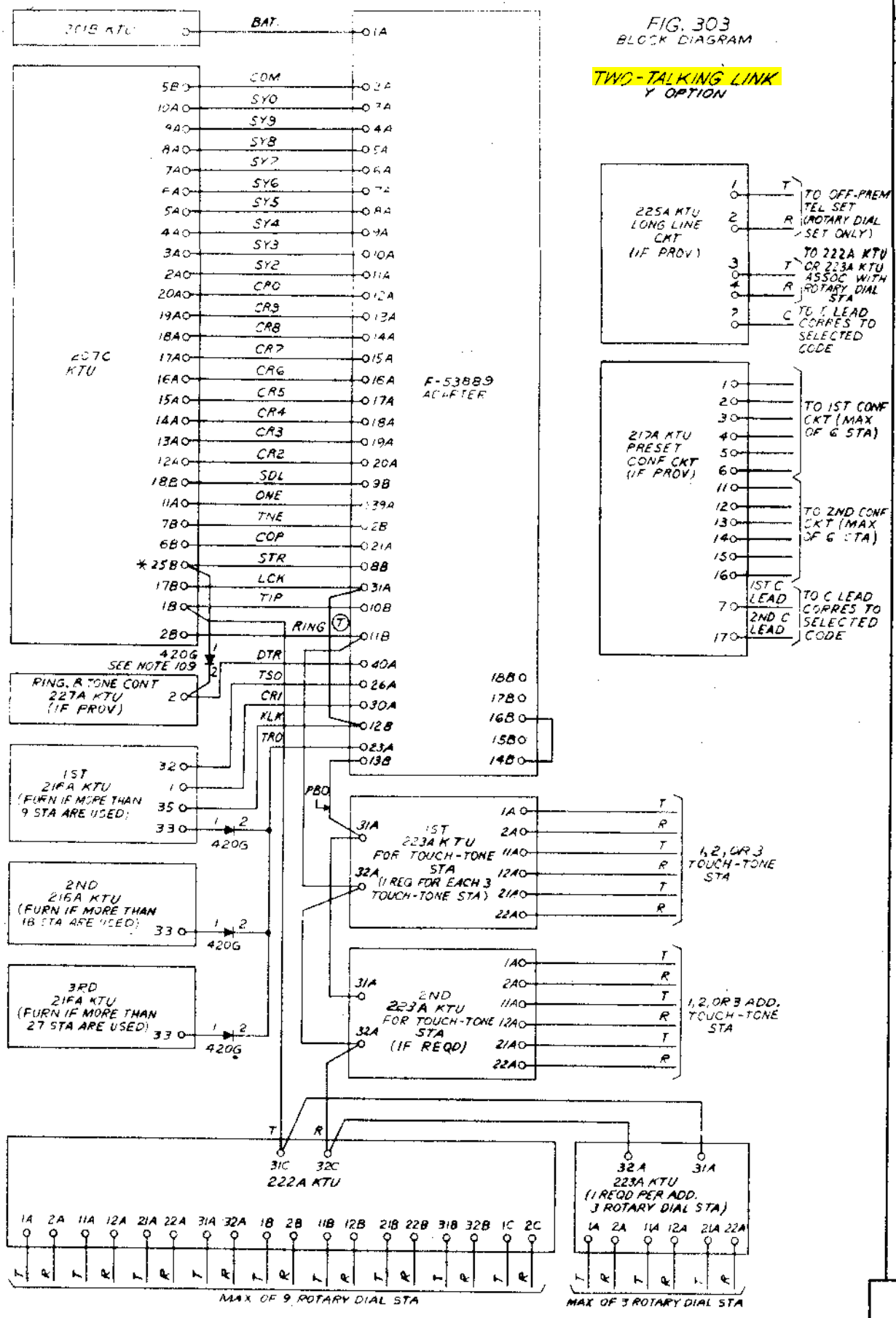
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* WHEN USING 207B KTU. THE STR LEAD WILL NOT ATTACH TO TERMINAL 25B, IT MUST HAVE A DIODE PLACED IN SERIES AND ATTACHED TO TERMINAL 8B OF 207B.

FIG. 303
BLOCK DIAGRAM

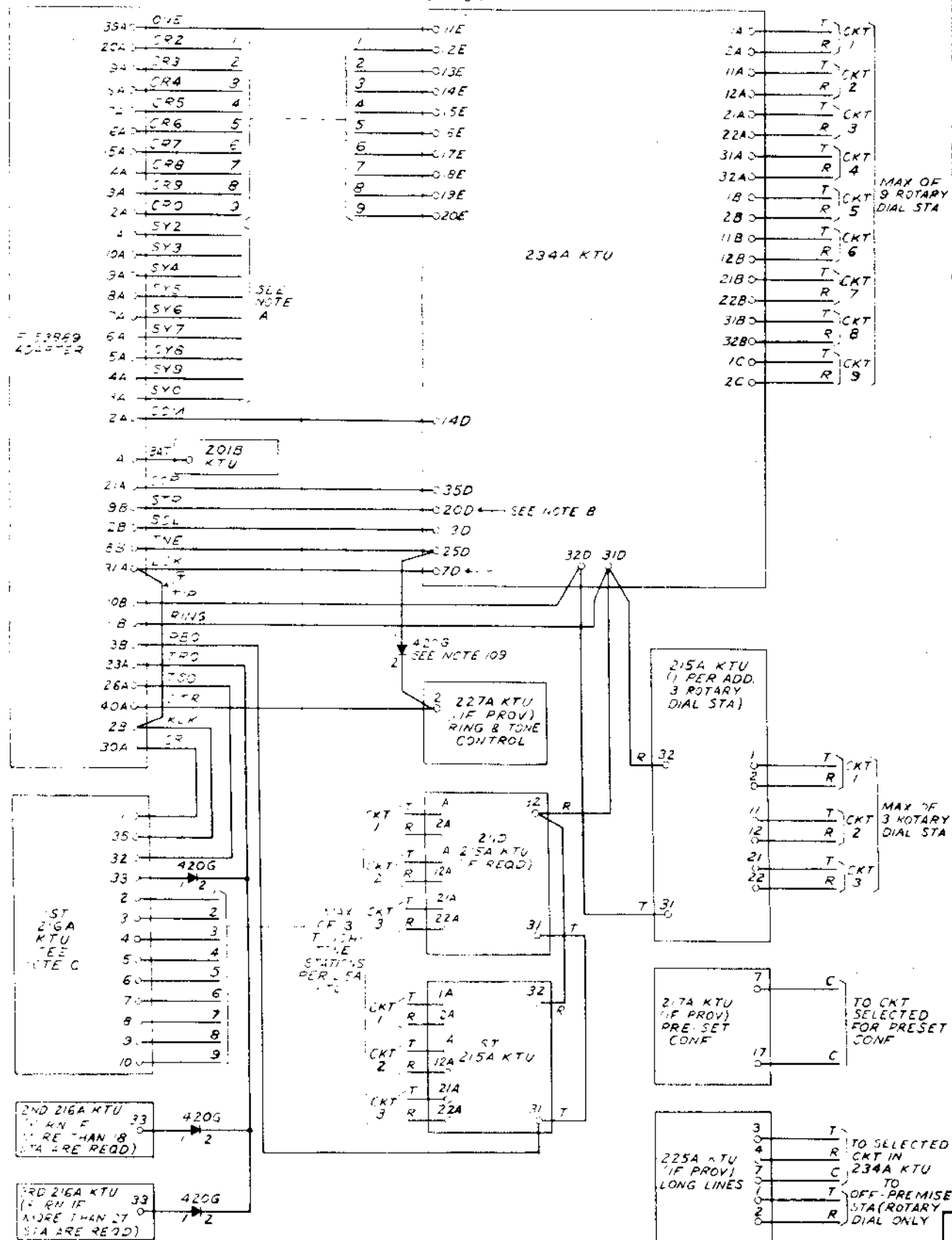
**TWO-TALKING LINK
Y OPTION**



* WHEN USING 207B KTU, THE STR LEAD WILL NOT ATTACH TO TERMINAL 25B, IT MUST HAVE A DIODE PLACED IN SERIES AND ATTACHED TO TERMINAL 8B OF 207B.

FIG. 304
Wiring Diagram
234A SY TELEPHONE UNIT
W OPTION

DRAWING
ISSUE
2A

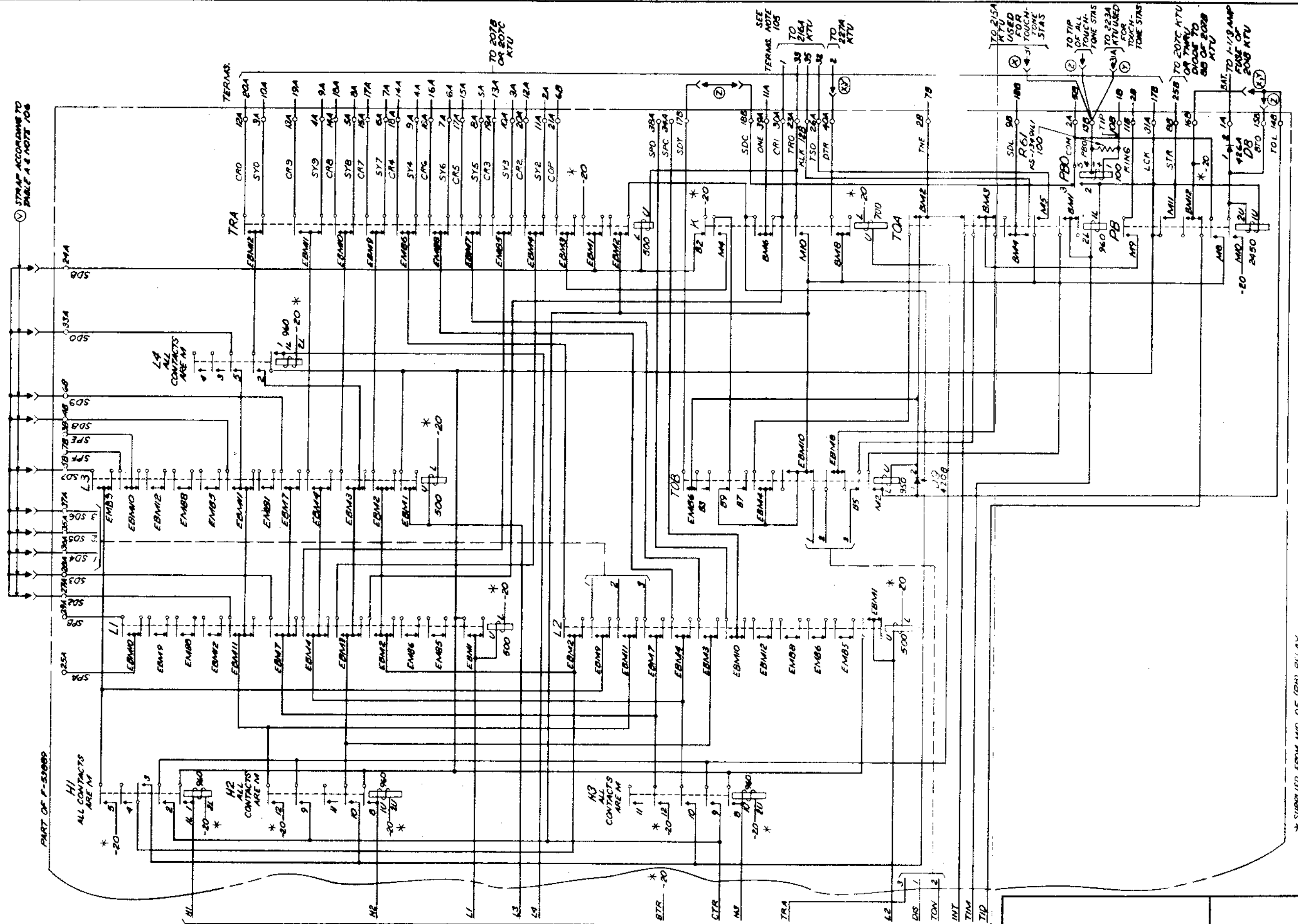


NOTE A - ATTACH LEAD CORRESPONDING TO DIGIT SELECTED A 1-9 DIGIT 10-DIGIT NUMBER TO TERMINAL 33 OF 216A KTU.

NOTE B - REMOVE STRAP BETWEEN 7D AND 2C, IF BETWEEN 2C AND TERMINAL 33 OF THE 1ST 216A KTU PROVIDED.

NOTE C - THE TRANSFER CIRCUIT PORTION OF THE 234A KTU CAN NEVER BE USED WITH THE F-43390 ADAPTER. WHEN MORE THAN 1 STATION ARE REQUIRED, LINE 9 OF 216A KTU MUST BE PROVIDED.

FIG. 1
SELECTOR CNT



* SUPPLIED FROM M10 OF (PB) RELAY

KEY TELEPHONE SYSTEM NO. 6A

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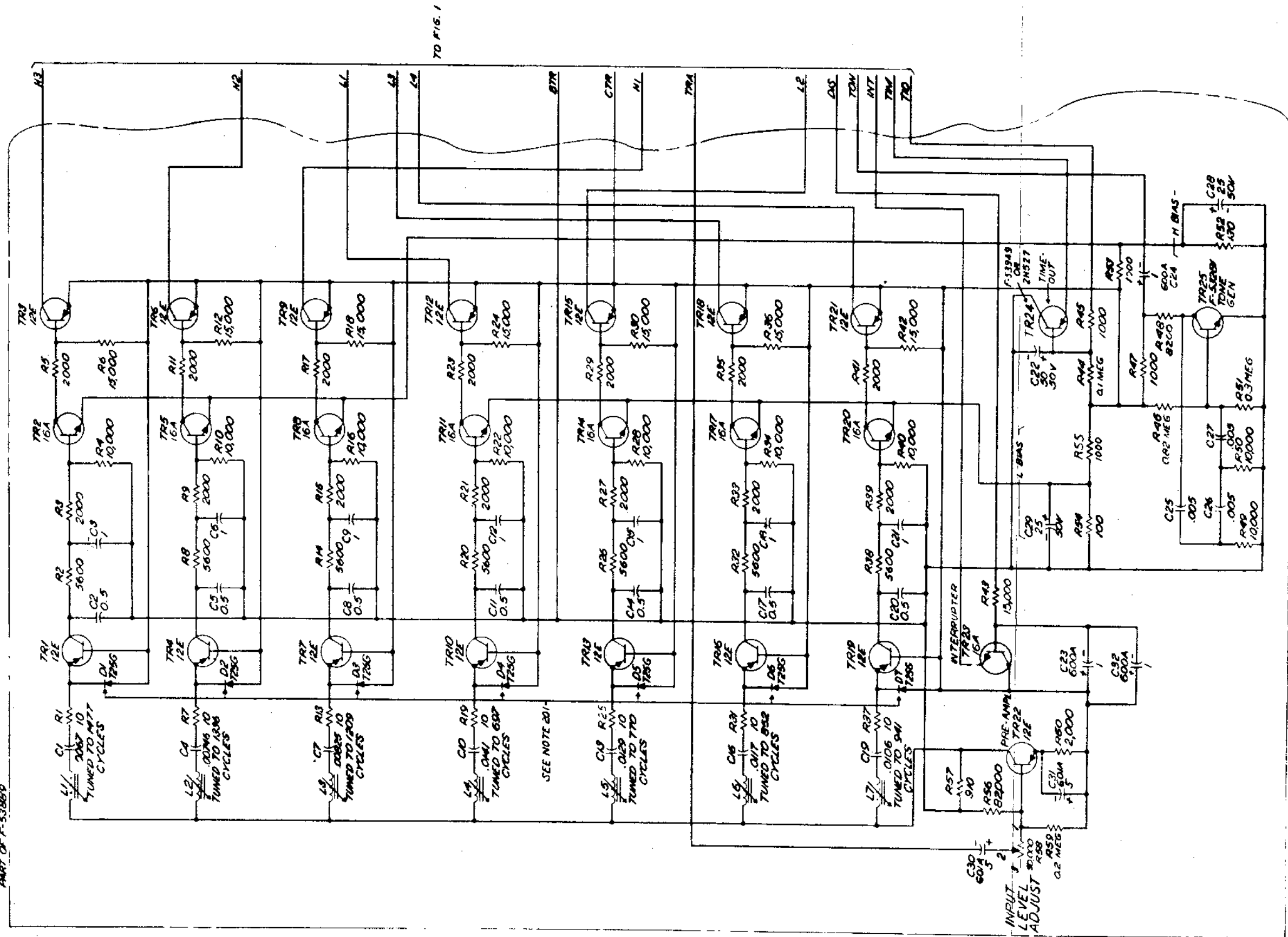
BELL TELEPHONE LABORATORIES
INCORPORATED

25

DRAWING	ISSUE
1	27
2A	28
4D	29

FIG. 2
TRANSLATION TAT

PART OF F-53869



SEE NOTE 201

KEY TELEPHONE SYSTEM NO. 6A

SD-69411-01-C2

BELL TELEPHONE LABORATORIES
INCORPORATED

25

DRAWING
ISSUE
/ F-53869
2A
/ F-53869
3A
/ F-53869

SD-69411-01

CIRCUIT REQUIREMENTS

KEY TELEPHONE SYSTEM NO. 6A

APPARATUS				MECH. REQ.			CIRCUIT PREPARATION				DIRECT CURRENT FLOW MGT				REMARKS		
WTRM	CODE	OPTION	FIG.	SWP. TNS	CONT. PRESS.	ARM. TENS.	BLOCK OR ISOLATE	TEST CLIP DATA		TEST SET PREP	SEL. TEST NO.	TEST WTRM	TEST FOR	AFTER SOAK		TEST	READ
								LONG SET	CORR. GRD.					NA		NA	NA
F-53889 ADAPTER CRT RELAYS																	
H1	AK2		1	1				2L	1L	B/G	1	B	O		12.1	11.5	MTD WITH (M2) REL
M2	AK2		1	1				2U	1U	B/G	1	T	O		12.1	11.5	MTD WITH (M1) REL
M3	AK2		1	1				2U	1U	B/G	1	T	O		12.1	11.5	MTD WITH (L4) REL
K	AF114		1	54			28.84, 10M (K)	L	U	B/G	1		O		24.5	23.0	
L1	AJ43		1	249			12M (L1)	L	U	B/G	1		O		24.5	23.0	
L2	AJ43		1	249			12M (L2)	L	U	B/G	1		O		24.5	23.0	
L3	AJ43		1	249			12M (L3)	L	U	B/G	1		O		24.5	23.0	
L4	AK2		1	1			3M (L4)	4L	1L	B/G	1	B	O		12.1	11.5	MTD WITH (M3) REL
P8	AK10		1	7			84.10M (P8)	2U	1U	B/G	1,2	T	O		7.8	7.4	MTD WITH (TJA) REL
P80	260M		1	8				TERM. 108	TERM. 108	B/G	1,2		O	-54		1.1	
													NO	-54		0.8	
													O	-54		0.1	
													R	54	1.7	1.4	
T0A	AK10		1	7			28(K)	2L	1L	B/G	1,2	B	O		10.5	10.0	MTD WITH (P8) REL
T0B	AF98		1	245			LB(TCA)	L	U	B/G	1,3		H		2.7	2.6	
													D		16.8	16.0	
TRA	AJ43		1	243				L	U	B/G	1		O		24.5	23.0	

TEST NOTES:

1. DISCONNECT TIP LEAD FROM TERM. 108
2. DISCONNECT BATTERY LEAD FROM TERM. 1A
3. ADJUST ARMATURE BACK TENSION TO 110 GRAMS MINIMUM, 120 GRAMS MAXIMUM

KEY TELEPHONE SYSTEM NO. 6A

SD-69411-01-01

BELL TELEPHONE LABORATORIES 1S

INCORPORATED

DRAWING

ISSUE

1

2A

3A

4A

5A

6A

7A

8A

9A

10A

11A

12A

13A

14A

15A

16A

17A

18A

19A

20A

21A

22A

23A

24A

25A

26A

27A

28A

29A

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96A

97A

98A

99A

100A