

SHEET INDEX

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

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.

SUPPORTING INFORMATION

CATEGORY	NO.

SD-69411-01

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

BELL TELEPHONE LABORATORIES
INCORPORATED

AT&T CO
PROVISIONAL

SD-69411-01-A1

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

CIRCUIT NOTES:

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

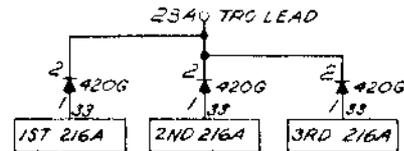
FEATURE OR OPTION	PROVIDE	
	APP FIG. OR WIRE	QUANTITY
SELECTOR CIRCUIT	1	1 PER 6A SYS
TRANSLATOR CIRCUIT	2	1 PER 6A SYS
SELECTOR ONLY ARRANGEMENT	Z	
SINGLE-LINK ARRANGEMENT	X	
DOUBLE-LINK ARRANGEMENT	Y	
244A KEY TELEPHONE UNIT	W	
SINGLE-DIGIT STATION CODE	V	PER DIGIT USED
WHEN 216A KTU IS NOT PROVIDED	T	
105 VOLT AC SIGNALING	S	
18 VOLT AC SIGNALING	R	
BATTERY SIGNALING	Q	

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

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 APPLAS 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	5F	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".



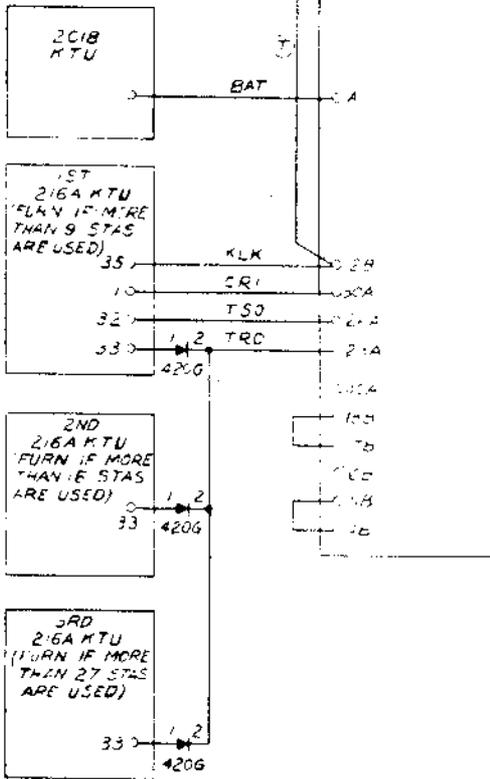
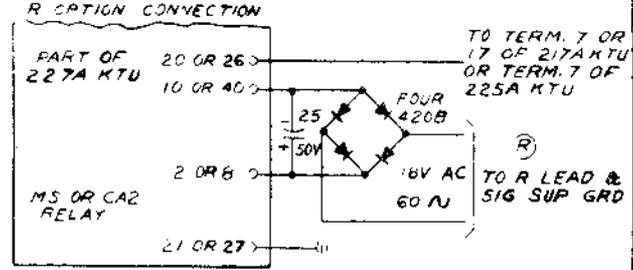
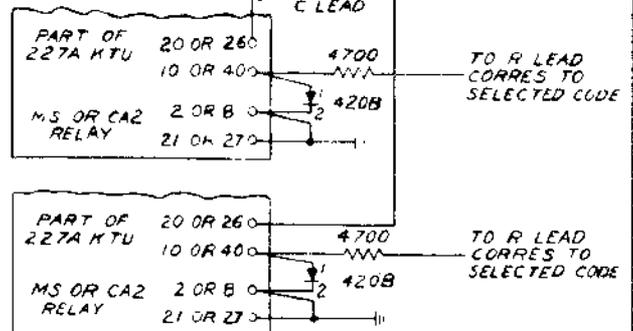
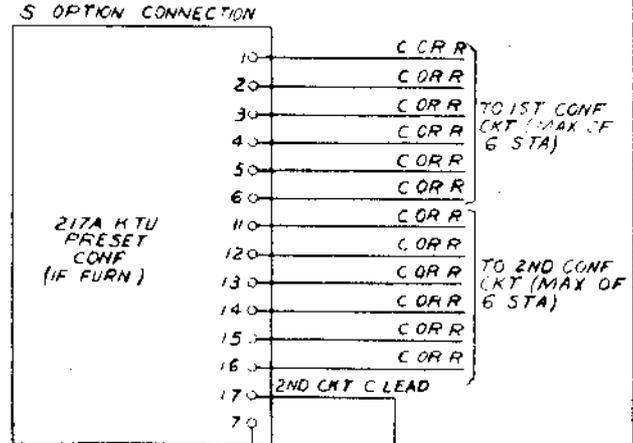
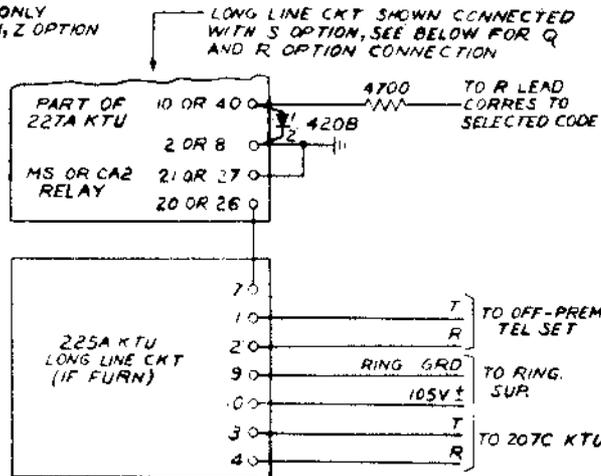
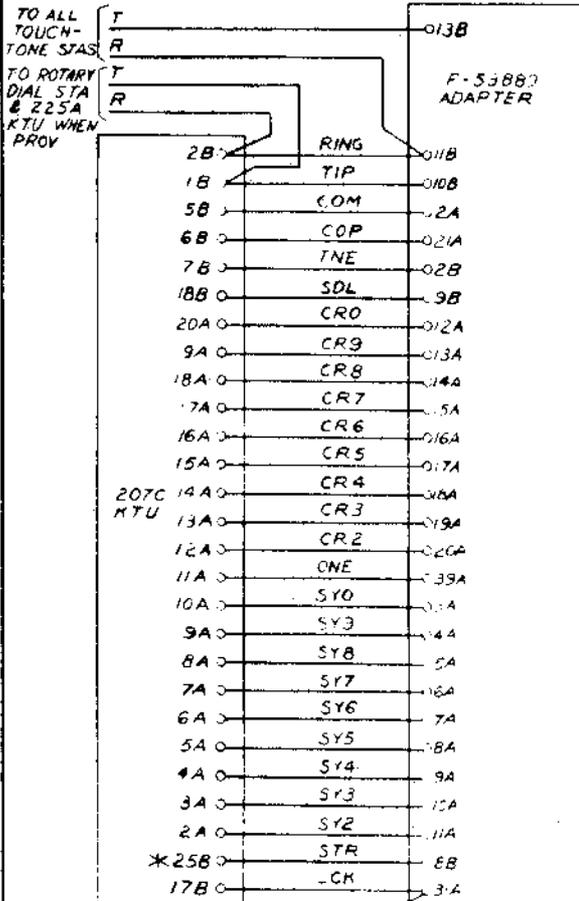
INFORMATION NOTES:

301. UNLESS OTHERWISE SPECIFIED: ALL RESISTANCES ARE IN OHM, 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	

FIG. 301
SELECTOR ONLY
BLOCK DIAGRAM, Z OPTION

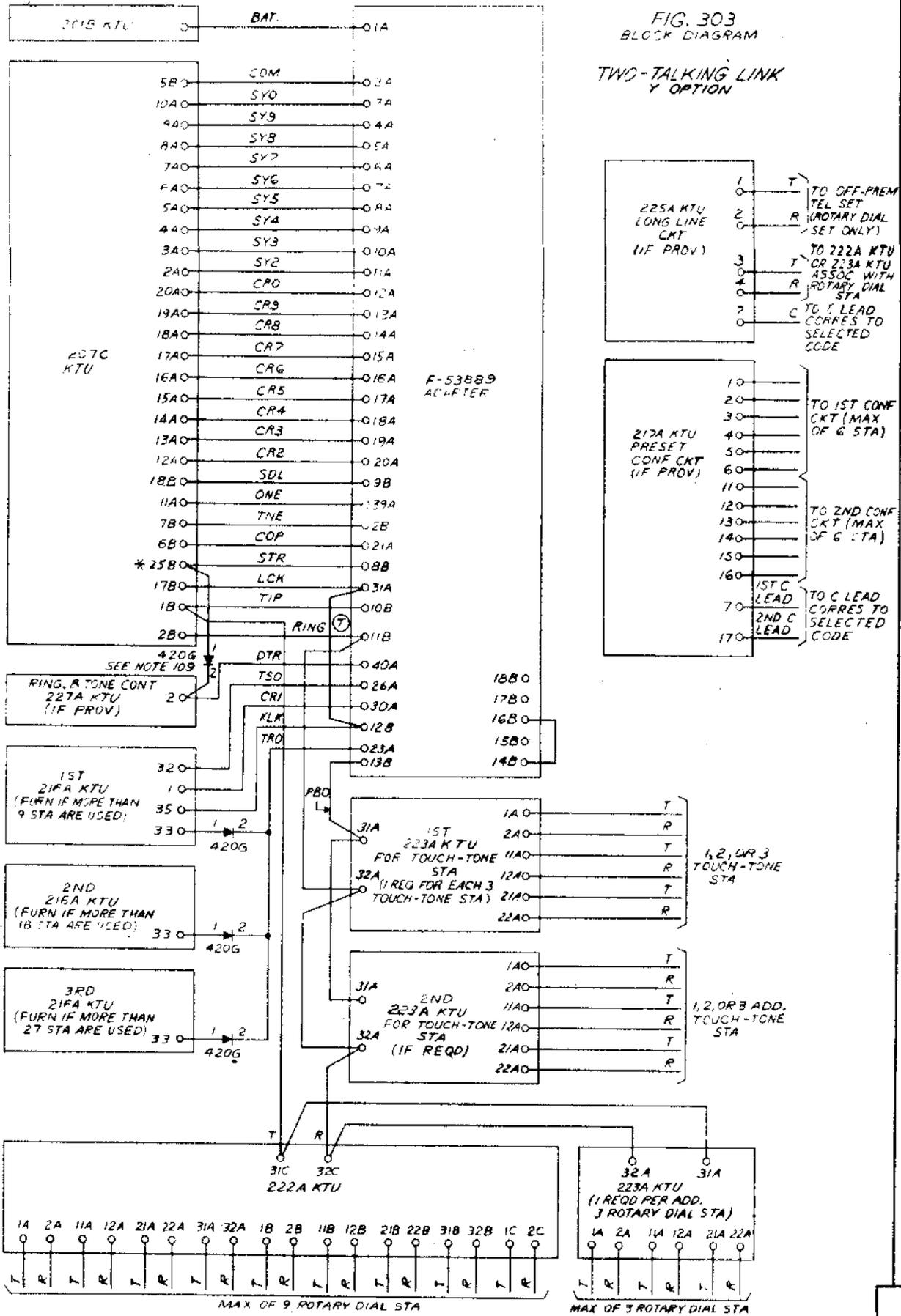
DRAWING
ISSUE
2 AUG 1962



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 5B OF 207B.

FIG. 303
BLOCK DIAGRAM

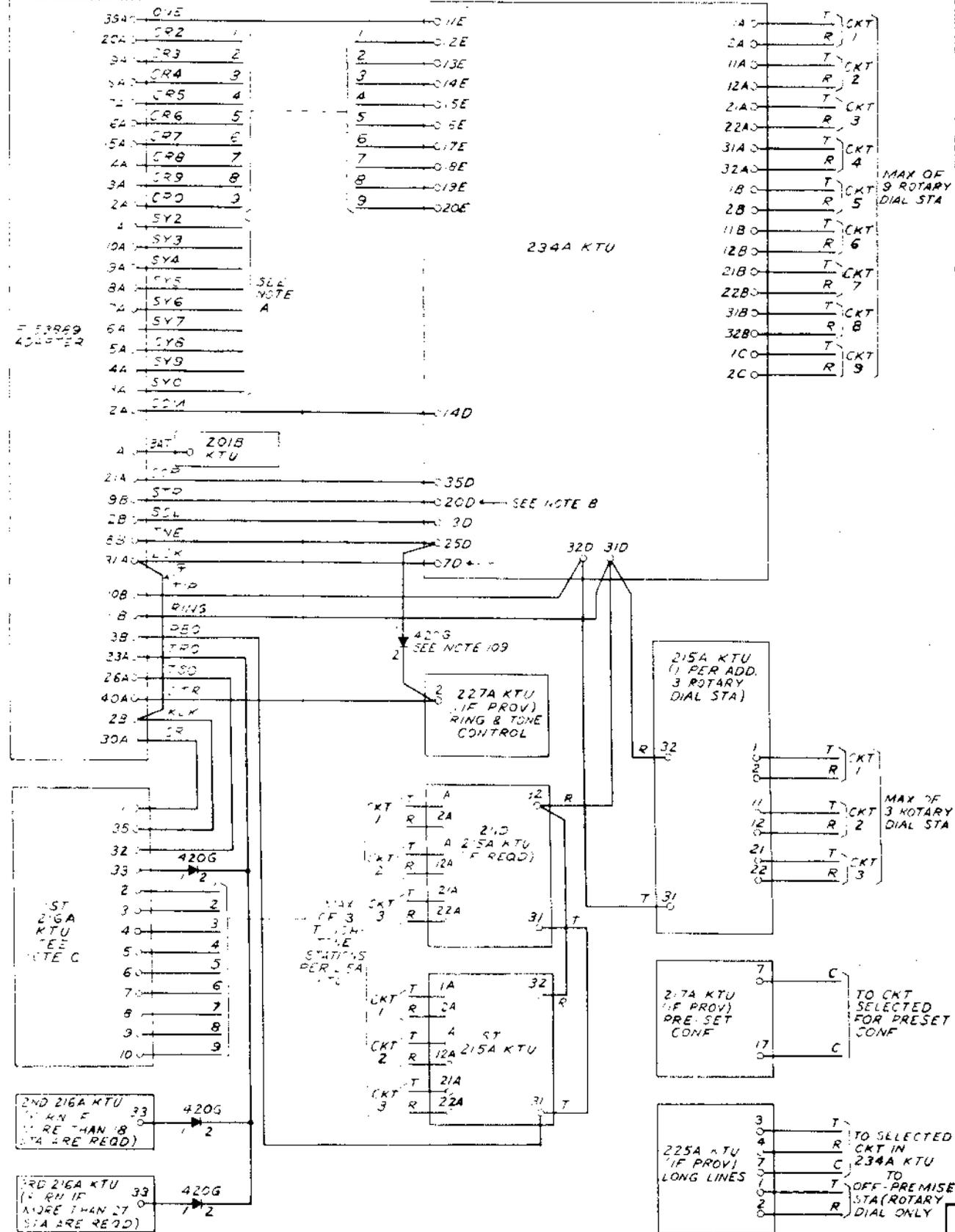
TWO-TALKING LINK
Y OPTION



* 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
 BLOCK DIAGRAM
 234A KEY TELEPHONE UNIT
 W OPTION

DRAWING
 ISSUE
 2A



NOTE A - ATTACH BY LEAD CORRESPONDING TO DIGIT SELECTED A 1-DIGIT OR 2-DIGIT NUMBER TO TERMINAL 33 OF 216A KTU.

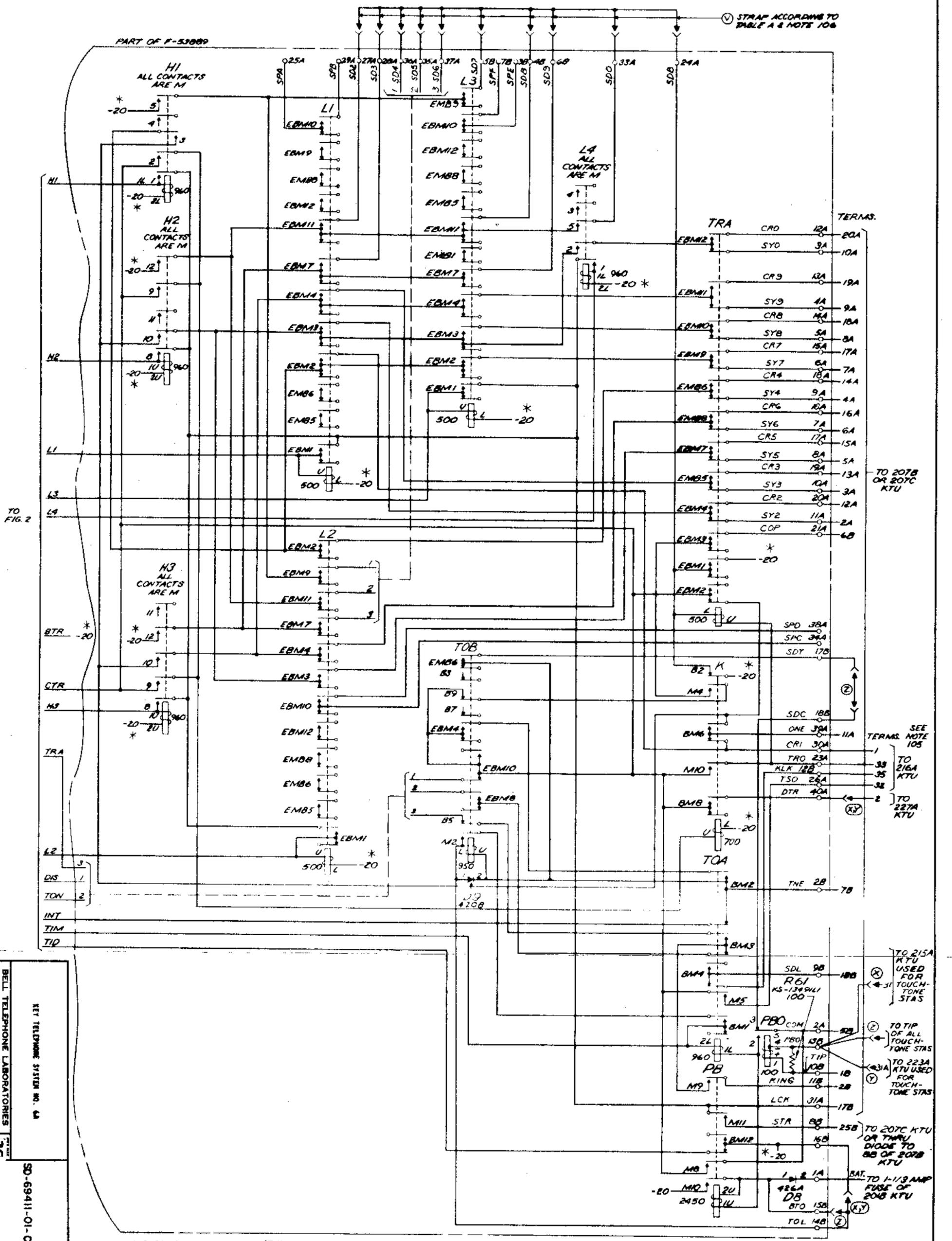
NOTE B - REMOVE STRAP BETWEEN 7D AND 2E, 1E BETWEEN 1A AND TERMINAL 33 OF THE 1ST 216A KTU PROVIDED.

NOTE C - THE TRANSFER CIRCUIT PORTION OF THE 234A KTU CAN NEVER BE USED WITH THE F-5389D ADAPTER. WHEN MORE THAN 1 STATION ARE REQUIRED, LINE 9 OF 216A KTU MUST BE PROVIDED.

FIG. 1
SELECTOR CKT

PART OF F-53889

STRAP ACCORDING TO TABLE A & NOTE 106



TO FIG. 2

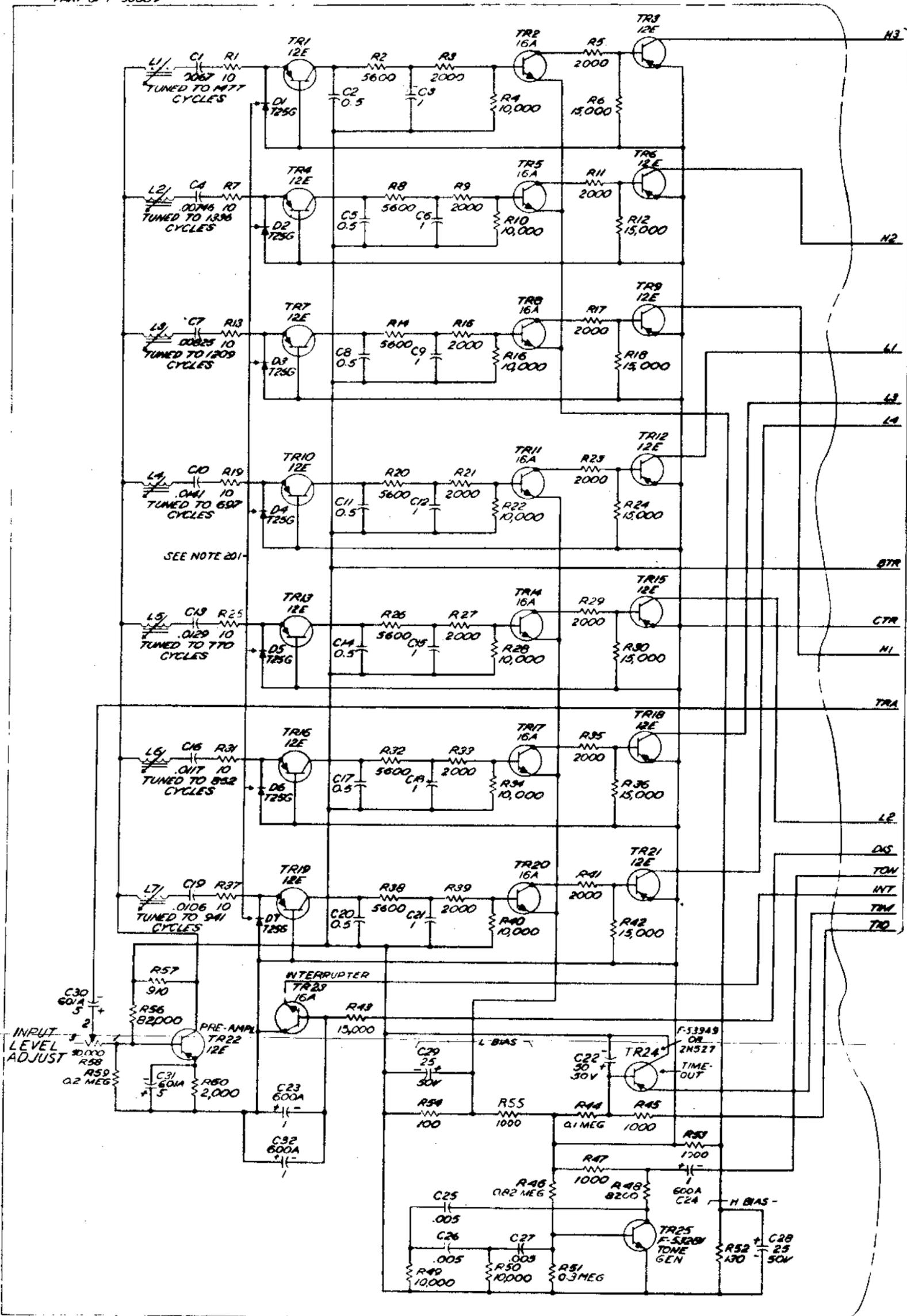
BELL TELEPHONE LABORATORIES
KEY TELEPHONE SYSTEM NO. 4A
SD-69411-01-C1

* SUPPLIED FROM MID OF (PB) RELAY

40	24	1	DRIVING
30	18	1	RESISTOR
20	12	1	CAPACITOR
10	6	1	RELAY

FIG. 2
TRANSLATION

PART OF F-53859



TO FIG. 1

BELL TELEPHONE LABORATORIES
SD-69411-Q-C2

DATE	BY	CHKD	APP'D

CIRCUIT REQUIREMENTS
KEY TELEPHONE SYSTEM NO. 6A

DRAWING
ISSUE
1
2A
3A

APPARATUS				MECH. REQ.			CIRCUIT PREPARATION				DIRECT CURRENT FLOW MGT.					REMARKS
WTRM	CODE	OPTION	FIN	IMP. FTS	CONT. PRESS	ARM. TENS.	BLOCK OR IMBULATE	TEST CLIP DATA	TEST SET PREP	DEL. TEST NO'S	TEST WBS	TEST FOR	AFTER SOAK	TEST	REDD.	
								COND. SET	COND. GRD				MA	MA	MA	
F-53889 ADAPTER CBT RELAYS																
H1	AK2		1	1				2L	1L	B/G	1	B	0	12.1	11.5	MTD WITH (M2) REL
M2	AK2		1	1				2U	1U	B/G	1	T	0	12.1	11.5	MTD WITH (M1) REL
M3	AK2		1	1				2U	1U	B/G	1	T	0	12.1	11.5	MTD WITH (L4) REL
K	AF114		1	54			2B, 2M, 2W (K)	L	U	B/G	1			24.5	23.0	
L1	AJ43		1	249			12M (L1)	L	U	B/G	1			24.5	23.0	
L2	AJ43		1	249			12M (L2)	L	U	B/G	1			24.5	23.0	
L3	AJ43		1	249			12M (L3)	L	U	B/G	1			24.5	23.0	
L4	AK2		1	1			3M (L4)	L	1L	B/G	1	B	0	12.1	11.5	MTD WITH (M3) REL
PB	AK10		1	7			2M, 10W (PB)	2U	1U	B/G	1, 2	T	0	7.8	7.4	MTD WITH (TJA) REL
PBO	260M		1	8				TERM. 10B	TERM. 10B	B/G	1, 2					
												NO	-54	1.1		
												O	-54	0.8		
												R	1.7	1.4		
TDA	AK10		1	7			2B (K)	2L	1L	B/G	1, 2	B	0	16.5	15.5	MTD WITH (PB) REL
TDB	AF98		1	245			1B (TCA)	L	U	B/G	1, 3			2.7	2.6	
												H				
												D	16.8	18.0		
TRA	AJ43		1	249				L	U	B/G	1			24.5	23.0	

TEST NOTES:

1. DISCONNECT TIP LEAD FROM TERM. 10B
2. DISCONNECT BATTERY LEAD FROM TERM. 1A
3. ADJUST ARMATURE BACK TENSION TO 110 GRAMS MINIMUM, 120 GRAM, MAXIMUM