

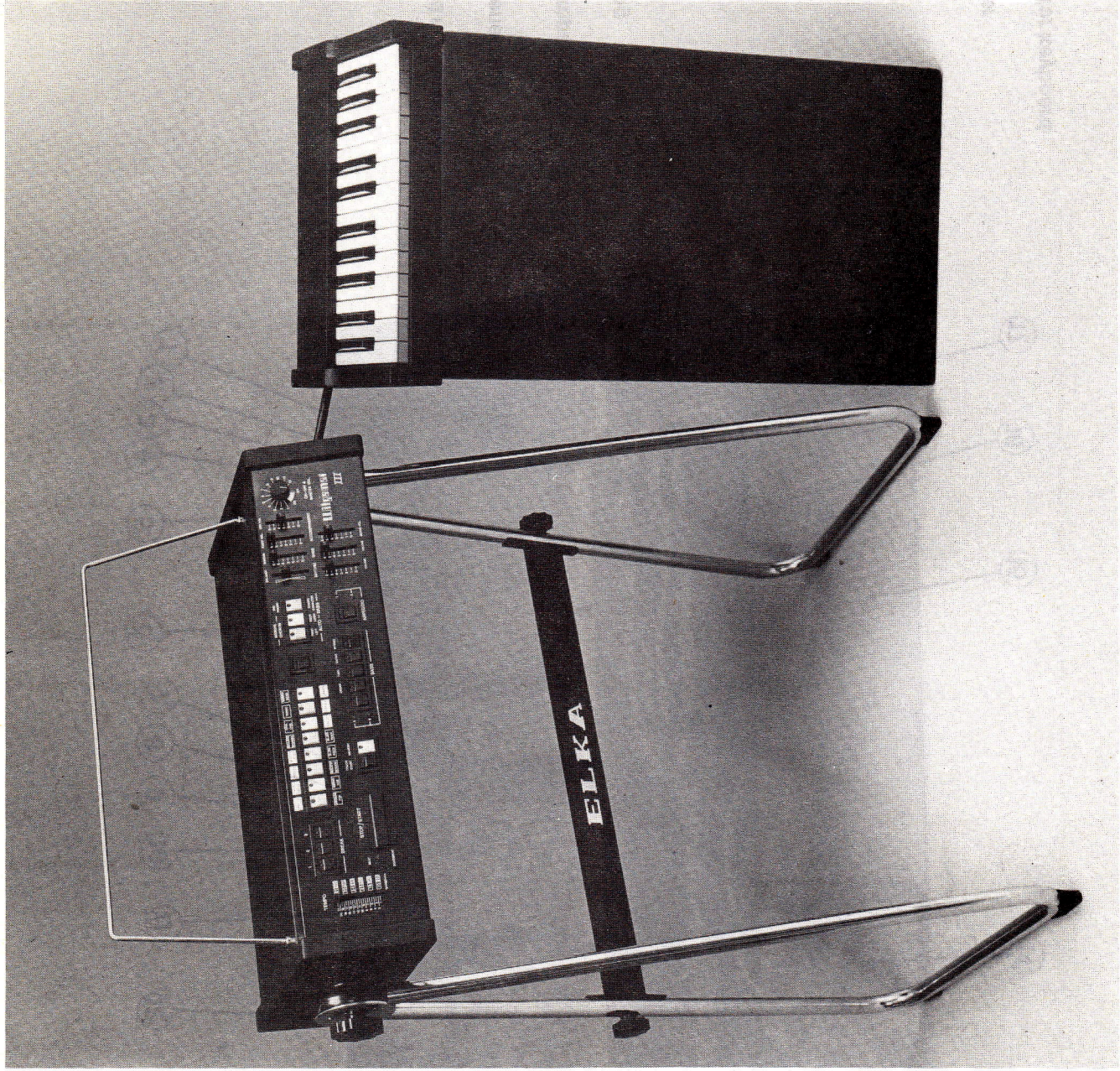


ELIKA

Wilgamał

III

schematic diagrams



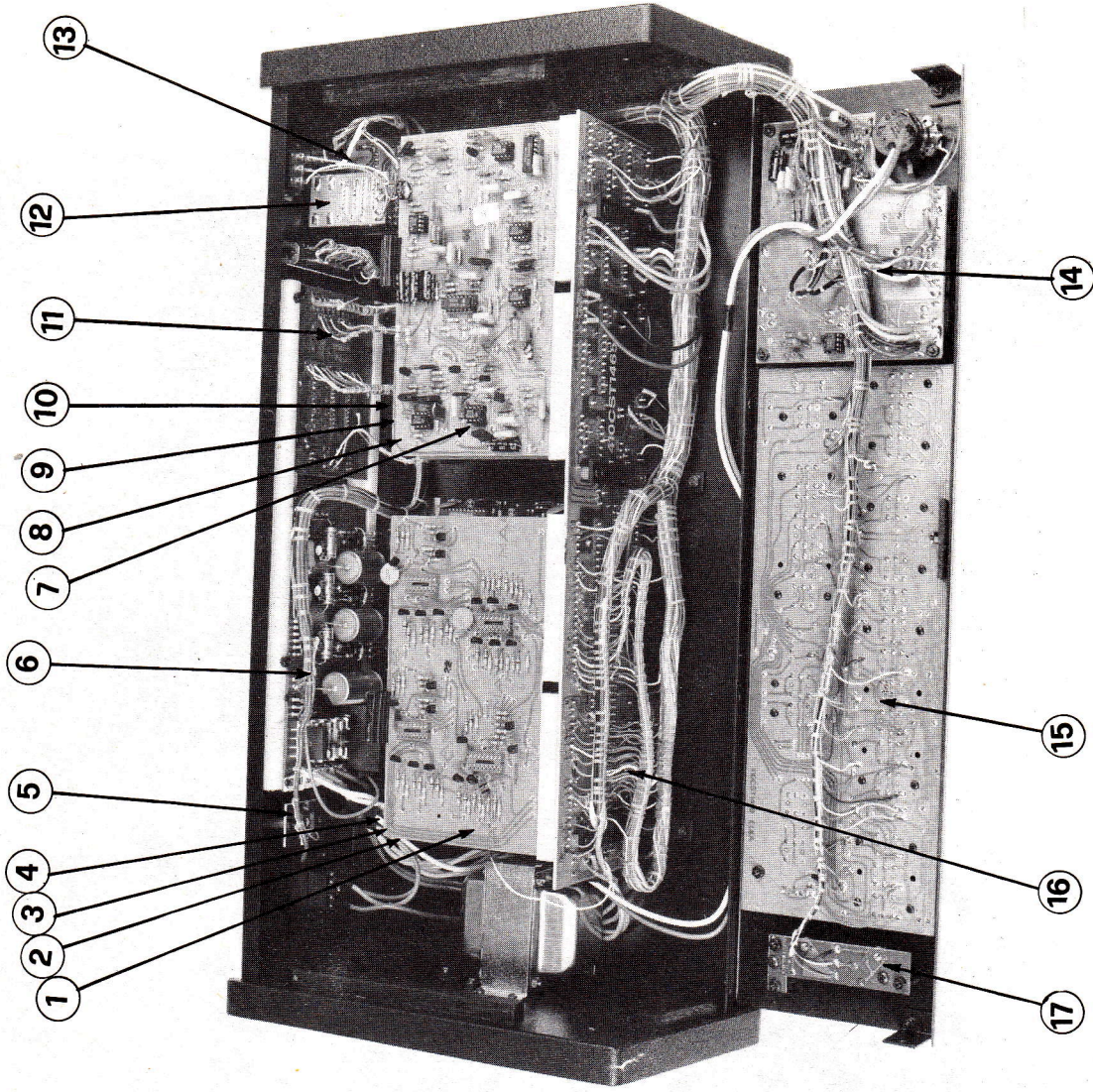
Model
**WILGAMAT
III**


Object:
Inside view
of the organ

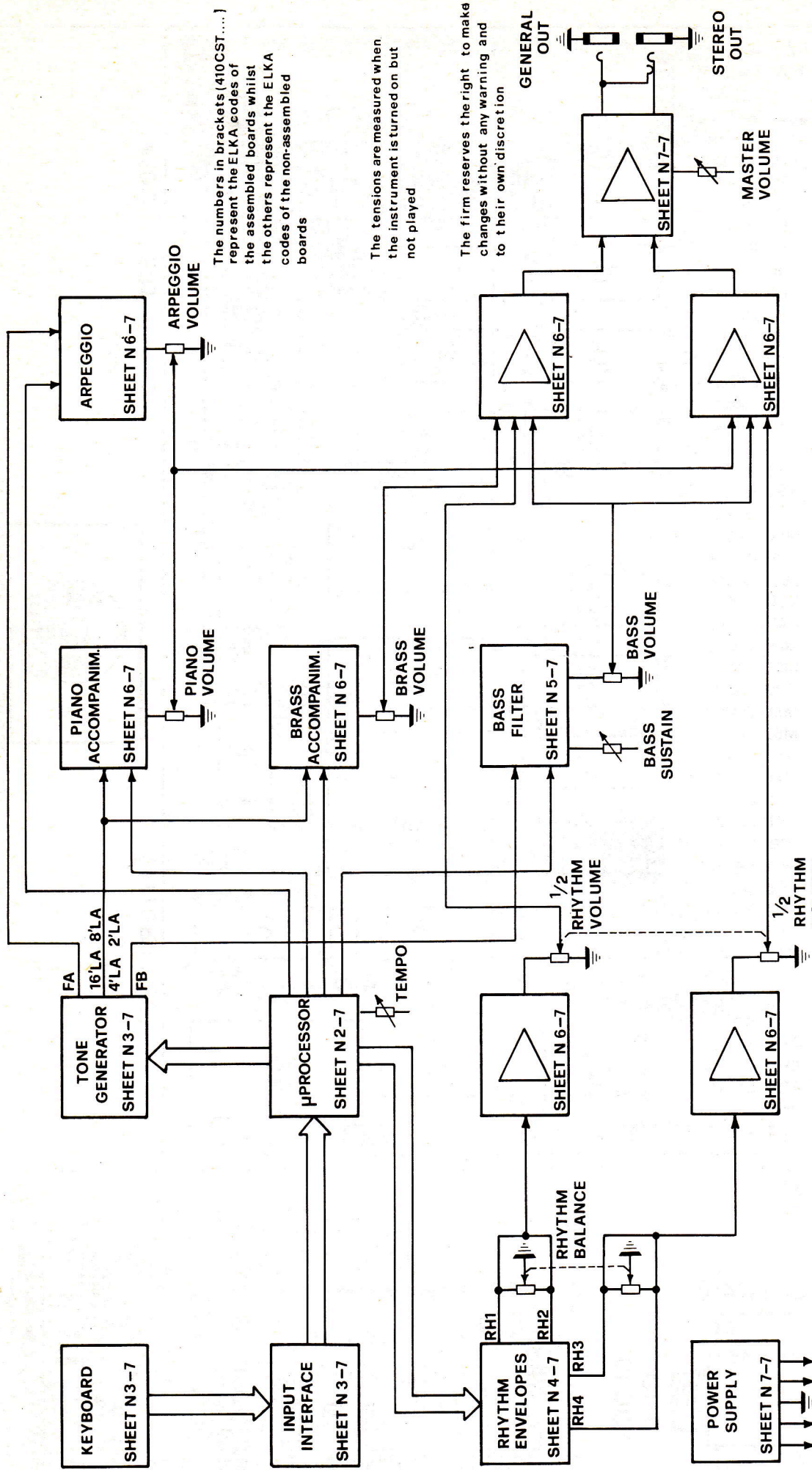
Sheet N.º **A**

Date: **4 - 12 - 82**

- 1 410CST1466 - Input interface
- 2 410CST1467 - Tone generator
- 3 410CST1331 - Microprocessor
- 4 410CST1429 - Bass filters
- 5 F000504 - Tuning
- 6 410CST1475 - Power supply
- 7 410CST1362 - Rhythm function
- 8 410CST1361 - Rhythm function and noise control
- 9 410CST1360 - Cymbal and noise generator
- 10 410CST1359 - Piano - brass - accompaniment
- 11 410CST1374 - Decoder for Elkasong
- 12 410CST1474 - Clock out
- 13 410CST1470 - Out preamplifier
- 14 410CST1468 - Switches
- 15 410CST1469 - Potentiometers
- 16 410CST1465 - Master board
- 17 410CST1292 - Tempo potentiometer
- 18 410CST1484 - Contacts assembly for keyboard



	Model WILCAMAT III	Object: Inside view of the organ	Sheet No. B
			Date 4-12-82



The numbers in brackets (410CST....) represent the ELKA codes of the assembled boards whilst the others represent the ELKA codes of the non-assembled boards

The tensions are measured when the instrument is turned on but not played

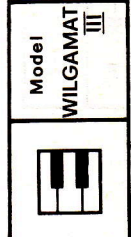
The firm reserves the right to make changes without any warning and to their own discretion

TRANSISTORS	SPECIFICATIONS
NPN-BC173	V _{CEO} = 25V - V _{EBO} = 5V - I _c 100mA - < 10dB
PNP-BC415	V _{CEO} = -30V - V _{EBO} = 5V - I _c 100mA - < 10dB
NPN-BC550	V _{CEO} = 45V - V _{EBO} = 5V - I _c 100mA - < 2dB

TYPE B → 240 < hFE < 500
 TYPE C → 450 < hFE < 900

- 1) ALL resistors \square are carbon film $\frac{1}{4}w$ 5%
- 2) ALL resistors marked by a point \square must be metal film 2%
- 3) ALL capacitors marked by a point --- must be plastic film 2%
- 4) ALL resistors --- must be mounted 10mm above board
- 5) ALL resistors --- must be mounted 10mm above board and non-flammable
- 6) ALL capacitors marked by asterisks * must be ceramic

Object: BLOCK DIAGRAM

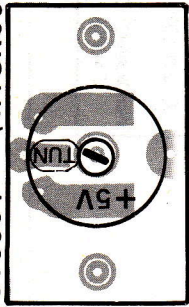


ALL diodes are:
 FDH 9439 Fairchild
 or 125 ITT
 or BA 130
 or 2pF

DESIGNED BY: [Signature]
 DRAWN BY: [Signature]

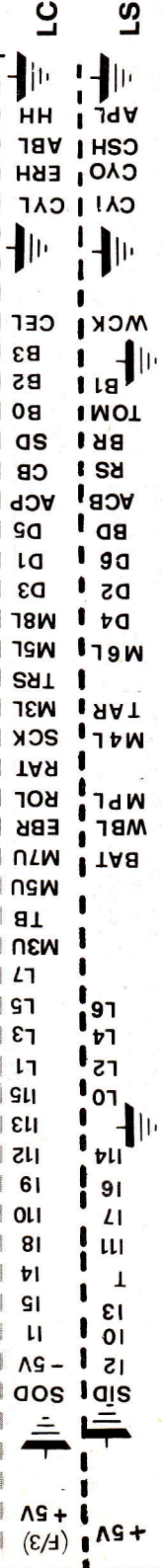
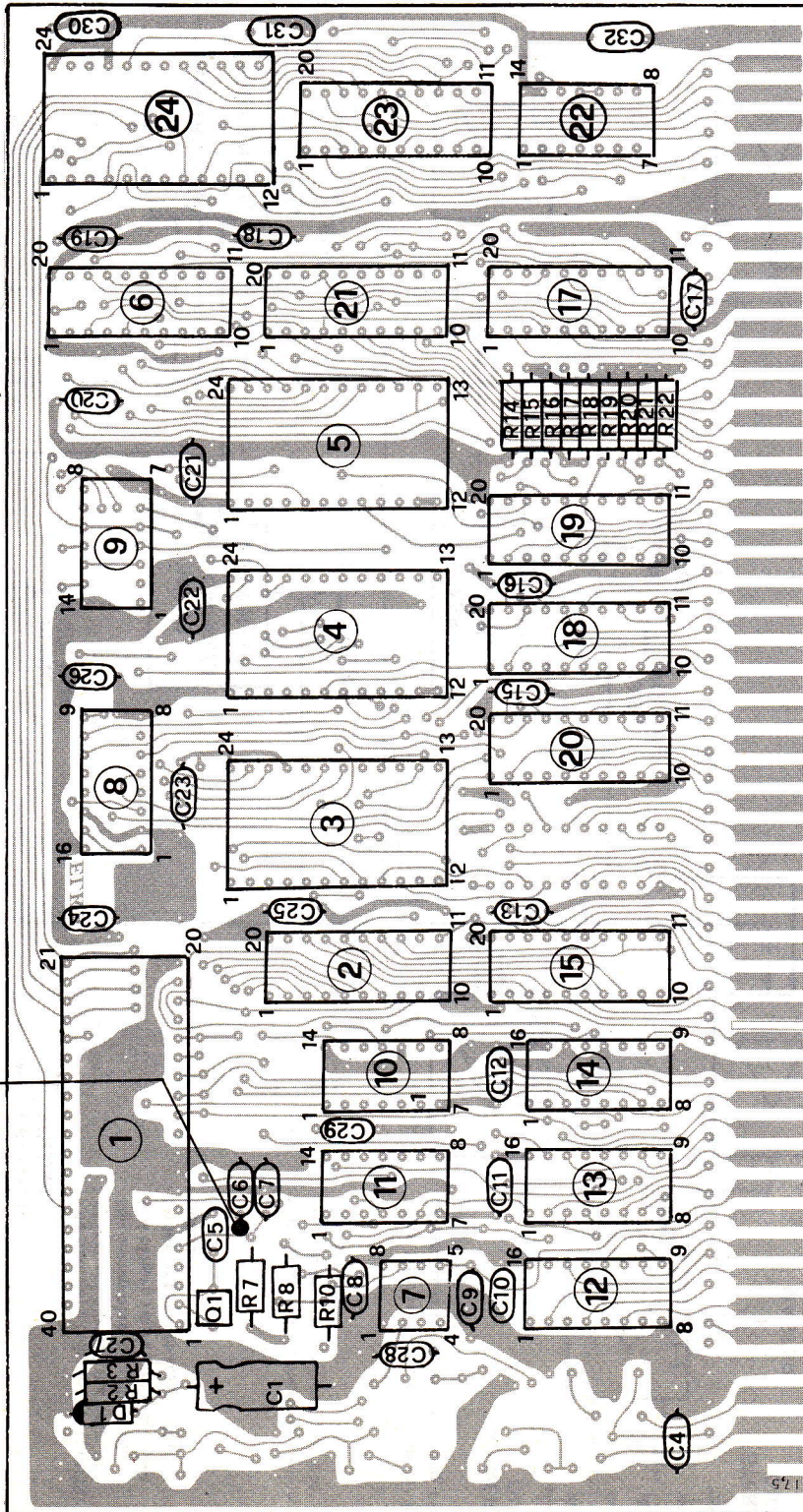
DESIGNED BY: [Signature]
 DRAWN BY: [Signature]

410CST0504 (477GR05043)

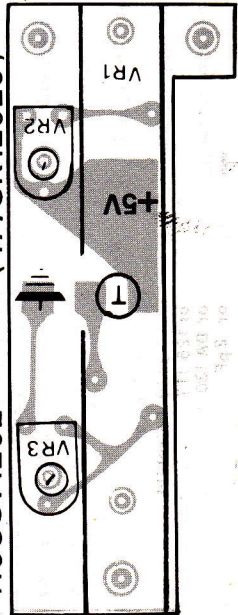


410CST 1331

(477GR 1331C)

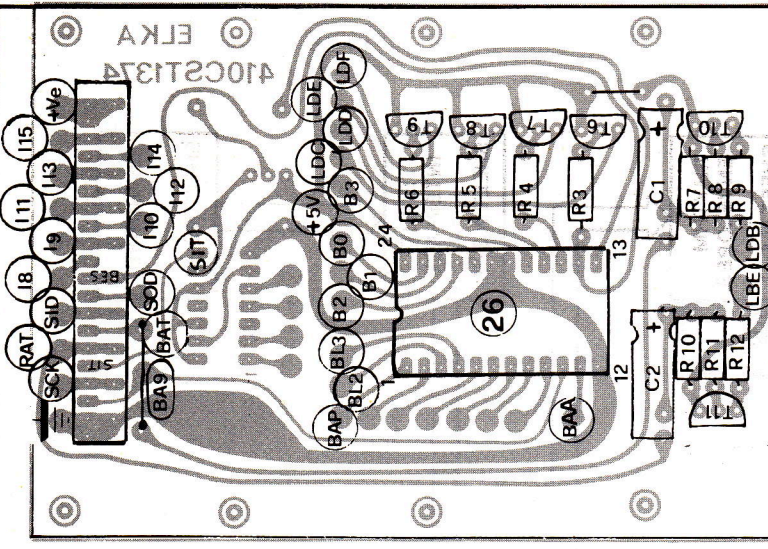


410CST1292 (477GR12920)



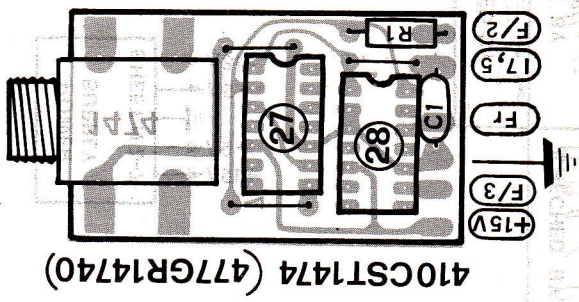
TEMPO

	Model	Sheet No. 2a - 7
	WILGAMAT III	Date 4-12-82



410CST1374 (477GR1374A)

CLOCK OUT

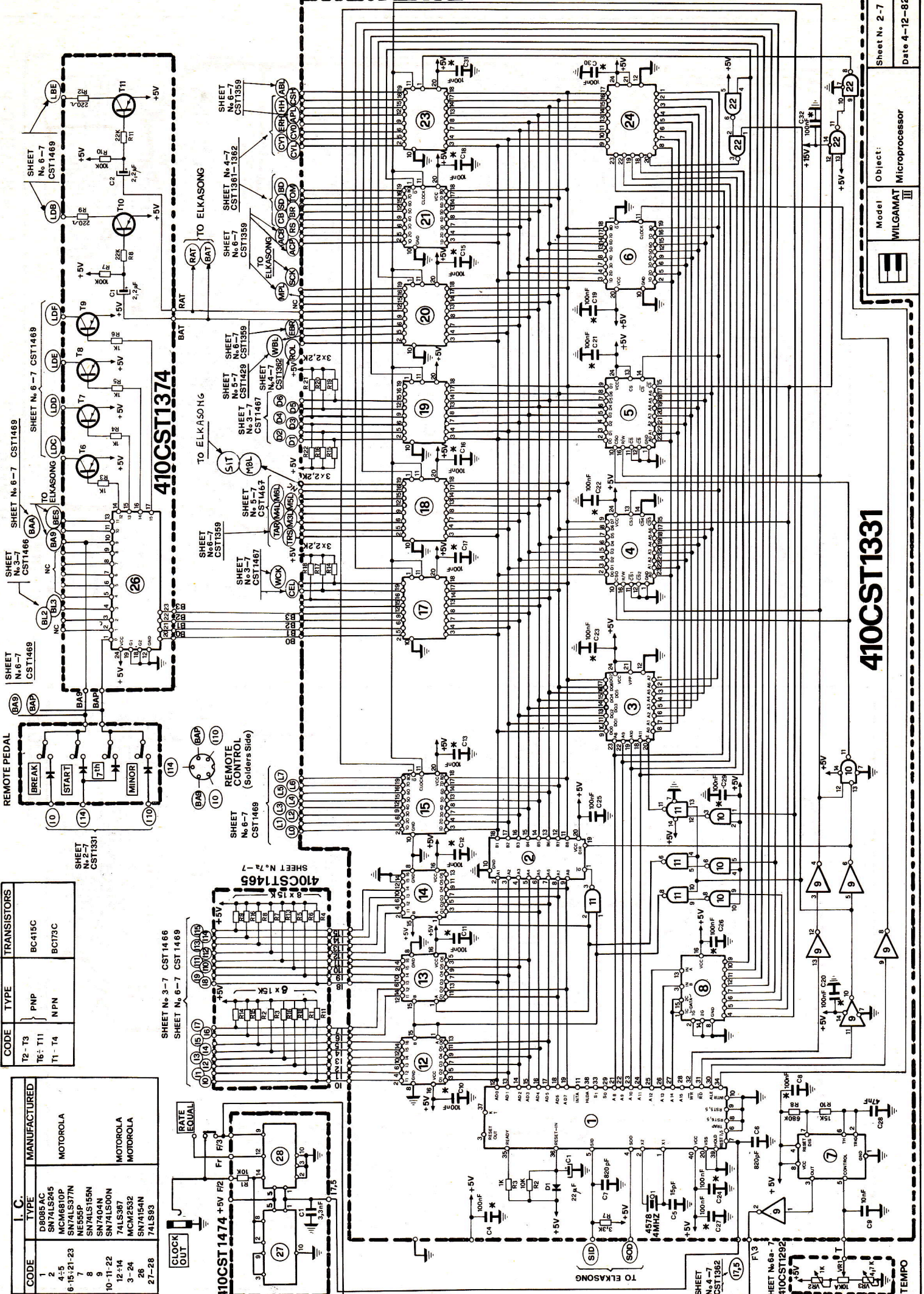


410CST1474 (477GR14740)

Y&S ELECTRONICS

CODE	TYPE	TRANSISTORS
T2 - T3	PNP	BC415C
T6: T11	NPN	BC173C
T1 - T4	NPN	

CODE	TYPE	MANUFACTURED
1	D8085AC	MOTOROLA
2	SN74LS245	MOTOROLA
4:5	MCM6810P	MOTOROLA
6:15:21-23	SN74LS37N	MOTOROLA
7	NE555P	MOTOROLA
8	SN74LS155N	MOTOROLA
9	SN74LS04N	MOTOROLA
10-11-22	SN74LS00N	MOTOROLA
12-14	74LS387	MOTOROLA
3-24	MCM2532	MOTOROLA
26	SN74LS4N	MOTOROLA
27-28	74LS93	MOTOROLA



410CST1374

410CST1331

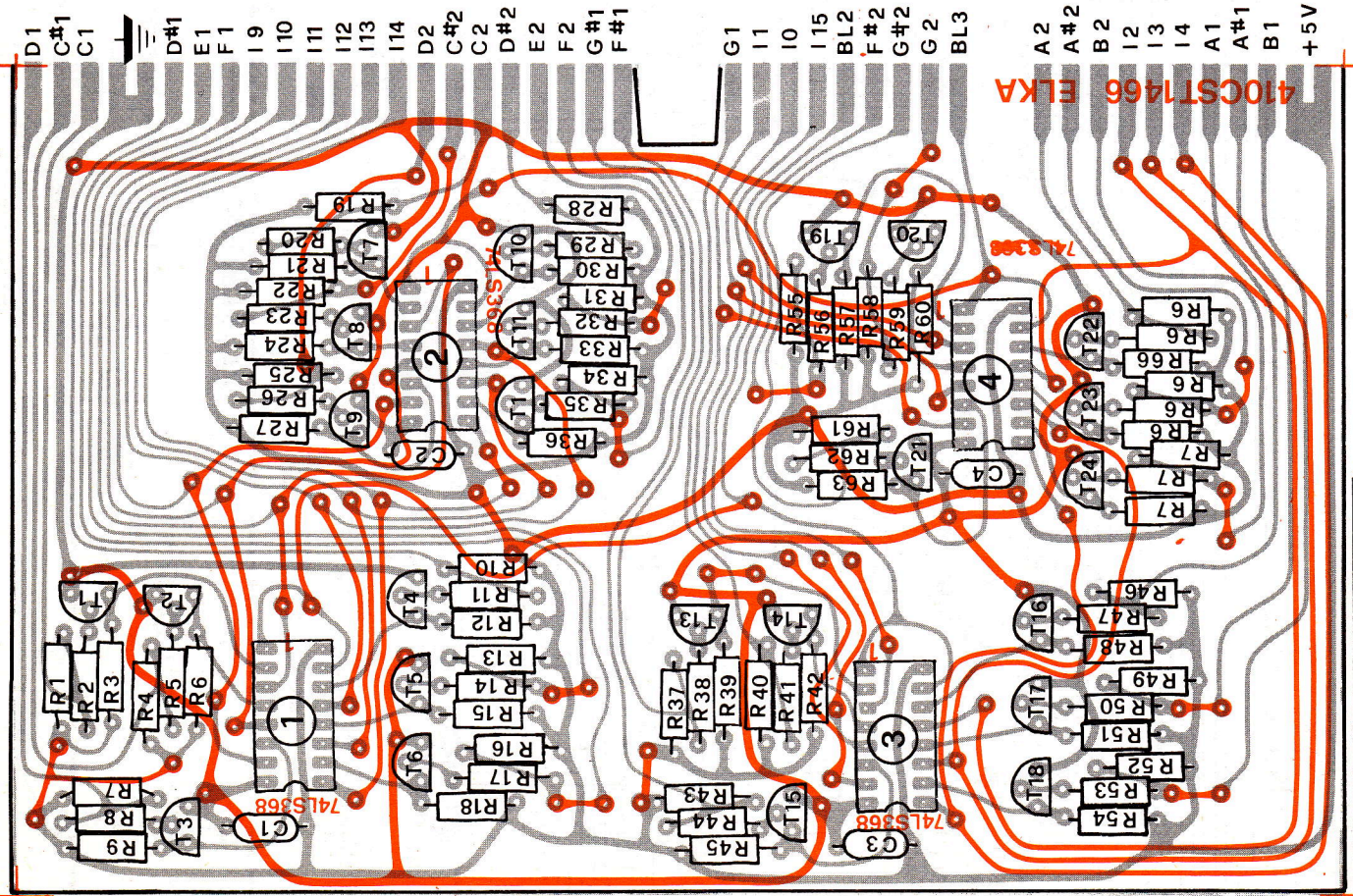
Sheet No. 2-7
Date 4-12-82

Object: Microprocessor
Model: WILGAMAT III

TEMPO

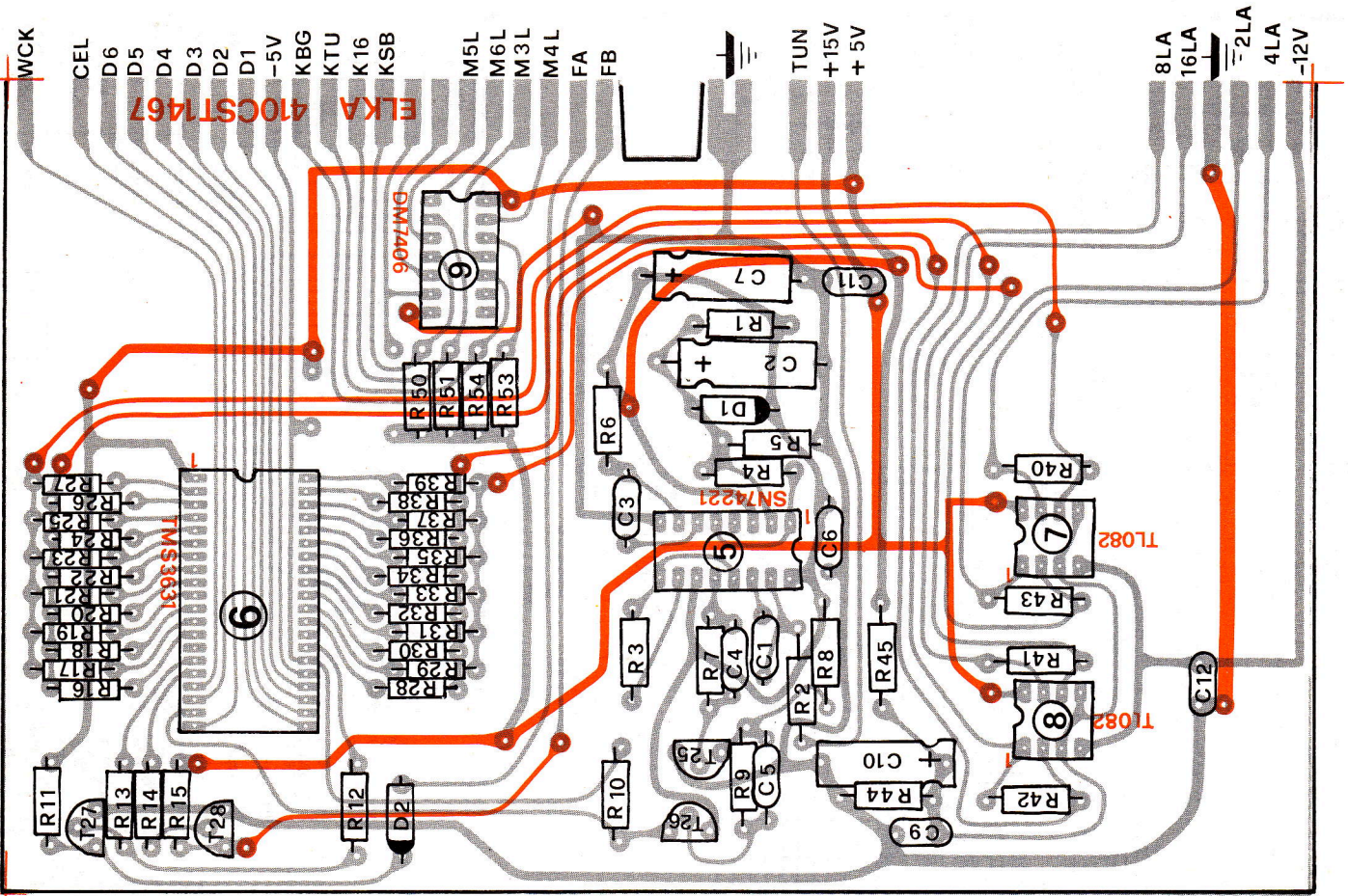
410CST1466

(477GR14660)



410CST1467

(477GR14670)



Sheet No 3a-7

Model

WILGAMAT

III

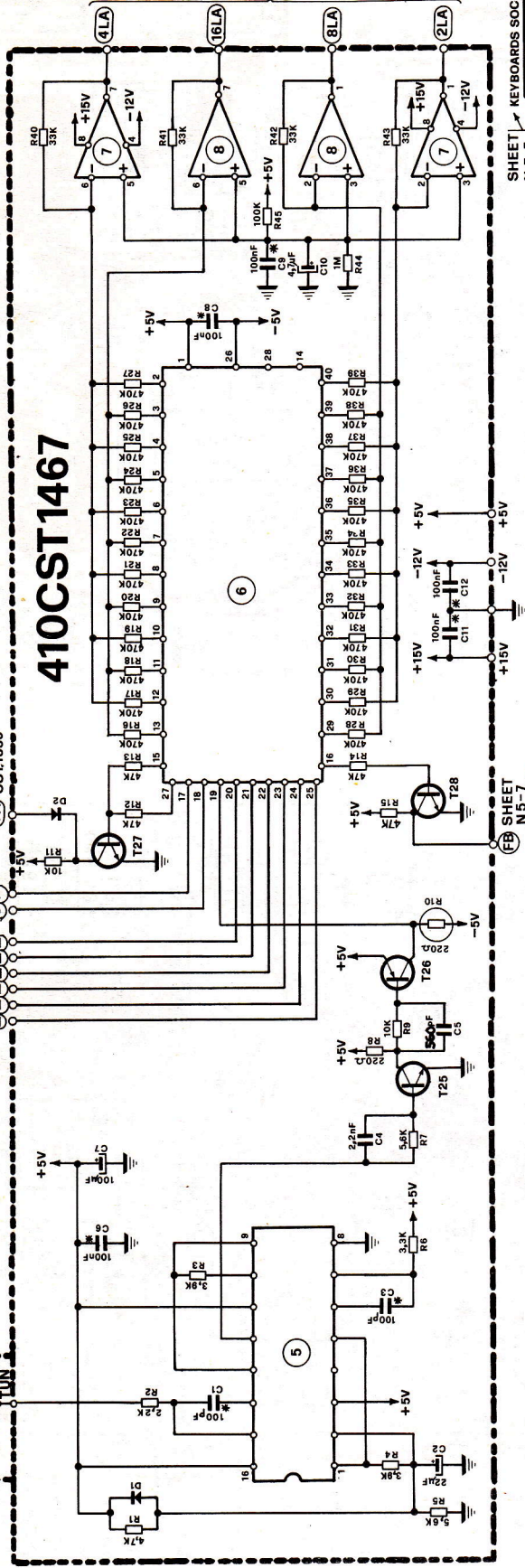
Date 4 - 12 - 82

410CST0504

SHEET N2-7
CST1331

SHEET N6-7
CST1359

410CST1467



I.C.	
CODE	MANUF.
1-4	74LS368
5	SMT4221
6	TMS3631
7-8	TL082

SHEET N6-7
CST1359

CODE	TYPE	TRANSIST.
T1-T24	NPN	BC178B
T27-T28	NPN	BSX26
T25	PNP	BSX36
T26	PNP	

KEYBOARDS PLUG IN

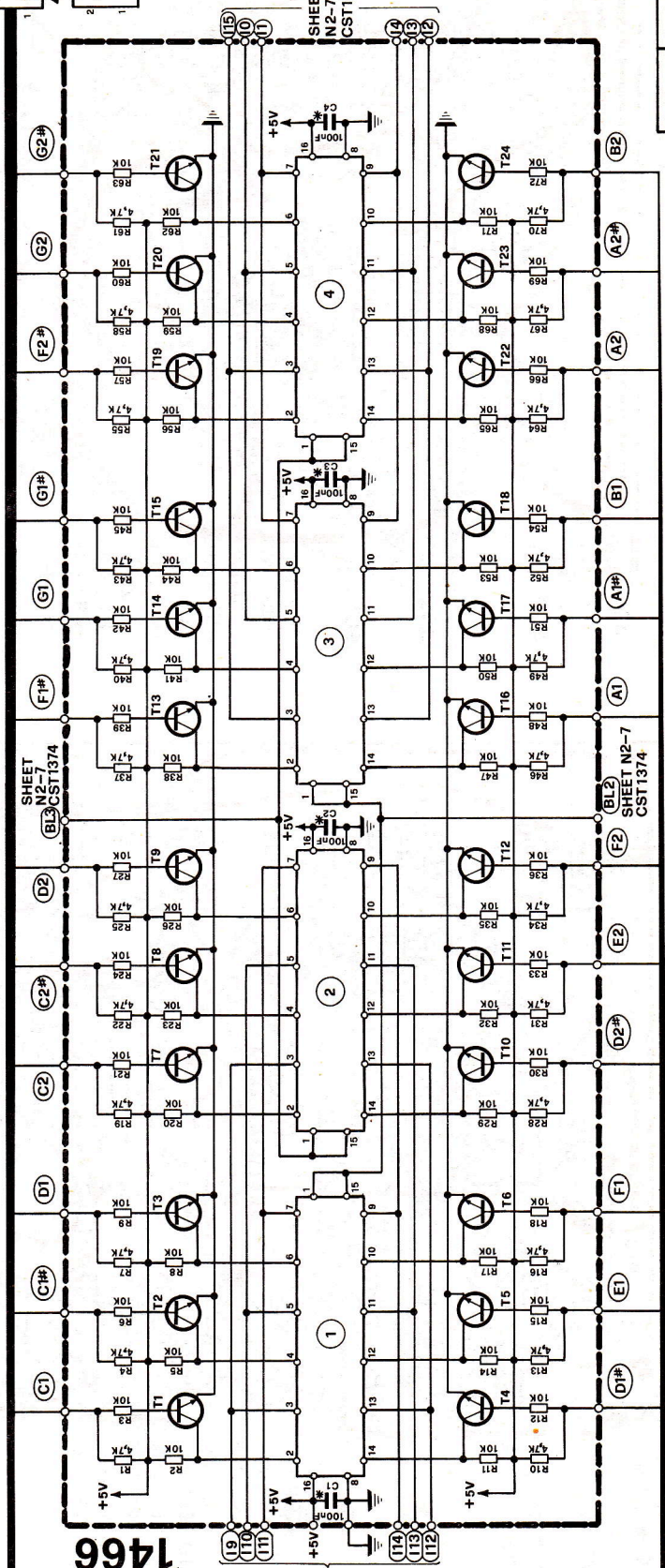
SHEET N7-7
CST1429



410CST

1466

SHEET N2-7
CST1331



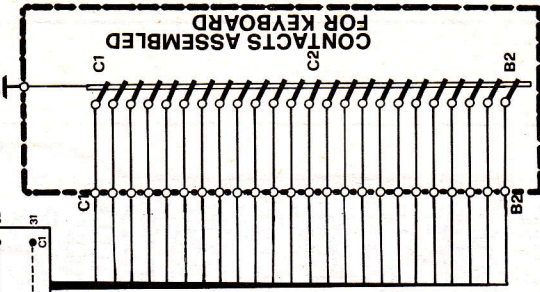
SHEET N2-7
CST1374

SHEET N5-7
CST1429

SHEET N2-7
CST1374

SHEET N2-7
CST1331

SHEET N7-7
CST1429

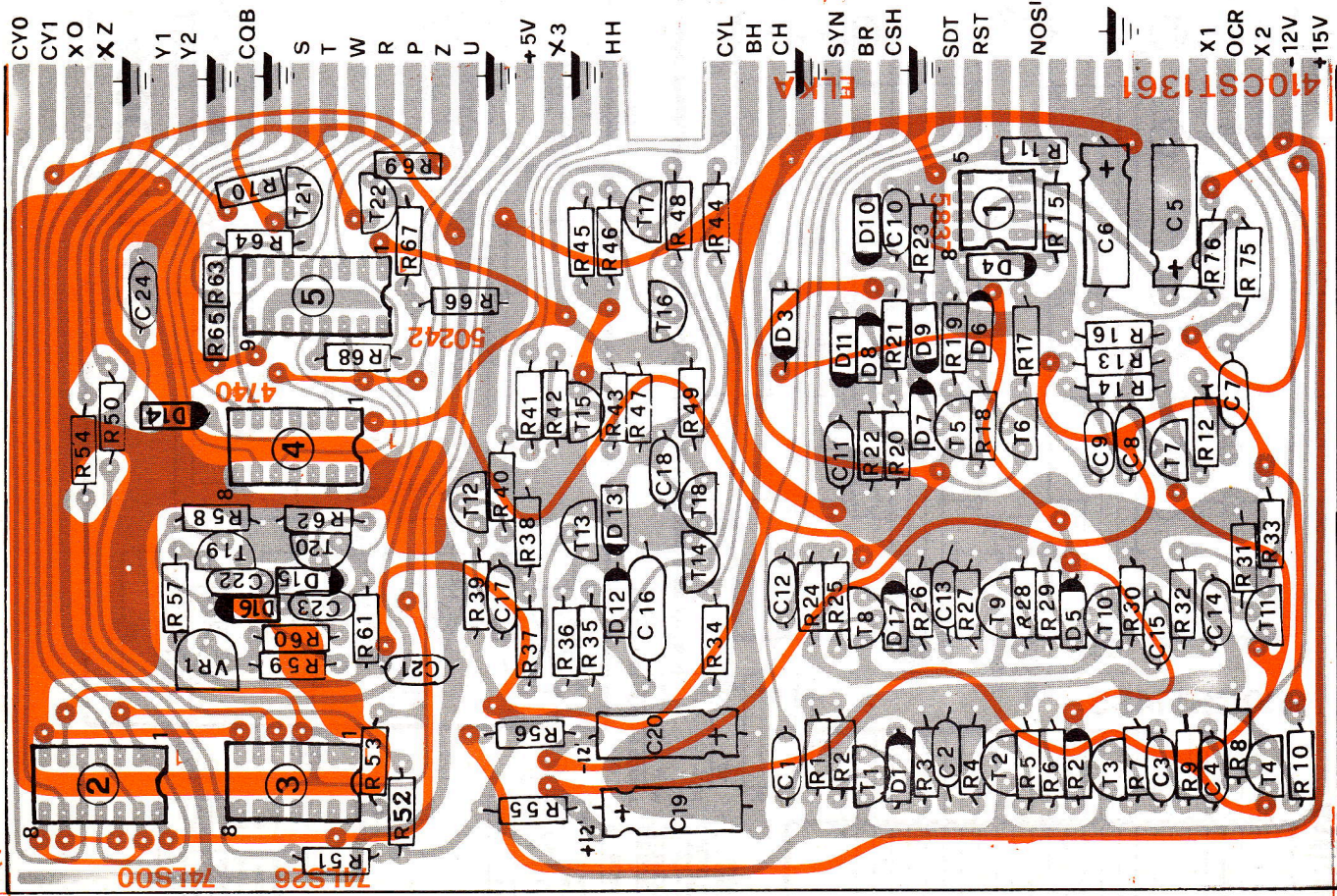


410CST1484

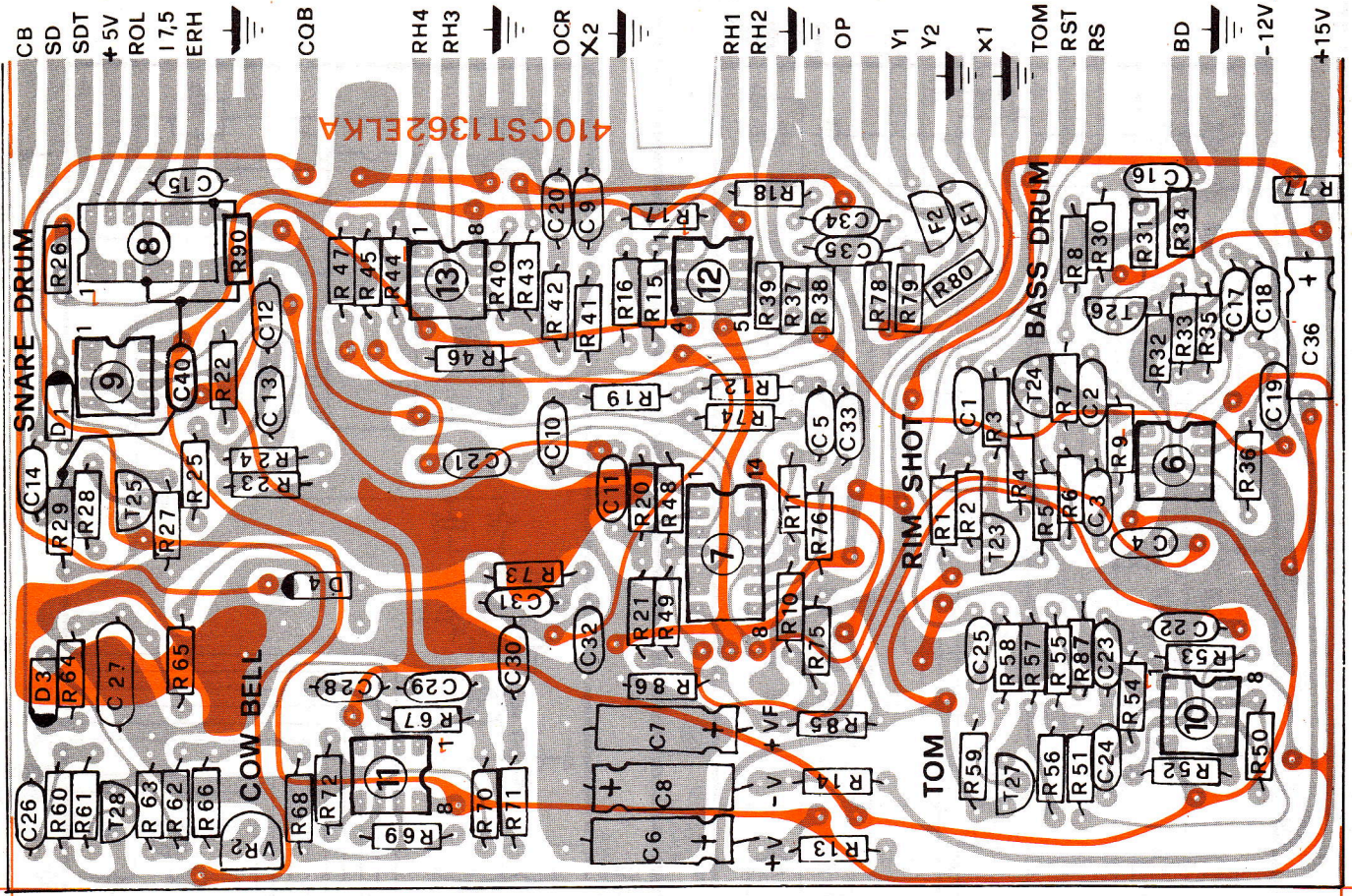
Model WILGAMAT III
Object: TONE GENERATION

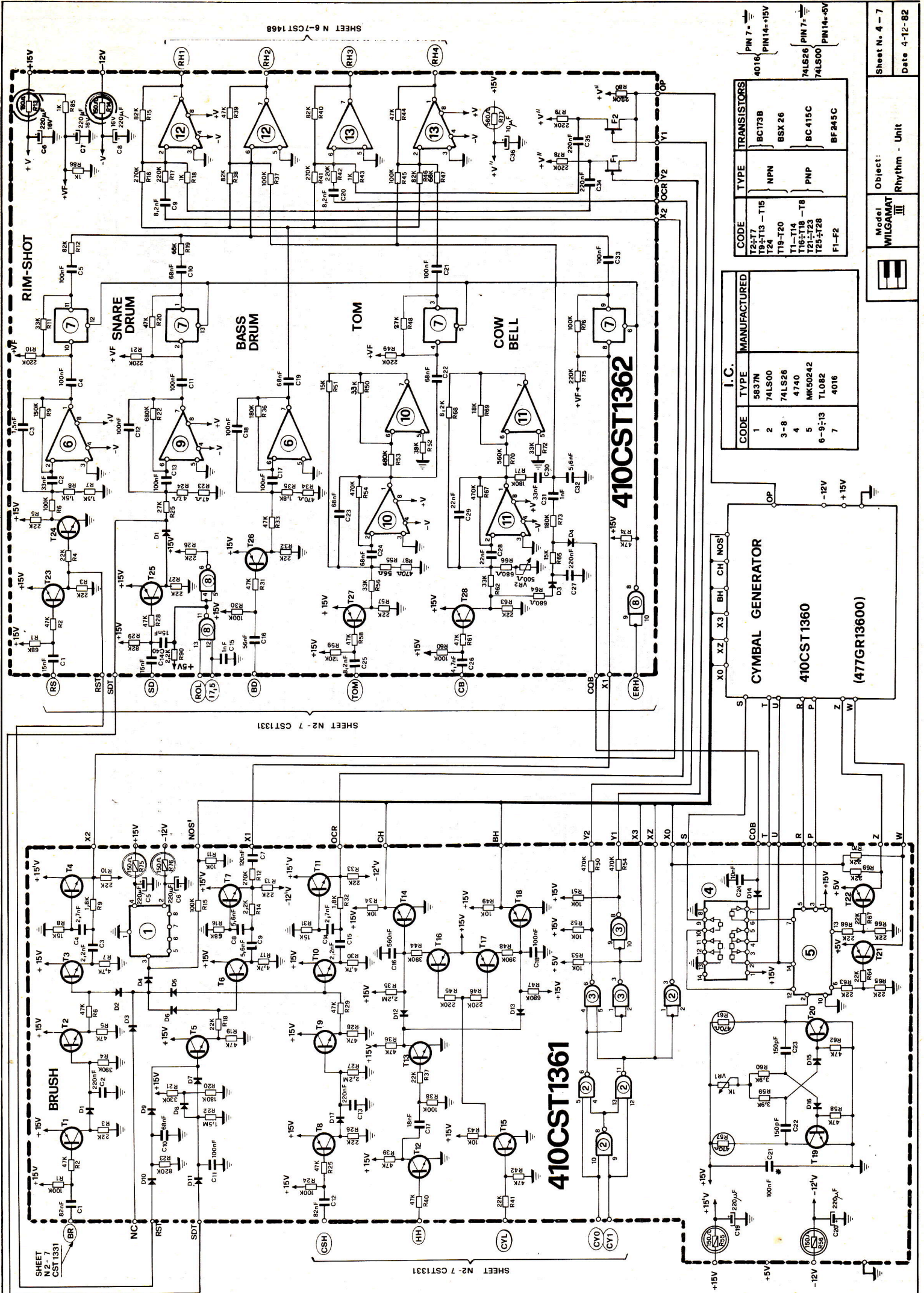
Sheet No. 3-7
Date 4-12-82

410CST1361 (477GR1361A)



410CST1362 (477GR1362B)





SHEET N 6-7 CST1468

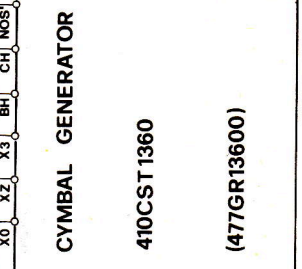
SHEET N2-7 CST1331

SHEET N2-7 CST1331

CODE	TYPE	TRANSISTORS
T2-T7		BC173B
T8-T10	NPN	85X 26
T11-T20		BC-115C
T1-T14	PNP	BF-245C
T15-T23		
F1-F2		

CODE	TYPE	MANUFACTURED
1	5837N	74LS00
2	74LS00	74LS26
3-8	74LS26	4740
4	4740	MK50242
5	MK50242	T1.082
6-9-T13		4016
7	4016	

Sheet No. 4 - 7
Date 4-12-82
Object: Rhythm - Unit
Model: WILGAMAT III



410CST1361

410CST1362

+15V

+5V

-12V

+15V

+5V

-12V

+15V

+5V

-12V

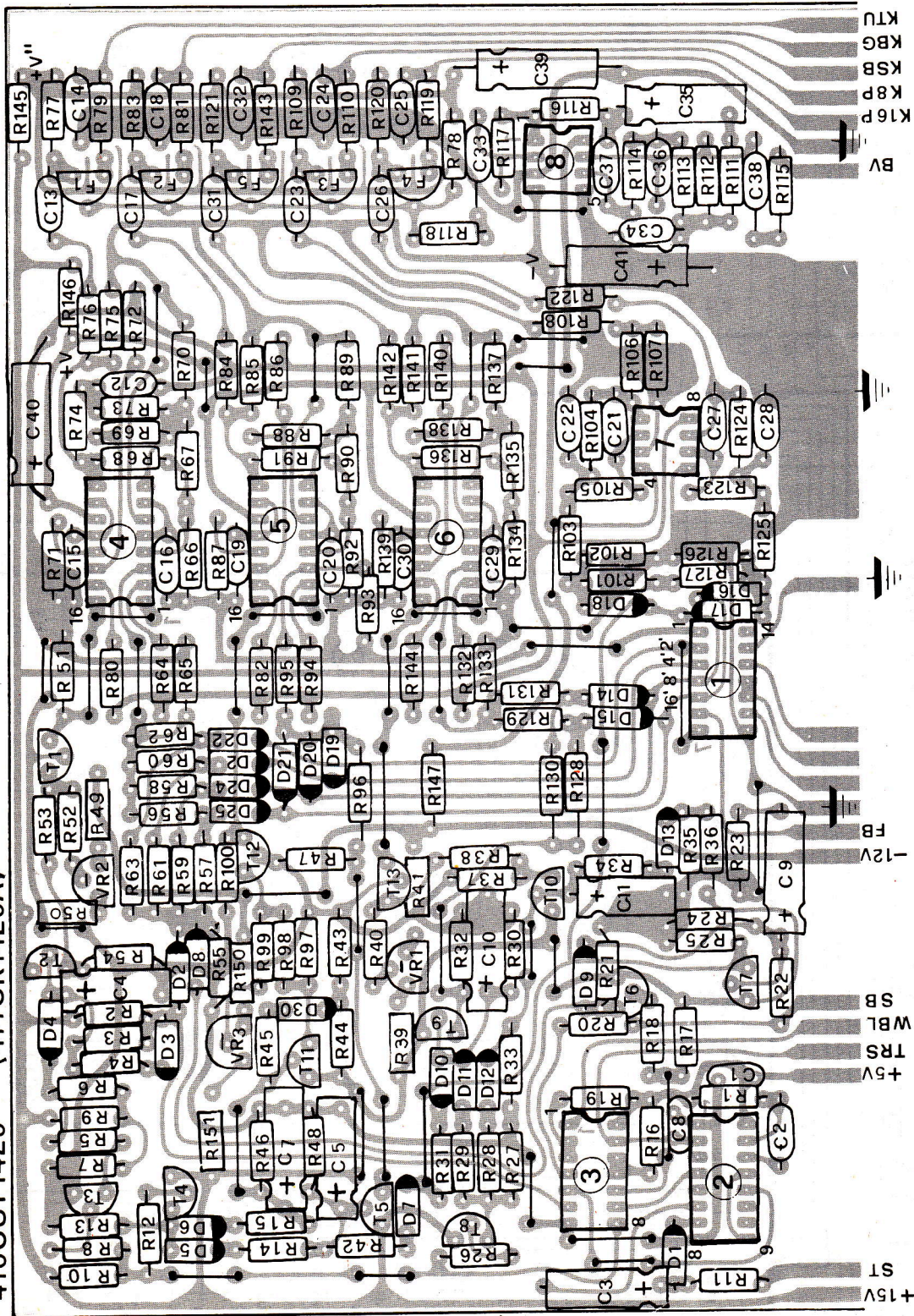
PIN 7-


PIN14+15V

PIN 7-

PIN14+-5V

410CST1429 (477GR1429A)

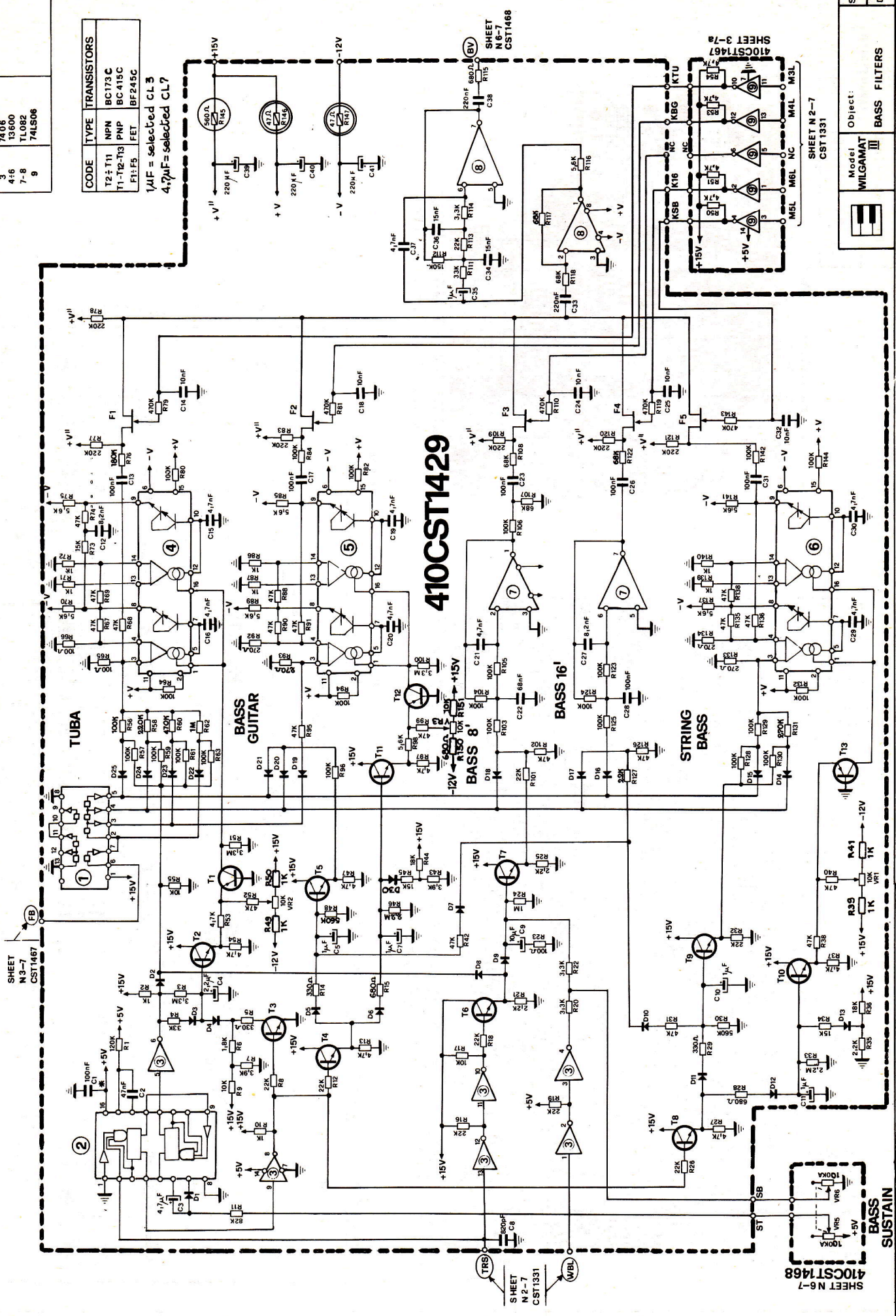


	Model	Sheet No.5a-7
	WILGAMAT III	Date 4-12-82

I. C.	
CODE	MANUFACT.
1	HBF4740
2	74LS123
3	7400
4-6	73600
7-8	TL082
9	74LS06

TRANSISTORS	
CODE	TYPE
T2-T11	NPN BC173 C
T1-T12-T13	PNP BC415C
F1-F5	FET BF245C

1/4F = selected CL3
4.7uF = selected CL7



410CST1468
SHEET N 6-7

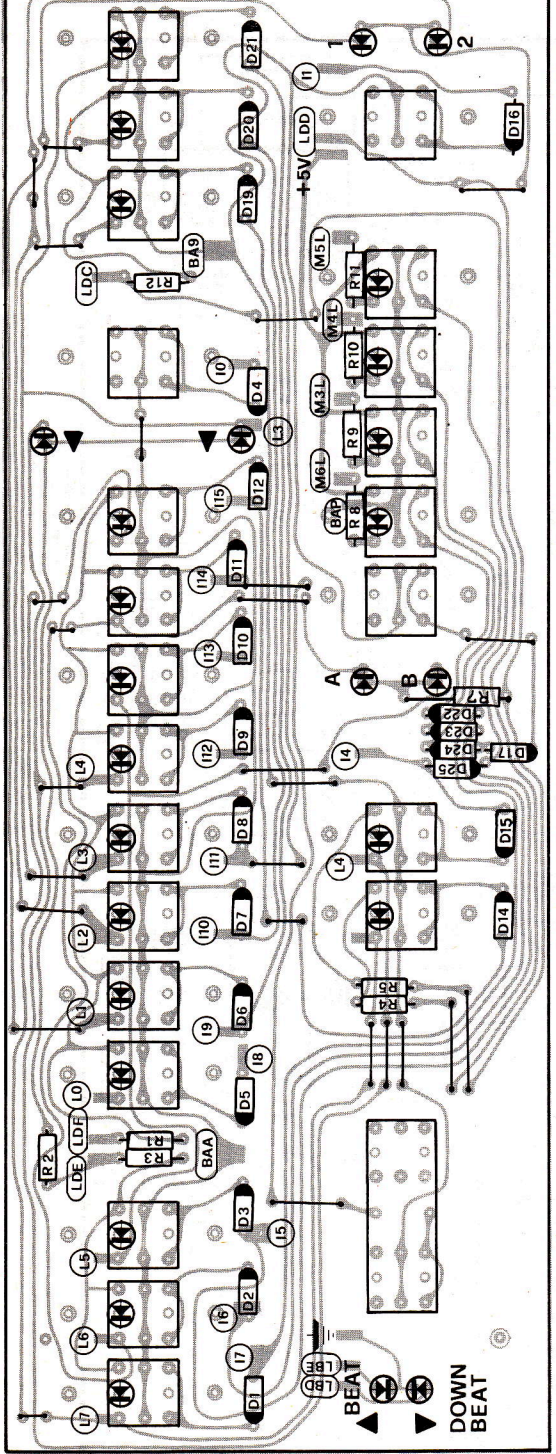
SHEET N 2-7
CST1331

SHEET N 3-7
CST1467

SHEET N 3-7
410CST1467

SHEET N 6-7
CST1468

SWING WALTZ MARCH MARCH BEGUINE CHA TANGO BOSSA NOVA
 1 2 3 6/8 RHYMBA CHA
 MED. SWING ROCK'N' SLOW BLUES DISCO DISCO SAMBA
 FOX BOOGIE ROCK ROCK 1 2
 ——— BREAK ———
 1 2 3



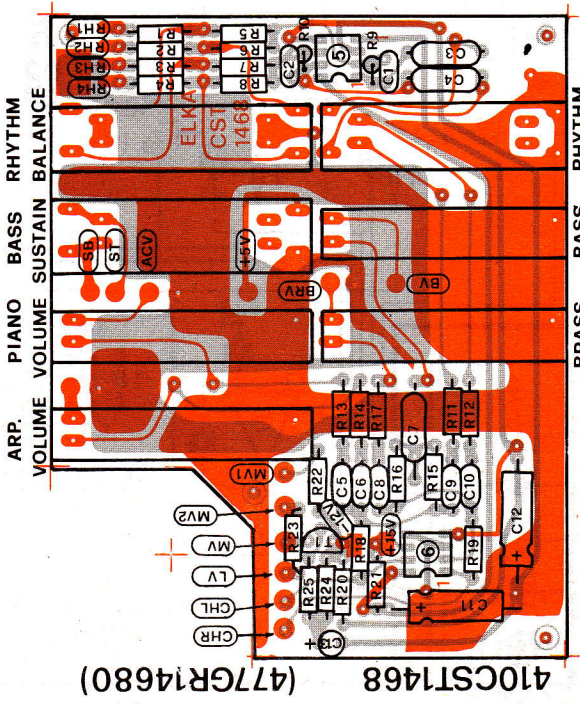
410CST1469 (477GR14690)

STOP START

TOUCH MEMORY START

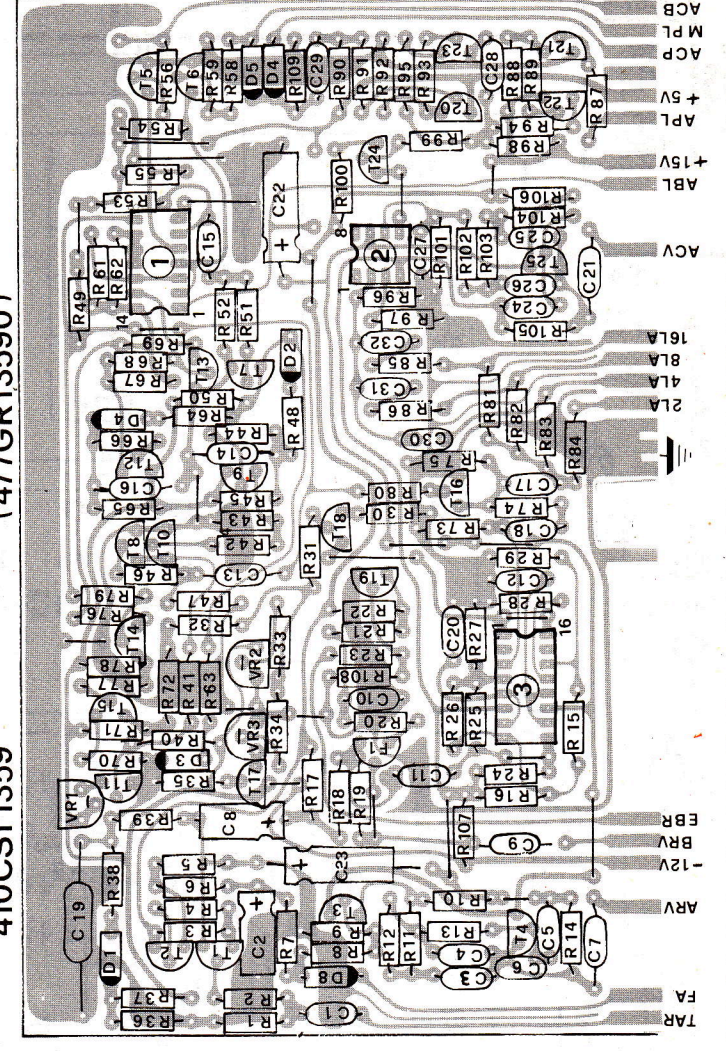
ORGAN TUBA GUITAR STRINGS

ARPEGGIO



410CST1468 (477GR14680)

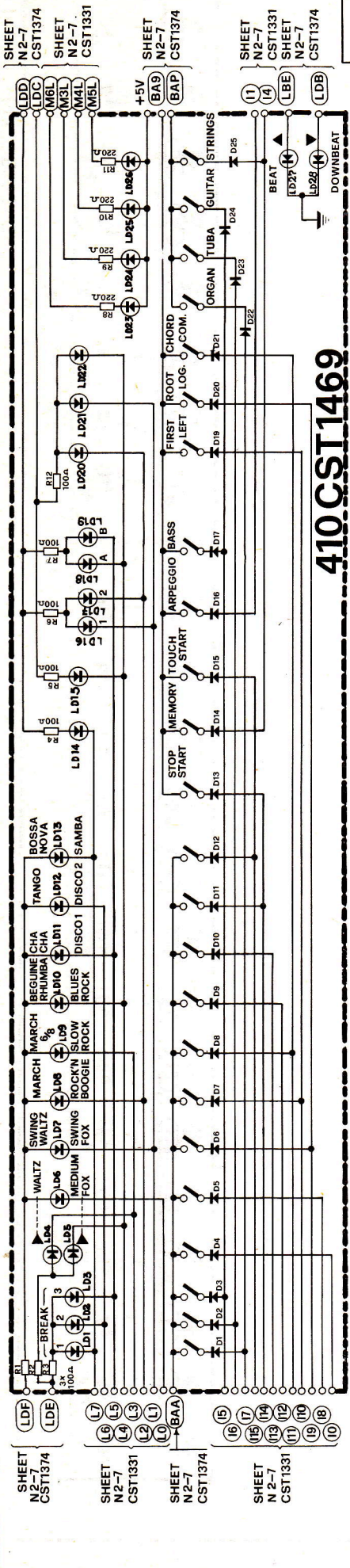
410CST1359 (477GR13590)



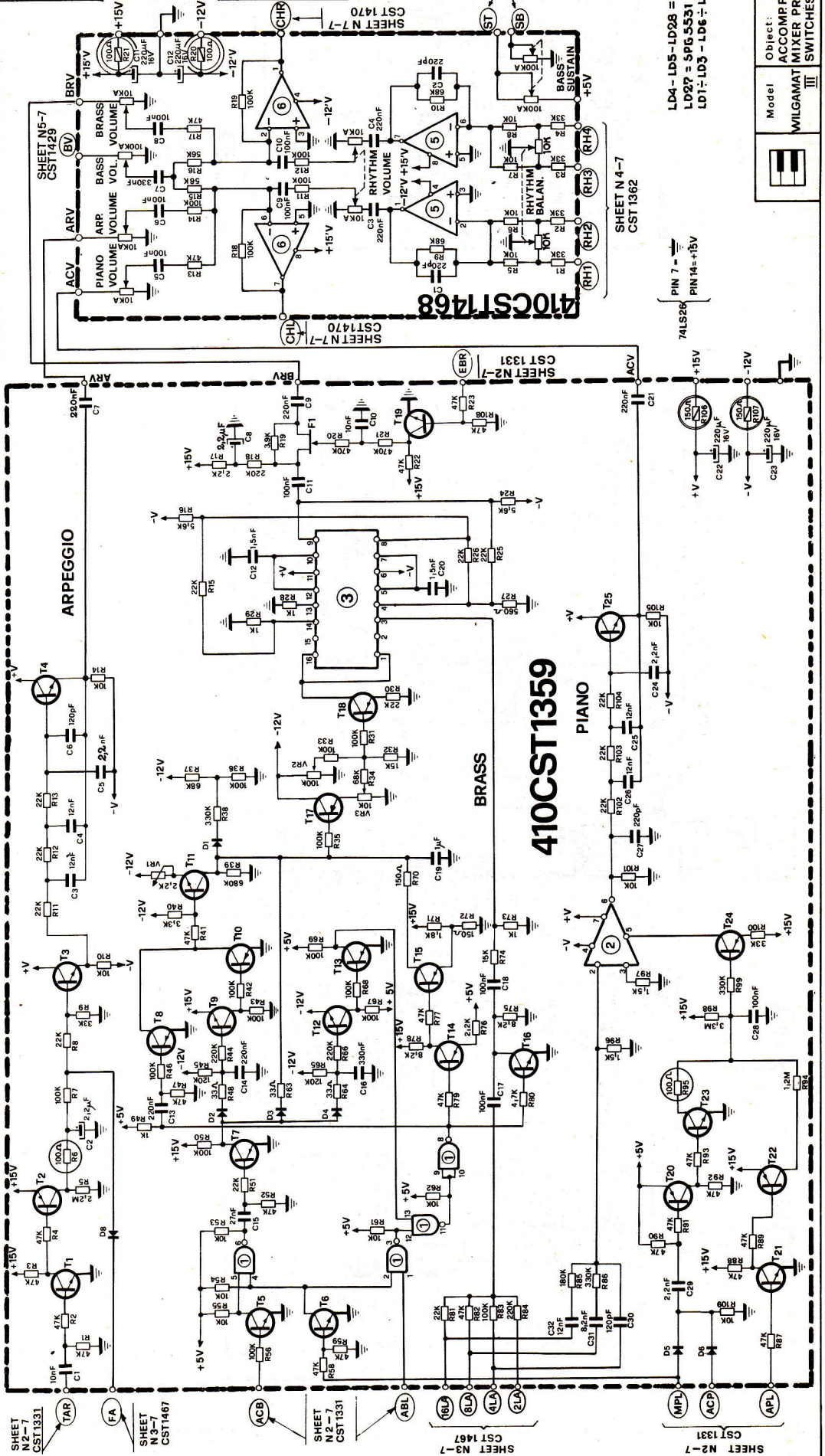
Model
WILGAMAT
III

Sheet No. 6a-7

Date 4-12-82

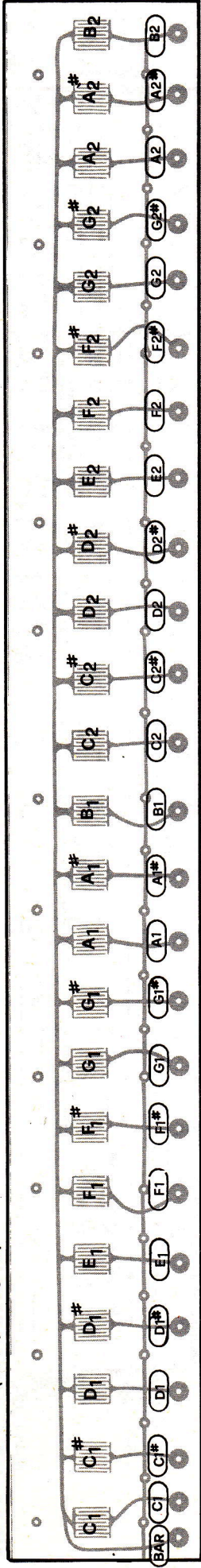


CODE	TYPE	MANUF.
1	74LS26	3080
2	3080	13600
3	13600	TL082
5-6	TL082	

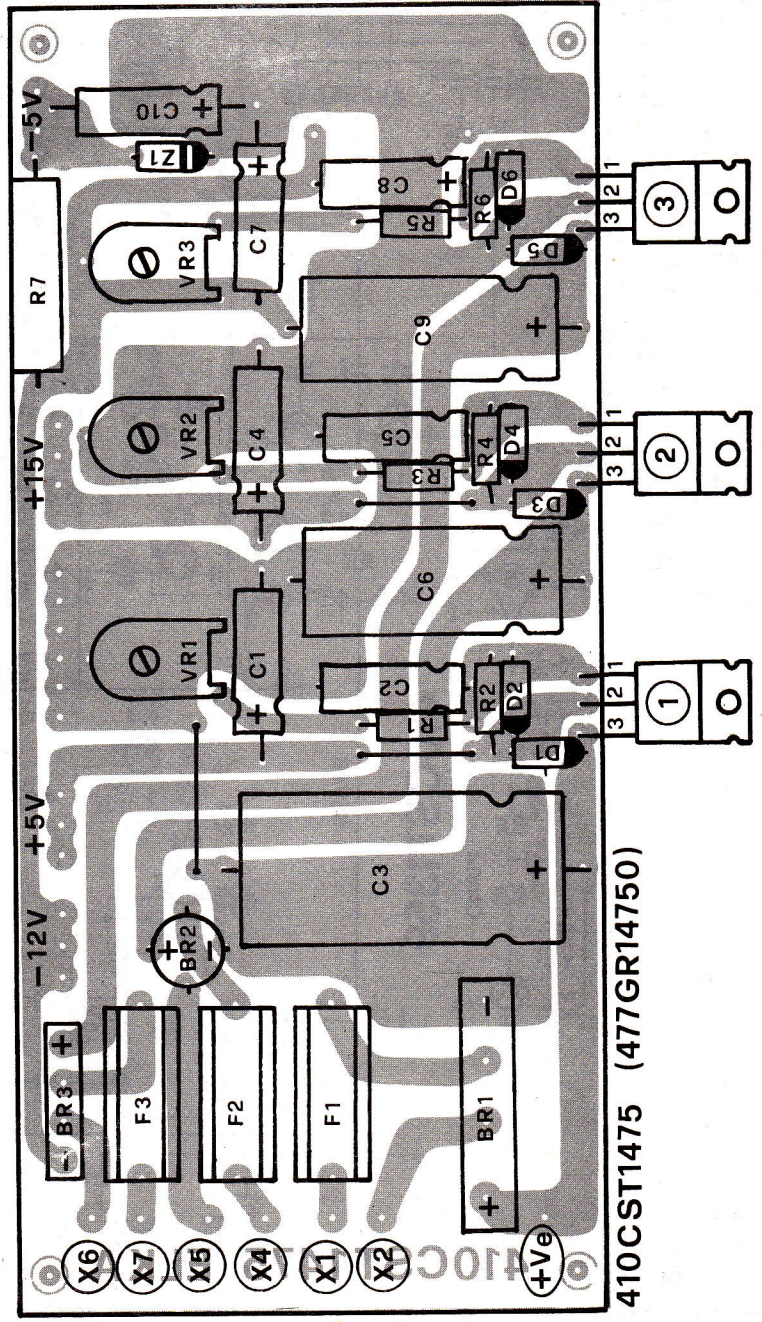
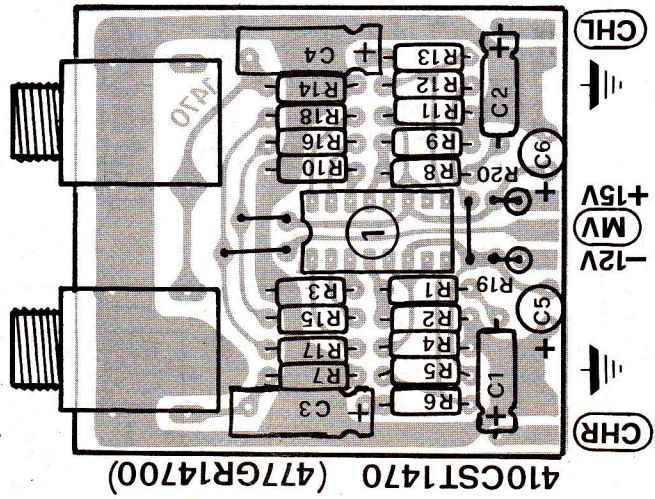


CODE	TYPE	TRANSIST.
T1-T3-T18	NPN	BC173B
T16-T21	NPN	BC173B
T23-T25	PNP	BC415C
T13-T15	FET	BF245C
T18-T20	FET	BF245C
T22-T24	FET	BF245C
T1-T11	FET	BF245C

LD4-LDS-LD28 = SPR 5531
 LD27 = SP6 5531
 LD1-LD3 = LDE - LD 96



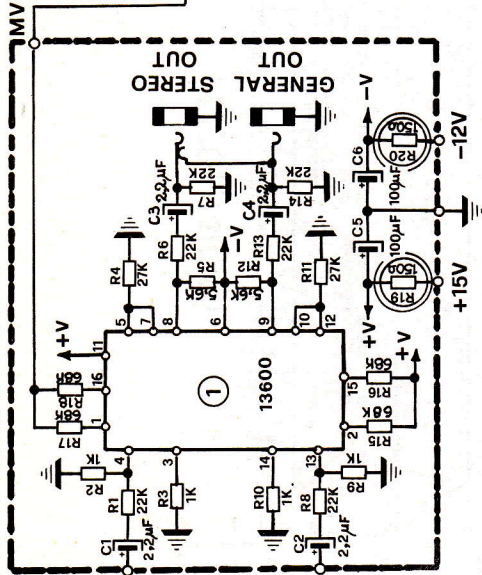
STEREO OUT GENERAL OUT



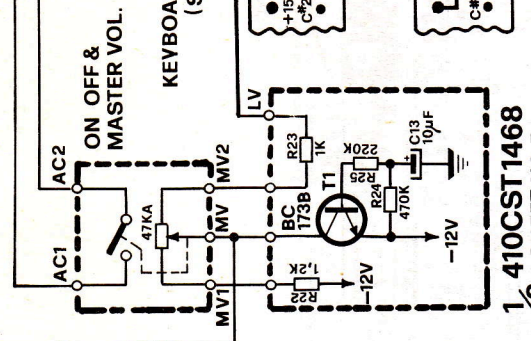
Model WILGAMAT III	Sheet No 7a - 7
	Date 4-12-82



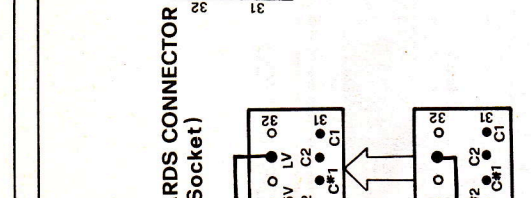
410 CST1470



SHEET N 6-7
CST1468



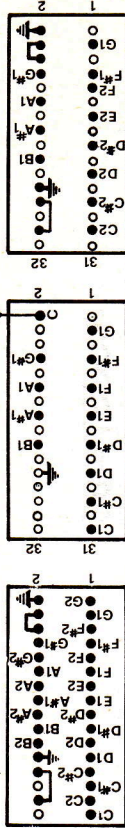
1, 2 SHEET N 6-7
CST1468



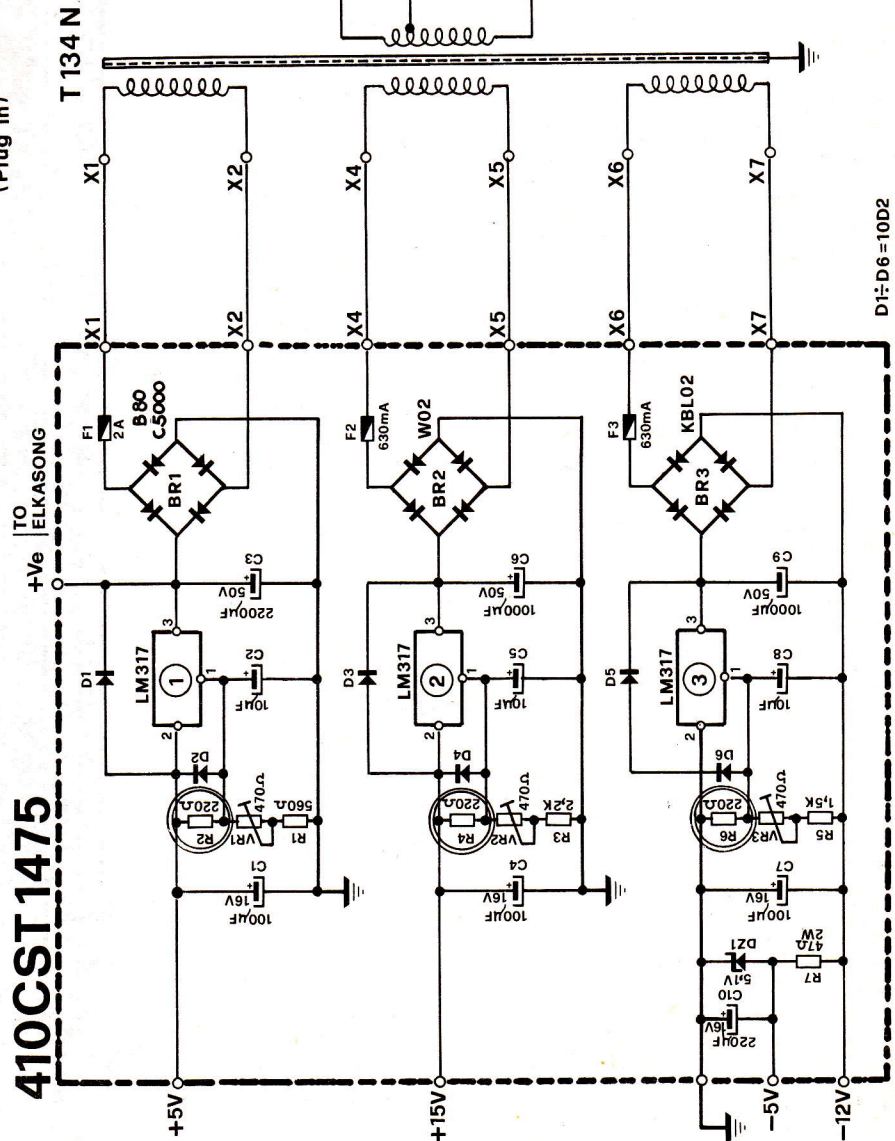
(CONNECTION OF WILGAMAT III
WITH THE OTHER ELKA INSTRUMENTS)

X 605

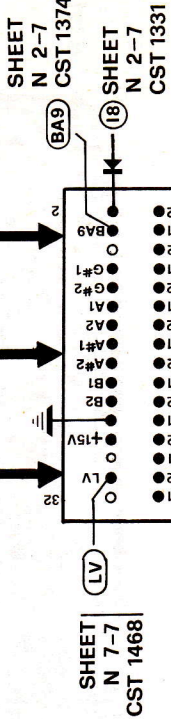
ELKAVOX 83 CWV CONCORDE 502



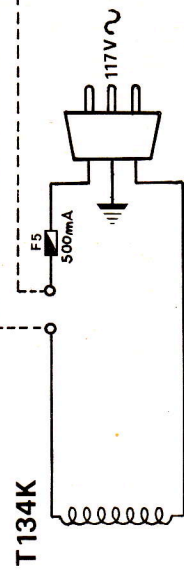
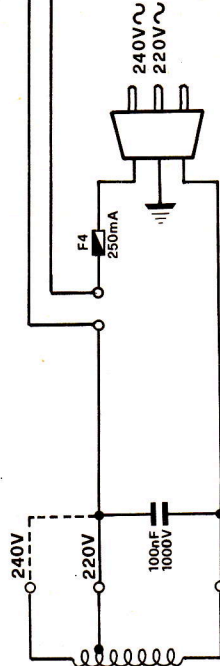
410 CST1475



D1-D6=10D2



WILGAMAT III
(KEYBOARDS SOCKET)



Model
WILGAMAT III

Sheet No. 7-7

Date 4-12-82

Object:

OUT PREAMPL.
POWER SUPPLY

