



# ELKA

*ELKATWIN*


*61*

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schematic diagrams

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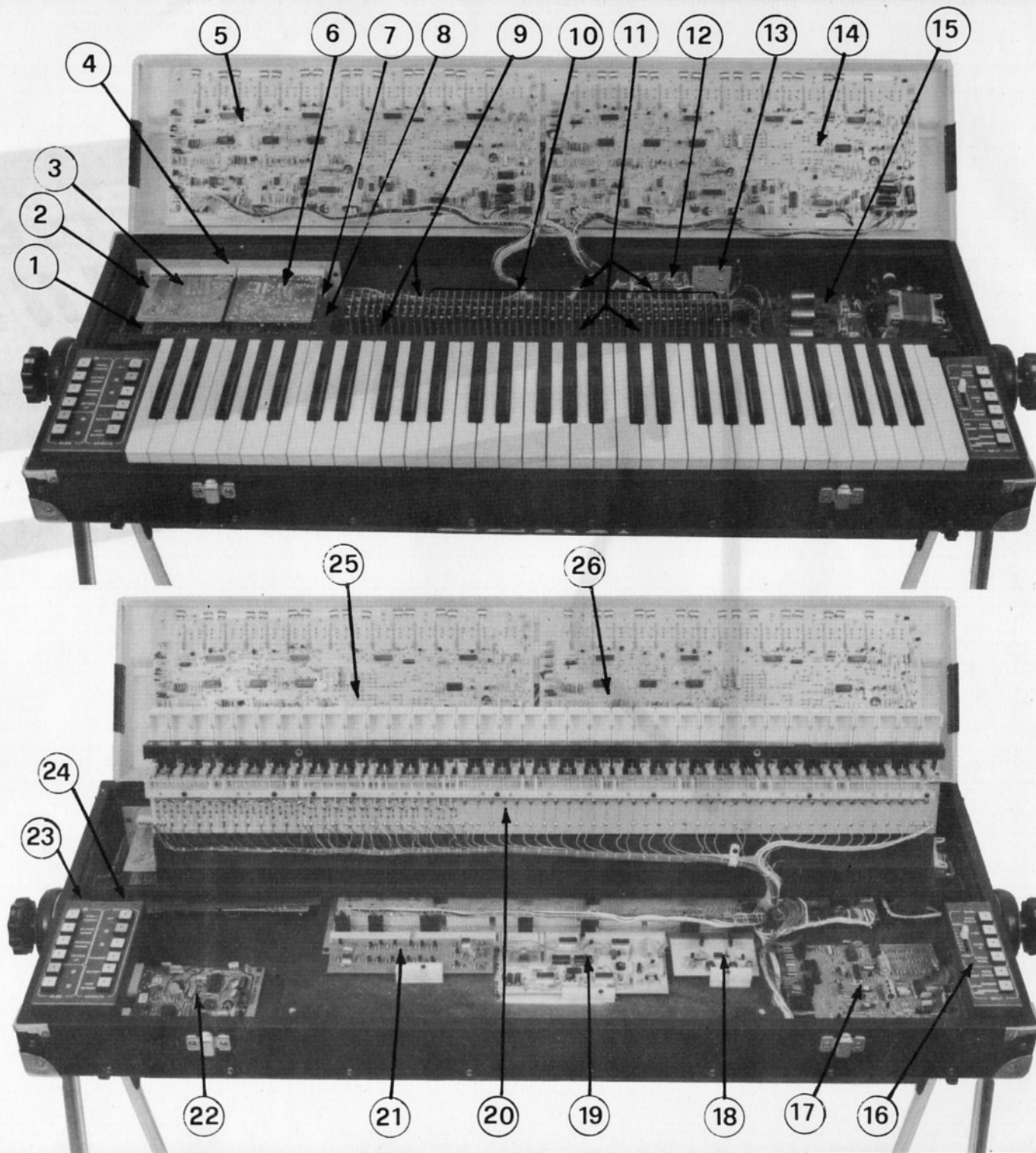


	<b>Model</b> ELKATWIN 61	<b>Object:</b> Inside view of the organ	<b>Sheet No A</b>  Date 9-6-81
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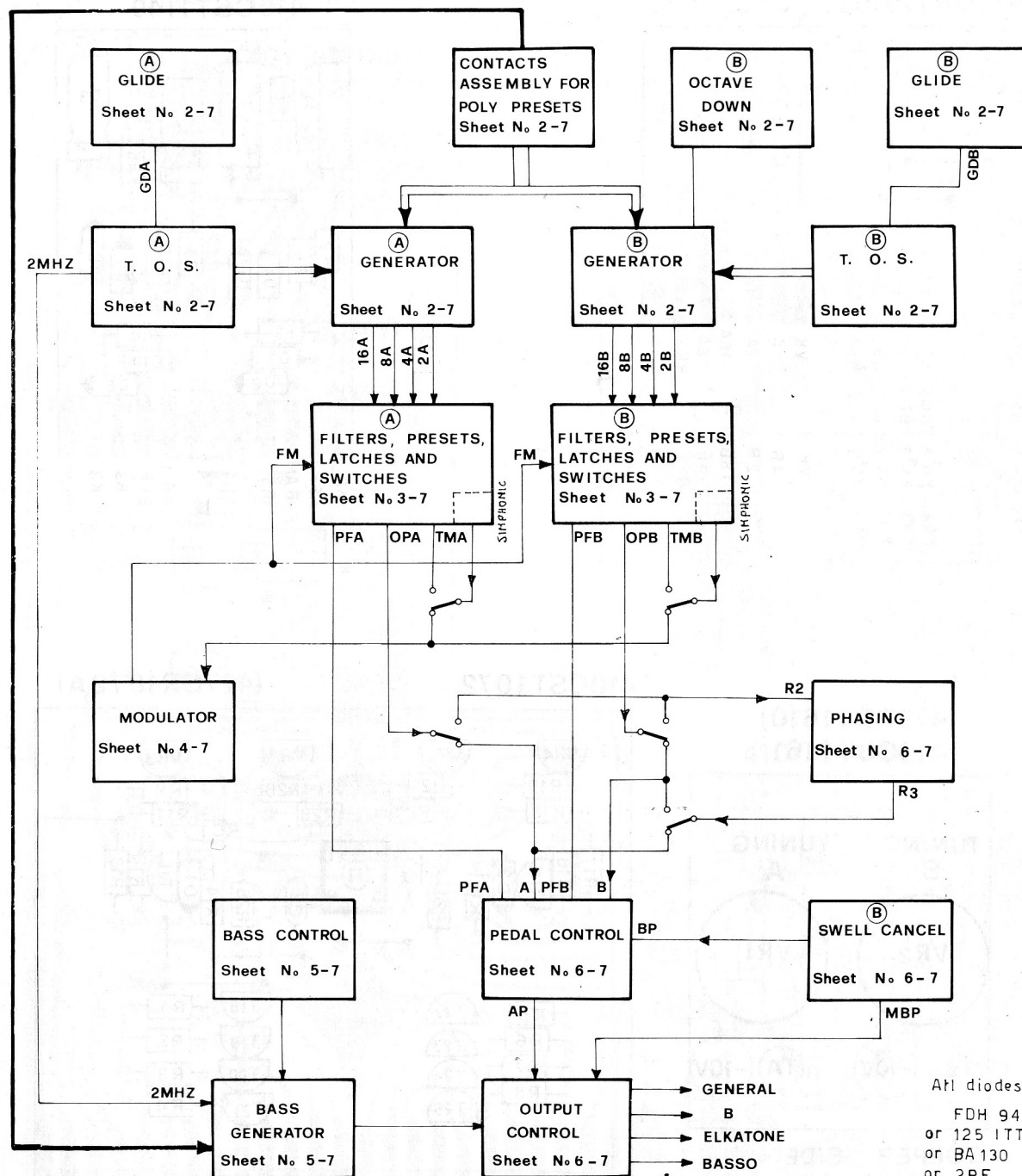


- 1 410CST1155 = Pedal Control
- 2 410CST1108 = Modulator C
- 3 410CST1109 = Preamplifier
- 4 410CST1157 = Matrix for Modulator ETC
- 5 410CST1162 = Filters - Preset A
- 6 410CST1108 = Modulator A
- 7 410CST1108 = Modulator B
- 8 410CST11156 = Output Multi-Channel Switching
- 9 410CST1150 x 2 = Divider Keyer
- 10 410CST1149 x 49 = Envelope Modules
- 11 410CST1151 = Divider Keyer
- 12 410CST1229 = Terminal Board
- 13 410CST1161 = Tuning Board
- 14 410CST1162 = Filters - Preset B
- 15 410CST1154 = Power Supply
- 16 410CST1239 = Bass Tabs
- 17 410CST1238 = Bass Control
- 18 410CST1072 = Converter
- 19 410CST1153 = Master Tone Generator
- 20 410CST1147 = Contact Assembly for Poly Presets

- 21 410CST1152 = Pulse Generator
- 22 410CST1091 = Rotary Phasing
- 23 410CST1160 = Glide Swell Cancel Tabs
- 24 410CST1158 = Rotary Phasing Tabs
- 25 410CST1236 = Potentiometer Board
- 26 410CST1237 = Potentiometer Board



Model	Object	Sheet No B
ELKATWIN 61	Inside view of the organ	Date 11-6-81



- 1) All resistors  $\square$  are carbon film  $\frac{1}{4}$  W 5%
- 2) All resistors marked by a point  $\bullet$  must be metal film 2%
- 3) All capacitors marked by a point  $\bullet$  must be plastic film 2%
- 4) All resistors  $\square$  must be mounted 10mm above board
- 5) All resistors  $\square$  must be mounted 10mm above board and non flammable

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

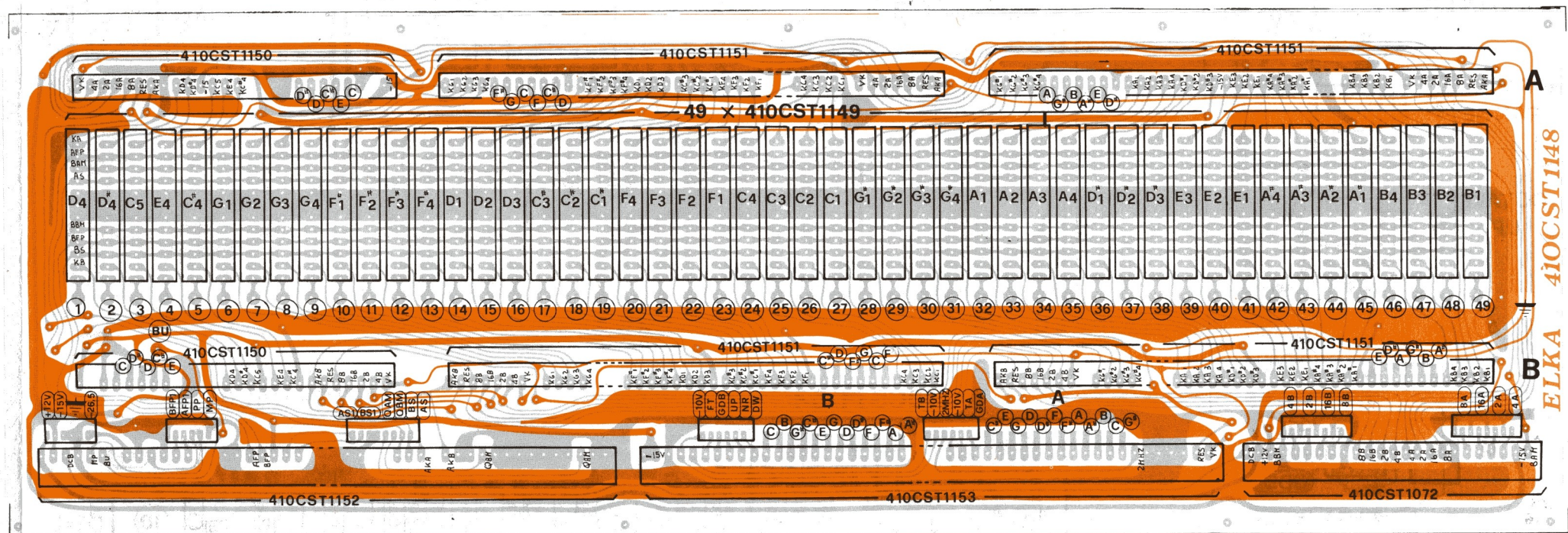
Atl diodes are:  
FDH 9439 Fairchild  
or 125 ITT  
or BA130  
or 2PF

Transistors	Equivalent
BC 171	BC 173 - BC 108 - BC 208 - BC 209
BC 173	BC 109 - BC 209 - BC 239
BC 415 B	BC 205 B - BC 308 B
BC 415 C	BC 205 C - BC 308 C

	Model	Object:	Sheet No. 1-7
	ELKATWIN 61	Block Diagram	Date 5-5-81

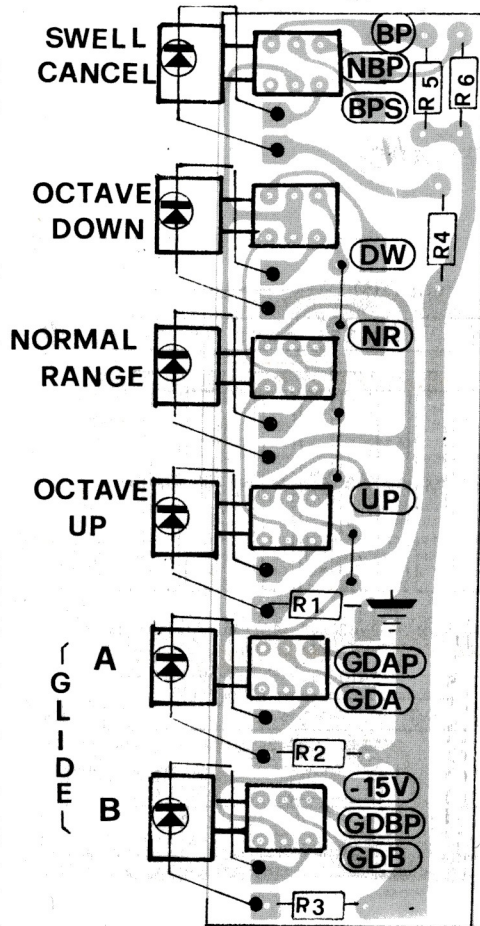


(477GR11480)



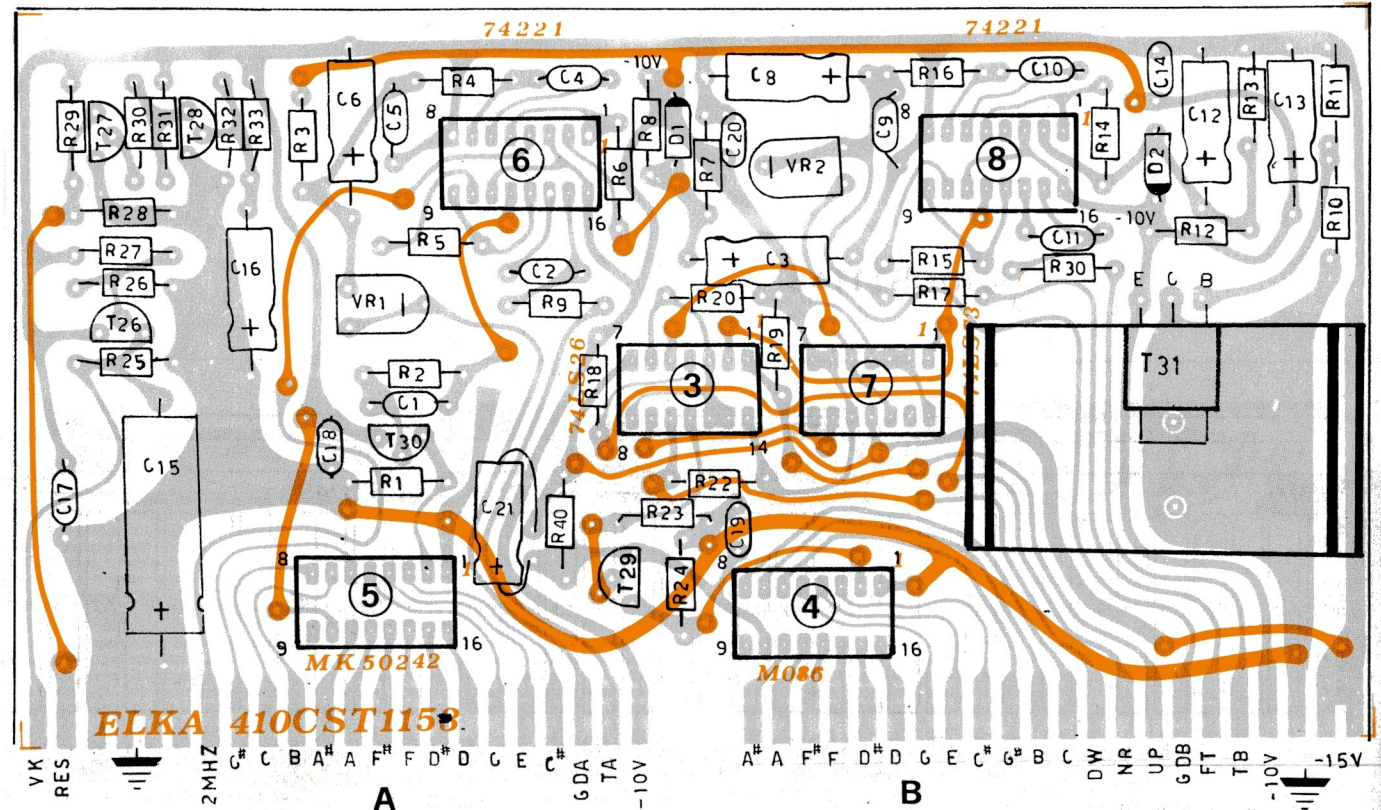


(477GR11600)  
410CST1160



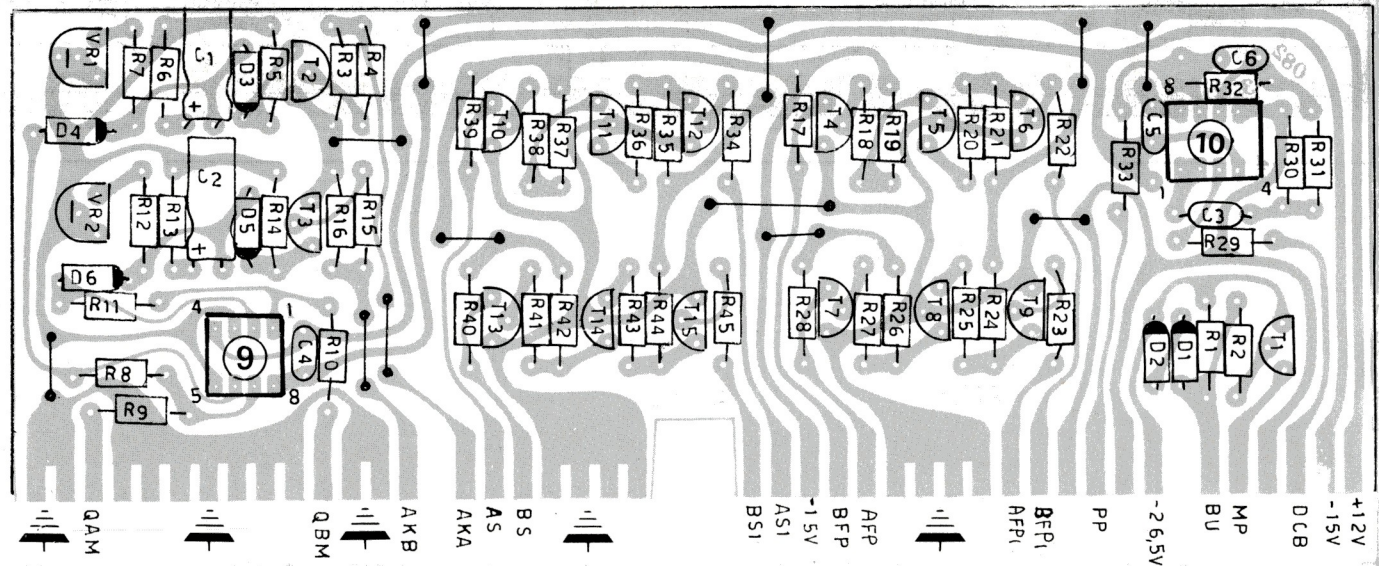
410CST1153

(477GR11530)



410CST1152

(477GR11520)



Model  
ELKATWIN  
61

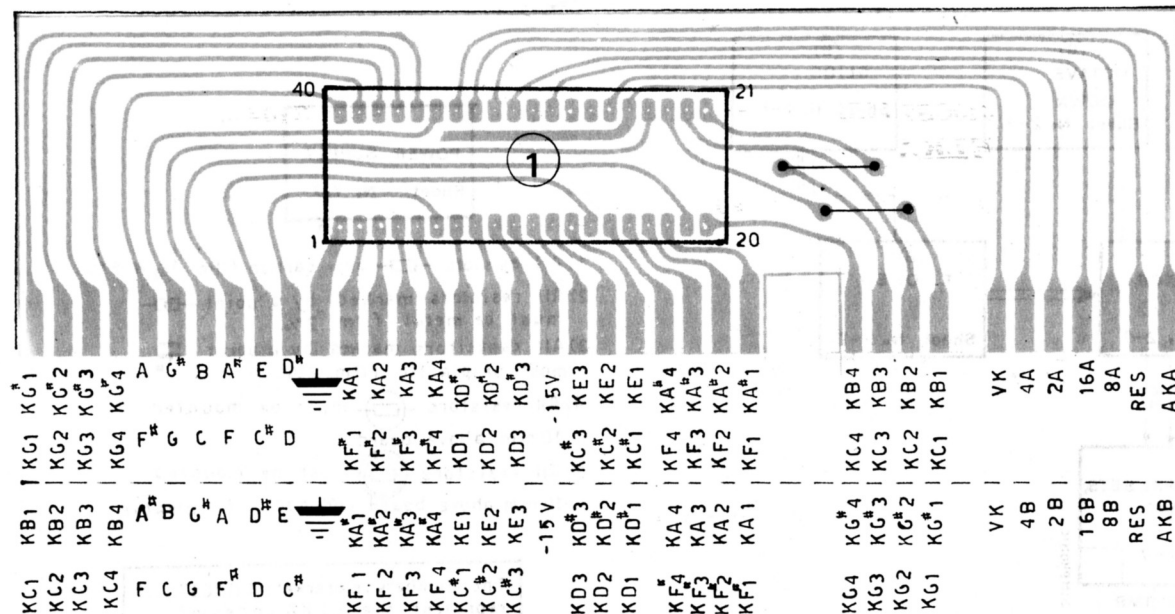
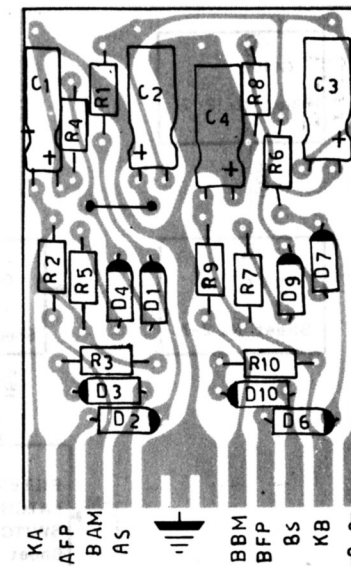
Object:  
Assembly of  
Printed Circuits

Sheet No. 2a-7  
Date 11.5.81



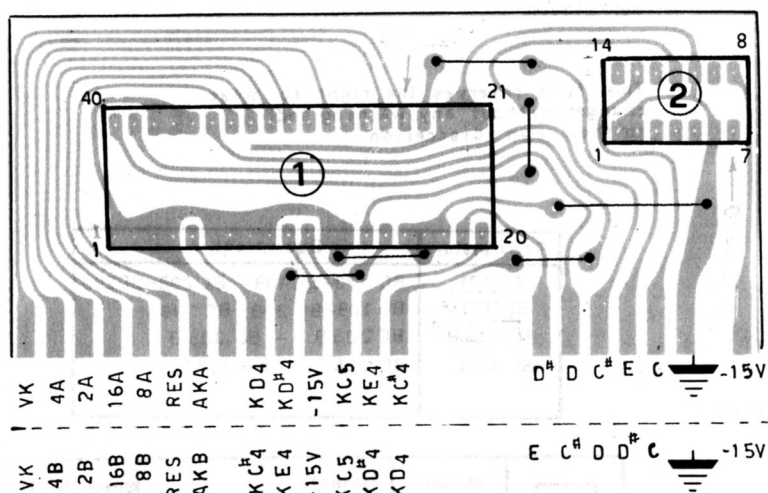
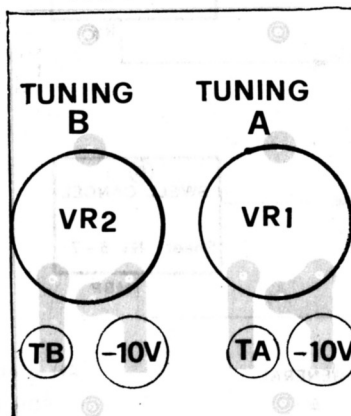
410CST1151 × 4

(477GR11510)

(477GR11490)  
410CST1149

410CST1150 × 2

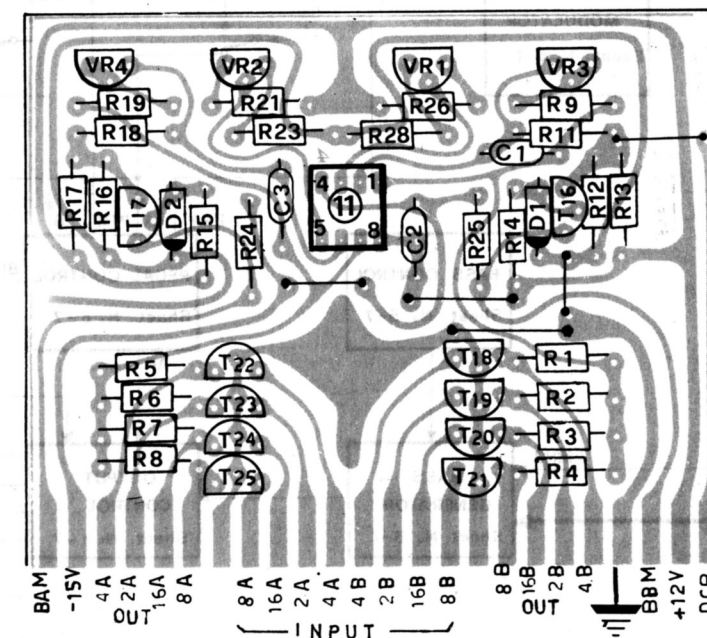
(477GR11500)

(477PR11610)  
410CST1161

COPPER SIDE

410CST1072

(477GR1072A)





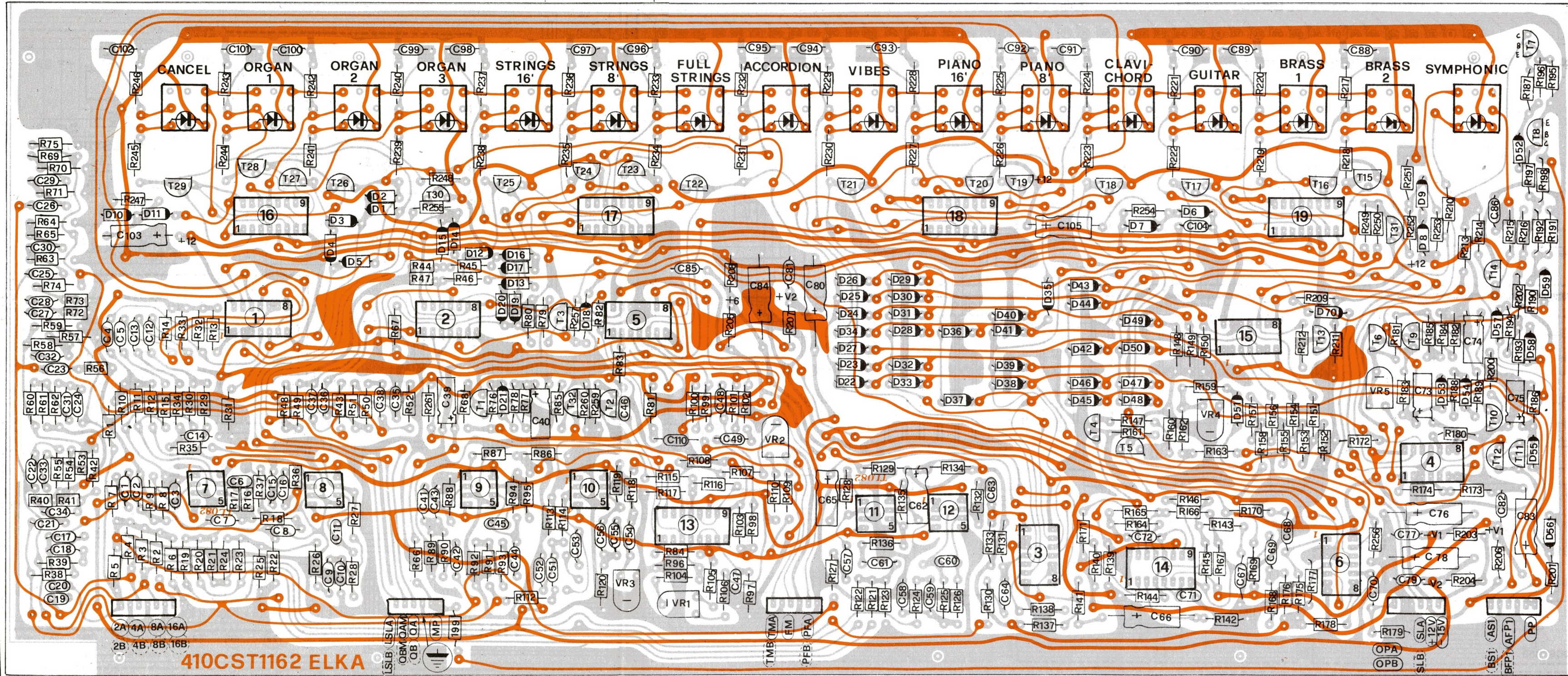






410CST1162

(477GR11620)





See Sheet  
No 2-7  
CST1072

See Sheet  
No 4-7  
410CST1109  
See Sheet  
No 6-7  
410CST1155  
See Sheet  
No 4-7  
410CST1108

See Sheet  
No 6-7  
410CST1158

See Sheet  
No 6-7  
410CST1156

See Sheet  
No 2-7  
410CST1152

CST1162

INTEGRATED CIRCUITS		
CODE	TYPE	MANUFACTURED
1-6	4016	
7-12	TL082	
13-14	13600	
15	4011	
16-19	4042	

4011 PIN 7 =  $\frac{1}{2}$   
4016 PIN 14 = +12V  
TL082 PIN 4 = -V2  
PIN 8 = +V2

CODE	TYPE	TRANSISTORS
T2-T4-T7-T31	PNP	BC 415 C
T1-T3-T5	NPN	BC 173 B
T6-T8-T30		
T32		

D61-D75 = TIL 209A

410CST1162

See Sheet  
No 2-7  
410CST1072

See Sheet  
No 4-7  
410CST1109

See Sheet  
No 6-7  
410CST1155

See Sheet  
No 4-7  
410CST1108

See Sheet  
No 6-7  
410CST1158

See Sheet  
No 2-7  
410CST1156

See Sheet  
No 2-7  
410CST1152

See Sheet  
No 2-7  
410CST1152

See Sheet  
No 2-7  
410CST1152

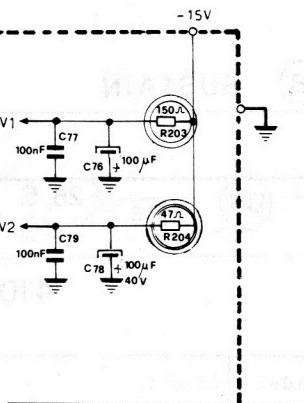
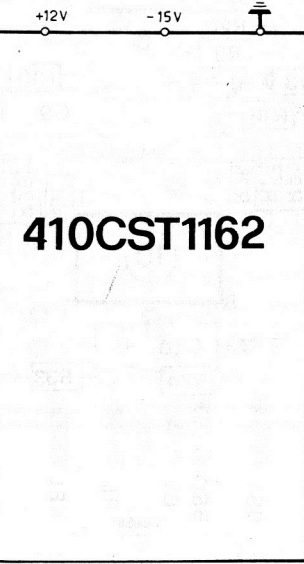
See Sheet  
No 2-7  
410CST1152

See Sheet  
No 2-7  
410CST1152

See Sheet  
No 2-7  
410CST1152

See Sheet  
No 2-7  
410CST1152

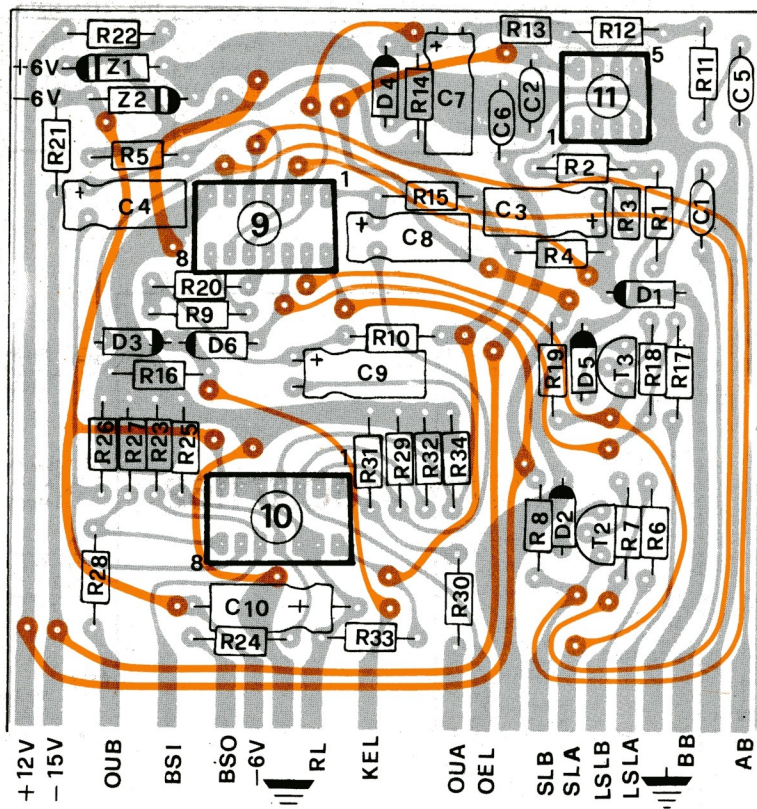
See Sheet  
No 2-7  
410CST1152





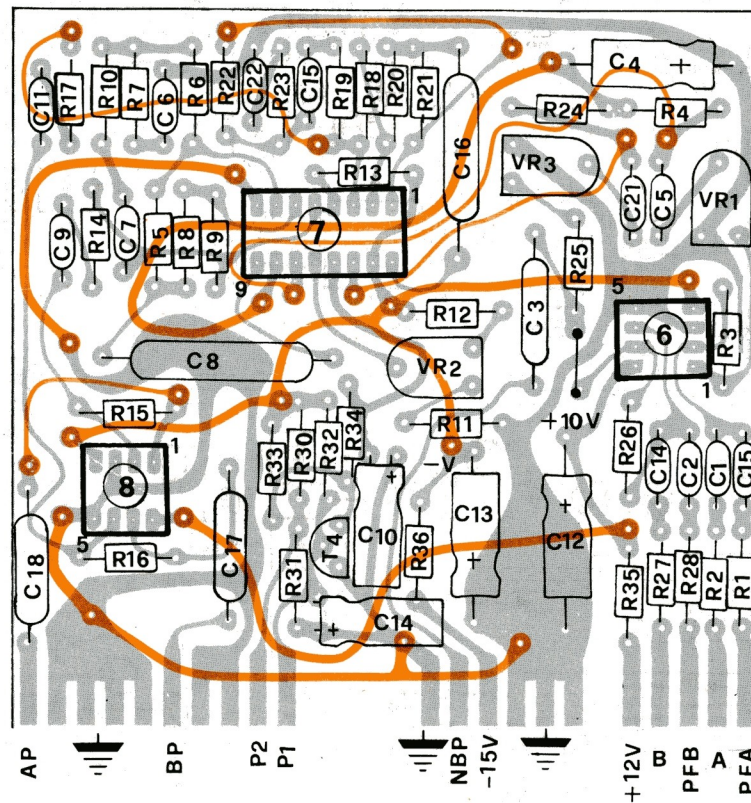
410CST1156

(477GR11560)



410CST1155

(477GR11550)

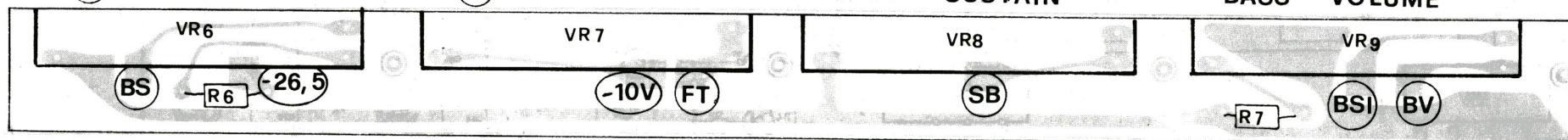


(B) SUSTAIN

(B) DETUNING

BASS SUSTAIN

BASS VOLUME



410CST 1236

(477GR12360)

COPPER SIDE



Model  
ELKATWIN  
61

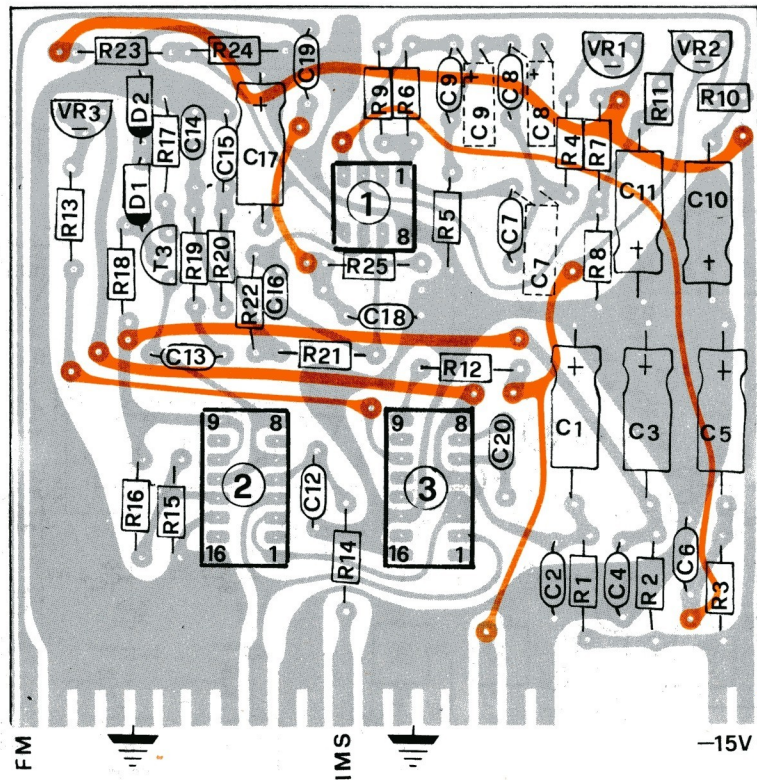
Object:  
Assembly of  
Printed Circuits

Sheet No. 4a 7  
Date 12-5-81



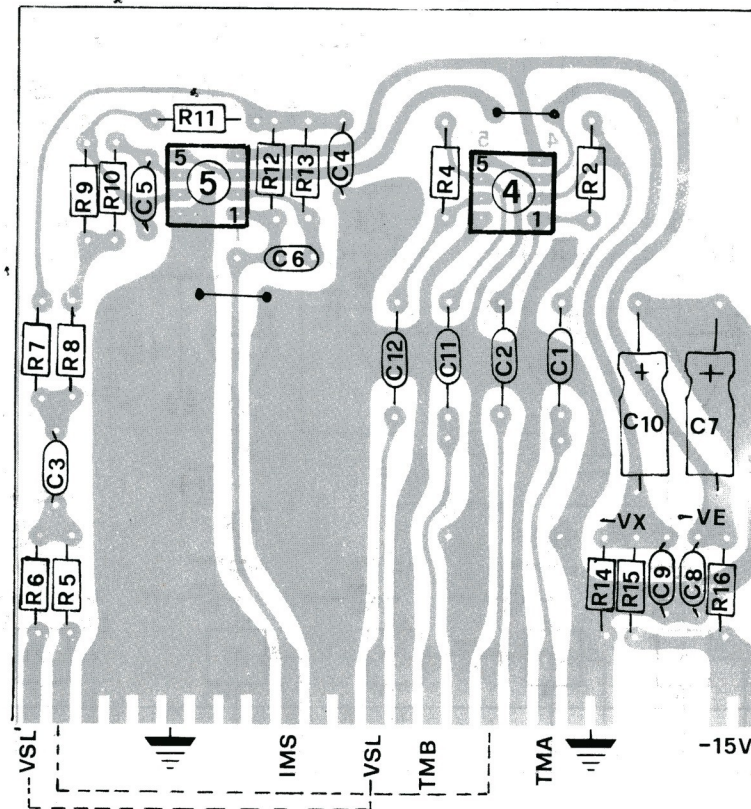
410CST1108

(477GR1108A-B-C)



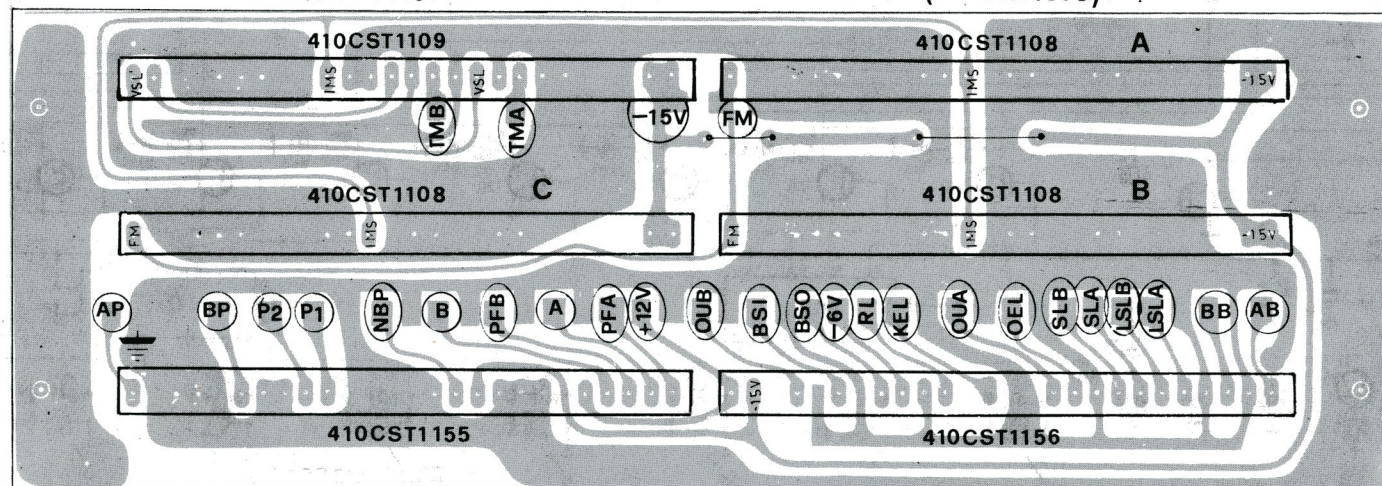
410CST1109

(477GR11091)



410CST1157

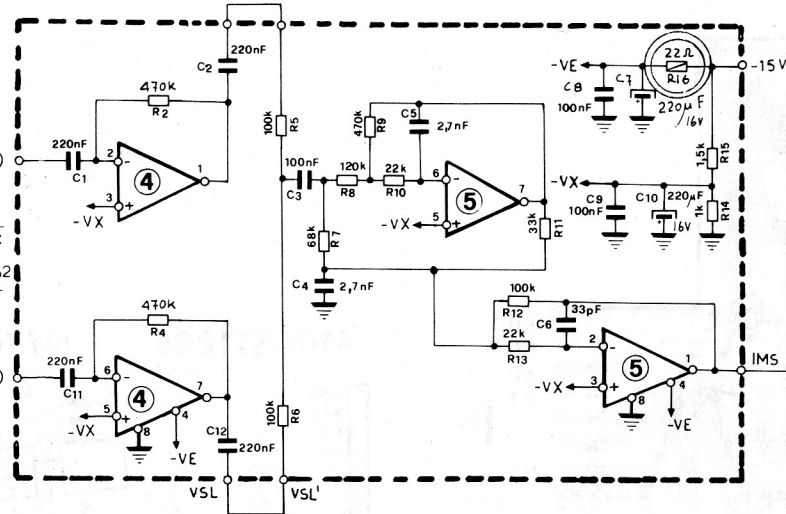
(477GR11570)





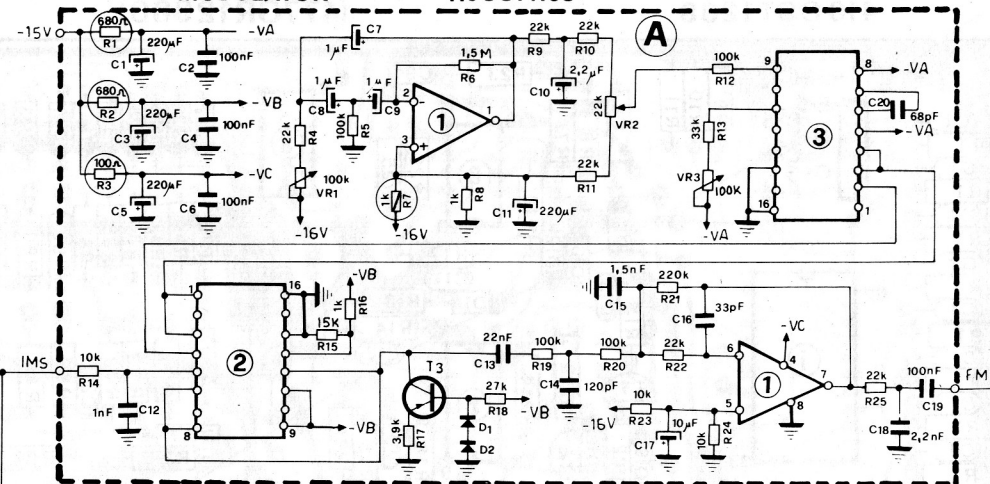
# 410CST1109

See Sheet  
No 3-7  
410CST1162



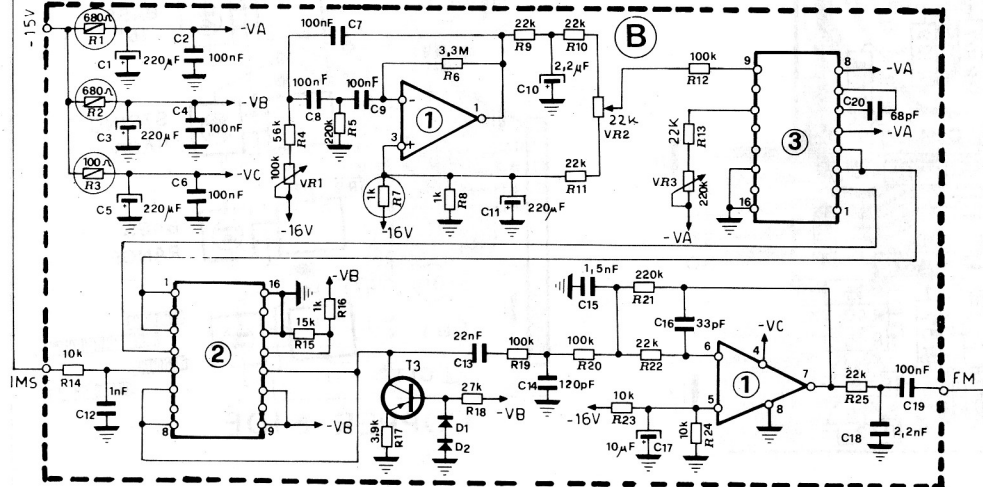
# MODULATOR

# 410CST1108



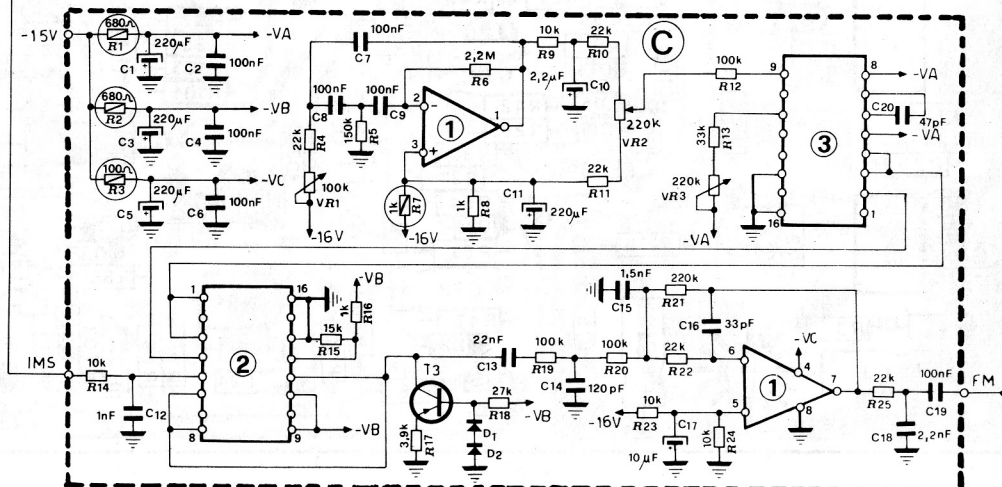
# MODULATOR

# 410CST1108



# MODULATOR

# 410CST1108



INTEGRATED CIRCUITS		
CODE	TYPE	MANUFACTURED
1-4-5	TL082	TEXAS
2	TOA1022	PHILIPS
3	4046	

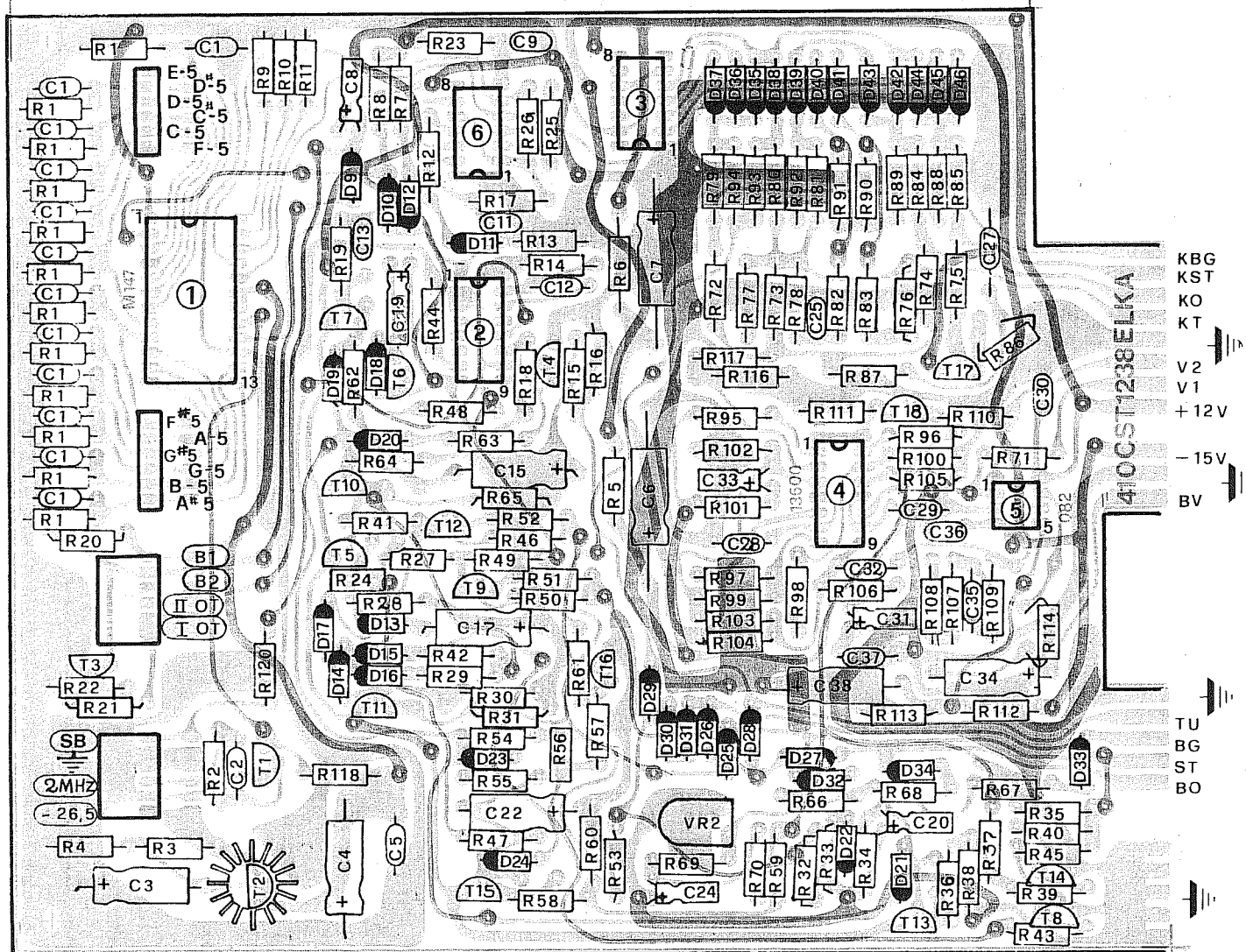
CODE	TYPE	TRANSISTORS
T3	PNP	BC415C

Model		Object:	Sheet No 4-7
ELKATWIN 61		Strings filter and Modulator	Date 28-4-81



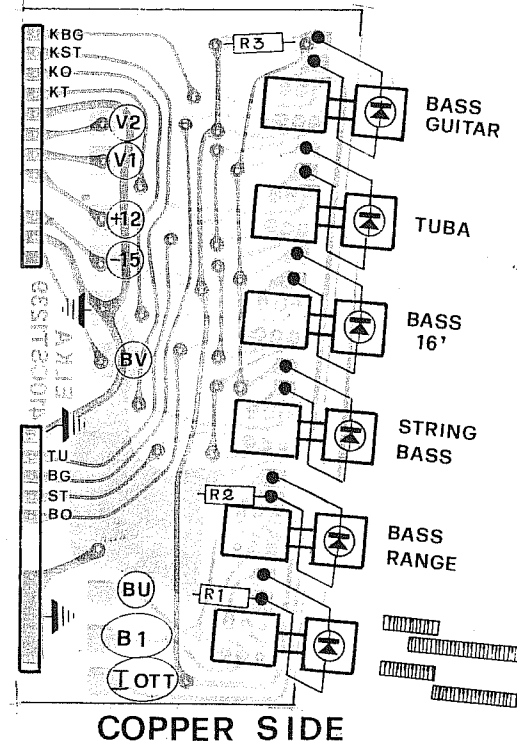
410CST1238

(477GR12380)



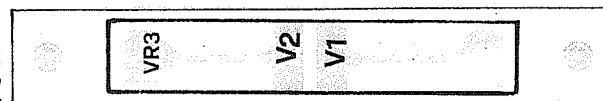
KBG  
KST  
KO  
KT  
V2  
V1  
+12V  
-15V  
BV  
TU  
BG  
ST  
BO

410CST1239 (477GR12390)



COPPER SIDE

BASS  
TONE



410CST1252  
(477GR12520)

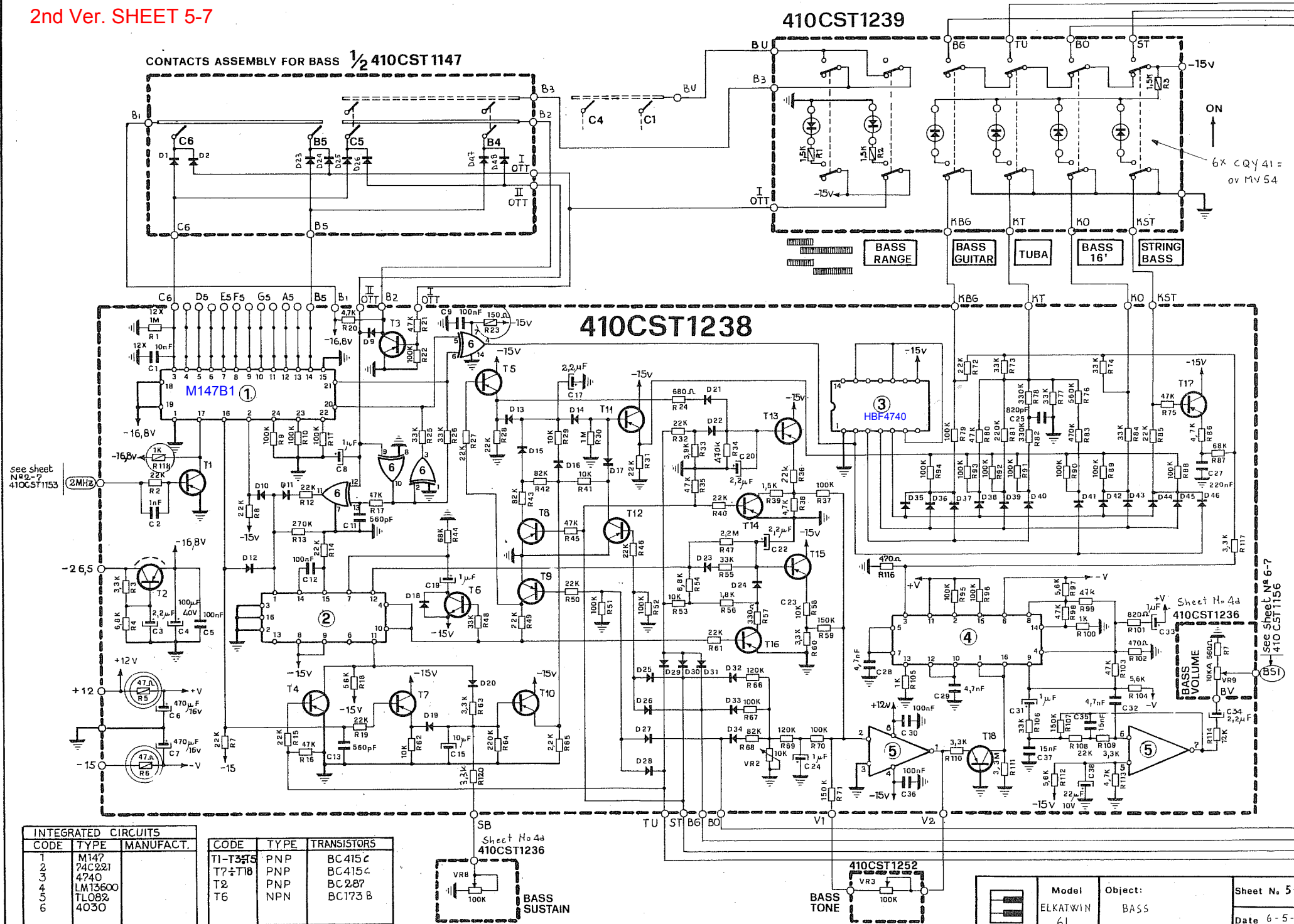
THE NUMBERS IN BRACKETS  
REPRESENT THE ELKA CODES OF  
THE ASSEMBLED BOARDS WHILST  
THE OTHERS REPRESENT THE ELKA  
CODES OF THE NON ASSEMBLED  
BOARDS.



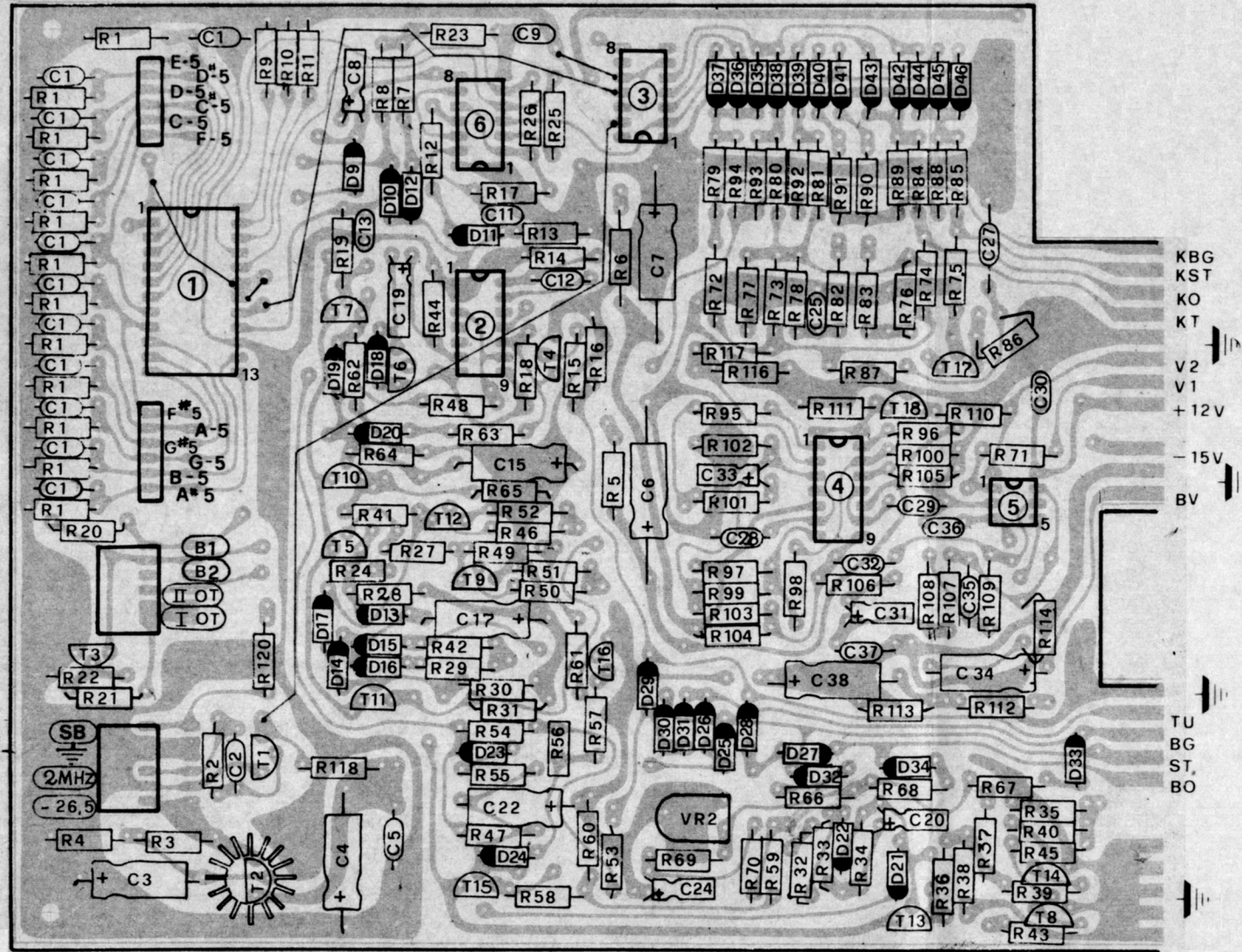
Model  
Object:  
Assembly of

Sheet No 5a-7

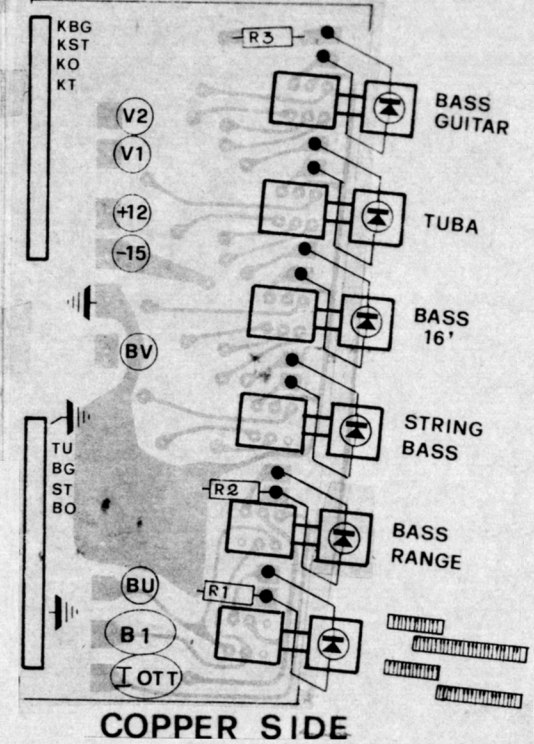






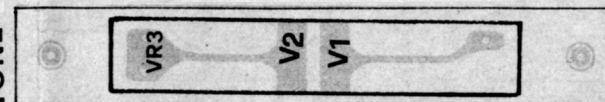


410CST1239 (477GR12390)

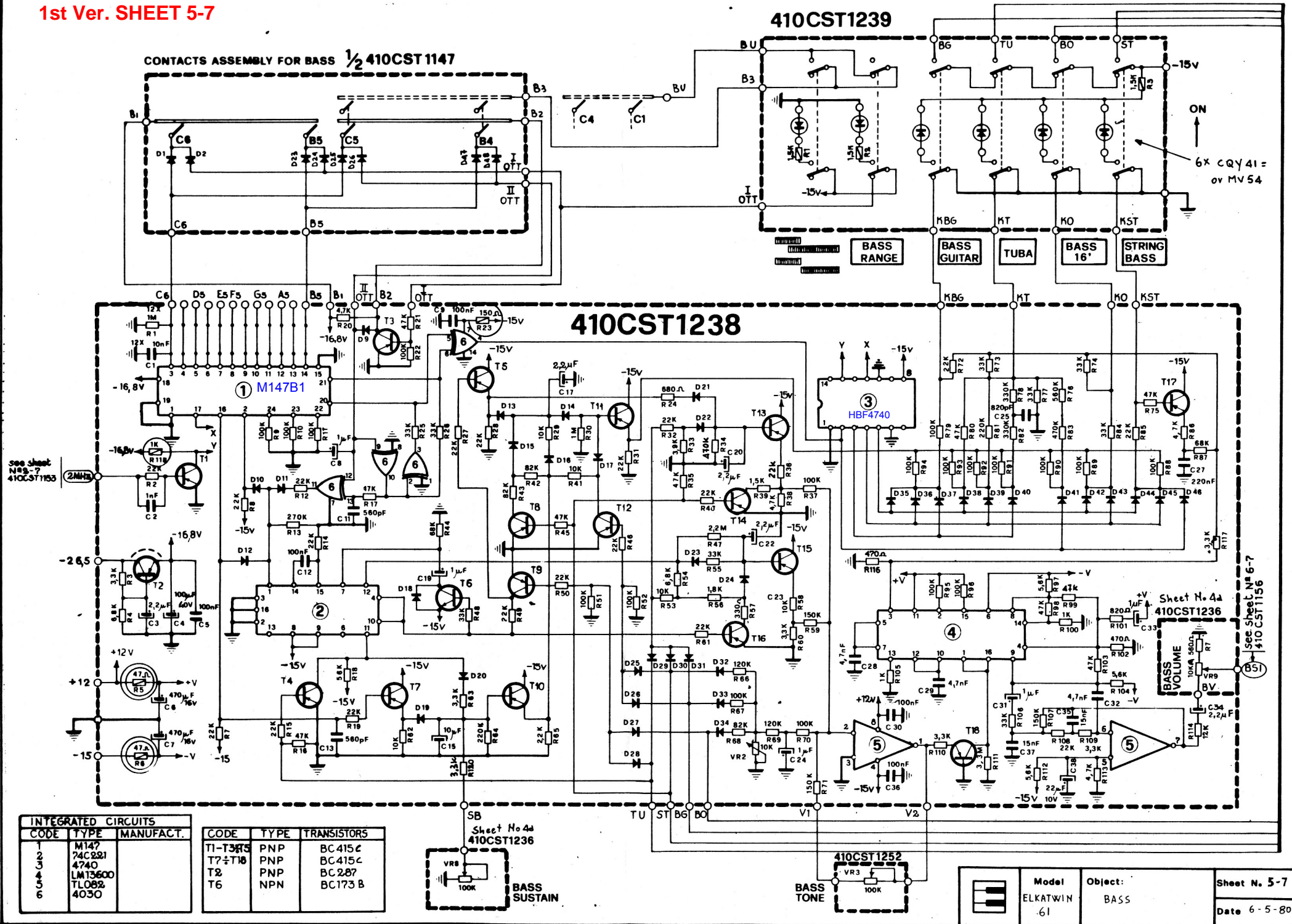


THE NUMBERS IN BRACKETS  
REPRESENT THE ELKA CODES OF  
THE ASSEMBLED BOARDS, WHILST  
THE OTHERS REPRESENT THE ELKA  
CODES OF THE NON-ASSEMBLED  
BOARDS.

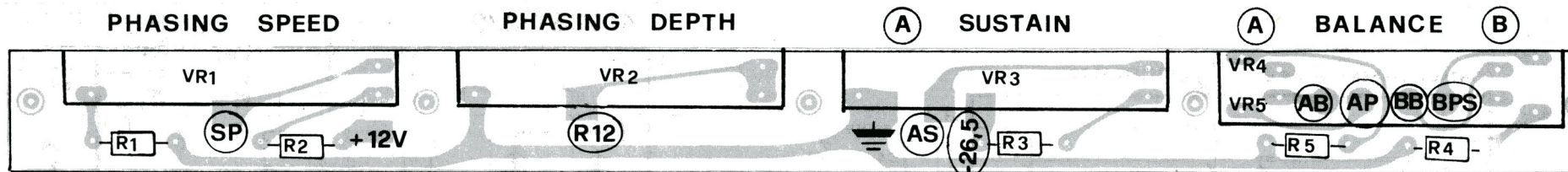
	Model ELKATWIN 61	Object: Assembly of Printed Circuits	Sheet No 5a-7 Date 12-5-81
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BASS  
TONE410CST1252  
(477GR12520)









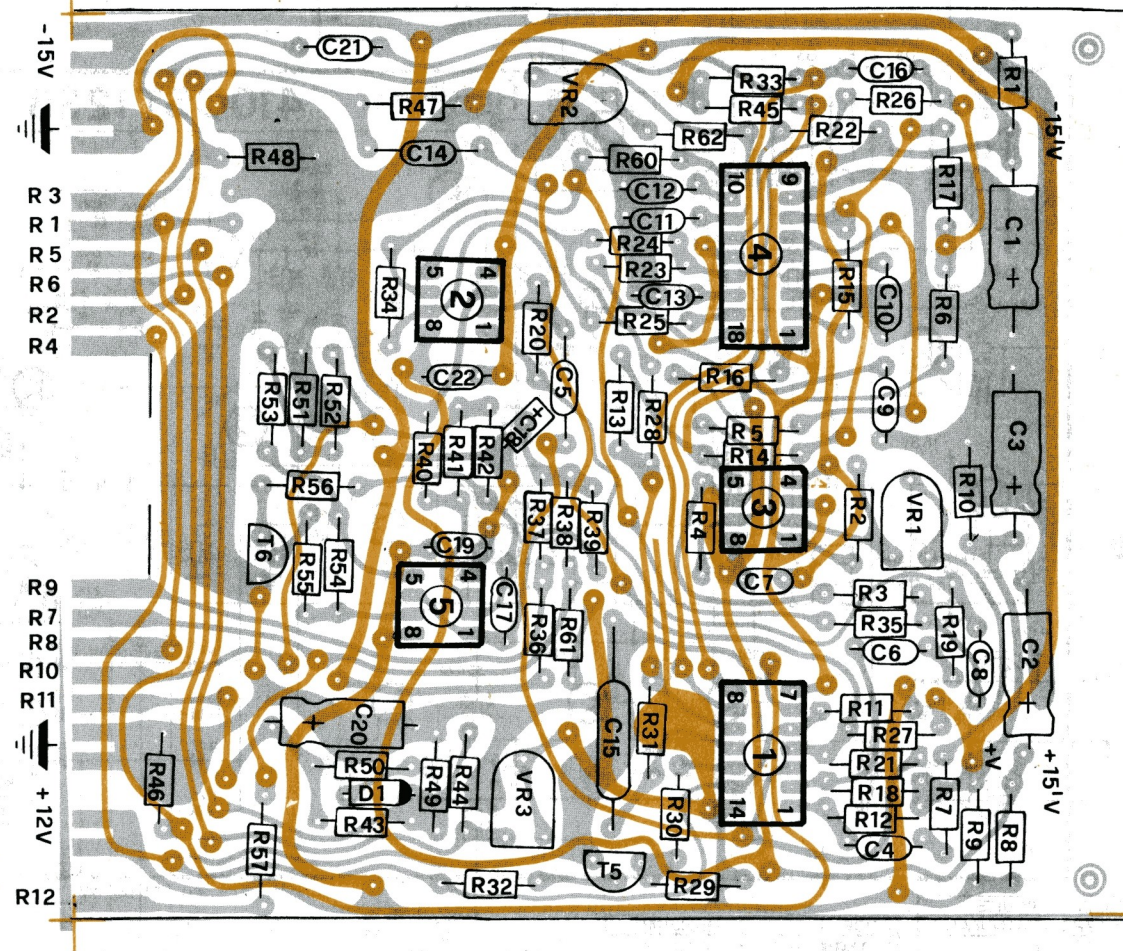
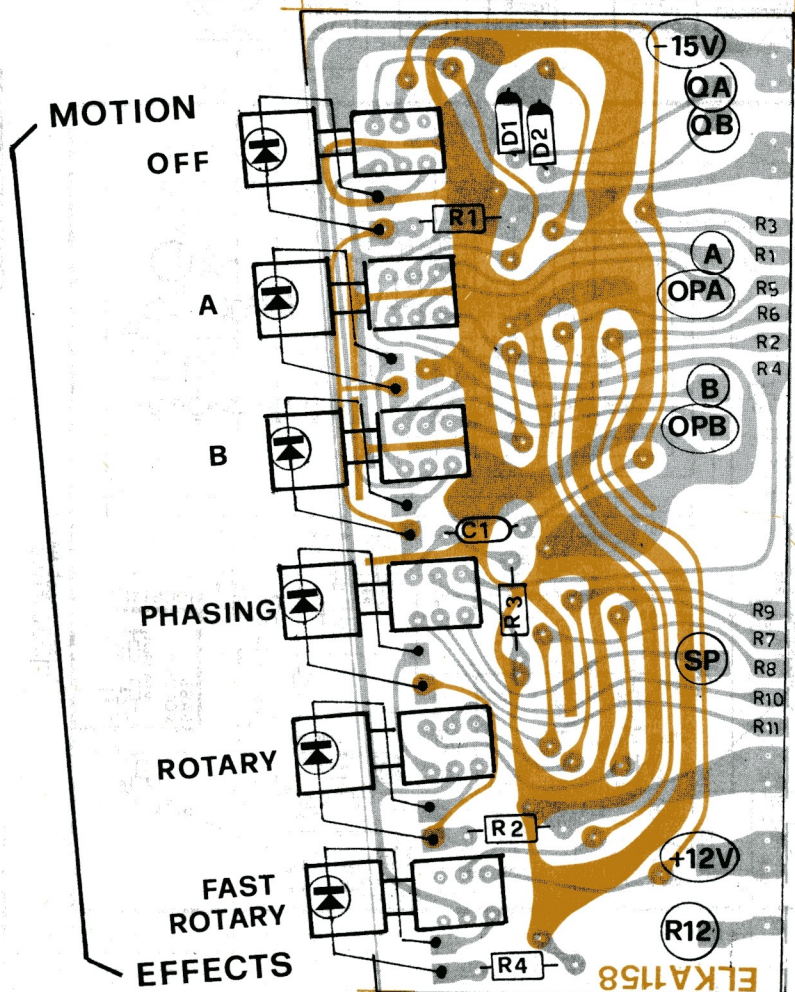
410CST1237

(477GR12370)

COPPER SIDE

410CST1158

(477GR11580)



410CST1091

(477GR1091B)



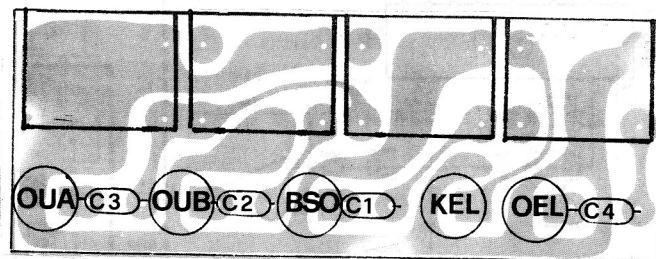
Model	Object:	Sheet No6a-7
ELKATWIN	Assembly of	Date12-5-81
61	Printed Circuits	



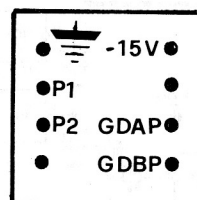




GENERAL B BASS ELKATONE



410CST1229 (477GR12290)  
COPPER SIDE

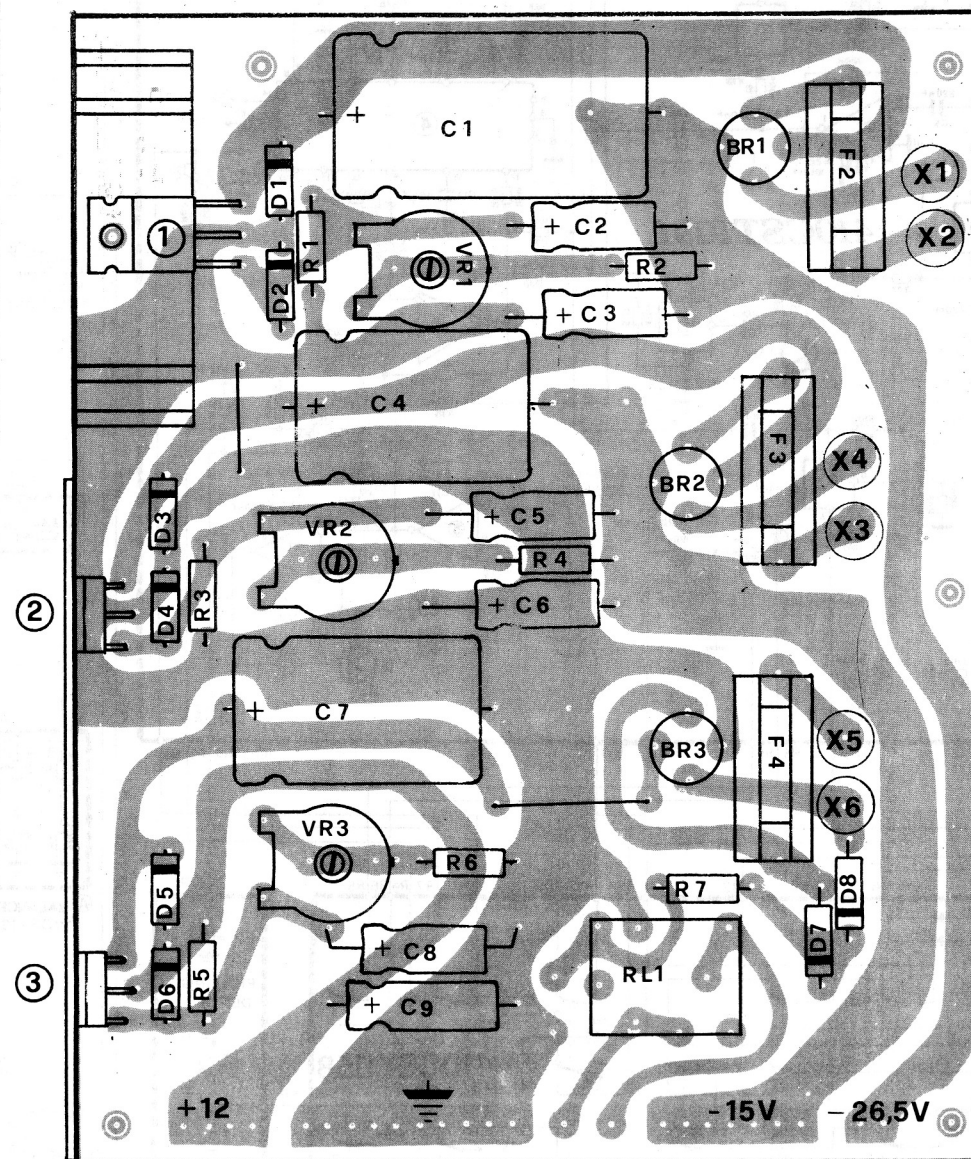


SOCKET  
FOR  
PEDAL

THE NUMBERS IN BRACKETS  
REPRESENT THE ELKA CODES OF  
THE ASSEMBLED BOARDS WHILST  
THE OTHERS REPRESENT THE ELKA  
CODES OF THE NONASSEMBLED  
BOARDS.

410CST1154

(477GR11540)



Model  
ELKATWIN  
61

Object:  
Assembly of  
Printed Circuits

Sheet No 7a-7  
Date 11-5-81







*Manufactured by* **ELKA**