

## SIEL Mono

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These are the schematics of the SIEL Mono, scanned at 300 DPI.

Some parts are hard to read but the original is not exactly spotless either. Drop me a mail if you're having trouble, I'll help you if I can.

WARNING : according to a Mono owner named Jesper, the keyboard diodes are backwards in the schematics. He realised this while MIDIfying his :

<http://www.electronic-obsession.se/studio/mono/mono.html>

Still missing : implantation diagram (probably not very useful), user's manual (almost useless).

### PARTS LIST

Power supply (PC 440.99.0105)		Contact board (PC 440.99.0184)
ICa1            μA79MG		ICc1            M110
ICa2            μA78MG		ICc2            1458
ICa3            μA79MG		ICc3            TL082
ICa4            μA78MG		ICc4            LM3046
		ICc5            4013
Filters board (PC 440.99.0185)		ICc6            4001
		ICc7            4069
ICf1            TL082		ICc8            4016
ICf2            4011		ICc9            4016
ICf3            4016		ICc10           CA3080
ICf4            4016		Tc1             2N5771
ICf5            4016		
ICf6            4016		Logic board (PC 440.99.0186)
ICf7            4016		
ICf8            3302		ICg1            4071
ICf9            4013		ICg2            4001
ICf10           TDA1022		ICg3            4049
ICf11           4016		ICg4            4013
ICf12           1458		ICg5            4049
ICf13           1458		ICg6            4001
ICf14           LM13600		ICg7            4025
ICf15           LM13600		ICg8            4071
ICf16           4016		ICg9            4001
ICf17           CA3080		ICg10           4075
		ICg11           4071
		ICg12           4049

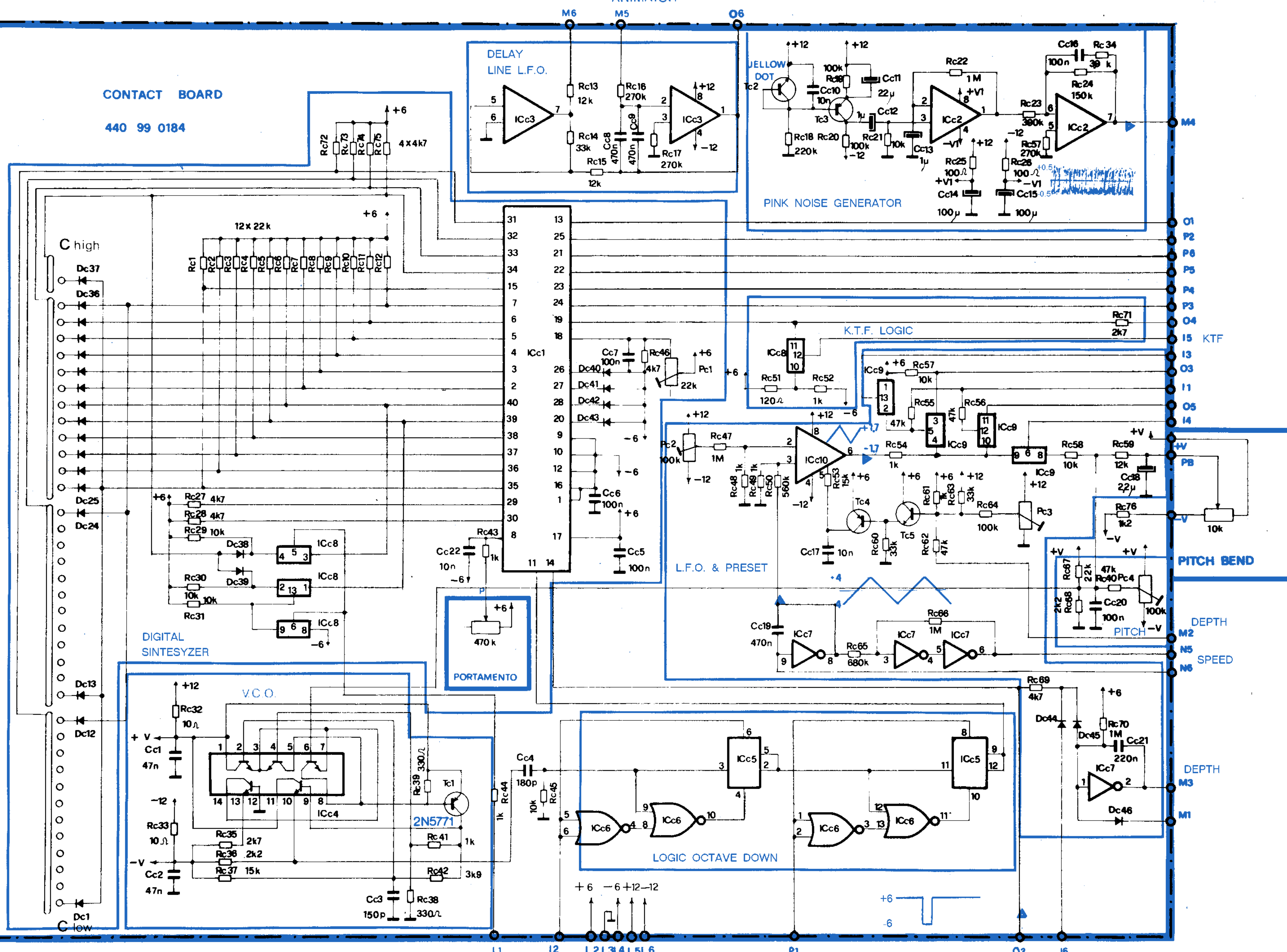
All PNP transistors BC416 unless otherwise indicated.  
All NPN transistors BC173 unless otherwise indicated.  
All diodes 1N4148 unless otherwise indicated.  
All red LEDs FL V 117.  
All green LEDs LT 233.

This is <http://www.teaser.fr/~amajorel/mono/schematics/README>, last updated AYM 2007-05-31.

ANIMATOR

CONTACT BOARD

440 99 0184



L1

I2

L2

L3

L4

L5

L6

P1

O2

I6

DEPTH

M3

M1

DEPTH

M2

N5

N6

PITCH

PITCH BEND

PB

+V

-V

KTF

O4

O3

O5

O6

O1

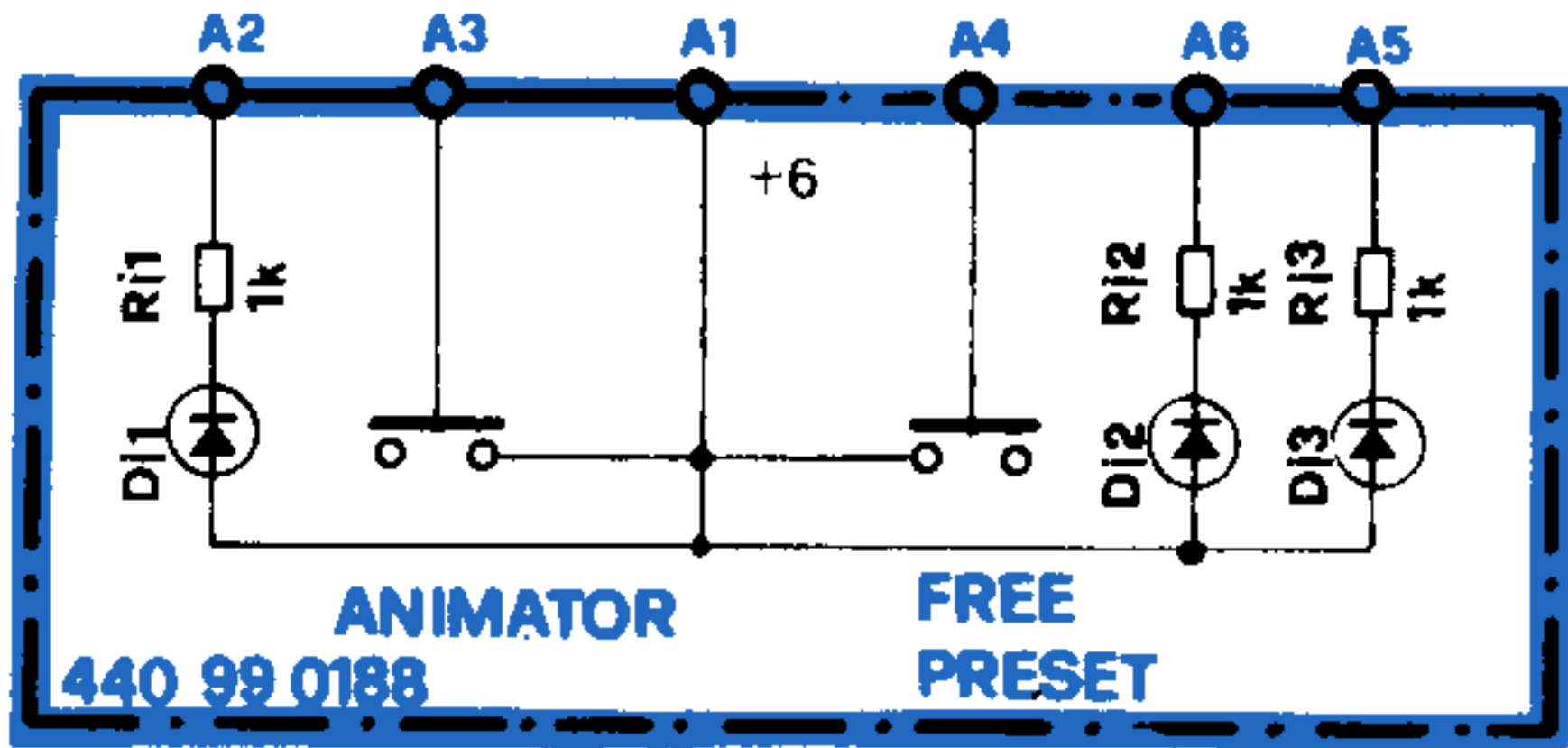
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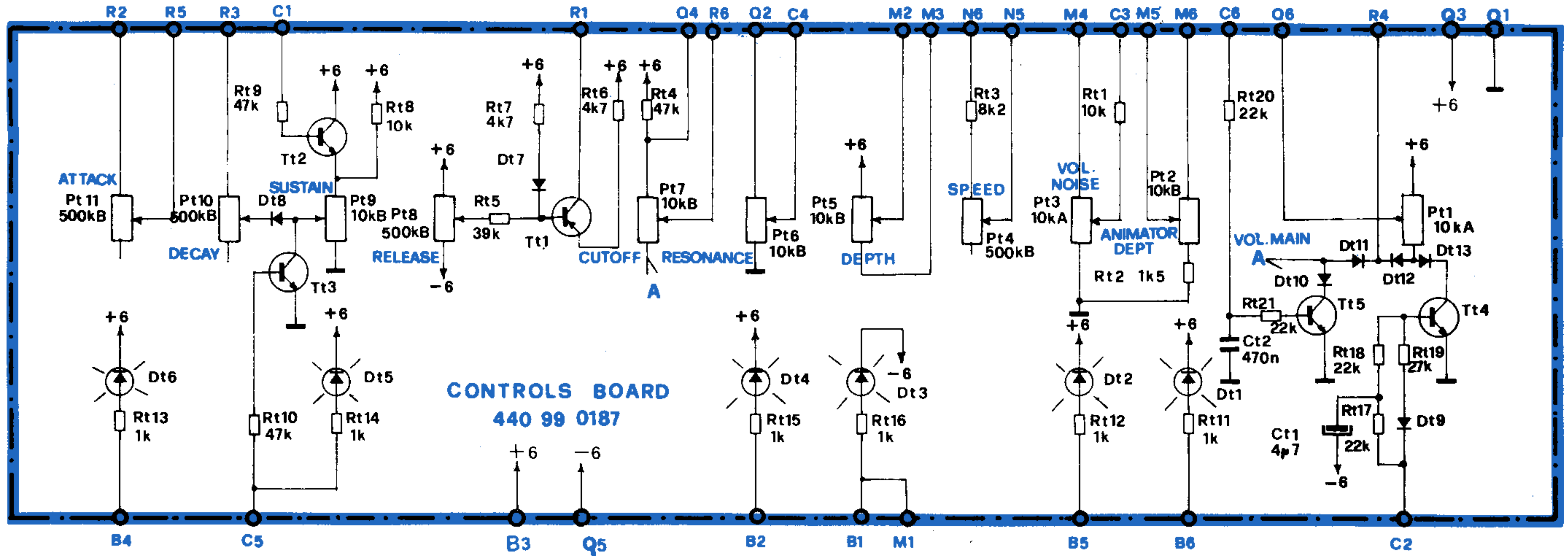
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P5

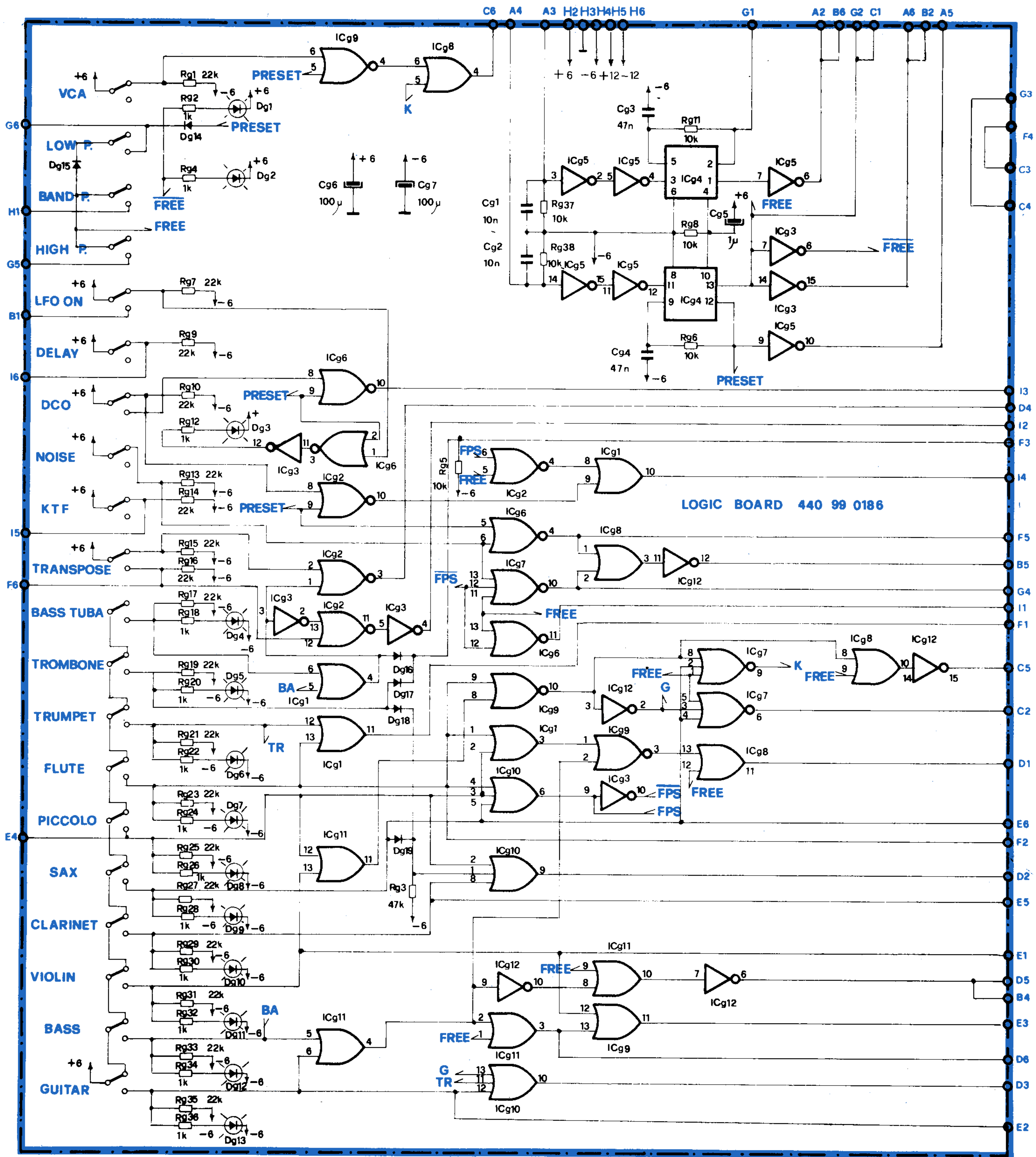
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P3

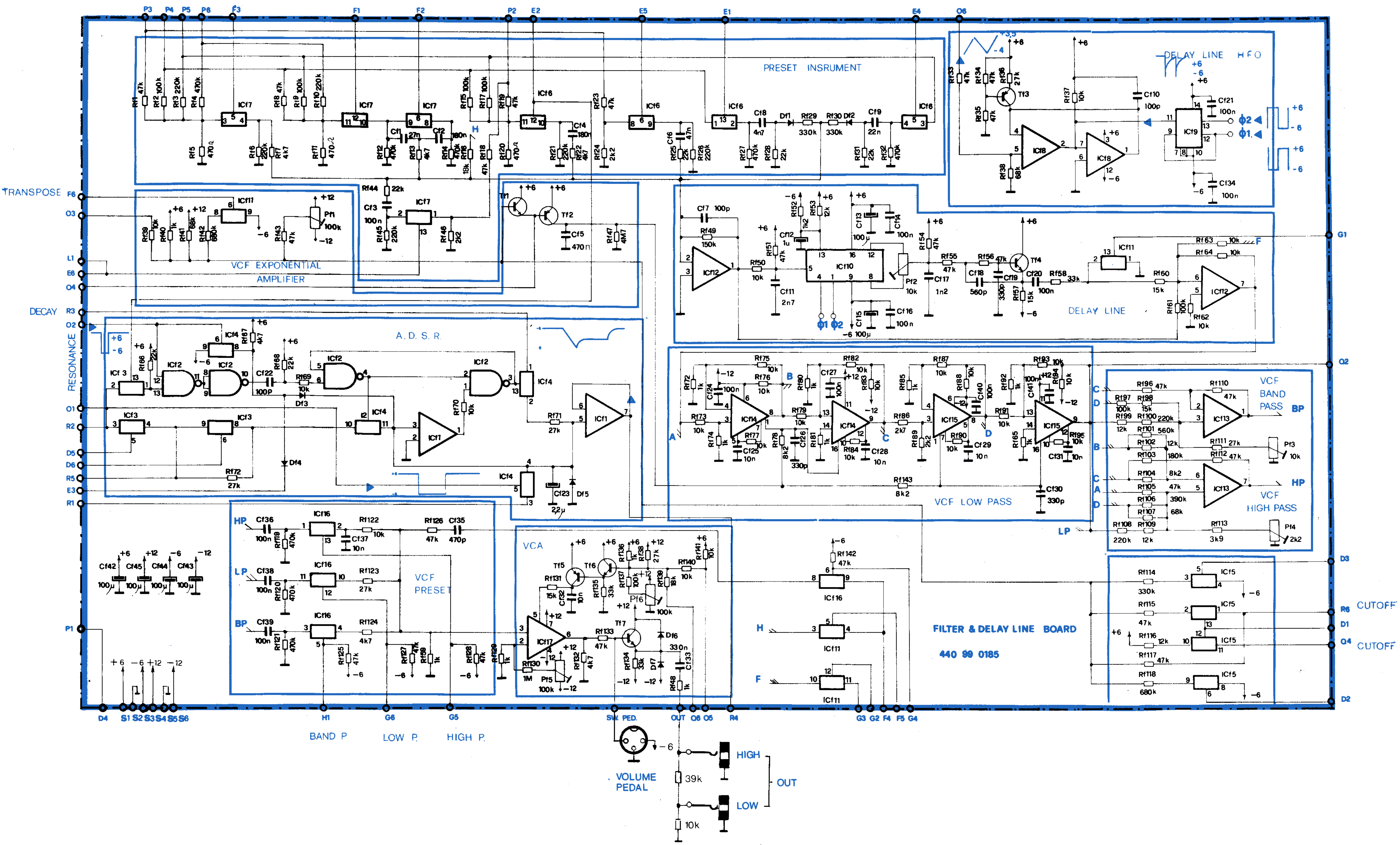












PRESET INSTRUMENT

VCF EXPONENTIAL AMPLIFIER

A.D.S.R.

VCF BAND PASS BP

VCF HP HIGH PASS

VCA

FILTER & DELAY LINE BOARD

440 99 0185

BAND P LOW P HIGH P

VOLUME PEDAL

HIGH  
LOW  
OUT

TRANSPOSE

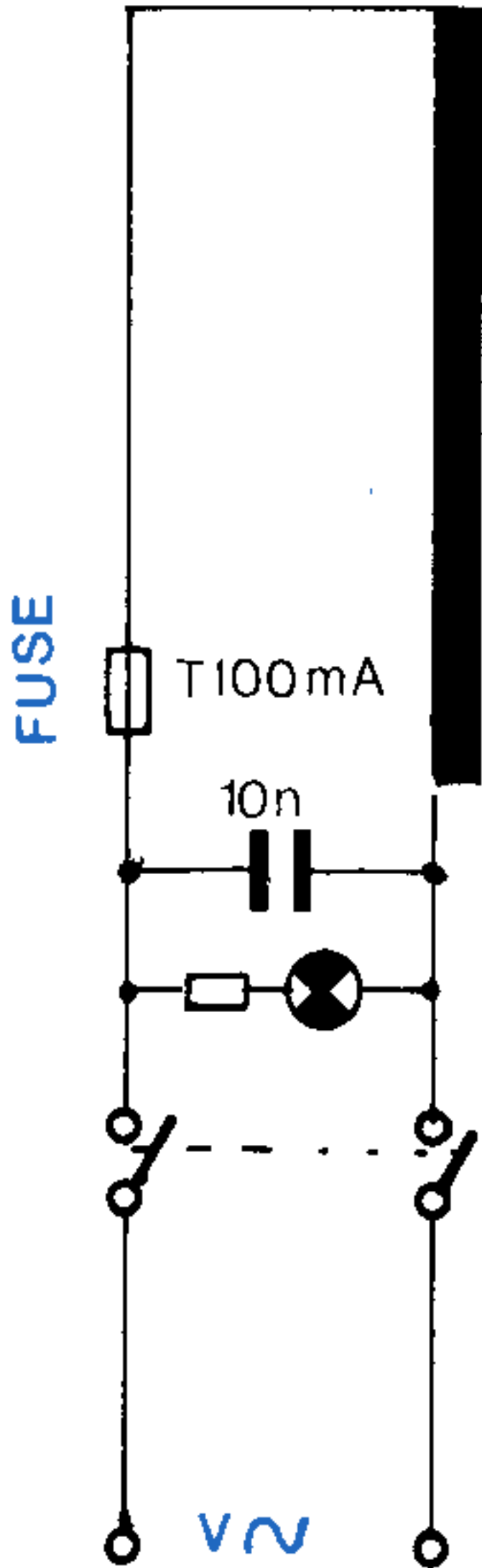
DECAY

RESONANCE

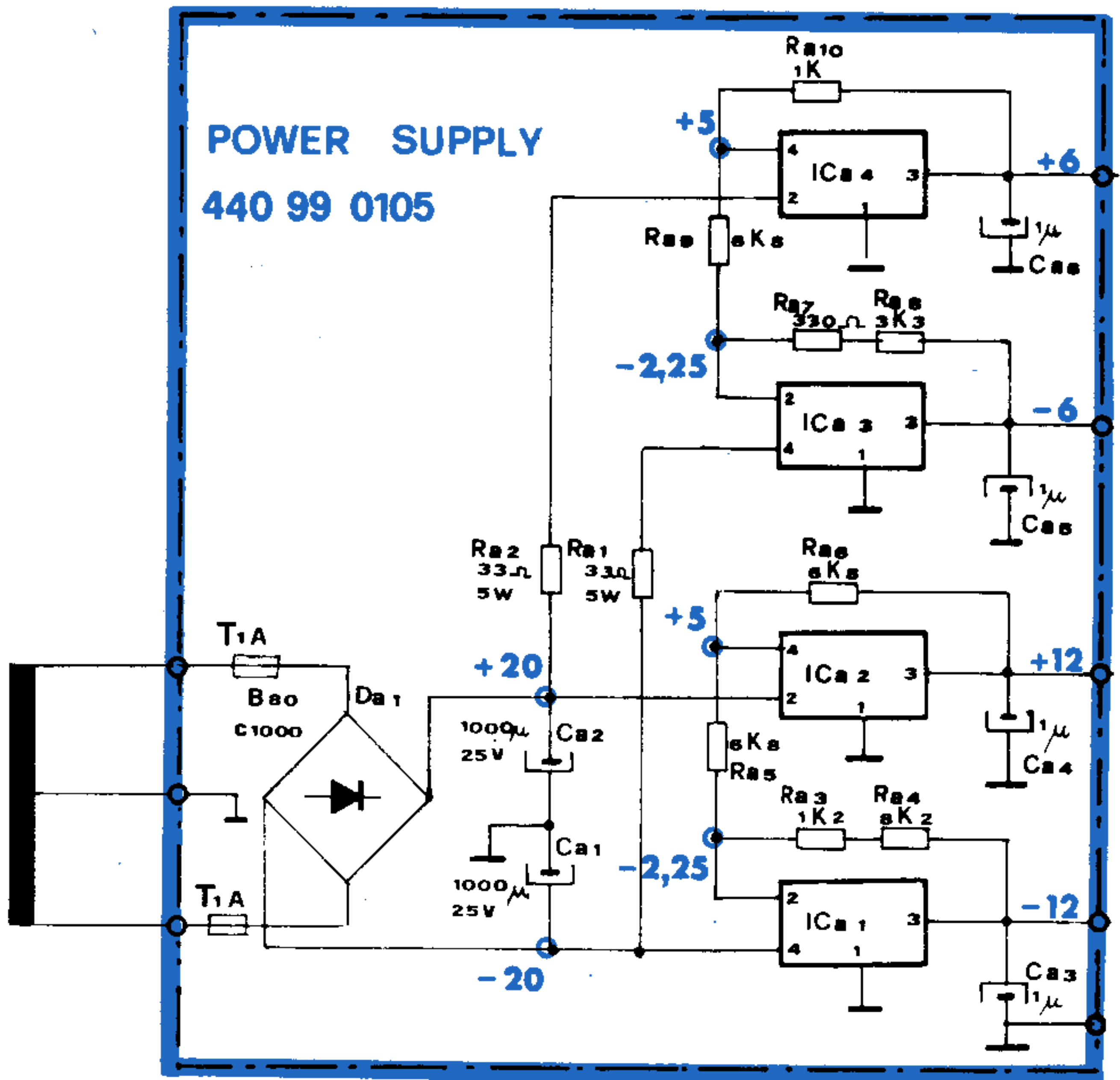
CUTOFF

CUTOFF

CODE 372 99 0011



# POWER SUPPLY 440 99 0105



AT 110 V THE TRASFORMER  
HAS THE PART NUMBER 376 99 0012 : FUSE 200mA



POWER SUPPLY

P.C. 440.99.0105

		<u>TYPE</u>	<u>CODE</u>
ICa	1 - 3	uA 79 MG	367.99.8003
ICa	2 - 4	uA 78 MG	367.99.8002

CONTACT BOARD

P.C. 440.99.0184

ICc	1	M 110	367.99.5017
ICc	2	1458	367.99.7004
ICc	3	TL 082	367.99.7009
ICc	4	LM 3046	367.99.7007
ICc	5	4013	367.99.6003
ICc	6	4001	367.99.6001
ICc	7	4069	367.99.6005
ICc	8 - 9	4016	367.99.6004
ICc	10	CA 3080	367.99.7006
Tc	1	2N 5771	364.99.0010

FILTERS BOARD

P.C. 440.99.0185

ICF	1	TL 082	367.99.7009
ICF	2	4011	367.99.6002
ICF	3-4-5-6-7-11-16	4016	367.99.6004
ICF	8	3302	367.99.7003
ICF	9	4013	367.99.6003
ICF	10	TDA 1022	367.99.5012
ICF	12 - 13	1458	367.99.7004
ICF	14 - 15	LM 13600	367.99.7005
ICF	17	CA 3080	367.99.7006

LOGIC BOARD

P.C. 440.99.0186

ICg	1-8-11	4071	367.99.6022
ICg	2-6-9	4001	367.99.6001
ICg	3-5-12	4049	367.99.6012
ICg	4	4013	367.99.6003
ICg	7	4025	367.99.6021
ICg	10	4075	367.99.6025

-- ALL PNP Transistors are BC 416 Part Code 364.99.0004 Unless otherwise indicated

-- ALL NPN Transistors are BC 173 Part Code 364.99.0003 Unless otherwise indicated

-- ALL DIODES are 1N 4148 Unless otherwise indicated

-- ALL Resistors 1/4W Unless otherwise indicated

-- ALL Electrolytic capacitors 16V DC Unless otherwise indicated

-- ALL Switches shown in off position

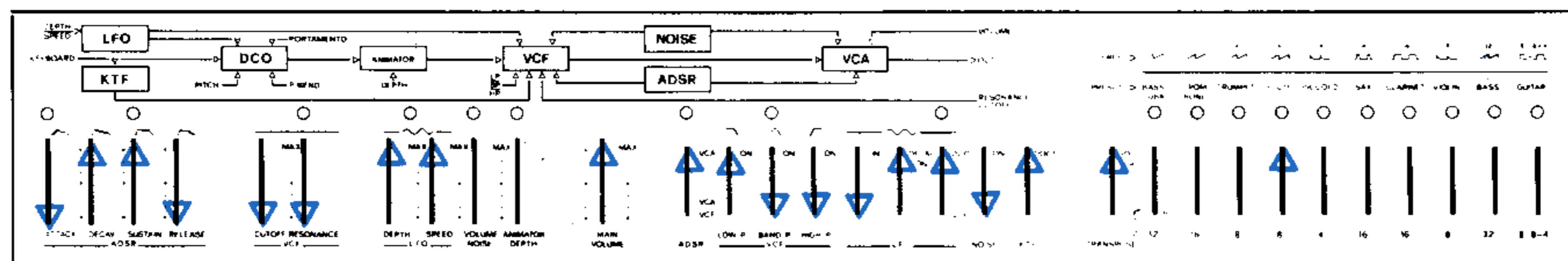
-- ALL Red leds are FL V 117

-- ALL Green leds are LT 233 .

**NOTES**

# ADJUSTMENT

## INITIAL POSITION



### TUNING

- Set the MONO PITCH (left side) in the middle and tune the monophonic section by trimmer Pc 4.

### K.T.F.

- Press the highest C.
- Read by a DMM (Digital Multi Meter) across Rc 71 (2K7) and adjust trimmer Pc 1 for a 2,25 D.C. Voltage value.

### L.F.O.

- Set DMM in V RMS position and connect it between the output of IC c10 (pin 6 CA 3080) and ground.
- Insert L.F.O. ON and adjust trimmer Pc 3 for a value of 0,95V. (34Vpp)
- Move DMM in V = position.
- Take off L.F.O. and read the value.
- Insert L.F.O. ON and adjust trimmer Pc 2 so that the value is the same as read before.
- Take off L.F.O.

### V.C.A.

- Insert DMM between the collector of Bc 416 (Tf 5) and ground.
- Shortcircuit Df 5 diode.
- Adjust trimmer Pf 6 for a 1 D.C. Voltage value.

### OFFSET V.C.A.

- Set on PICCOLO, CUT OFF upwards.
- Adjust trimmer Pf 1 in such a way that the attack sound is 'clickless'.

### V.C.F.

- Set on FLUTE, RESONANCE upwards, CUT OFF downwards.
- Adjust trimmer Pf 1 so that the V.C.F. oscillating frequency is the same as the fundamental of the pressed key.

### BAND PASS

- Set on BAND PASS filter, RESONANCE downwards, CUT OFF upwards.
- Adjust trimmer Pf 3 so that the fundamental of the pressed key disappears.

### HIGH PASS

- Set on HIGH PASS filter and adjust trimmer pf 4 in the same way as BAND PASS.

### DELAY LINE

- Set trimmer Pf 2 in the middle.