

SIEL Mono

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

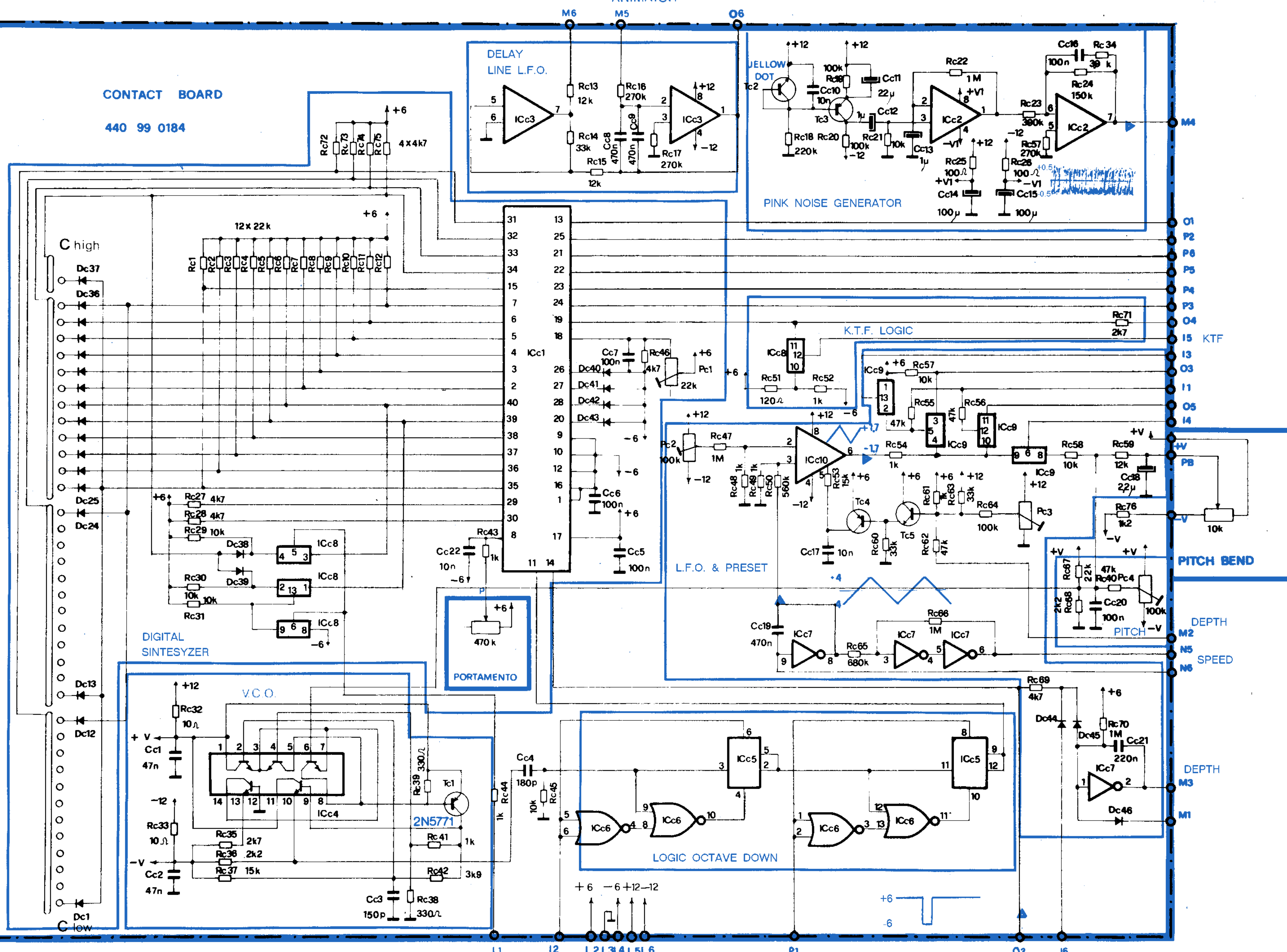
All PNP transistors BC416 unless otherwise indicated.
All NPN transistors BC173 unless otherwise indicated.
All diodes 1N4148 unless otherwise indicated.
All red LEDs FL V 117.
All green LEDs LT 233.

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

M1

DEPTH

M2

DEPTH

PITCH

PITCH BEND

PB

+V

O5

O4

P3

P4

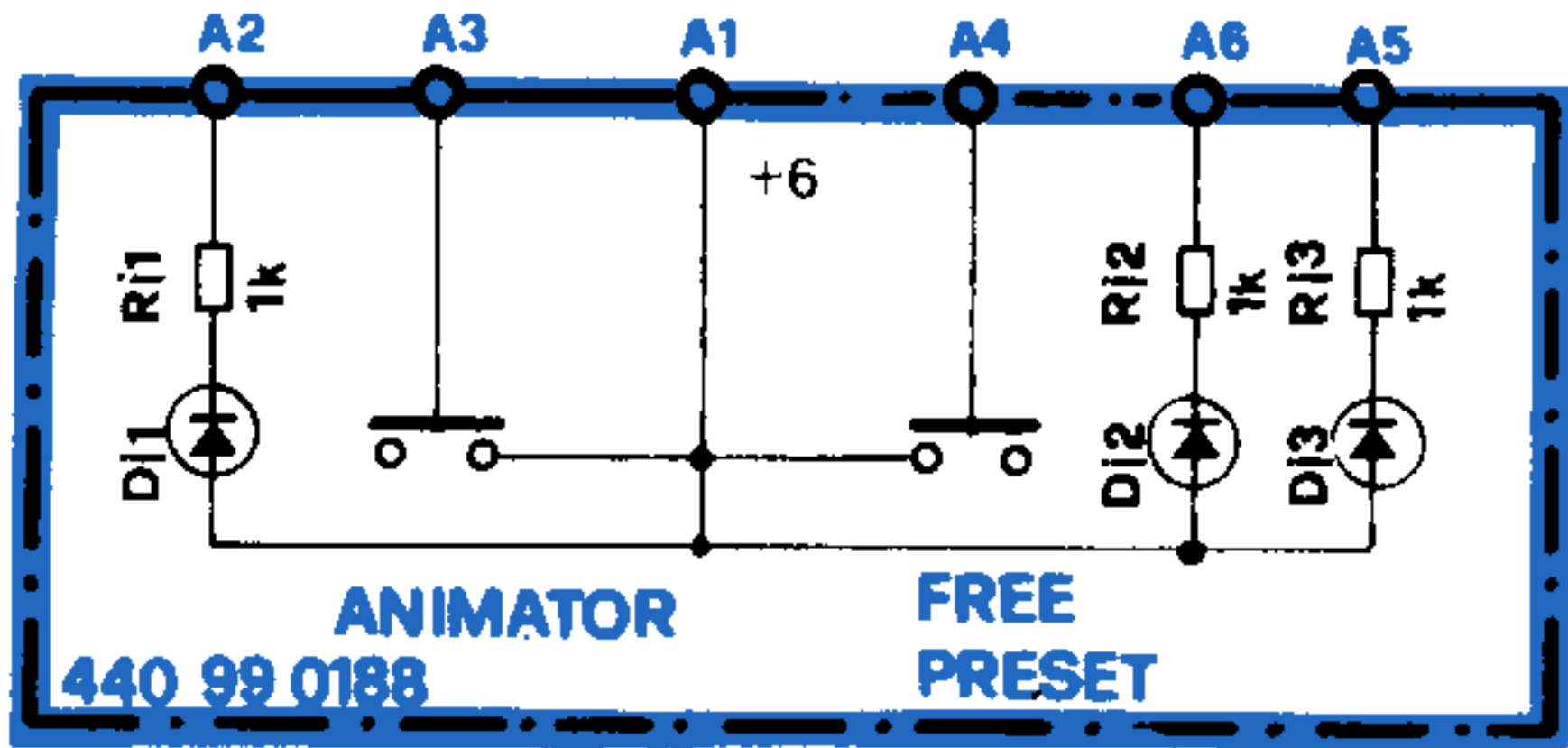
P5

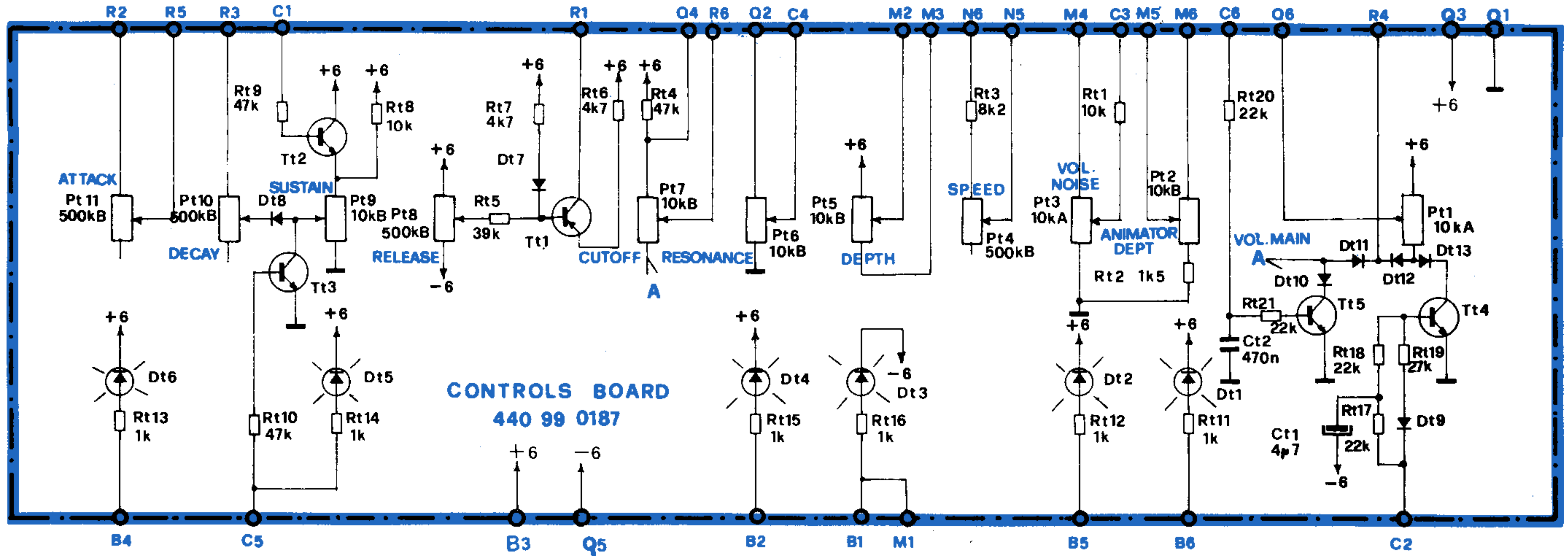
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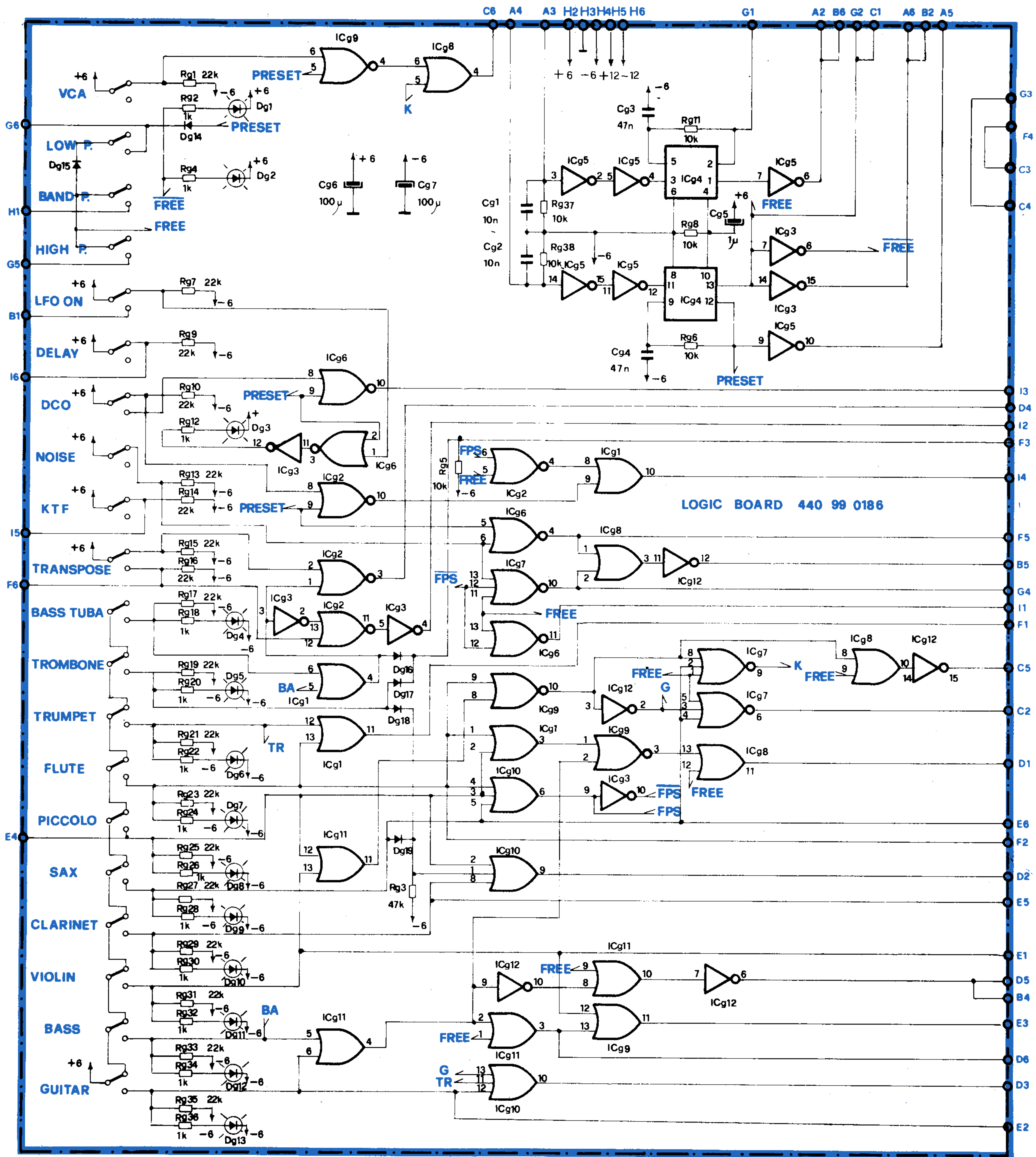
P2

O1

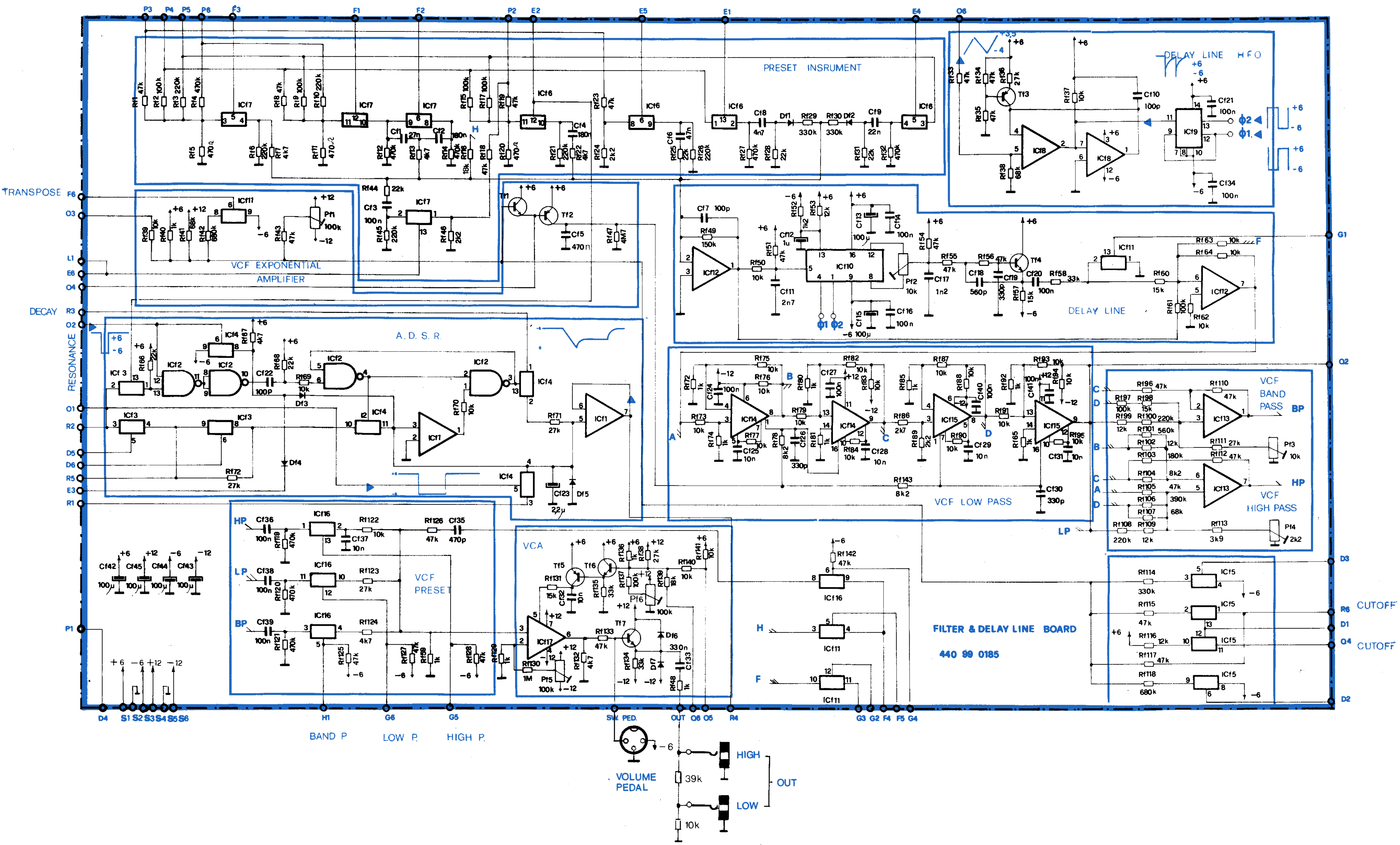
M4







LOGIC BOARD 440 99 0186



PRESET INSTRUMENT

VCF EXPONENTIAL AMPLIFIER

A.D.S.R.

DELAY LINE IFO

DELAY LINE

VCF LOW PASS

VCF BAND PASS BP

VCF HP HIGH PASS

VCA

VCF PRESET

FILTER & DELAY LINE BOARD

440 99 0185

VOLUME PEDAL

HIGH

LOW

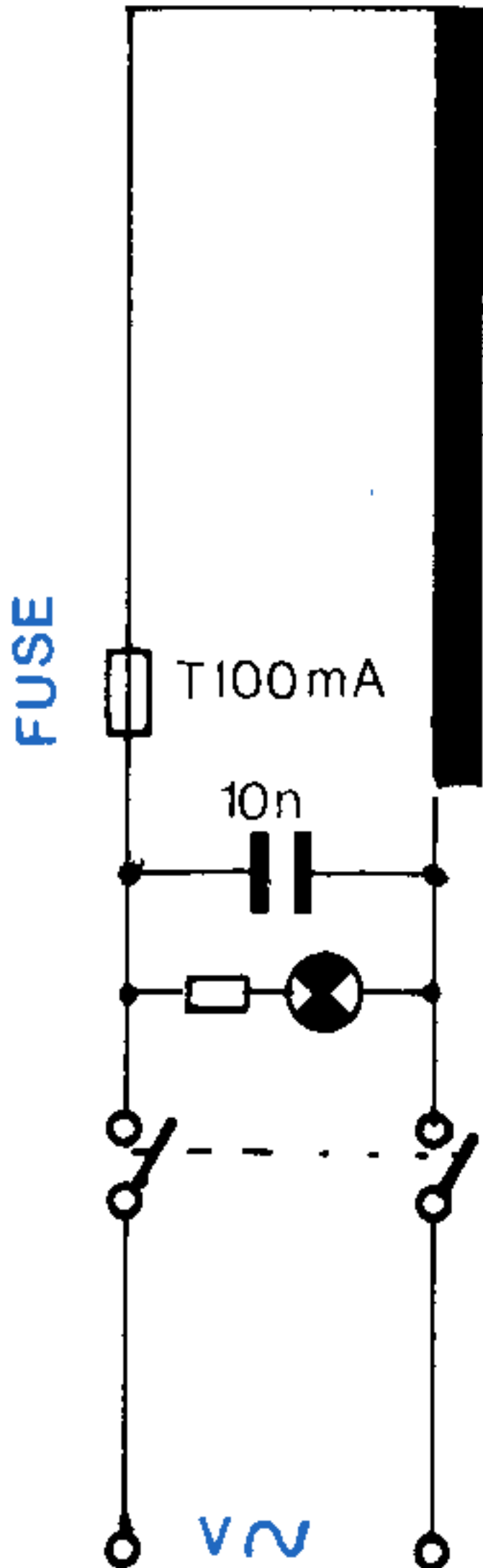
OUT

BAND P LOW P HIGH P

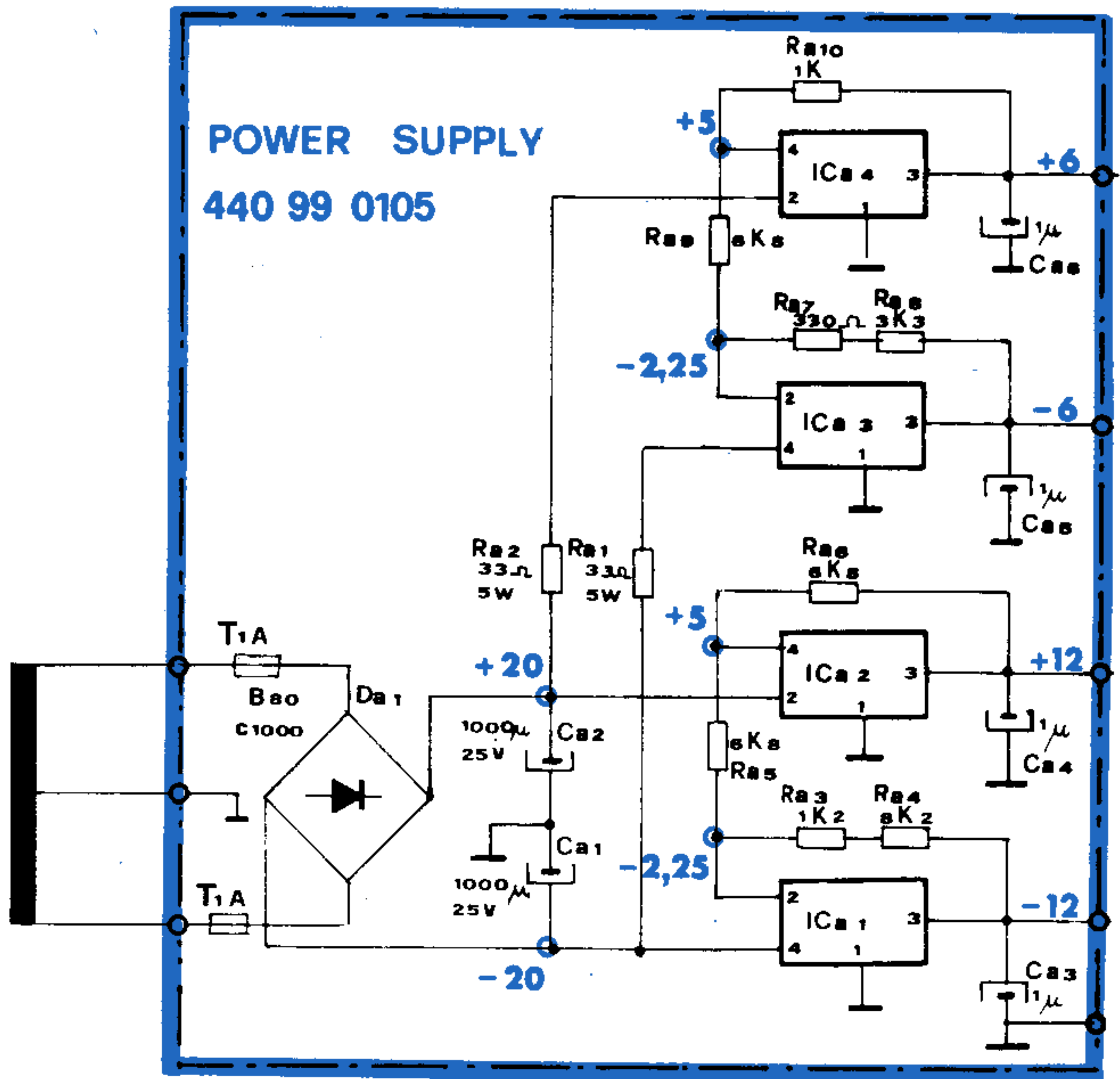
CUTOFF

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

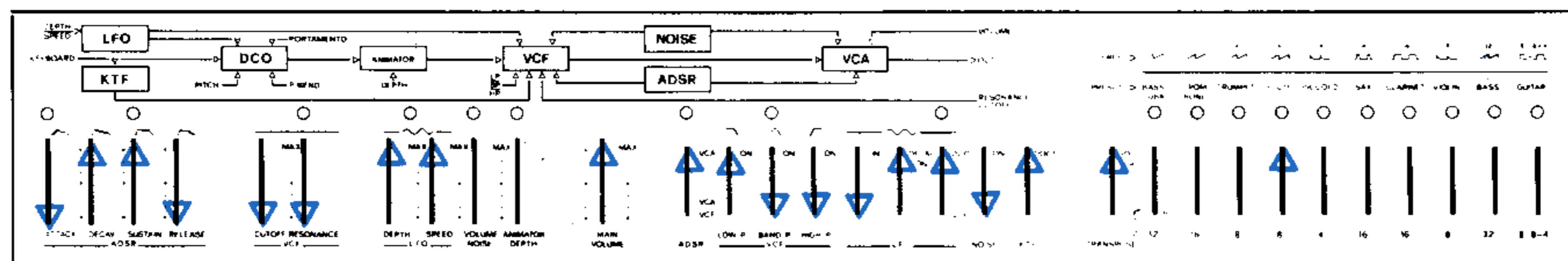
-- ALL Red leds are FL V 117

-- 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.