

**FARFISA**









**matador 80**

**matador 80 cr**



***SCHEMATIC DIAGRAM  
&  
TECHNICAL INFORMATION***

## SCHEMATIC NOTES

-  K2.1 FEMALE CONNECTOR (e. g. : K2.1)
-  PLUG IN CONNECTOR
-  OUTPUT SIGNAL (TO DWG..... ) or (TO PA..... )
-  INPUT SIGNAL (FROM DWG..... ) or (FROM PA..... )
-  TEST POINT (TP...)
-  CONNECTING POINT (ON p.c.b. )

All resistors 1/4w unless otherwise indicated

All tabswitches shown in OFF position

All keyswitches shown in OFF position

See part list for component part numbers

All D.C. voltages measured to ground with a voltmeter 20.000  $\Omega/V$

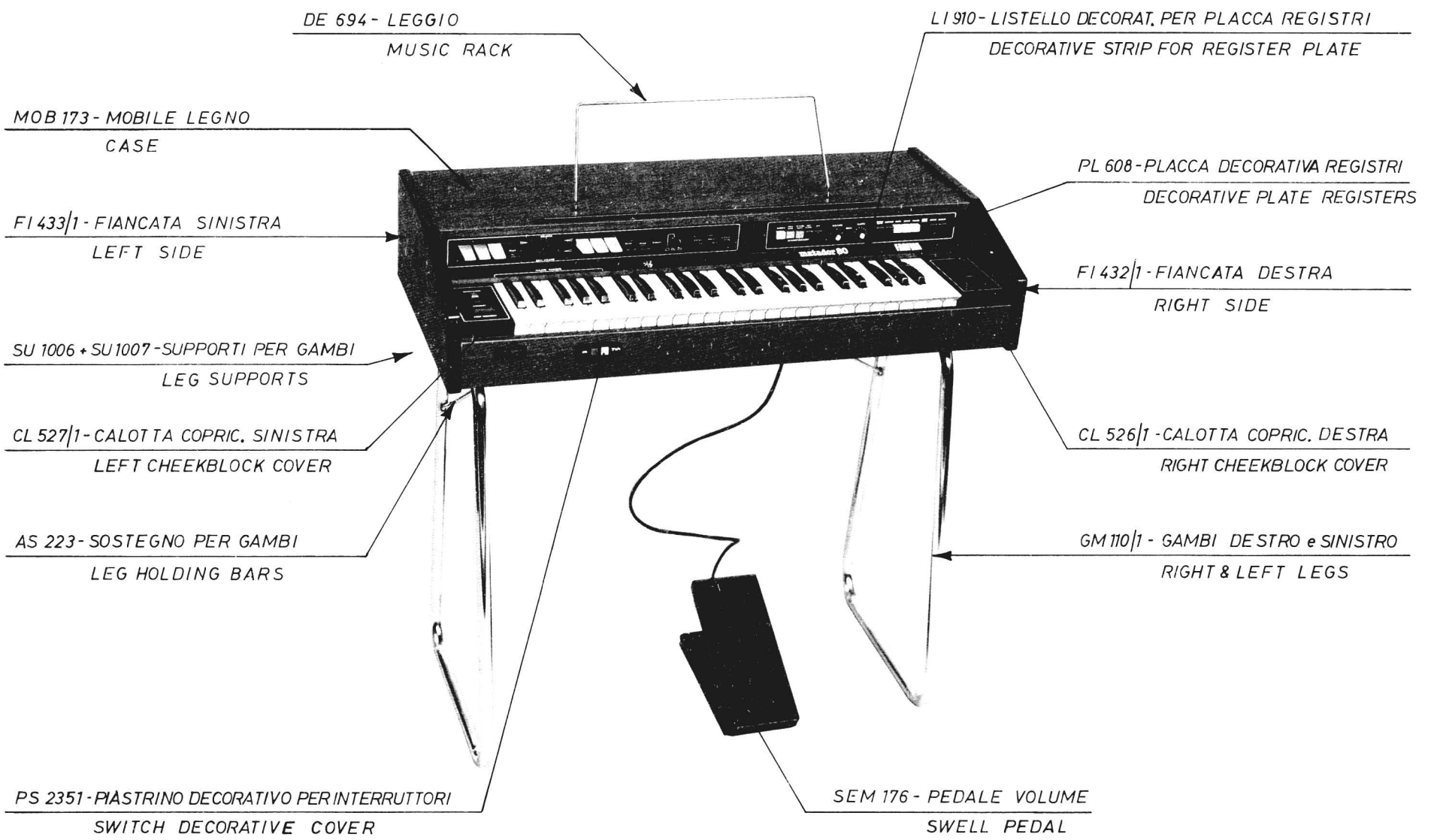
### WIRE COLOURS CORRESPONDING TO SUPPLY VOLTAGE :

Grey	V > +15V		Green	SUPPLY GROUND	
Blue	+15V		Black	CHASSIS GROUND	
Red	+12V		White	-12 V	
Orange	+5 V		Yellow	-15 V	

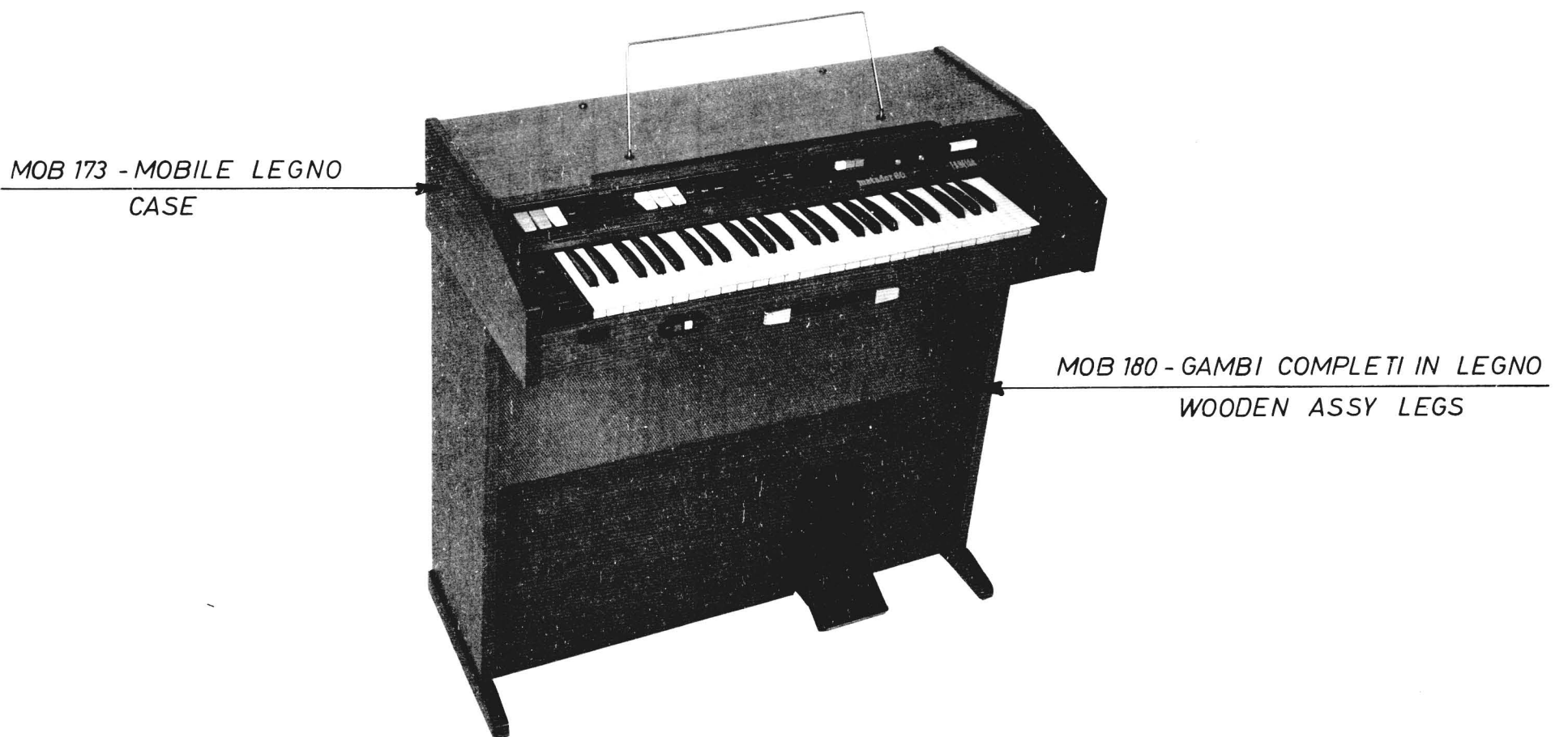
**IMPORTANT :** IN ANY CORRESPONDENCE CONCERNING THIS INSTRUMENT ALWAYS INCLUDE MODEL AND SERIAL NUMBERS!

**PARTS ORDERING** – When ordering parts be sure to include the following information:

1. Model and serial Number of instrument.
2. Part Code.
3. A description of the Part.
4. Specify how you want the part shipped.



*matador 80*



*matador 80/CR*

250mA-220Vac-S.B. Fuse  
5/10 A -117 Vac

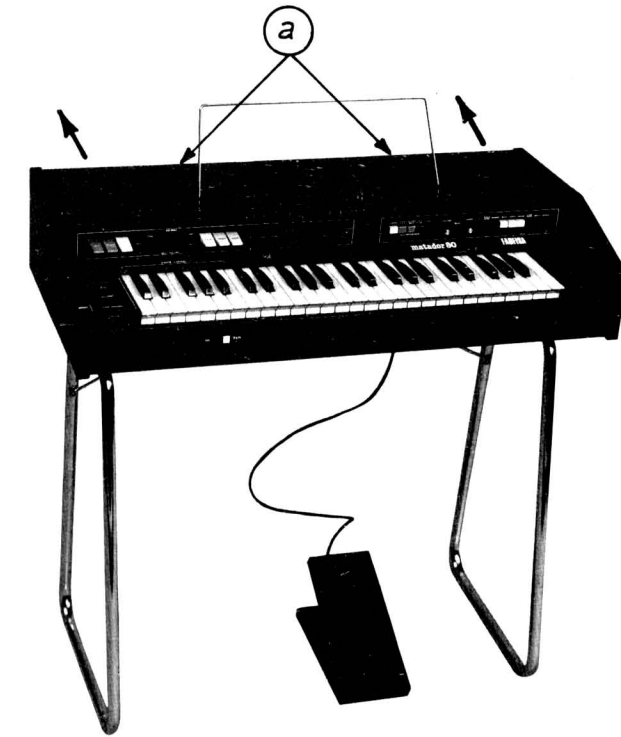
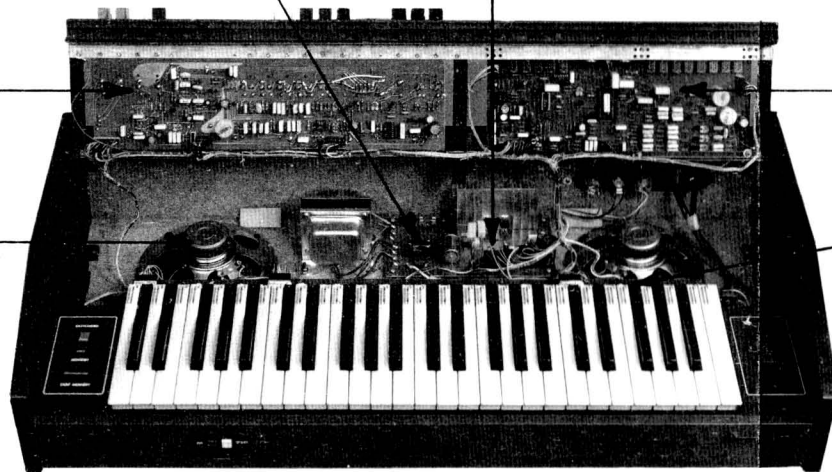
Stabilizer & Main Amplifier (DWG 5)  
PA-1024 Europe Version  
PA-1024 1 America Version

Filters & Registers  
PA-1023 (DWG 4)

Rhythm Unit & Oscillator  
PA-1025 (DWG 3)

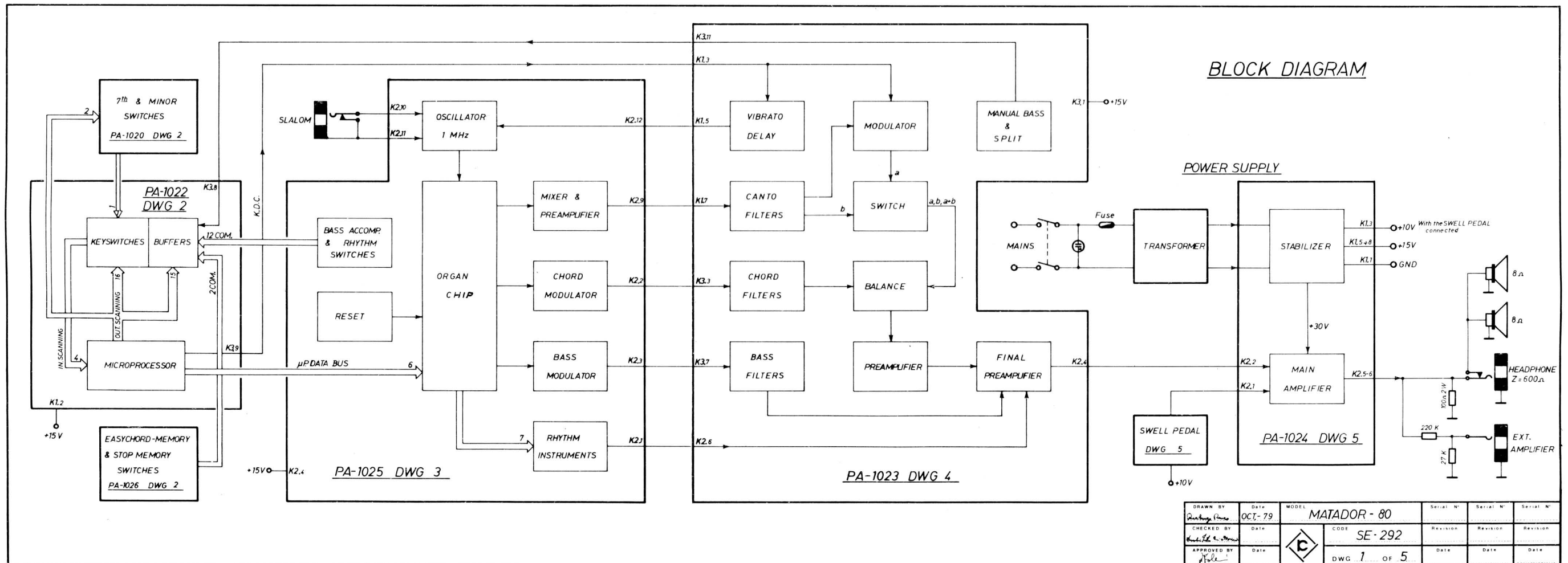
A80 - Loudspeaker  
CIARE M160.20.B/FX

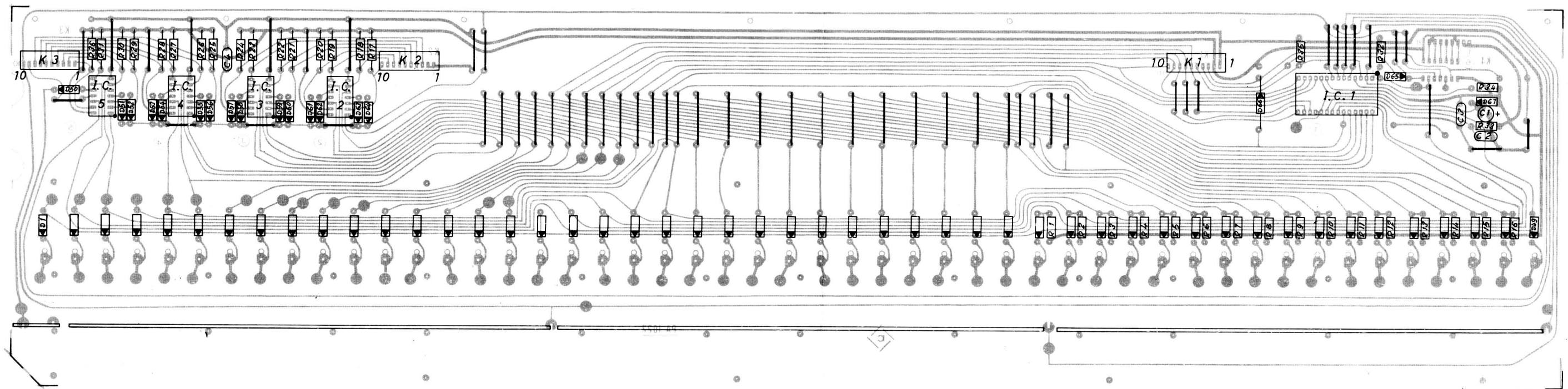
Keyswitches & Microprocessor  
PA-1022 (DWG 2)



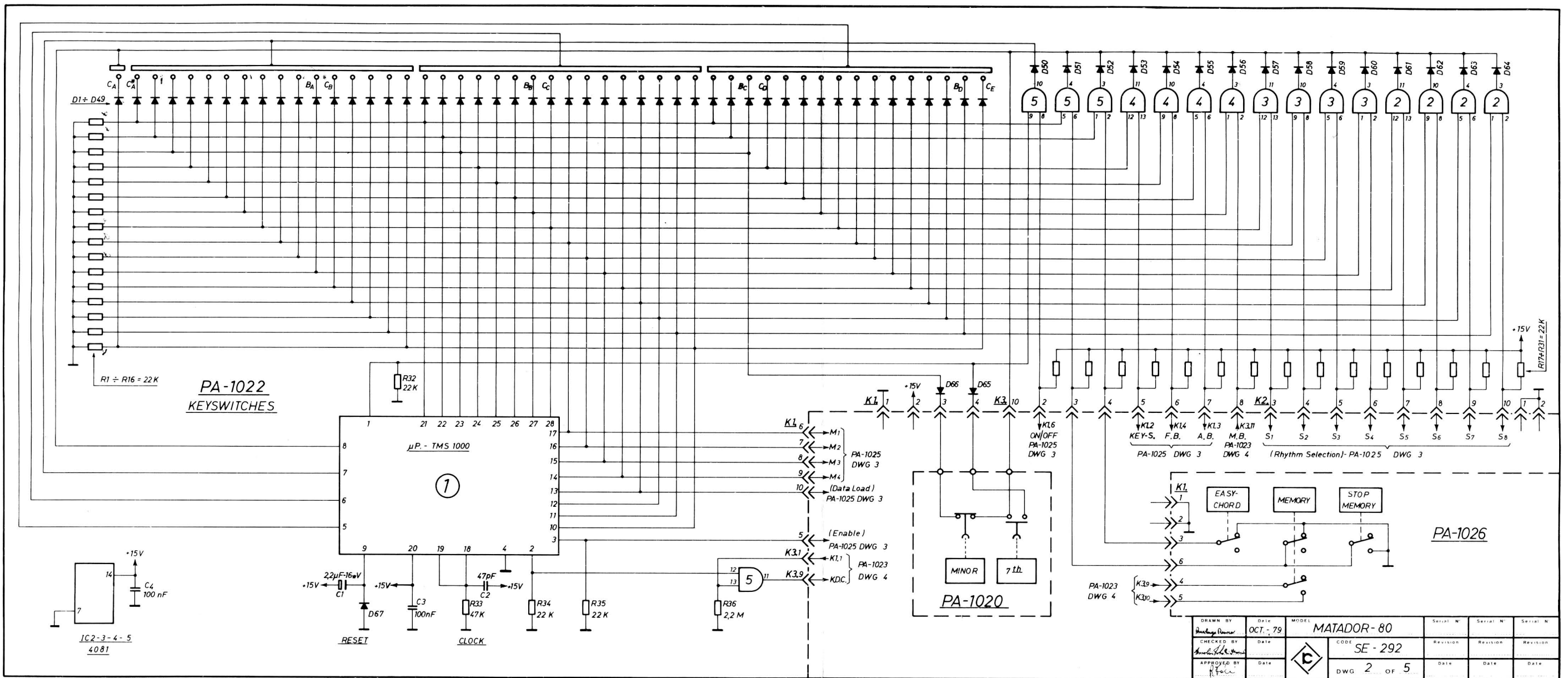
Per cambiare il fusibile svitare  
le due viti "a",,  
Sfilare il coperchio nel senso  
indicato dalle frecce.  
Togliere il coperchio  
protettivo del fusibile.

In order to change fuse  
unfasten the two screws "a",,  
Slide off cover backwards.  
Remove fuse cover.

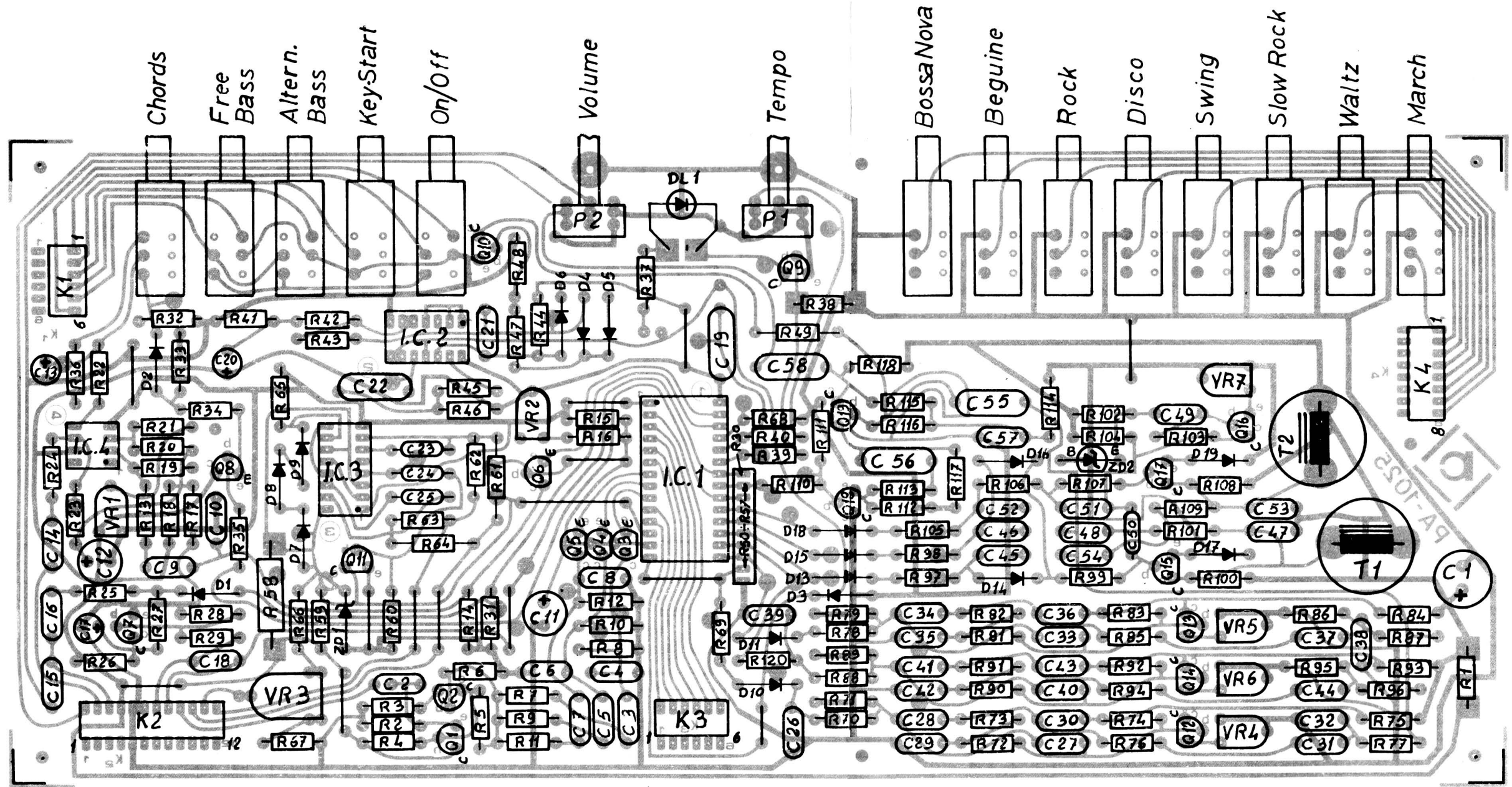




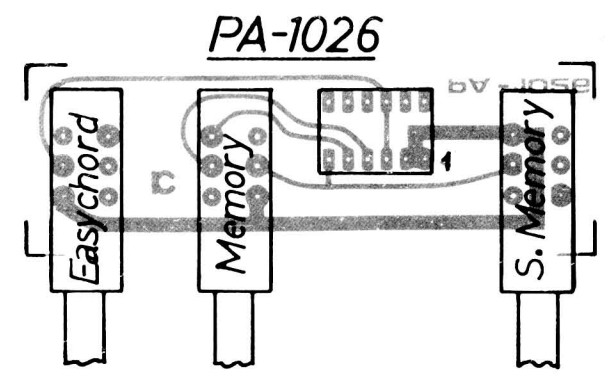
PA-1022

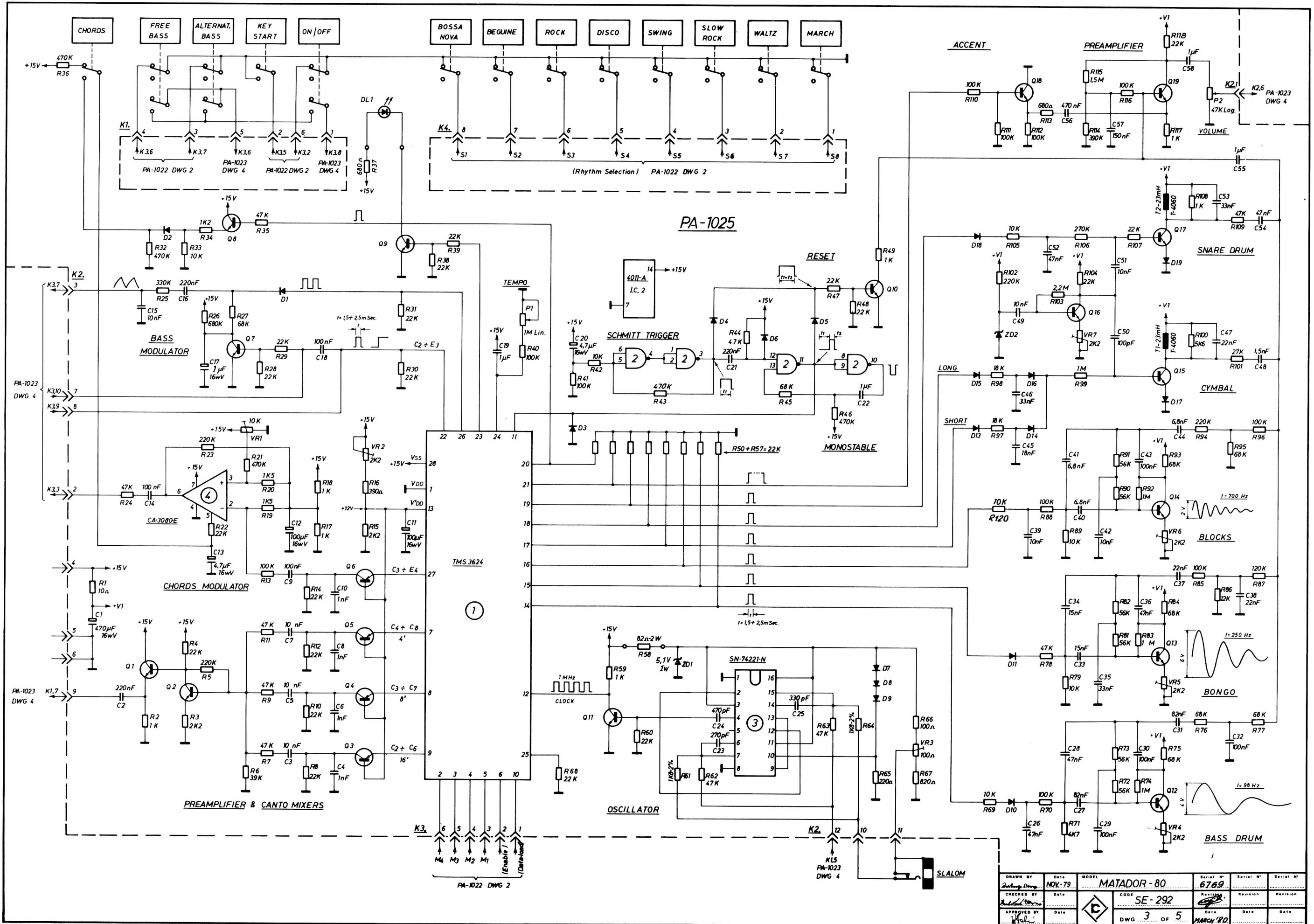


DRAWN BY Randy Rorer	DATE OCT. 79	MODEL MATADOR-80	Serial N	Serial N	Serial N
CHECKED BY [Signature]	DATE	CODE SE-292	Revision	Revision	Revision
APPROVED BY [Signature]	DATE	DWG 2 OF 5	Date	Date	Date

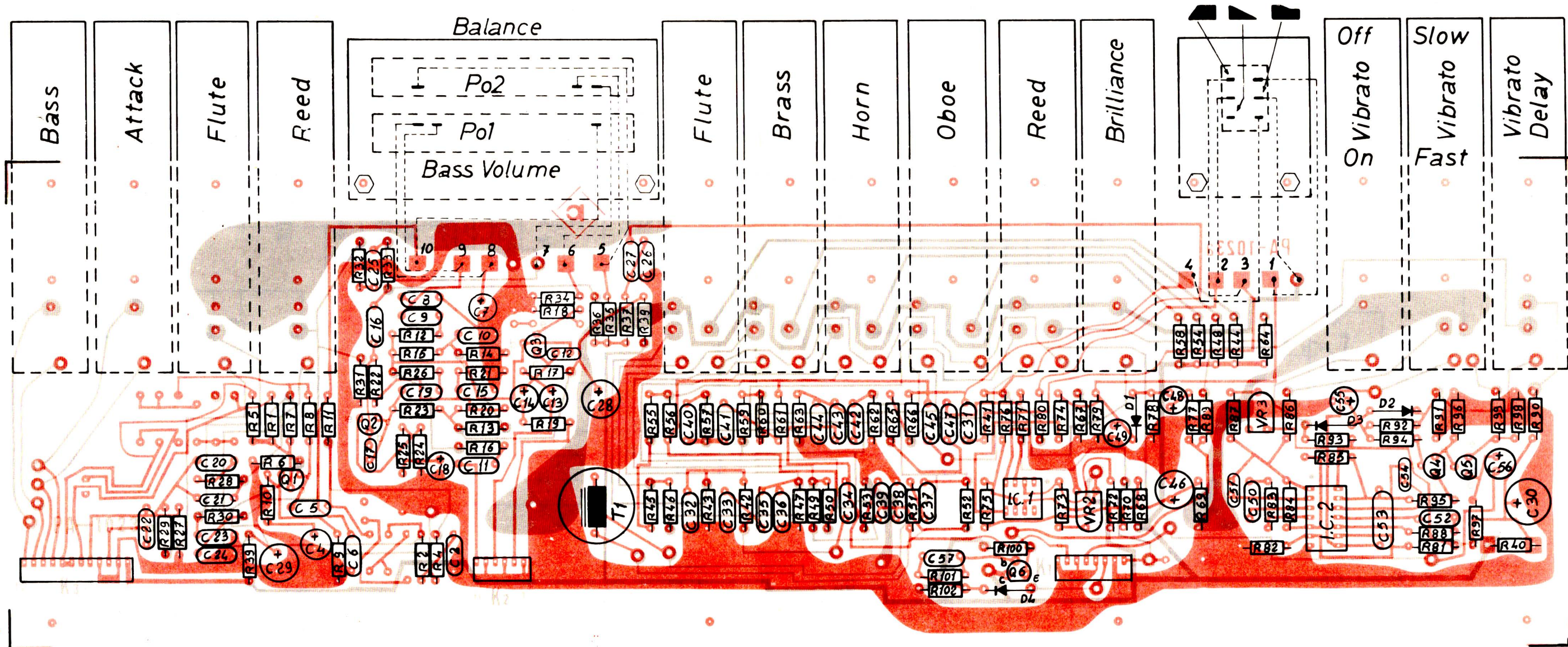


PA-1025 \*



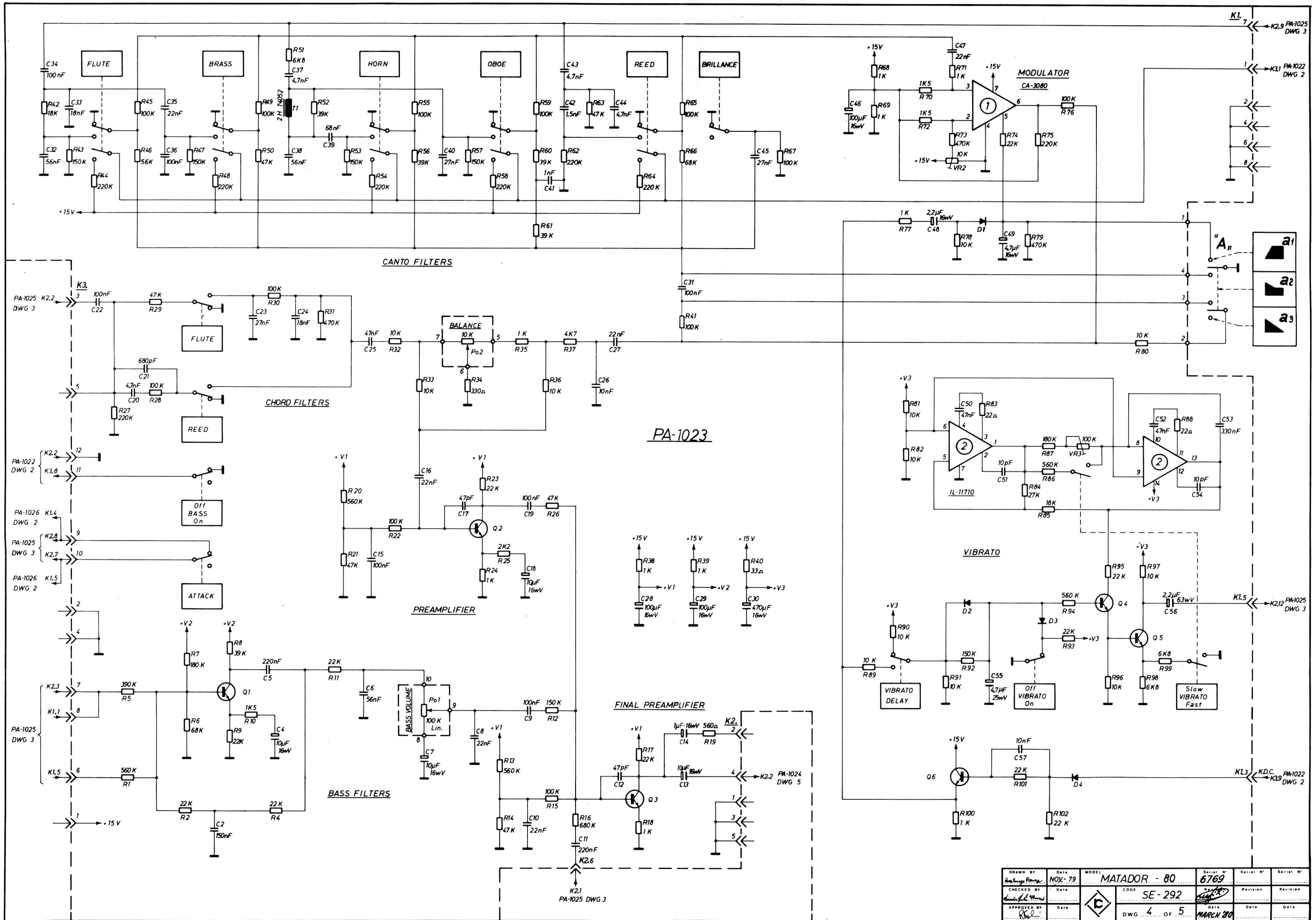


DRAWN BY 2/8/80	Date NOV-79	MODEL MATADOR-80	Serial # 6769	Serial #	Serial #
CHECKED BY	Date	CODE SE-292	Revision	Revision	Revision
APPROVED BY	Date	DWG 3 OF 5	DATE MARCH '80	Date	Date

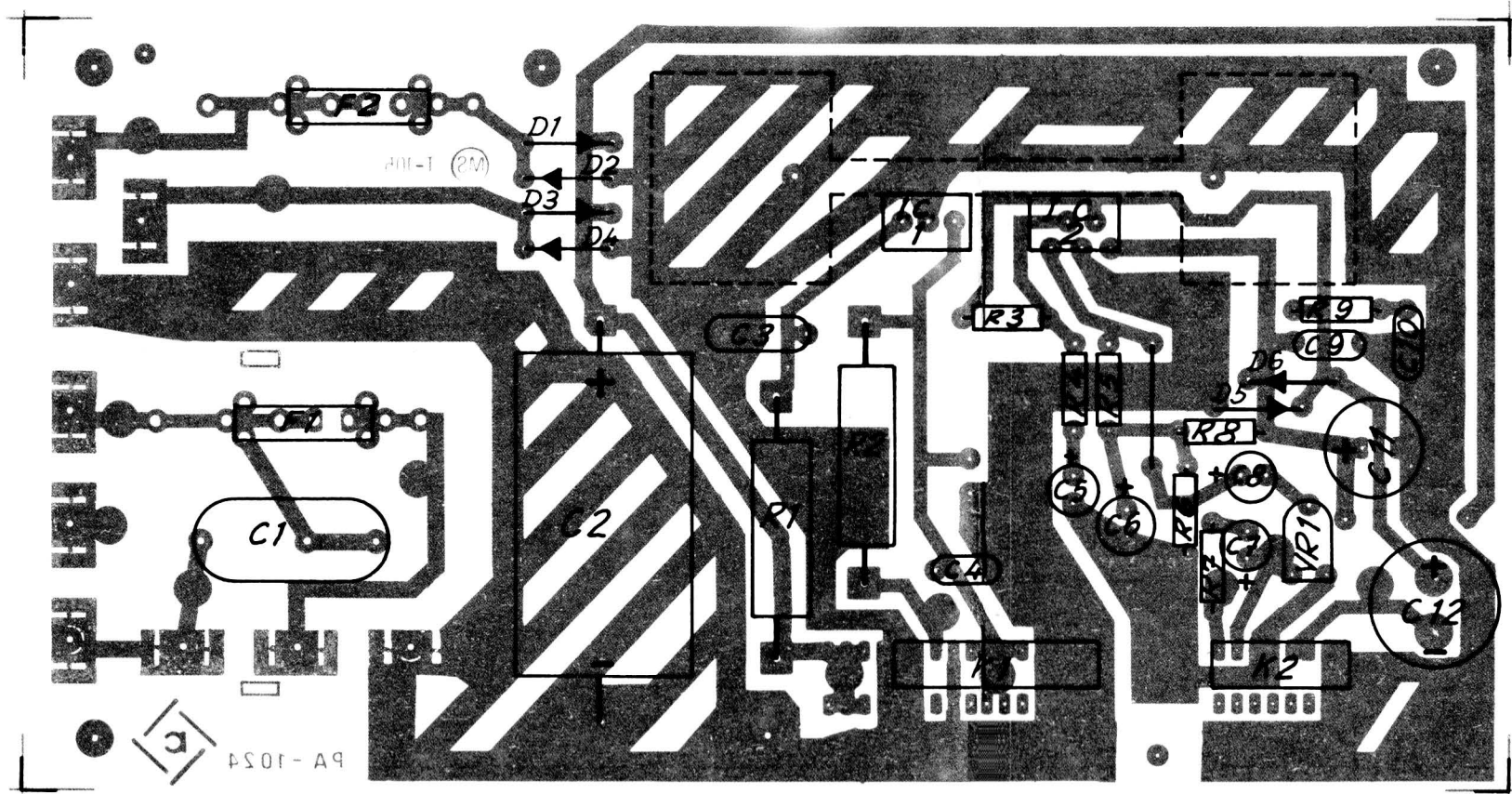


PA-1023

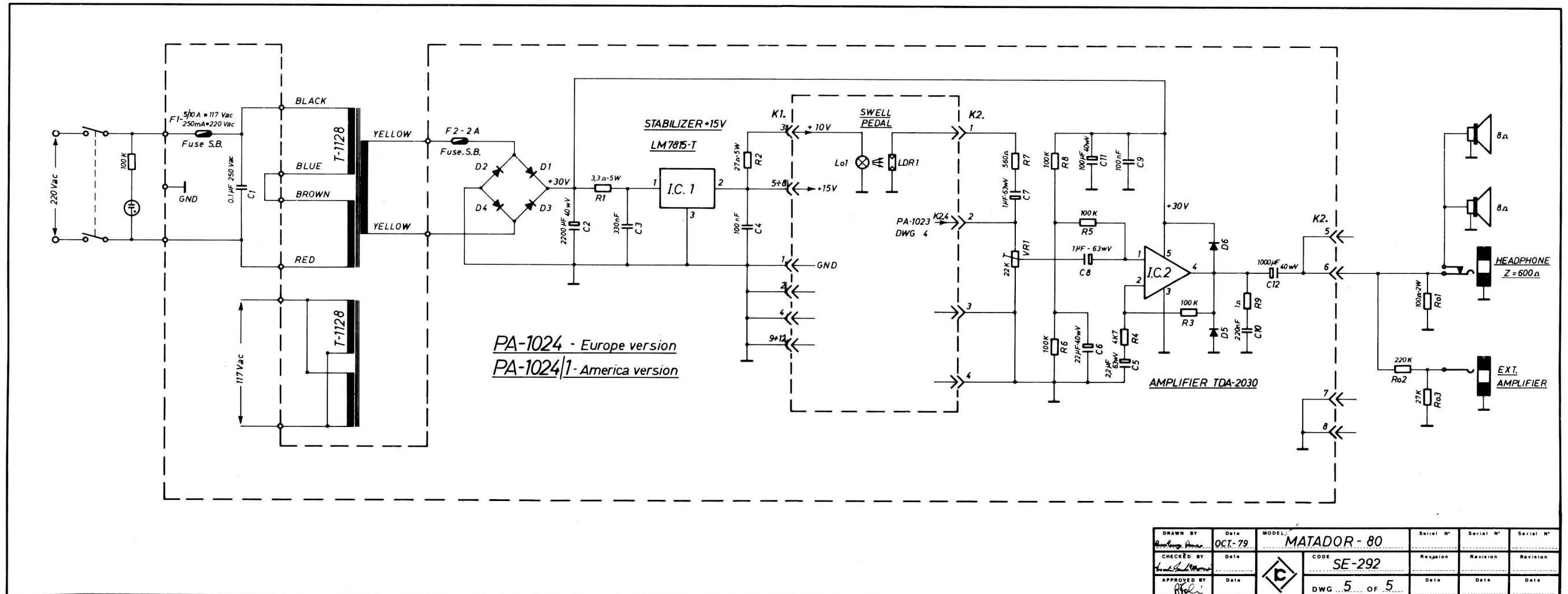




DRAWN BY Randy P. Perry	DATE NOV-79	MODEL MATADOR - 80	SERIAL # 6769	SERIAL #	SERIAL #
CHECKED BY Randy P. Perry	DATE	CODE SE-292	REVISION	REVISION	REVISION
APPROVED BY Randy P. Perry	DATE	DWG 4 OF 5	DATE MARCH 80	DATE	DATE



PA 1024



DRAWN BY <i>Antonio Ponce</i>	Date OCT-79	MODEL MATADOR-80	Serial N°	Serial N°	Serial N°
CHECKED BY <i>Antonio Ponce</i>	Date	CODE SE-292	Revision	Revision	Revision
APPROVED BY <i>Antonio Ponce</i>	Date	DWG 5 OF 5	Date	Date	Date

## TARATURE

## ADJUSTMENTS

Tutte le tarature sono eseguite in fabbrica perciò non sono necessarie ulteriori regolazioni. Qualsiasi intervento all'interno dello strumento dovrà essere compiuto da tecnici specializzati.

All the adjustments are performed at the factory, therefore further adjustments are not necessary. Any work inside the organ must be performed by specialized technicians.

**PA 1025 (DWG 3)**

VR1 (10 KOhm)

Offset modulazione accordi.

Inserire il registro "Chords" e regolare fino all'annullamento del "click".  
La posizione esatta è circa al centro.

Chord modulation Offset.

Insert the "Chords" register and adjust until the "click" is no longer heard. The correct position is around the middle.

VR2 (2,2 KOhm)

Regolazione VDD'.

Regolare fino a +12 V.

Adjustment of the VDD'.

Adjust up to +12 V.

VR3 (100 Ohm)

Regolazione "Pitch" oscillatore.

Adjustment of the oscillator "Pitch".

VR4 (2,2 KOhm)

Regolazione Decay del "Bass Drum".

Adjustment of the "Bass Drum" Decay.

VR5 (2,2 KOhm)

Regolazione Decay del "Bongo".

Adjustment of the "Bongo" Decay.

VR6 (2,2 KOhm)

Regolazione Decay del "Blocks".

Adjustment of the "Blocks" Decay.

VR7 (2,2 KOhm)

Regolazione livello del rumore per il "Cymbal" e lo "Snare Drum".

Adjustment of the noise level for "Cymbal" and "Snare Drum".

**PA 1023 (DWG 4)**

VR2 (10 KOhm)

Offset modulatore.

Inserire il tastino "A" della Percussion in posizione "a2 o a3".  
Regolare fino all'annullamento del "click".

Offset modulator.

Set the Percussion Tab "A" in "a2 or a3" position.  
Adjust until the "click" is no longer heard.

VR3 (100 KOhm)

Regolazione velocità del Vibrato.

Adjustment of the Vibrato speed.

**PA 1024 (DWG 5)**

VR1 (22 KOhm)

Regolazione del volume generale.

Adjustment of the general volume.

Schem. Ref.	Circuit	Type	Part Code
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**PA 1022 (DWG 2) KEYSWITCHES AND MICROPROCESSOR**

IC1	Microprocessor	TMS 1000 TEXAS	W/1128
IC2 - IC3 - IC4 - IC5	Quad 2 - Input AND Gates	4081 FAIRCHILD	W/1156
D1 ÷ D67	Diodes	D525-A TEXAS	B/1001

**PA 1025 (DWG 3) RHYTHM UNIT AND OSCILLATOR**

IC1	Organ CHIP	TMS 3624-NL TEXAS	W/1129
IC2	Quad 2 - Input NAND Gate	HBF 4011-A S.G.S.	W/1150
IC3	Oscillator	SN 74221 TEXAS	W/1017
IC4	Chords Modulator (OTA)	CA 3080-E R.C.A.	W/1227
Q1	Buffer	BC 173-B Red dot	W/1413
Q2-Q19	Preamplifiers	BC 173-B Red dot	W/1413
Q3÷Q6	Mixer - Preamplifiers	BC 560-B MOTOROLA	W/1500
Q7÷Q11	Buffers	BC 173-C ITT	W/1426
Q12-Q13-Q14	Blocking Oscillators	BC 239-B ITT	W/1407
Q15-Q17	Switches	BC 239-B ITT	W/1407
Q16	Noise Amplifier	BC 239-B ITT	W/1407
Q18	Switch	BC 173-C ITT	W/1426
ZD1	Zener Diode - 5,1V - 1w.	ZPY 5,1	B/1408
ZD2	Noise Generator	—	B/1604
D1÷D19	Diodes	D 525-A TEXAS	B/1001
DL 1	LED	FLV 110	B/1608

**PA 1023 (DWG 4) BOARD FILTERS**

IC1	Modulator (OTA)	CA 3080-E R.C.A.	W/1227
IC2	Vibrato Oscillator	IL 11710 S.G.S.	W/1212
Q1	Bass Filter	BC 173-B ITT	W/1407
Q2	Preamplifier	BC 173-B Red dot	W/1413
Q3	Final Preamplifier	BC 173-B Red dot	W/1413
Q4 - Q5	Delay Buffers	BC 173-B ITT	W/1407
Q6	Key Down Canto	BC 173-C ITT	W/1426
D1÷D4	Diodes	D 525-A TEXAS	B/1001

**PA 1024 (DWG 5) STABILIZER AND MAIN AMPLIFIER - EUROPE VERSION SEM/350**
**PA 1024/1 (DWG 5) STABILIZER AND MAIN AMPLIFIER - AMERICA VERSION SEM/350/1**

IC1	Series Stabilizer +15V	LM 7815-T NATIONAL	W/1224
IC2	Main Amplifier	TDA 2030-V S.G.S.	W/1231
D1÷D6	Diodes	1 N 4002 ITT	B/1100

Schem. Ref.	Circuit	Type	Part Code
(DWG 5)	<b>SWELL PEDAL</b>		<b>SEM/176</b>
LO1	Lamp 12V - 3W		LL/5
LDR1	Photoresistor		H/12
<b>POTENTIOMETERS</b>			
P1 (DWG 3)	Tempo	1 MOhm - Lin.	P/6501
P2 (DWG 3)	Volume	47 KOhm - Log.	P/6500
PO1 (DWG 4)	Bass Volume	100 KOhm - Lin.	P/3059
PO2 (DWG 4)	Balance	10 KOhm - Lin.	P/3056
	Slider pot Knob "Black"	—	MP/59-6
	Pot Knob "Black"	—	MP/52
(DWG 5)	<b>TRANSFORMER</b>	—	T/1128
(DWG 5)	Mains Switch	America Version	X/1500
(DWG 5)	Mains Switch	Europe Version	X/1502
F1 (DWG 5)	Fuse S.B. 250 mA	Europe Version	F/14
F1 (DWG 5)	Fuse S.B. 5/10 A	America Version	F/55
F2 (DWG 5)	Fuse S.B. 2 A	Europe Version	F/9
F2 (DWG 5)	Fuse S.B. 2 A	America Version	F/59
(DWG 5)	Loudspeaker - 8 Ohm	—	A/80
<b>PA 1020 (DWG 2)</b>			
	Switch "Minor"	—	X/1701
	Switch "7 <sup>th</sup> "	—	X/1703
<b>PA 1026 (DWG 2)</b>			
	Keyswitch with 3 Keys	—	X/1330-1
	Pushbutton "Easychord"	—	TS/372-5
	Pushbutton "Memory"		TS/372-3
	Pushbutton "Stop Memory"		TS/375-1

Schem. Ref.	Circuit	Type	Part Code
<b>REGISTERS</b>			
PA 1025 (DWG 3)	Keyswitch with 5 Keys		X/1312
	Keyswitch with 8 Keys		X/1311
PA 1023 (DWG 4)	Tab "Bass"		TS/382-1
	Tab "Attack"		TS/382-2
	Tab "Flute"		TS/382-3
	Tab "Reed"		TS/382-4
	Tab "Brass"		TS/382-5
	Tab "Horn"		TS/382-6
	Tab "Oboe"		TS/382-7
	Tab "Brilliance"		TS/382-8
	Tab "Off Vibrato On"		TS/382-9
	Tab "Slow Vibrato Fast"		TS/382-10
	Tab "Vibrato Delay"		TS/382-11
<b>KEYBOARD **</b>			
	Key "DO" ("C")		TS/282
	Key "RE" ("D")		TS/283
	Key "MI" ("E")		TS/284
	Key "FA" ("F")		TS/285
	Key "SOL" ("G")		TS/286
	Key "LA" ("A")		TS/287
	Key "SI" ("B")		TS/288
	Final Key "DO" ("C")		TS/290
	Sharps ("#")		TS/292

\*\* When ordering the keys put the Organ Model denomination after the Key codes.

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