



**FARFISA**

*Nicole*

*ELECTRONIC ORGAN*

**MOD.**

**5200-R**

*SCHEMATIC DIAGRAM*

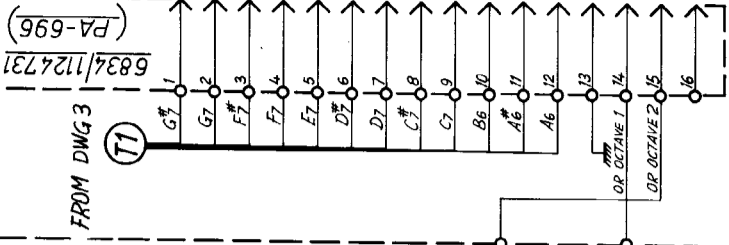
**1st EDITION**

OCTOBER '78

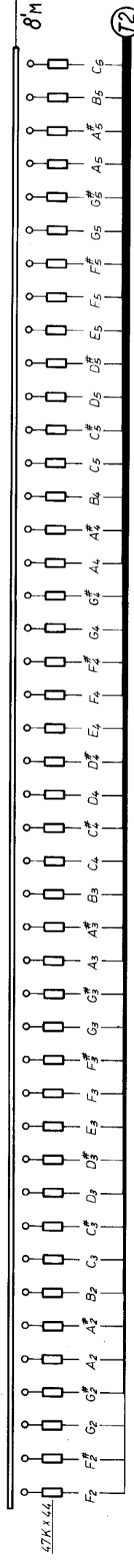
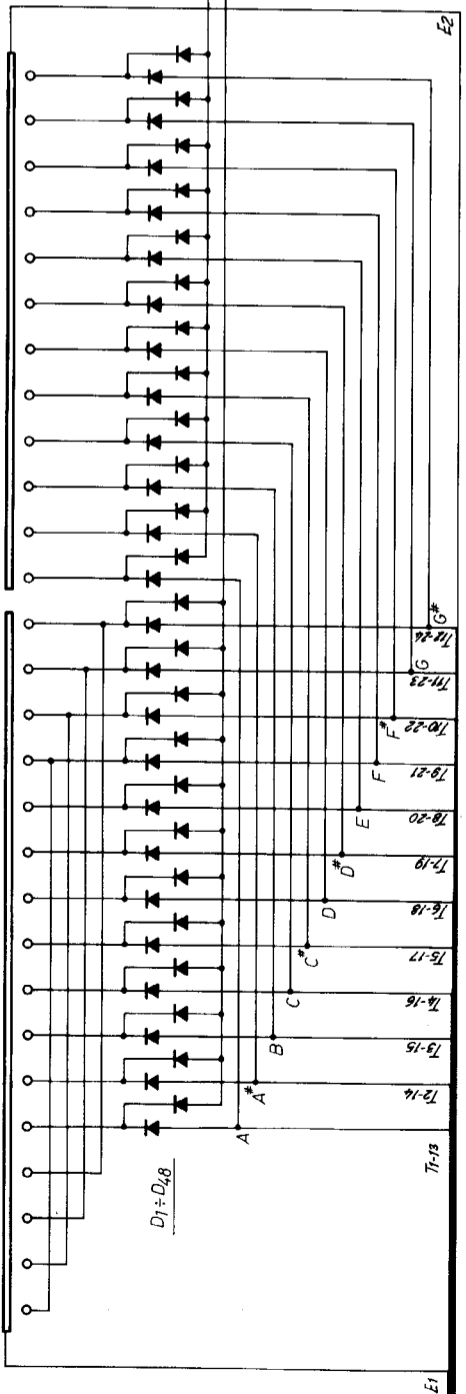
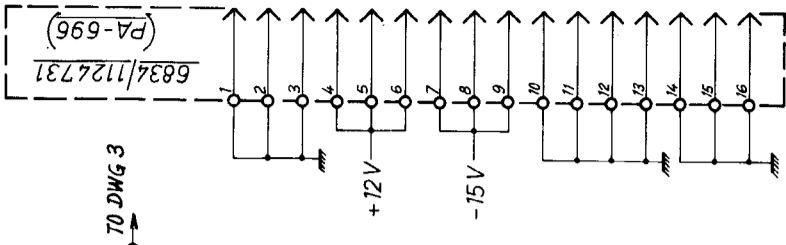
E.D.P. 1124669



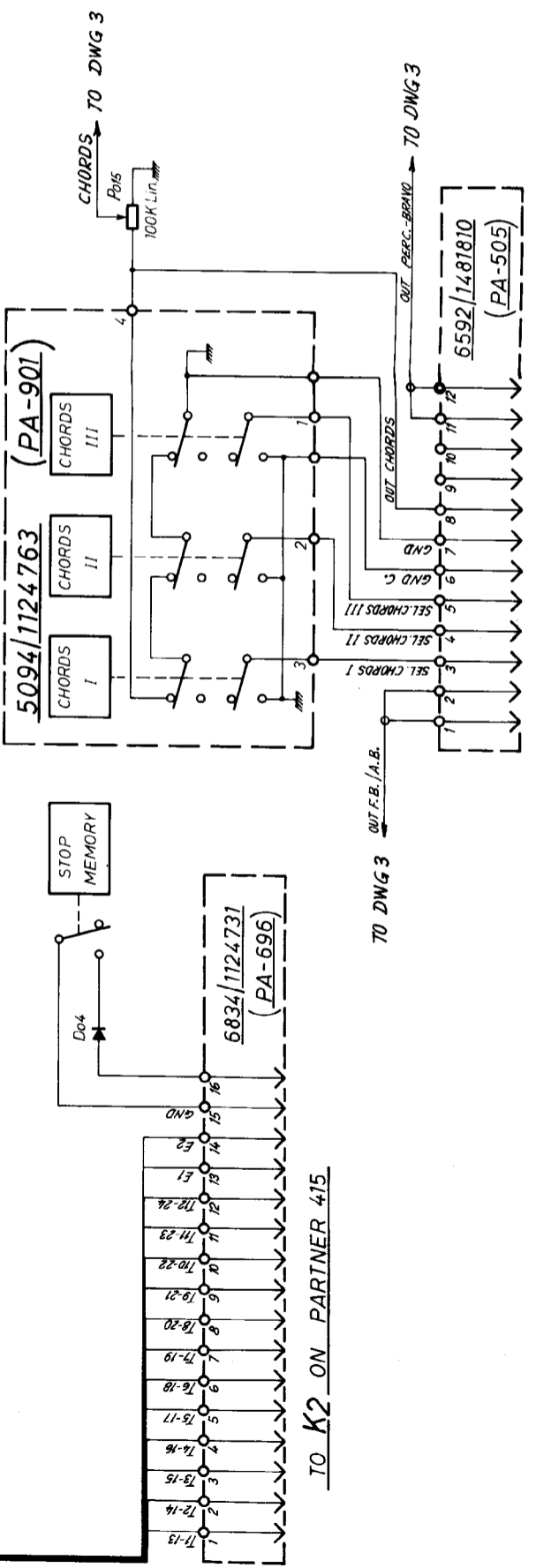
TO K1 ON PARTNER 415



TO K0 ON PARTNER 415



L.M. KEYSWITCHES (PA-890)

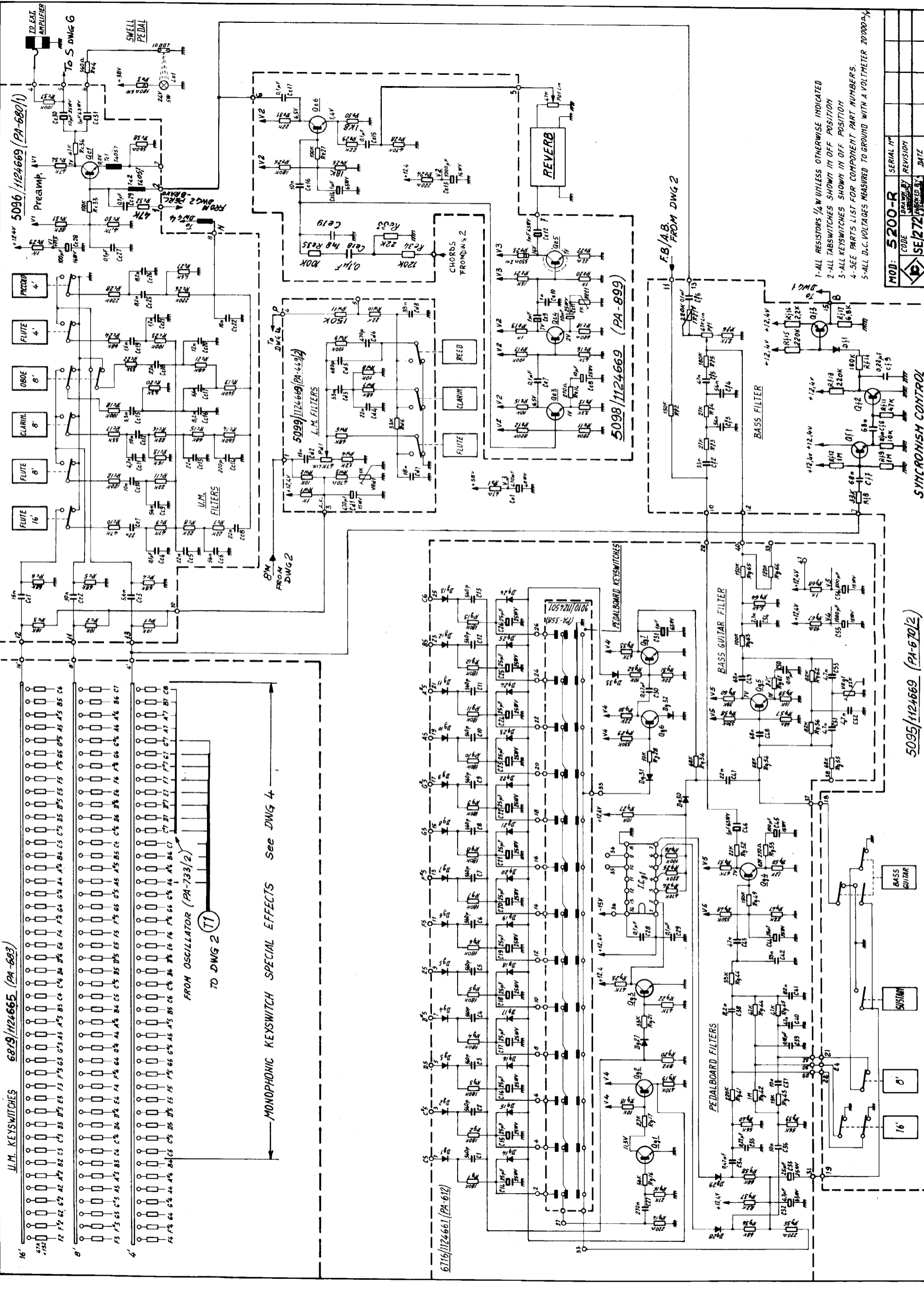


- all resistors 1/4W unless otherwise indicated
- all tabswitches shown in OFF position
- all keyswitches shown in OFF position
- see parts list for component part numbers
- all D.C. voltages measured to ground with a voltmeter 20000 Ω/V

MODEL: 5200-R	SERIAL No	
CODE	DRAWN BY	REVISION
SE-272	CHECKED BY	DATE

TO K3 ON PARTNER 415

TO K2 ON PARTNER 415



MOD: 5200-R	SERIAL N°
CODE	REVISION
DATE	DATE
SE/27/1967	

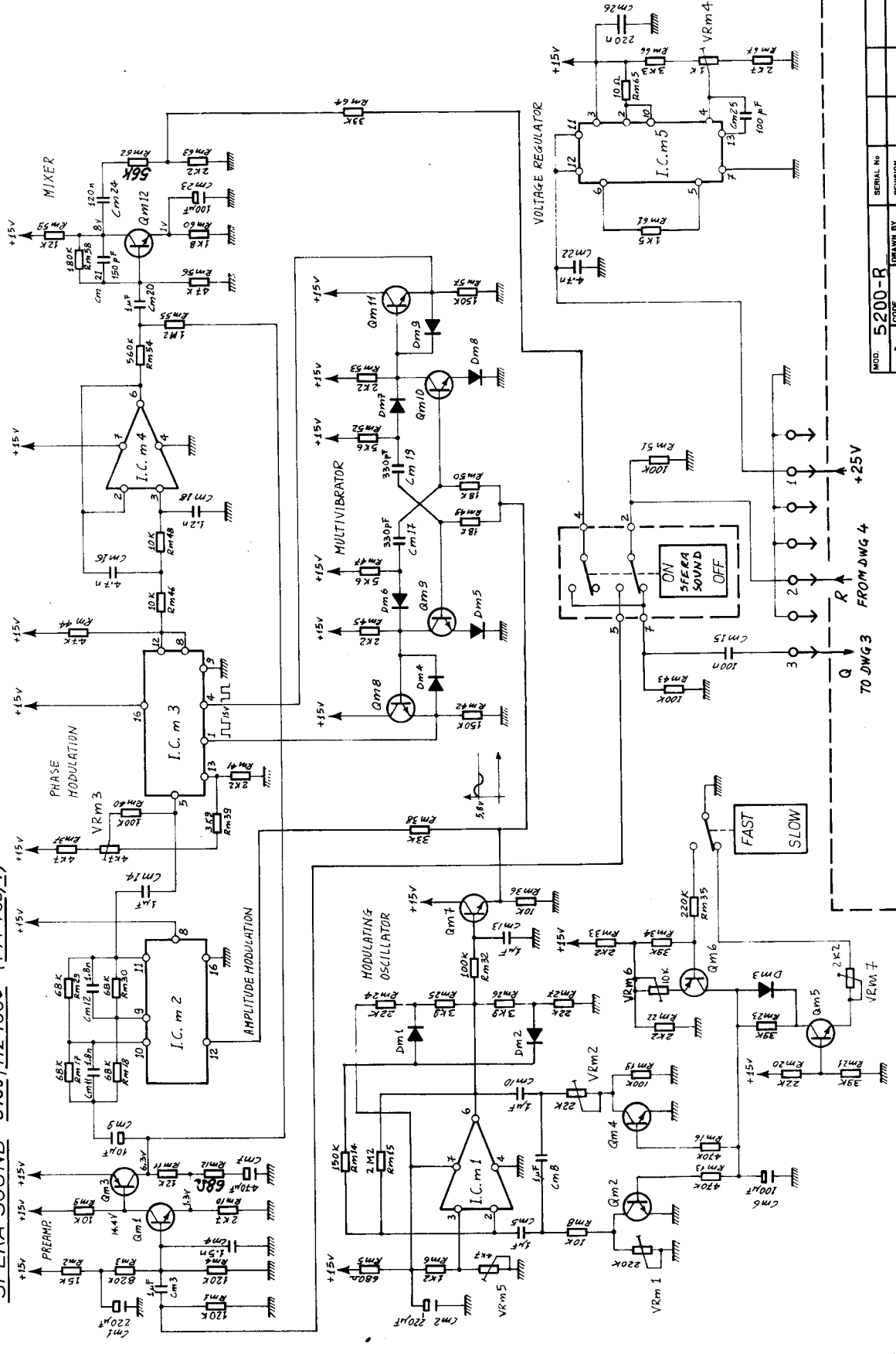
1-ALL RESISTORS 1/4W UNLESS OTHERWISE INDICATED  
 2-ALL TABSWITCHES SHOWN IN OFF POSITION  
 3-ALL KEYSWITCHES SHOWN IN OFF POSITION  
 4-SEE PARTS LIST FOR COMPONENT PART NUMBERS.  
 5-ALL D.C. VOLTAGES MEASURED TO GROUND WITH A VOLTMETER 20000Ω/V

5095/1124669 (PA-670/2)

DWG 3 OF 6



**SFERA SOUND 5100/1124669 (PA-753/1)**



MOD. 5200-R	SERIAL No
DRAWN BY	REVISION
CHECKED BY	DATE
SEI272	



Schem. Ref.	Circuit	Type	Part Code
<b>CHASSIS</b>	<b>POWER SUPPLY CHASSIS (DWG 6/SE 272)</b>		<b>8000/1124601</b>
		RCA 2N 3055 .....	W/1801
		Westinghouse 2N 3055 .....	W/1801
Q 2	Series Stabilizer .....	Westinghouse 156-043 .....	W/1800
		Soliton H 9340 .....	W/1800
D 2	Rectifier Birdge .....	SIEMENS B 40-C3700 .....	B/1208
		AEG B 40-C3700 .....	
<b>PA 355</b>	<b>VOLTAGE REGULATOR BOARD (DWG 6/SE 272)</b>		<b>6449/1124601</b>
Q 1	Series Stabilizer .....	SGS BC 286 .....	W/1601
		IR 1N 4002 .....	
D 1	Rectifier Diode (Bridge) .....	IR 10 D 1 .....	B/1100
Z 1	Voltage Reference-Diode Zener (13V - 1W) .....	IR 1Z 13 .....	B/1418
		MOTOROLA 1N 4743 A .....	
Z 2	Voltage Reference-Diode Zener (15V - 400 mV) .....	ITT ZPD 15 .....	B/1319
		MOTOROLA 1N 5245-B .....	
<b>PA 359-1</b>	<b>POWER AMPLIFIER BOARD (DWG 6/SE 272)</b>		<b>6630/1124601</b>
Q 3	Input preamplifier PNP .....	BC 154 .....	W/1500
Q 4	Temperature Compensator .....	MISTRAL BC 207 A or B. ....	W/1401
		BC 209 B or C. ....	W/1407 - W/1410
Q 5	Driver Amplifier NPN .....	SGS BC 286 .....	W/1601
Q 6	Driver NPN .....	SGS BC 286 .....	W/1601
Q 7	Driver PNP .....	SGS BC 287 .....	W/1702
Q 8 - Q 9	Power Transistors .....	WESTINGHOUSE 150-043 ..	W/1800
		SOLITRON H 9340 .....	W/1800
<b>PA 680/1</b>	<b>UPPER MANUAL FILTER BOARD (DWG 3/SE 272)</b>		<b>5096/1124669</b>
Q c 1	Output Preamplifier .....	BC 209 B, red dot .....	W/1413
		BC 239 B, red dot .....	

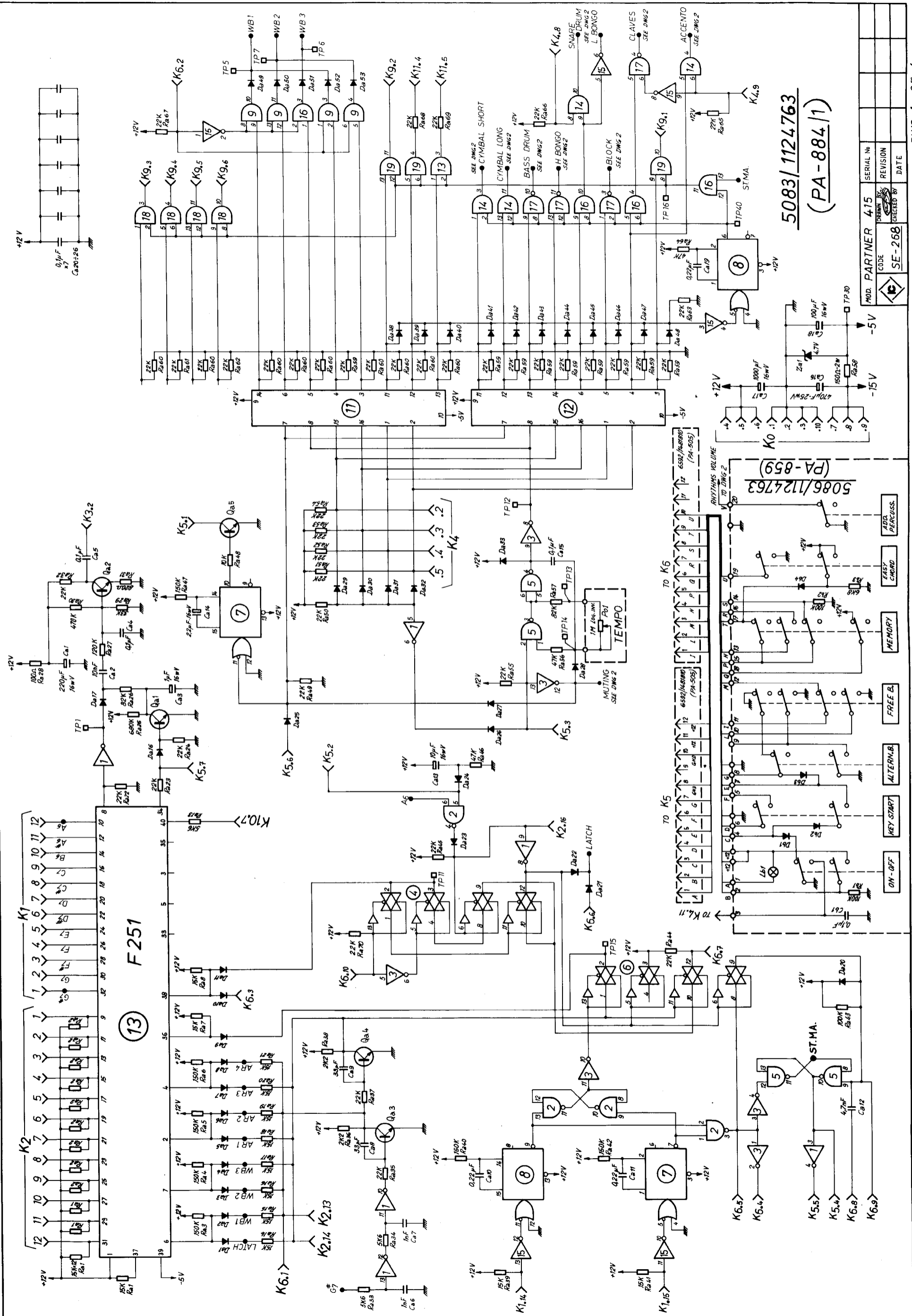


Schem. Ref.	Circuit	Type	Part Code
<b>PA 930/2</b>	<b>TONE GENERATOR (DWG 1/SE 272)</b>		<b>6041/1124675</b>
I.C. a 1	Oscillator .....	SN 29730 N .....	W/1009
I.C. a 2	Top Octave Synthesizer .....	G.I.E. AY-I-0212 .....	W/1105
		A.M.I. ....	
I.C. a 3	Voltage Regulator .....	SN 72723 N .....	W/1209
Q a 1	Buffer .....	BC 208-B-C .....	W/1404
Da 1 ÷ Da 3	Diodes .....	D 525 B-BA 130 .....	B/1000 - B/1003
<b>PA 899</b>	<b>REVERB. VIBRATO (DWG 1-3/SE 272)</b>		<b>5098 /1124669</b>
Q e 1	Vibrato Oscillator .....	BC 208-B-C .....	W/1404
Q e 2	Vibrato Buffer .....		
Q e 4	Reverberation Preamplifier .....	BC 209 B .....	W/1407
Q e 5	Reverberation Driver .....	SGS BC 286 .....	W/1601
Q e 6 - Q e 3	Reverberation Preamplifier .....	BC 209 B red dot .....	W/1413
Q e 7	Driver Vibrato Delay .....	BC 209-C .....	W/1426
<b>PA 612</b>	<b>SUSTAIN PEDALBOARD (DWG 3/SE 272)</b>		<b>6716/1124661</b>
I.C. g 1	Divider .....	G.I.E. AY-1-5050 .....	W/1100 - W/1101
Q g 1	Pulse Amplifier .....		
Q g 3 - Q g 6	Buffers .....	BC 208-B-C .....	W/1404
Q g 7	Modulator .....	BC 209-B .....	W/1407
Q g 2	Reset .....	BC 287 .....	W/1702
Q g 4	Preamplifier .....	BC 209-B red dot .....	W/1413
Q g 5	Bass Guitar Filter .....	BC 209-B .....	W/1407
D g 1 ÷ D g 13	Diodes .....	D 525 B - BA 130 .....	B/1000 - B/1003
D g 14 ÷ D g 26	Diodes .....	1N 914 - 1N 4148 .....	B/1002
D g 27 ÷ D g 33	Diodes .....	D 525 B - BA 130 .....	B/1000 - B/1003
<b>PA 683</b>	<b>UPPER MANUAL KEYSWITCH BOARD (DWG 1-3-4/SE 272)</b>		<b>6819/1124665</b>
I.C. 1 ÷ I.C. 8	Integrated Frequency Divider .....	AY-1-5050 .....	W/1101 - W/1100
D 1 ÷ D 73	Diodes .....	D 525 A .....	B/1000 - B/1001
<b>PA 890</b>	<b>LOWER MANUAL KEYSWITCH BOARD (DWG 2/SE 272)</b>		<b>5090/1124763</b>
D 1 ÷ D 48	Diodes .....	D 525 A .....	B/1001

Schem. Ref.	Circuit	Type	Part Code
<b>PA 670 /2</b>	<b>PEDALBOARD (DWG 3/SE 272)</b>		<b>5095/1124669</b>
Q f 1	Buffer .....	BC 208 B-C .....	W/1404
Q f 2	Synchronism Control .....	BC 209 -B .....	W/1407
Q f 3	Synchronism Control .....	BC 154 .....	W/1500
D f 1	Diode .....	D 525 A .....	B/1000 - B/1001
<b>PA 676</b>	<b>SPECIAL EFFECT MONOPHONIC (DWG 4/SE 272)</b>		<b>6824/1124665</b>
* I.C. 1 - I.C. 3	Quadruple-2input NAND GATES		
* I.C. 4	C/MOS .....	4011 .....	W/1150
* I.C. 2	Triple-3 input NAND GATES		
	C/MOS .....	4023 .....	W/1152
* I.C. 5	Dual JK Flip-Flop C/MOS .....	4027 .....	W/1153
I.C. 6	Priority Latching Circuit .....	G.I.E. AY-1-1313 .....	W/1108
D p 1 ÷ D p 3	Diodes .....	D 525 A .....	B/1000 - B/1001
<b>PA 675/1</b>	<b>SPECIAL EFFECTS (DWG 4/SE 272)</b>		<b>5097/1124669</b>
* I.C. 1 - I.C. 2	Dual JK Flip-Flop C/MOS .....	4027 .....	W/1153
* I.C. 3	Quadruple-2 input NAND GATES		
	C/MOS .....	4011 .....	W/1150
* I.C. 4	Quadruple-2 input-AND GATES		
	C/MOS .....	4081 .....	W/1156
Q n 1	Upper Manual Cancel .....	BC 209-C .....	W/1426
Q n 2-5-7		BC 208 B-C .....	W/1404
11-12-13-14	Buffers .....	BC 209 B .....	W/1407
Q n 3	Trombone Filter .....	BC 209-B .....	W/1407
Q n 4	Preamplifier .....	BC 209-B red dot .....	W/1413
Q n 6	Trumpet Filter .....	BC 209-B .....	W/1407
Q n 8 - Q n 9	<b>Effect Modulators.....</b>	<b>BC 209-C MISTRAL.....</b>	<b>W/1426</b>
Q n 10	Effect Modulator .....	BC 208-B-C .....	W/1404
Q n 15	English horn .....	BC 209-B .....	W/1407
D n 1 ÷ D n 12	Diodes .....	D 525 A .....	B/1000 - B/1001

\* Handle with care.

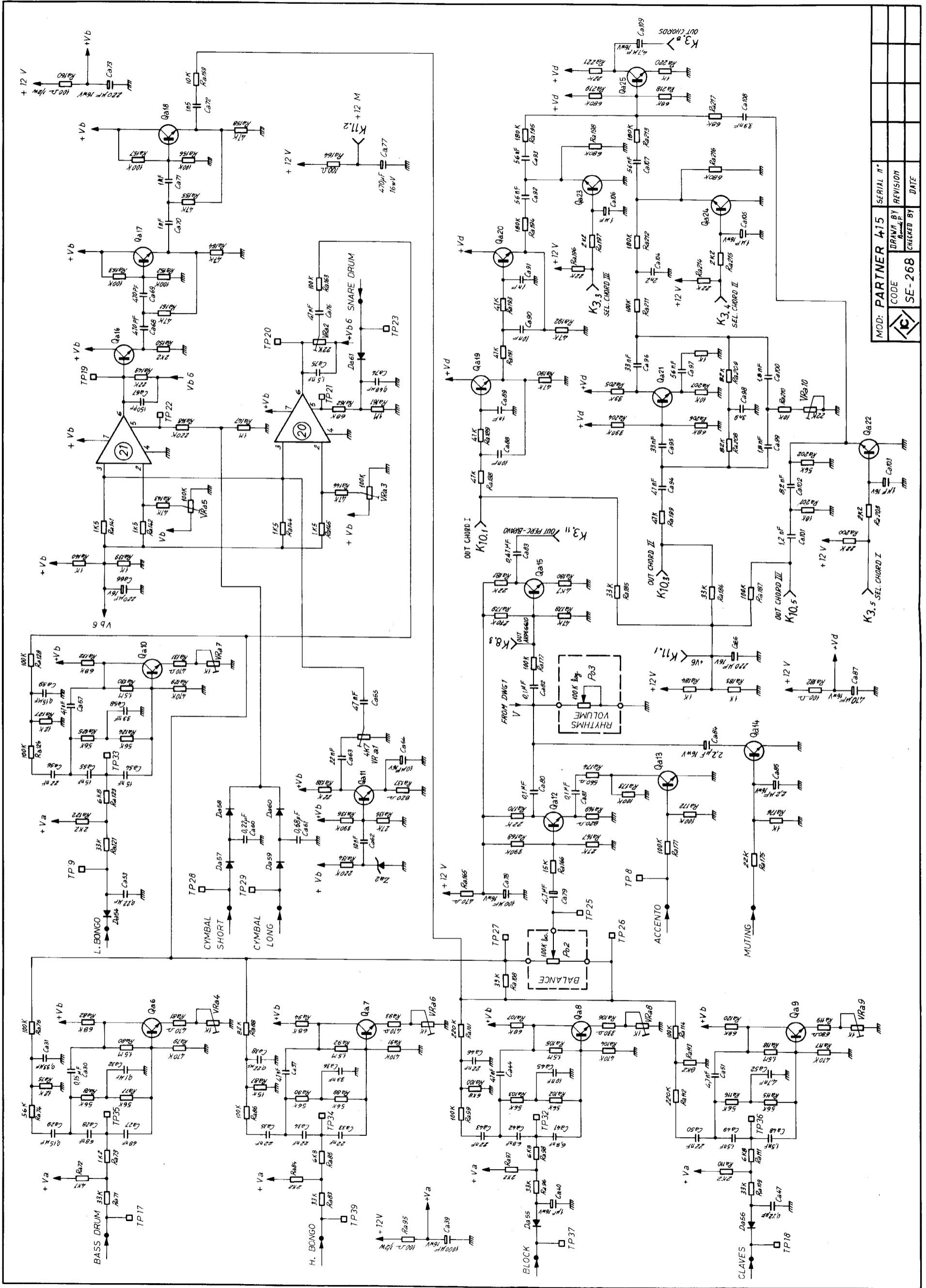
Schem.Ref.	Circuit	Type	Part Code
<u>PA 732-1</u>	<u>MIXER MAIN-MIKE (DWG 6/SE 272)</u>		<u>6971/1124668</u>
Qi1	Mike Preamplifier.....	} BC 209 - B red dot.....	W/1413
Qi2	Mixer Preamplifier.....		
Qi3	Mixer Preamplifier.....		
		BC 154.....	W/1500
<u>PA 753/1</u>	<u>SFERA SOUND (DWG 5/SE 272)</u>		<u>5100/1124669</u>
I.C.m1	Oscillator B.F.....	SN 72741.....	W/1210
I.C.m2	Amplitude Modulation.....	TCA 740.....	W/1222
I.C.m3	Delay Line.....	TDA 1022.....	W/1113
I.C.m4	Filter.....	SN 72741.....	W/1210
I.C.m5	Voltage Regulator.....	SN 72723.....	W/120
Qm1	Preamplifier.....	BC 209 - B red dot.....	W/1413
Qm2-Qm4	Switch.....	BC 209 - B.....	W/1407
Qm3	Preamplifier.....	} BC 154.....	W/1500
Qm6	Driver.....		
Qm5	Driver.....	} BC 208 - B.....	W/1404
Qm7	Emitter Follower.....		
Qm8-Qm11	Buffer.....		
Qm9-Qm10	Multivibrator.....		
Qm12	Mixer.....	BC 209 - B red dot.....	W/1413
Dm1 + Dm9	Diodes.....	BA 130.....	B/1003



5083/1124763  
(PA-884/1)

5086/1124763  
(PA-859)

MOD. PARTNER	415	SERIAL NO.	
CODE	SE-268	REVISION	
DRAWN BY		CHECKED BY	
DATE			



MOD: PARTNER 415	SERIAL N°
CODE	DRWN. BY
SE-268	REVISION
CHECKED BY	DATE

**K0**

- 1 < GND
- 2 < GND
- 3 < GND
- 4 < +12V
- 5 < +12V
- 6 < +12V
- 7 < -15V
- 8 < -15V
- 9 < -15V
- 10 < GND
- 11 < GND
- 12 < GND
- 13 < GND
- 14 < GND
- 15 < GND
- 16 < GND

**K1**

- 1 < G<sup>#</sup>
- 2 < G7
- 3 < F<sup>#</sup>
- 4 < F7
- 5 < E7
- 6 < D<sup>#</sup>
- 7 < D7
- 8 < C<sup>#</sup>
- 9 < C7
- 10 < B6
- 11 < A<sup>#</sup>
- 12 < A6
- 13 < GND
- 14 < OR OCTAVE 1
- 15 < OR OCTAVE 2
- 16 < GND

**K2**

- 1 < T1-13
- 2 < T2-14
- 3 < T3-15
- 4 < T4-16
- 5 < T5-17
- 6 < T6-18
- 7 < T7-19
- 8 < T8-20
- 9 < T9-21
- 10 < T10-22
- 11 < T11-23
- 12 < T12-24
- 13 < E1
- 14 < E2
- 15 < GND
- 16 < STOP MEMORY

**K3**

- 1 < GND
- 2 < OUT F.B./A.B.
- 3 < SELECT. CHORD III
- 4 < SELECT. CHORD II
- 5 < SELECT. CHORD I
- 6 < GND
- 7 < GND C.
- 8 < OUT CHORDS
- 9 < GND
- 10 < GND
- 11 < OUT PERC. -BRAVO
- 12 < GND

**K4**

- 1 < GND
- 2 < A0
- 3 < A1
- 4 < A2
- 5 < A3
- 6 < GND
- 7 < GND
- 8 < IS
- 9 < AC
- 10 < GND
- 11 < GND C.
- 12 < GND

**K5**

- 1 < A
- 2 < B
- 3 < C
- 4 < D
- 5 < E
- 6 < F
- 7 < G
- 8 < GND
- 9 < GND
- 10 < GND
- 11 < +12V
- 12 < +12V

**K6**

- 1 < I
- 2 < L
- 3 < M
- 4 < N
- 5 < P
- 6 < Q
- 7 < R
- 8 < S
- 9 < T
- 10 < U
- 11 < GND
- 12 < GND

5082/1124772

(PA-884)

LEGENDA CONNECTORS

**K7**

- 1 < GND
- 2 < TRIGGER ARPEGGIO
- 3 < APP 1
- 4 < APP 2
- 5 < APP 3
- 6 < +12V
- 7 < +12V

**K8**

- 1 < GND
- 2 < GND
- 3 < OUT ARPEGGIO
- 4 < GND
- 5 < GND
- 6 < GND
- 7 < GND

**K9**

- 1 < M.C.S. I
- 2 < M.C.L. I
- 3 < M.C.S. II
- 4 < M.C.L. II
- 5 < M.C.S. III
- 6 < M.C.L. III
- 7 < GND

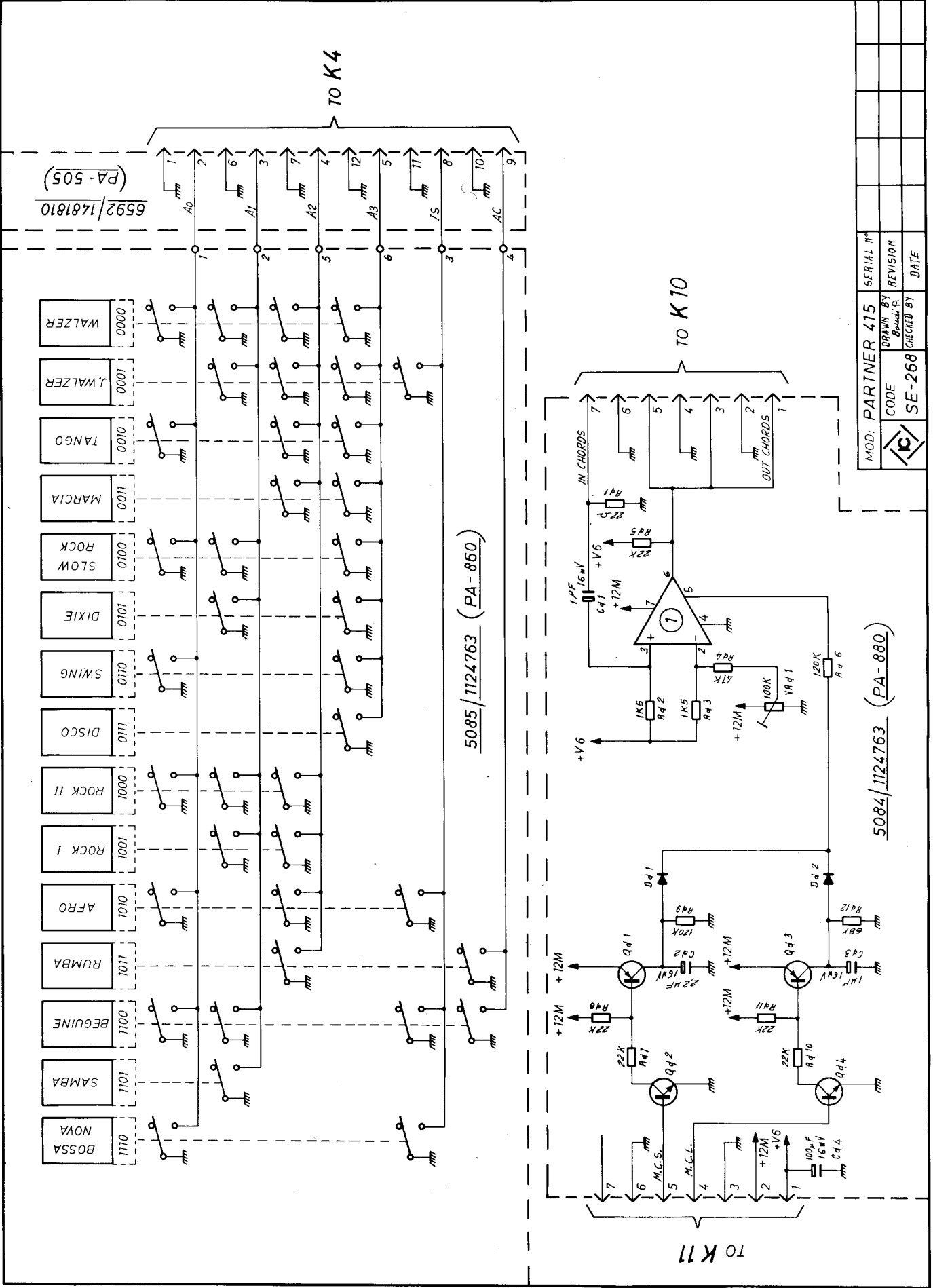
**K10**

- 1 < OUT CHORD I
- 2 < GND
- 3 < OUT CHORD II
- 4 < GND
- 5 < OUT CHORD III
- 6 < GND
- 7 < IN CHORDS

**K11**

- 1 < +V6
- 2 < +12M
- 3 < GND
- 4 < M.C.S.
- 5 < M.C.L.
- 6 < GND
- 7 < GND

	MOD PARTNER	415	SERIAL N°	
	CODE	DRAWN BY	REVISION	
	SE-268	CHECKED BY	DATE	



6592/1481810 (PA-505)

5085/1124763 (PA-860)

5084/1124763 (PA-880)

MOD: PARTNER 415	SERIAL N°
CODE	REVISION
SE-268	CHECKED BY
	DATE

# PARTNER 415

ELECTRONIC COMPONENT LIST

1

Schem. Ref.                      Circuit                      Type                      Part Code

RHYTHM GENERATION (DWG 1-2/SE 268)

PA 884/1	Complete with Components		5083/1124763
ICa1-3-15	Hex Inverter	F 4069	W/1169
ICa2-5-17	Quad 2-Input NAND Gate	HBF 4011	W/1150
ICa4-6	Quad Bilateral Switches	4016	W/1164
ICa7-8	Multivibrators	4528	W/1159
ICa9-14-16-18-19	Quad 2-Input AND Gate	4081	W/1156
ICa11	Rhythm Generator	F 257 B	W/1120
ICa12	Rhythm Generator	F 257 A	W/1119
ICa13	Arpeggio, Chord & Bass Accompaniment Generator	F 251	W/1118
ICa20-21	Modulators	CA 3080 E	W/1227
Qa1	Modulator	BC 209-B red dot	W/1413
Qa2-12-15-25	Preamplifiers	BC 209-B red dot	W/1413
Qa3-4	Switches	BC 209-B	W/1407
Qa5	Lamp Driver	BC 209-B	W/1407
Qa6	Bass Drum Oscillator		
Qa7	H. Bongo Oscillator		
Qa8	Block Oscillator	BC 209-B red dot	W/1413
Qa9	Claves Oscillator		
Qa10	L. Bongo Oscillator		
Qa11	Noise Preamplifier	BC 209-C SESCOSEM	W/1426
Qa13-14-22-23-24	Switches	BC 209-C SESCOSEM	W/1426
Qa16	Emitter Follower	BC 209-B red dot	W/1413
Qa17-18	Cymbal Filters	BC 209-B red dot	W/1413
Qa19-20	Piano Filters	BC 209-B red dot	W/1413
Qa21	Banjo Filter	BC 209-B red dot	W/1413
Da1+Da11 Da16-17 Da20+Da33 Da38+Da61	Diodes	D 525 A	B/1001
Za1	Voltage Reference-Zener Diode	4,7V - 400 mW	B/1307
Za2	Noise Generator - Transistor NPN	- -	B/1604



Schem.Ref.	Circuit	Type	Part Code
<u>COMMANDS (DWG 1/SE 268)</u>			
PA 859	Complete with Components		5086/1124763
Db1 + Db4	Diodes	D 525 A	B/1001
Lb1	Pilot Lamp	12V - 30mA	LL/18
--	Keyswitches with 7 keys	--	X/1316
<u>CHORDS (DWG 4/SE 268)</u>			
PA 880	Complete with Components		5084/1124763
ICd1	Modulator	CA 3080 E	W/1227
Qd1-2-3-4	Switches	BC 209-B	W/1407
Dd1-2	Diodes	D 525 A	B/1001
<u>RHYTHM SELECTION (DWG 4/SE 268)</u>			
PA 860	Complete with Components		5085/1124763
--	Keyswitches with 15 Keys	--	W/1315
<u>POTENTIOMETERS</u>			
Po1	Tempo Potentiometer	1,5 MOhm Log. inv.	P/286
Po2 - Po3	Balance & Rhythm Volume Pot.	100 KOhm log.	P/266
§			
--	Decorative Front Plate	--	PL/584
--	Knob for potentiometers	--	MP/48