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Technical Document Distribution

Brand:	Farfisa	
Model	Professional 110	
Product:	Portable Organ	
Description:	Service Manual	Dated: none

Musicparts Document Number: 40564

TechTips: 0

Pages: 43

Hello,

Welcome to MusicParts.Com, Inc. your online resource for technical documents and service information. This PDF package may contain information, schematics, parts lists, images, engineering changes, previous versions, circuit descriptions, and many other unique features about the product you have chosen. This document was assembled from a variety of sources and is the result of our many years in the music repair business.

TECHTIPS: Unique to Musicparts documents are **TECHTIPS** located in critical areas on the schematics. They contain useful information about that area of the schematic such as common problems that we have found and recommended changes. Not all documents will have TechTips.

NOTE: Large original over-sized drawings will need to be taped together. We feel this is better than reducing them and losing fine details.

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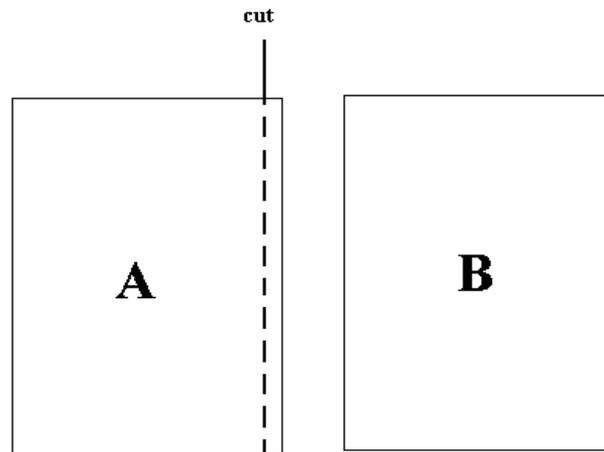
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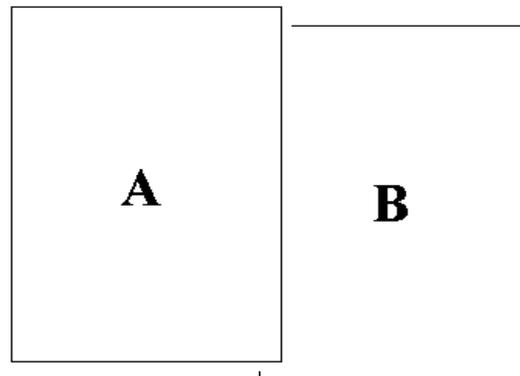
MusicParts.Com

Two Sheet Pasteup Guide

11x17" paper size



It's ok to slightly cut into the black print, as documents contain an intentional extended overlapping printed area.

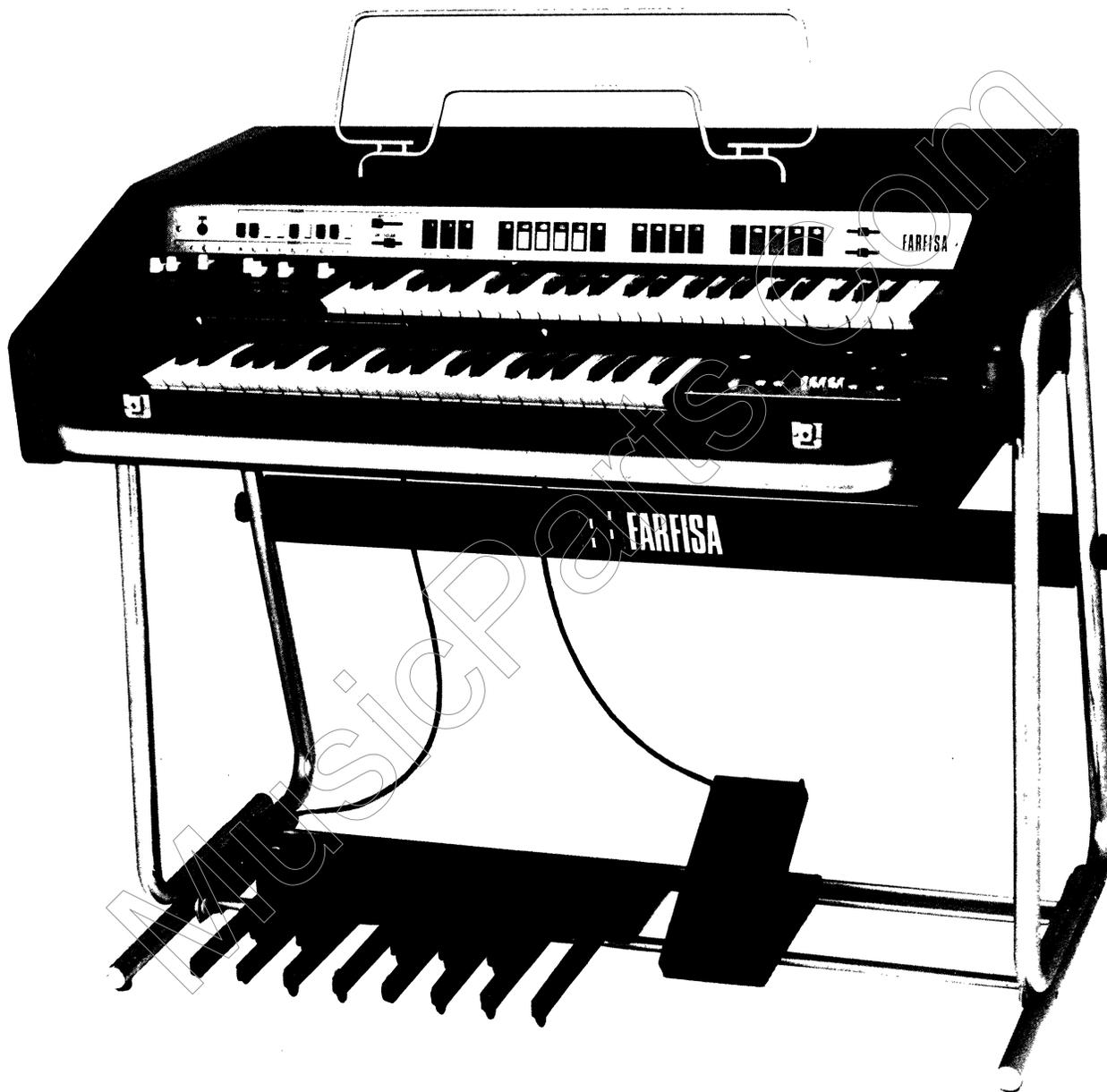


Only one trim cut is needed, then overlay as shown and tape.

FARFISA

ELECTRONIC ORGAN MODEL

PROFESSIONAL 110



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 Ω/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.

SEM 285 - MUSIC STAND

CL 480 - U. M. LEFT CHEEK BLOCK COVER

CL 479 - L. M. LEFT CHEEK BLOCK COVER

MOB 150 - COMPLETE CABINET

MG 31 - HANDLE COMPLETE WITH CONNECTIONS

GM 102 - LEFT LEG

CL 255 - CAP FOR NATURAL KEY

CL 256 - CAP FOR SHARP KEY

PDA 7 - PEDALBOARD

SEM 74 - REAR COVER

DE 679/1 - DECORATIVE FRONT PLATE

CL 483 - U. M. RIGHT CHEEK -
BLOCK COVER

CL 481 + PL 491 - L. M. RIGHT CHEEK -
BLOCK COVER FOR RHYTHMS

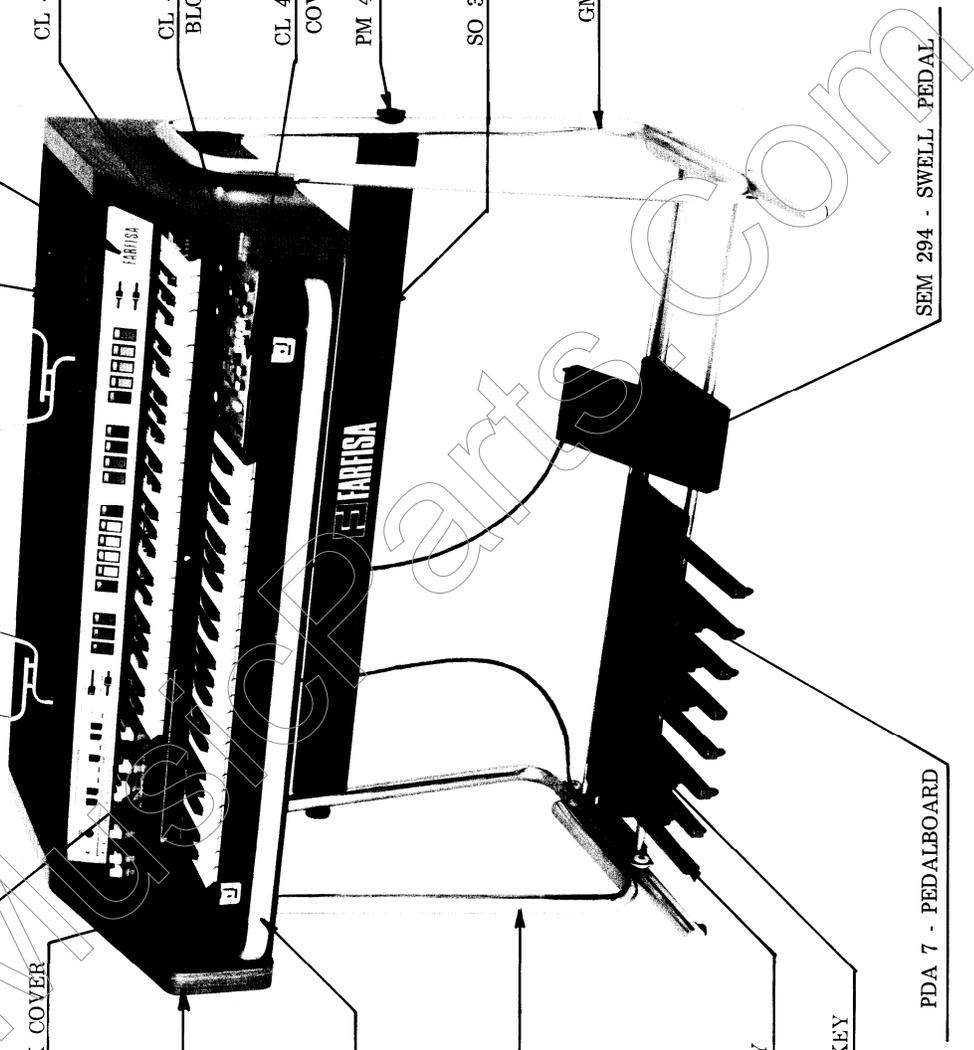
CL 491 - L. M. RIGHT CHEEK BLOCK
COVER (WITHOUT RHYTHMS)

PM 40 - DECORATIVE SUPPORT
BLOCKING KNOB

SO 322 - DECORATIVE SUPPORT

GM 103 - RIGHT LEG

SEM 294 - SWELL PEDAL



PROFESSIONAL 110

COMMAND PRESET
PA 834 (DWG 9)

REGISTER LOGIC
PA 832 (DWG 11 - 12)

PERCUSSION - REPEAT - PRESET and
COMMAND DRAWBARS - PA 831 (DWG 9)

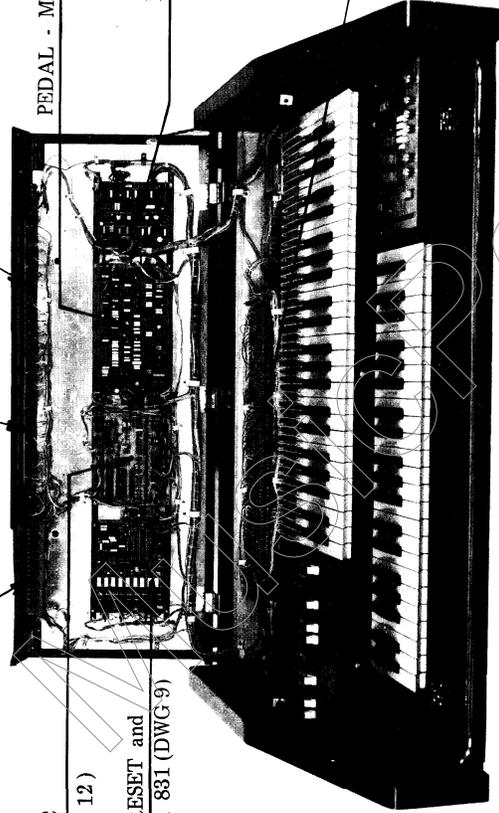
PERCUSSION and FLUTE REGISTERS
PA 835 (DWG 11 - 12)

SPECIAL EFFECTS and PEDAL REGISTERS
PA 836 (DWG 11)

PEDAL - MANUAL BASS - PIANO and HARPSICHORD FILTERS
PA 851 (DWG 8)

MIXER and VOLUME CONTROL
PA 833 (DWG 13)

PIANO GATES
PA 826 (DWG 7)



L. M. FLUTE FILTERS
PA 775/4 (DWG 10)

LESLIE and HEADPHONE AMPLIFIERS
PA 981 (DWG 12)

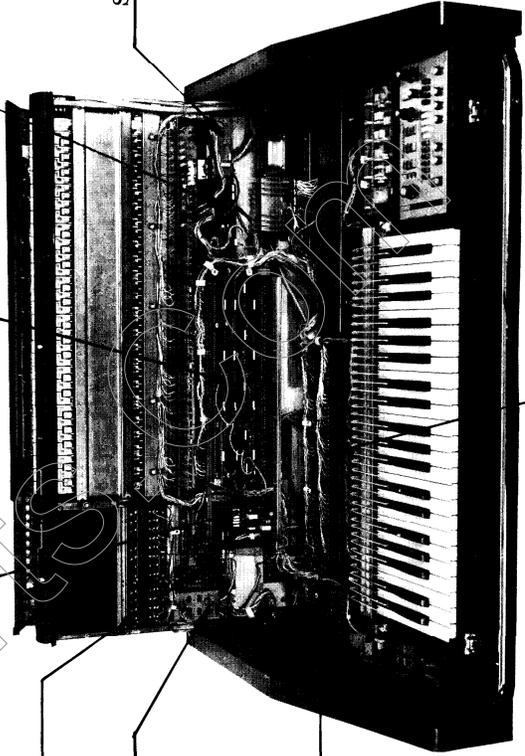
L. M. and U. M. COMMAND DRAWBARS
PA 830 (DWG 2)

U. M. FLUTE FILTERS
PA 775/5 (DWG 10)

U. M. GATES - PA 965 (or ex PA 711) - DWG 6

MASTER OSCILLATOR
PA 930/10 (DWG 2)

STABILIZER + 5V
PA 852 (DWG 14)



L. M. GATES - PA 970 (ex PA 824) - DWG 5

L. M. and U. M. DRAWBARS
PA 829 (DWG 2 - 9)

L. M. KEYSWITCHES
PA 838 (DWG 5)

VIBRATO
PA 839 (DWG 2)

U. M. KEYSWITCHES
PA 837 (DWG 6)

POWER SUPPLY (DWG 14)

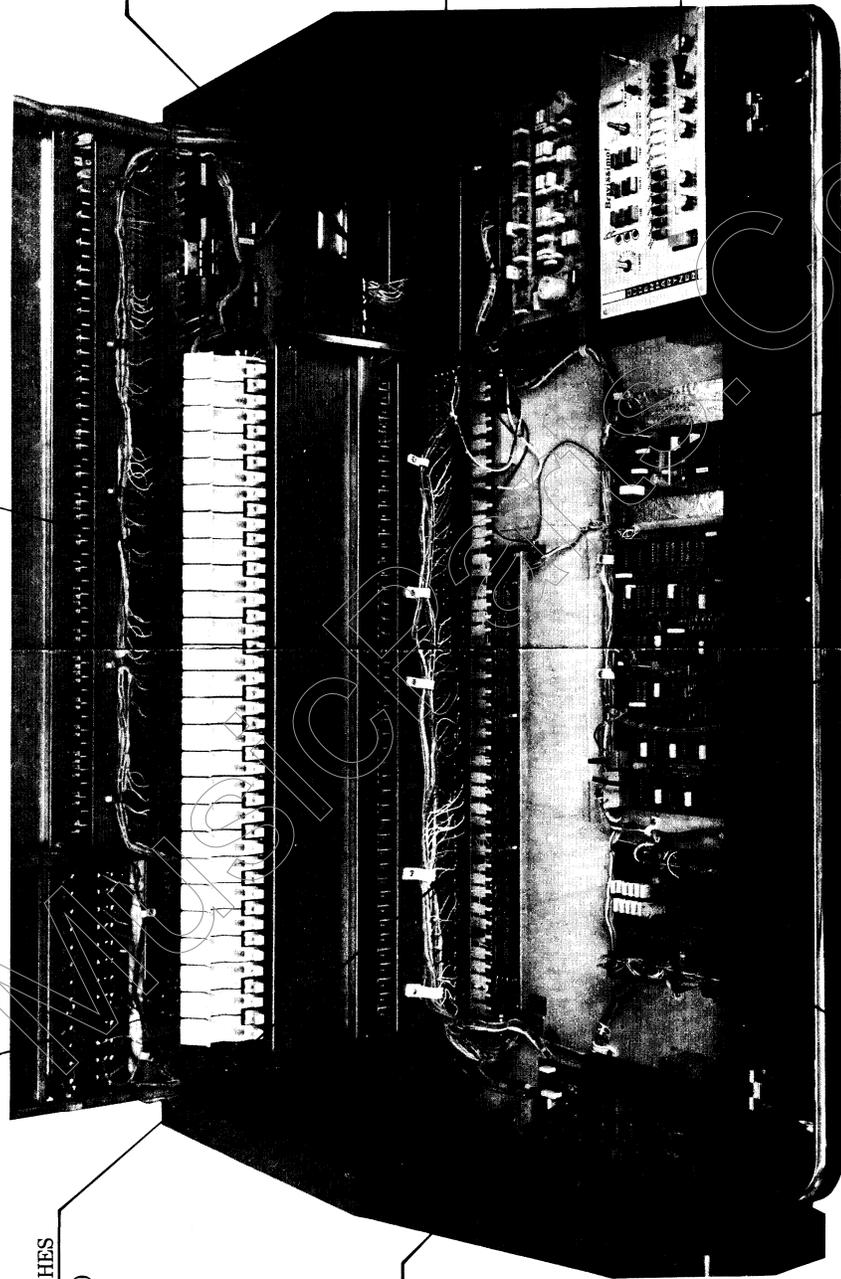
REVERB. UNIT (DWG 13)

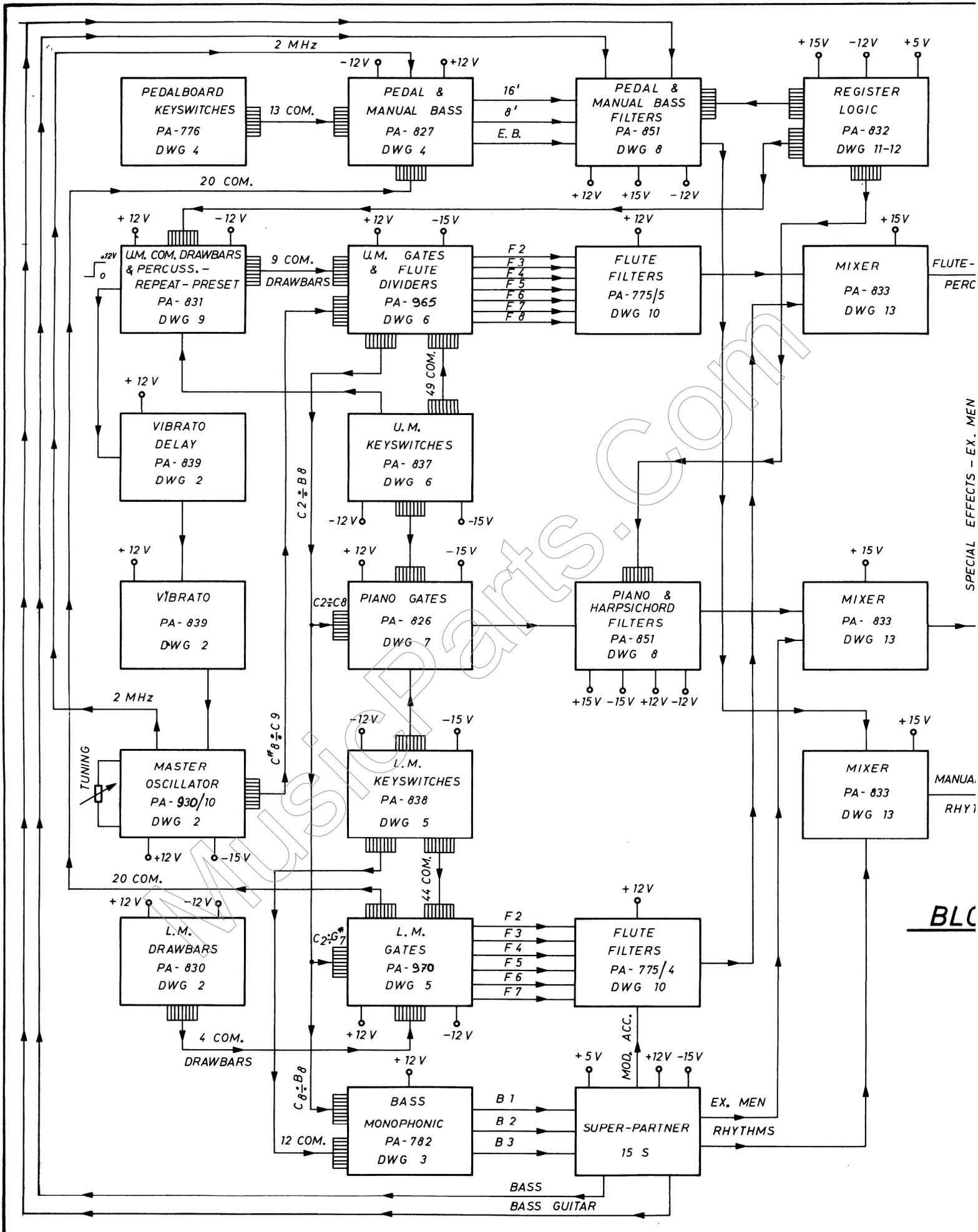
SUPERPARTNER UNIT
SE 220

PEDAL and MANUAL BASS
PA 827 (DWG 4)

REVERB. AMPLIFIER
PA 828 (DWG 13)

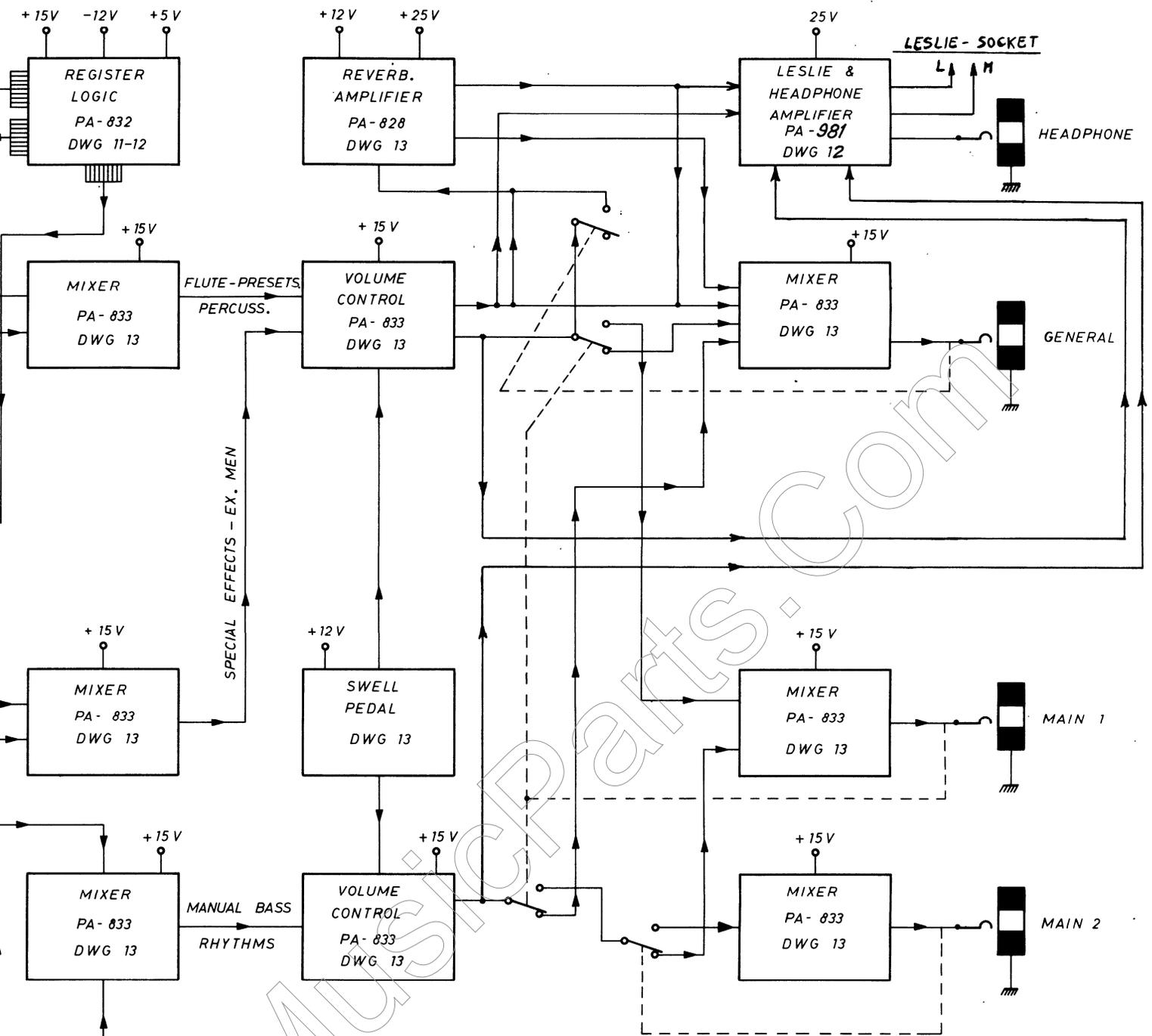
MONOPHONIC BASS
PA 782 (DWG 3)



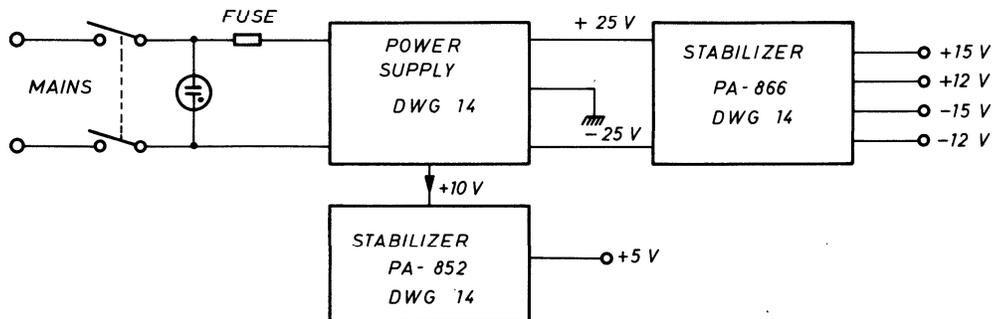


SPECIAL EFFECTS - EX. MEN

BLC



BLOCK DIAGRAM



MOD: PROFESS. 110	SERIAL N° 6701		
	CODE SE-264	DRAWN BY Boyd R	REVISION 1
		CHECKED BY R.P.	DATE 19-7-79

Note	Frequency
C [#] 8	4436 Hz
D [#] 8	4700 Hz
D [♭] 8	4976 Hz
E [#] 8	5272 Hz
F [#] 8	5588 Hz
F [♭] 8	5920 Hz
G [#] 8	6272 Hz
G [♭] 8	6644 Hz
A [#] 8	7040 Hz
A [♭] 8	7458 Hz
B [#] 8	7902 Hz
C [♭] 9	8372 Hz

6049/1115281
(PA-930/10)

6849/1124723 (PA-735)

6850/1124723 (PA-736)

5055/1115281 (PA-839)

5051/1115281 (PA-829)

5040/1115281 (PA-830)

VOLTAGE REGULATOR

OSCILLATOR

TONE GENERATOR

TUNING

VIBRATO DELAY

VIBRATO

PA-736

PA-735

PA-736

PA-839

PA-829

PA-830

PA-737

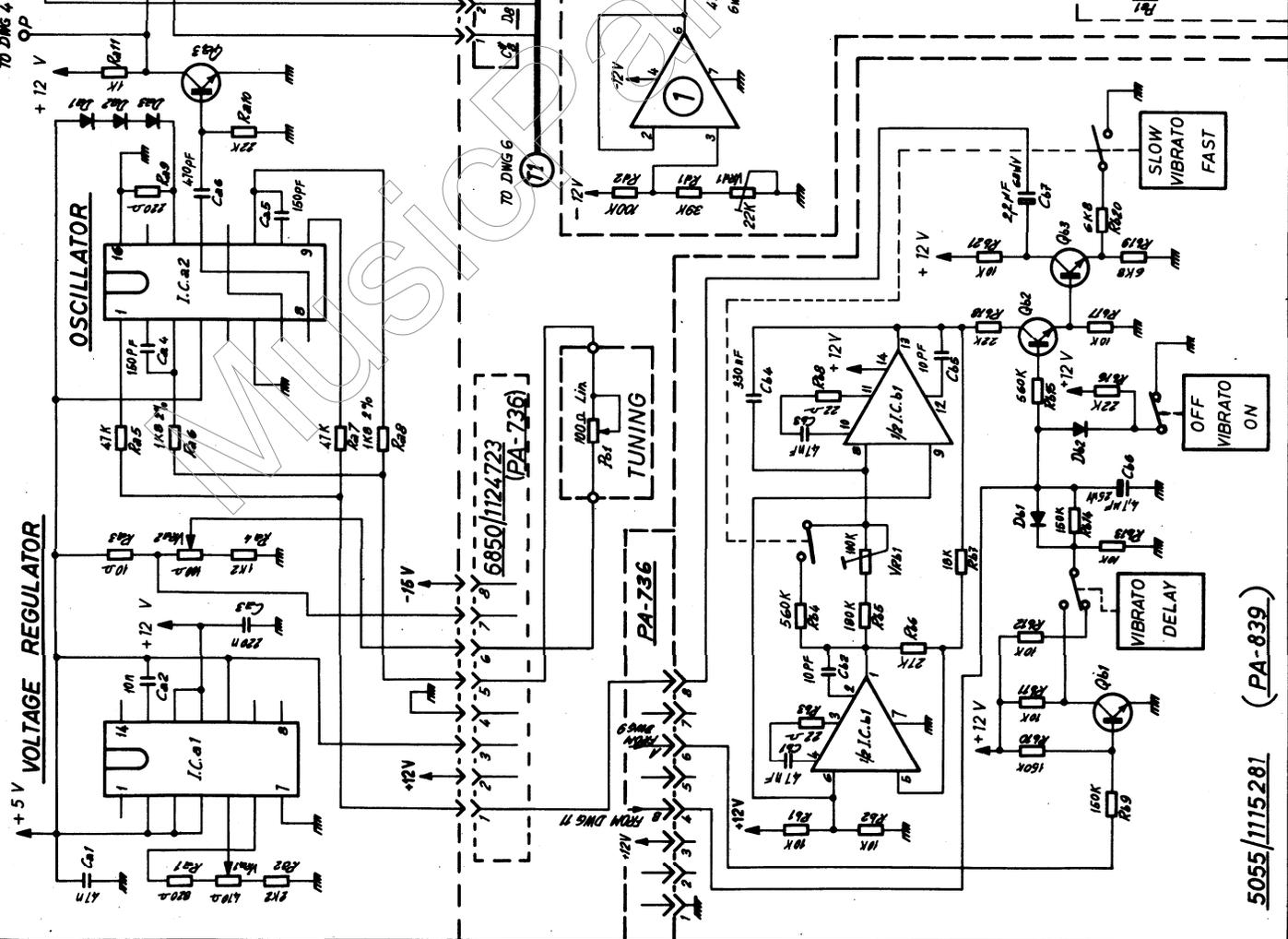
PA-736

PA-735

PA-839

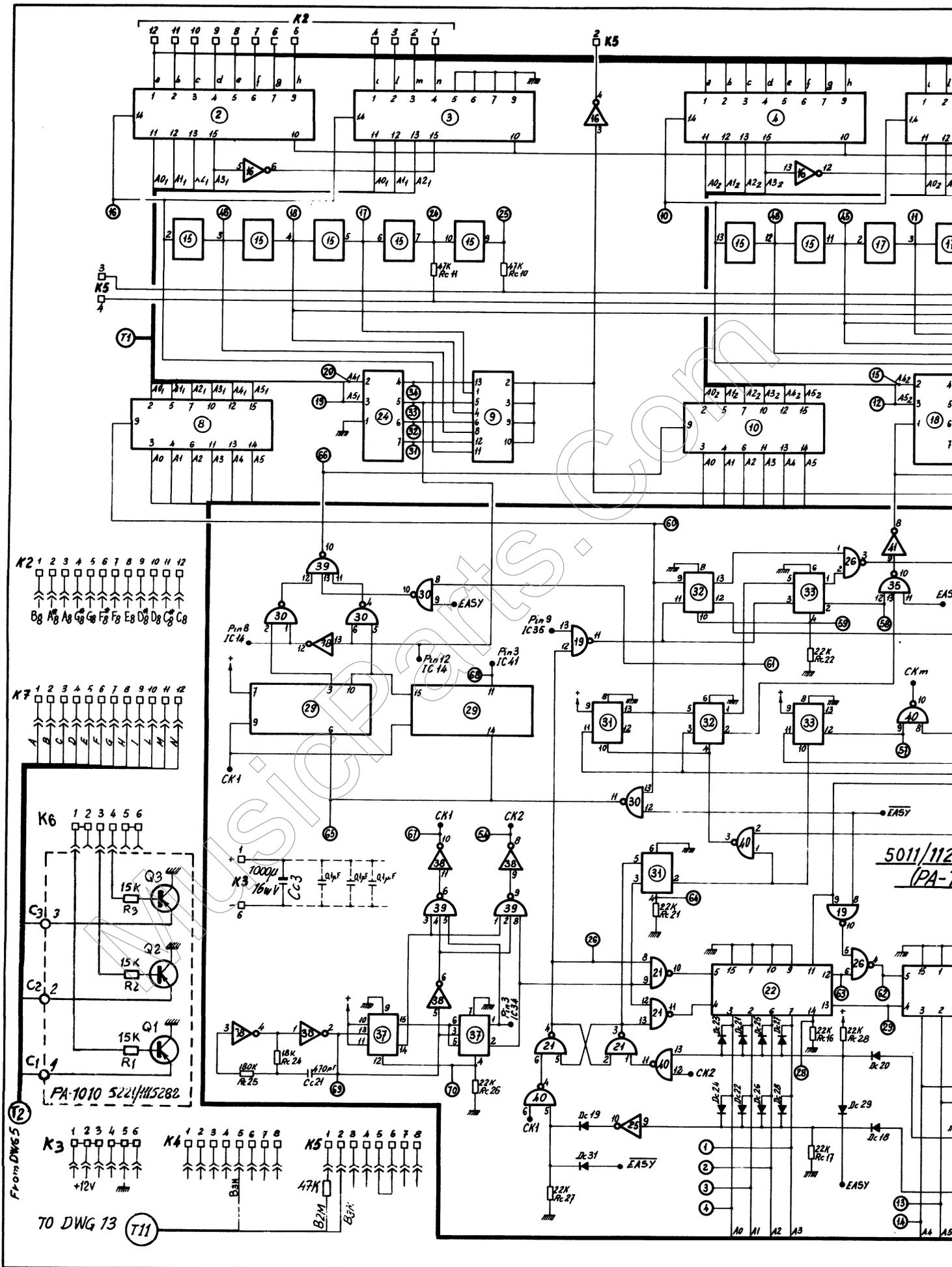
PA-829

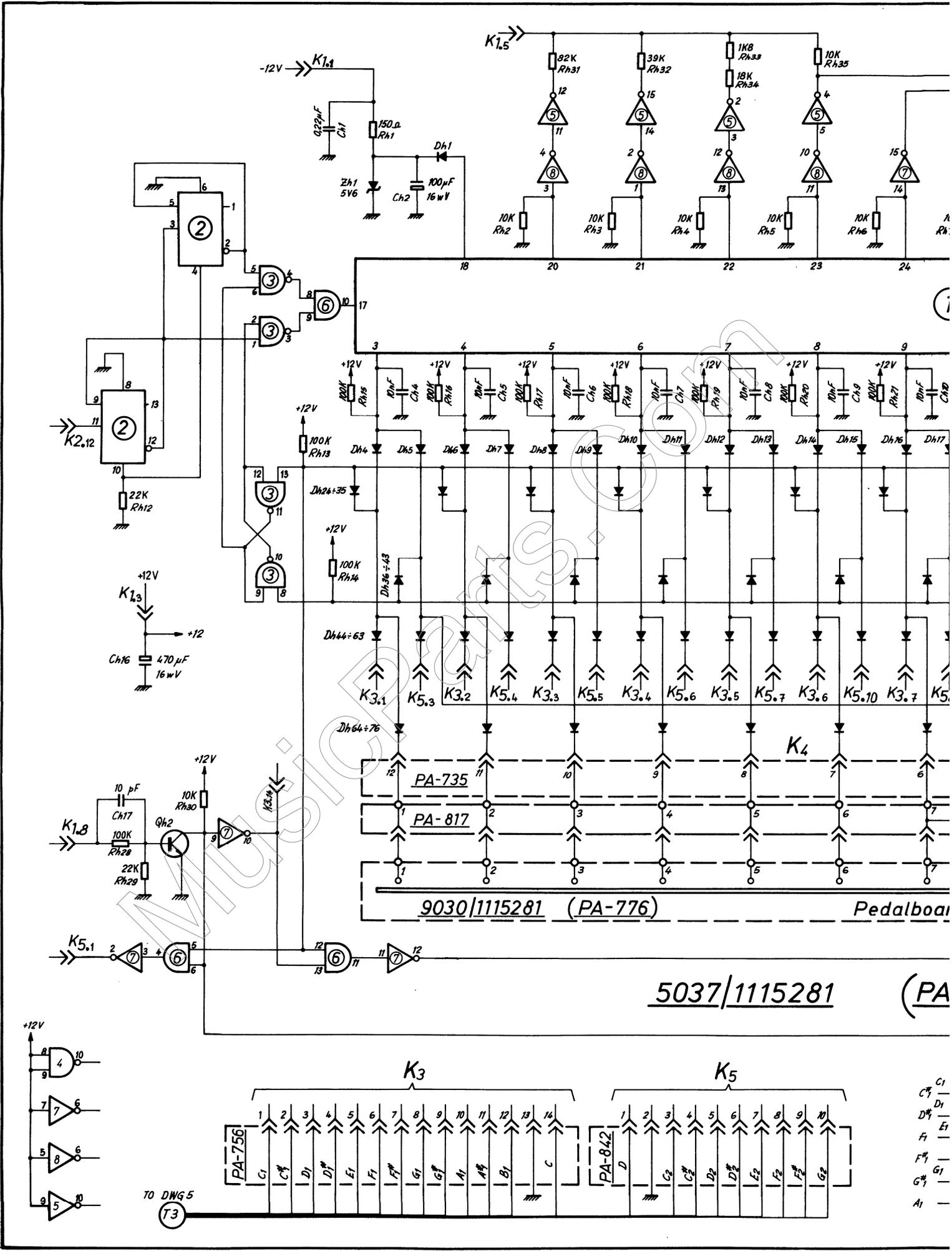
PA-830

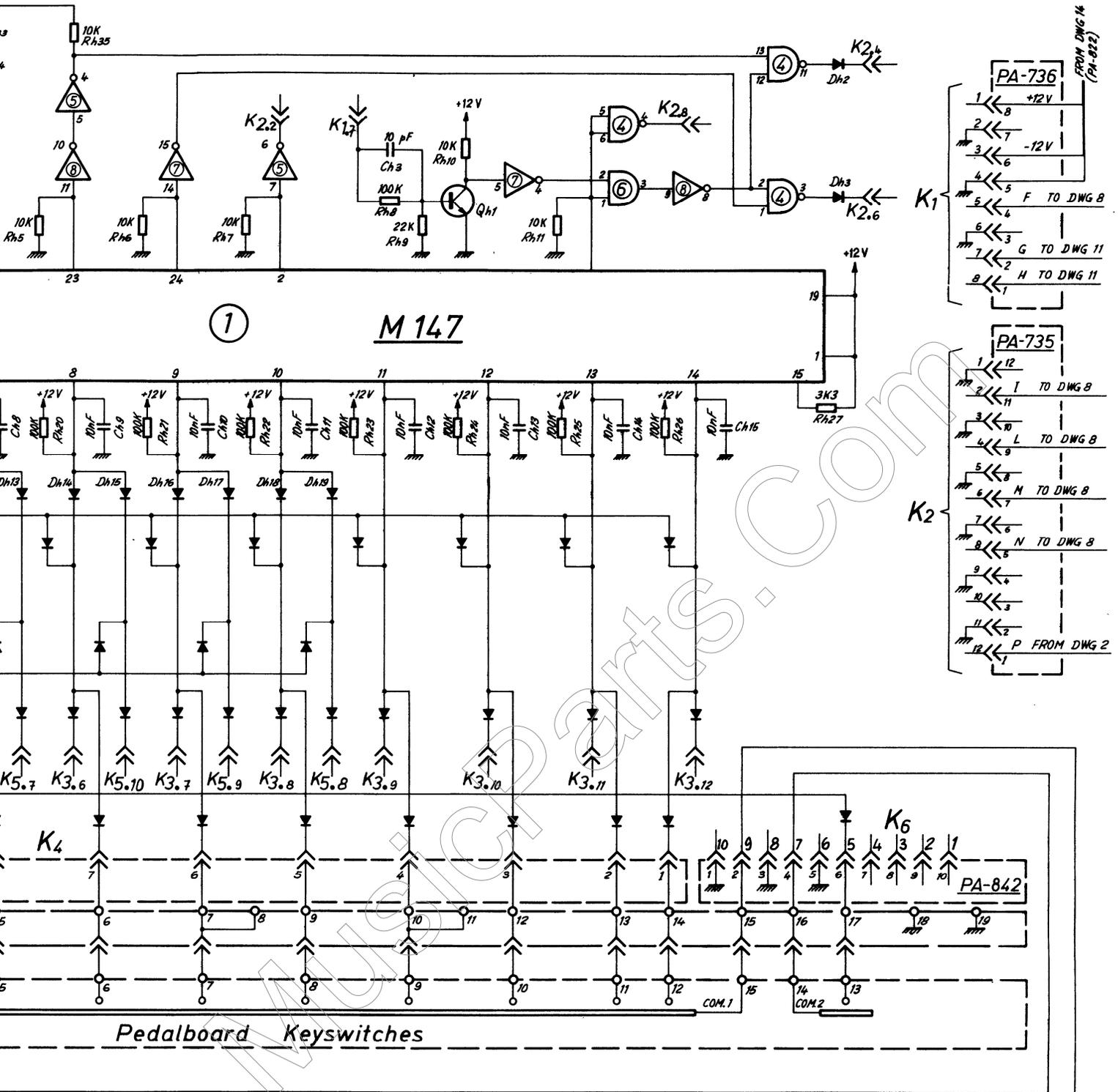


all resistors 1/4w unless otherwise indicated
all tabswitches shown in OFF position
see parts list for component part numbers
all D.C. voltages measured to ground with a voltmeter 20000 Ω V

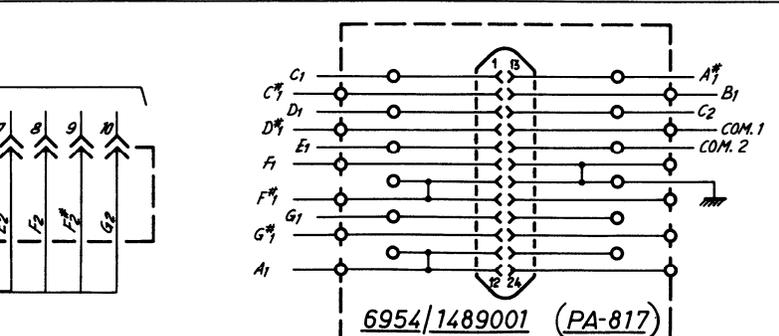
MOD: PROFESSIONAL 110	SERIAL N° 6701
CODE	REVISION
SE-264	DATE 19-1-79
DESIGNED BY	CHECKED BY
DRAWN BY	REVISION







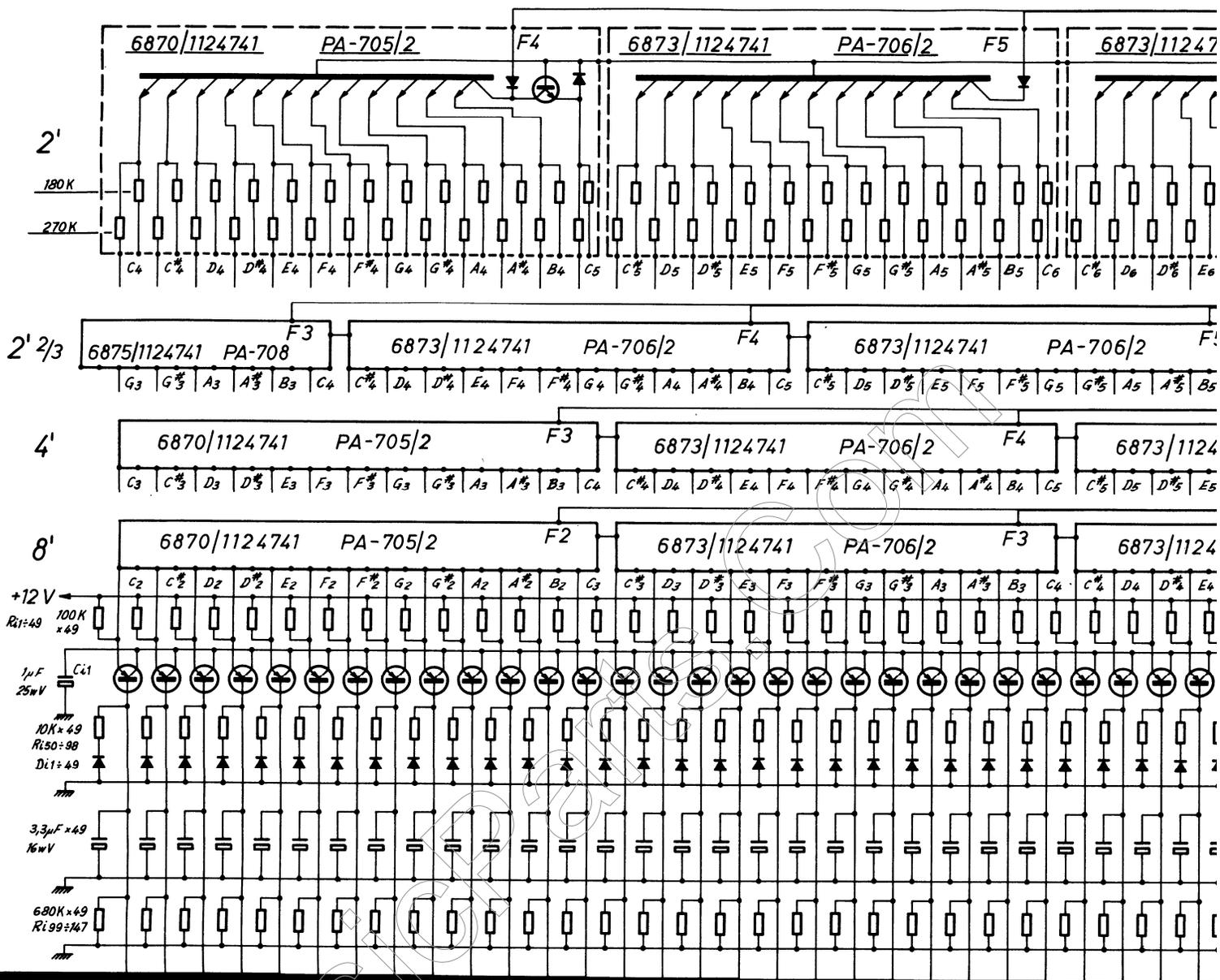
15281 (PA-827)



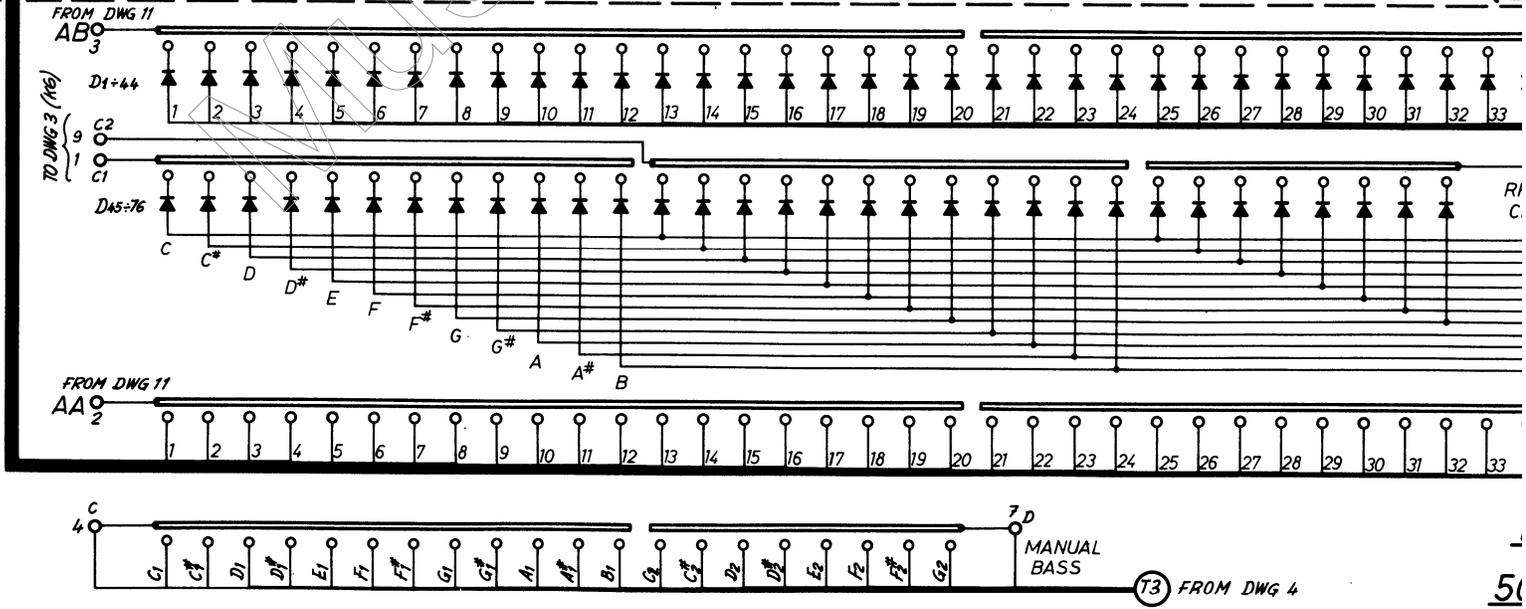
6954/1489001 (PA-817)

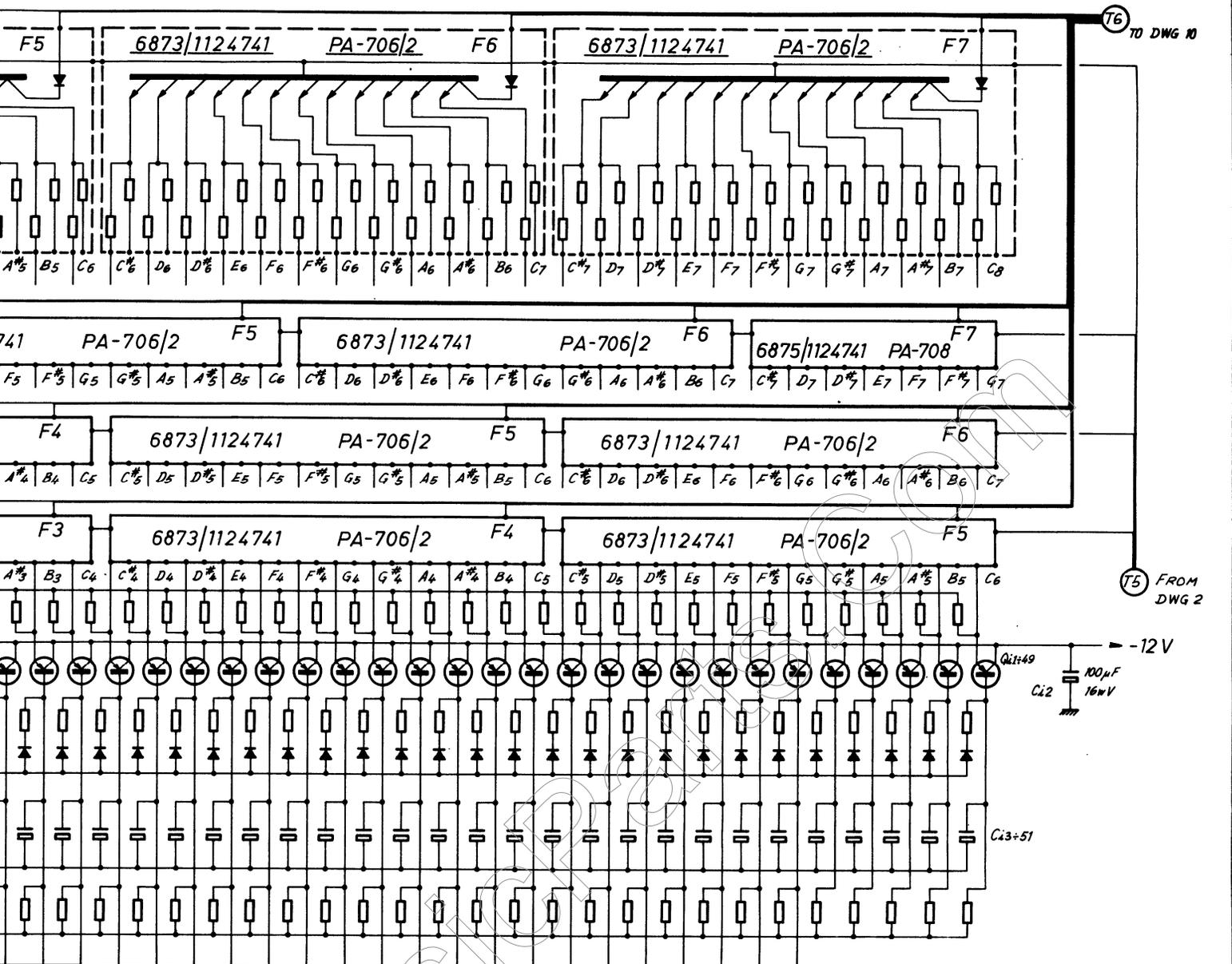
- all resistors 1/4 w unless otherwise indicated
- all tabswitches shown in OFF position
- all keyswitches shown in OFF position
- see parts list for component part numbers
- all DC voltages measured to ground with a voltmeter 20000-Ω/V

MOD. PROFESSIONAL 110		SERIAL No					
	CODE	DRAWN BY	REVISION				
	SE-264	CHECKED BY	DATE				

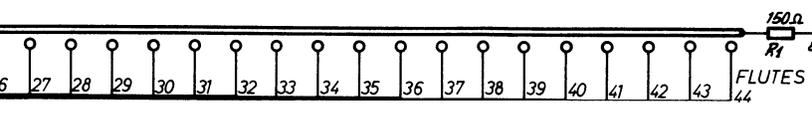
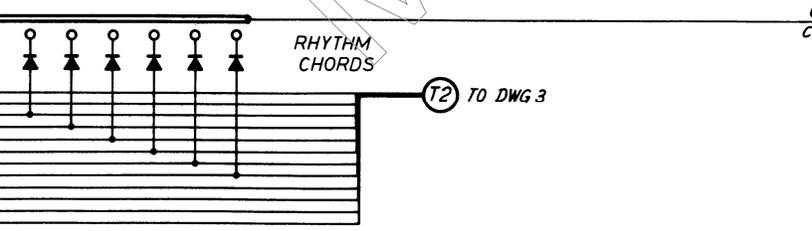
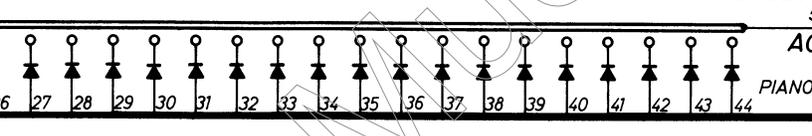


L.M. GATES 5042/1115281 (F)





115281 (PA-970)



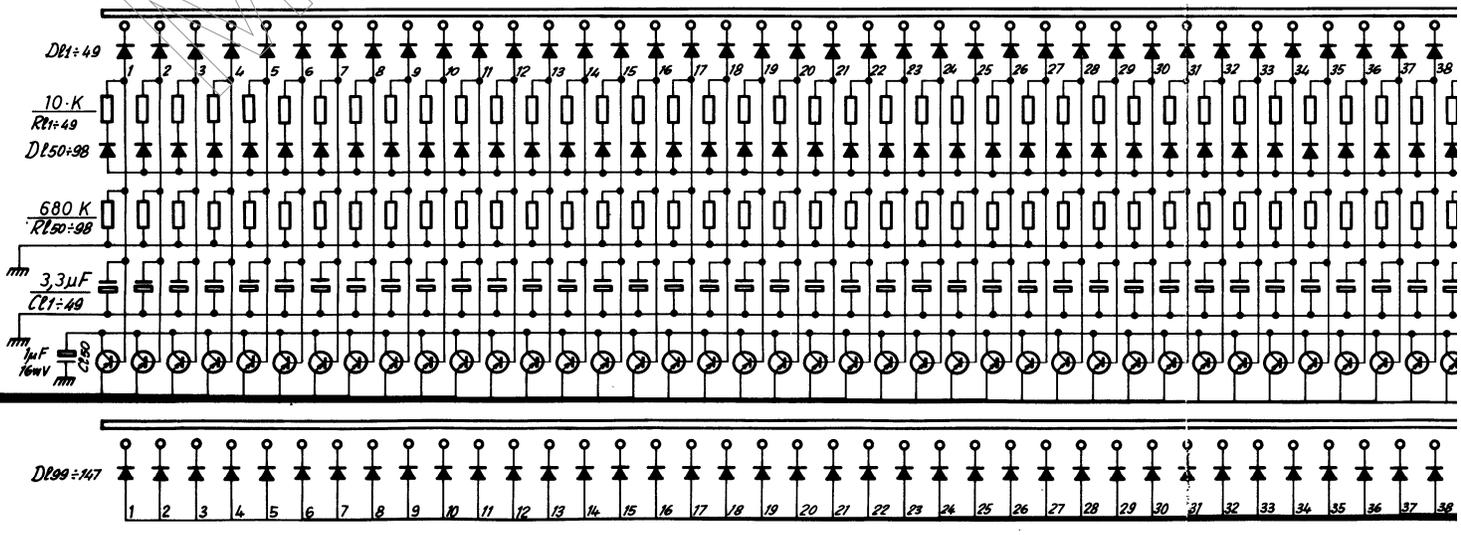
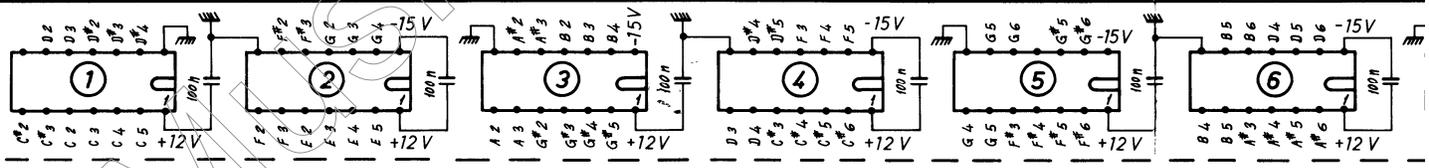
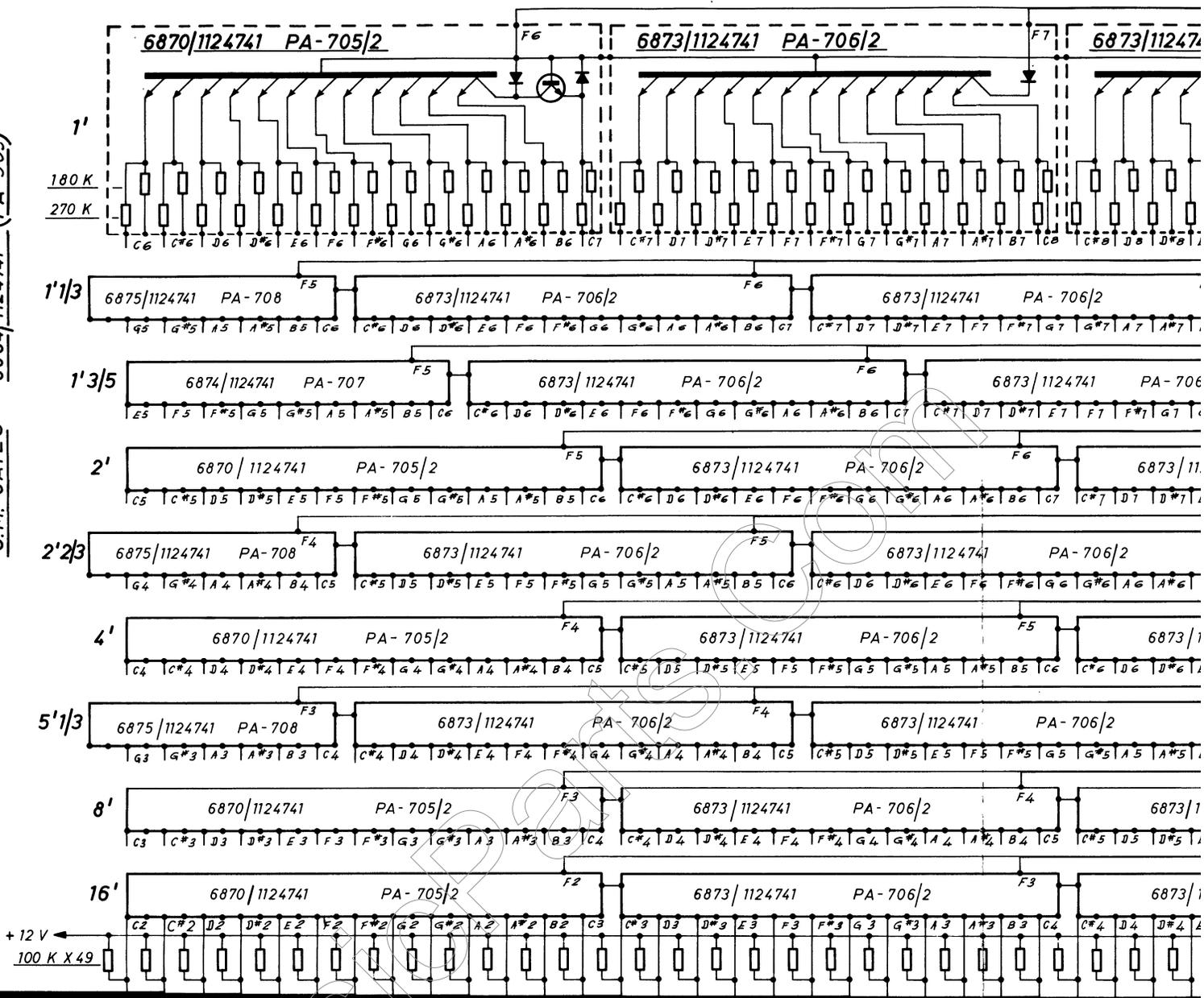
L.M. KEYSWITCHES

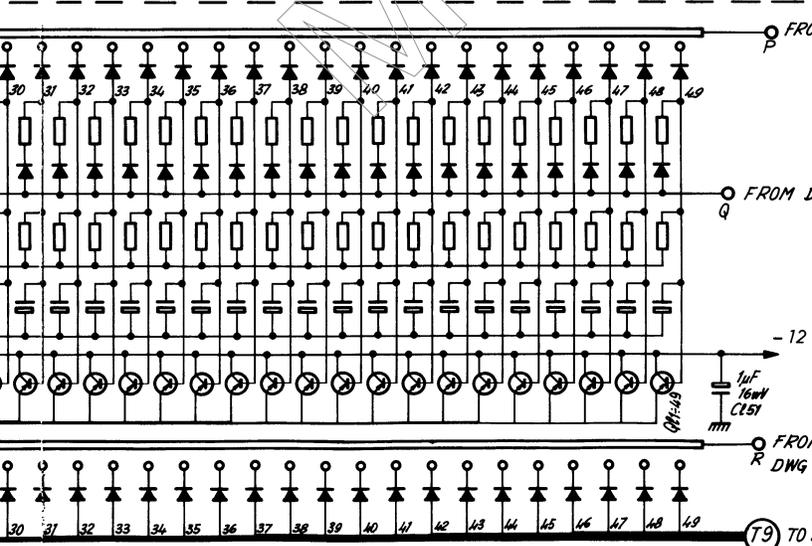
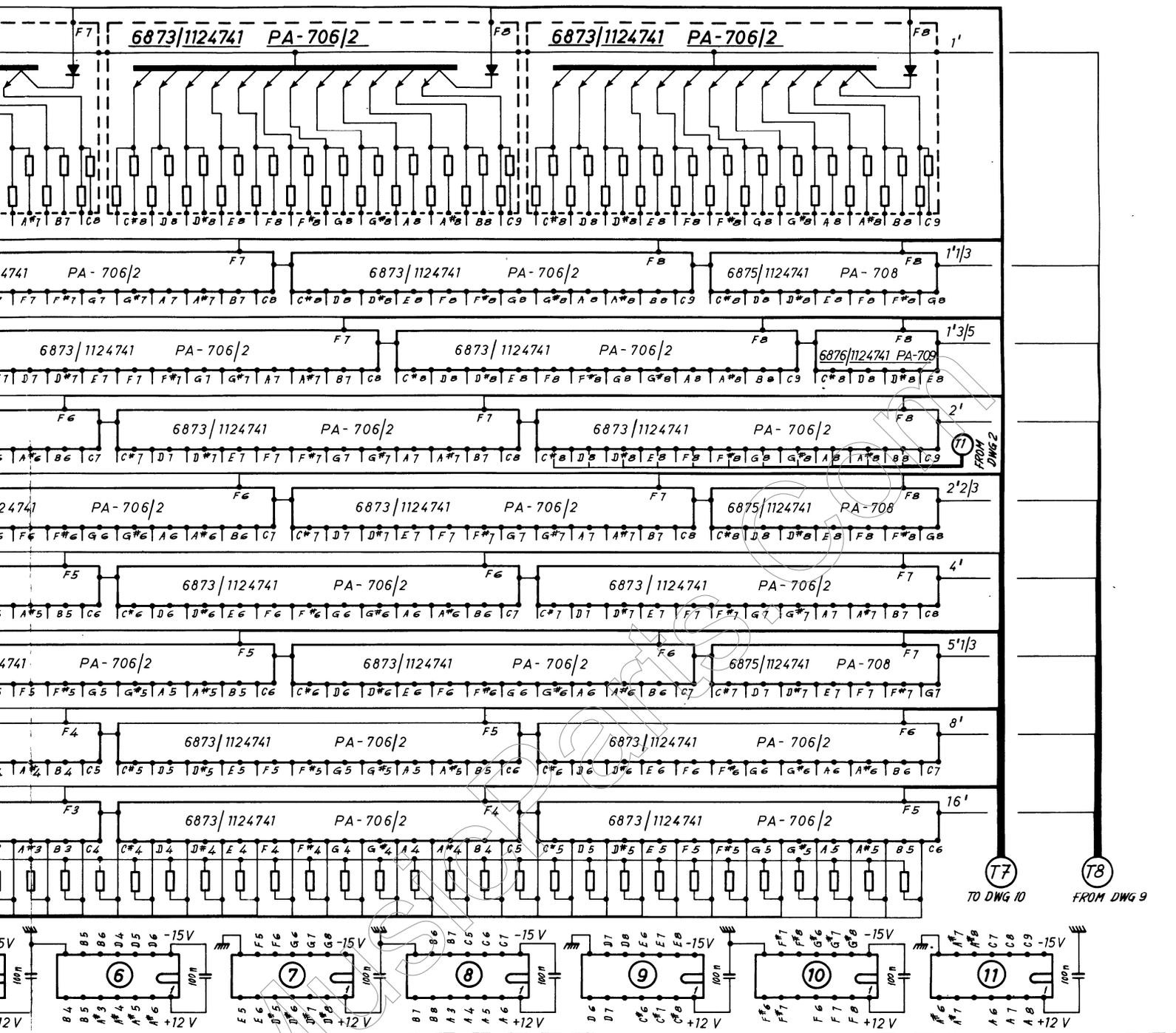
5045/1115281 (PA-838)

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 20'000 Ω/V

MOD PROFESSIONAL 110		SERIAL No	6701
CODE	SE-264	REVISION	
DRAWN BY		CHECKED BY	DATE
[Signature]		[Signature]	19-1-79

6864/1124741 (PA-965)
U.M. GATES

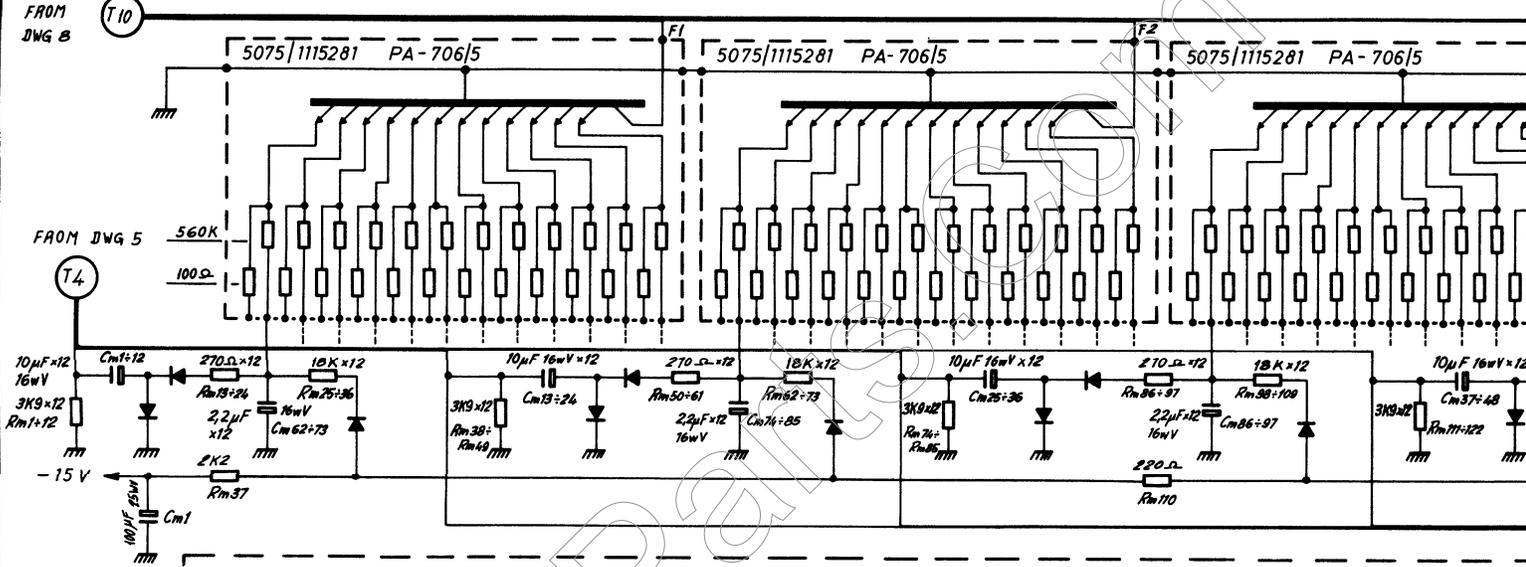
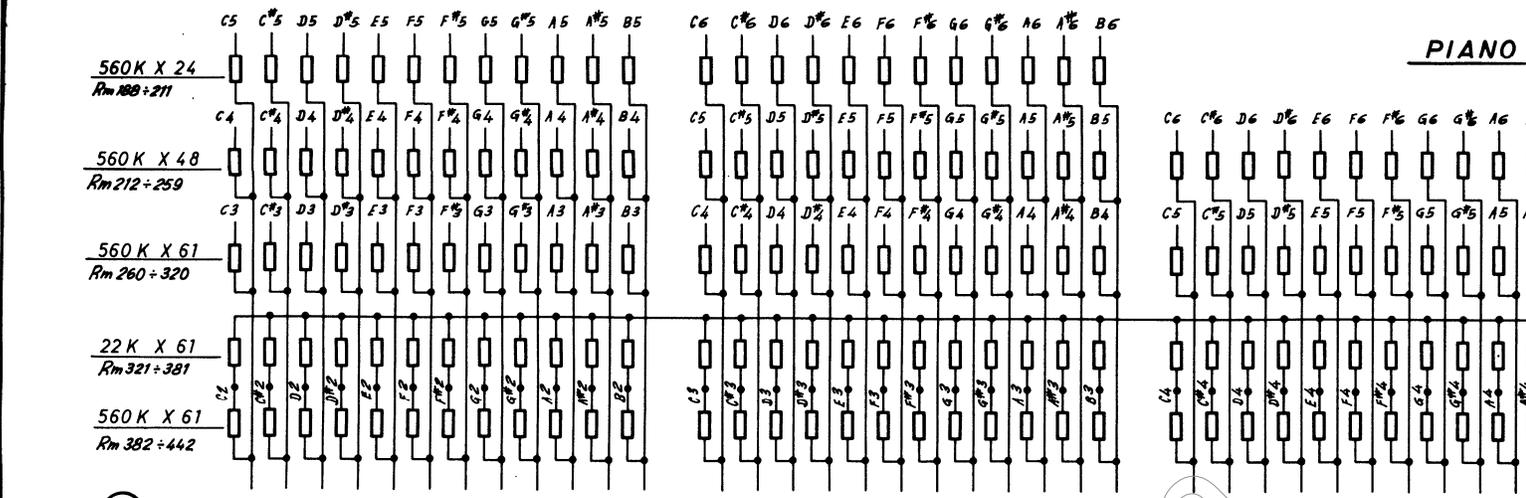




U.M. KEYSWITCHES
5046/1115281 (PA-837)

- all resistors 1/4w unless otherwise indicated
- all taswitches 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 \sim v

MOD: PROFESS. 110	SERIAL N° 6701		
CODE SE-264	DRAWN BY Boudi	REVISION	
	CHECKED BY	DATE 19-7-79	

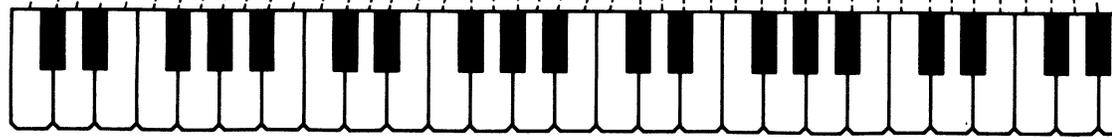


U.M.

16'	I.C. N°	1	1	1	2	2	2	3	3	3	1	1	1	2	2	2	3	3	3	3	1	4	4	1	2	4	5	2	3	8	6	3	1	4	6	7	2	4	5	5	3	1									
	PIN N°	5	7	9	11	5	7	9	11	5	7	9	11	4	6	10	12	4	6	10	12	4	6	10	12	3	4	6	8	3	12	4	13	3	4	4	13	2	3	12	5	2	13	3	6	2					
8'	I.C. N°	1	1	1	2	2	2	3	3	3	1	4	4	1	2	4	5	2	3	8	6	3	1	4	6	7	2	4	5	3	8	6	6	8	9	9	7	7	7	5	5	8	11	9	7						
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5 1/3	I.C. N°	2	3	3	3	1	4	4	1	2	4	5	2	3	8	6	3	1	4	6	7	2	4	5	3	8	6	8	6	8	9	9	7	7	7	5	5	8	6	8	11	9	9	7							
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2 2/3	I.C. N°	2	3	8	6	3	1	4	6	7	2	4	5	3	8	6	8	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9		
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2'	I.C. N°	1	4	6	7	2	4	5	3	8	6	8	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9	7	7					
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1 3/5	I.C. N°	2	4	5	3	8	6	8	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9	
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1 1/3	I.C. N°	5	3	8	6	8	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9			
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1'	I.C. N°	8	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9	7	7					
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L.M.

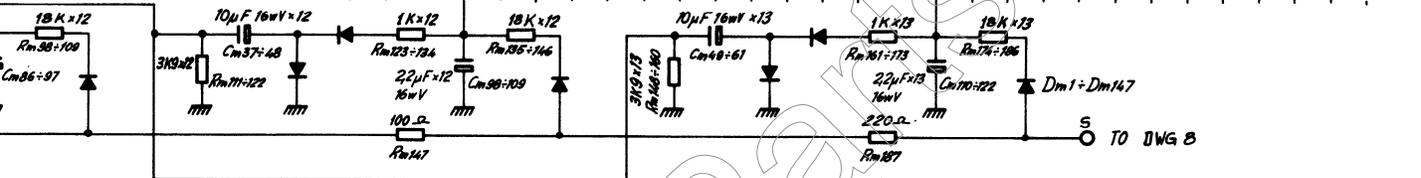
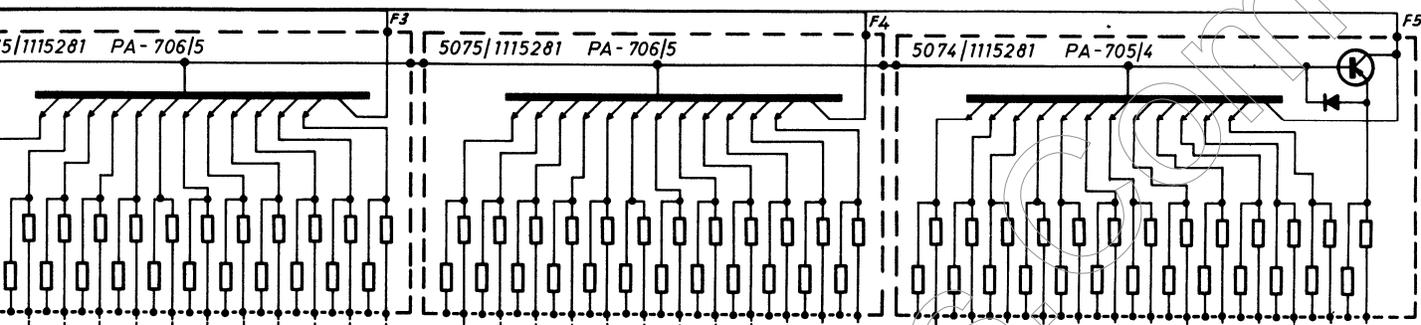
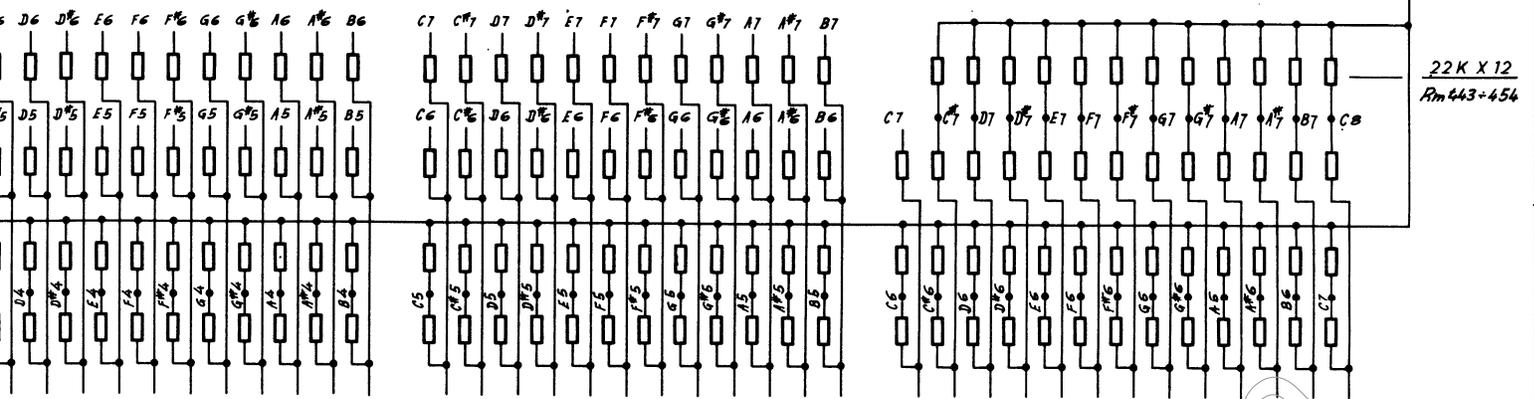
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4'	I.C. N°	1	1	1	1	2	2	2	3	3	3	1	4	4	1	2	4	5	2	3	8	6	3	1	4	6	7	2	4	5	3	8	6	6	8	9	9	7	7	5	5	8	11	9	9	7	7					
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2'	I.C. N°	1	4	4	1	2	4	5	2	3	8	6	3	1	4	6	7	2	4	5	3	8	6	6	8	9	9	7	7	5	5	8	6	8	11	9	9	7	7	5	5	8	6	8	11	9	9	7	7			
	PIN N°	3	4	6	8	3	12	4	13	3	4	4	13	2	3	12	5	2	13	3	6	2	3	3	9	12	4	7	4	6	10	2	10	13	2	2	9	11	3	6	3	12	3	6	12	3	6	12				



PIANO GATES

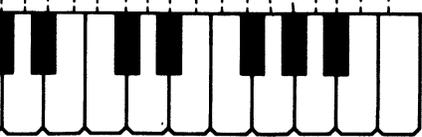
5044/1115281 (PA-826)

+12 V



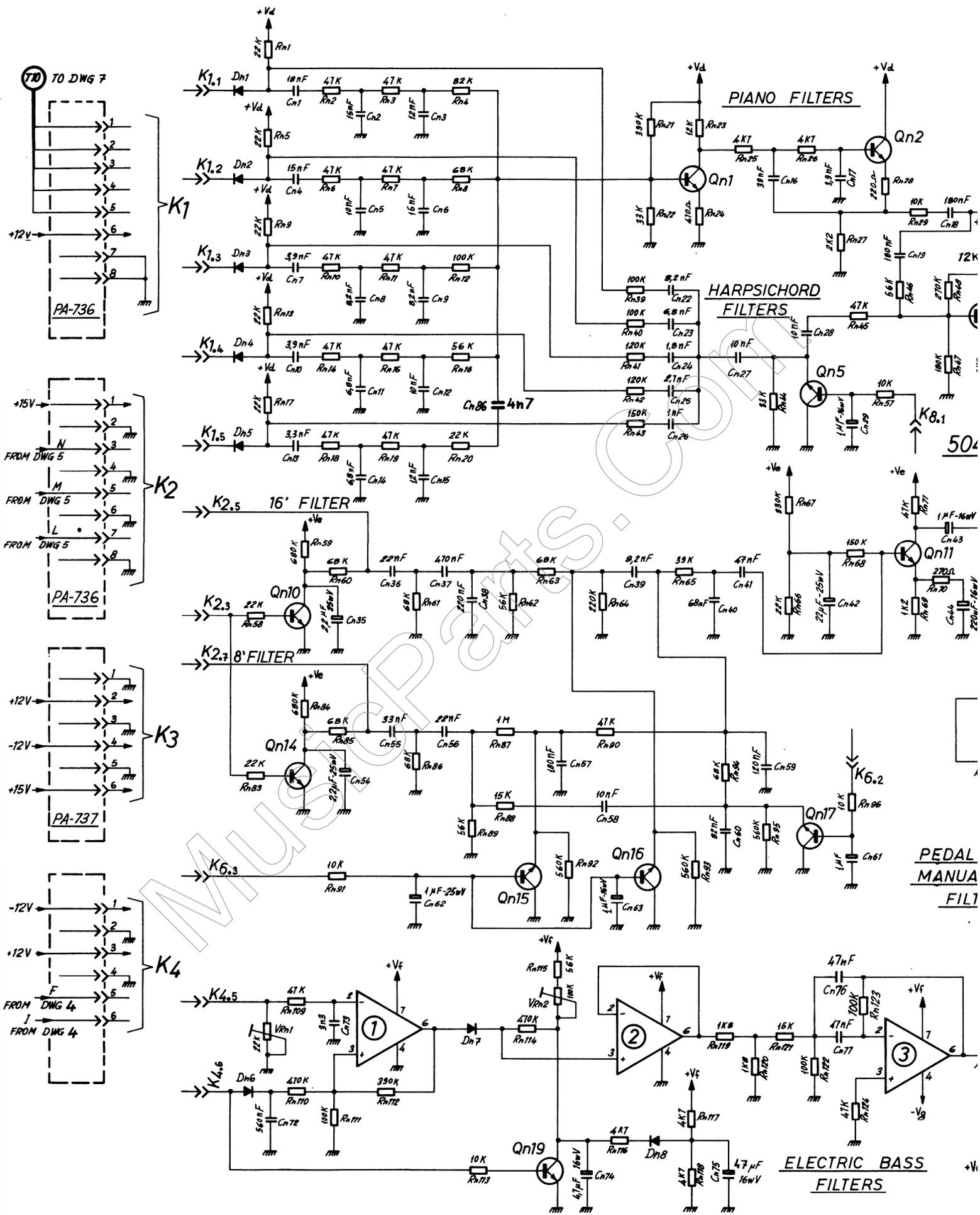
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2	3	3	9	12	4	7	4	6	10	2	10	13	2	2	9	11
7	7	7	5	5	5	8	6	8	11	9	9	7	9	10	10	7
4	6	10	2	10	13	2	2	9	11	3	6	3	12	3	6	12
5	8	6	8	11	9	9	7	9	10	10	7	10	11	11	8	11
3	2	2	9	11	3	6	3	12	3	6	12	12	3	6	7	12
7	9	10	10	7	10	11	11	8	11	OSCILLATORS						
9	12	3	6	12	12	3	6	7	12	OSCILLATORS						
0	11	11	8	11	OSCILLATORS											
2	3	6	7	12	OSCILLATORS											

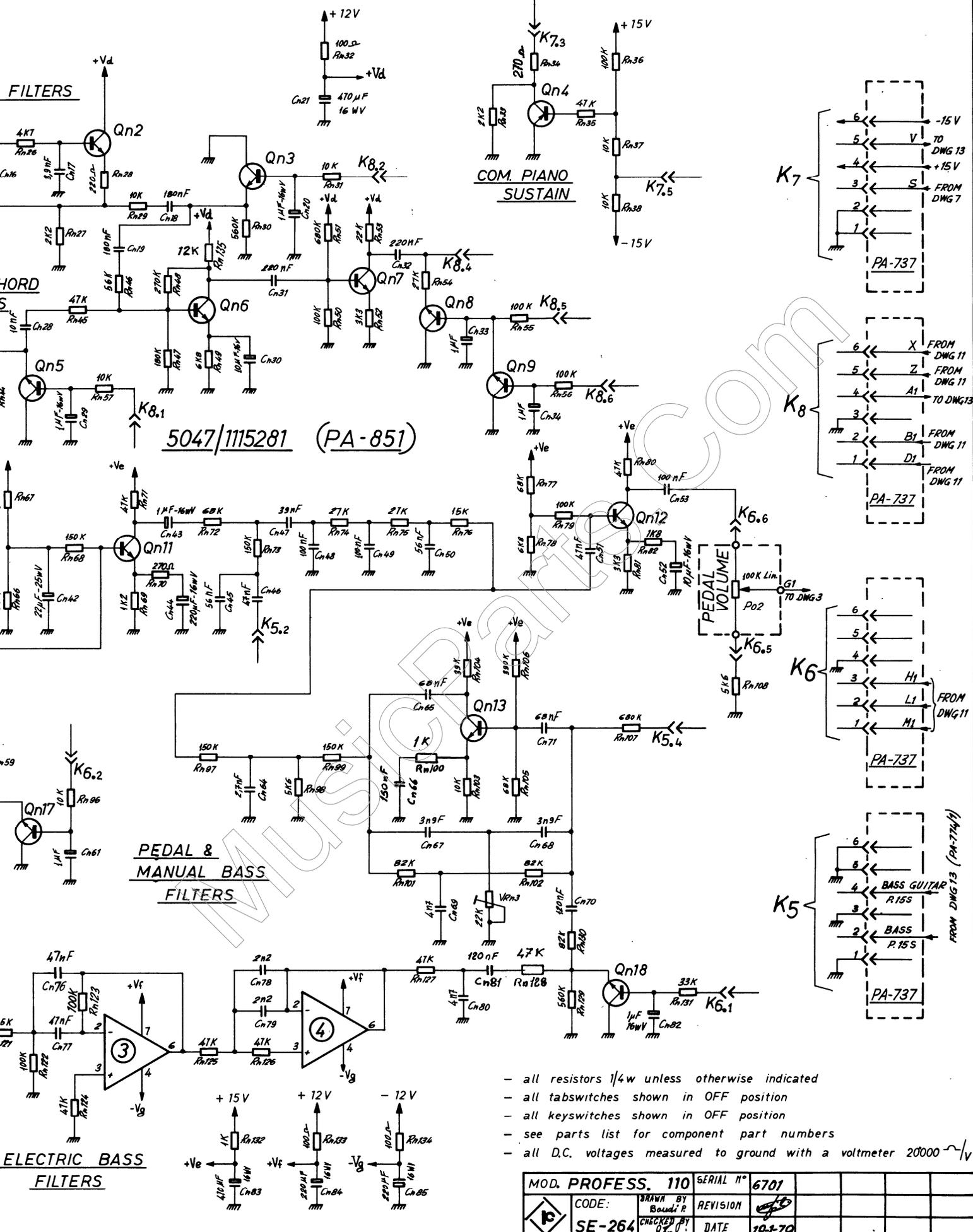
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2	3	3	9	12	4	7	4	6	10	2	10					
7	7	7	5	5	5	8	6	8	11	9	9					
4	6	10	2	10	13	2	2	9	11	3	6					
5	8	6	8	11	9	9	7	9	10	10	7					
3	2	2	9	11	3	6	3	12	3	6	12					



- 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 ~V

MOD: PROFESS. 110	SERIAL:				
CODE: SE/264	DRAWN BY: B.S.D.	REVISION:			
	CHECKED BY: R.C.	DATE:			





5047/1115281 (PA-851)

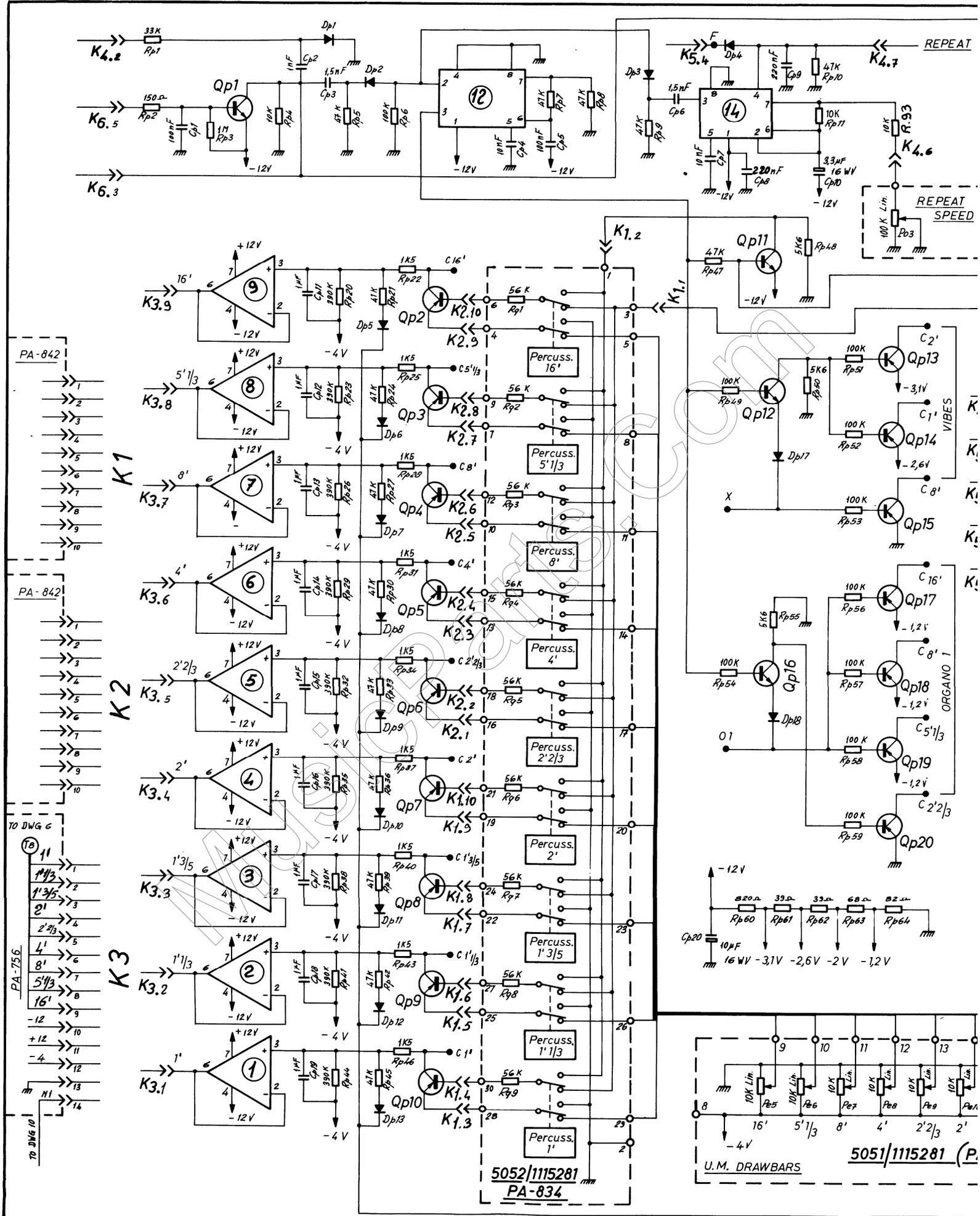
PEDAL & MANUAL BASS FILTERS

ELECTRIC BASS FILTERS

COM. PIANO SUSTAIN

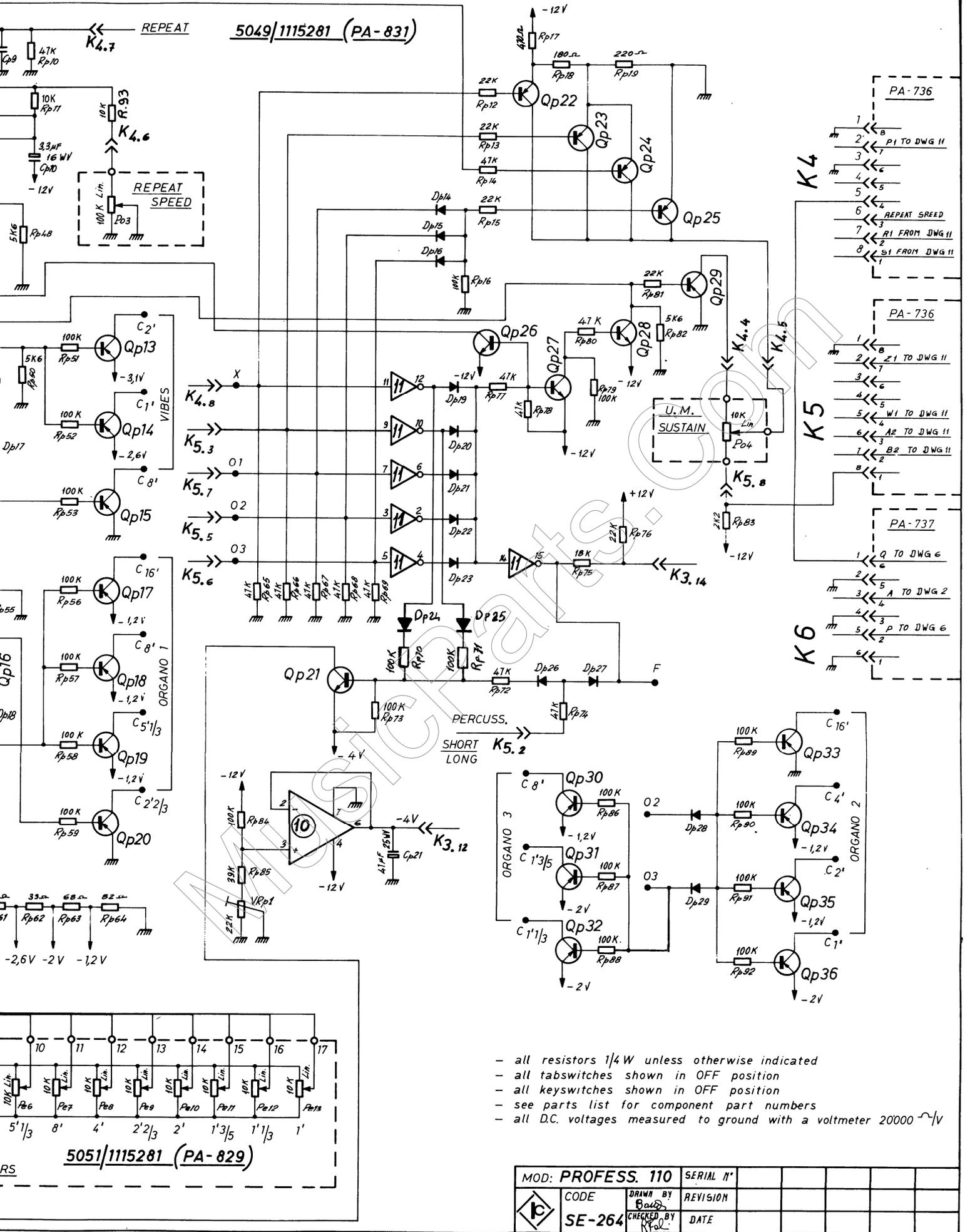
- all resistors 1/4w unless otherwise indicated
- all tabswitches shown in OFF position
- all keyswitches shown in OFF position
- see parts list for component part numbers
- all D.C. voltages measured to ground with a voltmeter 20000 \sim V

MOD. PROFESS. 110	SERIAL N°	6701		
CODE: SE-264	DRAWN BY Boudi P	REVISION		
	CHECKED BY R.L.	DATE	19-79	



5052/1115281
PA-834

5051/1115281 (P)
U.M. DRAWBARS

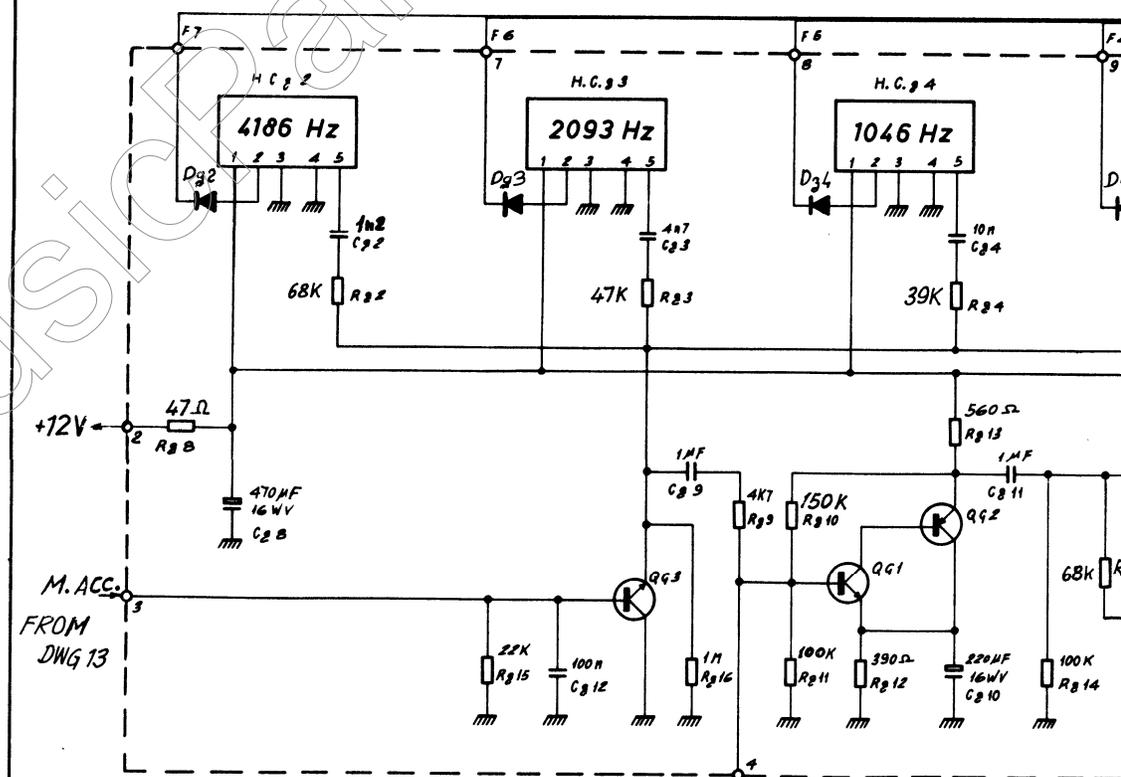
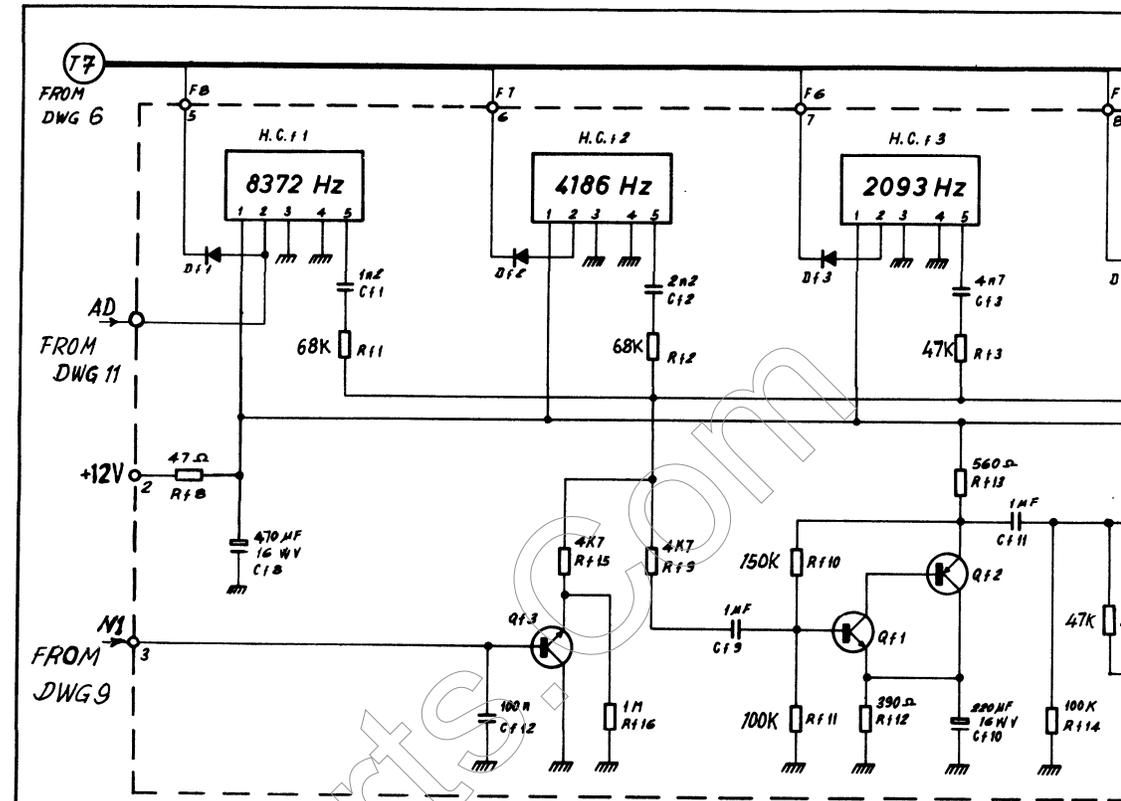


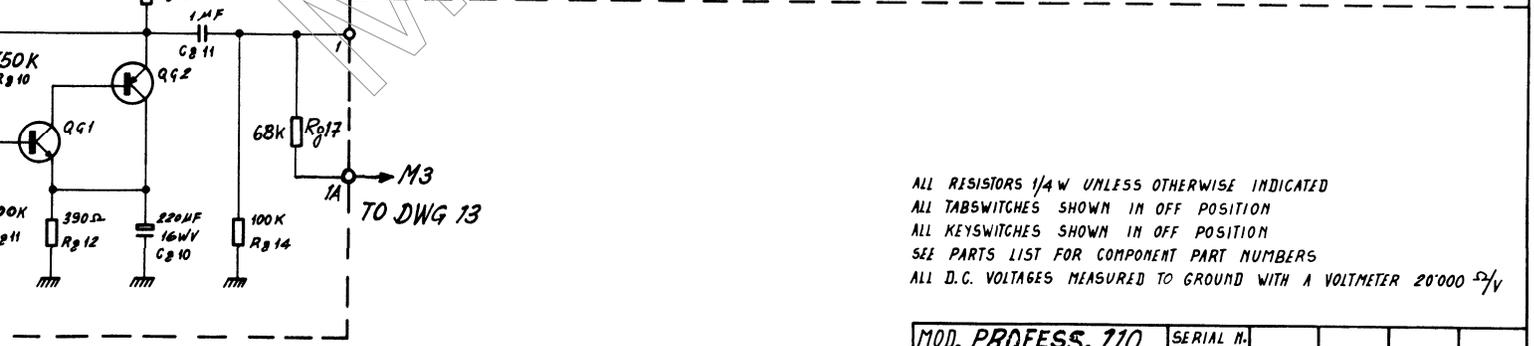
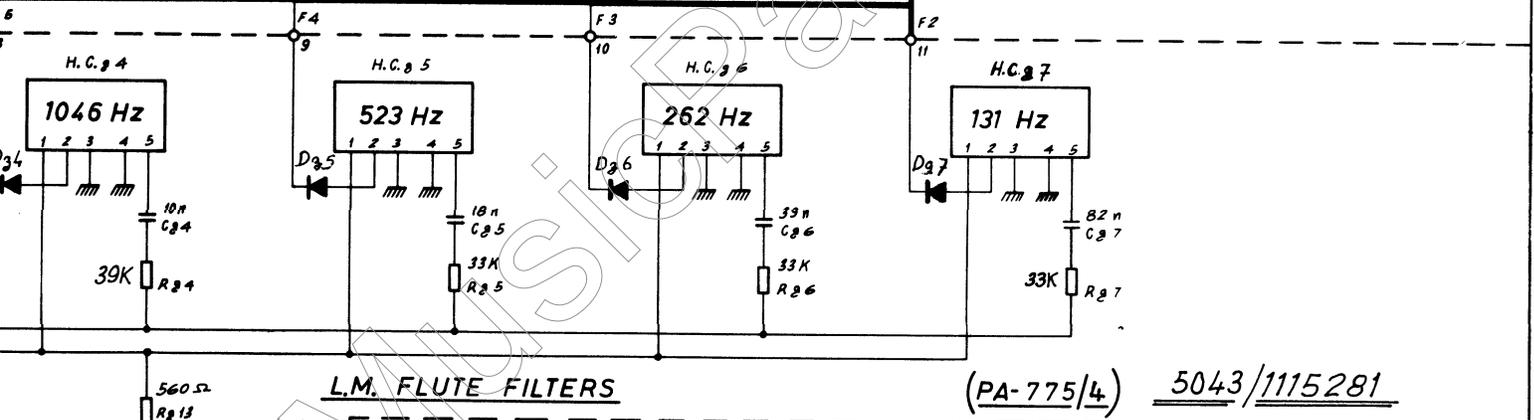
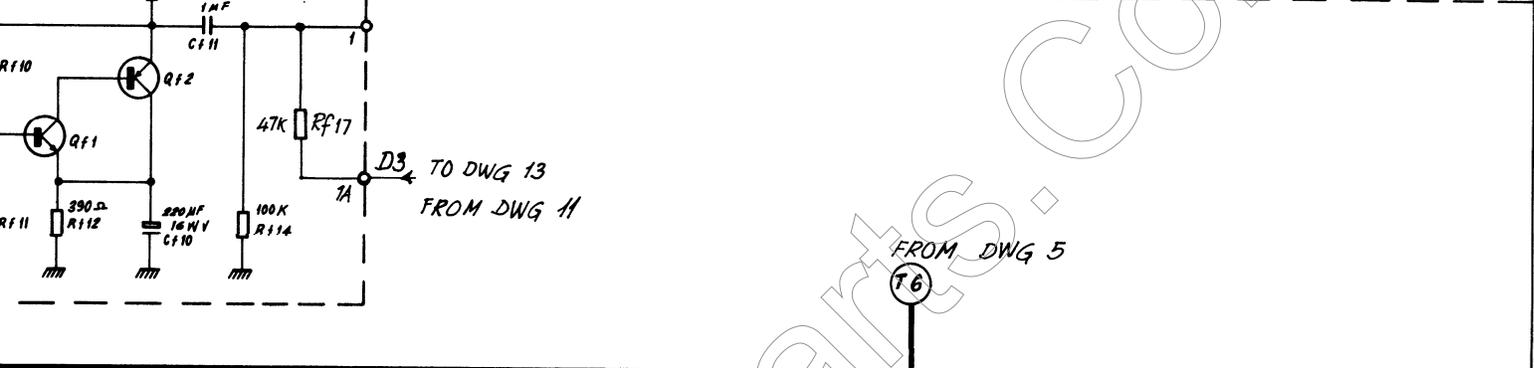
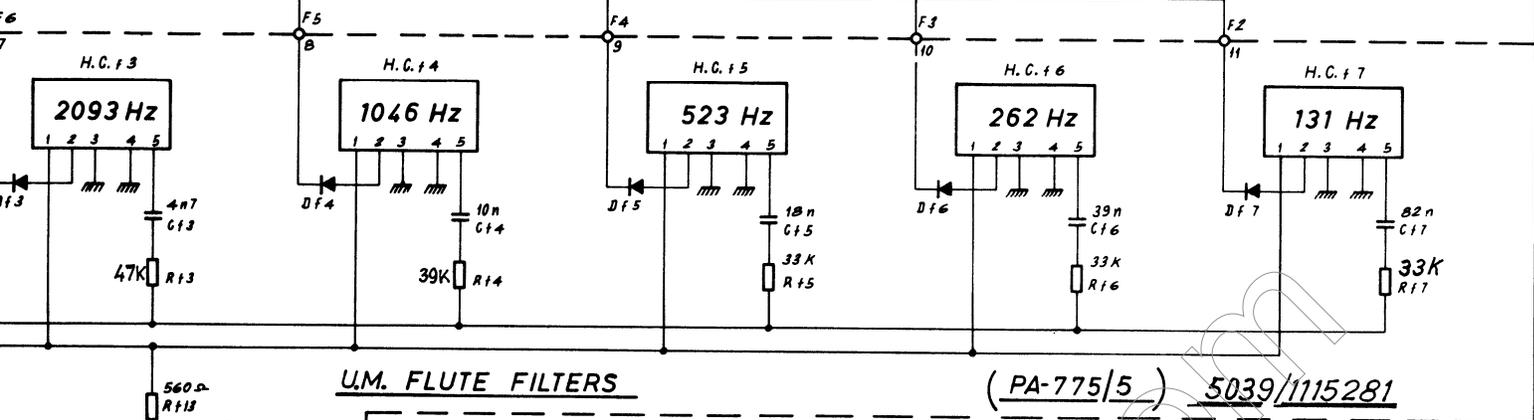
5049/1115281 (PA-831)

5051/1115281 (PA-829)

- 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

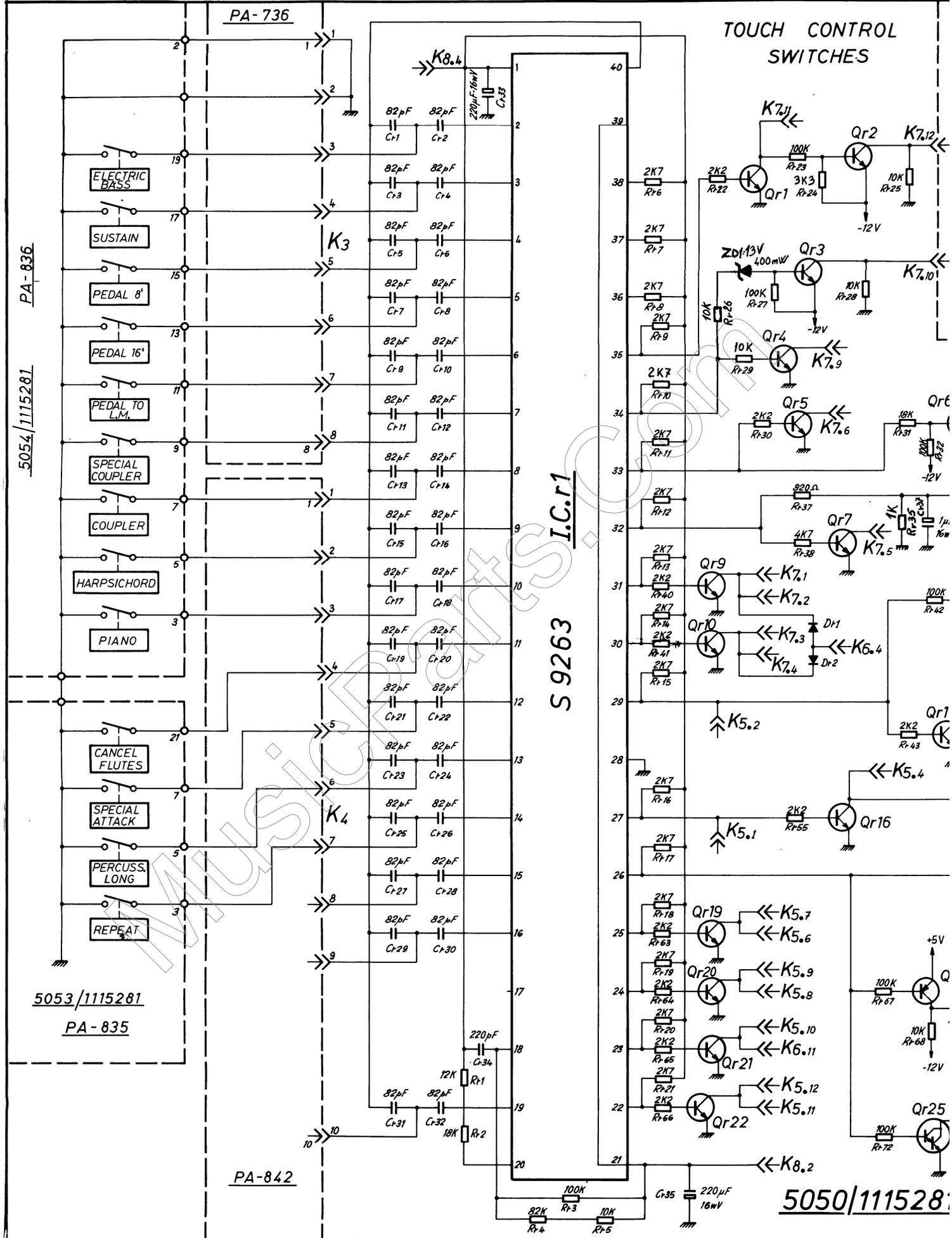
MOD: PROFESS. 110	SERIAL N°			
CODE SE-264	DRAWN BY B. Boldi	REVISION		
	CHECKED BY K. Bol	DATE		





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 20'000 Ω/V

MOD. PROFESS. 110		SERIAL N.			
C	CODE:	DRAWN BY:	REVISION:		
	SE/264	P. Bous	DATE:		
	CHECKED BY:				



PA-836

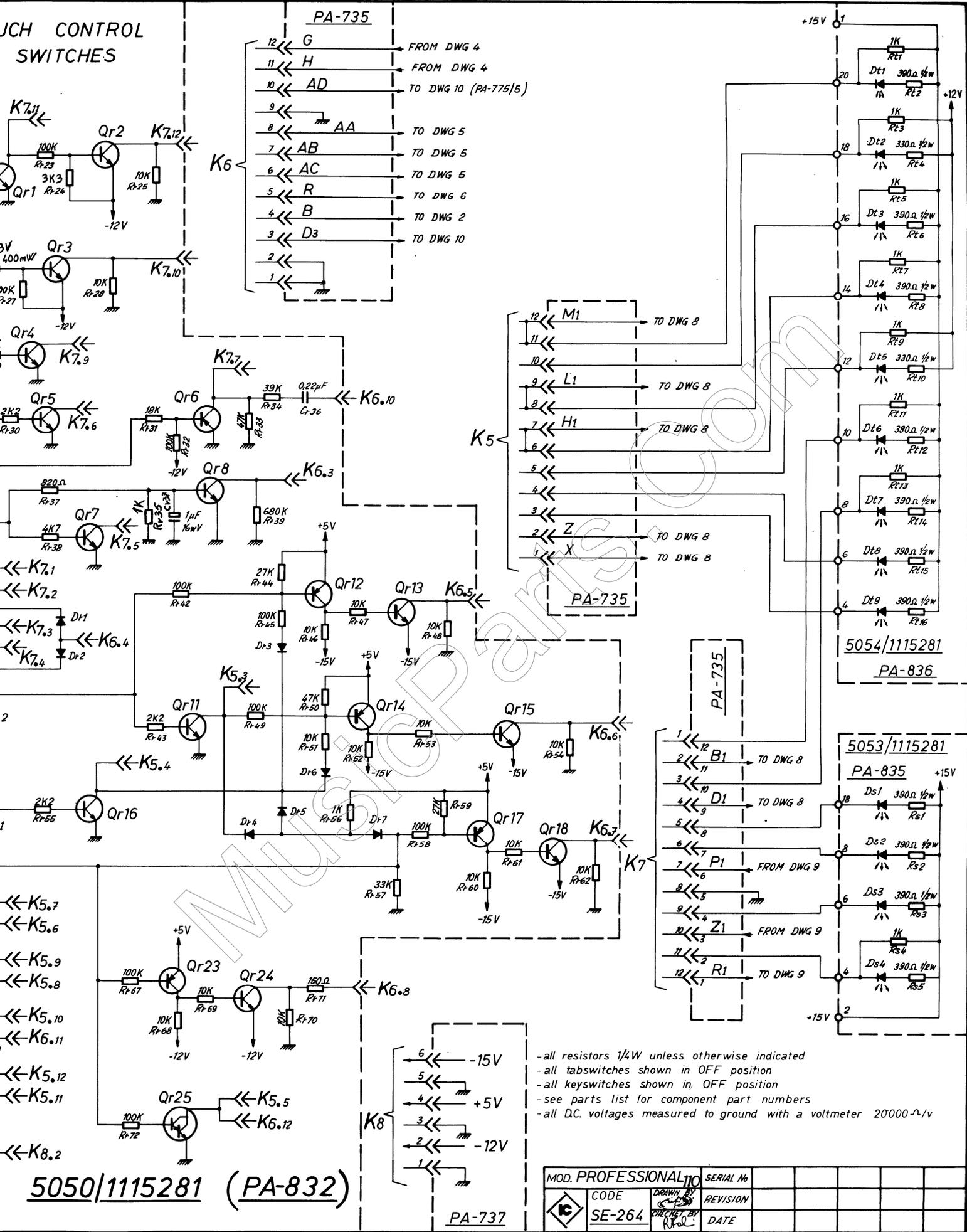
5054/1115281

5053/1115281
PA-835

PA-842

5050/111528

JCH CONTROL SWITCHES



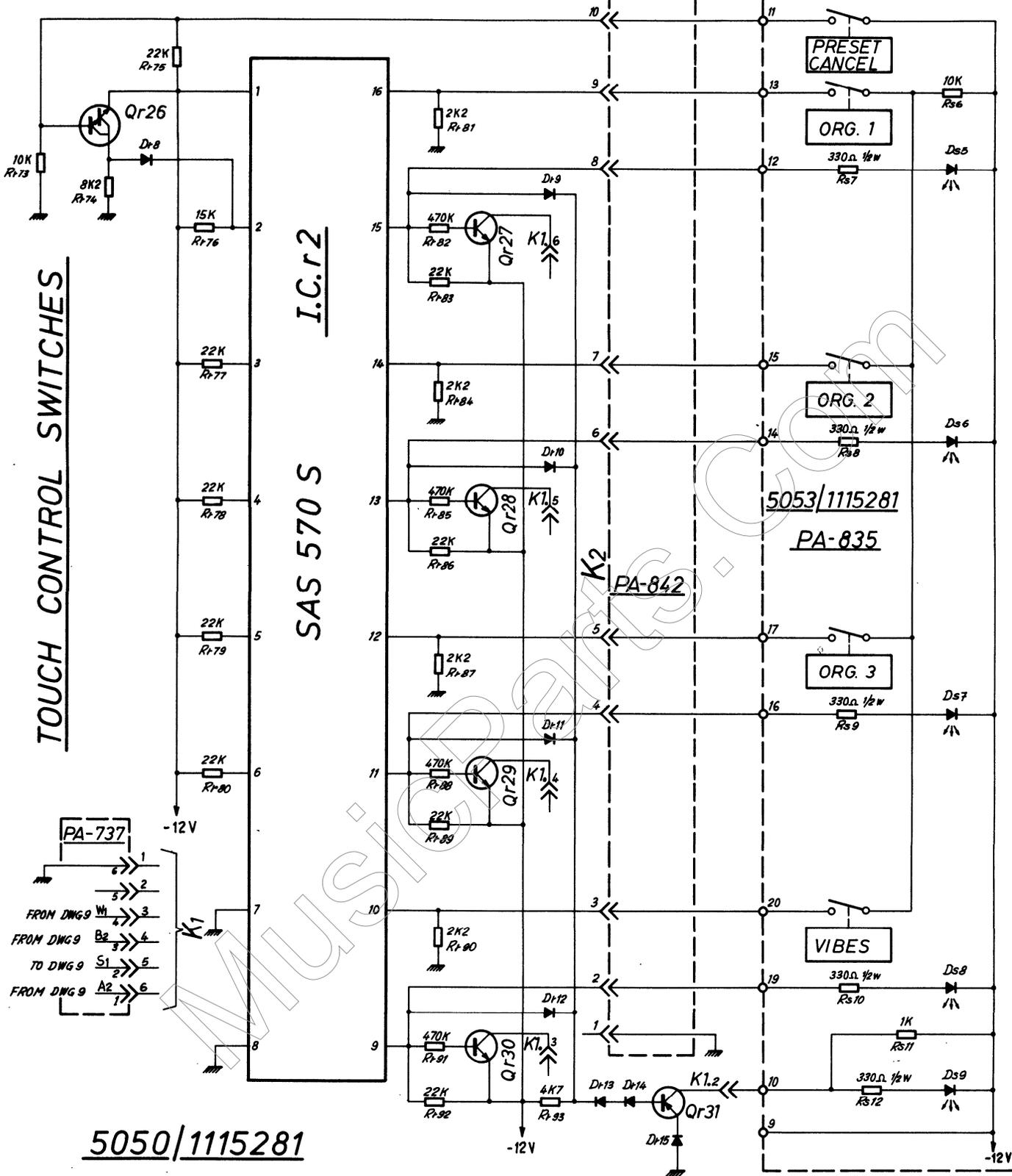
5050/1115281 (PA-832)

PA-737

- 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 DC. voltages measured to ground with a voltmeter 20000 Ω/v

MOD. PROFESSIONAL	10	SERIAL No	
CODE	SE-264	REVISION	
DRAWN BY		CHECKED BY	
DATE			

TOUCH CONTROL SWITCHES



I.C.r.2

SAS 570 S

5053/1115281
PA-835

PA-842

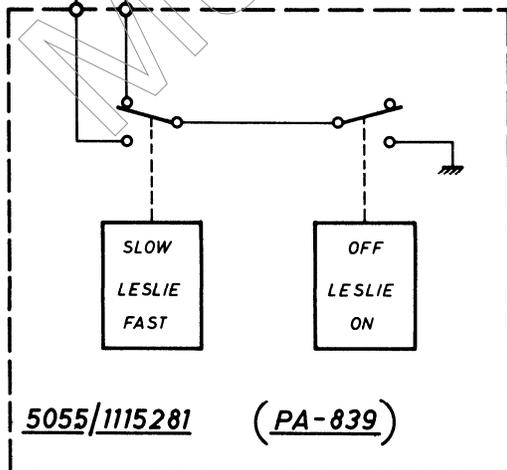
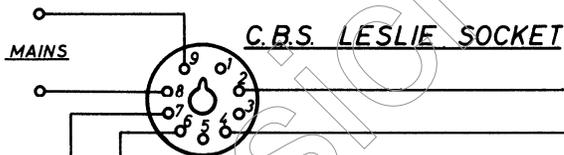
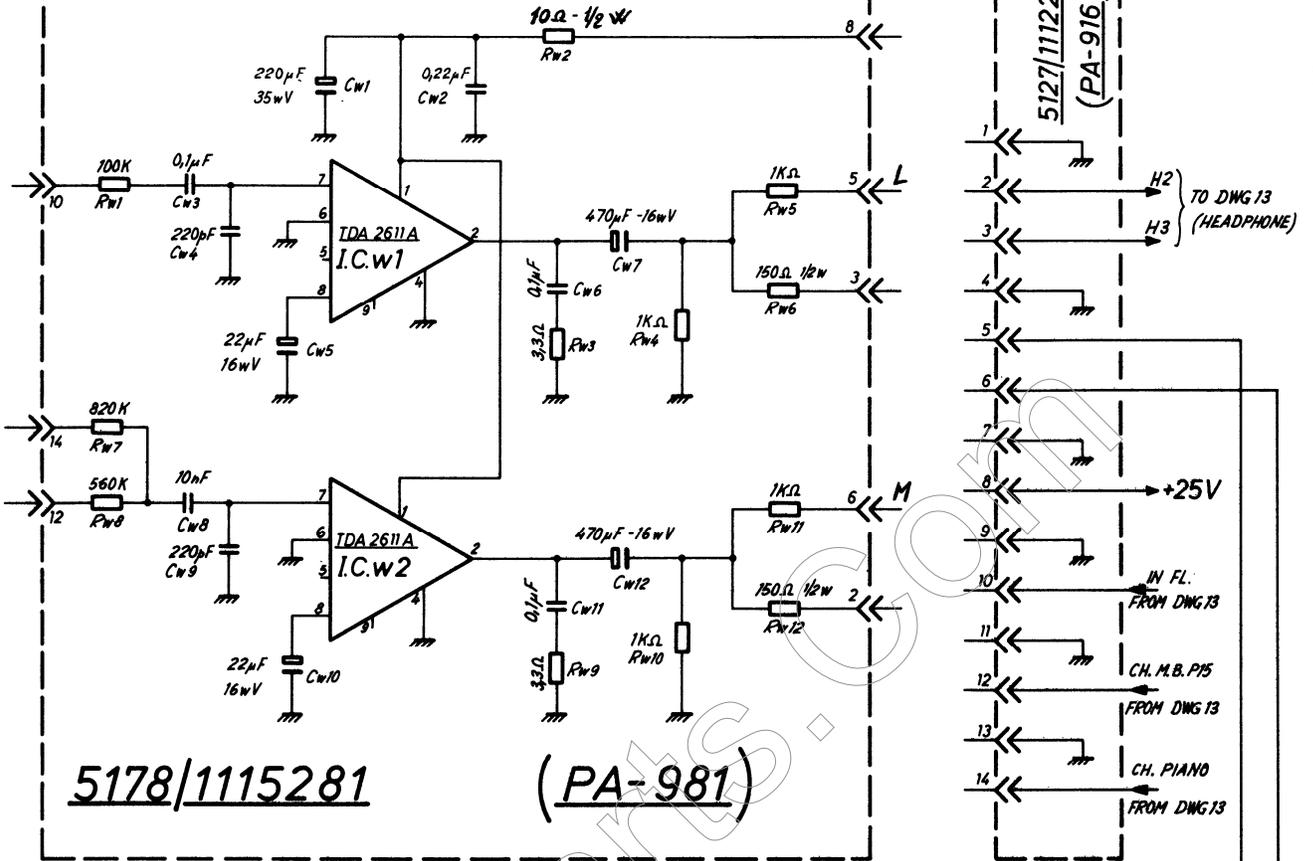
5050/1115281

PA-832

MAIL

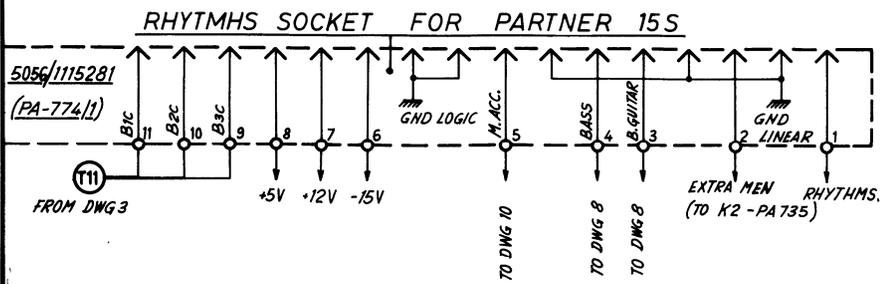
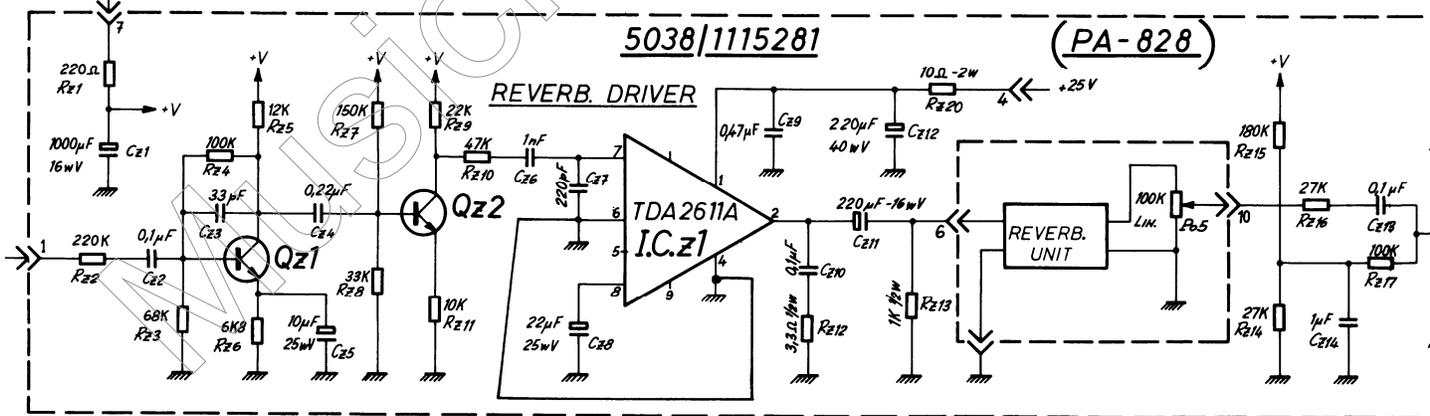
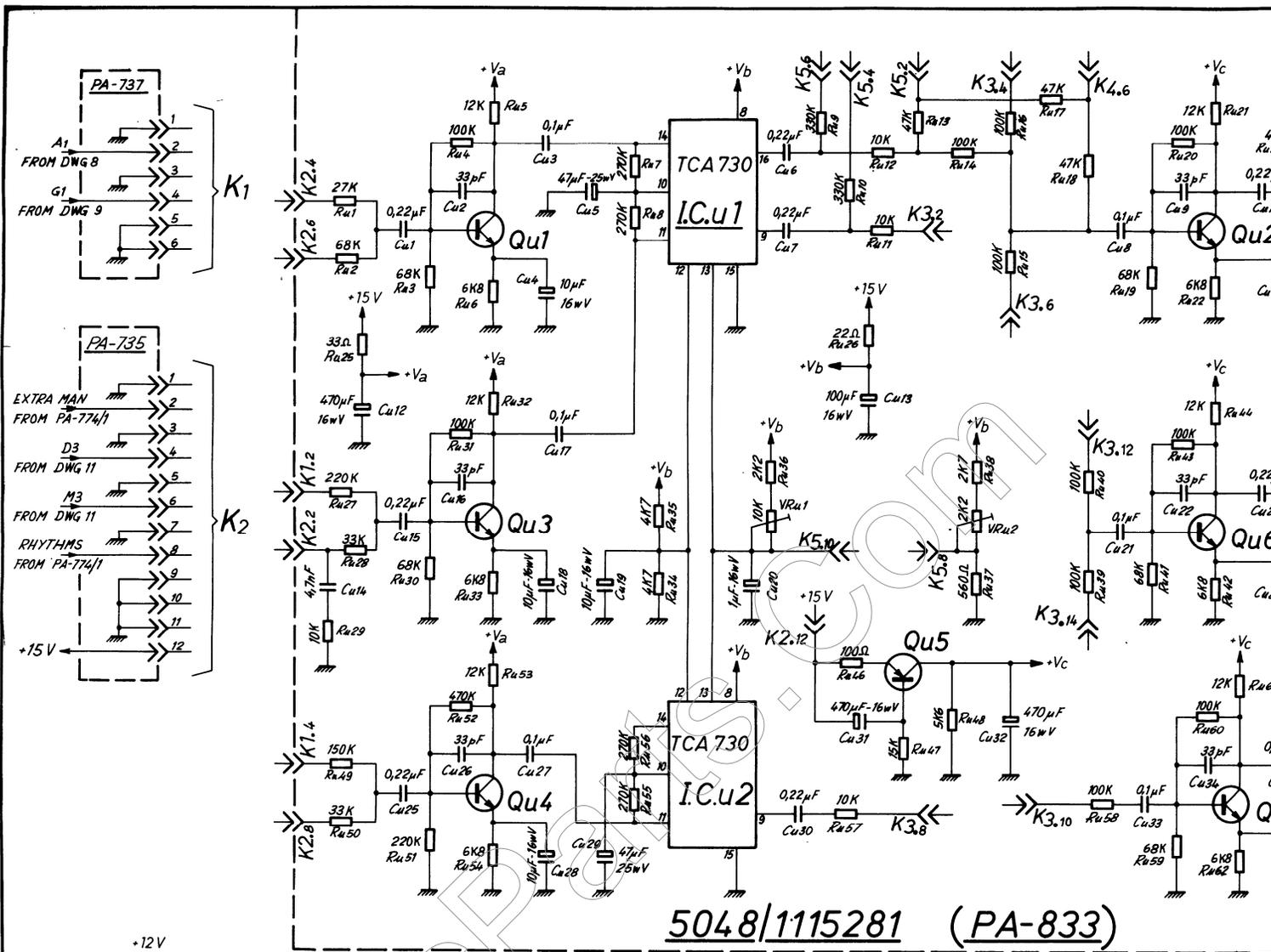
50

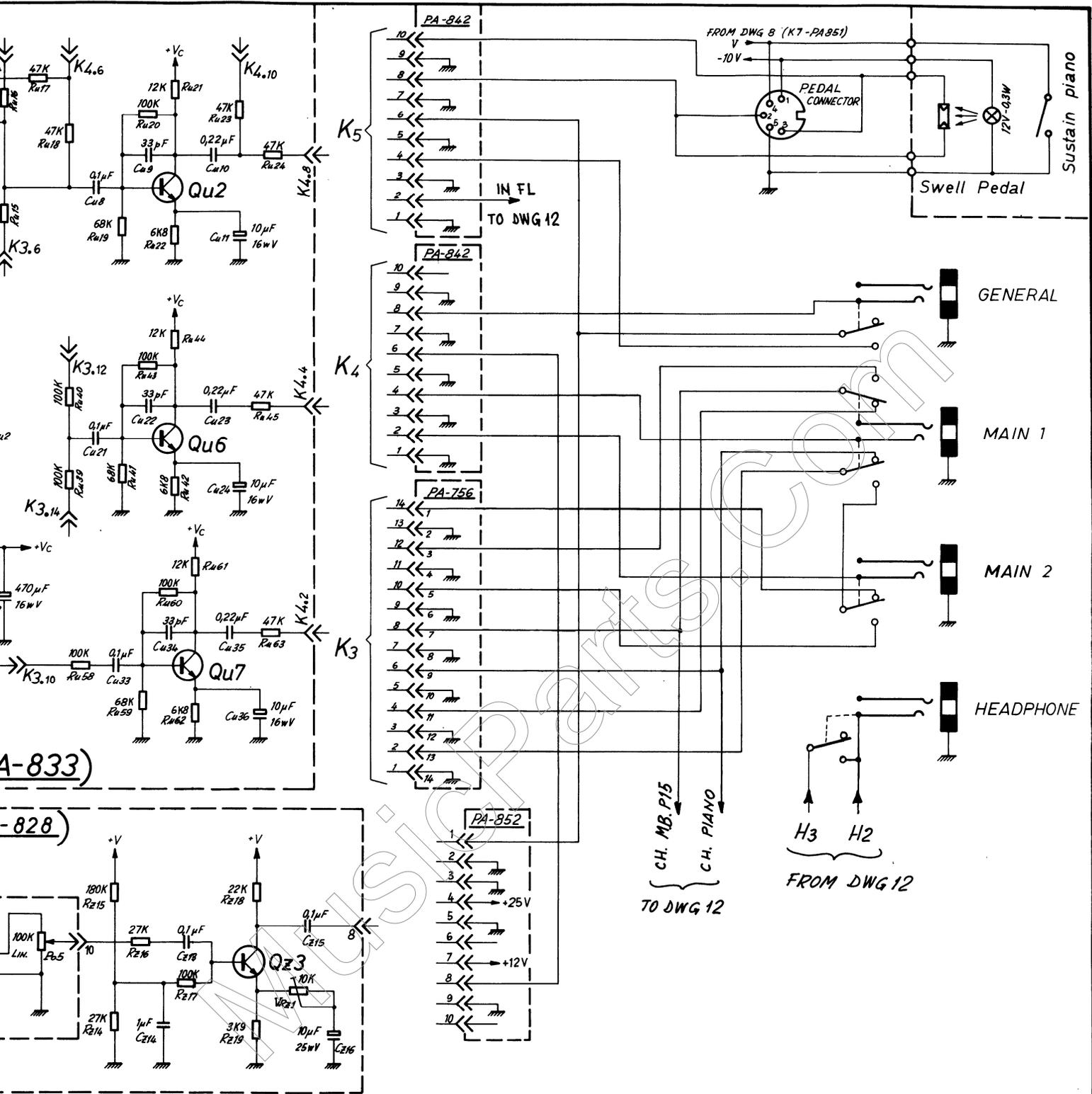
LESLIE & HEADPHONE AMPLIFIER



- 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 DC. voltages measured to ground with a voltmeter 20'000 Ω/v

Mod	PROFESSIONAL 110	Serial No	6701/		
Code	SE-264	Drawn by		Revision	
		Checked by		Date	19-1-79





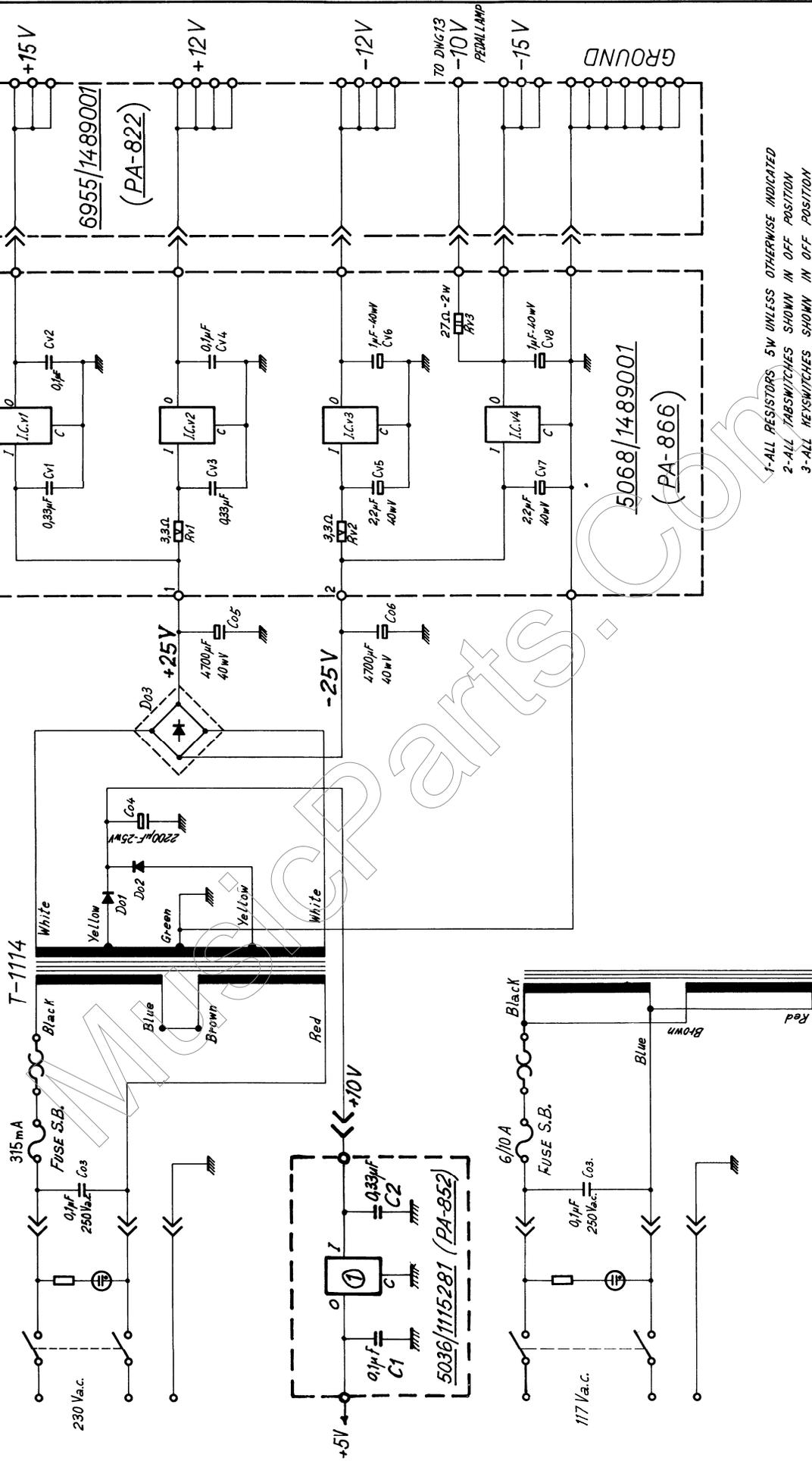
A-833)

-828)

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 DC voltages measured to ground with a voltmeter 20'000 Ω/V

MOD. PROFESSIONAL 110		SERIAL No	6701		
	CODE	DRAWN BY	REVISION		
	SE-264	RYL			
		DATE	10-1-79		

POWER SUPPLY



- 1-ALL RESISTORS 5W UNLESS OTHERWISE INDICATED
- 2-ALL TABSWITCHES SHOWN IN OFF POSITION
- 3-ALL KEYSWITCHES SHOWN IN OFF POSITION
- 4-SEE PART LIST FOR COMPONENT PART NUMBERS
- 5-ALL D.C. VOLTAGES MEASURED TO GROUND WITH A VOLTMETER 20'000-Ω/V

MOD. PROFESS. 110		SERIAL No	
CODE	DRAWN BY	REVISION	
SE-264	PA-866		
	DATE		

PROF. 110

TARATURE

ADJUSTMENTS

PA 930/10 - DWG 2

VR1 (470 Ohm)

Regola la tensione di alimentazione (+5V) dell'oscillatore.

It adjusts the supply voltage (+5V) to the oscillator.

VR2 (100 Ohm)

Regola l'accordatura dell'oscillatore. Posizionare la manopola del TUNING al centro, poi variare lentamente a destra o a sinistra fino ad ottenere l'accordatura dell'oscillatore.

It is used for the tuning of the oscillator. Set the TUNING knob in intermediate position and slowly turn the corresponding trimmer rightwards or leftwards until tuning of the oscillator is obtained.

PA 839 - DWG 2

VR1 (100 KOhm)

Regola la velocità del VIBRATO. Con il registro in posizione VIBRATO SLOW, la velocità deve essere di 4 Hz, mentre in posizione VIBRATO FAST di 7 Hz.

It adjusts the VIBRATO speed. When the register is set in SLOW VIBRATO position the speed should be 4 Hz. When the register is set in FAST VIBRATO position the speed should be 7 Hz.

PA 830 - DWG 2

VR1 (22 KOhm)

Regola la tensione di OFFSET delle basi dei multiemitter Flauti L.M.

It adjusts the OFFSET voltage of the L.M. Flute multiemitter bases.

PA 851 - DWG 8

VR1 (22 KOhm)

Regola l'ampiezza del dente di sega.

It adjusts the saw-tooth wave amplitude.

VR2 (100 KOhm)

Regola la lunghezza del DECAY.

It adjusts the DECAY length.

VR3 (22 KOhm)

Regola la tonalità del filtro.

It adjusts the filter tonality.

Questi trimmer sono utilizzati per i timbri BASS GUITAR e EL. BASS.

These trimmers are used for the BASS GUITAR and the EL. BASS timbres.

PA 831 - DWG 9

VR1 (22 KOhm)

Regola la tensione di OFFSET delle basi dei multiemitter dell'U.M.

It adjusts the OFFSET voltage of the U.M. multiemitter bases.

PA 833 - DWG 13

VR1 (10 KOhm)

Regolano rispettivamente il massimo ed il minimo volume del pedale d'espressione.

They adjust the maximum and the minimum volume of the swell pedal respectively.

VR2 (2,2 KOhm)

Mettere il pedale al massimo del volume, posizionare il VR2 a circa 1/3 del suo valore massimo e regolare il VR1 per un valore di tensione di circa 6,6 V. Poi mettere il pedale al minimo e regolare VR2 per una tensione di 4,6V. Ripetere quindi tali operazioni finché non si ottengono i due valori di tensione indicati. Queste regolazioni devono essere effettuate soprattutto quando si sostituisce il pedale d'espressione a corredo con uno di ricambio.

Press the pedal to the maximum, set VR2 at 1/3 of its scale and adjust VR1 for a voltage value of 6,6 V. Then set the pedal in minimum position and adjust VR2 for a voltage value of 4,6V. Repeat these operations until the two voltage values indicated above are obtained.

These adjustments should be made in particular when the provided swell pedal is replaced with a spare one.

PA 828 - DWG 13

VR1 (10 KOhm)

Regola il guadagno dell'amplificatore del Riverbero.

It adjusts the Reverberation amplifier gain.

Schem.Ref.	Circuit	Type	Part Code
<u>MASTER OSCILLATOR (DWG 2/SE 264)</u>			
PA 930/10	Complete with Components		6049/1115281
ICa1	Voltage Regulator	SN 72723 N	W/1209
ICa2	Oscillator	SN 29730 N	W/1009
ICa3	Top Octave Synthesizer	SFF 5009	W/1107
Qa3	Transistor NPN	BC 208-B-C	W/1404
Da1-Da2-Da3	Diodes	BA 130	B/1003
<u>L.M. & U.M. COM. DRAWBARS (DWG 2/SE 264)</u>			
PA 830	Complete with Components		5040/1115281
ICd1	Stabilizer	μ A 741 TC	W/1210
ICd2-3-4-5	Buffers	μ A 741 TC	W/1210
<u>VIBRATO (DWG 2/SE 264)</u>			
PA 839	Complete with Components		5055/1115281
ICb1	Oscillator	SN 76131	W/1201
Qb1	Buffer	BC 209-B	W/1407
Qb2	Switch		
Qb3	Driver		
<u>L.M. & U.M. DRAWBARS (DWG 2/9/SE 264)</u>			
PA 829	Complete with Potentiometers		5051/1115281
Pe1 + Pe16	Potentiometers 10 KOhm		P/268
<u>BUFFERS (DWG 3/SE 264)</u>			
PA 1010	Complete with components		5221/1115282
Q1 + Q3	Buffers	BC 154	W/1500

Schem. Ref.	Circuit	Type	Part Code
<u>MONOPHONIC BASS (DWG 3/SE 264)</u>			
PA 782	Complete with Components		5011/1124771
ICc1	1-OF-10 Decoders	F 4028	W/1168
ICc2-3-4-5-6 } ICc7-42-43 }	8-Input Multiplexer with 3 State Outputs	F 4512	W/1167
ICc9-11-13-28-36	QUAD Bilateral Switches	4016	W/1164
ICc8-10-12	Hex D Flip-Flop	40174	W/1161
ICc14-16	QUAD 2-Input AND Gate	4081	W/1156
ICc15-17	Frequency Dividers	25002	W/1165
ICc16-38-41	Hex Inverters	F 4069	W/1169
ICc18-24	Dual 1-OF-4 Decoders	F 4555 PC	W/1171
ICc19-21-27-30-40	QUAD 2-Input NAND Gate	4011	W/1150
ICc20-35-39	Triple 3-Input NAND Gate	4023	W/1152
ICc22-23	4 Bit Syn UP-DOWN Binary Counter	40193	W/1162
ICc29	Dual 4 Bit Static Shift Register	F 4015 PC	W/1170
ICc31-32-33-34	Dual D Flip-Flop	4013	W/1157
ICc37	Dual JK Flip-Flop	4027	W/1153
ICc25	Hex Inverting Buffer	4049	W/1155
Dc1 + Dc32	Diodes	D 525 B TEXAS	B/1000
<u>PEDAL & MANUAL BASS (DWG 4/SE 264)</u>			
PA 827	Complete with Components		5037/1115281
ICh1	13 Bit Latch Pedal Sustain	M 147	W/1116
ICh2	Dual D Flip-Flop	4013	W/1157
ICh3-4	QUAD 2 Input NAND Gate	HBF 4011	W/1150
ICh5-7	Hex Inverting Buffer	4049	W/1155
ICh6	QUAD 2 Input AND Gate	4081	W/1156
ICh8	Hex Inverter	F 4069	W/1169
Qh1-2	Buffers	BC 209-C	W/1426
Dh1 + Dh76	Diodes	D 525 A	B/1001
Zh1	Zener Diode 5,6 V	ZPD 5,6	B/1309

Schem.Ref.	Circuit	Type	Part Code
<u>L.M. GATES (DWG 5/SE 264)</u>			
PA 970	Complete with Components		5042/1115281
Qi1 + Qi49	Switches	BC 154	W/1500
Di1 + Di49	Diodes	D 525 A	B/1001
<u>GATE MODULE (DWG 5-6/SE 264)</u>			
PA 705/2	Complete with Components		6870/1124741
IC 1	Gate with 12 emitters	TDA 0470 D	W/1215
Q 1	Switch	BC 209-B	W/1407
D 1 - D 2	Diodes	D 525 B	B/1000
<u>GATE MODULE (DWG 5-6/SE 264)</u>			
PA 706/2	Complete with Components		6873/1124741
IC 1	Gate with 12 emitters	TDA 0470 D	W/1215
D 1	Diode	D 525 B	B/1000
<u>GATE MODULE (DWG 5-6/SE 264)</u>			
PA 708	Complete with Components		6875/1124741
IC 1	Gate with 12 emitters	TDA 0470 D	W/1215
D 1	Diode	D 525 B	B/1000
<u>L.M. KEYSWITCHES (DWG 5/SE 264)</u>			
PA 838	Complete with Components		5045/1115281
D 1 + D 76	Diodes	BA 130	B/1003

Schem.Ref.	Circuit	Type	Part Code
<u>U.M. GATES (DWG 6/SE 264)</u>			
PA 965	Complete with Components		6864/1124741
IC 1 + IC 11	Frequency Dividers	SA 1005	W/1114
<u>GATE MODULE (DWG 6/SE 264)</u>			
PA 707	Complete with Components		6874/1124741
IC 1	Gate with 12 emitters	TDA 0470 D	W/1215
D 1	Diode	D 525 B	B/1000
<u>GATE MODULE (DWG 6/SE 264)</u>			
PA 709	Complete with Components		6876/1124741
IC 1	Gate with 12 emitters	TDA 0470 D	W/1215
D 1	Diode	D 525 B	B/1000
<u>U.M. KEYSWITCHES (DWG 6/SE 264)</u>			
PA 837	Complete with Components		5046/1115281
Q11 + Q149	Switches	BC 154	W/1500
D11 + D1147	Diodes	BA 130	B/1003
<u>PIANO GATES (DWG 7/SE 264)</u>			
PA 826	Complete with Components		5044/1115281
Dm1 + Dm147	Diodes	D 525 A	B/1001

Schem. Ref.	Circuit	Type	Part Code
<u>GATE MODULE (DWG 7/SE 264)</u>			
PA 705/4	Complete with Components		5074/1115281
IC 1	Gate with 12 emitters	TDA 0470 D	W/1214
Q 1	Switch	BC 209-B	W/1407
D 1	Diode	D 525 B	B/1000
<u>GATE MODULE (DWG 7/SE 264)</u>			
PA 706/4	Complete with Components		5075/1115281
IC 1	Gate with 12 emitters	TDA 0470 D	W/1214
D 1	Diode	D 525 B	B/1000
<u>PEDAL - MANUAL BASS - PIANO & HARPSICHORD FILTERS (DWG 8/SE 264)</u>			
PA 851	Complete with Components		5047/1115281
ICn1 + ICn4	Electrical Bass Filter	uA 741 TC	W/1210
Qn1-2-6-7-11-12	Preamplifiers	BC 209-B red dot	W/1413
Qn3-5-8-9-15	Switches	BC 209-C SESCOSEM	W/1426
Qn16-17-18-19			
Qn4	Com. Sustain Piano	BC 154	W/1500
Qn10-14	Modulators	BC 209-C SESCOSEM	W/1426
Qn13	Active Filter	BC 209-B red dot	W/1413
Dn1 + Dn8	Diodes	D 525 A	B/1001

Schem.Ref.	Circuit	Type	Part Code			
<u>PERCUSSION-REPEAT-PRESET & COM. DRAWBARS (DWG 9/SE 264)</u>						
PA 831	Complete with Components		5049/1115281			
ICp1	Monostable	μ A 555	W/1217			
ICp2	Repeat Oscillator	μ A 555	W/1217			
ICp3 + ICp11	Buffers	μ A 741 TC	W/1210			
ICp12	Stabilizer	μ A 741 TC	W/1210			
ICp13	Hex Inverting Buffer	4049	W/1155			
Qp1-11-12-16- Qp21-26-27-28	} Switches	BC 209-C SESCOSEM	W/1426			
Qp2-3-4-5-6-7-8						
Qp9-10-13-14-15 Qp17-18-19-20-22 Qp23-24-25-29-30 Qp31-32-33-34-35-36	} Switches	BC 154	W/1500			
Dp1 + Dp30				Diodes	D 525 A	B/1001
<u>COM.PRESET (DWG 9/SE 264)</u>						
PA 834				Complete with Components		5052/1115281
--				Keyswitches with 9 Keys		X/1301
<u>L.M. FLUTE FILTERS (DWG 10/SE 264)</u>						
PA 775/4	Complete with Components		5043/1115281			
H.C.g2	Active Hybrid Filter	(fo = 4186 Hz)	W/2305			
H.C.g3	" " "	(fo = 2093 Hz)	W/2304			
H.C.g4	" " "	(fo = 1046 Hz)	W/2303			
H.C.g5	" " "	(fo = 523 Hz)	W/2302			
H.C.g6	" " "	(fo = 262 Hz)	W/2301			
H.C.g7	" " "	(fo = 131 Hz)	W/2300			
Qg1	Mixer	BC 209-B red dot	W/1413			
Qg2	Mixer	BC 225 S.G.S.	W/1500			
Qg3	Modulator	BC 209-B S.G.S.	W/1407			

Schem. Ref.	Circuit	Type	Part Code
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U.M. FLUTE FILTERS (DWG 10/SE 264)

PA 775/5	Complete with Components		5039/1115281
H.C.f1	Active Hybrid Filter	(fo = 8372 Hz)	W/2306
H.C.f2	" " "	(fo = 4186 Hz)	W/2305
H.C.f3	" " "	(fo = 2093 Hz)	W/2304
H.C.f4	" " "	(fo = 1046 Hz)	W/2303
H.C.f5	" " "	(fo = 523 Hz)	W/2302
H.C.f6	" " "	(fo = 262 Hz)	W/2301
H.C.f7	" " "	(fo = 131 Hz)	W/2300
Qf1	Mixer	BC 209-B red dot	W/1413
Qf2	Mixer	BC 225 S.G.S.	W/1500
Qf3	Modulator	BC 209-B S.G.S.	W/1407
Df1 + Df7	Diodes	D 525 A TEXAS	B/1001

REGISTER LOGIC (DWG 11-12/SE 264)

PA 832	Complete with Components		5050/1115281			
ICr1	Touch Control Interface 16 Switches	S 9263 AMI	W/1117			
ICr2	4 Channel Touch Control	SAS 570 S	W/1218			
Qr1-2-3-4-5-7-8 Qr9-10-11-13-15 Qr16-18-19-20-21 Qr22-24-27-28- Qr29-30	} Switches	BC 209-C SESCOSEM	W/1426			
Qr6-12-14 Qr17-23-31				} Switches	BC 154	W/1500
Qr25-26						
Dr1 + Dr15				Diodes	B 525 A	B/1001
ZD1				Zener Diode 13V - 400 mW	ZPD 13 I.T.T.	B/1318

Schem. Ref.	Circuit	Type	Part Code
<u>PERCUSSION & FLUTE REGISTERS (DWG 11-12/SE 264)</u>			
PA 835	Complete with Components		5053/1115281
Ds1 + Ds9	Red Leds	CQX 35 B	B/1607
- -	Pushbutton Switches- Momentary Action		X/1700
<u>SPECIAL EFFECTS & PEDAL REGISTERS (DWG 11/SE 264)</u>			
PA 836	Complete with Components		5054/1115281
Dt1 + Dt9	Red Leds	CQX 35 B	B/1607
- -	Pushbutton Switches - Momentary Action		X/1700
<u>MIXER & VOLUME CONTROL (DWG 13/SE 264)</u>			
PA 833	Complete with Components		5048/1115281
ICu1-2	D.C. Volume and Balance Control	TCA 730	W/1216
Qu1-2-3-4-6-7	Mixer	BC 209-B red dot	W/1413
Qu5	Supply Delay	BC 154	W/1500
<u>REVERB. AMPLIFIER (DWG 13/SE 264)</u>			
PA 828	Complete with Components		5038/1115281
ICz1	5W Audio Power Amplifier	TDA 2611 A	W/1229
Qz1-2-3	Preamplifiers	BC 209-B red dot	W/1413

Schem.Ref.	Circuit	Type	Part Code
<u>LESLIE & HEADPHONE AMPLIFIER (DWG 12/SE 264)</u>			
PA 981	Complete with Components		5178/1115281
ICw1-2	5W Audio Power Amplifier	TDA 2611 A	W/1229
<u>POWER SUPPLY (DWG 14/SE 264)</u>			
	Complete Power Supply - Europe Version		8001/1115281
	Complete Power Supply - America Version		8002/1115281
	TRANSFORMER		T/1114
Do1 - Do2	Rectifier Diodes	1N 4002 I.R.	B/1100
Do3	Rectifier Bridge	B 80 C 3700/2200	B/1209
Co4	Capacitor	2200 μ F - 25 wV	C/8212
Co5-6	Capacitors	470Q μ F - 40 wV	C/8902
<u>STABILIZER (DWG 14/SE 264)</u>			
PA 866	Complete with Components		5068/1489001
ICv1	Series Stabilizer + 15 V	μ A 7815 UC FAIRCHILD	W/1224
ICv2	" " + 12 V	μ A 7812 UC FAIRCHILD	W/1223
ICv3	" " - 12 V	μ A 7912 UC FAILCHILD	W/1225
ICv4	" " - 15 V	μ A 7915 UC FAILCHILD	W/1226
<u>STABILIZER + 5 V (DWG 14/SE 264)</u>			
PA 852	Complete with Components		5036/1115281
I.C.	Series Stabilizer + 5 V	μ A 7805 UC	W/1230

Schem.Ref.	Description	Type	Part Code
<u>POTENTIOMETER</u>			
Po1	Tuning Potentiometer	100 Ohm	P/271
Po2-3-5	Pedal Volume - Repeat Speed & Reverb. Volume Slider Pot.	100 KOhm	P/282
Po4	U.M. Sustain Slider Pot.	10 KOhm	P/281
--	REVERBERATION UNIT	4AB3C1B	U/25
--	MAINS SWITCH		X/1500
--	Knob for Tuning Potentiometer		MP/61
--	Knob for Slider Potentiometers		MP/59-6
--	DECORATIVE FRONT PLATE		DE/679-1
--	TAB "Grey-Blue"		4060/1115281
--	" "Black"		4061/1115281
--	" "Ivory"		4062/1115281
--	" "Red F."		4063/1115281
--	" "Grey"		4064/1115281
--	DRAWBAR TAB "Brown"		4031/1115281
--	" " "Ivory"		4032/1115281
--	" " "Black"		4033/1115281
--	TAB "SLOW-LESLIE-FAST"		TS/342-35
--	" "OFF-LESLIE-ON"		TS/342-22
--	" "VIBRATO DELAY"		TS/342-57
--	" "SLOW-VIBRATO-FAST"		TS/342-56
--	" "OFF-VIBRATO-ON"		TS/342-55
--	LESLIE SLIDER SWITCH	3A - 125 V	X/14
<u>KEYBOARD</u>			
--	Key "DO" (C)		3122/1124771
--	" "RE" (D)		3123/1124771
--	" "MI" (E)		3124/1124771
--	" "FA" (F)		3125/1124771
--	" "SOL" (G)		3126/1124771
--	" "LA" (A)		3127/1124771
--	" "SI" (B)		3128/1124771
--	Final Key "DO" (C)		3130/1124771
--	Final Key "SOL" (G)		3132/1115281
--	SHARPS (♯)		3129/1124771

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