

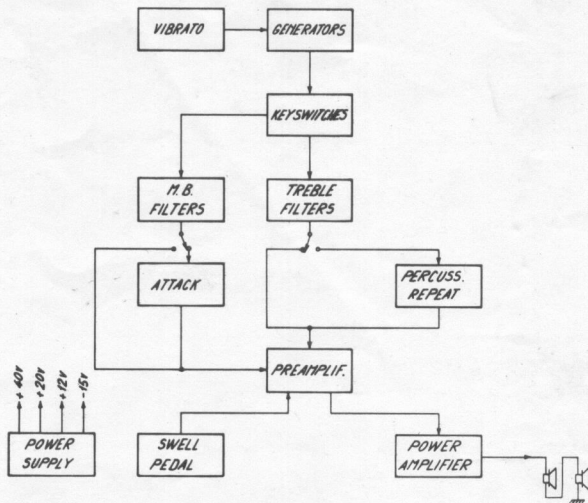
EFARFISA

ELECTRONIC ORGAN

matador - R

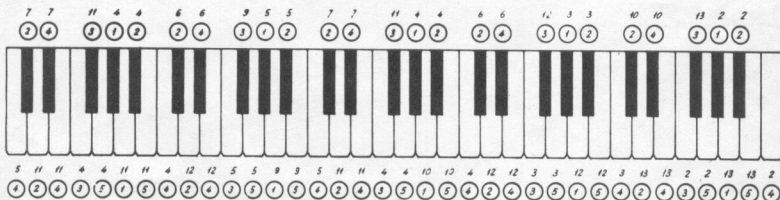
SCHEMATIC DIAGRAMS

BLOCK DIAGRAM



REFERENCE TABLE

KEY TO GENERATOR BOARD



Notes:

- 1) THE TONE GENERATOR OF THE KEYBOARD NOTES ARE INDICATED WITH TWO NUMBERS. THE CIRCLED NUMBER, THAT APPEARS ALSO ON THE PRINTED CIRCUIT BOARD PA-362/A, INDICATES THE INTEGRATED CIRCUIT. THE SECOND NUMBER INDICATES THE INTEGRATED CIRCUIT PIN.
- 2) ASSEMBLY OF THE I.C.s SHOULD BE MADE AS SHOWN IN FIGURES 1 AND 2.

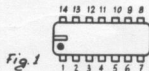


Fig. 1

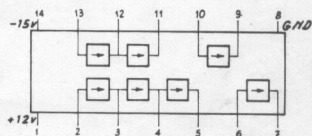
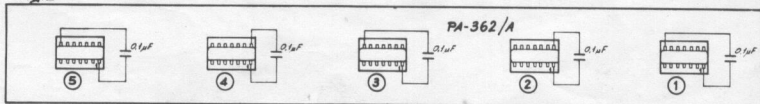


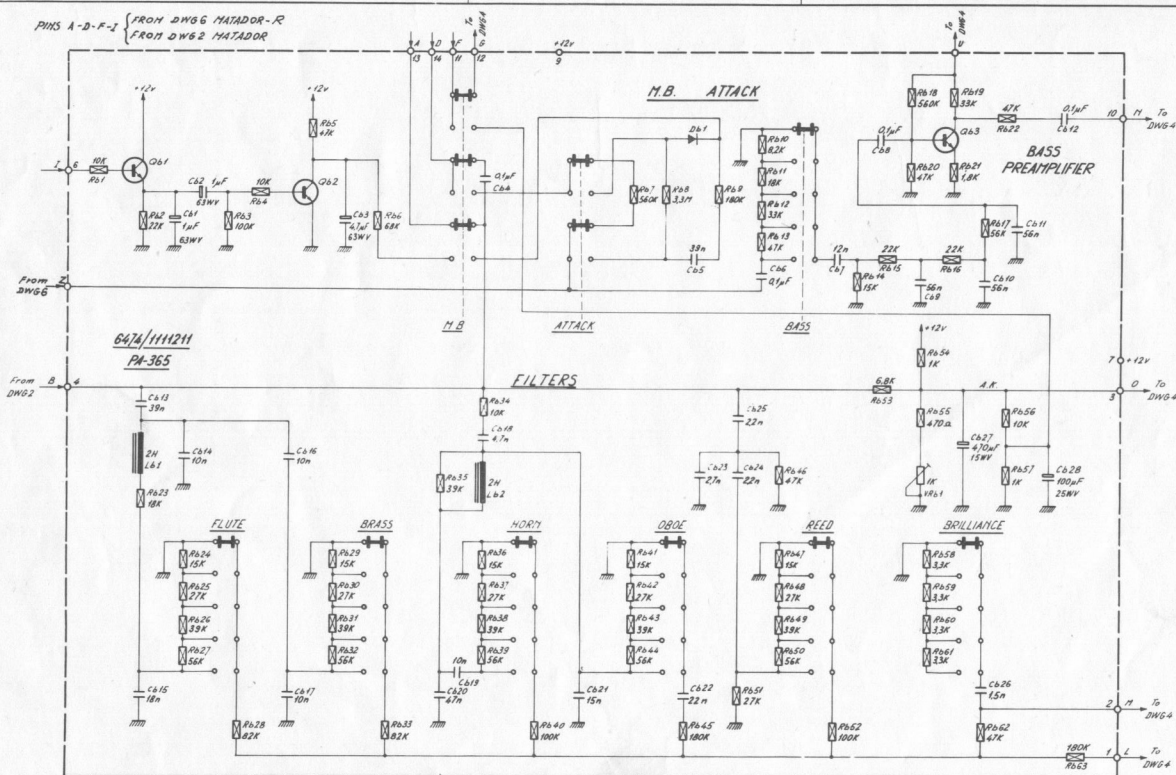
Fig. 2



NOTES: 1) All dimensions in mm unless otherwise indicated.
2) All dimensions shown in DFP position.
3) All dimensions shown in DFP position.
4) All dimensions shown in DFP position.

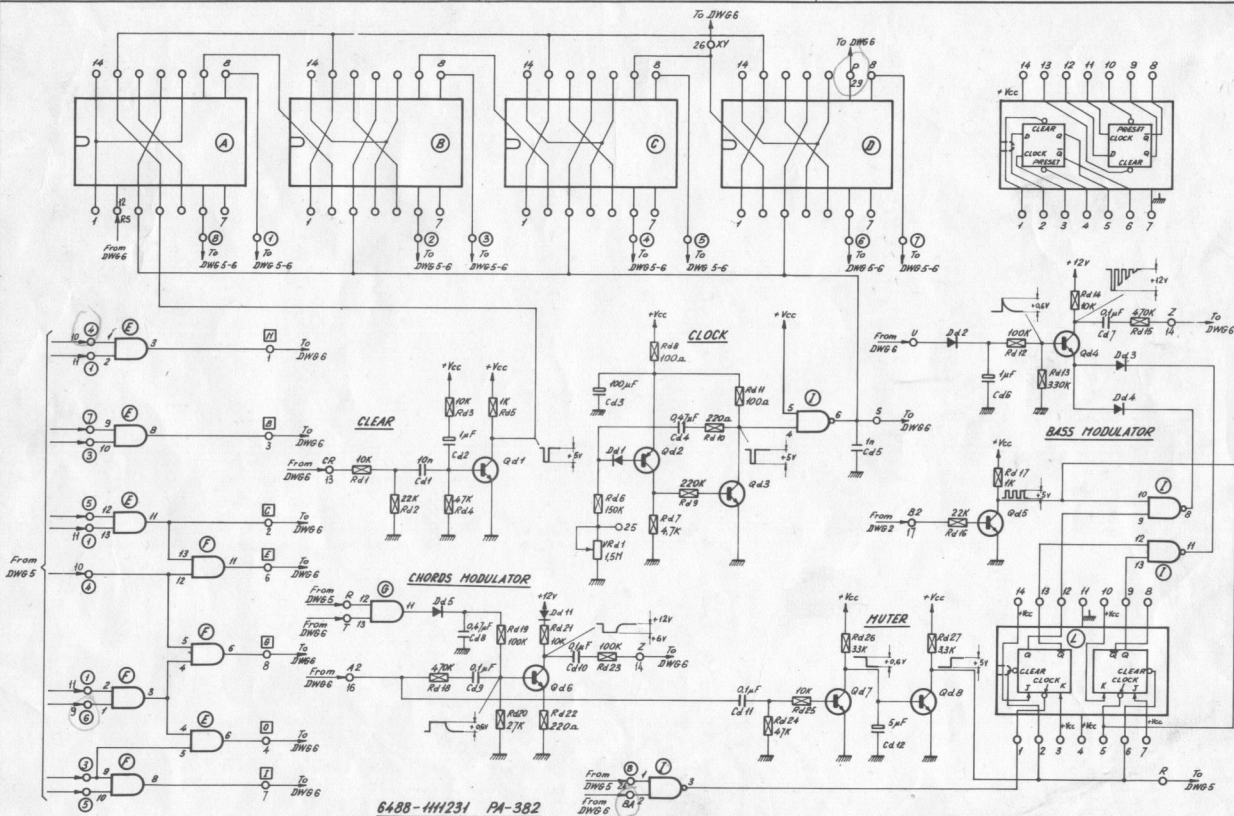
MODEL: HATADAP 6H
CODE: SE/44
DATE: 10/1/44

PHS A-D-F-1 (FROM DWG6 MATADOR-R
FROM DWG2 MATADOR



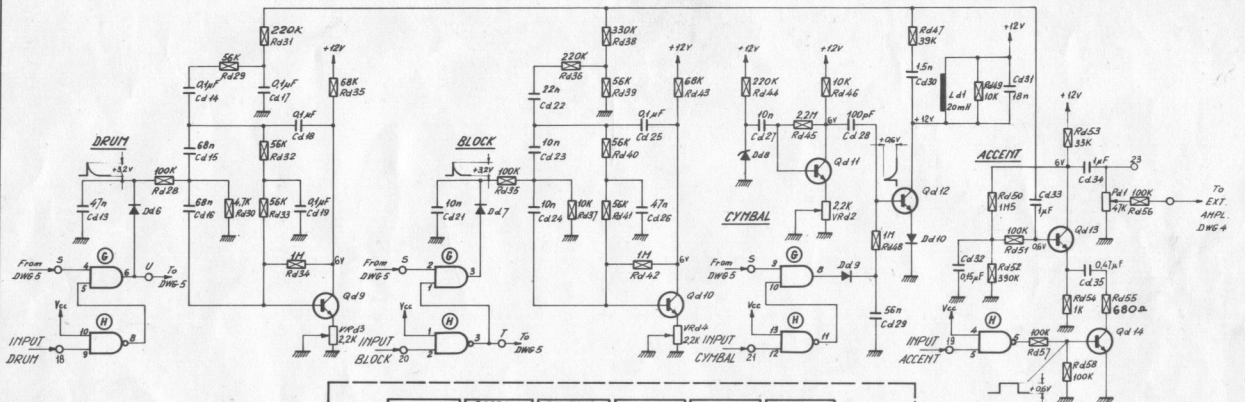
- NOTES: 1) All resistors 1/8W unless otherwise indicated.
2) All teletypes shown in OFF position.
3) All teletypes shown in OFF position.
4) See parts list for component part numbers.

MOD.	MATADOR (6H)	SERIAL No.			
CODE	SE/44	DESIGNED BY	REVISION		
		CHECKED BY	DATE		

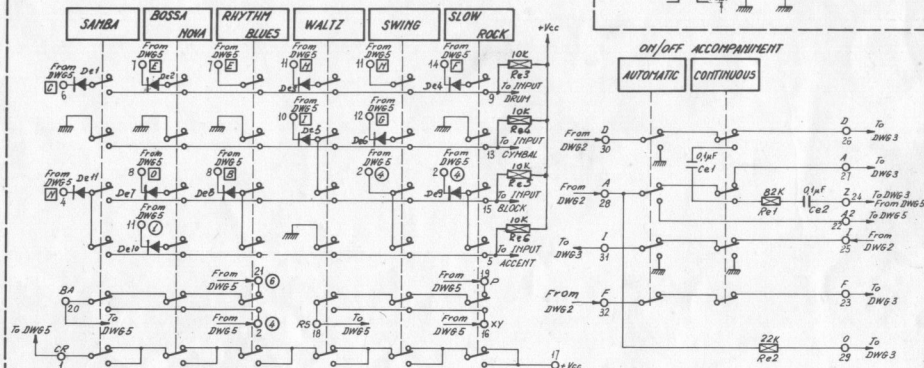
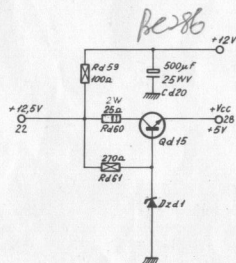


NOTES: 1) All resistors 1/8 W unless otherwise indicated.
 2) All switches shown in OFF position.
 3) All transistors shown in OFF position.
 4) See parts list for component part numbers.

MOD. HATADOR-R		REVISION No.	
CODE	DESIGNED BY	INVENTION	
SE-144	CHECKED BY	DATE	



648B-1H1231 PA-302

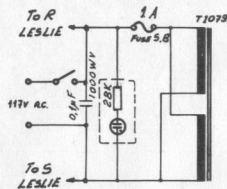


648B-1H1231 PA-381

Del ÷ Del = 1X800

- NOTES: 1) All resistors 1/8W unless otherwise indicated.
2) All capacitors shown in OFF position.
3) All capacitors shown in OFF position.
4) See parts list for component part numbers.

MODEL: MATADOR-R		SERIAL No.	
CODE	DRAWN BY	REVISION	
SE-144	17-144	DATE	10-7-72
CHECKED BY			



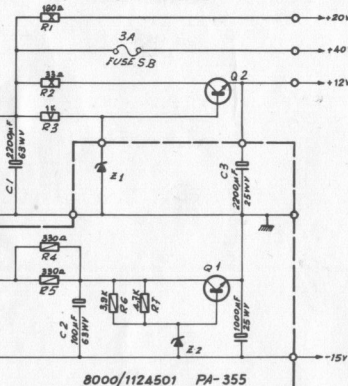
To R
LESLIE

To S
LESLIE

To R
LESLIE

To S
LESLIE

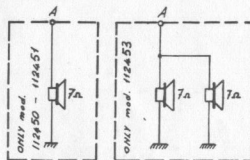
POWER SUPPLY



8000/1124501 PA-355

TRANSISTORS & DIODES.

Q1	BC 286	W/64
Q2	156-043	W/114
D1	SFD 182	B/77
D2	B40-C2200	Y/14 - Y/15
Z1	1213	B/105
Z2	ZF15	B/106
Q3	1W9640	W/89
Q4	BC 207/a-b-BC209b-c	W/108-W/109-W/110-W/111
Q5-Q6	BC 286	W/64
Q7	BC 287	W/65
Q8-Q9	156-043 - H9340	W/114 - W/164



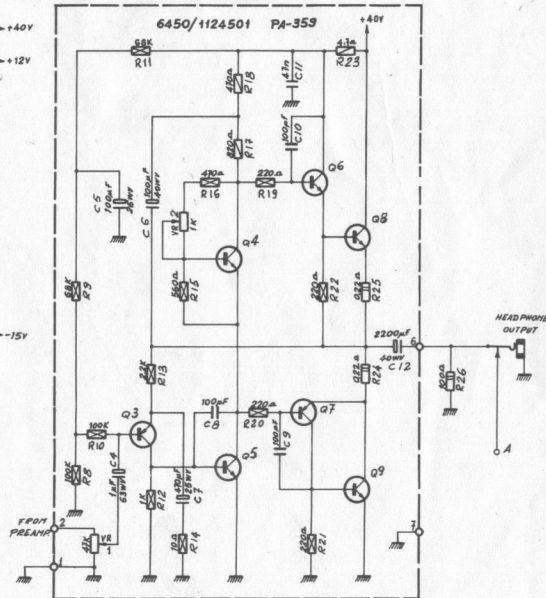
FOR MODELS 52 AND 54
SEE LESLIE GROUP

RESISTORS

- = 1/8 WATT
- = 1/2 WATT
- = 2 WATT
- = 5 WATT
- = 10 WATT

- NOTES: 1) All resistors 1/8 W unless otherwise indicated.
2) All capacitors shown in OFF position.
3) All capacitors shown in OFF position.
4) See parts list for component part numbers.

POWER AMPLIFIER



112454 - MATADOR
112452 - 112453

112450 - 112451

CODE
SE-140

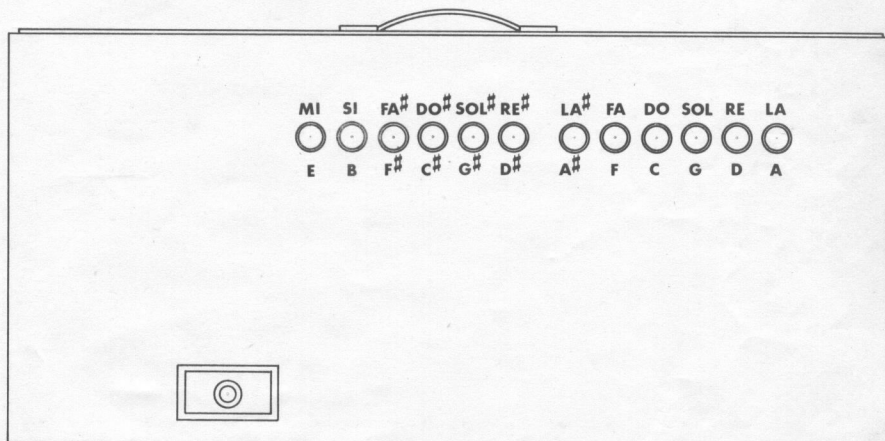
DRAWN BY
G. C. HARRIS

REVISION	DATE	BY	CHKD
321	6-4-71	1-3-72	

DWG A OF

DISPOSIZIONE DEGLI OSCILLATORI PER L'ACCORDATURA DELLO STRUMENTO.

POSITION OF THE OSCILLATORS FOR TUNING THE INSTRUMENT.



Model 611 « Matador »

TRANSISTORS (Q) & DIODES (D) LIST

1

Schem. Ref.	Circuit	Type	Part Code
<u>CHASSIS</u> <u>POWER SUPPLY CHASSIS (DWG A/ SE 140)</u>			
Q 2	Series Stabilizer.....	WESTINGHOUSE 156-043..... SOLITRON H 9340.....	W/114 W/164
D 2	Rectifier Bridge.....	ITT STANDARD B 40-C 2200 SIEMENS B 40-C 2200 AEG B 40-C 2200	Y/14 - Y/15 Y/14 - Y/15 Y/14 - Y/15
<u>PA 355</u> <u>VOLTAGE REGULATOR BOARD (DWG A/ SE 140)</u>			
Q 1	Series Stabilizer.....	SGS BC 286 (ex BC 142)..	W/64
D 1	Rectifier Diode (Bridge).....	MISTRAL SFD 182..... TEXAS IN 914.....	B/77 B 108
Z 1	Voltage Reference-Diode Zener.. (13V-1W)	IRCI 1 Z 13..... MOTOROLA 1N4743.....	B/105 B/105
Z 2	Voltage Reference-Diodo Zener.. (15V-400mW)	ITT STANDARD ZF 15..... MOTOROLA 1N5245-B	B/106 B/106
<u>PA 359</u> <u>POWER AMPLIFIER BOARD (DWG A/ SE 140)</u>			
Q 3	Input Preamplifier PNP.....	SGS IW 9640.....	W/89
Q 4	Temperature Compensator.....	BC 207 A or B... MISTRAL BC 209 B or C... BC 109 B or C...	W/108 - W/109 W/110 - W/111 W/101 - W/ 98
Q 5	Driver Amplifier NPN	SGS BC 286 (ex BC 142)	W/64
Q 6	Driver NPN.....	SGS BC 286 (ex BC 142)	W/64
Q 7	Driver PNP.....	SGS BC 287.....	W/65
Q 8 - Q 9	Power Transistors.....	WESTINGHOUSE 156-043 ... SOLITRON H 9340.....	W/114 W/164
<u>PA 362-A</u> <u>KEYSWITCH BOARD (DWG 1/ SE 144)</u>			
IC 1+5	Integrated Frequency Divider ...		W/163 - W/127

Model 611 « Matador »

TRANSISTORS (Q) & DIODES (D) LIST

2

Schem. Ref.	Circuit	Type	Part Code
<u>PA 357 - 4 TONE GENERATOR (DWG 2 / SE 144)</u>			
Q a 1	MVBTR. Master Oscillators	GE. 2N 5172	W 126-
Q a 2		BC 108 A,B or C	W 105-106-107
Q a 3		BC 109 B or C	W 101-98
		BC 208 A,B or C	W 115-116-117
	Buffer Amplifier.....	BC 209 B or C	W 110-111
D a 1	Base Breakdown Protection	SGS 1X 9809	B/ 34
D a 2		TEXAS D525 A or B	B 110 - B 111
<u>PA 365 TREBLE FILTERS - BASS ATTACK & PREAMPLIFIER (DWG 3 / SE 144)</u>			
Q b 1	Attack Control	GE 2N 5172	W 126
Q b 2	Attack Control	BC 208 B or C	W 116-117
Q b 3	Bass Preamplifier	BC 209 B or C	W 110-111
D b 1	Gate	SGS 1X 9809	B 34
		TEXAS D525 A or B ...	B 110- B 111
<u>PA 366 PERCUSSION - VIBRATO - PREAMPLIFIER (DWG 4 / SE 144)</u>			
Q c 2	Percussion Multivibrators	GE 2N 5172	W 126
Q c 3		BC 109 B or C	W 101-98
Q c 5	Vibrato Oscillators	BC 209 B or C	W 110-111
Q c 6		BC 207 A or B	W 108-109
Q c 1	Percussion Pulse Driver	BC 109 B or C	W 101-98
Q c 4	Keyer		
Q c 7	Vibrato Driver		
Q c 8	Vibrato Delay		
Q c 10	General Preamplifier	BC 207 A or B	W 108-109
Q c 9	General Preamplifier	BC 109 B or C, red dot	W 143-148
		BC 209 B or C, red dot	W 145-150
D c 1	Diode	IRCI 10D1 - 10D2	B 50-92
		IRCI 5D1 - 5D4	B 91-95
		PAE R/6	B 18
Z c 1	Zener 5,6 v, 0,4 w	MOTOROLA 1N 5232 B ...	B 69
		MULLARD BZY 88/C 5V6 ...	
		ITT-STANDARD ZF 5,6 ...	
		IRCI 1N 752 A ...	

Model 611 « Matador - R »

TRANSISTORS (Q) & DIODES (D) LIST

3

Schem. Ref.	Circuit	Type	Part Code
<u>PA/382</u>	<u>RHYTHM GENERATOR & RHYTHMICAL ACCOMPANIMENT (DWG 5 & 6 / SE 144)</u>		
Q d 3	Clock Generator	SGS 1 W 964	W/89
Q d 1	Clear Generator		
Q d 2	Clock Generator		
Q d 4	Bass Modulator		
Q d 5	Bass Buffer.....		
Q d 6	Chords Modulator		
Q d 7	Muter	BC 108 B or C	W/106 - W/107
Q d 8		BC 109 B or C	W/101 - W/98
Q d 9	Drum Generator.....	BC 208 B or C	W/116 - W/117
Q d 10	Block Generator	BC 209 B or C	W/110 - W/111
Q d 11	Cymbal Generator		
Q d 12	Cymbal Modulator		
Q d 13	Rhythm Preamplifier		
Q d 14	Accent Modulator		
Q d 15	Series Stabilizer	SGS BC 286 (ex BC 142)..	W/64
Dz d 1	Voltage reference-Diode Zener.. (5,6V-0,4W)	MOTOROLA 1N 5232 B MULLARD BZY 88 / C 5V6 ITT-STANDARD ZF 5,6 IRCI 1N 752 A	B/69
(A) (B) (C) (D)	TTL-I Integrated Circuit	SN 7474	W/1003
	(TEXAS-FAIRCHILD-MISTRAL)		
(E) (F) (G)	idem	SN 7408	W/1001
(H) (I)	idem	SN 7400	W/1000
(L)	idem	SN 7473	W/1002
D d 1+D d 10	Diode	SGS 1X 9809	B/34
		TEXAS D525 A or B	B/110 - B/111