

- After having extracted the game from the box, assemble the base with levelling feet through the fastening screws of the base.
- The chain beneath the cabinet is connected on earth and is foreseen for an eventual installation in areas with synthetic carpeting. It is suggested not to remove it.

STARTING OPERATIONS

- Open back door to extract power supply cable.
- Before connecting the game some inspections should be made. These visual inspections are important for the damages which might have been caused during transport.
 1. Check that all connectors are connected
 2. Check that all mechanical parts are in correct position.
 3. Check that safety switch at the bottom back board works correctly and that is to say:
When assembling back door and closing it slowly one should hear the microswitch contact shut off.
 4. Check that the game is programmed for the right available voltage (games are factory programmed for 220V. for all european countries except G.B. for 245V.)
 5. Make sure that earth socket is connected.

INSTALLATION AND MAINTENANCE

The CRT used in our games is like those employed on regular television sets, therefore, please handle with care so as not to damage it.


- Do not set up the game in open and very lighted areas, as the quality of image would be greatly damaged.
- Do not set up the game close to heating sources and keep it 10 cm. from the back wall.
- If, when game is on, no image appears on the screen, check power supply fuses and if connectors are properly connected.
- If the screen is lit up but there is no image, check that C.P.U. board connectors are properly connected.
- If the image slowly moves toward the side, it can be caused by a close magnet or by a transformer which might cause strong wavinesses.

If the game is turned around itself on power on, it might happen that the image on the screen will change colour. This is caused by the earth magnetic field.

To have the right colours again, only turn off the game for 5 minutes and then turn it on again.

PLEASE DO NOT CHANGE THE IMMATRICULATION LABELS BOTH ON THE CABINET AND ON THE ELECTRONIC BOARDS TO AVOID DISCUSSIONS IN CASE OF SERVICING.

5. PLAY INSTRUCTIONS

- o Insert coin(s).
- o Select game for one or two player.
- o Use joystick to move your space ship  to the left or to the right, and fire beam gun to shoot phoenix army.
- o A strategy is needed to avoid phoenix army's attack by pushing barrier button.
- o In a two player game, each player alternates when his space ship is destroyed.
- o Scoring:



20 pts. ... When waiting

.....

40 pts. ... When attacking

(Points are doubled in continuous hittings.)



.....

200 pts. ... When flying



50 pts. ... When still an egg

100 pts. ... When folding the wings

100 - 800 pts. When spreading the wings

(Higher points can be scored when hitting this phoenix after both the wings have been shot down.)

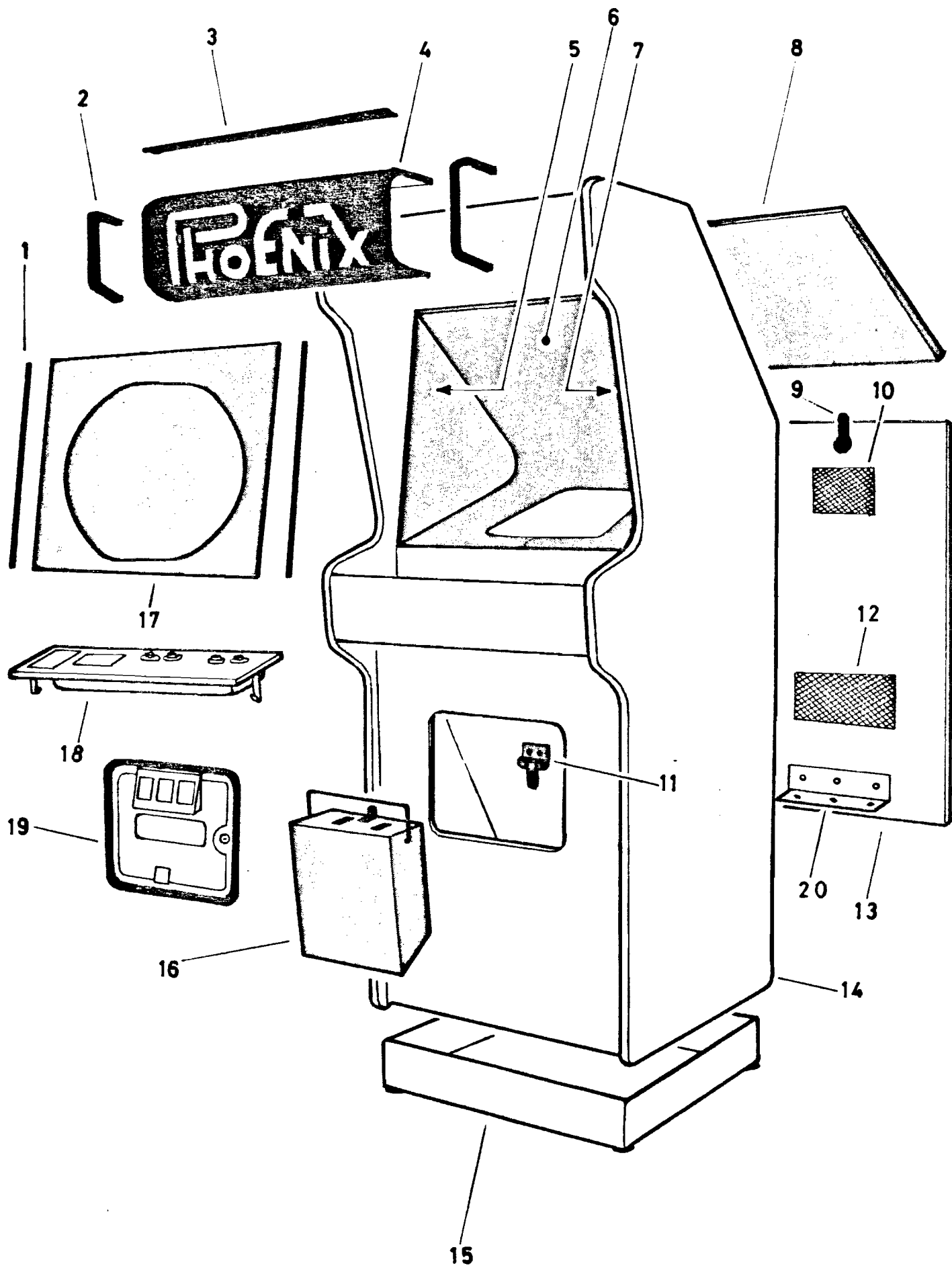
BONUS



.....

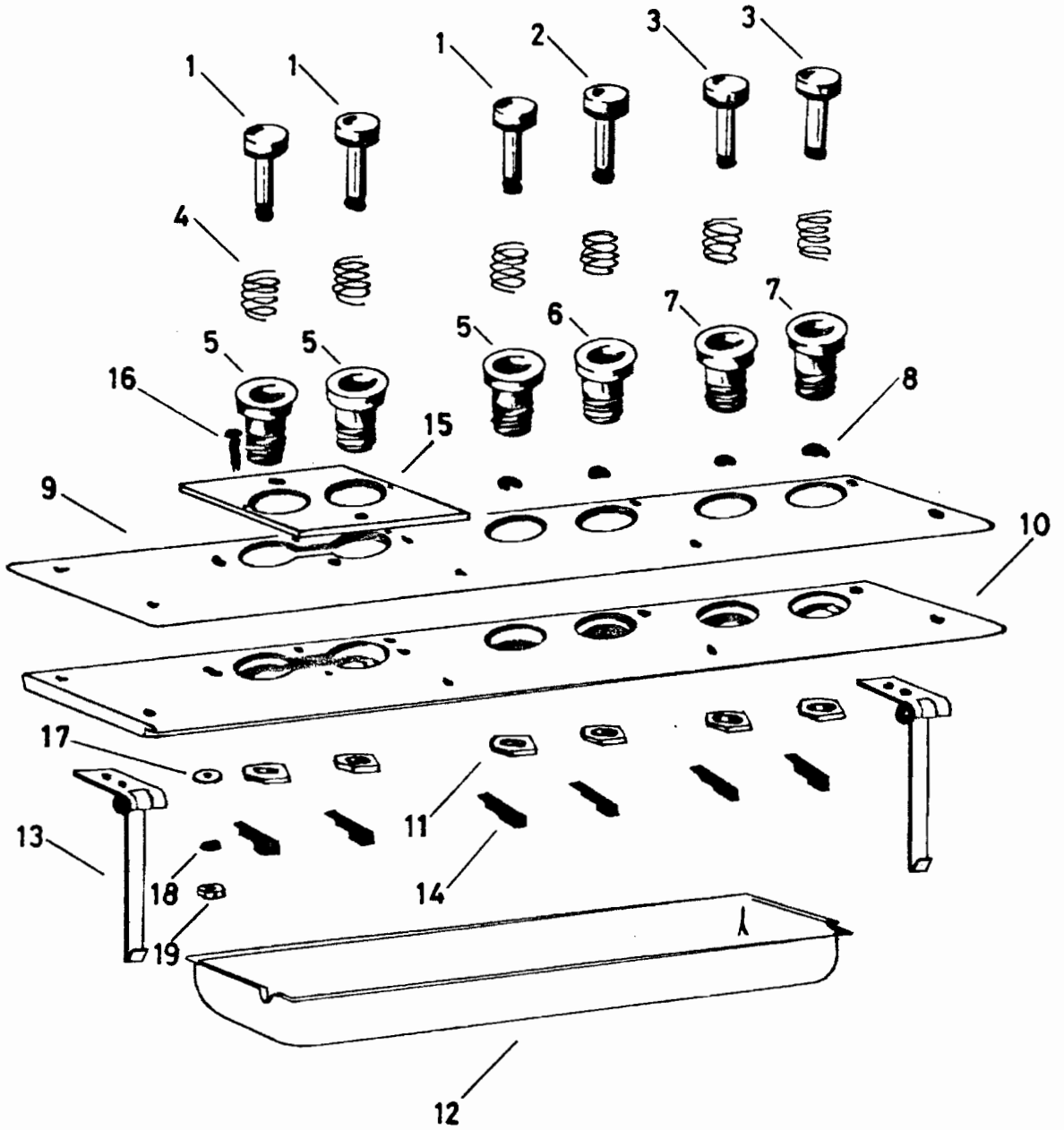
The highest points of 9,000 points can be scored when hitting enemy commander in mother ship.

- o When score reaches 3,000 & 30,000 points one space ship is added each time for these points.
- o Game is over when all space ship have been destroyed.



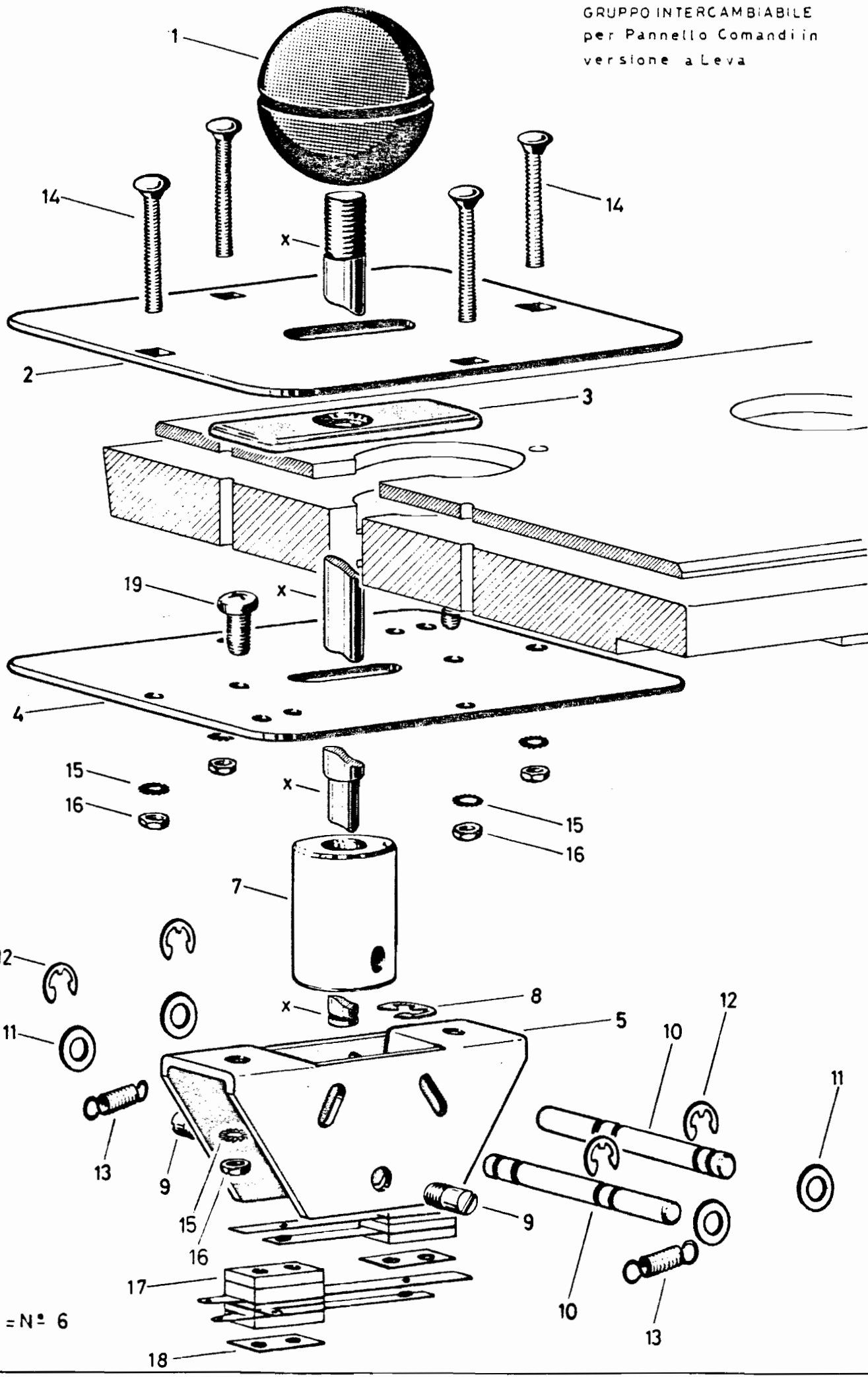
1	MV 009	Profilato Cornice
2	MV 034	Guarnizione Nera
3	A 7286	Guarnizione in Alluminio Anodizzato
4	MRB 387	Pannello ad " U " serigrafato "PHOENIX"
5	MRB 383	Scenario Verticale Sinistro
6	MRB 381	Scenario
7	MRB 382	Scenario Verticale Destro
8	FB 075	Sportello Superiore
9	B 7091	Serratura
10	A 7295	Rettangolo Rete Stirata (130 x 250)
11	B 6116	Squadretta Fissaggio Cassetta Monete
12	A 7294	Rete Stirata (180 x 180)
13	FB 074	Sportello Posteriore
14	MRB 378	Mobile Serigrafato
15	FB 071	Zoccolo
16	B 7154	Cassetta Monete
17	MRB 359	Vetro Serigrafato
18	C 8160	Pannello Comandi Assemblato in Versione a Pulsanti
19	C 8109	Sportello Per Gettoniera
20	A 7260	Angolare Rinforzo Mobile

C 8160 PANNELLO COMANDI A PULSANTI



1	B 6113	Pulsante Verde
2	B 6130	Pulsante Rosso
3	B 6114	Pulsante Bianco
4	A 4272	Molla Richiamo Pulsante
5	A 5213	Corpo Pulsante Verde
6	A 5225	Corpo Pulsante Rosso
7	A 5211	Corpo Pulsante Bianco
8	A 4202	Anello Din
9	MRB390	Mascherina di Comando in Plexiglass serig."PHOENIX" per comandi alternati (Serigrafia con "BARRIER")
10	FB 090	Tavoletta in Legno Unificata per comando a Pulsanti e a leva
11	A 5214	Dado Ferro Zinc. 16 MA Fiss. Corpo Pulsanti
12	A 7314	Scatola Protezione Pacchi Lamellari in ABS Termoformato
13	B 6118	Cerniera con Tirante
14	B 9021	Pacco Lamellare
15	A 6236	Piastrina INOX Porta Pulsanti
16	A 6097	Vite Ferro Zinc. TT.qst. 4MA x 25
17	A 4008	Rondella Ferro Zinc. \varnothing e 12 x 4,3 x 1,5
18	A 4064	Rondella Dent. \varnothing i 4,2 brunita
19	A 4107	Dado Ferro Zinc. 4MA x 7 x 4
20	B 6115	Bloccaggio a Leva Regolabile

GRUPPO INTERCAMBIABILE
per Pannello Comandi in
versione a Leva



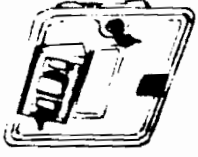
x • x = N° 6

1	A 4498	Pomello Nero in Bachelite \varnothing 35 x \varnothing 8MA
2	A 6238	Piastrina INOX sup. per Comando a Leva a 2 Posizioni
3	A 4501	Piastrina in Plexiglass Antipolvere
4	A 6237	Piastrina INOX inf. per Comando a Leva a 2 Posizioni
5	A 6239	Supporto Leva di Comando Zinc.
6	A 4495	Leva Comando Porta Pomello Cromata
7	A 4497	Componente Leva di Comando
8	A 4034	Anello d'Arresto \varnothing i mm. 5
9	A 4494	Perno Ottone Filettato Fulcro Leva
10	A 4496	Alberino Comando Pacco Lamellare
11	A 4499	Rondella Isolante \varnothing i 5,2 x 10 x 1
12	A 4212	Anello d'Arresto \varnothing i mm. 4
13	A 4500	Molla Richiamo Perni
14	A 6097	Vite Ferro Zinc. TT. qst. 4MA x 25
15	A 4064	Rondella Dent. \varnothing i 4,2 brunita
16	A 4107	Dado ferro Zinc. 4MA x ch. 7 x sp. 4
17	B 9021	Pacco Lamellare
18	A 6020	Piastrina Copri Pacco Lamellare
19	A 4117	Vite Ferro Zinc. TT.tcr. 4MA x 8

PIASTRINE SERIGRAFATE

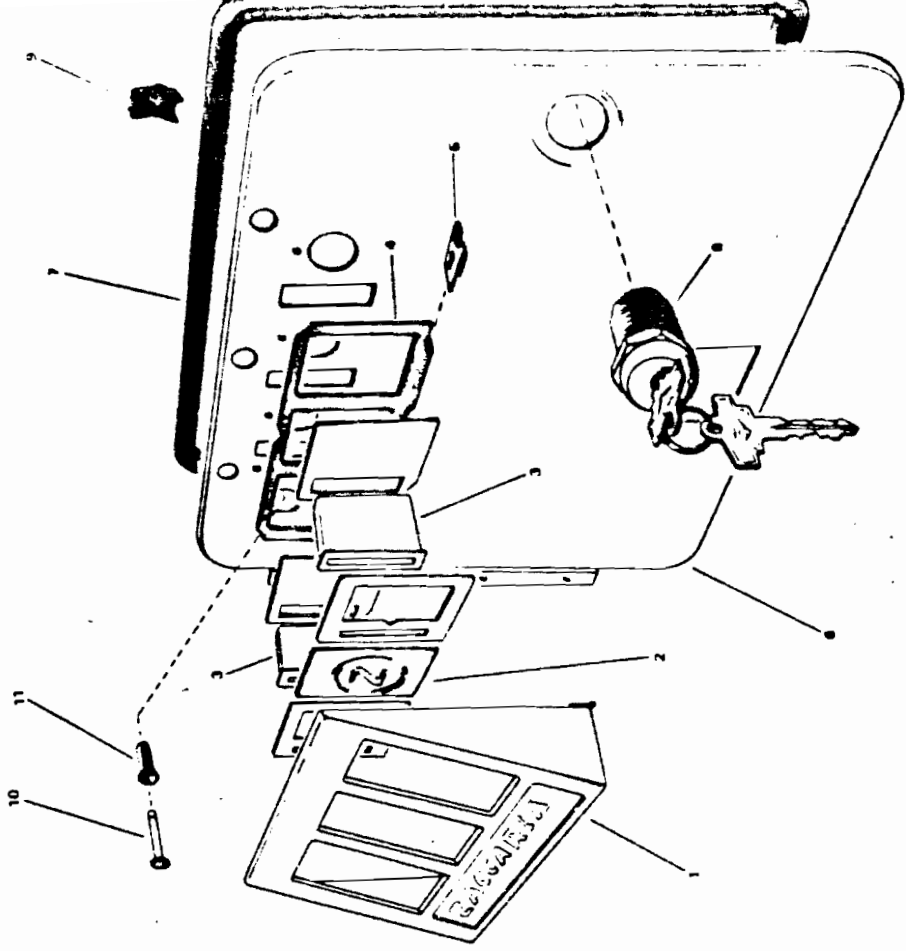
& Introduzioni Monete

AUSTRIA		BELGIO		FRANCIA & SVIZZERA		GIAPPONE		ITALIA		JUGOSLAVIJA		USA & CANADA	
20 CENTS PLAY	5 ^{OS}	10 ^{OS}	5 Frs	1 Fr	2 Fr	50 17 ^{UT}	100 2 ^{UT}	200 LIRE	1 DIN	1 DIN	25¢	50¢	
p ser B 5056 in m A 5007	p ser B 5045 in m A 5008	p ser B 5047 in m A 5007	p ser B 5035 in m A 5008	p ser B 5024 in m A 5008	p ser B 5025 in m A 5007	p ser B 5051 in m A 4999	p ser B 5052 in m A 4998	p ser B 6136 in m A 5242	p ser B 4081 in m A 5008	p ser B 4082 in m A 5007	p ser B 5046 in m A 5008	p ser B 5061 in m A 5007	
DANIMARCA & SVEZIA		GERMANIA		INGHILTERRA		LIBANO		OLANDA		UNGHERIA			
1 ^{Kr}	5 ^{Kr} 3 PLAYS	2 DM	5 ^{DM}	10 ^P	50 ^P	25 ^{PL}	50 ^{PL}	1 ^G	2 FOHINT	2 FOHINT	50¢		
p ser B 4074 in m A 5007	p ser B 5065 in m A 4401	p ser B 4059 in m A 5008	p ser B 4060 in m A 5007	p ser B 4062 in m A 5007	p ser B 4091 in m A 4401	p ser B 5059 in m A 5008	p ser B 5058 in m A 5007	p ser B 4085 in m A 5008	p ser B 6139 in m A 5008	p ser B 6139 in m A 5008	p ser B 5046 in m A 5008	p ser B 5061 in m A 5007	

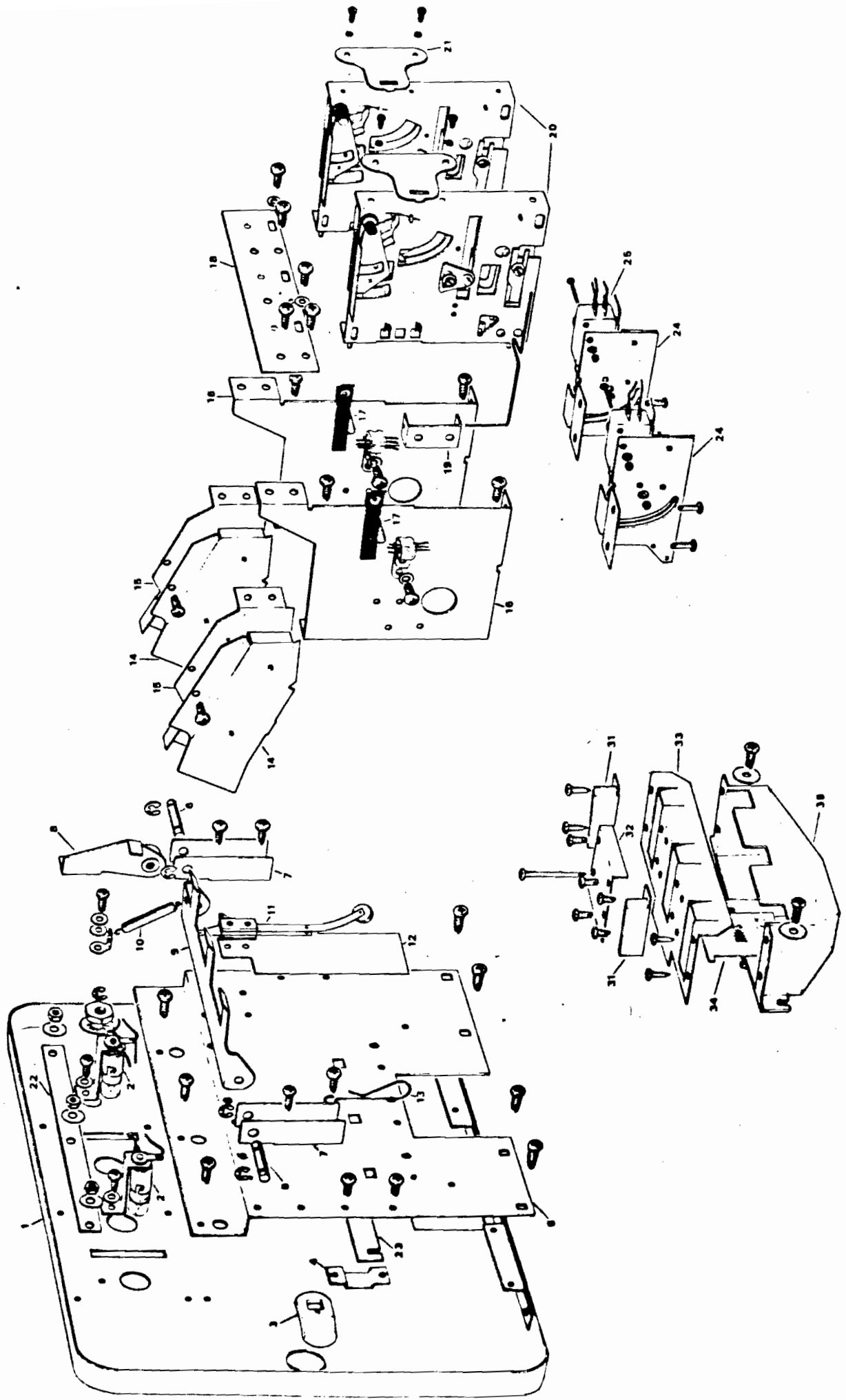


C 8109 SPORTELLLO PORTA
GETTONIERE
PIASTRINA
ASSEMBLATO

TAV. 4



C 8109 Sportello porta gettoniere assemblato



TAV. 4

C 8109 SPORTELLI PER GETTONIERE ASSEMBIATO

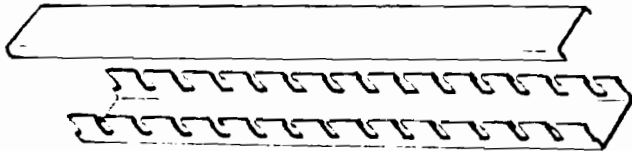
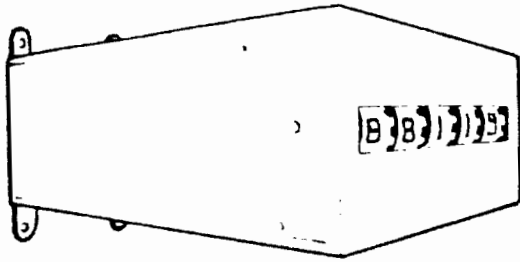
1	ASB 116	Frontalino Sportello con Cerniera
2	A 5009	Piastrina con Marchio
3	A 6008	Guida Moneta in Plastica
4	A 7005	Componente Fissaggio Accessori
5	A 4383	Piastrina Semidoppia
6	B 7194	Sportello con Cerniera
7	A 7236	Cornice in Alluminio Pressofuso
8	B 7153	Serratura
9	A 4460	Staffa Fissaggio Cornice
10	A 4031	Pulsante Scarto Moneta
11	A 4032	Componente per Pulsante

TAV. 5

1	B 7194	Sportello con Cerniera compl. di Accessori
2	B 5029	Porta Lampada Alto Sportello
3	A 4328	Leva per Serratura Sportello Anteriore
4	A 5002	Fermo Barra Arresto Moneta
5	A 7002	Piastra Supporto Gettoniera
6	A 4005	Perno per Cavallotto Sportello
7	A 6001	Cavallotto Sportello
8	B 6001	Leva con Boccola
9	A 6002	Leva di Scarto Gettoniera
10	A 5201	Molla richiamo Leva di Scarto
11	B 9015	Pacco Lamellare Tilt
12	A 5205	Cartoncino Isolatore Sportello
13	A 5021	Ferretto Porta Chiave Sportello
14	A 7009	Scorrimoneta Maschio
15	A 7008	Scorrimoneta Femmina
14+15	B 6076	Scorrimoneta Assemblato
16	B 7006	Supporto Gettoniera
17	A 5252	Forcellina Fissaggio Gettoniera
18	A 5014	Piastrina Accoppiamento Supp. Gettoniera
19	A 5015	Componente per Asta Arresto Moneta
20	B 7003	Gettoniera L. 50

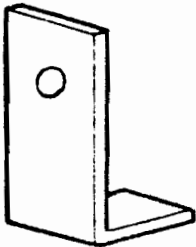
20	B 7084	Gettoniera I. 100
"	B 7175	" I. 200
"	B 7092	" 25 L
"	B 7096	" 5 F
"	B 7097	" 10 F
"	B 7098	" 5 P
"	B 7099	" 10 P
"	B 7147	" 50 P
"	B 7111	" 0,50 pfg
"	B 7112	" 1 DM
"	B 7113	" 2 DM
"	B 7114	" 5 DM
"	B 7128	" 1 FS
"	B 7129	" 2 FS
"	B 7148	" 10 Fr Belgi
"	B 7233	" 5 Dinari
"	B 7234	" 10 Dinari
21	A 5114	Piastrina Fissaggio Gettoniera
22	A 5006	Asta per Frontalino
23	A 5001	Barra Arresto Moneta
24	B 6109	Piastra Porta Micro
25	B 5053	Micro Nero
"	B 5054	Micro Rosso
"	B 5055	Micro Bianco
31	A 5012	Squad. a 2 fori
32	A 5010	Squad. a 4 fori
33	A 6009	Copertura per Raccoglitore Monete
34	A 5011	Cancelletto
35	AS1028	Raccoglitore in Plastica

B 6110 CONTATORE

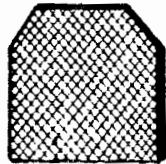


CANALETTA
CONDUZIONE
CABLAGGIO
CON
COPERCHIO
MV 058

cm 47 | cm 33
A 7312 | A 7313



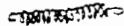
A 6235 SQUADRETTA
FERMA SCHEDE



X 065 RETE PLASTICA
PROTEZIONE
MONITOR

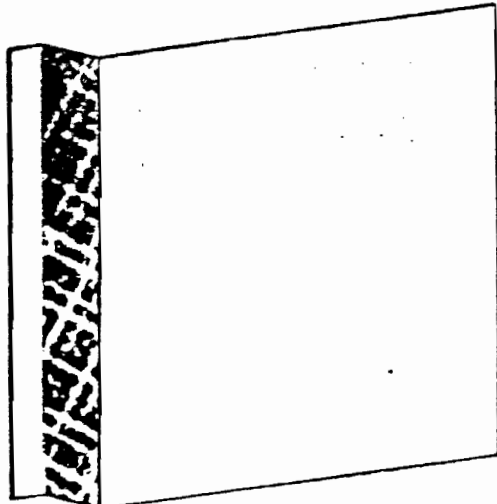


X 064 MOLLA FORTE

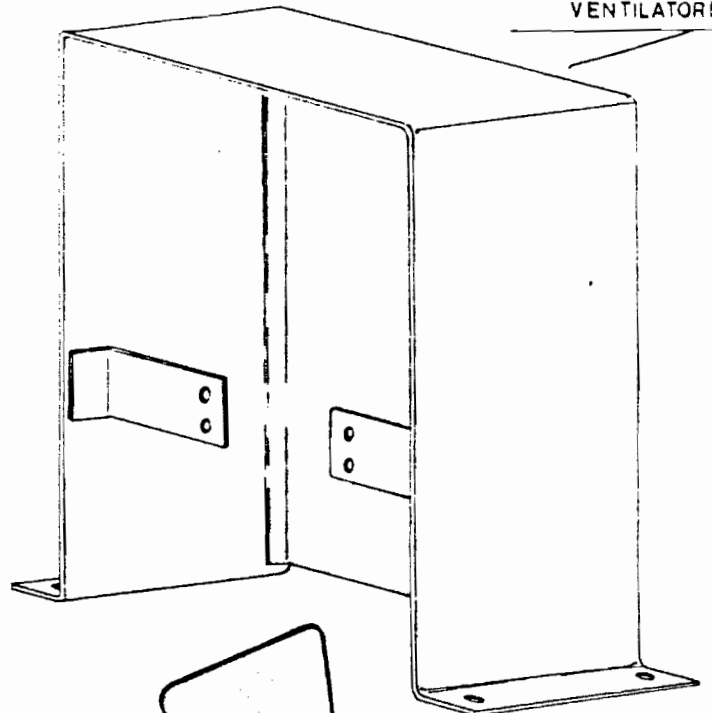


A 4380 MOLLA
LEGGERA ?

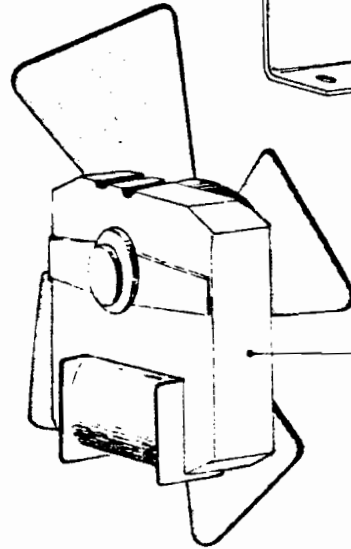
A 7325 PROTEZIONE
PER SCHEDE GIOCO



B 7235 SUPPORTO



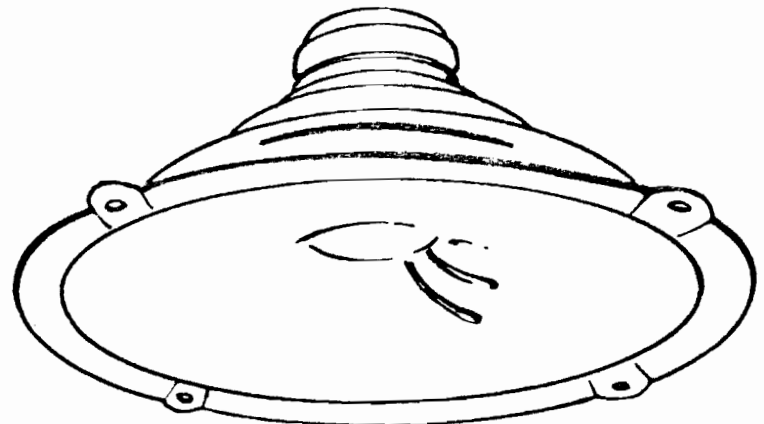
VENTILATORE



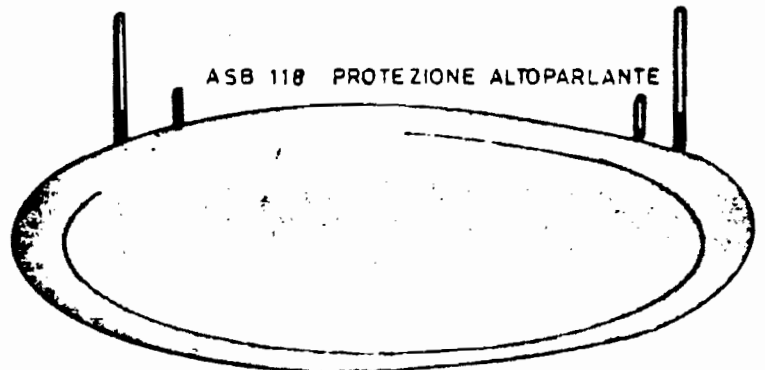
AS 1066 VENTOLA
PLASTICA A 3 F
(VA 130 A)

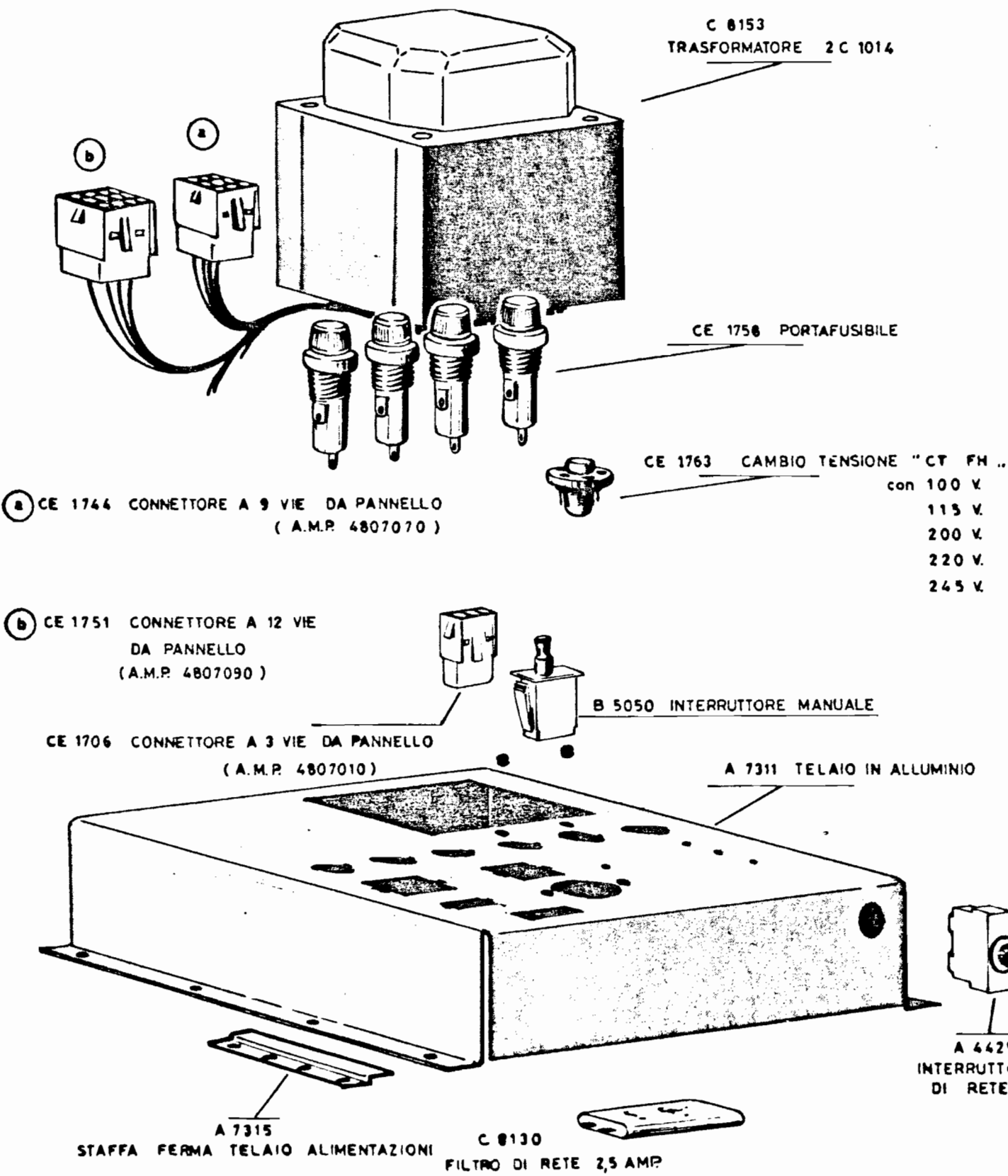
B 7240
MOTORE PER VENTOLA
ASSIALE (VA 130 A)

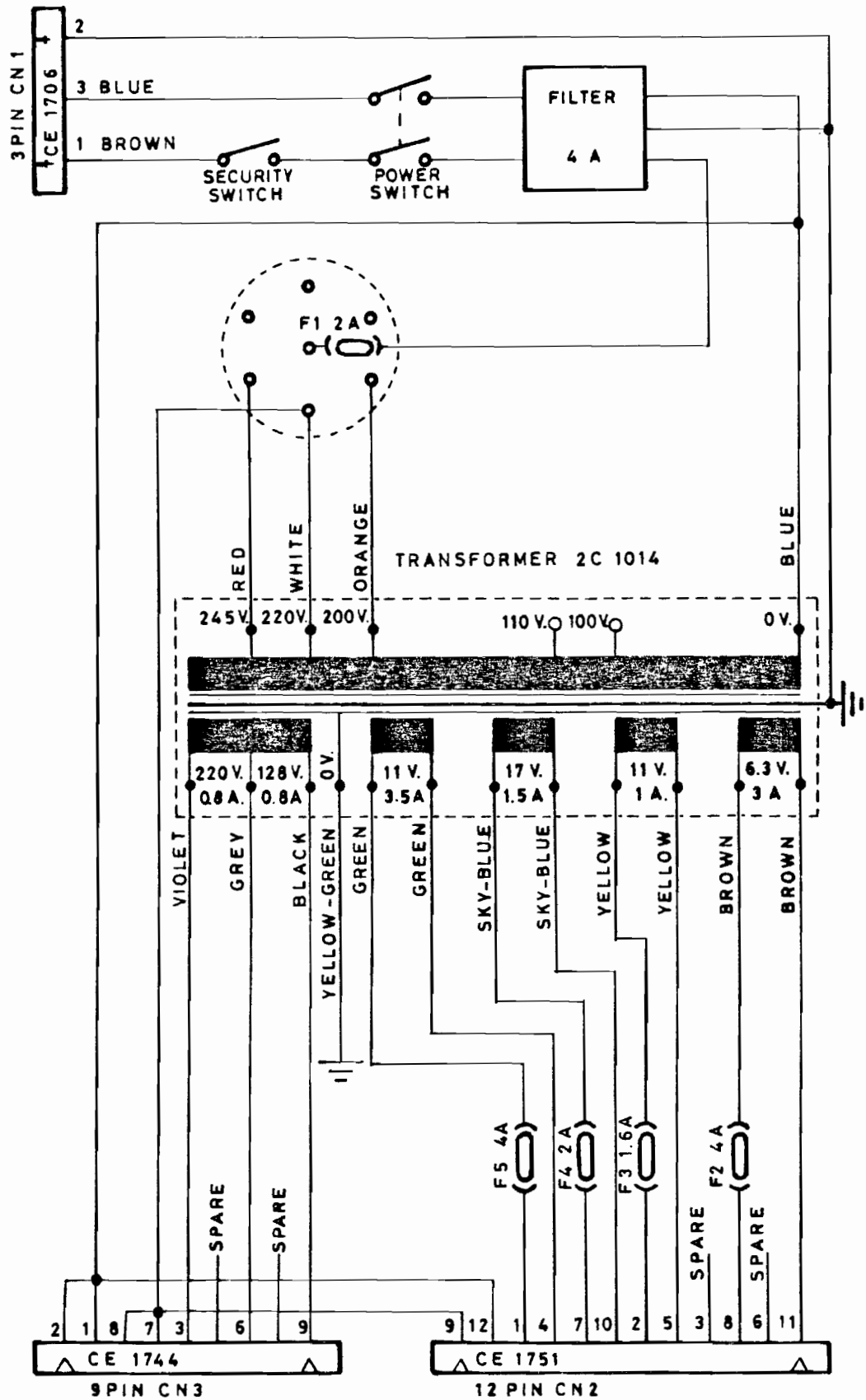
CE 2018 ALTOPARLANTE




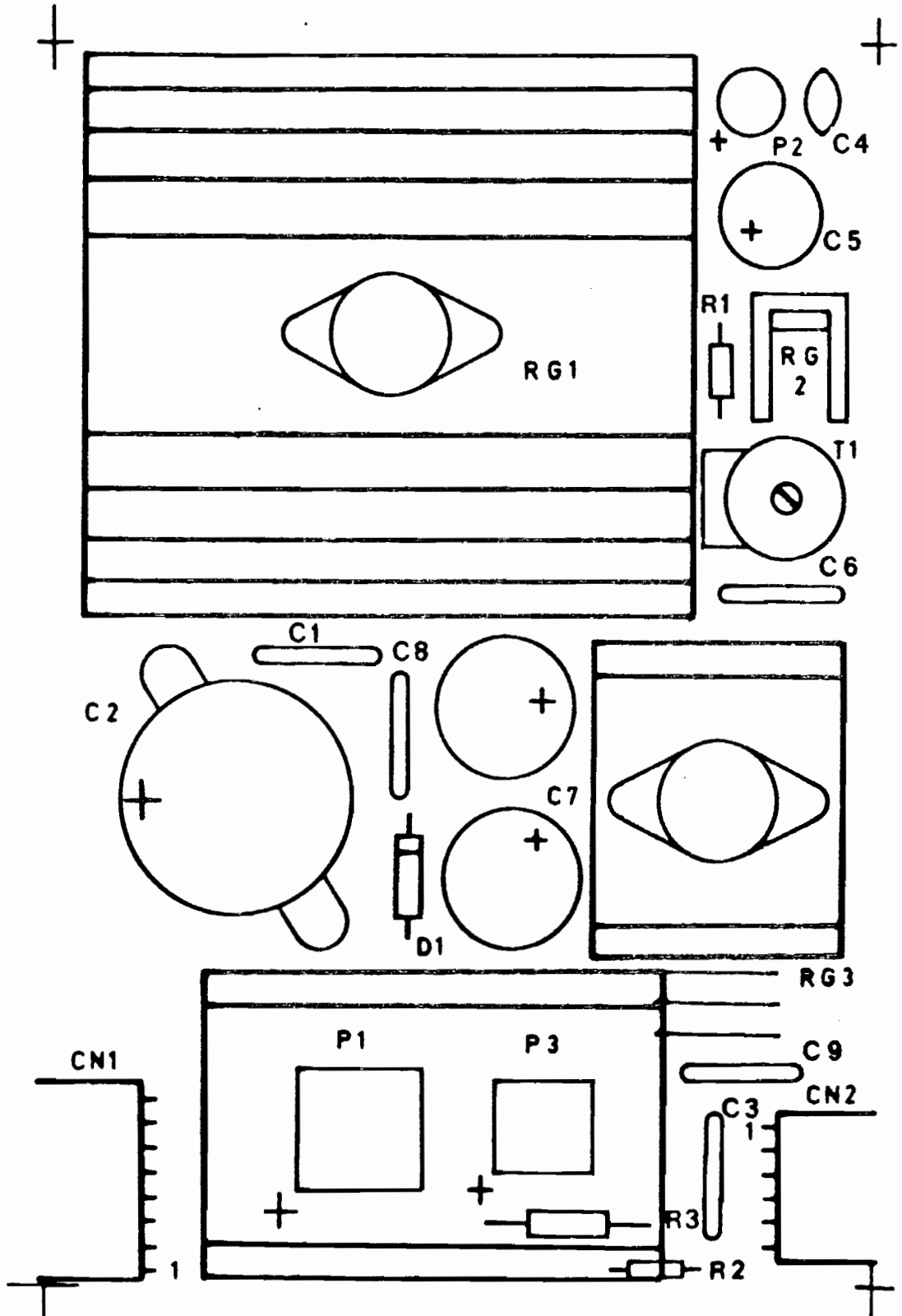
ASB 118 PROTEZIONE ALTOPARLANTE

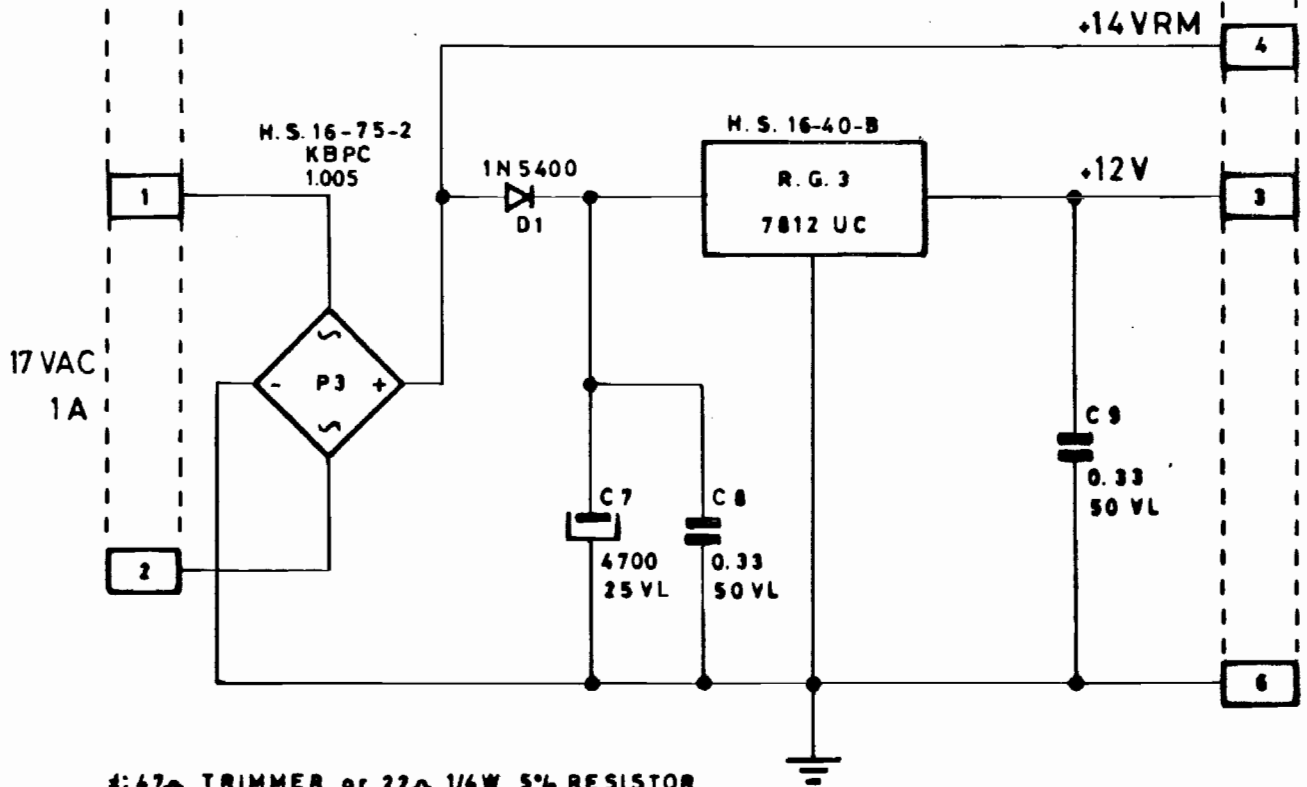
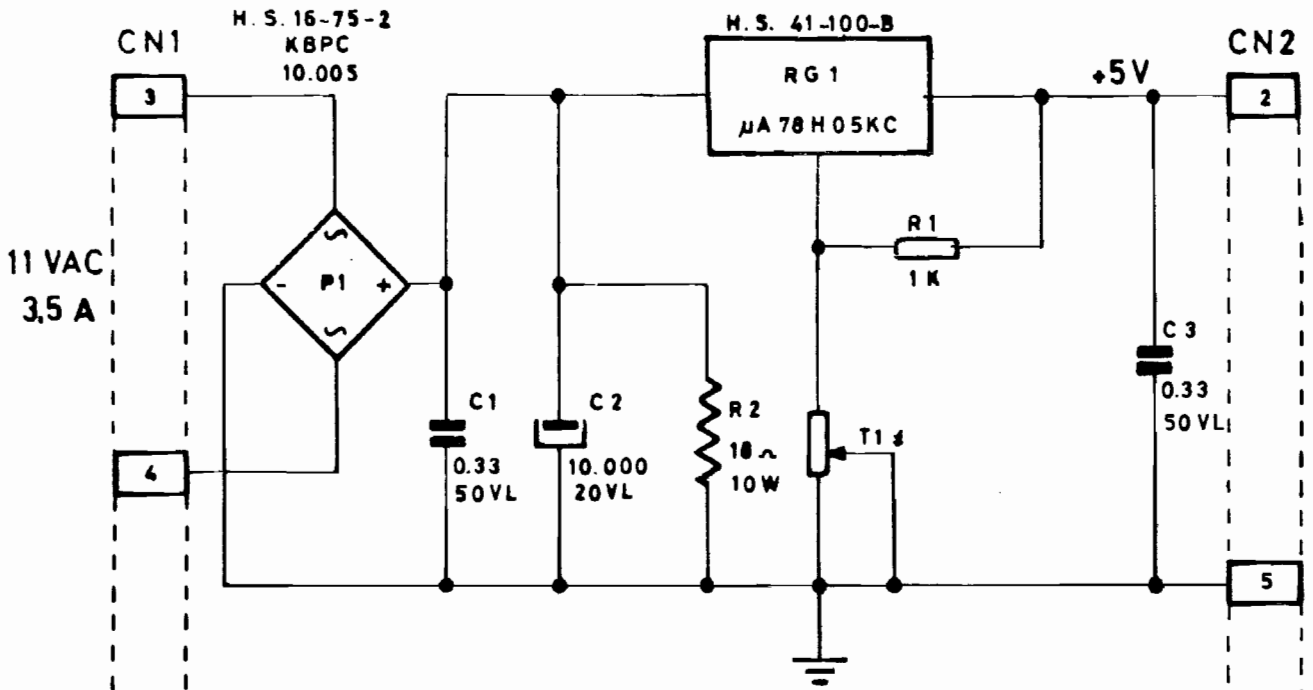







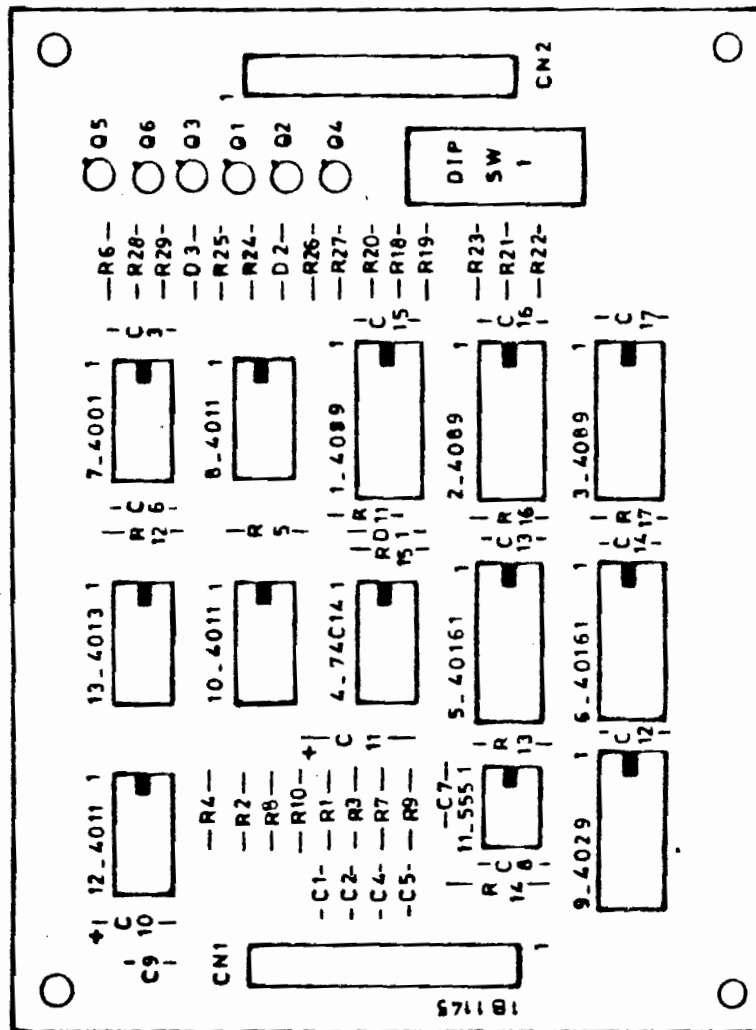
 F.LLI ZACCARIA s.n.c. Via Armadori, 15 40012 CALDERARA DI RENO - Bol Italy		PART NO.	
PART NAME			CEC 086
Telaio alimentazioni Phoenix			
OWN.	DATE	REV.	SHEET
<i>Ar. R. M.</i>	22-1-81		1 of 1
NOTES UNLESS OTHERWISE SPECIFIED			
1) ALL RESISTORS VALUES IN			
2) ALL CAPACITORS VALUES IN			





‡: 47Ω TRIMMER or 22Ω 1/4W 5% RESISTOR

		F.LI ZACCARIA s.n.c.	
<small>Via Armaroli, 18 40012 CALDERARA DI RENO (Bo) Italy</small>			
PART NAME		PART NO.	
POWER BOARD 1B1126 (CEC094)		1B1326/E	
OWN	DATE	REV.	DATE REV.
...	15-1-84		
NOTES UNLESS OTHERWISE SPECIFIED		SHEET	
1) ALL RESISTORS VALUES IN		1 OF 4	
2) ALL CAPACITORS VALUES IN			



ITEM NO	PART DESIGNATION	CODE PART NO	DESCRIPTION	REQD NO
1	P.C. 1F1145	CE.2100	Printed Circuit Board 1F1145	1
2	CN1-CN2	CE.1590	15 Pin Modu 2 Male Connectors	2
3	Ic 7	CE.1014	4001B C-Mos-Ic	1
4	Ic8-Ic10-Ic12	CE.1016	4011B C-Mos-Ic	3
5	Ic13	CE.1745	4013B C-Mos-Ic	1
6	Ic9	CE.1237	4029B C-Mos-Ic	1
7	Ic1-Ic2-Ic3	CE.1746	4089B C-Mos-Ic	3
8	Ic5-Ic6	CE.1740	40161B C-Mos-Ic	2
9	Ic4	CE.1735	74014 C-Mos-Ic	1
10	Dip. Sw 1	CE.1480	Dip Switch 8 Vie	1
11	Q6 - Q2	CE.1290	BC 337 NPN Transistor	2
12	Q5-Q4-Q3-Q1	CE.1030	BC 171 NPN Transistor	4
13	C10	CE.1162	100 MF 16VL Elett. cap. Assiale	1
14	C7	CE.1206	1 MF 16VL Tantalium Cap.	1
15	Ic 11	CE.1031	NE 555 Mos Ic	1
16	C9-C12-C13-C14-C15-			
	C16-C17	CE.1005	0,1 MF Ceramic Capacitor	7
17	C11	CE.1100	10 MF 16VL Elett. cap. Assiale	1
18	C1-C2-C4-C5-C8	CE.1029	10 KpF 50VL Ceramic Cap.	5
19	C3-C6	CE.1159	1 KpF 50VL " "	2
20	D1-D2-D3	CE.1539	1N4003 Diodes	3
21	R24-R25-R27-R28	CE.1194	22K OHM 1/4W. 5% Carbon Res.	4
22	R14	CE.1195	15K OHM " " " "	1
23	R2-R4-R5-R8-R10-R11-			
	R16-R17-R18-R19-R20-			
	R21-R22-R23	CE.1171	10K OHM " " " "	14
24	R13-R6-R12	CE.1165	4,7K OHM " " " "	3
25	R1-R3-R7-R9-R26-R29-			
	R15	CE.1164	2,2K OHM " " " "	7

ITEM No	PART DESIGNATION	CODE PART No	DESCRIPTION	QTY No
1	1P 1156	CE 2120	P.C. Board 1B 1156	1
2	IC 1		74LS245 TTL Octal Bus Trans.	1
3	IC 2/5/6		74LS374 TTL Octal D-Type FlipFlop	3
4	IC 3/4		74LS244 TTL Octal 3 State Driver	2
5	IC 7/22		74LS136 TTL Quad Exclusive Or	2
6	IC 8/10/19/33		74LS138 TTL 1-OF-8 Decoder Dem.	4
7	IC 9		8085 Mos Microprocessor (8bit)	1
8	IC 11		Dip Switch	1
9	IC 12/24/25		74LS157 TTL Quad 2-IMP.Mult.	3
10	IC 13/14		74LS163 TTL 4-Bit Binary Count.	2
11	IC 15/27/36/39		74LS00 TTL Quad 2 Imp. Nand Gat.	4
12	IC 16/23/38		74LS08 TTL Quad 2 Imp. And Gate	3
13	IC 17		74LS125 TTL Quad 3 State Buffer	1
14	IC 18/26/34/35		74LS32 TTL Quad 2 Imp. Or Gate	4
15	IC 20		74LS14 TTL Hex Schmitt Trigger	1
16	IC 21/30/37		74LS74 TTL Dual Flip Flop	3
17	IC 28/29		74LS05 TTL Hex Inverter(Op.coll)	2
18	IC 31		74LS107 TTL Dual J-K-Flir Flop	1
19	IC 32		74LS174 TTL Hex D Type Flip F.	1
20	IC 40/41		6301 Prom 256 X 4	2
21	IC 42/44/48/50/51		555 Timer	5
22	IC 43		TDA 1010 Power Amplifier	1
23	IC 45		4006 C-Mos 18-Stage Static S.R.	1
24	IC 46/52		LM 324 Quad Operational Amplifier	2
25	IC 47		7407 Hex Buffer	1
26	IC 49		Melody Ic	1
27			40 Pin Sochet	1
28			18 Pin Sochet	1
29			16 Pin Sochet	2
	Type IC 40		6301 Prom 256 X 4	1
	Type IC 41		6301 Prom 256 X 4	1
30	R 1/2/3/14/29/30/49/50 59/60/66/74/75		Carbon Resistor 1 K 1/4W. 5%	13
31	R 3/4/5/6/7/8/9/10/11/ 15		Carbon Resistor 270 1/4W. 5%	10
32	R 12/57/71		Carbon Resistor 2,7K 1/4W. 5%	3
33	R 13/16/17/18/37/78		Carbon Resistor 100 1/4W. 5%	6
34	R 19/38/39/42/55/56/58 61/62/63/70/79/80		Carbon Resistor 10K 1/4W/ 5%	13
35	R 20/23/34/41		Carbon Resistor 100K 1/4W. 5%	4
36	R 21/25/26/27/28/40/69 73		Carbon Resistor 47K 1/4W. 5%	8
37	R 24/31/32/33/35/36		Carbon Resistor 23K 1/4W. 5%	4
38	R 43/44		Carbon Resistor 470K 1/4W. 5%	2
39	R 45/46		Carbon Resistor 4,7K 1/4W. 5%	2
40	R 22/64		Carbon Resistor 470 1/4W. 5%	2
41	R 47/48/52/54/67/68		Carbon Resistor 20K 1/4W. 5%	6
42	R 65		Carbon Resistor 200K 1/4W. 5%	1

ITEM No	PART DESIGNATION	CODE PART No	DESCRIPTION	QTY No
1	1B 1157	CE 2121	P.C. Board 1B 1157	1
2	IC 1/4/12/13		74LS163 TTL 4-Bit Binary Counter	4
3	IC 2/3/11/21		74LS86 TTL Quad Exclusive Or G.	4
4	IC 5		74LS74 TTL Dual D Flip Flop	1
5	IC 6		74LS132 TTL Quad 2 Input Schm.T.	1
6	IC 7		7404 TTL Hex Inverter	1
7	IC 8/16/31		74LS374 TTL Octal D-Type Flip F.	3
8	IC 9/10/20		74LS83A TTL 4-Bit Full Adder	3
9	IC 14/15/29/30		74LS151 TTL 8 Input Multiplexer	4
10	IC 17/18/32/33		74LS174 TTL Hex D-Type Flip F.	4
11	IC 19/35/36		74LS157 TTL Quad 2 Input Multip.	4
12	IC 22/38		74LS245 TTL Octal Bus Transceiver	2
13	IC 37		74LS244 TTL Octal 3 State Driver	1
14	IC 23/24/39/40/45/46/ 47/48/49/50/51/52		2716 Eprom 2048 x 8	12
15	IC 25/26/27/28/41/42/ 43/44		2114 Ram	8
	Type IC 23		2716 Eprom 2048 x 8	1
	Type IC 24		2716 Eprom 2048 x 8	1
	Type IC 39		2716 Eprom 2048 x 8	1
	Type IC 40		2716 Eprom 2048 x 8	1
	Type IC 45		2716 Eprom 2048 x 8	1
	Type IC 46		2716 Eprom 2048 x 8	1
	Type IC 47		2716 Eprom 2048 x 8	1
	Type IC 48		2716 Eprom 2048 x 8	1
	Type OC 49		2716 Eprom 2048 x 8	1
	Type IC 50		2716 Eprom 2048 x 8	1
	Type IC 51		2716 Eprom 2048 x 8	1
	Type IC 52		2716 Eprom 2048 x 8	1
16			24 Pin Sochet	12
17	CN 1/2		50 Pin Connector	2
18			Quartz Mhz 11 Mhz	1
19	R 2/3		Carbon Resistor 1,2K 1/4W. 5%	2
20	C 1/2/30		Capacitor 1nF Disc Ceramic	3
21	C 3/C/C		Capacitor 330nF Disc Ceramic	3
22	C		Capacitor 150NF Disc Ceramic	1
23	C		Capacitor 10mF	1
24	C 5/13/14/17/18/19/22 23/24/25/26/27/28/ 29		Capacitor 47nF Disc Ceramic	14
25	C 4		Capacitor 22 F Electrolytic	1