

Servicing Manual

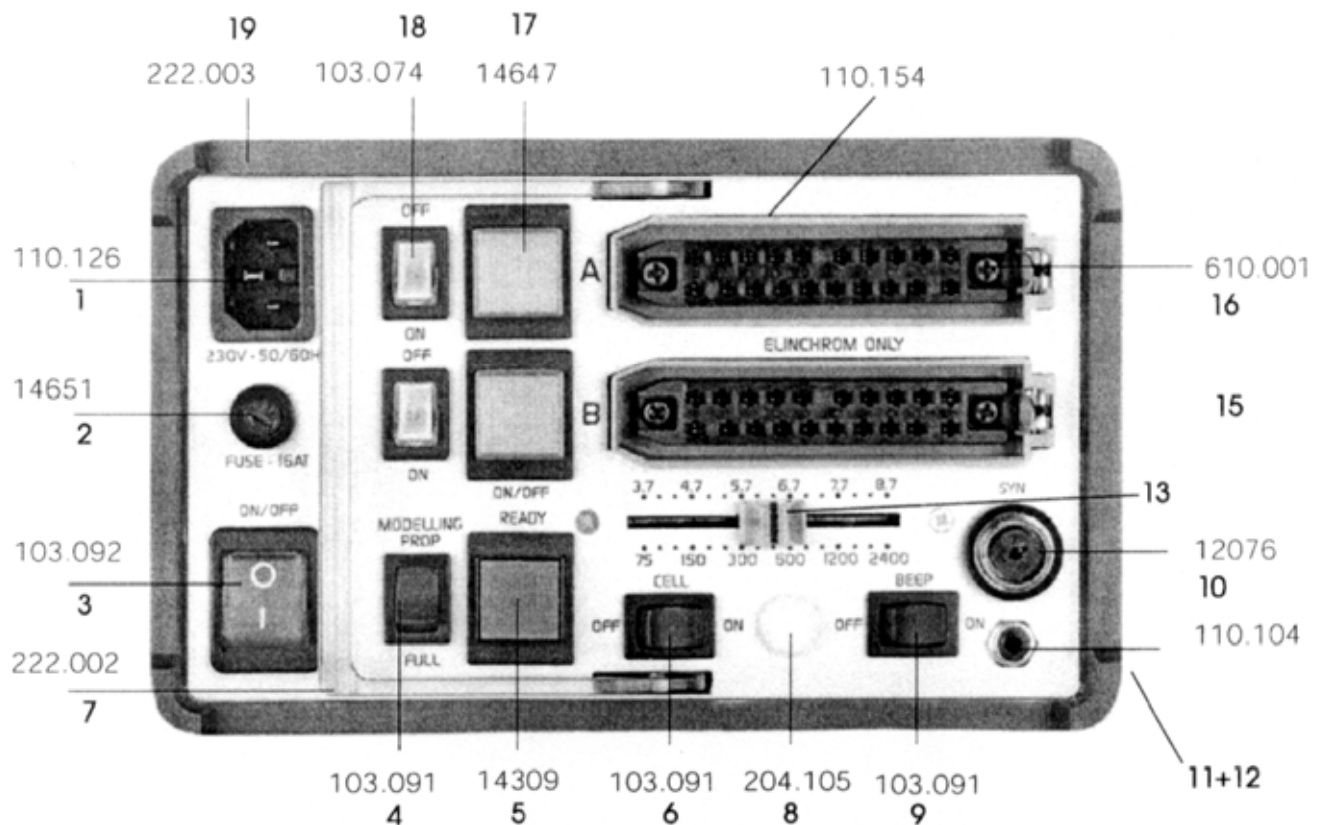
Manuel de service



Schematic diagrams and parts list

Schémas et liste des pièces

220 V version



Operating instructions

1) Mains connection

The unit is manufactured to run on 200 -245 V, 50/60 Hz.for 230 V version and 100 -140 V, 50/60 Hz for 115 V version.

Before connecting them for the first time, make sure that your mains supply and the rating set on the equipment (electrical specification plate) are compatible.

- 2) Connect the mains cord (1)
- 3) Connect lampheads ensuring that lamphead switches (1 7) are OFF, i.e. NOT pushed down
- 4) Select charging rate (1 1) "F or M"
- 5) Select modelling lamp setting (4)
- 6) Connect the synch lead (1 0)
- 7) Check that photocell (6) is in the position until required
- 8) Switch on the lampheads : the yellow key (1 7) switches individually the flash circuits and modelling lamps in the lampheads ON (depressed) or OFF (released)
- 9) Using the sliding power variators (1 3) for select the desired power.
- 10) The green open flash button (5) will light up, indicating that the unit is ready for operation. The units with cooling fan, are protected by a thermal circuit, this may cut off the power supply in the event of high ambient temperature or prolonged, heavy-duty operation. Should this occur, the unit cannot be fired any more, the green indicator (5) goes out. The power supply will be automatically restored with the unit has cooled down.

According to the safety regulation: We draw your attention to the fact that this equipment should be used only in a dry environment; it must be protected from dripping water and from extremely dusty conditions. The unit must **ALWAYS** be plugged into an **EARTHED** electrical socket.

IMPORTANT !

The interior of the generator or compact contain components carrying dangerous levels of electric charge, even though the unit has been disconnected from the mains.

ALWAYS TAKE THE FOLLOWING PRECAUTIONS:

1. Always disconnect it from the mains supply, and discharge the unit before (for generator) and after (for compact) removing the outer cover or housing. This is best achieved with a suitable discharge resistor (code 11931 for 220 and (11930 for 110 V) fitted to a lamphead plug which may be inserted into a lamphead outlet for generator only.
For compact connect the discharge resistor in the flash tube terminals.
2. Take care when opening a generator. Always start by connecting a voltmeter across the storage capacitors, as capacitor drainage may not have occurred due to a fault in the unit.

ACHTUNG GEFAHR !

Auch wenn der Generator vom Netz getrennt ist, können im Innern des Geräts noch gefährliche elektrische Spannungen vorhanden sein.

ACHTUNG GEFAEHRliche STROMSPANNUNG:

1. Bevor Sie ein Blitzgerät öffnen, entladen Sie zuerst die Kondensatoren mittels Entladewiderstand (Best, Nr. 11931 für 220 V)
2. Vorsicht beim Öffnen eines Blitzgeräts. Verbinden Sie sofort ein Voltmeter mit den Kondensatoren, denn diese könnten wegen einer anderen Panne nicht entladen sein.

ATTENTION DANGER !

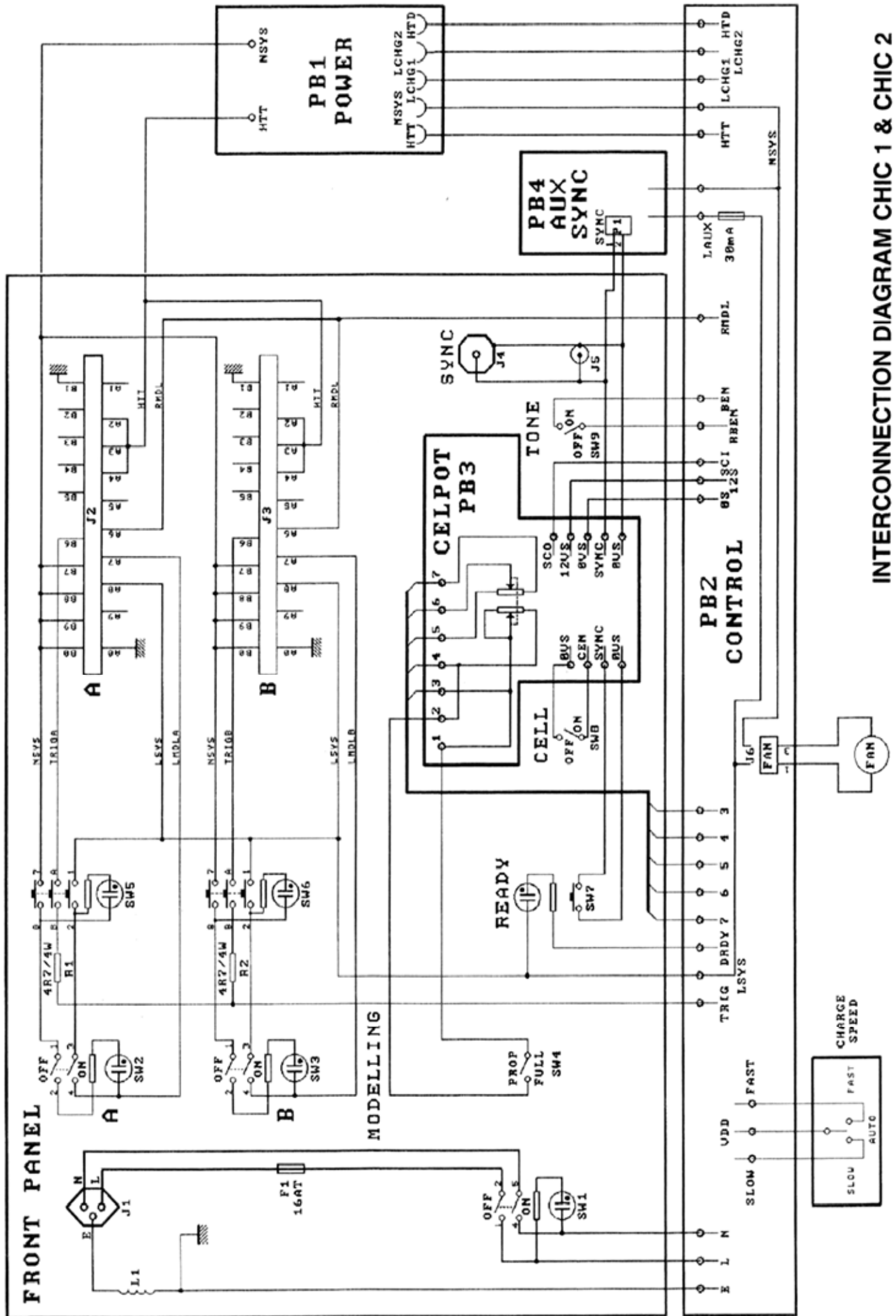
Des tensions électriques dangereuses restent présentes, ceci même lorsque l'appareil est déconnecté du secteur.

PRUDENCE LORS DE L'OUVERTURE D'UN GENERATEUR OU COMPACT.

1. Déconnecter l'appareil du réseau et avant de procéder à son ouverture décharger le générateur au moyen du dispositif de décharge (code 11931 pour 220 V) et (11930 pour 110 V)
Pour les compacts retirer la poignée et la chemise métallique et procéder à la décharge en connectant le dispositif aux bornes du tube flash.
2. Commencer par vérifier la tension aux bornes des condensateurs. Leur drainage peut ne pas avoir eu lieu, la rupture d'un élément ou d'un conducteur peut en être la cause.

220V - BASIC LIST OF COMPONENTS NEEDED FOR CHIC PACKS

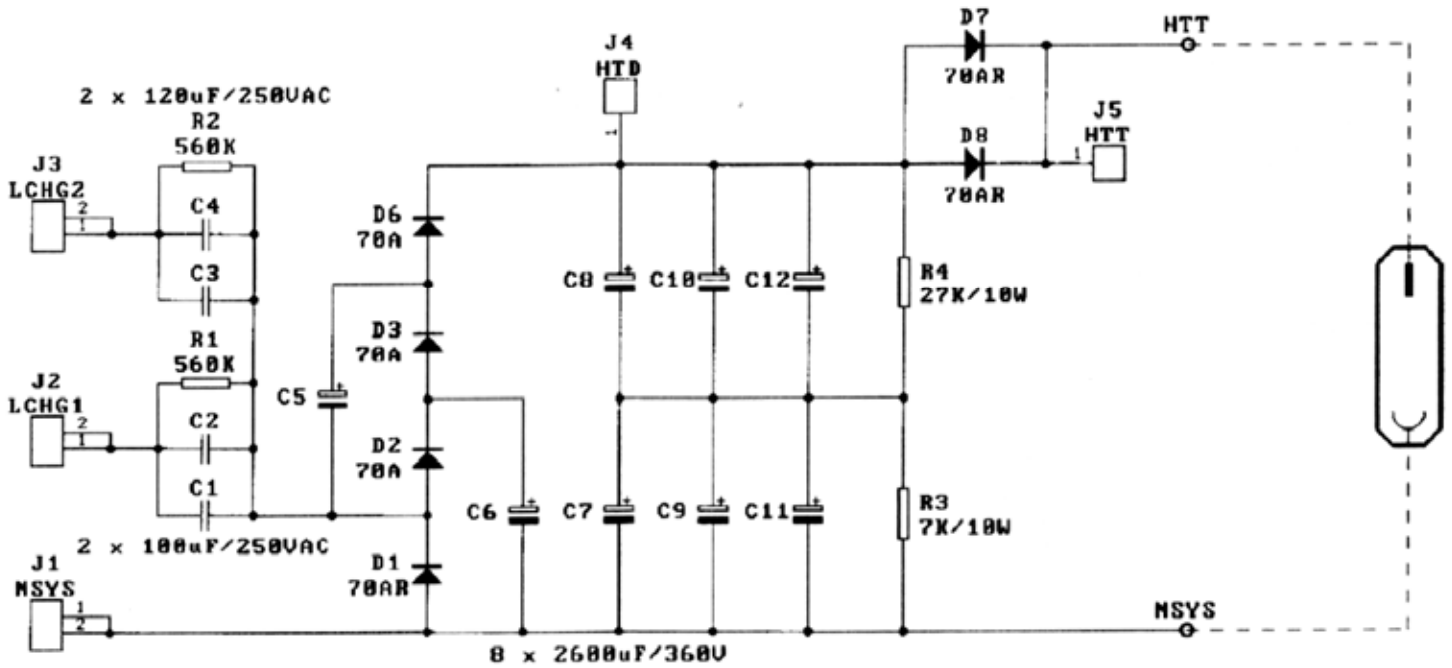
QTY	CODE NO.	DESCRIPTION	USED ON
2	222.002	Handle (poignée)	
1	14414	Control board assembly PB2 for Chic 1 and Chic 2 (Circuit complet de contrôle PB2)	
1	14415	Potentiometer assembly (potentiomètre complet avec circuit)	
1	105.136	Alternistor TPDV840 (security)	
2	105.049	Triac BTB 24-800BW or T2513NH (charge)	
2	105.116	Thyristor X0405NF	All packs and compacts
1	105.135	Triac BTA41- 800B modelling (pilote)	
2	105.138	Solide state relay triggering S21ME8Y	Compacts and generators
1	107.019	Buzzer SMA-17L10	Combi
1	111.524	Resistor 3K3/25W (discharge)	
1	14033	Transistor Mos BUZ 51	Compacts 750S/1500S
2	111.050	Resistor 4.7E/4W (trigger repartitor)	Classic + Combi
5	121.472	Resistor 4K7/2W (charge booster and trigger)	
4	14342	Capacitor 2600 μ F/360V	Micro 750
2	104.111	Capacitor doubler 100μF	Micro 3000 + Combi
2	104.119	Capacitor doubler 120μF	
2	103.092	Mains on/off luminous switch (NEW TYPE)	
2	14309	Momentary luminous switch (green)	Classic + Combi
1	103.091	Latching black switch	
4	103.074	Latching luminous switch (yellow)	Compacts
2	14647	Latching luminous switch outlets (yellow)	All pack
2	22047	20 pol. outlet female (prise femelle)	All packs
2	110.054	Socket guide with hook for 22047 and 110079 (embase pour connecteur)	All packs
1	658.013	Fan with connector	Chic 1/Chic 2
	107.022	Fan without connector for Mini A and Mini S	
2	14651	Fuse holder 5x20 mm	Classic +Combi
2	19024	10 fuses 16AF 6x35mm (security-overvoltage)	All packs
2	19057	10 fuses 16AT 5x20mm (110/220V)	All packs
1	222.009	Housing front part (with insulating) Chic 1 (boîtier partie frontale avec isolation)	
1	222.011	Housing rear part (with insulating) Chic 1	
1	658.003	Holder for capacitors Chic 1 (plaque de maintien des condos)	
1	222.001	Holder for capacitors Chic 2 (plaque de maintien des condos)	
1	222.010	Housing front part (with insulating) Chic 2 (boîtier partie frontale avec isolation)	
1	222.012	Housing rear part (with insulating) Chic 2	
1	222.003	All round protector (garniture de protection)	
2	222.013	Metal part (U) for fixing capacitor pack (pièce de fixation du bloc condos)	



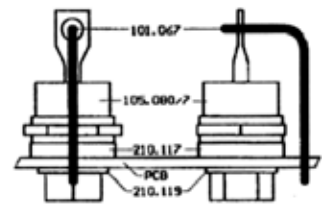
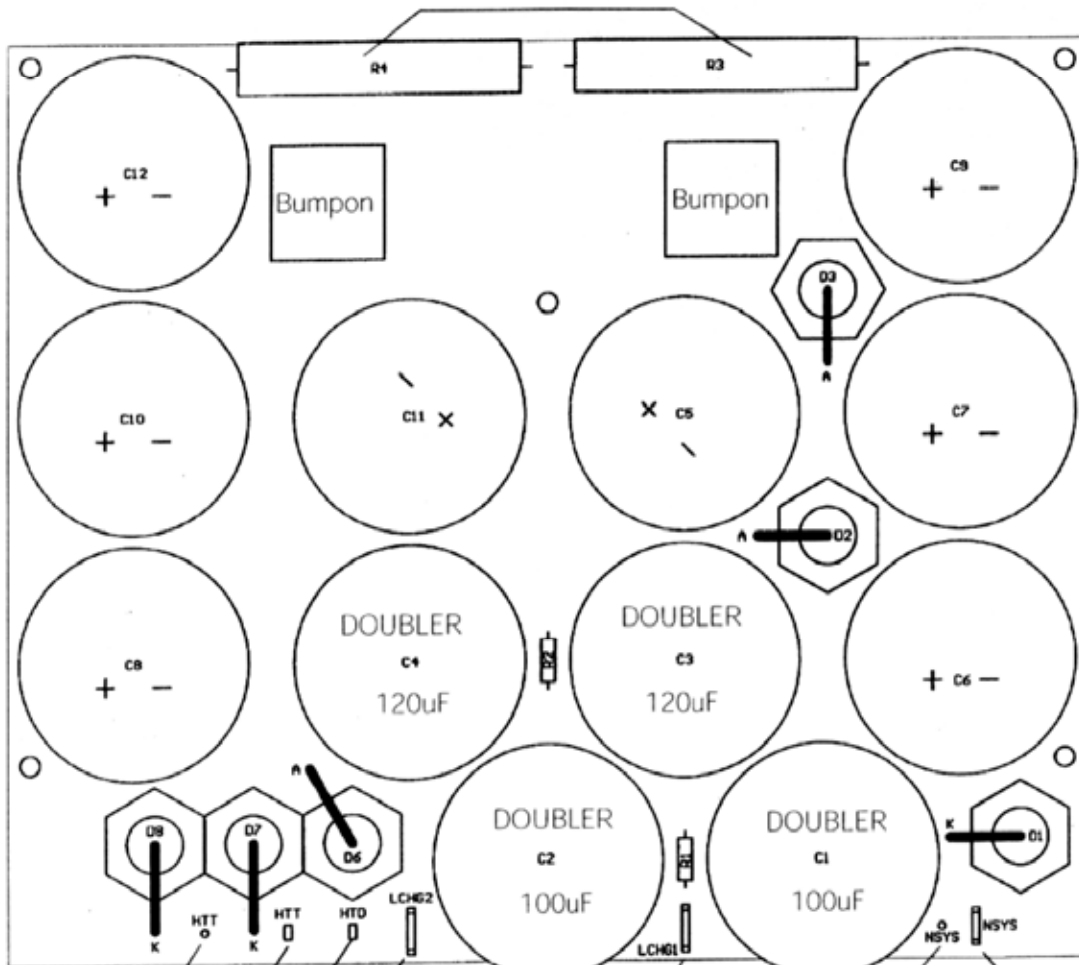
INTERCONNECTION DIAGRAM CHIC 1 & CHIC 2

CHIC 1 PB1 Assembly 14412 (for Digital 1 14421)

CAPACITORS BANK

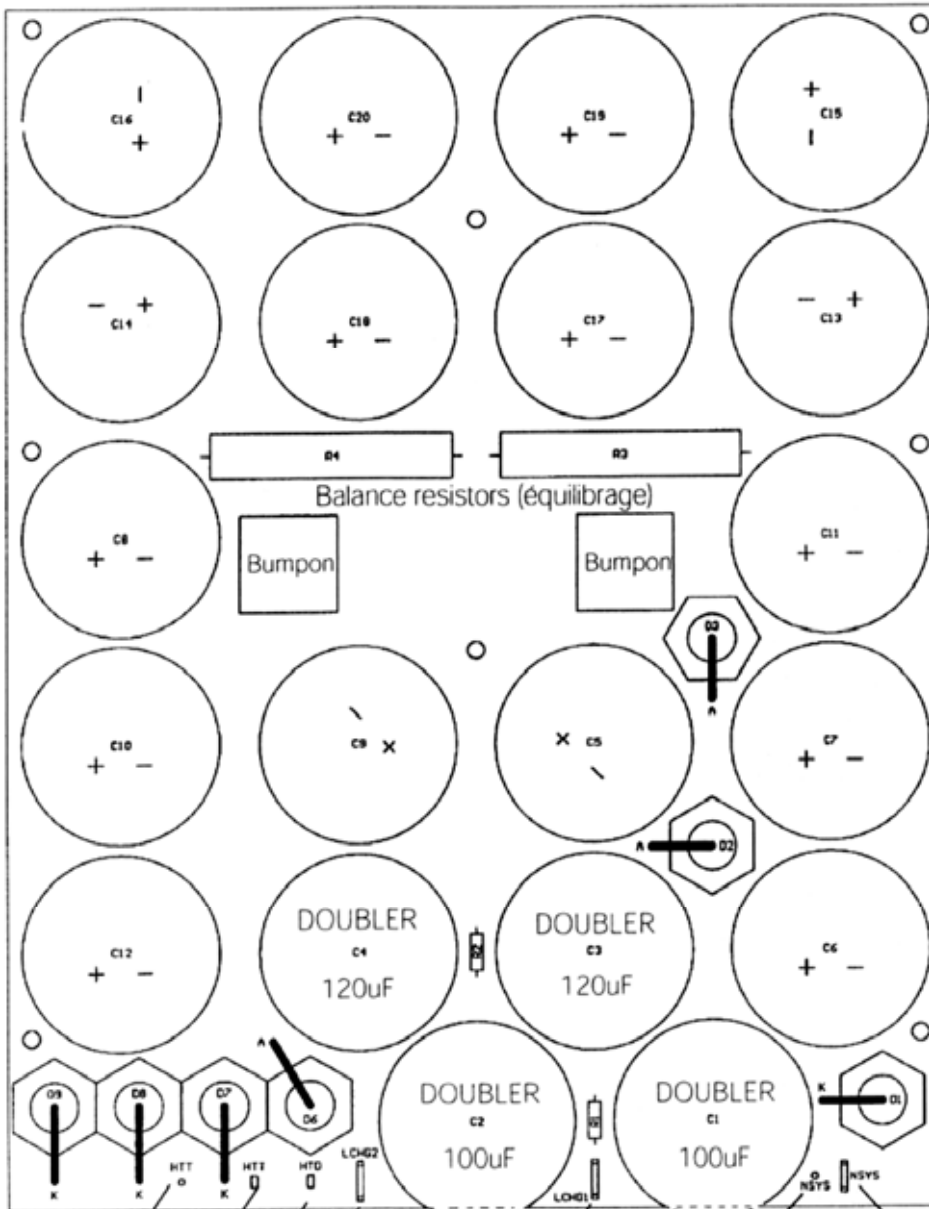
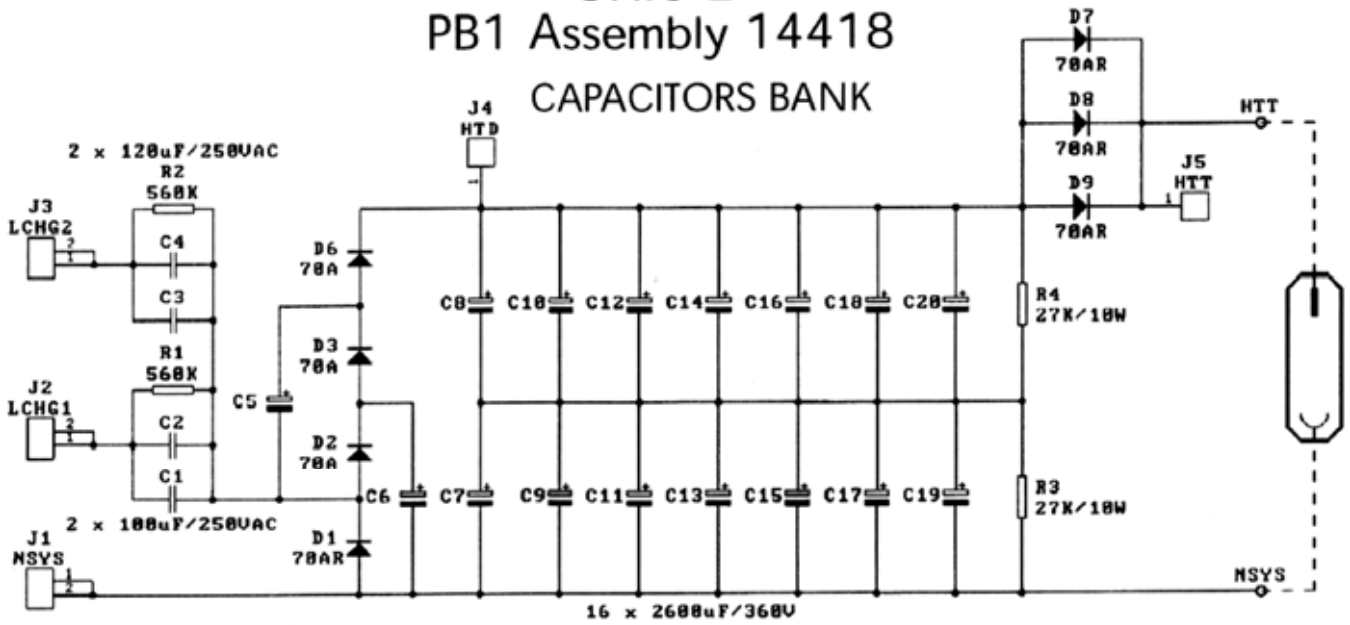


Balance resistors (équilibrage)



- + High voltage to outlets (red 2.5)
- Booster to 5408 (red 0.5)
- Ref. high voltage (green 0.5)
- To triac TC5 PB2 (grey 0.75) (fast charge only)
- To triac TC4 PB2 (white 0.75) (slow charge and regulation)
- 0 V (black 2.5 to outlets)
- Neutral (blue 1.5 to PB2)

CHIC 2 PB1 Assembly 14418 CAPACITORS BANK



+ High voltage to outlets (red 2.5)
 Booster to 5408 (red 0.5)
 Ref. high voltage (green 0.5)
 To triac TC5 (fast only charge)
 To triac TC4 (slow charge + regulation)
 0 V (black 2.5 to outlets)
 Neutral (blue 1.5)

CHIC 1 (230V) 14412 PB1 - CAPACITORS BANK COMPONENTS LIST

Part N°	DESIGNATION	Qty	Identification							
101.067	Wire (Fil cuivre ét. 1,5mm)	6	D1	D2	D3	D6	D7	D8		
104.111	Capacitor 100uF/250Vac	2	C1	C2						
104.119	Capacitor 120uF/250Vac	2	C3	C4						
105.080	Diode 70AR/800V (reverse)	3	D1	D7	D8					
105.087	Diode 70A/800V	3	D2	D3	D6					
111.052	Resistor 27K/10W	2	R3	R4						
112.071	Tab (cosse LP2,8mm)	2	HTD	HTT						
112.075	Tab (cosse LP4,8mm)	3	NSYS	LCHG1	LCHG2					
121.564	Resistor 560K/2500V	2	R1	R2						
14077	Print without element	1	-							
14342	Capacitor 2600uF/360V	8	C5 at C12							
204.129	Bumpon (Pied) 20x20	2	-							
210.117	Washer (Rondelle M6x2,8)	6	D1	D2	D3	D6	D7	D8		
210.119	Washer (Rondelle M6x1,0)	6	D1	D2	D3	D6	D7	D8		
211.873	Screw (Vis combi M5x10)	8	C1	C2	C3	C4				

14412 Circuit assembly

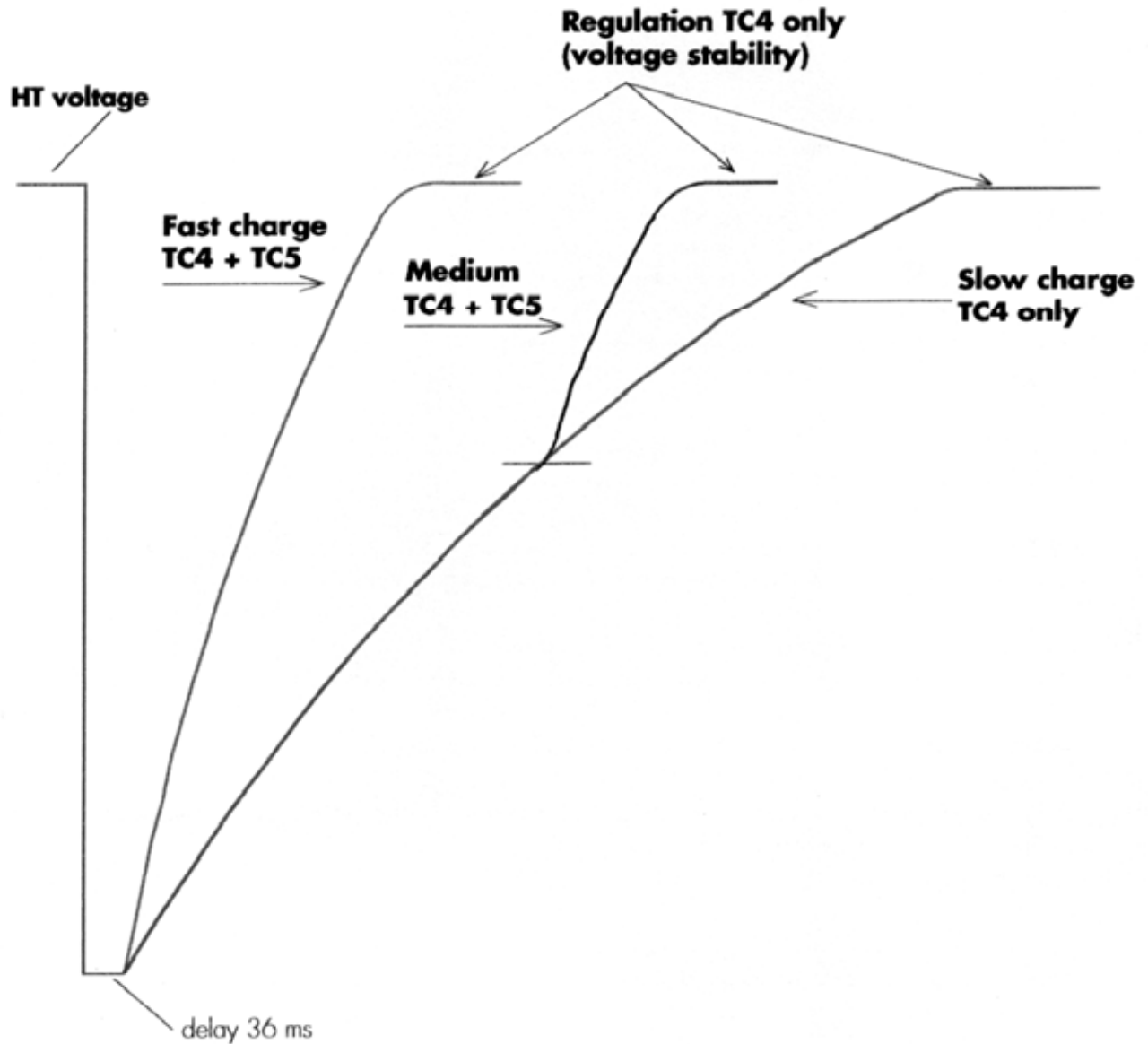
CHIC 2 (230V) 14418 PB1 - CAPACITORS BANK COMPONENTS LIST

Part N°	DESIGNATION	Qty	Identification								
101.067	Wire (Fil cuivre ét. 1,5mm)	7	D1	D2	D3	D6	D7	D8	D9		
104.111	Capacitor 100uF/250Vac	2	C1	C2							
104.119	Capacitor 120uF/250Vac	2	C3	C4							
105.080	Diode 70AR/800V (reverse)	4	D1	D7	D8	D9					
105.087	Diode 70A/800V	3	D2	D3	D6						
111.052	Resistor 27K/10W	2	R3	R4							
112.071	Tab (cosse LP2,8mm)	2	HTD	HTT							
112.075	Tab (cosse LP4,8mm)	3	NSYS	LCHG1	LCHG2						
121.564	Resistor 560K/2500V	2	R1	R2							
14072	Print without element	1	-								
14342	Capacitor 2600uF/360V	16	C5 at C20								
204.129	Bumpon (Pied) 20x20	2	-								
210.117	Washer (Rondelle M6x2,8)	7	D1	D2	D3	D6	D7	D8	D9		
210.119	Washer (Rondelle M6x1,0)	7	D1	D2	D3	D6	D7	D8	D9		
211.873	Screw (Vis combi M5x10)	8	C1	C2	C3	C4					

14418 Circuit assembly

CHARGE CAPACITORS PRINCIPLE

Principe de charge des condensateurs



TRIACS FONCTIONS:

TC4: BTA24 or T2513NH (25A/800V) Slow charge and regulation.
Triac de la charge lente et de régulation.

TC5: BTA24 or T2513NH (25A/800V) Fast and medium charge.
Triac de la charge rapide et moyenne

CHARGE SPEED			<i>Chic 1</i>	<i>Chic 2</i>
on mains 230V/60 Hz	selector	F	0.16 - 0.9 s	0.27 - 1.7 s
		M	0.3 - 1.45 s	0.5 - 2.7 s
		S	0.3 - 1.9 s	0.5 - 3.6 s

General information Semiconductors

TRIACS

TC1: TPDV 840 (40A/800V alternistor) Security overvoltage (sécurité de surtension de charge)

TC2: Z0103NA (1A/800V) Drive green button flash READY (signal de disponibilité)

TC3: BTA 41 (40A/800V) Modelling lamp control (triac de contrôle de la pilote)

TC4: BTA24 or T2513NH (25A/800V) Slow charge and regulation (triac de la charge lente et de régulation)

TC5: BTA24 or T2513NH (25A/800V) Fast and medium charge (triac de la charge rapide et moyenne)

THYRISTORS

THY1 : Trigger thyristor (thyristor d'allumage des flashes).

THY2 : Go out charge booster, duration 36ms (inhibe la charge du booster durant 36ms).

TRANSISTORS

T1 : BUZ 51 (Mos) Dump transistor (transistor de décharge).

T2 : BC 547 (npn) Allows the trigger when the charge pack is ready (autorise le déclenchement lorsque le générateur est chargé).

T3 : BC557 (pnp) Allows the buzzer (activation du signal sonore).

T4 : BC 517 (npn) Allows the dump (activation de la décharge)

T5 : BC516 darlington (pnp) controls that the voltage booster gets to 170V after a flash and then T5 allows of the recycling of the capacitors with TC4 and TC5.

Contrôle que la tension du booster après un flash atteigne 170V, T5 commande alors la recharge des condensateurs via TC4 et TC5.

T6 : BC 516 darlington (pnp) Selector of charge medium, see below.

Intervient dans le mode charge moyenne, voir ci-dessous.

Slow : VDD (12V) is applied to the anode of the LD1 (led) OC2 and drives TC4 only (OC4 is inhibited)

VDD (12V) est appliqué à OC2 et commande TC4 (OC4 n'est pas alimenté)

Fast : T6 is open, optocouplers OC4 and OC2 are driven

Le transistor T6 est non conducteur, les optocoupleurs OC2 et OC4 sont alimentés.

Medium : At first, T6 is driver, VDD is applied to led LD1 and drives OC2, (OC4 is inhibited) the triac TC4 becomes driver.

At the 2/3 of the charge (*from 600Ws*), T6 gets blocked and VDD feeds OC2 and OC4; the two triacs are active and the system passes then onto fast charge.

In a second time, T6 is open (non driver), OC4 and OC2 are driven.

Au départ T6 est conducteur VDD (12V) est appliquée à OC2, (OC4 n'est pas alimenté) le triac TC4 devient conducteur, aux deux tiers de la charge (à partir de 600Ws) T6 se bloque et VDD alimente OC2 et OC4, les deux triacs conduisent et le système passe alors en charge rapide.

T7 : BC 557 (pnp) The automatic regulation control appears after the ready signal, (slow charge) for all positions M and F.

Mise en service automatique de la régulation à l'apparition du signal de disponibilité et ceci aussi bien sur M que sur F.

IC1 LM339 quad comparators

A part : Overvoltage protection

B part : Charge control

C part : Thermal safety control, becomes active when the ambient temperature is above 60°C (the unit cannot be fired any more, the ready light goes out).

D part : Controls and orders the dump resistor.

IC 5 : 555 timer

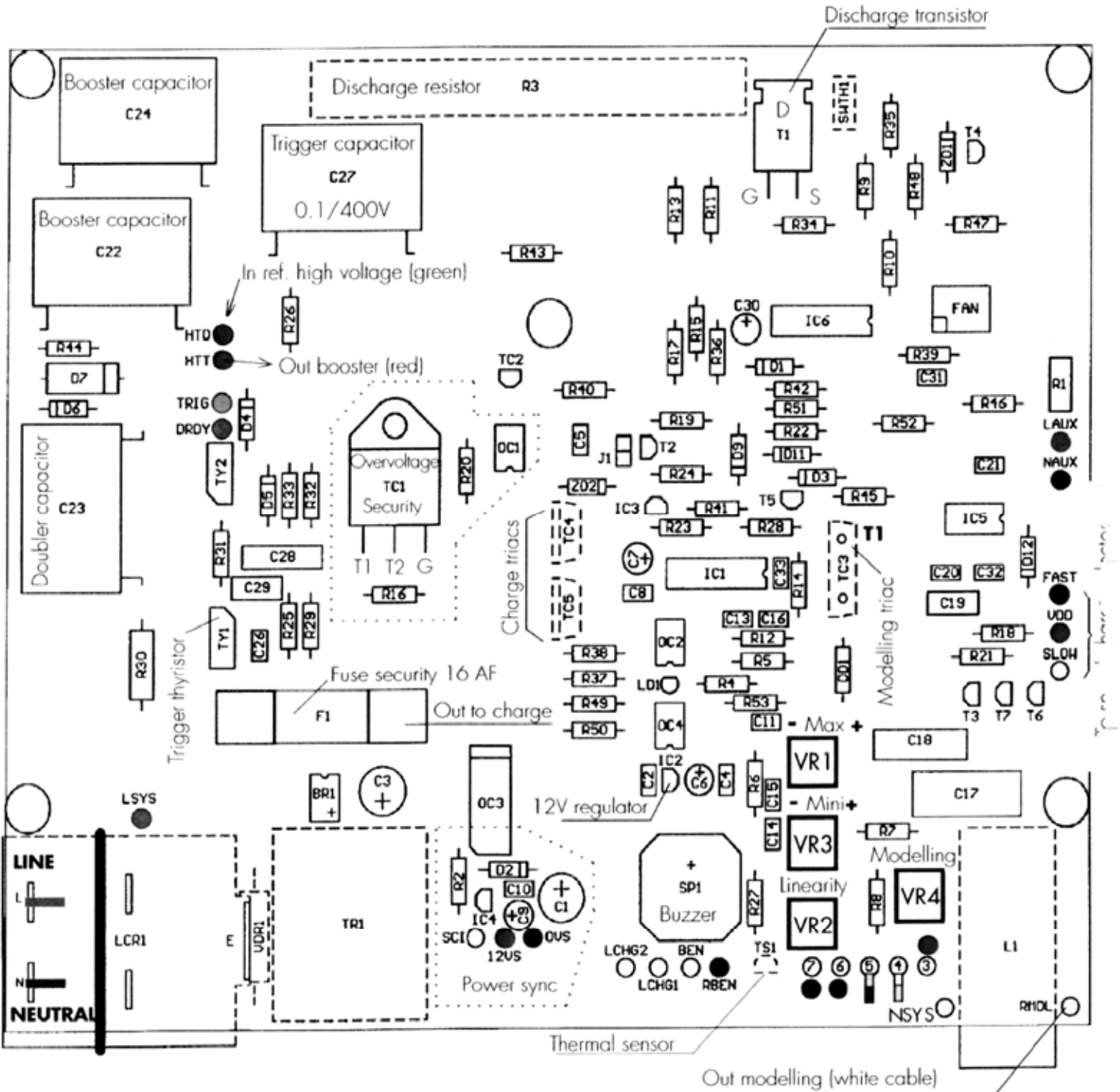
Starts the flash and delays the charge order of the 36 ms (is controlled by R18; in case of self firing problem: increase the delay and replace 100 K by a 820 K resistor = 297 ms).

Part N°	DESIGNATION	Qty	Identification
100.055	Transfo BV030-2259 (230V)	1	TR1
101.148	Cable ties 2,6 x 200(secure filter)	1	LCR1
101.229	Insulating tube SIL 12 X 50	1/3	R3+SWTH1
104.001	Capacitor 10pF	1	C13
104.006	Capacitor 4,7nF/1KV	1	C29
104.007	Capacitor 10nF/50V	2	C20 C26
104.012	Capacitor 47nF/250V	1	C28
104.013	Capacitor 47nF/250VAC X2	1	C17
104.015	Capacitor 100nF/50V	13	C2 C4 C5 C8 C10 C11 C14 C15 C16 C21 C31 C32 C33
104.018	Capacitor 220nF/250V	1	C18
104.024	Capacitor 470nF/630V	3	C22 C23 C24
104.025	Capacitor 1uF/400V	1	C27
104.029	Capacitor 10uF/16V tantal	3	C6 C7 C9
104.064	Capacitor 330nF	1	C19
104.070	Capacitor 6,8uF/16V tantal	1	C30
105.002	Zener diode 5V6	1	ZD2
105.006	Zener diode 13V	1	ZD1
105.048	Ic 4001 quad 2 inp. NOR GATE	1	IC6
105.051	Diode 1N4148	4	D1 D3 D11 D12
105.053	Optocoupler HK3030	1	OC3
105.057	Rectifier bridge CSB4	1	BR1
105.063	Regulator 78L12 (12V)	2	IC2 IC4
105.089	Regulator LP2950AC (5V)	1	IC3
105.108	Triac Z0103NA (1A/800V)	1	TC2
105.116	Thyristor X0405NF (4A/800V)	2	TY1 TY2
105.123	Transistor BC517	1	T4
105.125	Schottky diode BAT85	1	D9
105.136	Alternistor TPDV840 (40A/800V)	1	TC1
105.152	Darlington transistor BC516	2	T5 T6
105.201	Temperature detect. LM335Z	1	TS1
106.026	Socket clip FH 6,3x32	2	F1
106.050	PTC 30mA 265V 120C	1	R1
107.019	Buzzer SMA 17L-10	1	SP1
108.024	Green Led L424GDT	1	LD1
109.001	Resistor 10K	2	VR1 VR3
109.023	Resistor 2K	1	VR2
109.024	Resistor 1M	1	VR4
110.063	Socket I.C. 14P (socle)	2	IC1 IC6
110.091	Socket I.C. 6P	3	OC1 OC2 OC4
110.092	Socket I.C. 8P	1	IC5
110.123	Connector male 2PIN	1	J1
110.125	Connector male 3PINH	1	FAN
111.061	Varistor 250Vac	1	VDR1
111.524	Resistor 3K3 25W (discharge)	1	R3
120.106	10M/5%	1	R28
121.102	1K	3	R29 R31 R40
121.103	10K	2	R8 R26
121.104	100K	2	R18 R36
121.105	1M	3	R12 R43 R44
121.153	15K	1	R5
121.154	150K	1	R42
121.182	1K8	1	R51
121.183	18K	1	R46
121.220	22R	1	R25
121.223	22K	3	R14 R19 R39
121.229	220R (Carbone)	1	R7
121.331	330R	1	R2
121.332	3K3	3	R27 R32 R45
121.335	3M3	1	R6

Part N°	DESIGNATION	Qty	Identificaton						
121.339	330R (Carbone)	6	R16	R20	R37	R38	R49	R50	
121.394	390K	7	R9	R10	R11	R13	R47	R48 R53	
121.471	470R	1	R24						
121.472	4K7	3	R15	R30	R33				
121.473	47K	3	R21	R22	R52				
121.561	560R	1	R17						
121.564	560K/2500V	1	R35						
121.569	560K	1	R34						
121.752	7K5	2	R4	R23					
121.821	820R	1	R41						
14009	Diode 1N4007	4	D2	D4	D5	D6			
14012	Transistor NPN BC547	1	T2						
14013	Transistor PNP BC557	2	T3	T7					
14015	Diac 32V	1	DD1						
14032	Thermostat F01.100.05.100	1	SWTH1						
14033	Transistor MOS (BUZ51) 4NB100	1	T1						
14034	Comparator LM339	1	IC1						
14036	Opto-isolator (S21ME4) S21ME8Y	3	OC1	OC2	OC4				
14052	Capacitor 220uF/25V	2	C1	C3					
14073	Print without element	1	-						
14430	Diode 1N5408 (3A/1000V)	1	D7						
14627	Filter coil 240uH/10A	1	L1						
19024	Fuse 16AF (6,3x32)	1	F1						
203.031	Nut M3 w/washer	2	T1	TC1					
211.201	Screw M3 x 6	2	T1	TC1					
54013	Ic timer LM555	1	IC5						
500.080	Assembly wire								
500.383	1,50 bleu L=100	1	NSYS						
112.077	Female crimp terminal 4,8 x 0,8	1	NSYS						
500.081	Assembly wire								
500384	Cable 0,50 vert L=240	1	HTD						
112.076	Female crimp 2,8 x 0,8	1	HTD						
500.082	Assembly wire								
500.385	Cable 0,50 rouge L=230	1	HTT						
112.076	Female crimp 2,8 x 0,8	1	HTT						
500.083	Assembly wire								
500.386	Cable 0,75 gris L=110	1	LCHG2						
112.077	Female crimp 4,8 x 0,8	1	LCHG2						
500.084	Assembly wire								
500.387	Cable 0,75 blanc L=100	1	LCHG1						
112.077	Female crimp 4,8 x 0,8	1	LCHG1						
658.001	Charge triac assembly								
105.049	Triac BTA24-800BW	2	TC4	TC5					
203.031	Nut M3 w/washer	2	TC4	TC5					
207.005	Thermally joint compound	1	TC4	TC5					
211.201	Screw M3 x 6	2	TC4	TC5					
222.014	Heatsink 55 x 52	1	TC4	TC5					
658.002	Pilote triac assembly								
105.135	Triac BTA41-800B	1	TC3						
203.031	Nut M3 w/washer	1	TC3						
207.005	Thermally joint compound	1	TC3						
211.201	Screw M3 x 6	1	TC3						
222.014	Heatsink 55 x 52	1	TC3						
658.004	Line filter F11.126 modified	1	LCR1						

14 414 Assembly board

CHIC 1 and 2 PB2 Assembly 14414 CONTROL BOARD



MODELLING LAMP ADJUSTMENT

Meter connection at outlet lampheads a6 and a7 pins,
a7= line a6 = neutral after Triac TC3 (T2 terminal)
or T2 terminal/white cable and line
With linear pot on the control panel at mini power adjust
VR4 for resulting voltage 90 V RMS.

FLASH ADJUSTMENT

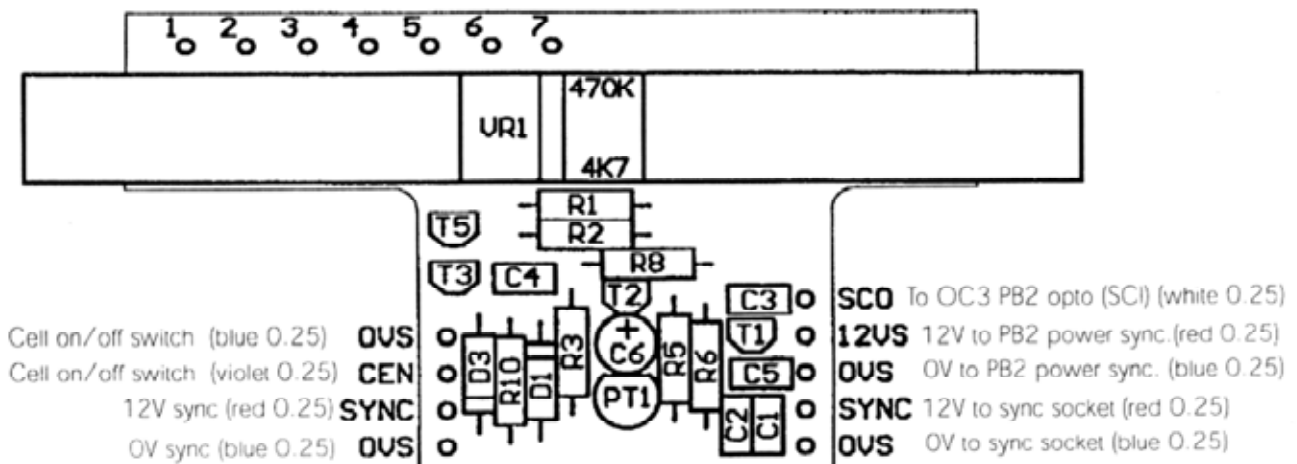
- 1* adjust VR1 full power MAX : 680 V
- 2* adjust VR2 mini power MINI : 170 V
- 3* adjust VR3 medium (linearity) : 340 V
- 4* verify full power

14415 PB3 SYNCRONISATION and VARIATOR FLASH/MODELLING

COMPONENTS LIST

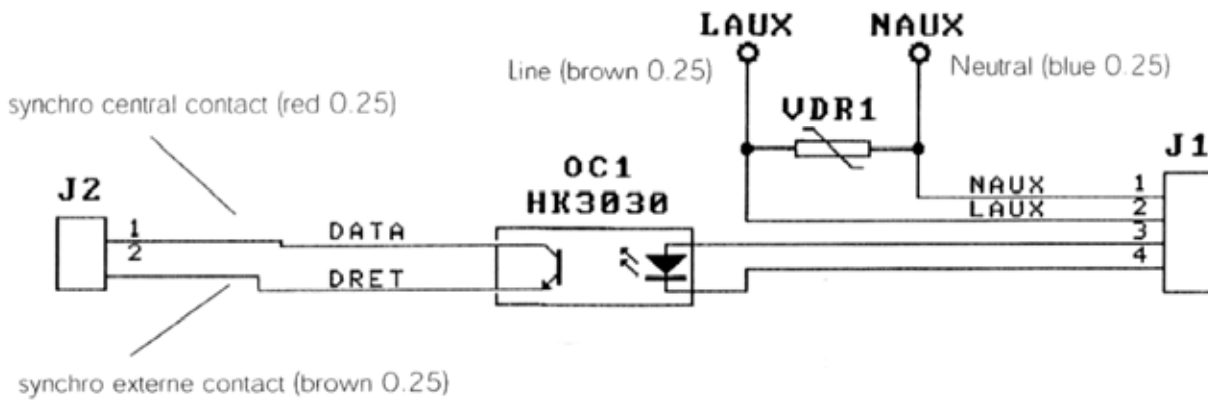
Part N°	Designation	Qty	Identification
104.007	Capacitor 10nF	2	C2 C3
104.015	Capacitor 100nF	3	C1 C4 C5
104.102	Capacitor 1uF/35V	1	C6
105.028	Optocoupler PT361	1	PT1
105.051	Diode 1N4148	2	D1 D3
109.027	Potentiometer 4K7+470K	1	VR1
121.103	Resistor 10K	1	R2
121.104	Resistor 100K	1	R1
121.105	Resistor 1M	1	R6
121.223	Resistor 22K	3	R3 R5 R8
121.471	Resistor 470	1	R10
14012	Transistor NPN BC547B	3	T2 T3 T5
14013	Transistor PNP BC557B	1	T1
14074	Print without element	1	-
201.710	Fixation rectiligne pot.	2	-
211.855	Screw with wash. M3x6mm	2	-

14415 Assembly board

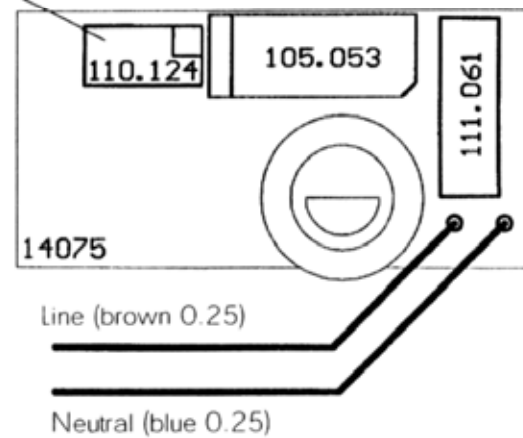


CHIC 1 and 2

AUXILIARY SOCKET INTERFACE



Male connector
to control panel, synchro socket
(+ red) (OV sync. brown)

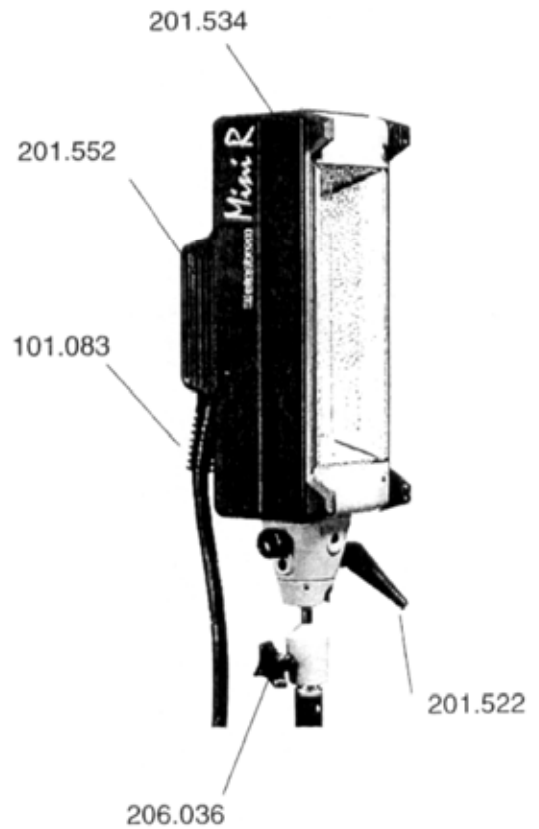
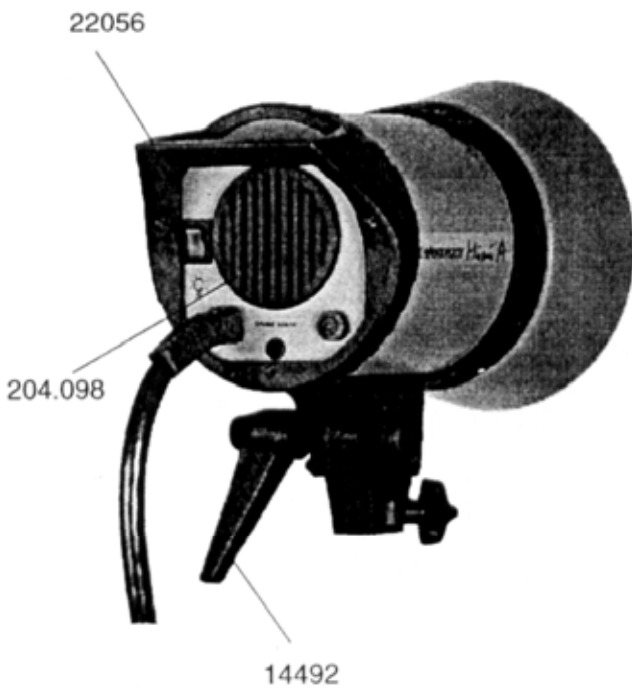


PART LIST

Part N°	Designation	Qty	Identification
105.053	Optocoupler HK3030	1	OC1
110.124	Connector 2PINH	1	J2
111.061	Varistor 250Vac	1	VDR1
14075	Print without element	1	-
500.404	Wire 0,25 brun L=180	1	LAUX
500.405	Wire 0,25 bleu L=170	1	NAUX
14416	Assembly board		

LAMPHEADS

Mini S - Mini A and Mini R

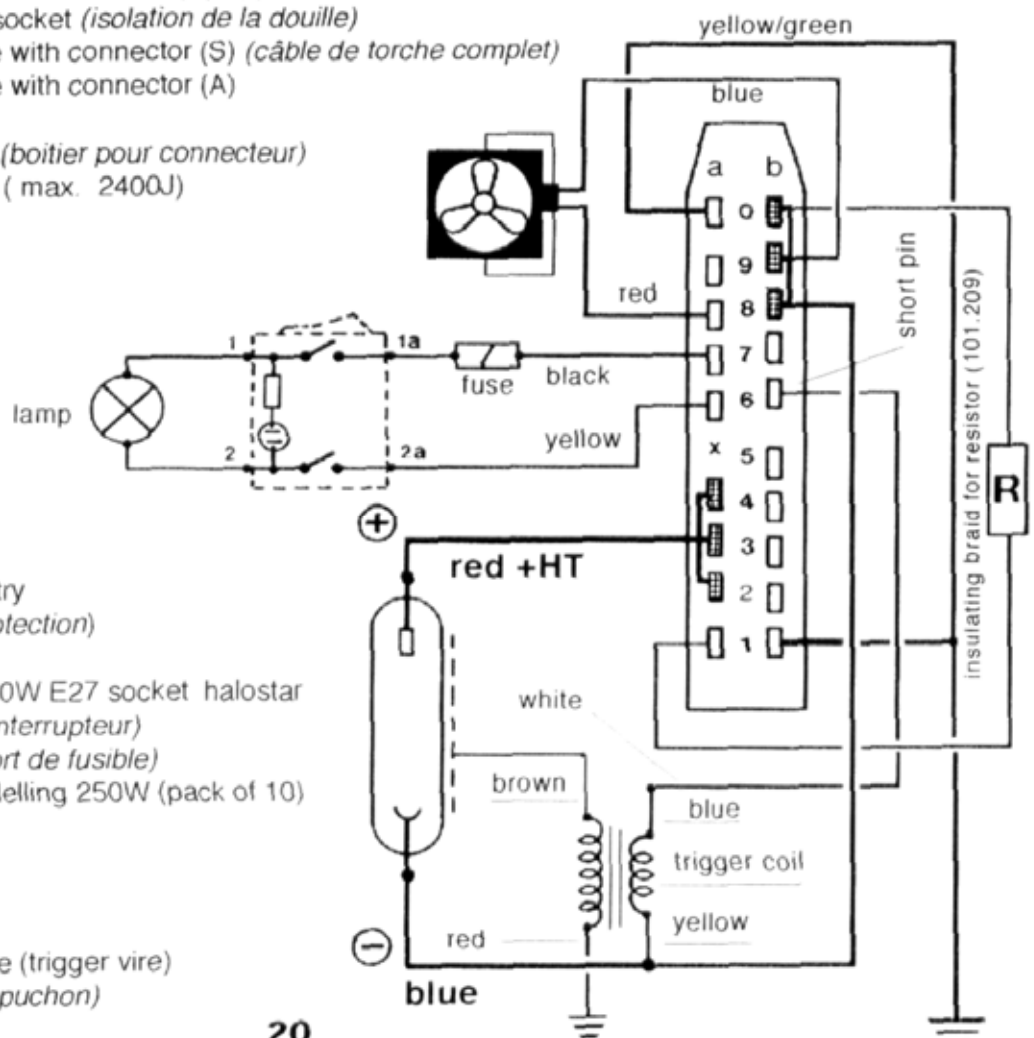


Schematic diagrams and parts list

DESCRIPTION Mini A - Mini S (220 V VERSION)

Part N°	DESCRIPTION
20104	Lamphead complete Mini A
20106	Lamphead complete Mini S
223.001	Metal chassis
223.002	Housing without label for A and S (<i>chemise sans étiquette</i>)
205.178	Label Mini A (<i>étiquette "Mini A" pour chemise</i>)
205.177	Label Mini S
22056	Rear handle (<i>poignée arrière</i>)
211.601	Screw M3x8 for handle
211.602	Screw M3x12 for handle
901.201	Tilthead
204.132	Fixe part (<i>partie fixe</i>)
201.656	Mobile part (<i>partie mobile</i>)
14492	Plastic level (<i>poignée de serrage plastique</i>)
209.093	Bolt M8 for handle (<i>goujon M8 pour poignée</i>)
201.295	Locking universal metal plate for umbrella (<i>plaque de fixation du parapluie</i>)
22055	Set front ring + locking device (<i>ensemble de bagues, verrouillage + baïonnettes</i>)
211.207	Screw for front ring M3x20
22054	Front locking (<i>bague de verrouillage</i>)
204.090	Front ring bayonet (<i>bague à baïonnettes</i>)
212.203	locking spring (<i>ressort de verrouillage</i>)
620.082	Umbrella tube (<i>tube parapluie</i>)
14594	Ring for umbrella tube (<i>anneau plastique pour tube parapluie</i>)
14209	Set Terminal for flashes tube (510.020) (5 (pack of 6) (<i>ensemble de 6 bornes</i>))
14212	Trigger wire diam. 0.4 (101.124) (pack of 2 m length) (<i>2 m de fil d'amorçage</i>)
25001	Trigger coil (<i>bobine d'amorçage</i>)
101.077	Nylon attachment for coil (<i>attache nylon "bride"</i>)
107.022	Fan (<i>ventilateur</i>)
204.098	Fan guard (<i>grille de protection</i>)
112.017	Lamp holder E27 (<i>douille de lampe</i>)
223.005	holder for terminal and socket lamp (<i>support isolant pour bornes</i>)
112.025	Insulating for E 27 socket (<i>isolation de la douille</i>)
501.045	Lampcord complete with connector (S) (<i>câble de torche complet</i>)
501.046	Lampcord complete with connector (A)
22046	Connector 20 pM
110.053	Connector housing (<i>boitier pour connecteur</i>)
205.179	Label for connector (max. 2400J)

101.083	Protective cable entry (<i>pass-câble de protection</i>)
21003	Cable 8 conductors
23018	Modelling lampe 250W E27 socket halostar
103.061	Switch 12A/230V (<i>interrupteur</i>)
14651	Fuse Holder (<i>support de fusible</i>)
19033	Fuse 2.5 AF for modelling 250W (pack of 10)
223.006	Inner reflector A
223.007	Inner reflector S
24053	Flash tube A head
24034	Flash tube S head
219.119	Insulating glass tube (trigger wire)
26124	Protective hood (<i>capuchon</i>)

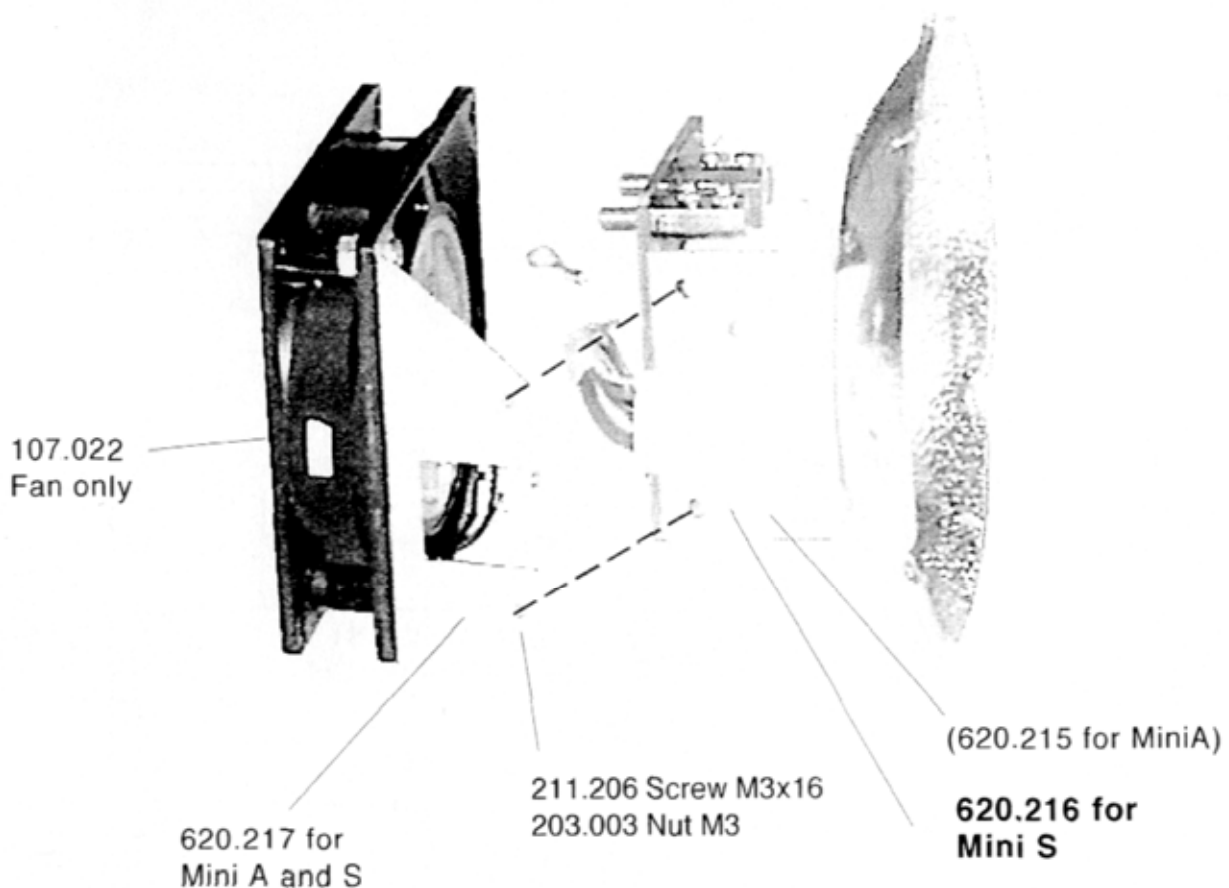


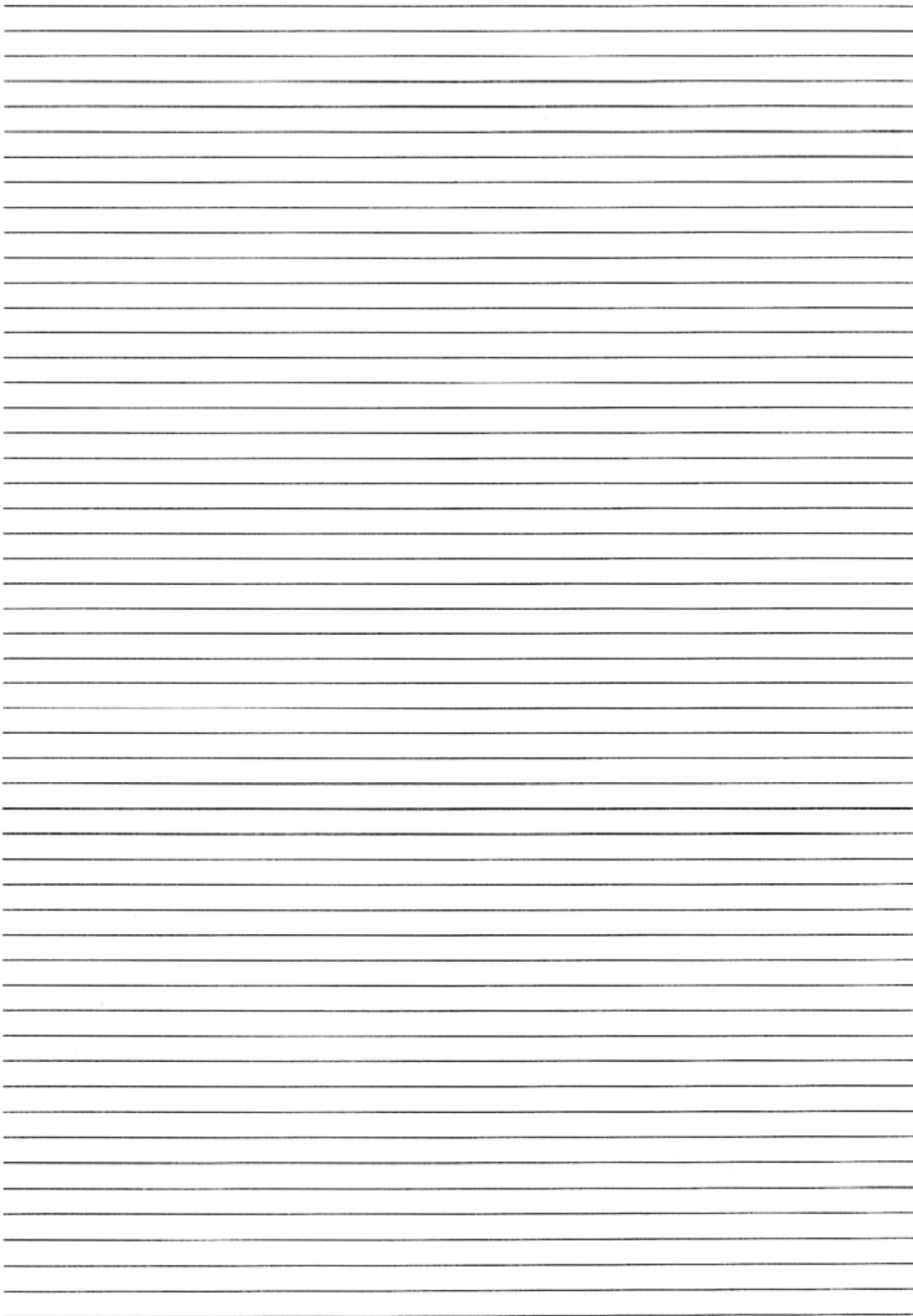
Upgrade of the Mini1500 head to Mini A or Mini S (220V VERSION)

Transformation des torches Mini 1500 en Mini A ou Mini S

LAMPENKOPF VERAENDERUNGEN

Part.	Qty	Description
223.002	1	Housing without label (<i>boîtier sans étiquettes</i>)
205.177	2	Label Mini S (<i>étiquette Mini S</i>)
205.178	2	Label Mini A (<i>étiquette Mini A</i>)
620.217	1	Complete Fan (<i>ventilateur monté avec équerre et borne de raccordement</i>)
620.216	1	Front part complete Mini S (<i>partie avant complète</i>)
620.215	1	Front part complete Mini A
211.204	2	Screw M3x10 (<i>vis d'assemblage du ventilateur sur la partie avant</i>)
203.031	2	Nut M3
620.082	1	Umbrella tube with protected wire (<i>tube parapluie avec fil de mise à la terre</i>)
205.179	1	Label for connector (<i>étiquette pour connecteur</i>)
121.101	1	Recognition resistor 100E for S head
121.221	1	Recognition resistor 220E for A head
24053	1	Flash tube A head



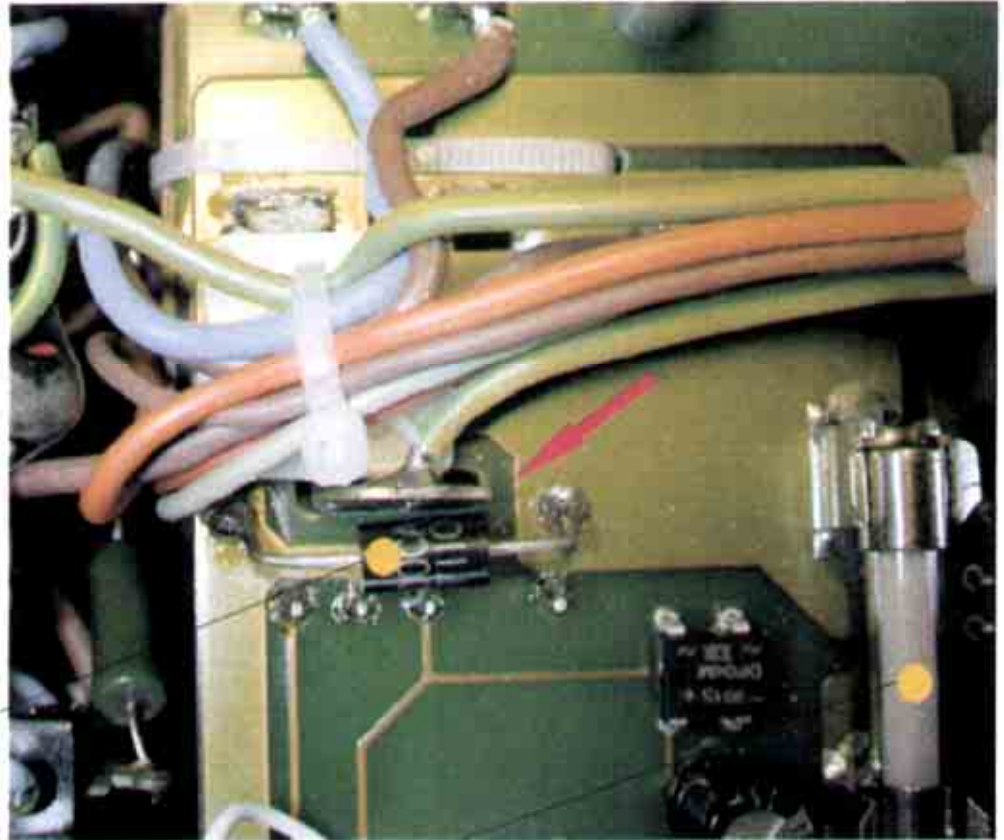


MODIFICATION FOR CHIC and DIGITAL 1 - 2
SECURITY FOR ELECTRIC LINE INTERFERENCES

Look at the service manual on page 11 and 14, for identification of the elements.

Replace optocouplers:
OC1 - OC2 and OC3,
currently S21MEY8 by
the new type IL 4118
code: 105.043

Transil 1,5KE-400CA
Code: 105.044

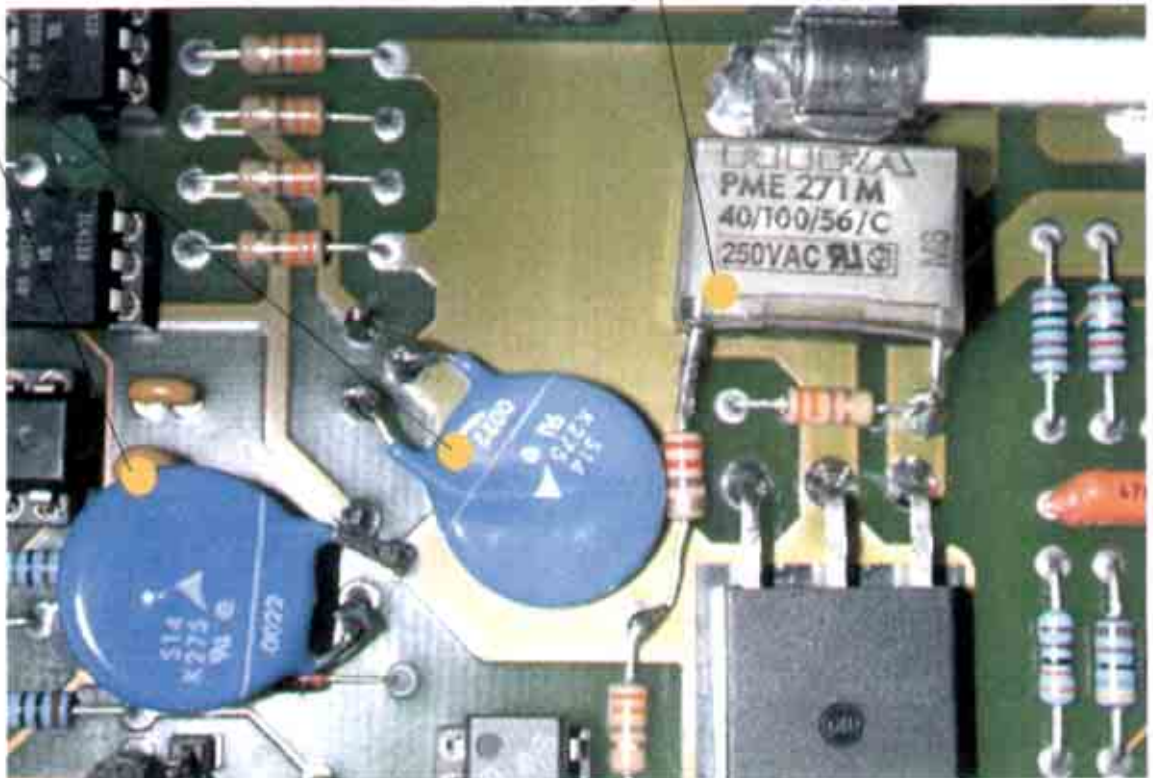


Security fuse 16AF

RC network: 220 E
carbon resistor + 47nF
capacitor X2

Add two varistors on
triacs TC4-TC5,
between T1 and T2
terminal
code: 111.061

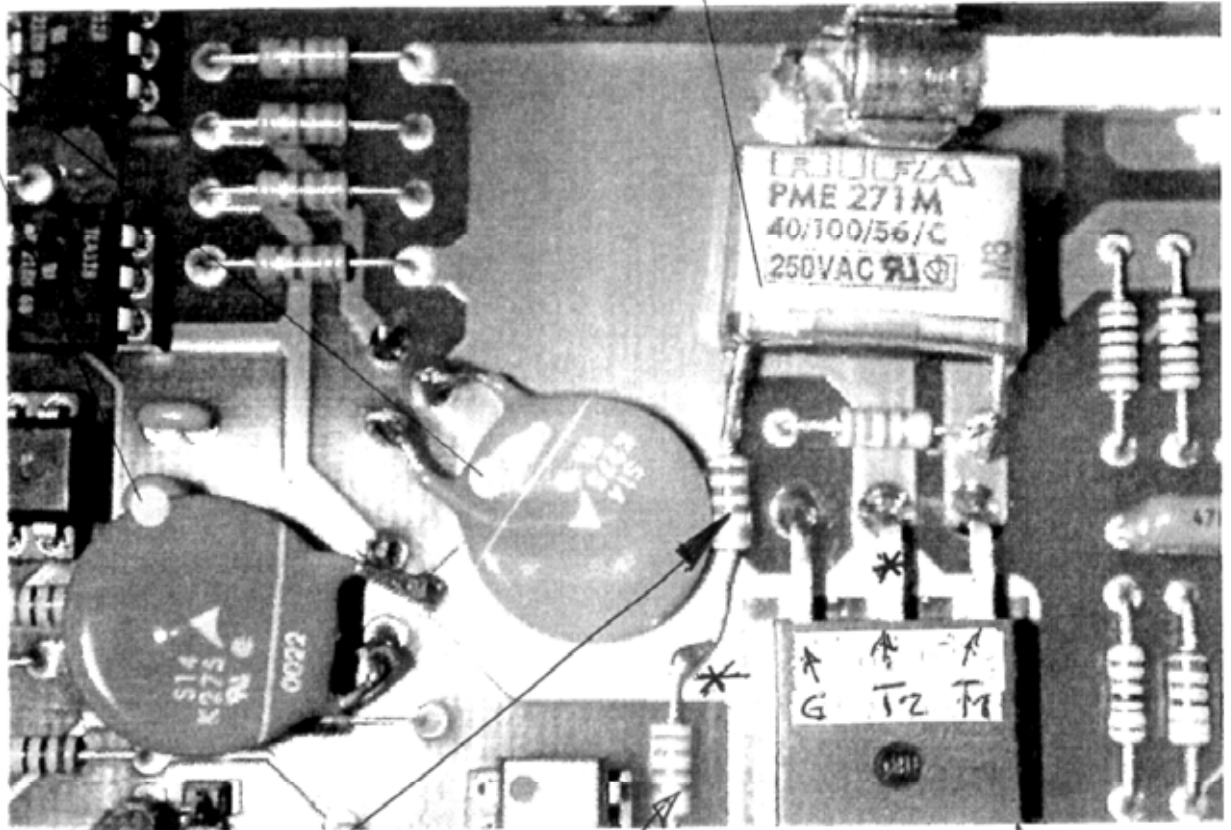
capacitor, code 104.013
resistor 220E, code 121.229



RC network: 220 E carbon resistor + 47nF capacitor X2

Add two varistors on triacs TC4-TC5, between T1 and T2 terminal code: 111.061

capacitor, code 104.013 resistor 220E, code 121.229



15.10.02 RD

220E CARBON
HERE

330R (R20)

* TERMINAL 2
TPDV 840

