



Sailor

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**INSTRUKTIONSBOG FOR
SAILOR N1409**

**INSTRUCTION BOOK FOR
SAILOR N1409**



A/S S. P. RADIO · AALBORG · DENMARK

GENERAL DESCRIPTION

SAILOR N1409 is an AC power supply intended to supply a SAILOR SSB short wave set, when the set has to be supplied from AC mains.

SAILOR N1409 is a switch mode power supply which reduces power consumption.

SAILOR N1409 has a built-in delay unit which ensures the proper sequence for applying voltages to the transmitter, regardless of how the MAIN SWITCH is operated.

SAILOR N1409 with MAIN SWITCH in position RECEIVER ONLY. Only the receiver is supplied and low power consumption is achieved.

SAILOR N1409 is provided with thermal breakers which switch off the set if the temperature inside the power supply gets too high.

SAILOR N1409 fits into SAILOR 19" rack system.

TECHNICAL DATA

The power supply N1409 delivers all necessary voltages to a SAILOR SSB short wave set 1000/B with an output power of 400 W PEP in the frequency range 1.6 - 27.5 MHz.

INPUT VOLTAGE: 220/237V AC, frequency 50-60 Hz.

OUTPUT VOLTAGES:

POWER UNIT I

8V	Imax	2.0A
-45V	Imax	0.15A
22V	Imax	3.2A

POWER UNIT II

28V	Imax	3.4A
38V	Imax	15A

AC VOLTAGE

24V AC for blowers

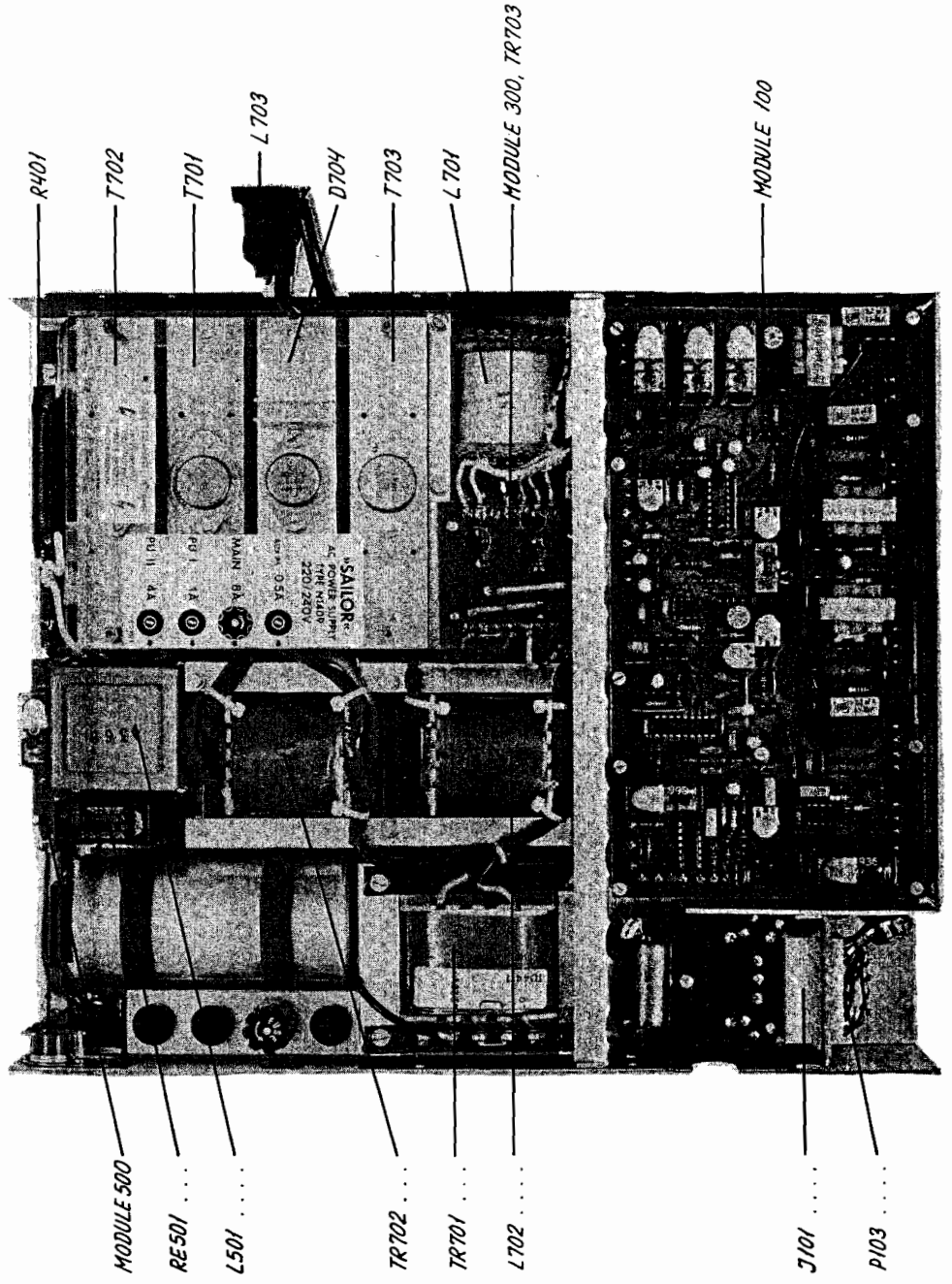
OPERATION TEMPERATURE RANGE: -15°C to $+55^{\circ}\text{C}$

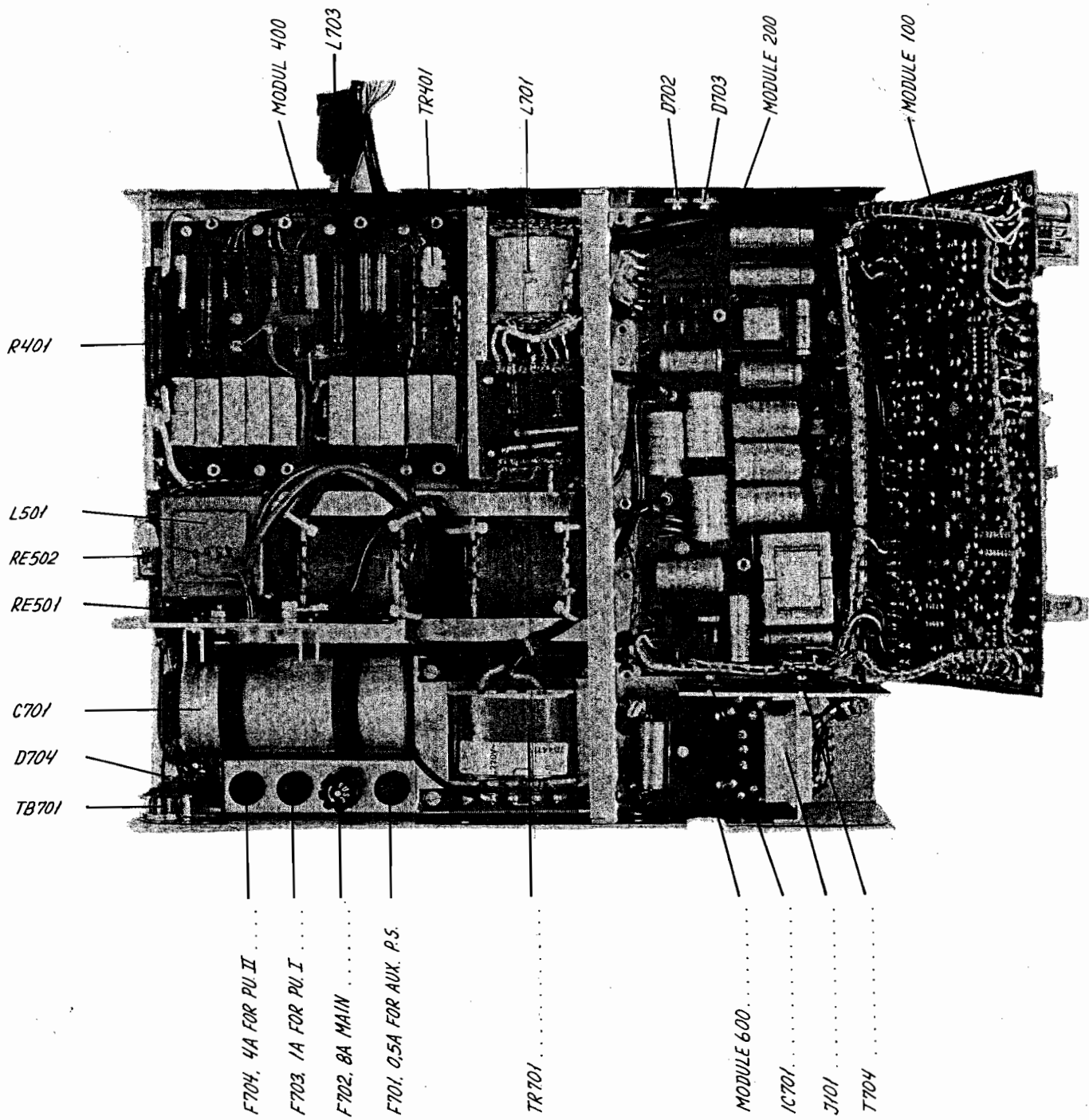
COOLING:

With MAIN SWITCH in position RX-ONLY and the temperature inside the power supply exceeding $+55^{\circ}\text{C}$ the internal blower will start automatically. When the temperature falls below $+45^{\circ}\text{C}$ the blower stops.

With MAIN SWITCH in position ON the internal blower is running when transmitter is keyed.

If temperature in transmitter is too high the power supply is reduced from 38V to 30V. If temperature is further increasing the Power Unit II is blocked and blowers start. When temperature is decreased blowers stop and Power Unit II is again unblocked.





-45V (200), YELLOW/BREY

J1011/6, WHITE

J1011/6, WHITE

J1011/3, GREY/WHITE

8V (200), GREY

22V (200), BLACK/RED

22V (100), BLACK/RED

(100), BROWN/GREY

GROUND (200), BLACK

SENSE PU I (400)

CURRENT SENSE (200), BLUE/YELLOW

J102, YELLOW

(100), RED

J102, BLUE/GREY

22V (100), BLACK/RED

J1011/7, RED/WHITE

J1011/29, GREEN/WHITE

J1011/5, GREEN/WHITE

J1011/35, BLACK/YELLOW

J1011/28, BROWN

8V RX (200), GREEN/BLACK

J1011/8, BROWN/GREEN

22V RX (200), BROWN

J1011/4, BLUE/WHITE

J1011/24, ORANGE/WHITE

24V AUX (100), BROWN/BLACK

E T703, ORANGE/BLUE

B T703, WHITE/BROWN

A D403, WHITE/YELLOW

B T702 (400), GREEN/GREY

E T702 (400), GREY/BLUE

A D402, GREEN

A D401 (400), GREEN/RED

E T701 (400), ORANGE/RED

B T701 (400), GREY/RED

24V AUX (100), BROWN/BLACK

24V AUX (200), BROWN/BLACK

IC 701 PIN (200), RED/WHITE

GROUND PU II (200), BLUE/BL

DELAY RELAY (500), BROWN/BL

THERMOSTAT (700), BLUE/RED

24V HI235 (500), BROWN/BL

J1011/32, BROWN/GREY

(100), BROWN/GREY

J1011/18, VIOLET

BLOWER (200), YELLOW

GROUND AUX (200), BLACK

J1011/20, BLUE/WHITE

28V SENSE (200), BLUE

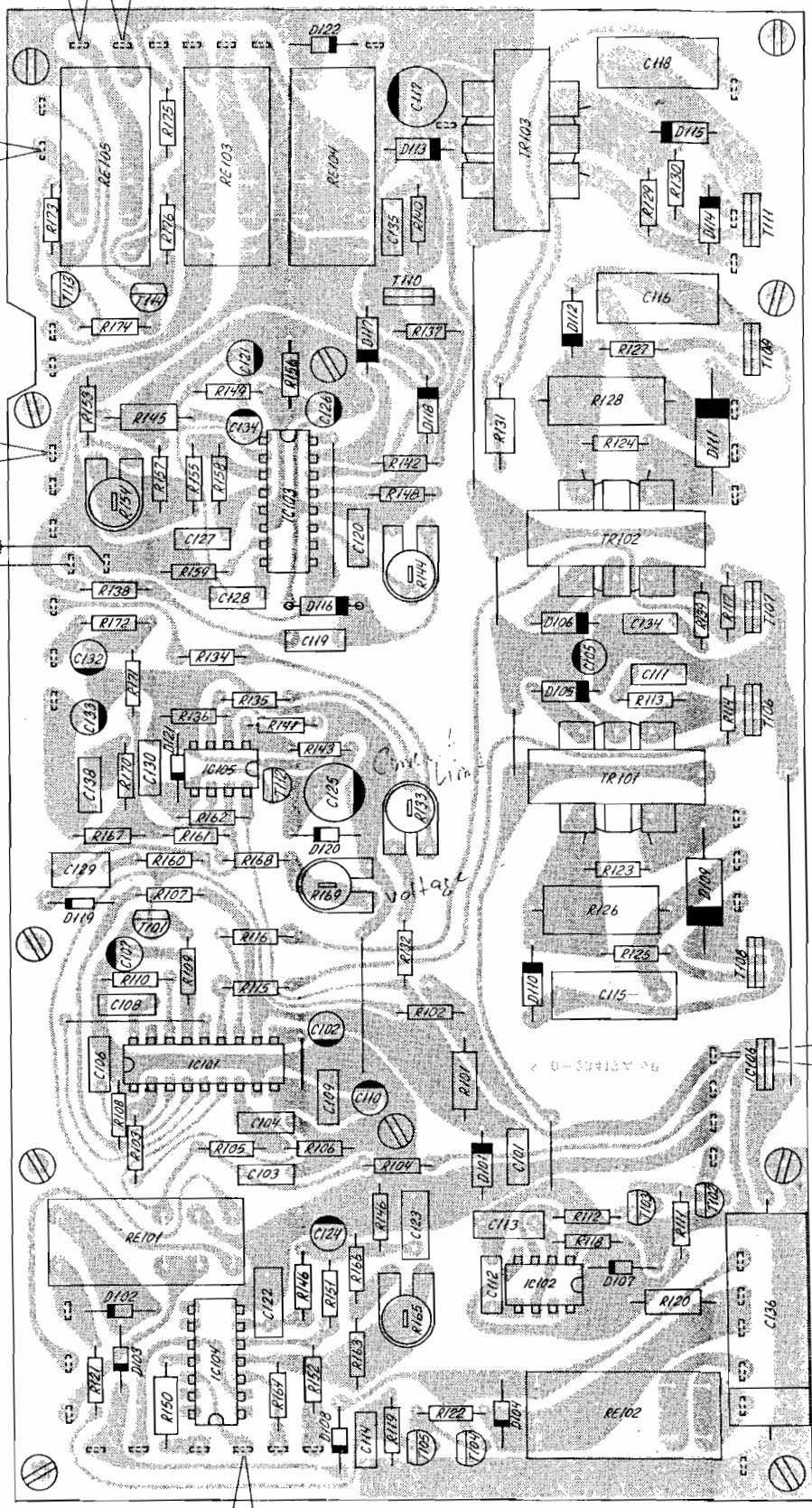
B T704 (200), WHITE/RED

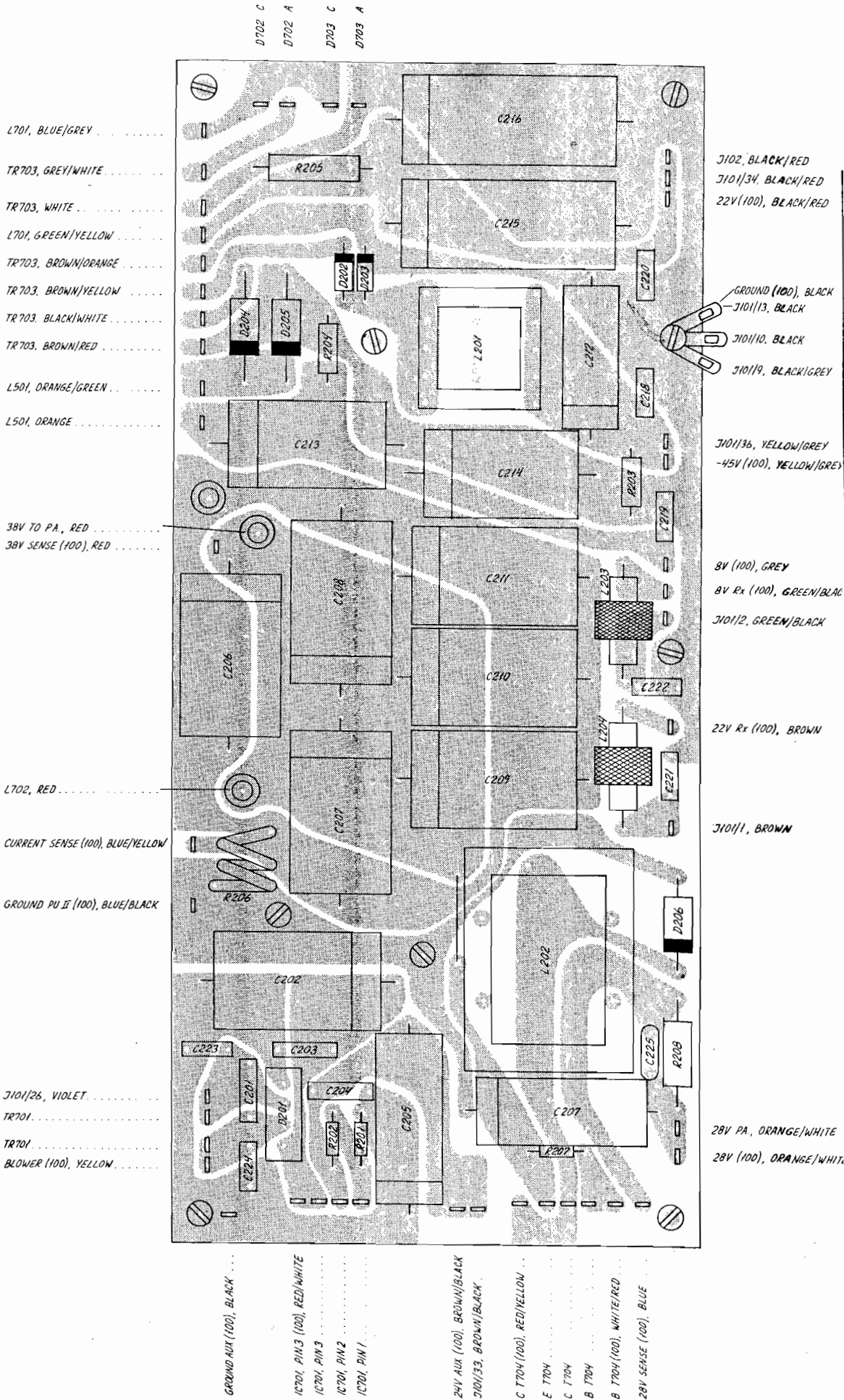
38V SENSE (200), RED

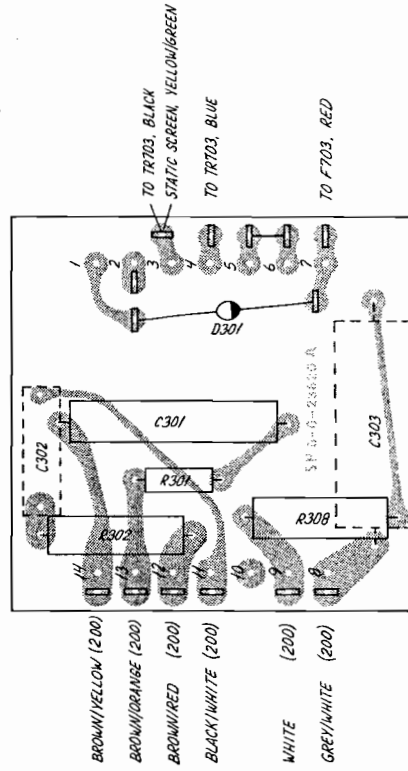
(100), RED

28V (200), ORANGE/WHITE

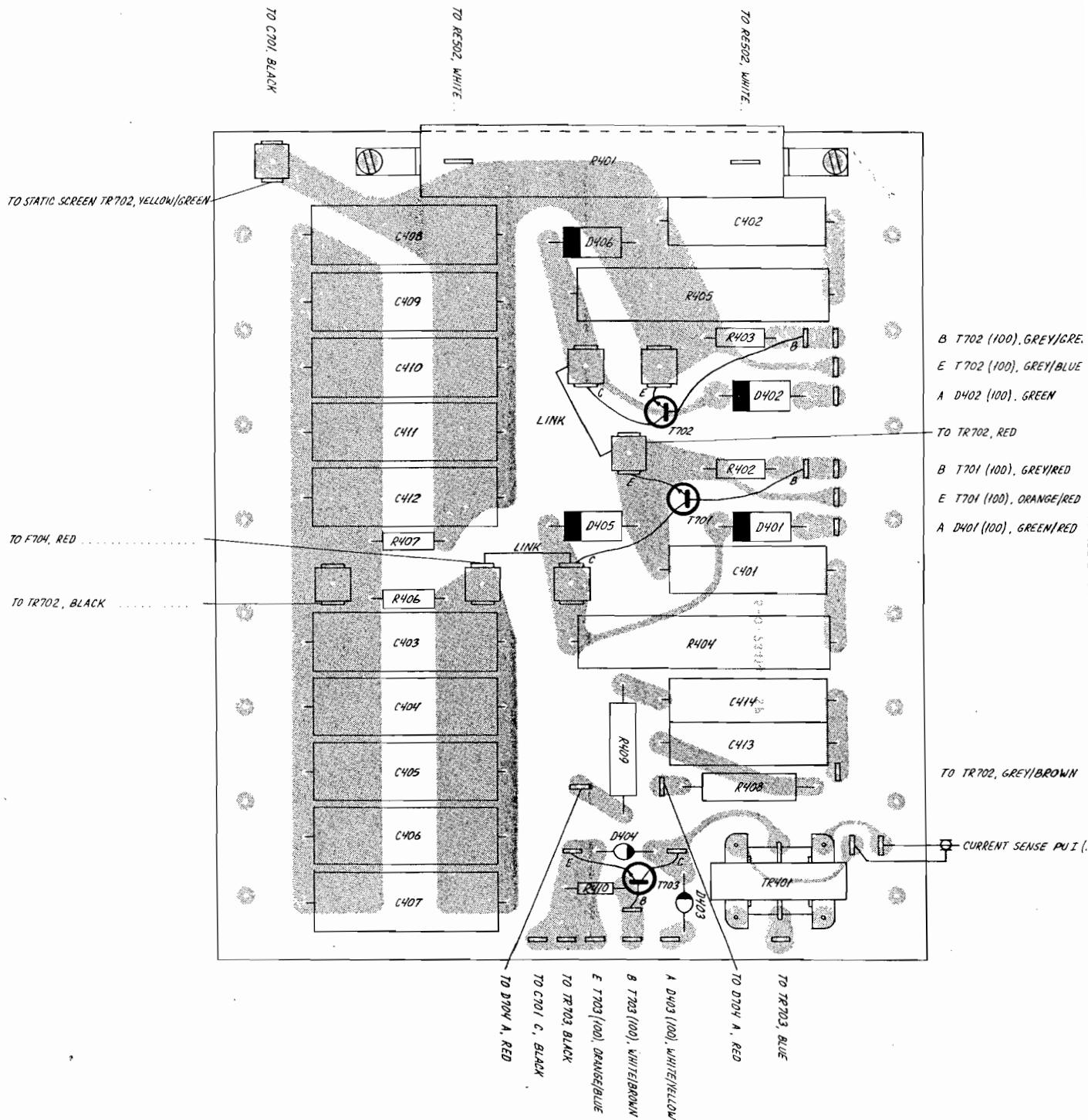
C T704 (200), RED/YELLOW



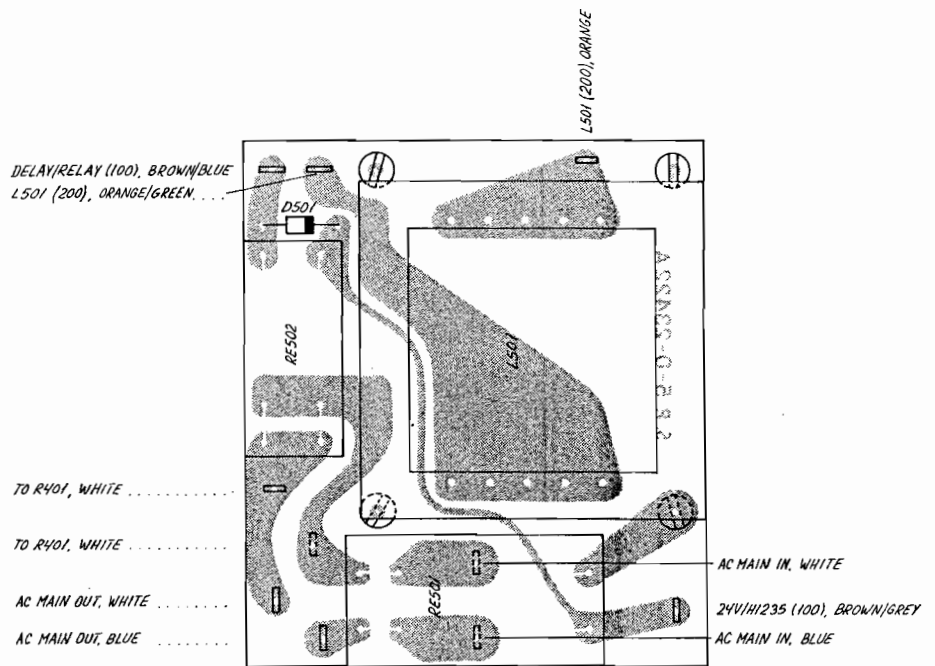




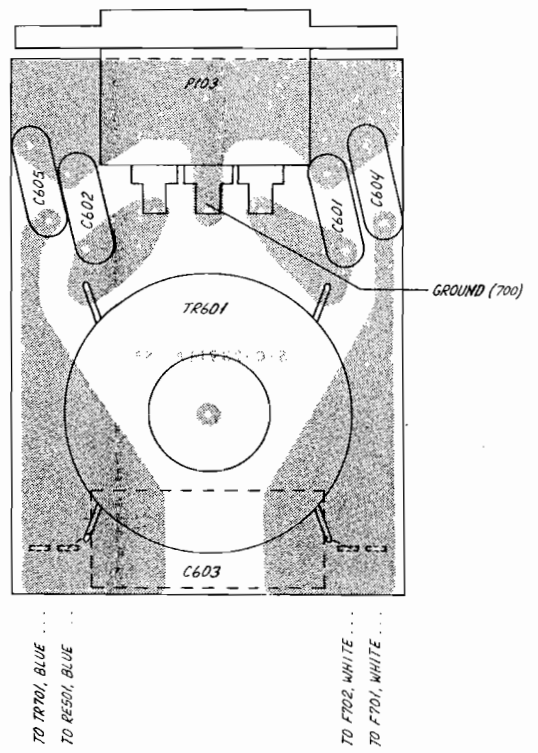
NI1409

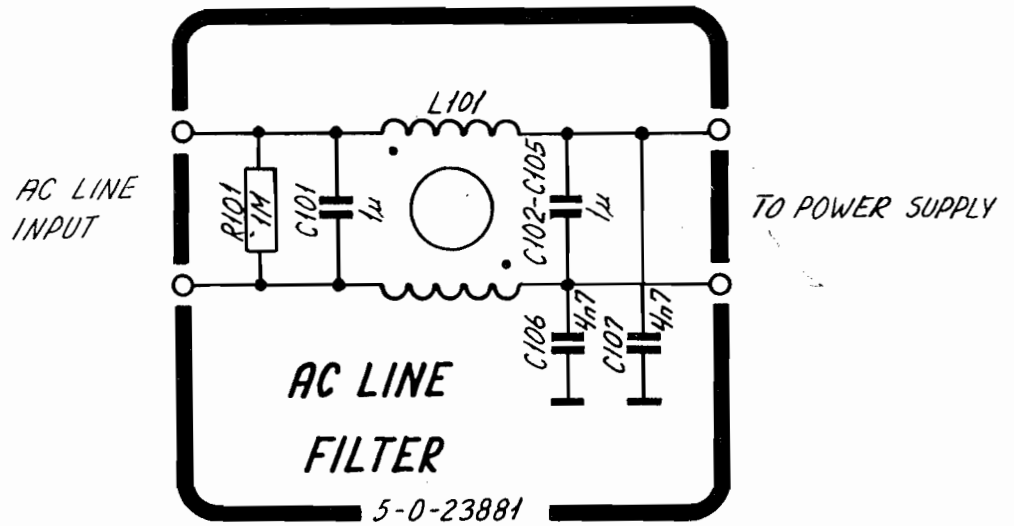


CONNECTION BOARD II MODULE 400



N1409





AC LINE FILTER N1409						(100)	1/1
Symbol	Description			Manufact.			
C101	Capacitor, polyester	1uF	+10%	400V	ERO	F 1772-510-2000	
C102	Capacitor, polyester	1uF	+10%	400V	ERO	F 1772-510-2000	
C103	Capacitor, polyester	1uF	+10%	400V	ERO	F 1772-510-2000	
C104	Capacitor, polyester	1uF	+10%	400V	ERO	F 1772-510-2000	
C105	Capacitor, polyester	1uF	+10%	400V	ERO	F 1772-510-2000	
C106	Capacitor, ceramic	4.7nF	+20%	5KV	Ferroperm	9/0138.9	
C107	Capacitor, ceramic	4.7nF	+20%	5KV	Ferroperm	9/0138.9	
L101	Filter choke	TL382			S.P.	6-0-23900	
R101	Resistor	1Mohm	+5%	0.33W	Philips	2322 211 13105	

Symbol	Description	Manufact.	
R101	Resistor 150 ohm $\pm 5\%$	Philips	2322 191 31501
R102	Resistor 22 Kohm $\pm 5\%$	Philips	2322 181 53223
R103	Resistor 18 Kohm $\pm 5\%$	Philips	2322 181 53183
R104	Resistor 18,2 Kohm $\pm 1\%$	Philips	2322 151 51823
R105	Resistor 1 Kohm $\pm 1\%$	Philips	2322 151 51002
R106	Resistor 1,3 Kohm $\pm 1\%$	Philips	2322 151 51302
R107	Resistor 6,8 Kohm $\pm 5\%$	Philips	2322 181 53682
R108	Resistor 8,2 Kohm $\pm 5\%$	Philips	2322 181 53822
R109	Resistor 100 ohm $\pm 5\%$	Philips	2322 181 53101
R110	Resistor 12 Kohm $\pm 5\%$	Philips	2322 181 53123
R111	Resistor 3,3 Kohm $\pm 5\%$	Philips	2322 181 53332
R112	Resistor 10 Kohm $\pm 5\%$	Philips	2322 181 53103
R113	Resistor 27 ohm $\pm 5\%$	Philips	2322 181 53279
R114	Resistor 220 ohm $\pm 5\%$	Philips	2322 181 53221
R115	Resistor 1,8 Kohm $\pm 5\%$	Philips	2322 181 53182
R116	Resistor 1,8 Kohm $\pm 5\%$	Philips	2322 181 53182
R117	Resistor 220 ohm $\pm 5\%$	Philips	2322 181 53221
R118	Resistor 220 Kohm $\pm 5\%$	Philips	2322 181 53224
R119	Resistor 56 Kohm $\pm 5\%$	Philips	2322 181 53563
R120	Resistor 560 ohm $\pm 5\%$	Philips	2322 191 35601
R121	Resistor 100 Kohm $\pm 5\%$	Philips	2322 181 53104
R122	Resistor 10 Kohm $\pm 5\%$	Philips	2322 181 53103
R123	Resistor 68 ohm $\pm 5\%$	Philips	2322 181 53689
R124	Resistor 68 ohm $\pm 5\%$	Philips	2322 181 53689
R125	Resistor 10 ohm $\pm 5\%$	Philips	2322 181 53109
R126	Resistor 2,7 ohm $\pm 5\%$	Philips	2322 329 35278
R127	Resistor 10 ohm $\pm 5\%$	Philips	2322 181 53109
R128	Resistor 2,7 ohm $\pm 5\%$	Philips	2322 329 35278
R129	Resistor 68 ohm $\pm 5\%$	Philips	2322 181 53689
R130	Resistor 12 ohm $\pm 5\%$	Philips	2322 181 53129
R131	Resistor 12 ohm $\pm 5\%$	Philips	2322 191 31209
R132	Resistor 3,9 Kohm $\pm 5\%$	Philips	2322 181 53392
R133	Resistor Potentiometer 220 ohm $\pm 20\%$	Noble	TM8KV2-1S/220
R134	Resistor 33 ohm $\pm 5\%$	Philips	2322 181 53331
R135	Resistor 3,9 Kohm $\pm 5\%$	Philips	2322 181 53392
R136	Resistor 3,9 Kohm $\pm 5\%$	Philips	2322 181 53392
R137	Resistor 220 ohm $\pm 5\%$	Philips	2322 181 53221
R138	Resistor 27 ohm $\pm 5\%$	Philips	2322 181 53279
R139	Resistor 27 ohm $\pm 5\%$	Philips	2322 181 53279
R140	Resistor 27 ohm $\pm 5\%$	Philips	2322 181 53279

Symbol	Description	Manufact.	
R141	Resistor 120 Kohm $\pm 5\%$	Philips	2322 181 53124
R142	Resistor 1,8 Kohm $\pm 5\%$	Philips	2322 181 53182
R143	Resistor 3,9 Kohm $\pm 5\%$	Philips	2322 181 53392
R144	Resistor Potentiometer 1 Kohm $\pm 20\%$	Noble	TM8KV2-1S/1K
R145	Resistor 390 ohm $\pm 5\%$	Philips	2322 191 33901
R146	Resistor 1,5 Kohm $\pm 5\%$	Philips	2322 181 53152
R147	Resistor 2,7 Kohm $\pm 5\%$	Philips	2322 181 53272
R148	Resistor 10 Kohm $\pm 5\%$	Philips	2322 181 53103
R149	Resistor 8,06 Kohm $\pm 1\%$	Philips	2322 151 58062
R150	Resistor 100 ohm $\pm 5\%$	Philips	2322 191 31001
R151	Resistor 680 ohm $\pm 5\%$	Philips	2322 181 53681
R152	Resistor 1 Mohm $\pm 5\%$	Philips	2322 181 53105
R153	Resistor 2,2 Kohm $\pm 5\%$	Philips	2322 181 53222
R154	Resistor Potentiometer 2,2 Kohm $\pm 20\%$	Noble	TM8KV2-1S/2K2
R155	Resistor 1 Kohm $\pm 5\%$	Philips	2322 181 53102
R156	Resistor 4,53 Kohm $\pm 1\%$	Philips	2322 151 54532
R157	Resistor 560 ohm $\pm 5\%$	Philips	2322 181 53561
R158	Resistor 100 Kohm $\pm 5\%$	Philips	2322 181 53104
R159	Resistor 22 Kohm $\pm 5\%$	Philips	2322 181 53223
R160	Resistor 68 Kohm $\pm 5\%$	Philips	2322 181 53683
R161	Resistor 18 Kohm $\pm 5\%$	Philips	2322 181 53183
R162	Resistor 820 ohm $\pm 5\%$	Philips	2322 181 53821
R163	Resistor 470 ohm $\pm 5\%$	Philips	2322 181 53471
R164	Resistor 3,9 Kohm $\pm 5\%$	Philips	2322 181 53392
R165	Resistor Potentiometer 1 Kohm $\pm 10\%$	Noble	TM8KV2-1S/1K - 10%
R166	Resistor 620 ohm $\pm 5\%$	Philips	2322 181 53621
R167	Resistor 10 Kohm $\pm 5\%$	Philips	2322 181 53103
R168	Resistor 1,2 Kohm $\pm 5\%$	Philips	2322 181 53122
R169	Resistor Potentiometer 2,2 Kohm $\pm 20\%$	Noble	TM8KV2-1S/2K2
R170	Resistor 22 Kohm $\pm 5\%$	Philips	2322 181 53223
R171	Resistor 2,7 Kohm $\pm 5\%$	Philips	2322 181 53272
R172	Resistor 4,7 Kohm $\pm 5\%$	Philips	2322 181 53472
R173	Resistor 18 Kohm $\pm 5\%$	Philips	2322 181 53183
R174	Resistor 15 Kohm $\pm 5\%$	Philips	2322 181 53153
R175	Resistor 18 Kohm $\pm 5\%$	Philips	2322 181 53183
R176	Resistor 2,2 Kohm $\pm 5\%$	Philips	2322 181 53222

Symbol	Description				Manufact.		
C101	Capacitor	MKT	100nF	$\pm 20\%$	100V	ERO	MKT 1818 410 016
C102	Capacitor	Electrolytic	22uF	$\pm 20\%$	25V	ROE	EKI 00 AA 222 E
C103	Capacitor	MKT	100nF	$\pm 20\%$	100V	ERO	MKT 1818 410 016
C104	Capacitor	MKT	100nF	$\pm 20\%$	100V	ERO	MKT 1818 410 016
C105	Capacitor	Electrolytic	10uF	$\pm 20\%$	35V	ROE	EKI 00 AA 210 F
C106	Capacitor	MKT	2,2nF	$\pm 10\%$	400V	Siemens	B32510-D6222-K
C107	Capacitor	Electrolytic	1,5uF	$\pm 20\%$	50V	ROE	EKI 00 AA 115 H
C108	Capacitor	MKT	2,2nF	$\pm 10\%$	400V	Siemens	B32510-D6222-K
C109	Capacitor	MKT	100nF	$\pm 20\%$	100V	ERO	MKT 1818 410 016
C110	Capacitor	Electrolytic	22uF	$\pm 20\%$	25V	ROE	EKI 00 AA 222 E
C111	Capacitor	MKT	2,2nF	$\pm 10\%$	400V	Siemens	B32510-D6222-K
C112	Capacitor	MKT	10nF	$\pm 20\%$	250V	ERO	MKT 1818 310 256
C113	Capacitor	MKT	220nF	$\pm 20\%$	63V	ERO	MKT 1818 422 066
C114	Capacitor	MKT	100nF	$\pm 20\%$	100V	ERO	MKT 1818 410 016
C115	Capacitor	MKT	2,2uF	$\pm 10\%$	63V	ERC	MKT 1822 522 065
C116	Capacitor	MKT	2,2uF	$\pm 10\%$	63V	ERO	MKT 1822 522 065
C117	Capacitor	Electrolytic	100uF		25V	ROE	EKM 00 CC 310 E
C118	Capacitor	MKT	2,2uF	$\pm 10\%$	63V	ERO	MKT 1822 522 065
C119	Capacitor	MKT	100nF	$\pm 20\%$	100V	ERO	MKT 1818 410 016
C120	Capacitor	MKT	4,7nF	$\pm 10\%$	400V	Siemens	B32510-D6472-K
C121	Capacitor	Electrolytic	47uF	$\pm 20\%$	10V	ROE	EKI 00 AA 247 E
C122	Capacitor	MKT	220nF	$\pm 20\%$	63V	ERO	MKT 1818 422 066
C123	Capacitor	MKT	220nF	$\pm 20\%$	63V	ERO	MKT 1818 422 066
C124	Capacitor	Electrolytic	10uF	$\pm 20\%$	35V	ROE	EKI 00 AA 210 F
C125	Capacitor	Electrolytic	220uF		10V	ROE	EKM 00 CC 322 C
C126	Capacitor	Electrolytic	10uF	$\pm 20\%$	35V	ROE	EKI 00 AA 210 F
C127	Capacitor	MKT	22nF	$\pm 10\%$	250V	ERO	MKT 1818 322 255
C128	Capacitor	MKT	2,2nF	$\pm 10\%$	400V	Siemens	B32510-D6222-K
C129	Capacitor	MKT	470nF	$\pm 10\%$	63V	ERO	MKT 1818 447 065
C130	Capacitor	MKT	100nF	$\pm 20\%$	100V	ERO	MKT 1818 410 016
C131	Capacitor	MKT	15nF	$\pm 10\%$	250V	ERO	MKT 1818 315 255
C132	Capacitor	Electrolytic	10uF	$\pm 20\%$	35V	ROE	EKI 00 AA 210 F
C133	Capacitor	Electrolytic	10uF	$\pm 20\%$	35V	ROE	EKI 00 AA 210 F
C134	Capacitor	MKT	2,2nF	$\pm 10\%$	400V	Siemens	B32510-D6222-K
C135	Capacitor	MKT	2,2nF	$\pm 10\%$	400V	Siemens	B32510-D6222-K

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
D101	Diode, Zener 12V 2W	Thomson CSF	BZV47C12
D102	Diode, Silicon	Philips	BAV21
D103	Diode, Silicon	Philips	1N4148
D104	Diode, Silicon	Philips	BAV21
D105	Diode, Silicon	Motorola	1N4934
D106	Diode, Silicon	Motorola	1N4934
D107	Diode, Zener 9,1V 0,5W	Philips	BZX79C9V1
D108	Diode, Silicon	Philips	1N4148
D109	Diode, Silicon	Motorola	MR850
D110	Diode, Silicon	Motorola	1N4934
D111	Diode, Silicon	Motorola	MR850
D112	Diode, Silicon	Motorola	1N4934
D113	Diode, Silicon	Motorola	1N4934
D114	Diode, Silicon	Motorola	1N4934
D115	Diode, Silicon	Motorola	1N4934
D116	Diode, Germanium	ITT	AA143
D117	Diode, Zener 13V 2W	Thomson CSF	BZV74C13
D118	Diode, Zener 24V 0,5W	Philips	BZX79C24
D119	Diode, Silicon	Philips	1N4148
D120	Diode, Zener 7,5V 0,5W	Philips	BZV79C5V1
D121	Diode, Zener 5,1V 0,5W	Philips	BZX79C5V1
D122	Diode, Silicon	Philips	BAV21
T101	Transistor	Philips	BC548
T102	Transistor	Philips	BC547
T103	Transistor	Philips	BC547
T104	Transistor	Philips	BC547
T105	Transistor	Philips	BC547
T106	Transistor	Philips	BDX47
T107	Transistor	Philips	BDX47
T108	Transistor	Philips	BD131
T109	Transistor	Philips	BD131
T110	Transistor	Philips	BDX43
T111	Transistor	Philips	BD131
T112	Transistor	Philips	BC558
T113	Transistor	Philips	BC639
T114	Transistor	Philips	BC640

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
IC101	Integrated circuit	Siemens	TDA4718A
IC102	Integrated circuit	Motorola	MC1455P1
IC103	Integrated circuit	Philips	TDA1060A
IC104	Integrated circuit	Motorola	MC1723CP
IC105	Integrated circuit	National	LM358N
RE101	Relay	Pasi	KS/U BV998
RE102	Relay	Pasi	KH/A BV936
RE103	Relay	Pasi	KS/U BV998
RE104	Relay	Pasi	KH/A BV936
RE105	Relay	Pasi	KS/U BV998
TR101	Transformer	Tradania	TD 4418a
TR102	Transformer	Tradania	TD 4418a
TR103	Transformer	Tradania	TD 4418a

Symbol	Description	Manufact.	
R201	Resistor 3,9 Kohm $\pm 5\%$	Philips	2322 181 53392
R202	Resistor 220 ohm $\pm 5\%$	Philips	2322 181 53221
R203	Resistor 3,3 Kohm $\pm 5\%$	Philips	2322 191 33302
R204	Resistor 56 ohm $\pm 5\%$	Philips	2322 191 35609
R205	Resistor 150 ohm $\pm 5\%$	Philips	2322 330 22151
R206	Resistor 13,3 mohm	S.P.	TL 380
R207	Resistor 1 Kohm $\pm 5\%$	Philips	2322 181 53102
R208	Resistor 0,12 ohm $\pm 5\%$	Danotherm	VC3 - 0,12 ohm
C201	Capacitor MKT 220nF	Siemens	B32511-D1224-K
C202	Capacitor electrolytic 2200uF	FRAKO	EFI 2200uF 40V
C203	Capacitor MKT 220nF	Siemens	B32511-D1224-K
C204	Capacitor MKT 220nF	Siemens	B32511-D1224-K
C205	Capacitor electrolytic 470uF	ROE	EB 00 HE 347 G
C206	Capacitor electrolytic 2200uF	FRAKO	EFI 2200uF 40V
C207	Capacitor electrolytic 2200uF	FRAKO	EFI 2200uF 40V
C208	Capacitor electrolytic 2200uF	FRAKO	EFI 2200uF 40V
C209	Capacitor electrolytic 2200uF	FRAKO	EFI 2200uF 40V
C210	Capacitor electrolytic 2200uF	FRAKO	EFI 2200uF 40V
C211	Capacitor electrolytic 2200uF	FRAKO	EFI 2200uF 40V
C212	Capacitor electrolytic 100uF	ROE	EB 00 GD 310 J
C213	Capacitor electrolytic 2200uF	ROE	EG 00 KE 422 G
C214	Capacitor electrolytic 2200uF	ROE	EG 00 KE 422 G
C215	Capacitor electrolytic 2200uF	ROE	EG 00 KG 422 F
C216	Capacitor electrolytic 2200uF	ROE	EG 00 KG 422 F
C217	Capacitor electrolytic 470uF	ROE	EB 00 HE 347 G
C218	Capacitor MKT 100nF $\pm 20\%$	ERO	MKT 1818 410 016
C219	Capacitor MKT 100nF $\pm 20\%$	ERO	MKT 1818 410 016
C220	Capacitor MKT 100nF $\pm 20\%$	ERO	MKT 1818 410 016
C221	Capacitor MKT 100nF $\pm 20\%$	ERO	MKT 1818 410 016
C222	Capacitor MKT 100nF $\pm 20\%$	ERO	MKT 1818 410 016
C223	Capacitor MKT 100nF $\pm 20\%$	ERO	MKT 1818 410 016
C224	Capacitor MKT 100nF $\pm 20\%$	ERO	MKT 1818 410 016
L201	Choke	Tradania	TD 4367
L202	Choke	Tradania	TD 2602
L203	Choke	S.P.	TL 079
L204	Choke	S.P.	TL 079
D201	Diode, bridge	General Instruments	2KBPO05

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
D202	Diode, silicon	Motorola	BA 157
D203	Diode, silicon	Motorola	BA 157
D204	Diode, silicon	Motorola	MR 850
D205	Diode, silicon	Motorola	MR 850
D206	Diode, silicon	Motorola	MR 850

Symbol	Description	Manufact.	
R301	Resistor 330 ohm $\pm 5\%$	Philips	0,33W 2322 181 53331
R302	Resistor 15 ohm $\pm 5\%$	Philips	1,6W 2322 191 31509
R303	Resistor .56 ohm $\pm 5\%$	Philips	1,6W 2322 191 35609
C301	Capacitor Polypropylen 1nF $\pm 10\%$	ERO	2KV KP1832 210 205
C302	Capacitor Polyester 47nF $\pm 20\%$	Philips	400V 2222 344 54 473
C303	Capacitor Polypropylen 10nF $\pm 10\%$	ERO	1,5KV KP1832 310 155
D301	Diode, Silicon	Philips	BYV96D

CONNECTION BOARD II N1409

1/

Symbol	Description	Manufact.	
R401	Resistor 6,8 ohm	25V Danotherm	GRF25L-6,8 ohm
R402	Resistor 22 ohm $\pm 5\%$	0,5W Philips	2322 182 53229
R403	Resistor 22 ohm $\pm 5\%$	0,5W Philips	2322 182 53229
R404	Resistor 56 ohm $\pm 5\%$	10W Danotherm	VC10-56 ohm
R405	Resistor 56 ohm $\pm 5\%$	10W Danotherm	VC10-56 ohm
R406	Resistor 82 Kohm $\pm 5\%$	0,5W Philips	2322 182 53823
R407	Resistor 82 Kohm $\pm 5\%$	0,5W Philips	2322 182 53823
R408	Resistor 56 ohm $\pm 5\%$	4W Philips	2322 330 22561
R409	Resistor 56 ohm $\pm 5\%$	4W Philips	2322 330 22561
R410	Resistor 47 ohm $\pm 5\%$	0,33W Philips	2322 181 53471
C401	Capacitor Polypropylen 6,8nF $\pm 10\%$	1,5KV ERO	KP1832 268 155
C402	Capacitor Polypropylen 6,8nF $\pm 10\%$	1,5KV ERO	KP1832 268 155
C403	Capacitor Polyester 1uF $\pm 10\%$	250V Philips	2222 341 89105
C404	Capacitor Polyester 1uF $\pm 10\%$	250V Philips	2222 341 89105
C405	Capacitor Polyester 1uF $\pm 10\%$	250V Philips	2222 341 89105
C406	Capacitor Polyester 1uF $\pm 10\%$	250V Philips	2222 341 89105
C407	Capacitor Polyester 1uF $\pm 10\%$	250V Philips	2222 341 89105
C408	Capacitor Polyester 1uF $\pm 10\%$	250V Philips	2222 341 89105
C409	Capacitor Polyester 1uF $\pm 10\%$	250V Philips	2222 341 89105
C410	Capacitor Polyester 1uF $\pm 10\%$	250V Philips	2222 341 89105
C411	Capacitor Polyester 1uF $\pm 10\%$	250V Philips	2222 341 89105
C412	Capacitor Polyester 1uF $\pm 10\%$	250V Philips	2222 341 89105
C413	Capacitor Polypropylen 3,3nF $\pm 10\%$	1,5KV ERO	KP1832 233 155
C414	Capacitor Polypropylen 3,3nF $\pm 10\%$	1,5KV ERO	KP1832 233 155
D401	Diode, Silicon	Motorola	MR917
D402	Diode, Silicon	Motorola	MR917
D403	Diode, Silicon	Philips	BYV96D
D404	Diode, Silicon	Philips	BYV96D
D405	Diode, Silicon	Motorola	MR917
D406	Diode, Silicon	Motorola	MR917
TR401	Transformer	Tradania	TD4366

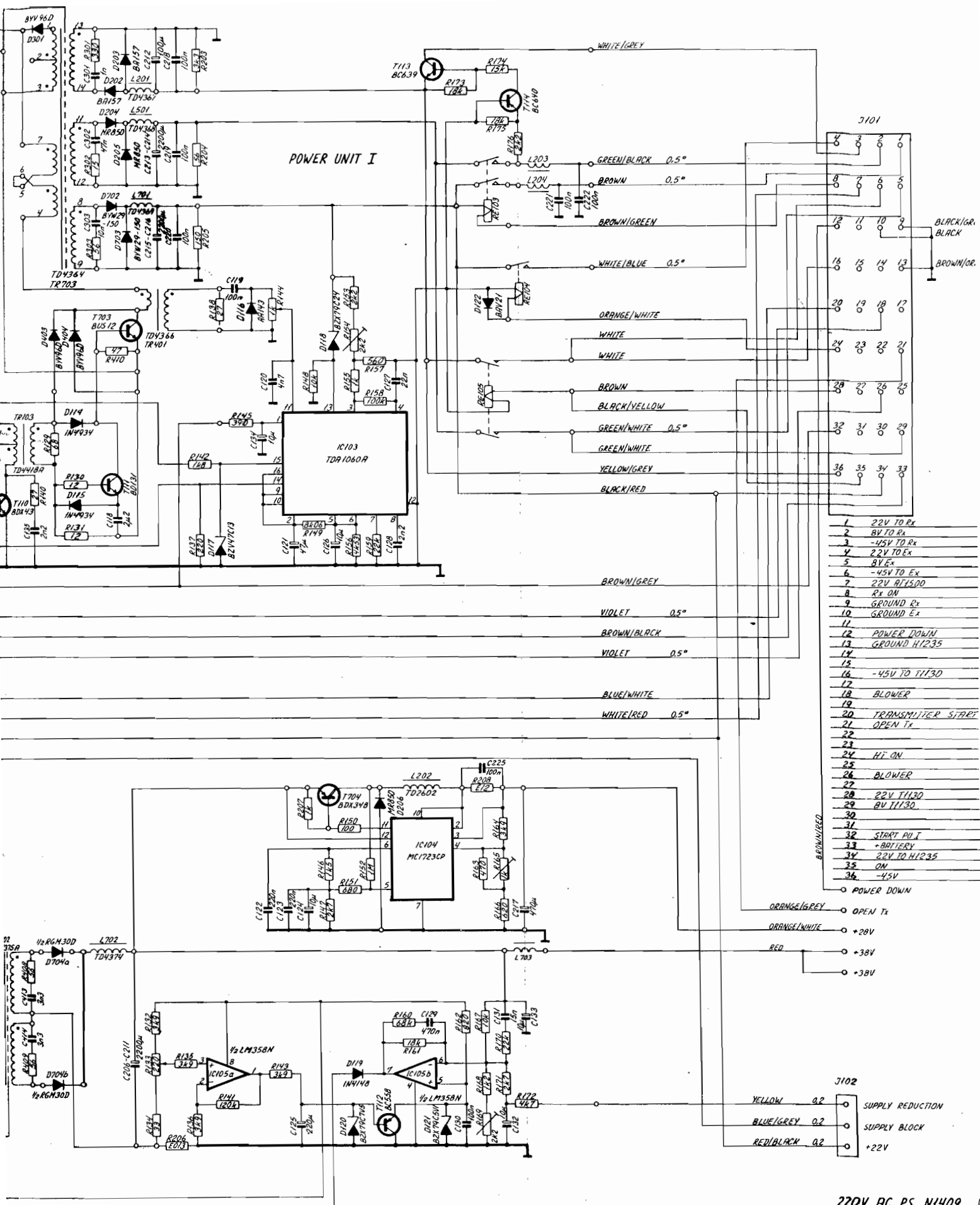
<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
D501	Diode, Silicon	Philips	BAV21
L501	Choke	Tradania	TD4368
RE501	Relay	Pasi	WSA/GD-10-C
RE502	Relay	Pasi	KH/A BV936

MAINS FILTER N1409

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
C601	Capacitor ceramic 4,7nF	5KV Ferroperm	9/0138,9
C602	Capacitor ceramic 4,7nF	5KV Ferroperm	9/0138,9
C603	Capacitor 1uF	250V AC ERO	F1773-510-2000
C604	Capacitor ceramic 4,7nF	5KV Ferroperm	9/0138,9
C605	Capacitor ceramic 4,7nF	5KV Ferroperm	9/0138,9
TR601	Choke		TL 384

<i>Symbol</i>	<i>Description</i>	<i>Manufact.</i>	
R701	Resistor 330 Kohm $\pm 5\%$	Philips	2322 182 53334
C702	Capacitor polypropylen 10nF	1,5V ERO	KP1832 310 155
L701	Choke	Tradania	TD 4369
L702	Choke	Tradania	TD 4374
D701	Diode, bridge	Motorola	BYW 24
D702	Diode, silicon	Philips	BYW 29-150
D703	Diode, silicon	Philips	BYW 29-150
D704	Diode, double	General Instrument	RGM 30D
T701	Transistor	Thomson CSF	BUX 98
T702	Transistor	Thomson CSF	BUX 98
T703	Transistor	Philips	BUS 12
T704	Transistor	Motorola	BDX 34B
IC701	Integrated circuit	National	LM 317T
TR701	Transformer	Tradania	TD 444 1
TR702	Transformer	Tradania	TD 4375A
TR703	Transformer	Tradania	TD 4364

<i>Symbol</i>	<i>Description</i>			<i>Manufact.</i>	
TB701	Thermal breaker			Elmwood	2455R-21-923
	<u>At 220V:</u>				
C701	Capacitor electrolytic	1000uF	350V	FRAKO	EKBC 1000-350
F701	Fuse	0,5A time lag	250V	ELU	5x20 mm 0,5A
F702	Fuse	6,0A time lag	250V	Little Fuse	3AB 314 006
F703	Fuse	1,0A time lag	250V	ELU	5x20 mm 1,0A
F704	Fuse	4,0A time lag	250V	ELU	5x20 mm 4,0A



POWER UNIT I

IC103
TDA1060A

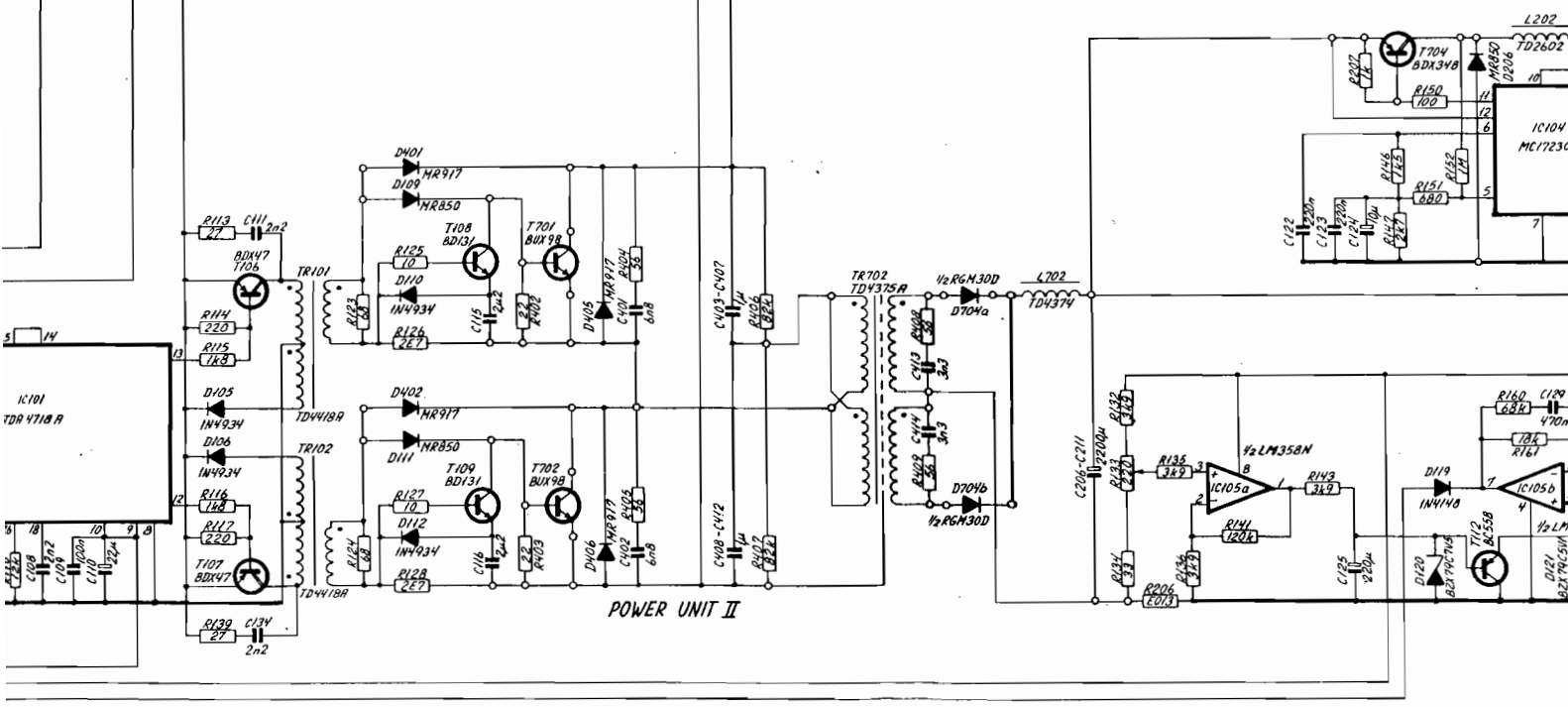
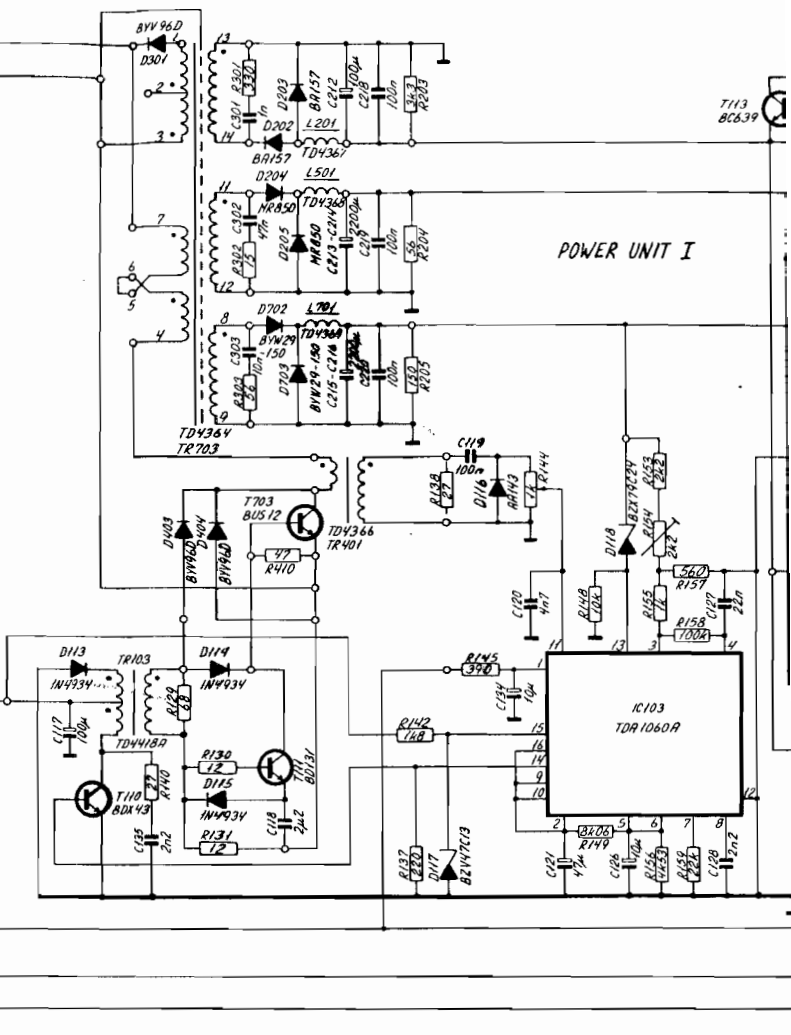
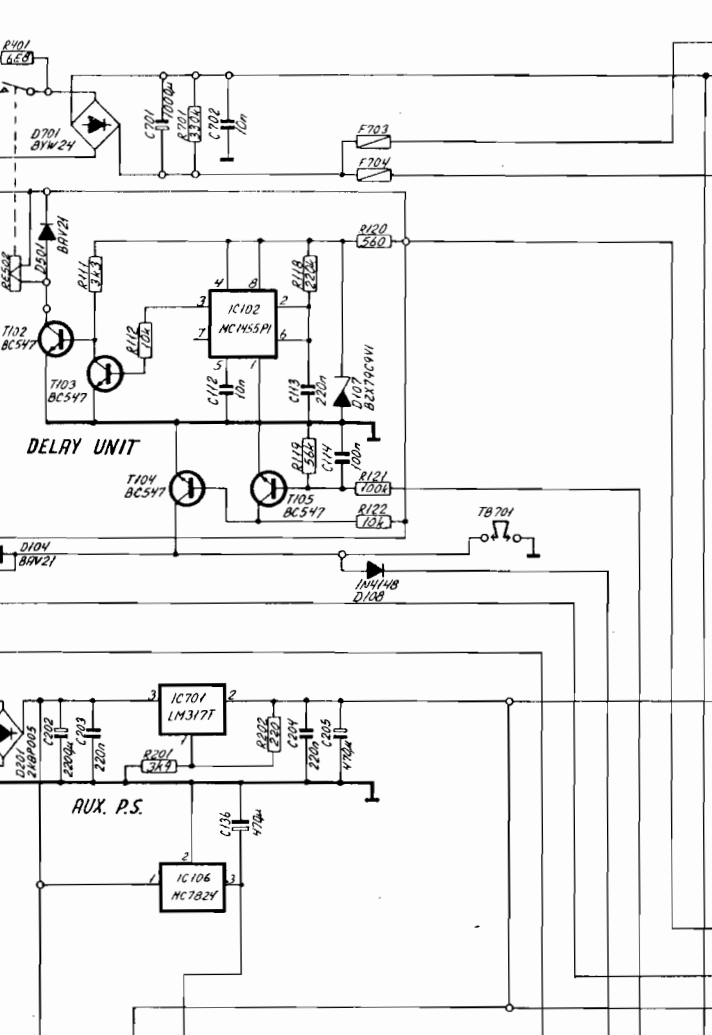
IC104
MC1723CP

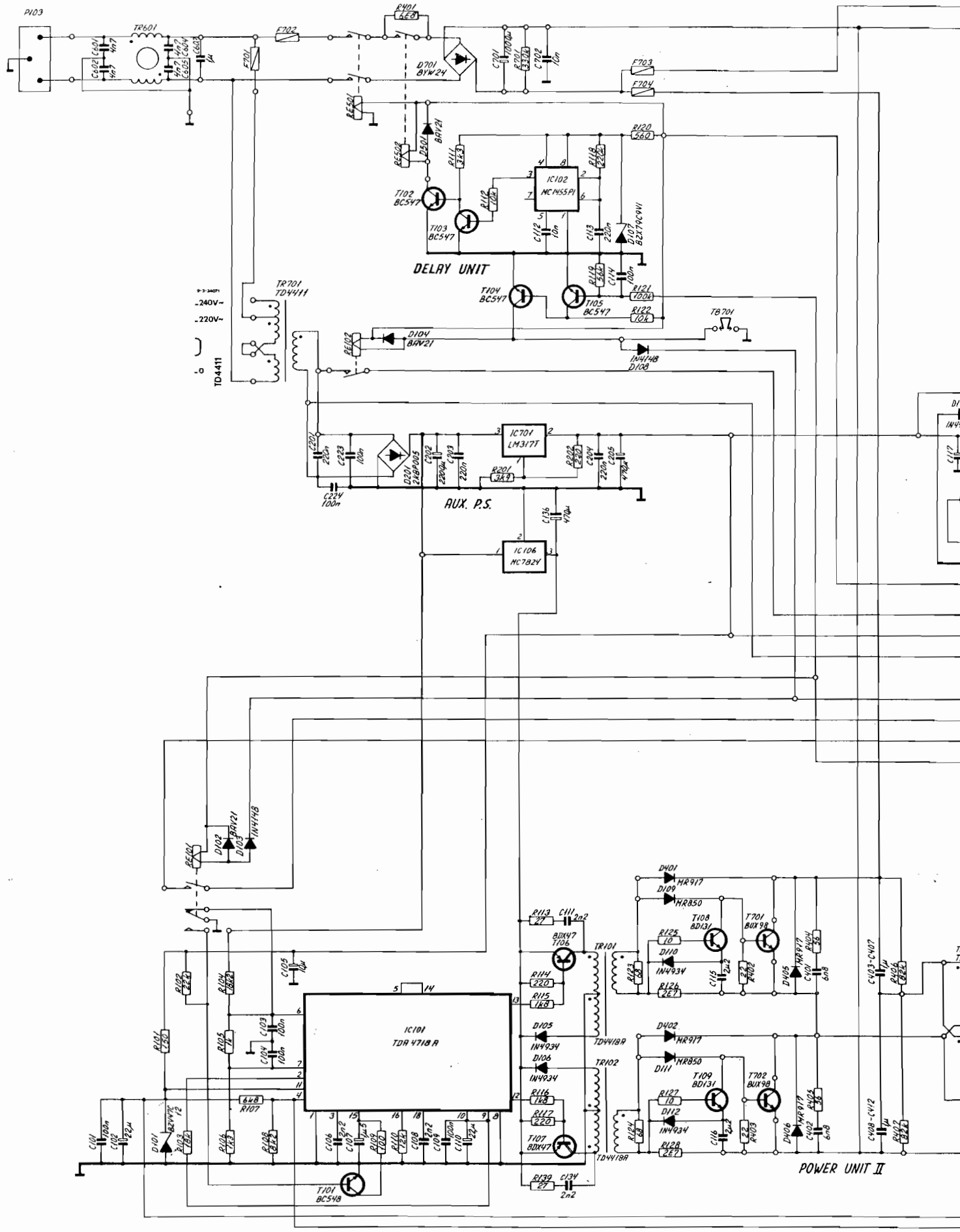
LM358

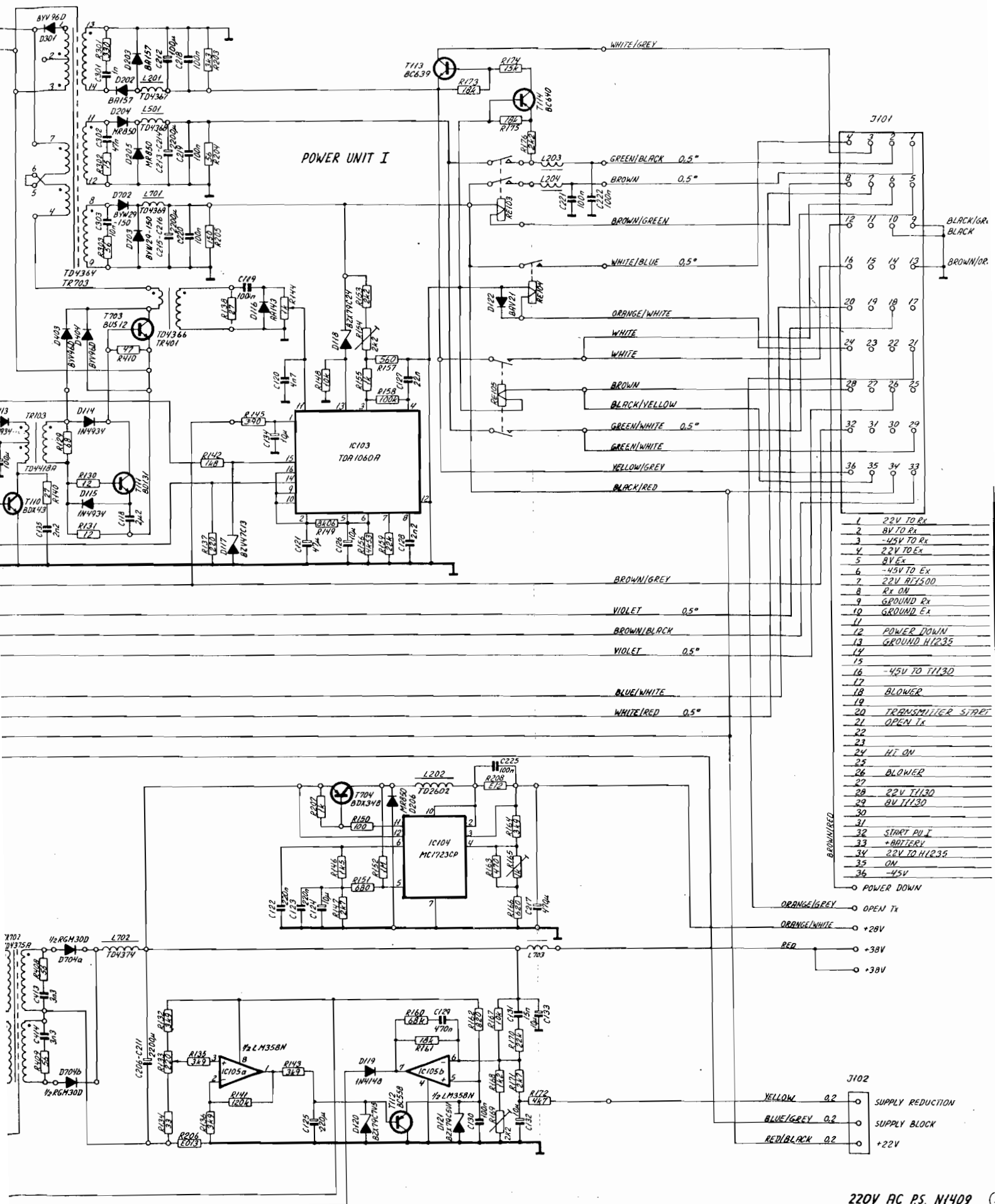
LM358

- 3101
- 1 22V TO Rx
 - 2 BV TO Rx
 - 3 -45V TO Rx
 - 4 22V TO Ex
 - 5 8V Ex
 - 6 -45V TO Ex
 - 7 22V HI1500
 - 8 Rx ON
 - 9 GROUND Rx
 - 10 GROUND Ex
 - 11
 - 12 POWER DOWN
 - 13 GROUND HI235
 - 14
 - 15
 - 16 -45V TO TI130
 - 17
 - 18 BLOWER
 - 19
 - 20 TRANSMITTER START
 - 21 OPEN Tx
 - 22
 - 23
 - 24 HI ON
 - 25
 - 26 BLOWER
 - 27
 - 28 22V TI130
 - 29 BV TI130
 - 30
 - 31
 - 32 START P.U.T
 - 33 +BATTERY
 - 34 22V TO HI235
 - 35 ON
 - 36 -45V
- POWER DOWN

- 3102
- YELLOW 0.2 SUPPLY REDUCTION
 - BLUE/GREY 0.2 SUPPLY BLOCK
 - RED/BLACK 0.2 +22V

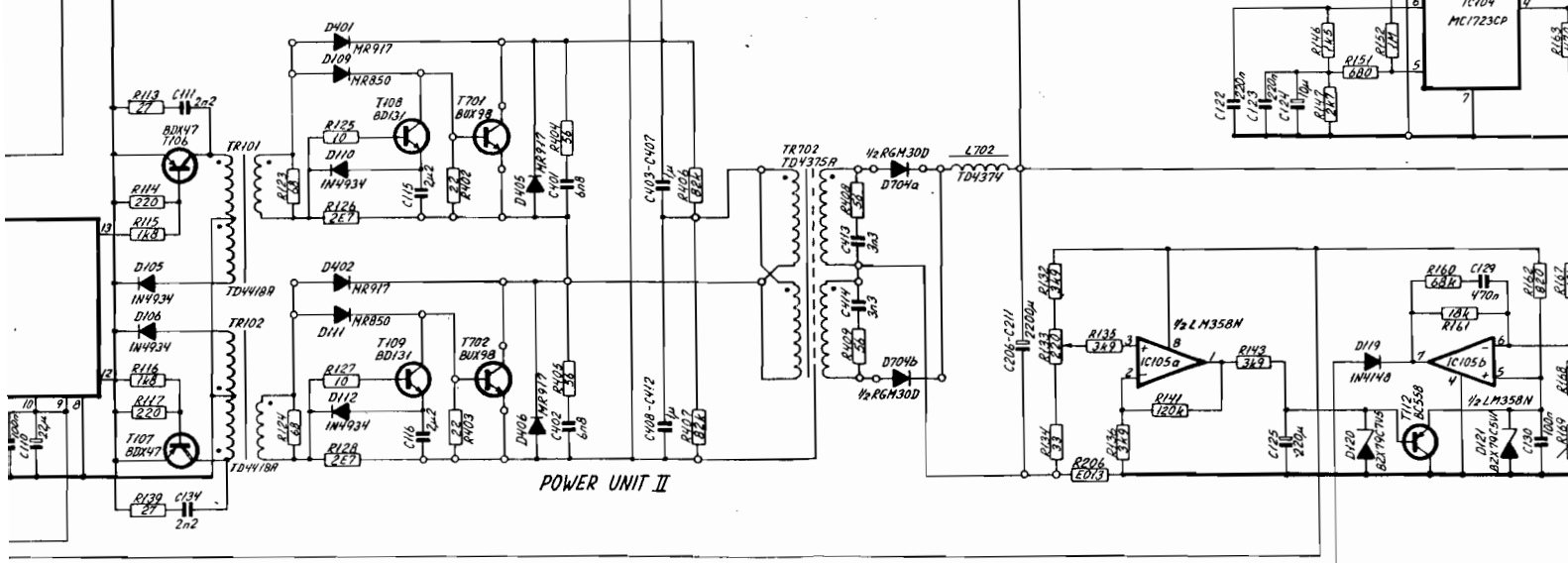
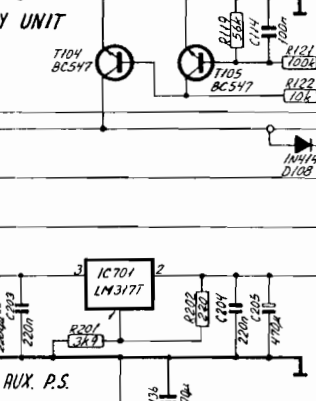
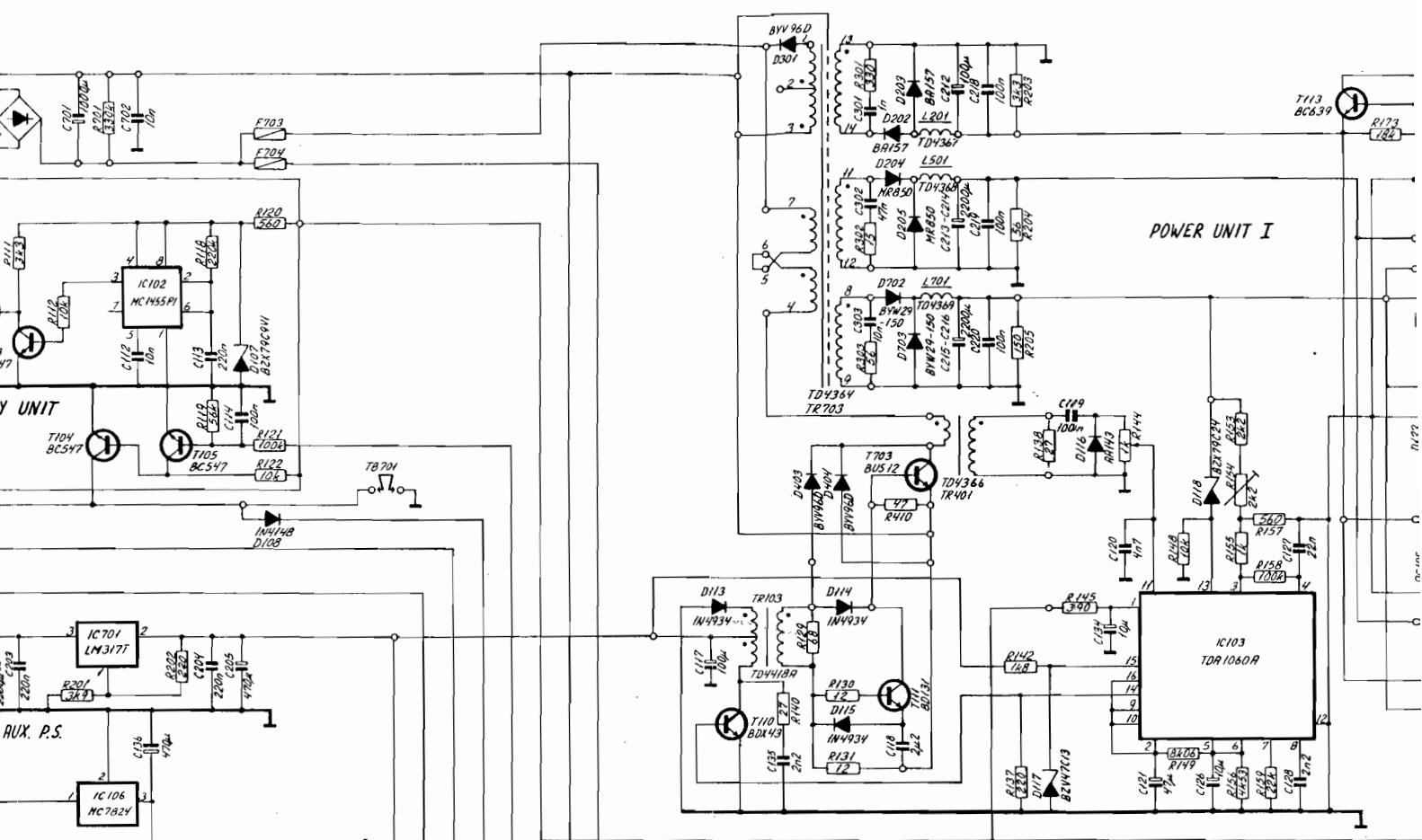






- 1 22V TO Rx
- 2 8V TO Rx
- 3 -45V TO Rx
- 4 22V TO Ex
- 5 8V Ex
- 6 -45V TO Ex
- 7 22V AT1500
- 8 Rx ON
- 9 GROUND Ex
- 10 GROUND Ex
- 11
- 12 POWER DOWN
- 13 GROUND H1235
- 14
- 15
- 16 -45V TO T1130
- 17
- 18 BLOWER
- 19
- 20 TRANSMITTER STRET
- 21 OPEN Tx
- 22
- 23
- 24 HI ON
- 25
- 26 BLOWER
- 27
- 28 22V T1130
- 29 8V T1130
- 30
- 31
- 32 START PU I
- 33 +ANTENNA
- 34 22V TO H1235
- 35 ON
- 36 -45V
- POWER DOWN

- OPEN Tx
 - +28V
 - +38V
 - +38V
- J102
- YELLOW 0.2 SUPPLY REDUCTION
 - BLUE/GREY 0.2 SUPPLY BLOCK
 - RED/BLACK 0.2 +22V



NI409

