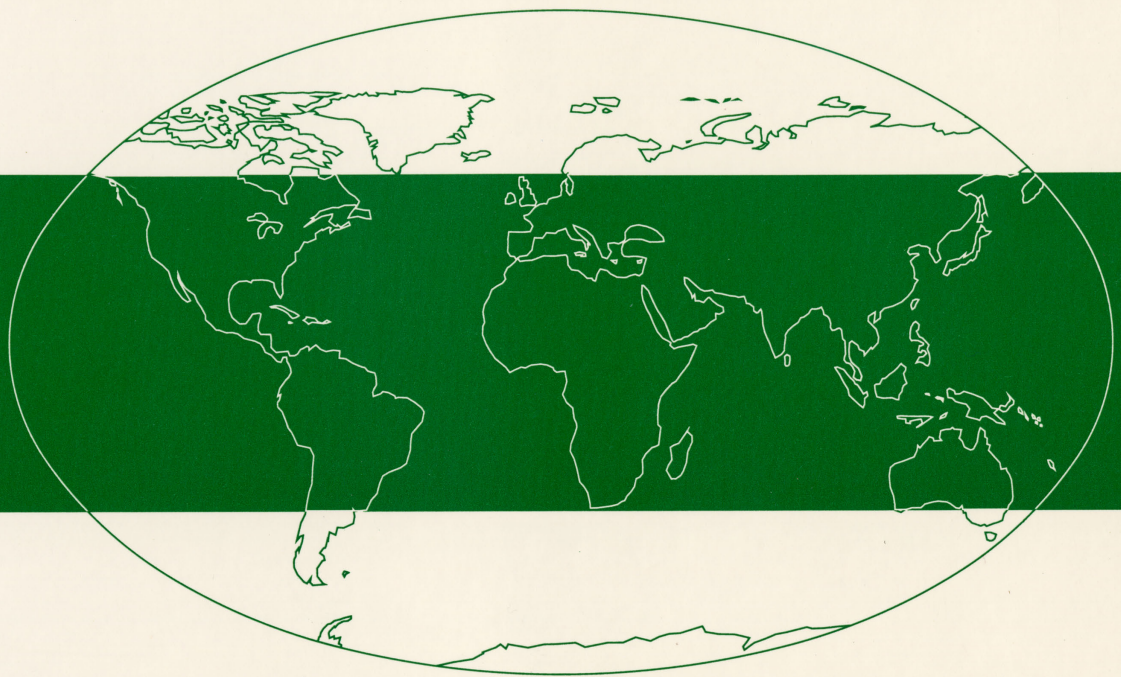


SAILOR



TECHNICAL MANUAL
FOR
DC MONITOR H1253C



S.P. RADIO A/S · AALBORG · DENMARK

Technical information

(I) General:

Picture tube	: 14 inch, flat, 90° deflection, normal glass, non-glare, neck diameter 20 mm, light transmission 42%, antistatic surface(4BM2797 only).
Phosphor	: Paper white, medium.
Hardware Compatibility	: IBM PC, PC/XT, PC/AT, PS/2, and the compatibles; IBM MCGA, VGA video cards, and the compatibles.
Disply size	: 240 mm (H) x 180 mm (V)
Line (Horizontal) frequency	: 31.5 KHz
Raster (Vertical) frequency	: 60 - 70 Hz
Mains voltage	: 220 - 240 VAC, 50 Hz
Power consumption	: 35 watt typical
Video bandwidth at -3 dB	: 30 MHz
Resolution	: 720 dots x 400 lines, 70 Hz 640 dots x 480 lines, 60 Hz
Character	: 2000 (80 characters x 25 lines)
Pedestal	: Tilt 5° forward, 15° backward; swivel 90° left or right.
Unit dimension (W x H x D)	: 332 x 297 x 309 mm
Net weight	: 7 Kg
Operating condition	
Temperature	: 5° C to 45° C
Humidity	: 15% to 90%
Non-operating condition	
Temperature	: -25° C to 55° C
Humidity	: 35% to 95%

(II) Input signal:

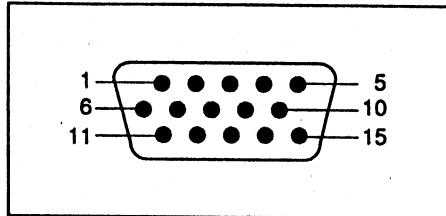
Analog RGB

Video : 0 - 0.7 Vp-p linear / 75 Ohm

Sync : TTL level

(III) Pin assignment:

The pin assignment of the 15-pin D-shell connector of the signal cable is as the following:

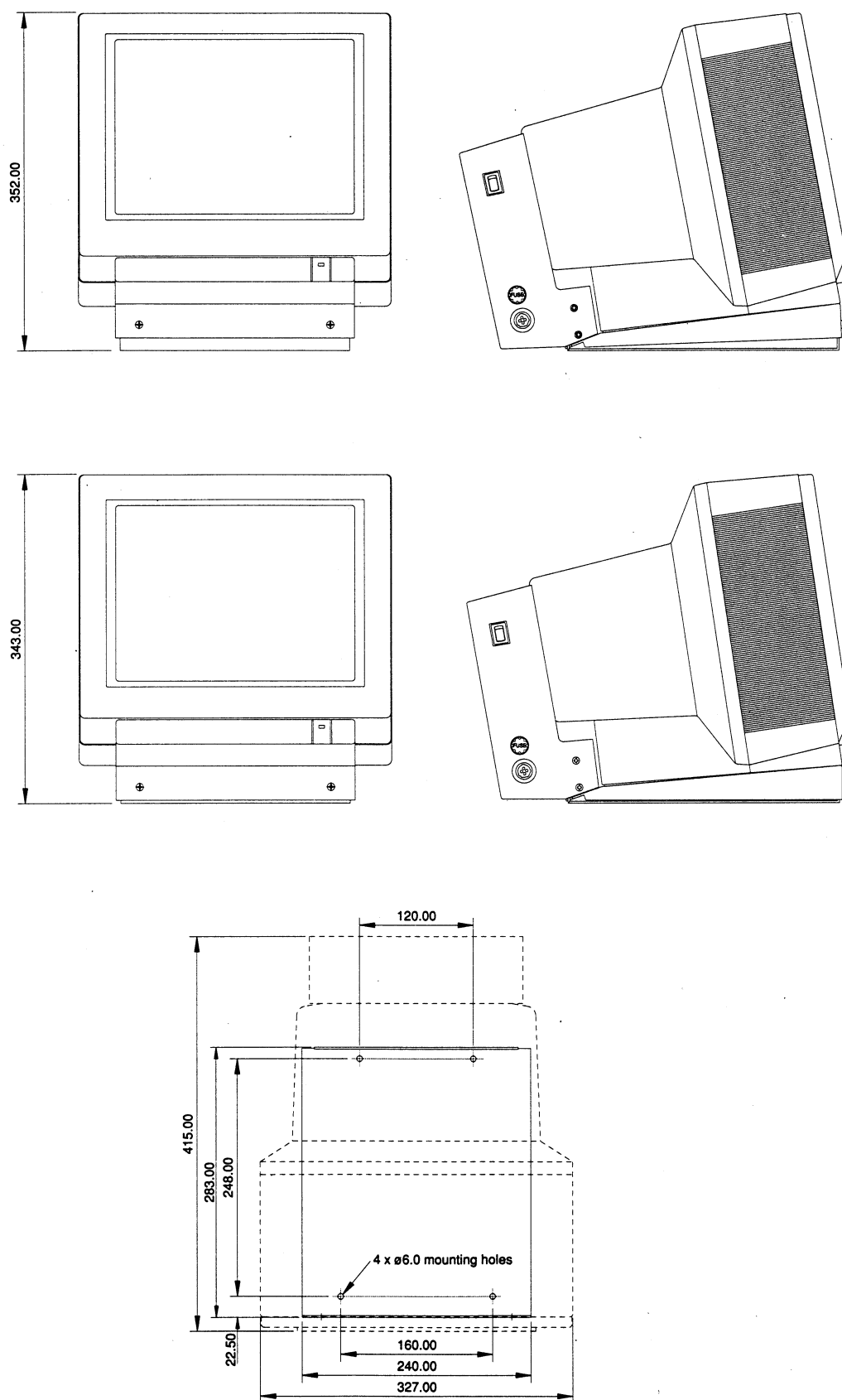


Pin No.	Assignment	Pin No.	Assignment
1	Reserved	9	Reserved
2	Video	10	Ground
3	Reserved	11	Reserved (monitor sense open)
4	Reserved	12	Monitor sense ground
5	Self-test input	13	H. Sync
6	Reserved	14	V. Sync
7	Video return	15	Reserved
8	Reserved		

✱ Because of a policy of continuous product improvement, the above specifications are subject to change without notice.

2 INSTALLATION

2.1 DIMENSIONS AND DRILLING PLAN FOR H1253C MONITOR

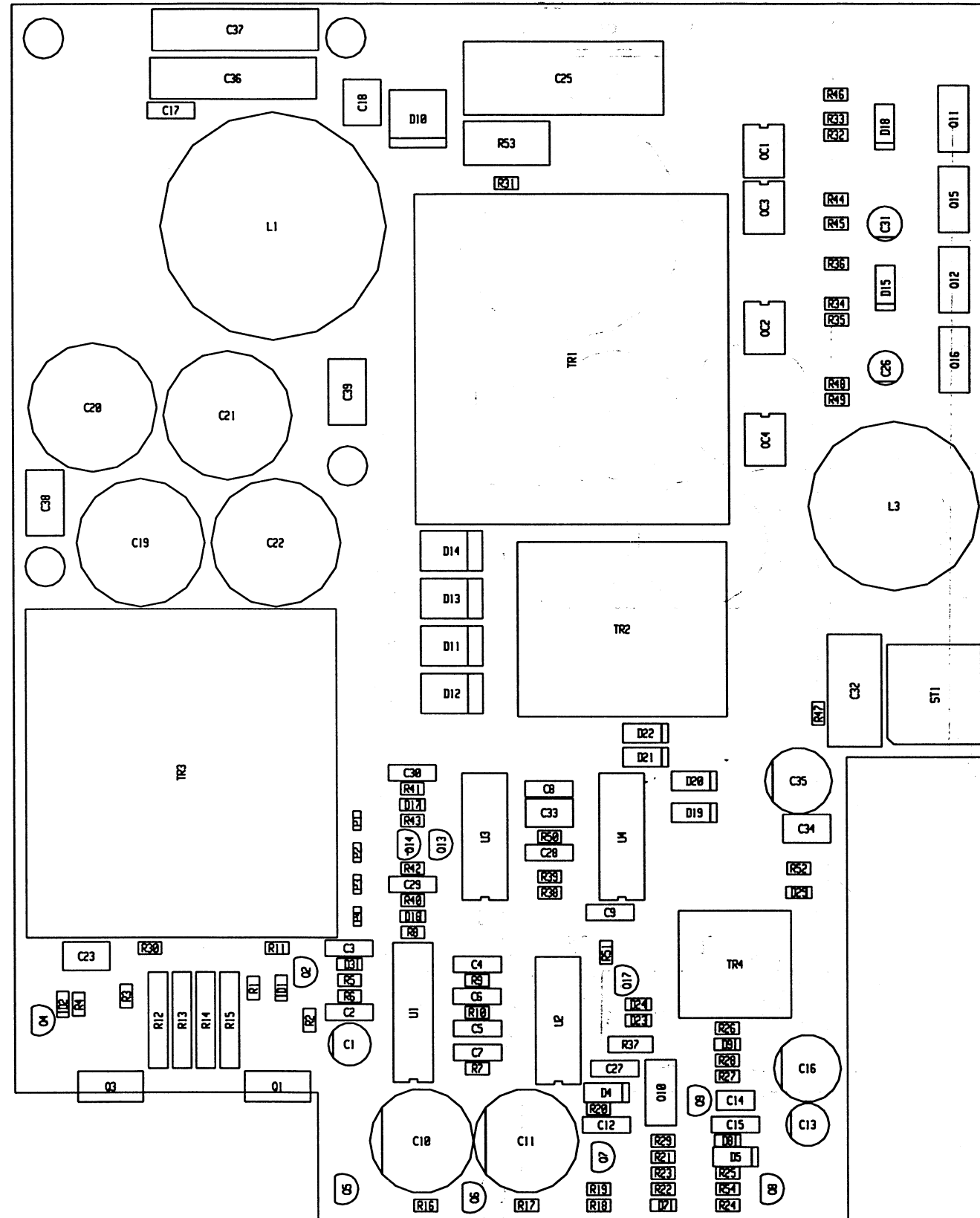


30329

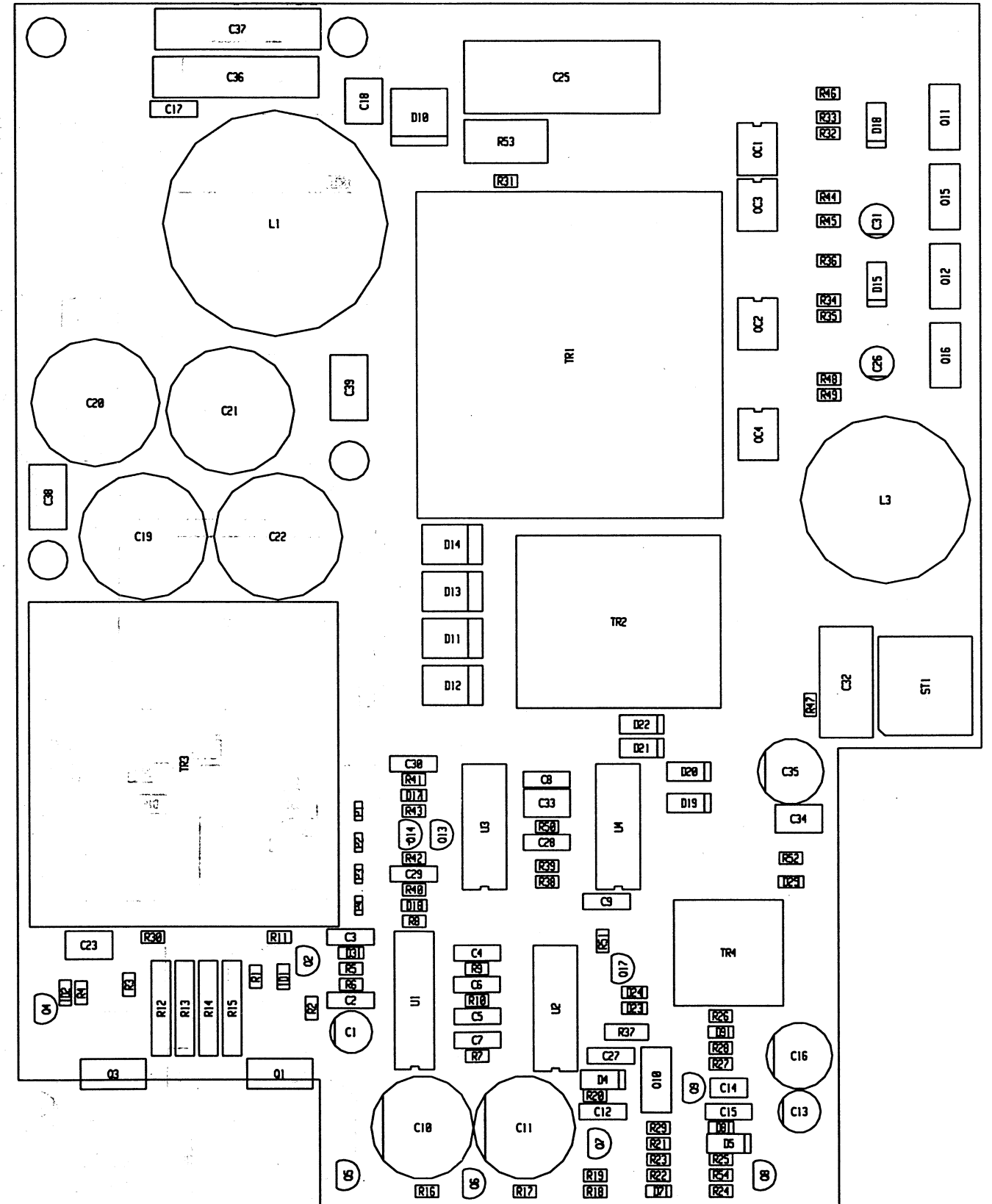
Weight:
Monitor H1253C: 12.3 kg

Free distance must be kept to allow free air circulation, ambient temperature max. 40°C.

5

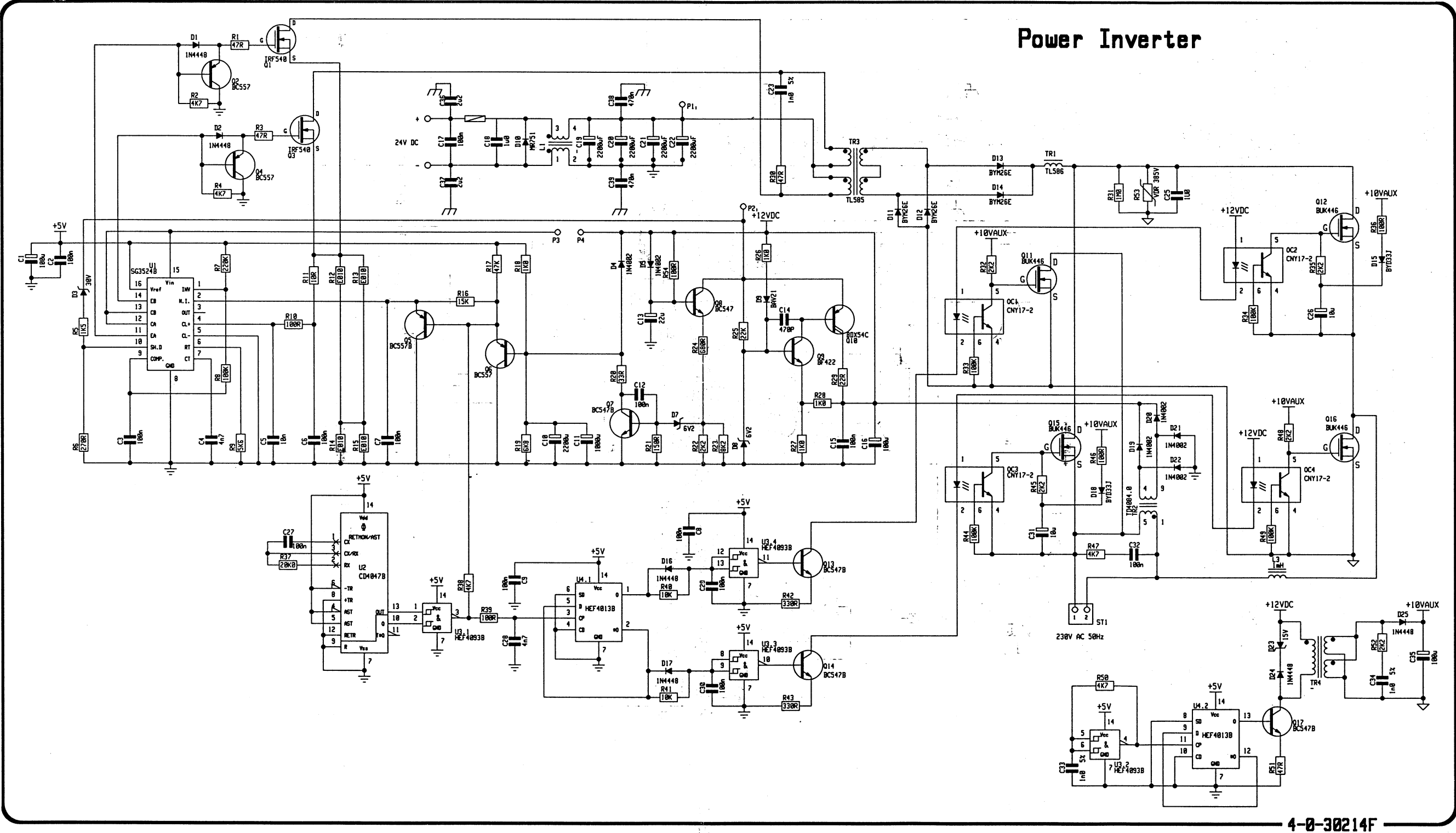


View from component side with upper side tracks.
PCB rev. 30214C



View from component side with lower side tracks.

DIAGRAM POWER INVERTER



4-0-30214F

This diagram is valid for PCB rev. 30214C

6 PARTS LIST

POWER INVERTER		24V DC TO 230V AC	ECI A/S	5-0-30214C / 4-0-30214F	630214
POSITION	DESCRIPTION		MANUFACTOR	TYPE	Part No.
C1-1	CAPACITOR ELECTROLYTIC 100uF 20% 10VDC		ELNA	RJ3-10-V-101-M-T34	14.607
C2-1	CAPACITOR MKT 0.1uF 10% 63VDC		PHILIPS	2222 370 78104	11.136
C3-1	CAPACITOR MKT 0.1uF 10% 63VDC		PHILIPS	2222 370 78104	11.136
C4-1	CAPACITOR MKT 4n7F 10% 63VDC		PHILIPS	2222 370 88472	11.374
C5-1	CAPACITOR MKT 10nF 20% 100VDC		PHILIPS	2222 370 38103	11.168
C6-1	CAPACITOR MKT 0.1uF 10% 63VDC		PHILIPS	2222 370 78104	11.136
C7-1	CAPACITOR MKT 0.1uF 10% 63VDC		PHILIPS	2222 370 78104	11.136
C8-1	CAPACITOR MKT 0.1uF 10% 63VDC		PHILIPS	2222 370 78104	11.136
C9-1	CAPACITOR MKT 0.1uF 10% 63VDC		PHILIPS	2222 370 78104	11.136
C10-1	CAPACITOR ELECTROLYTIC 2200uF -20/+50% 16VDC		ERO	EKM 05 JG 422 D 05	14.711
C11-1	CAPACITOR ELECTROLYTIC 1000uF -10/+50% 25VDC		ERO	EKM 05 JG 410 E 05	14.600
C12-1	CAPACITOR MKT 0.1uF 10% 63VDC		PHILIPS	2222 370 78104	11.136
C13-1	CAPACITOR ELECTROLYTIC 22uF 20% 35VDC		ELNA	RJ2-35-V-220-M-F1	14.516
C14-1	CAPACITOR CERAMIC 470pF 10% 500VDC		KCK	RT-HM60 SK YB 471 K	16.095
C15-1	CAPACITOR MKT 0.1uF 10% 63VDC		PHILIPS	2222 370 78104	11.136
C16-1	CAPACITOR ELECTROLYTIC 100uF -10/+50% 25VDC		ERO	EKM 00 CC 310 E G5	14.610
C17-1	CAPACITOR MKT 0.1uF 10% 63VDC		PHILIPS	2222 370 78104	11.136
C18-1	CAPACITOR MKT 1uF 10% 63VDC		ERO	MKT 1826-510/06 5-G	11.137
C19-1	CAPACITOR ELECTROLYTIC 2200uF 20% 40VDC		PHILIPS	2222 021 47222	14.719
C20-1	CAPACITOR ELECTROLYTIC 2200uF 20% 40VDC		PHILIPS	2222 021 47222	14.719
C21-1	CAPACITOR ELECTROLYTIC 2200uF 20% 40VDC		PHILIPS	2222 021 47222	14.719
C22-1	CAPACITOR ELECTROLYTIC 2200uF 20% 40VDC		PHILIPS	2222 021 47222	14.719
C23-1	CAPACITOR POLYPROPYLENE 1nF 5% 10VDC		ERO	KP 1830-210/01-4-GW	13.398
C25-1	CAPACITOR MKT 1u0F 10% 400VDC		PHILIPS	2222 373 55105	11.760
C26-1	CAPACITOR ELECTROLYTIC 10uF 20% 35VDC		ELNA	RJ2-35-V-100-M-T34(T58)	14.512
C27-1	CAPACITOR MKT 0.1uF 10% 63VDC		PHILIPS	2222 370 78104	11.136
C28-1	CAPACITOR MKT 4n7F 10% 63VDC		PHILIPS	2222 370 88472	11.374
C29-1	CAPACITOR MKT 0.1uF 10% 63VDC		PHILIPS	2222 370 78104	11.136
C30-1	CAPACITOR MKT 0.1uF 10% 63VDC		PHILIPS	2222 370 78104	11.136
C31-1	CAPACITOR ELECTROLYTIC 10uF 20% 35VDC		ELNA	RJ2-35-V-100-M-T34(T58)	14.512
C32-1	APACITOR CLASS X2100nF 20% 275VAC		RIFA	PHE 820MB6100M R06	13.925
C33-1	APACITOR POLYPROPYLENE 1nF 5% 10VDC		ERO	KP 1830-210/01-4-GW	13.398
C34-1	APACITOR POLYPROPYLENE 1nF 5% 10VDC		ERO	KP 1830-210/01-4-GW	13.398
C35-1	APACITOR ELECTROLYTIC 100uF -10/+50% 25VDC		ERO	EKM 00 CC 310 E G5	14.610
C36-1	APACITOR MKT 2u2F 10% 100VDC		ERO	MKT 1822-522/01 5	11.142
C37-1	APACITOR MKT 2u2F 10% 100VDC		ERO	MKT 1822-522/01 5	11.142
C38-1	APACITOR MKT 470nF 10% 100VDC		PHILIPS	2222 371 28474	11.049
C39-1	APACITOR MKT 470nF 10% 100VDC		PHILIPS	2222 371 28474	11.049
D1-1	DIODE HIGH SPEED 1N4448		PHILIPS	1N4448	25.147
D2-1	DIODE HIGH SPEED 1N4448		PHILIPS	1N4448	25.147
D3-1	DIODE ZENER 30V 5% 0.4W BZX79C30		PHILIPS	BZX79C30	26.578
D4-1	DIODE RECTIFIER 1N4002 100V/1A		THOMSON	1N4002 (03/04/05/06/07)	25.100
D5-1	DIODE RECTIFIER 1N4002 100V/1A		THOMSON	1N4002 (03/04/05/06/07)	25.100
D7-1	DIODE ZENER 6.2V 5% 0.4W BZX79C6V2		PHILIPS	BZX79C6V2	26.533
D8-1	DIODE ZENER 6.2V 5% 0.4W BZX79C6V2		PHILIPS	BZX79C6V2	26.533
D9-1	DIODE GENERAL PURPOSE BAV21 200V/0.25A		TFK	BAV21	25.340
D10-1	DIODE MR751		MOTOROLA	MR751	25.220
D11-1	DIODE VERY FAST REC.1000V 2.3A, BYM26E/MUR4100		PHILIPS	BYM26E	25.216
D12-1	DIODE VERY FAST REC.1000V 2.3A, BYM26E/MUR4100		PHILIPS	BYM26E	25.216
D13-1	DIODE VERY FAST REC.1000V 2.3A, BYM26E/MUR4100		PHILIPS	BYM26E	25.216
D14-1	DIODE VERY FAST REC.1000V 2.3A, BYM26E/MUR4100		PHILIPS	BYM26E	25.216
D15-1	DIODE FAST RECOVERY 600VDC/1A		PHILIPS	BYD 33 J	27.150
D16-1	DIODE HIGH SPEED 1N4448		PHILIPS	1N4448	25.147
D17-1	DIODE HIGH SPEED 1N4448		PHILIPS	1N4448	25.147
D18-1	DIODE FAST RECOVERY 600VDC/1A		PHILIPS	BYD 33 J	27.150
D19-1	DIODE RECTIFIER 1N4002 100V/1A		THOMSON	1N4002 (03/04/05/06/07)	25.100
D20-1	DIODE RECTIFIER 1N4002 100V/1A		THOMSON	1N4002 (03/04/05/06/07)	25.100
D21-1	DIODE RECTIFIER 1N4002 100V/1A		THOMSON	1N4002 (03/04/05/06/07)	25.100
D22-1	DIODE RECTIFIER 1N4002 100V/1A		THOMSON	1N4002 (03/04/05/06/07)	25.100
D23-1	DIODE ZENER 15V 5% 0.4W BZX79C15		PHILIPS	BZX79C15	26.561
D24-1	DIODE HIGH SPEED 1N4448		PHILIPS	1N4448	25.147
D25-1	DIODE HIGH SPEED 1N4448		PHILIPS	1N4448	25.147
L1-1	INPUT FILTER CHOKE TL587		ECI A/S	6-0-30236	400587
L3-1	CHOKE FIXED TOROIDAL 1mH/1A 20%		ULVECO	Art.Nr: DK11-348	20.240
OC-1			SIEMENS	Q68000-A7321	32.531
OC2-1			SIEMENS	Q68000-A7321	32.531
OC3-1			SIEMENS	Q68000-A7321	32.531
OC4-1			SIEMENS	Q68000-A7321	32.531
P1-1	SOLDER LUG	PCB VERSION	VOGT AG	01015/Bz-Sn	82.005
P2-1	SOLDER LUG	PCB VERSION	VOGT AG	01015/Bz-Sn	82.005
P3-1	SOLDER LUG	PCB VERSION	VOGT AG	01015/Bz-Sn	82.005
P4-1	SOLDER LUG	PCB VERSION	VOGT AG	01015/Bz-Sn	82.005
Q1-1	TRANS.POW.MOSFET N-CHANN. 100V/27A/85mOHM		MOTOROLA	IRF540	29.402
Q2-1	TRANSISTOR BC557		MOTOROLA	BC557	28.087
Q3-1	TRANS.POW.MOSFET N-CHANN. 100V/27A/85mOHM		MOTOROLA	IRF540	29.402
Q4-1	TRANSISTOR BC557		MOTOROLA	BC557	28.087
Q5-1	TRANSISTOR AF BC557B NPN TO-92		PHILIPS	BC557B	28.091
Q6-1	TRANSISTOR BC557		MOTOROLA	BC557	28.087
Q7-1	TRANSISTOR AF BC547B NPN TO-92		PHILIPS	BC547B	28.067
Q8-1	TRANSISTOR BC547		PHILIPS	BC547	28.062

POSITION	DESCRIPTION	MANUFACTOR	TYPE	Part No.
Q9-1	TRANSISTOR SMALL-SIGNAL TO-92, BF422	PHILIPS	BF422	28.194
Q10-1	TRANS.AF POW. DARL. PNP TO220	MOTOROLA	BDX54C	29.088
Q11-1	POWER MOSFET 900V/1.5A BUK446-1000	STP590FI SGS-THOMSON	STP5N90FI	29.407
Q12-1	POWER MOSFET 900V/1.5A BUK446-1000	STP590FI SGS-THOMSON	STP5N90FI	29.407
Q13-1	TRANSISTOR AF BC547B NPN TO-92	PHILIPS	BC547B	28.067
Q14-1	TRANSISTOR AF BC547B NPN TO-92	PHILIPS	BC547B	28.067
Q15-1	POWER MOSFET 900V/1.5A BUK446-1000	STP590FI SGS-THOMSON	STP5N90FI	29.407
Q16-1	POWER MOSFET 900V/1.5A BUK446-1000	STP590FI SGS-THOMSON	STP5N90FI	29.407
Q17-1	TRANSISTOR AF BC547B NPN TO-92	PHILIPS	BC547B	28.067
R1-1	RESISTOR MF 47 OHM 5% 0.33W	PHILIPS	2322 187 73479	02.440
R2-1	RESISTOR MF 4k7 OHM 5% 0.33W	PHILIPS	2322 187 73472	02.488
R3-1	RESISTOR MF 47 OHM 5% 0.33W	PHILIPS	2322 187 73479	02.440
R4-1	RESISTOR MF 4k7 OHM 5% 0.33W	PHILIPS	2322 187 73472	02.488
R5-1	RESISTOR MF 1k5 OHM 5% 0.33W	PHILIPS	2322 187 73152	02.476
R6-1	RESISTOR MF 270 OHM 5% 0.33W	PHILIPS	2322 187 73271	02.458
R7-1	RESISTOR MF 220k OHM 5% 0.33W	PHILIPS	2322 187 73224	02.528
R8-1	RESISTOR MF 100k OHM 5% 0.33W	PHILIPS	2322 187 73104	02.520
R9-1	RESISTOR MF 5k6 OHM 5% 0.33W	PHILIPS	2322 187 73562	02.490
R10-1	RESISTOR MF 100 OHM 5% 0.33W	PHILIPS	2322 187 73101	02.448
R11-1	RESISTOR MF 10 OHM 5% 0.33W	PHILIPS	2322 187 73109	02.424
R12-1	RESISTOR 10 MILLI OHM 2W	MODULOHM	10U-J-MI-A-1	06.210
R13-1	RESISTOR 10 MILLI OHM 2W	MODULOHM	10U-J-MI-A-1	06.210
R14-1	RESISTOR 10 MILLI OHM 2W	MODULOHM	10U-J-MI-A-1	06.210
R15-1	RESISTOR 10 MILLI OHM 2W	MODULOHM	10U-J-MI-A-1	06.210
R16-1	RESISTOR MF 15k OHM 5% 0.33W	PHILIPS	2322 187 73153	02.500
R17-1	RESISTOR MF 47k OHM 5% 0.33W	PHILIPS	2322 187 73473	02.512
R18-1	RESISTOR MF 1k0 OHM 5% 0.33W	PHILIPS	2322 187 73102	02.472
R19-1	RESISTOR MF 6k8 OHM 5% 0.33W	PHILIPS	2322 187 73682	02.492
R20-1	RESISTOR MF 33 OHM 5% 0.33W	PHILIPS	2322 187 73339	02.436
R21-1	RESISTOR MF 150 OHM 5% 0.33W	PHILIPS	2322 187 73151	02.452
R22-1	RESISTOR MF 2k2 OHM 5% 0.33W	PHILIPS	2322 187 73222	02.480
R23-1	RESISTOR MF 8k2 OHM 5% 0.33W	PHILIPS	2322 187 73822	02.494
R24-1	RESISTOR MF 680 OHM 5% 0.33W	PHILIPS	2322 187 73681	02.468
R25-1	RESISTOR MF 22k OHM 5% 0.33W	PHILIPS	2322 187 73223	02.504
R26-1	RESISTOR MF 1k0 OHM 5% 0.33W	PHILIPS	2322 187 73102	02.472
R27-1	RESISTOR MF 1k0 OHM 5% 0.33W	PHILIPS	2322 187 73102	02.472
R28-1	RESISTOR MF 1k0 OHM 5% 0.33W	PHILIPS	2322 187 73102	02.472
R29-1	RESISTOR MF 22 OHM 5% 0.33W	PHILIPS	2322 187 73229	02.432
R30-1	RESISTOR MF 47 OHM 5% 0.33W	PHILIPS	2322 187 73479	02.440
R31-1	RESISTOR MF 1M OHM 5% 0.33W	PHILIPS	2322 187 73105	02.544
R32-1	RESISTOR MF 2k2 OHM 5% 0.33W	PHILIPS	2322 187 73222	02.480
R33-1	RESISTOR MF 100k OHM 5% 0.33W	PHILIPS	2322 187 73104	02.520
R34-1	RESISTOR MF 100k OHM 5% 0.33W	PHILIPS	2322 187 73104	02.520
R35-1	RESISTOR MF 2k2 OHM 5% 0.33W	PHILIPS	2322 187 73222	02.480
R36-1	RESISTOR MF 100 OHM 5% 0.33W	PHILIPS	2322 187 73101	02.448
R37-1	RESISTOR MF 20k0 OHM 1% 0.6W	PHILIPS	2322 156 12003	03.452
R38-1	RESISTOR MF 4k7 OHM 5% 0.33W	PHILIPS	2322 187 73472	02.488
R39-1	RESISTOR MF 100 OHM 5% 0.33W	PHILIPS	2322 187 73101	02.448
R40-1	RESISTOR MF 10k OHM 5% 0.33W	PHILIPS	2322 187 73103	02.496
R41-1	RESISTOR MF 10k OHM 5% 0.33W	PHILIPS	2322 187 73103	02.496
R42-1	RESISTOR MF 330 OHM 5% 0.33W	PHILIPS	2322 187 73331	02.460
R43-1	RESISTOR MF 330 OHM 5% 0.33W	PHILIPS	2322 187 73331	02.460
R44-1	RESISTOR MF 100k OHM 5% 0.33W	PHILIPS	2322 187 73104	02.520
R45-1	RESISTOR MF 2k2 OHM 5% 0.33W	PHILIPS	2322 187 73222	02.480
R46-1	RESISTOR MF 100 OHM 5% 0.33W	PHILIPS	2322 187 73101	02.448
R47-1	RESISTOR MF 4k7 OHM 5% 0.33W	PHILIPS	2322 187 73472	02.488
R48-1	RESISTOR MF 2k2 OHM 5% 0.33W	PHILIPS	2322 187 73222	02.480
R49-1	RESISTOR MF 100k OHM 5% 0.33W	PHILIPS	2322 187 73104	02.520
R50-1	RESISTOR MF 4k7 OHM 5% 0.33W	PHILIPS	2322 187 73472	02.488
R51-1	RESISTOR MF 47 OHM 5% 0.33W	PHILIPS	2322 187 73479	02.440
R52-1	RESISTOR MF 2k2 OHM 5% 0.33W	PHILIPS	2322 187 73222	02.480
R53-1	RESISTOR VDR 385V 10%	SIEMENS	Q69X3127	06.507
R54-1	RESISTOR MF 100 OHM 5% 0.33W	PHILIPS	2322 187 73101	02.448
ST1-1	TERMINAL BLOCK 2 POLES PCB VERSION	PHOENIX	GSMKDS 3/2	81.082
TR1-1	CHOKE FOR INVERTER TL586	ECI A/S	6-0-30218A	400586
TR2-1	TRANSFORMER MAINS 220VAC 9V, 1VA TDA4084.0	TRADANIA	TD4084.0	22.145
TR3-1	TRAFO FOR INVERTER TL585	ECI A/S	6-0-30209A	400585
TR4-1	TRANSFORMER PULSE 1:1:1	SCHAFFNER	IT 253	22.001
U1-1	PULSE WIDTH MODULATOR IP/SG 3524BN-UC3524AN	UNITRODE	UC3524AN (2524A-1524A)	31.494
U2-1	CD4047B		CD4047B	33.165
U3-1	QUAD 2-INP.NAND SCHM.TRI MC14093BCP	MOTOROLA	MC14093BCP	33.300
U4-1	DUAL TYPE D FLIP-FLOP MC14013BCP	MOTOROLA	MC14013BCP	33.056