

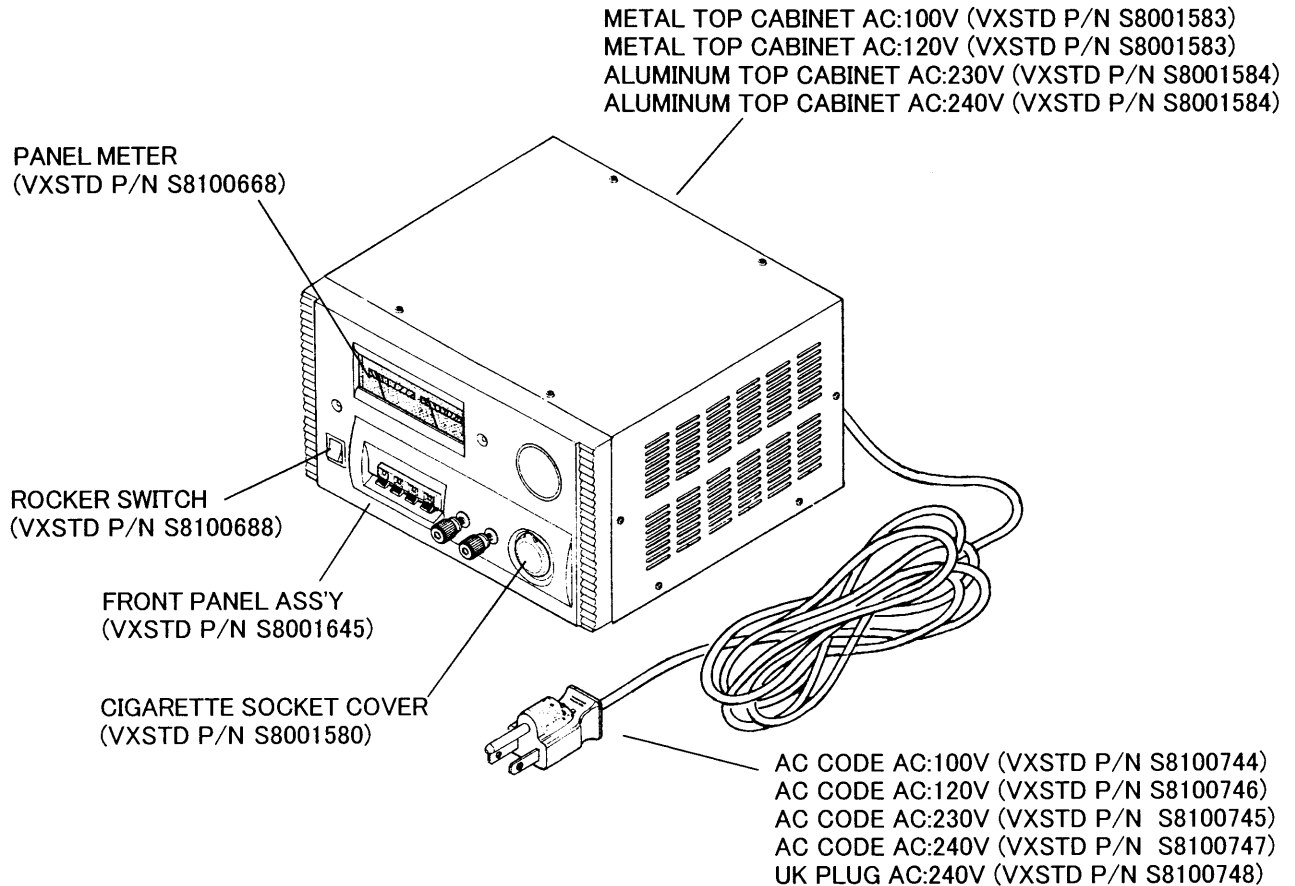
Power Supply

FP-1030A

Technical Supplement

©2003 VERTEX STANDARD CO., LTD. Printed in Japan.

VERTEX STANDARD CO., LTD.
4-8-8 Nakameguro, Meguro-Ku, Tokyo 153-8644, Japan
VERTEX STANDARD
US Headquarters
10900 Walker Street, Cypress, CA 90630, U.S.A.
YAESU EUROPE B.V.
P.O. Box 75525, 1118 ZN Schiphol, The Netherlands
YAESU UK LTD.
Unit 12, Sun Valley Business Park, Winnall Close
Winchester, Hampshire, SO23 0LB, U.K.
VERTEX STANDARD HK LTD.
Unit 5, 20/F., Seaview Centre, 139-141 Hoi Bun Road,
Kwun Tong, Kowloon, Hong Kong



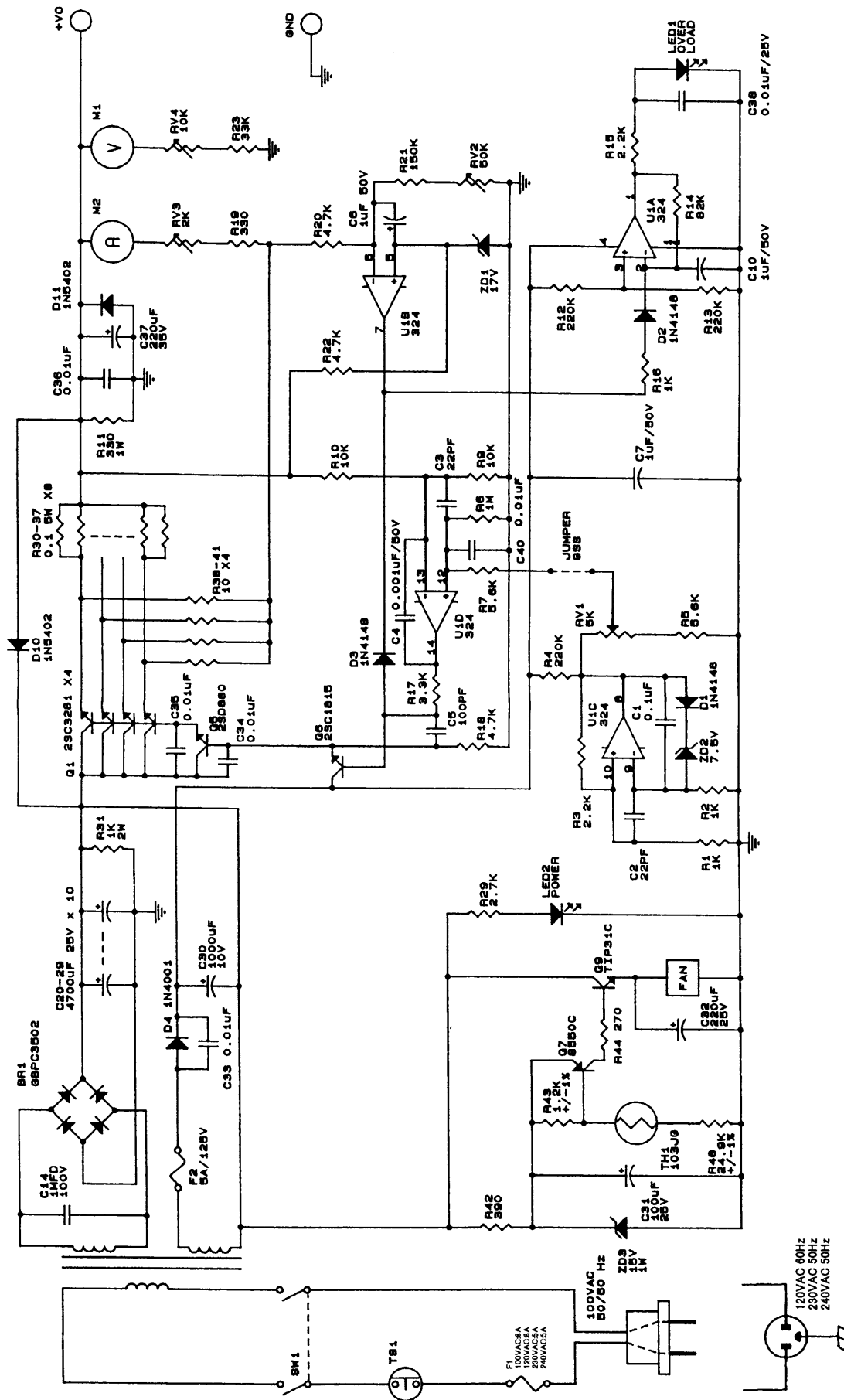
Specifications

VOLTAGE TYPE	AC 120V	AC 230V	AC 240V
RATED VOLTAGE RANGE	±7%		
OUTPUT VOLTAGE	13.8V DC (FIXED)		
OUTPUT CURRENT	25 A CONTINUOUS		
OVERLOAD PROTECTION	27 A		
RIPPLE VOLTAGE	BETTER THAN 3mVp-p AT 13.8V, 25 A		
COOLING SYSTEM	THERMOSTATICALLY-CONTROLLED COOLING FAN		
CIRCUIT TYPE	LINEAR SERIES		
AC INPUT FUSE	8 A	5 A	
WEIGHT	9.5 kg (20.9 LBS)		
DIMENSIONS:	250 (W) × 150 (H) × 240 (D) mm (9.8" × 5.9" × 9.5")		



E 1 2 5 1 9 0 0 0

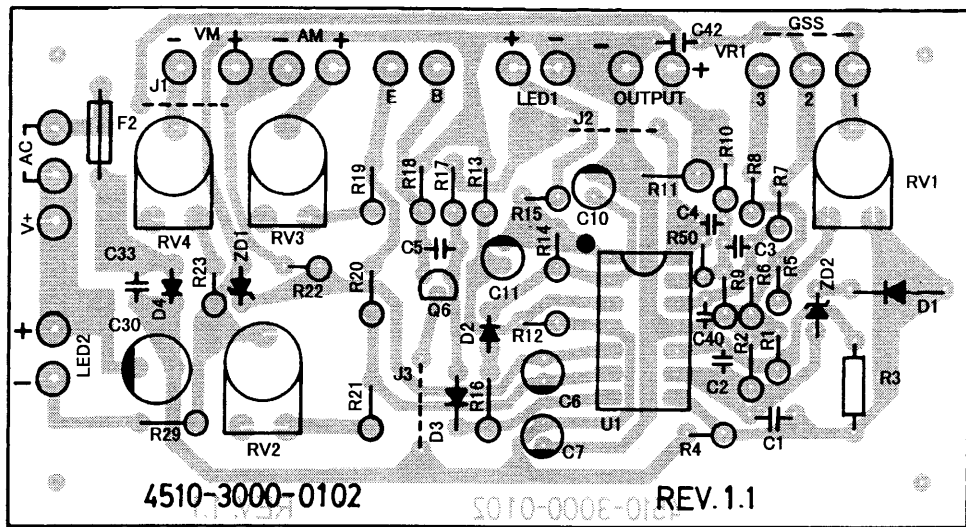
Circuit Diagram



NOTE : ALL RESISTORS ARE IN OHM AND 1/4W
EXCEPT SPECIFIED

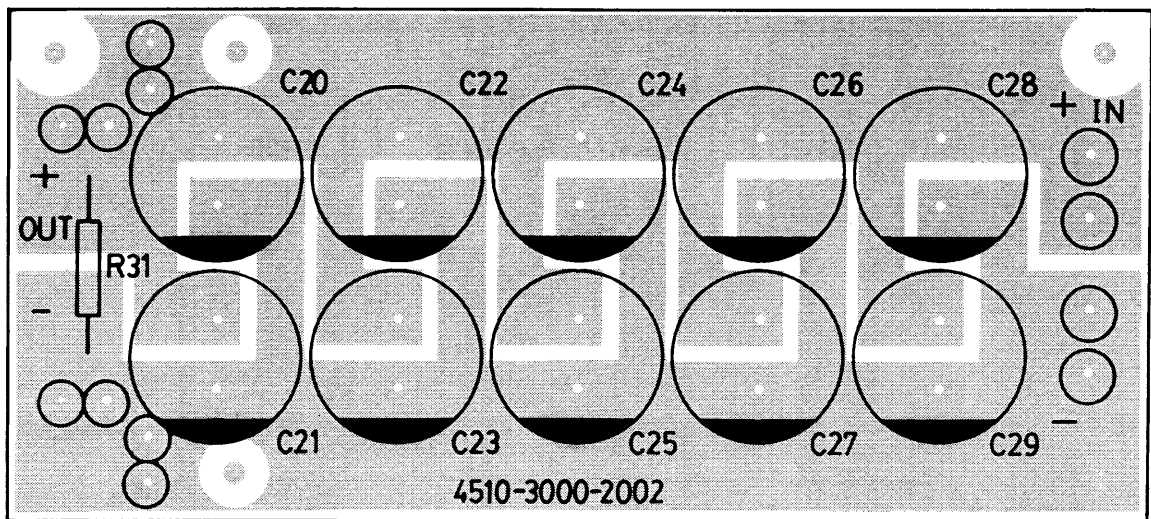
Parts Layout

CNTL-Unit



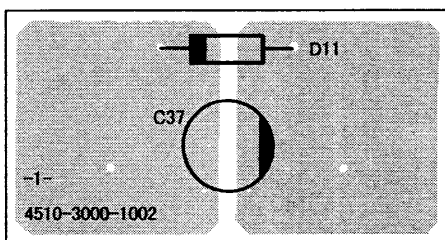
Component side

Capacitor-Unit



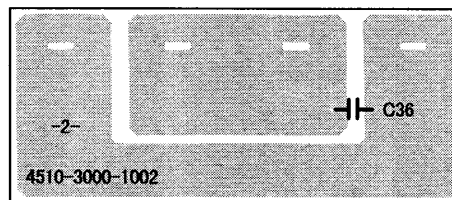
Component side

AUX1-Unit



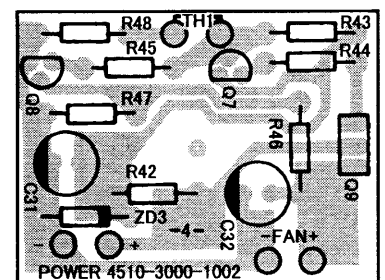
Component side

AUX2-Unit



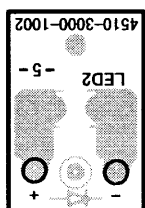
Component side

AUX4-Unit



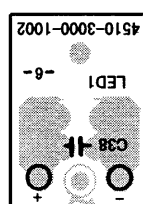
Component side

AUX5-Unit



Component side

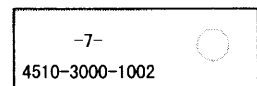
AUX6-Unit



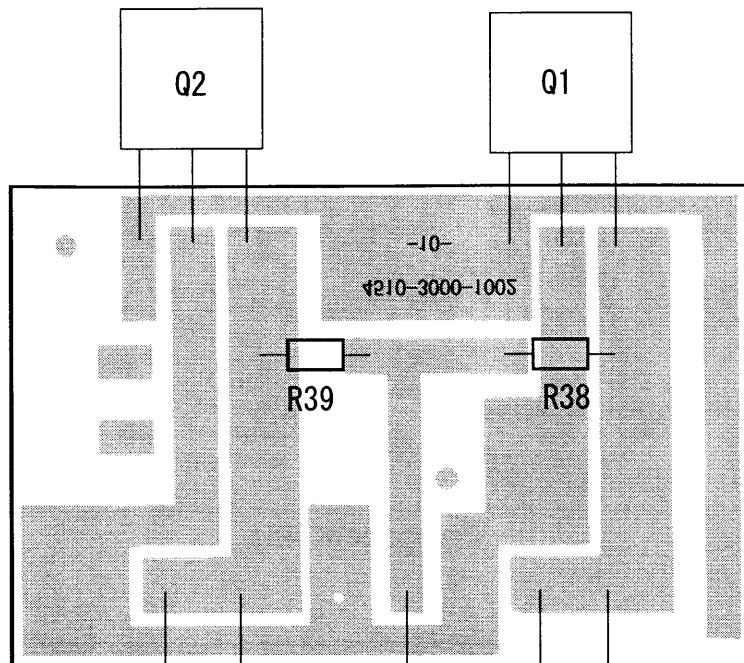
Component side

AUX10-Unit

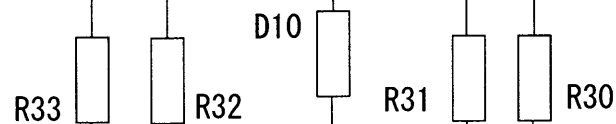
AUX7-Unit



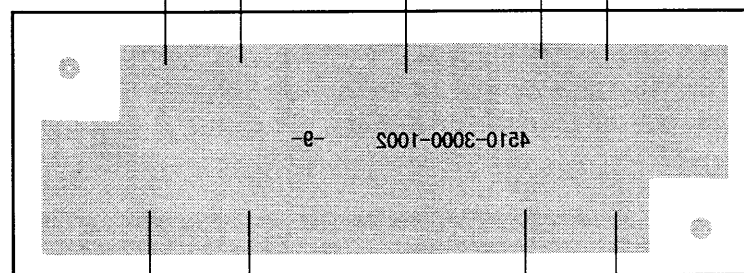
Component side



Solder side

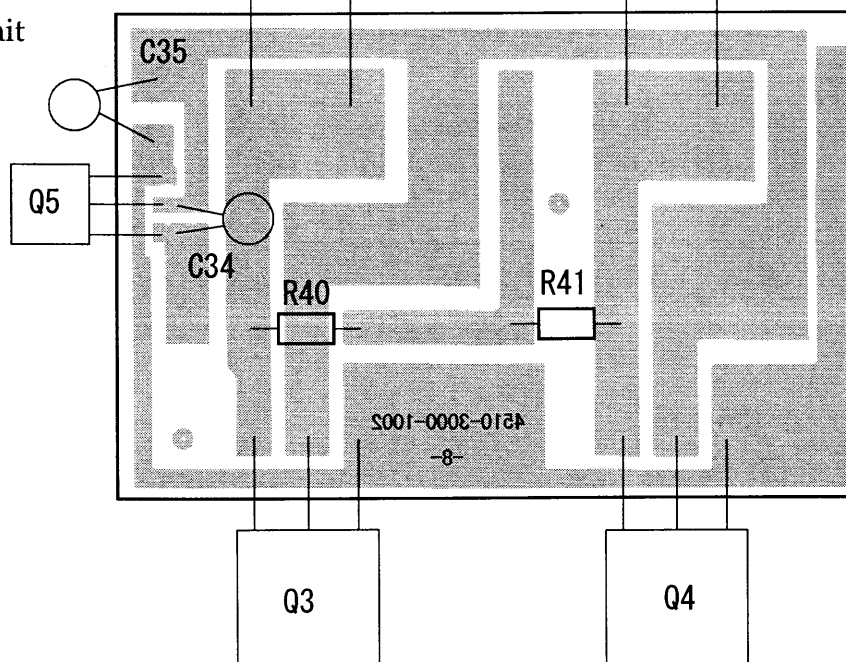


AUX9-Unit



Solder side

AUX8-Unit



Solder side

Parts List

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.
*** CNTL UNIT ***								
	Printed Circuit Board				4510-3000-0102	-		1-
C 0001	CERAMIC CAP.	0.0047uF	50V	B	CK45B1H472MYS	K10179025		1-
C 0002	CERAMIC CAP.	22pF	50V	SL	UP050SL220J-A-B	K28179035		1-
C 0003	CERAMIC CAP.	22pF	50V	SL	UP050SL220J-A-B	K28179035		1-
C 0004	CERAMIC CAP.	0.001uF	50V	B	DD104B102K50	K10176102		1-
C 0005	CERAMIC CAP.	100pF	50V	B	DD104B101K50	K10176101		1-
C 0006	AL.ELECTRO.CAP.	1uF	50V		50V010M5X11TR5	K46170017		1-
C 0007	AL.ELECTRO.CAP.	1uF	50V		50V010M5X11TR5	K46170017		1-
C 0010	AL.ELECTRO.CAP.	1uF	50V		50V010M5X11TR5	K46170017		1-
C 0030	AL.ELECTRO.CAP.	1000uF	10V		RE2-10V102MM 1000UF	K40109012		1-
C 0033	CERAMIC CAP.	0.01uF	50V	B	DD112B103K50	K10179052		1-
C 0040	CERAMIC CAP.	0.01uF	50V	B	DD112B103K50	K10179052		1-
D 0001	DIODE				1N4148 TNR	S8100709		1-
D 0002	DIODE				1N4148 TNR	S8100709		1-
D 0003	DIODE				1N4148 TNR	S8100709		1-
D 0004	RECTIFIER DIODE				1N4001	S8100710		1-
F 0002	FUSE	5A	125V		TCM22NM 5A125V	S8100739		1-
J 0001	JUMPER WIRE				4751-0109-3022	S8100737		1-
J 0002	JUMPER WIRE				4751-0109-3022	S8100737		1-
J 0003	JUMPER WIRE				4751-0109-3022	S8100737		1-
Q 0006	TRANSISTOR				2SC1815-GR	G3318150G		1-
R 0001	CARBON FILM RES.	1kohm	1/4W	5%	RD14TJ102 1K	J01245102		1-
R 0002	CARBON FILM RES.	1kohm	1/4W	5%	RD14TJ102 1K	J01245102		1-
R 0003	CARBON FILM RES.	2.2kohm	1/4W	5%	RD14TJ222 2.2K	J01245222		1-
R 0004	CARBON FILM RES.	220kohm	1/4W	5%	RD14TJ224 220K	J01245224		1-
R 0005	CARBON FILM RES.	5.6kohm	1/4W	5%	RD14TJ562 5.6K	J01245562		1-
R 0006	CARBON FILM RES.	1Mohm	1/4W	5%	RD14TJ105 1M	J01245105		1-
R 0007	CARBON FILM RES.	5.6kohm	1/4W	5%	RD14TJ562 5.6K	J01245562		1-
R 0009	CARBON FILM RES.	10kohm	1/4W	5%	RD14TJ103 10K	J01245103		1-
R 0010	CARBON FILM RES.	10kohm	1/4W	5%	RD14TJ103 10K	J01245103		1-
R 0011	CARBON FILM RES.	330ohm	1W	5%	1W 330OHM +-5%	S8100691		1-
R 0012	CARBON FILM RES.	220kohm	1/4W	5%	RD14TJ224 220K	J01245224		1-
R 0013	CARBON FILM RES.	220kohm	1/4W	5%	RD14TJ224 220K	J01245224		1-
R 0014	CARBON FILM RES.	82kohm	1/4W	5%	RD14TJ823 82K	J01245823		1-
R 0015	CARBON FILM RES.	2.2kohm	1/4W	5%	RD14TJ222 2.2K	J01245222		1-
R 0016	CARBON FILM RES.	1kohm	1/4W	5%	RD14TJ102 1K	J01245102		1-
R 0017	CARBON FILM RES.	3.3kohm	1/4W	5%	RD14TJ332 3.3K	J01245332		1-
R 0018	CARBON FILM RES.	4.7kohm	1/4W	5%	RD14TJ472 4.7K	J01245472		1-
R 0019	CARBON FILM RES.	330ohm	1/4W	5%	RD14TJ331 330	J01245331		1-
R 0020	CARBON FILM RES.	4.7kohm	1/4W	5%	RD14TJ472 4.7K	J01245472		1-
R 0021	CARBON FILM RES.	150kohm	1/4W	5%	RD14TJ154 150K	J01245154		1-
R 0022	CARBON FILM RES.	4.7kohm	1/4W	5%	RD14TJ472 4.7K	J01245472		1-
R 0023	CARBON FILM RES.	33kohm	1/4W	5%	RD14TJ333 33K	J01245333		1-
R 0029	CARBON FILM RES.	2.7kohm	1/4W	5%	RD14TJ272 2.7K	J01245272		1-
RV0001	SEMI VAR. RES.	5kohm		B	B5K FRM-085	S8100697		1-
RV0002	SEMI VAR. RES.	50kohm		B	B50K FRM-085	S8100698		1-
RV0003	SEMI VAR. RES.	2kohm		B	B2K FRM-085	S8100696		1-
RV0004	SEMI VAR. RES.	10kohm		B	B10K FRM-085	S8100695		1-
U 0001	IC				LM324N	G1090425		1-
ZD0001	ZENER DIODE	17V	1/2W			S8100713		1-
ZD0002	ZENER DIODE				MTZJ7.5C TNR	S8100714		1-
*** AUX-1 UNIT ***								
	Printed Circuit Board				4510-3000-1002 -1-	-		1-
C 0037	AL.ELECTRO.CAP.	220uF	25V		25V221M8X11TR5	K46140006		1-
D 0011	RECTIFIER DIODE				1N5001	S8100711		1-
*** AUX-2 UNIT ***								
	Printed Circuit Board				4510-3000-1002 -2-	-		1-
C 0036	CERAMIC CAP.	0.01uF	50V	B	DD112B103K50	K10179052		1-

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.
		*** AUX-4 UNIT ***						
C 0031	Printed Circuit Board				4510-3000-1002 -4-	-		
	AL.ELECTRO.CAP.	100uF	25V		25V101M6X11TR5	K46140005		1-
C 0032	AL.ELECTRO.CAP.	220uF	25V		25V221M8X11TR5	K46140006		1-
Q 0007	TRANSISTOR				8550C	S8100707		1-
Q 0009	TRANSISTOR				TIP31C TO-220	S8100708		1-
R 0042	CARBON FILM RES.	390ohm	1/4W	5%	RD14TJ391 390	J01245391		1-
R 0043	METAL FILM RES.	1.2kohm	1/4W	1%	1/4W 1.2KOHM +-1%	S8100693		1-
R 0044	CARBON FILM RES.	270kohm	1/4W	5%	RD14TJ274 270K	J01245274		1-
R 0048	METAL FILM RES.	24.9ohm	1/4W	1%	1/4W 24.9OHM 1%	S8100694		1-
ZD0003	ZENER DIODE				15V1WTNR	S8100712		1-
	THERMISTOR				PG-103JG 10K	S8100664		1-
		*** AUX-5 UNIT ***						
Q 0001	Printed Circuit Board				4510-3000-1002 -5-	-		1-
	LED				EL204GD(GREEN)	S8100667		1-
		*** AUX-6 UNIT ***						
C 0038	Printed Circuit Board				4510-3000-1002 -6-	-		1-
	CERAMIC CAP.	0.01uF	50V	F	DD106F103Z50	K13179008		1-
Q 0001	LED				EL204HD(RED)	S8100666		1-
		*** AUX-7 UNIT ***						
	Printed Circuit Board				4510-3000-1002 -7-	-		1-
		*** AUX-8 UNIT ***						
C 0034	Printed Circuit Board				4510-3000-1002 -8-	-		1-
	CERAMIC CAP.	0.01uF	50V	F	DD106F103Z50	K13179008		1-
C 0035	CERAMIC CAP.	0.01uF	50V	F	DD106F103Z50	K13179008		1-
Q 0003	TRANSISTOR				2SD1957S	S8100661		1-
Q 0004	TRANSISTOR				2SD1957S	S8100661		1-
Q 0005	TRANSISTOR				2SD880-Y	G3408800Y		1-
R 0040	CARBON FILM RES.	10ohm	1/4W	5%	RD14TJ100 10	J01245100		1-
R 0041	CARBON FILM RES.	10ohm	1/4W	5%	RD14TJ100 10	J01245100		1-
		*** AUX-9 UNIT ***						
D 0010	Printed Circuit Board				4510-3000-1002 -9-	-		1-
	RECTIFIER DIODE				1N5401	S8100662		1-
R 0030	CEMENT RES.	0.1ohm	5W	5%	ERF-5AJ0R1	J30375019		1-
R 0031	CEMENT RES.	0.1ohm	5W	5%	ERF-5AJ0R1	J30375019		1-
R 0032	CEMENT RES.	0.1ohm	5W	5%	ERF-5AJ0R1	J30375019		1-
R 0033	CEMENT RES.	0.1ohm	5W	5%	ERF-5AJ0R1	J30375019		1-
R 0034	CEMENT RES.	0.1ohm	5W	5%	ERF-5AJ0R1	J30375019		1-
R 0035	CEMENT RES.	0.1ohm	5W	5%	ERF-5AJ0R1	J30375019		1-
R 0036	CEMENT RES.	0.1ohm	5W	5%	ERF-5AJ0R1	J30375019		1-
R 0037	CEMENT RES.	0.1ohm	5W	5%	ERF-5AJ0R1	J30375019		1-
		*** AUX-10 UNIT ***						
Q 0001	Printed Circuit Board				4510-3000-1002 -10-	-		1-
	TRANSISTOR				2SD1957S	S8100661		1-
Q 0002	TRANSISTOR				2SD1957S	S8100661		1-
R 0038	CARBON FILM RES.	10ohm	1/4W	5%	RD14TJ100 10	J01245100		1-
R 0039	CARBON FILM RES.	10ohm	1/4W	5%	RD14TJ100 10	J01245100		1-
		*** CAPACITOR UNIT ***						
C 0020	Printed Circuit Board				4510-3000-2002	-		1-
	AL.ELECTRO.CAP.	4700uF	35V		RPK-35V472MS 4700UF	K40169024		1-
C 0021	AL.ELECTRO.CAP.	4700uF	35V		RPK-35V472MS 4700UF	K40169024		1-
C 0022	AL.ELECTRO.CAP.	4700uF	35V		RPK-35V472MS 4700UF	K40169024		1-
C 0023	AL.ELECTRO.CAP.	4700uF	35V		RPK-35V472MS 4700UF	K40169024		1-
C 0024	AL.ELECTRO.CAP.	4700uF	35V		RPK-35V472MS 4700UF	K40169024		1-
C 0025	AL.ELECTRO.CAP.	4700uF	35V		RPK-35V472MS 4700UF	K40169024		1-
C 0026	AL.ELECTRO.CAP.	4700uF	35V		RPK-35V472MS 4700UF	K40169024		1-
C 0027	AL.ELECTRO.CAP.	4700uF	35V		RPK-35V472MS 4700UF	K40169024		1-
C 0028	AL.ELECTRO.CAP.	4700uF	35V		RPK-35V472MS 4700UF	K40169024		1-
C 0029	AL.ELECTRO.CAP.	4700uF	35V		RPK-35V472MS 4700UF	K40169024		1-

REF.	DESCRIPTION	VALUE	V/W	TOL.	MFR'S DESIG	VXSTD P/N	VERS.	LOT.
R 0032	CARBON FILM RES.	1kohm	2W	5%	2W 1KOHM +-5%	S8100692		1-
	*** MAIN ASSY ***							
	BRIDGE DIODE	8A	250V		GBPC3502	S8100663		1-
	FUSE	8A	250V		8A250V 20M/M	S8100665	AC:100V	1-
	FUSE				8A250V 20M/M	S8100665	AC:120V	1-
	FUSE	5A			5A MF-51	Q0000027	AC:230V	1-
	FUSE	5A			5A MF-51	Q0000027	AC:240V	1-
	DC FAN				KD1208PTS1-6	S8100690		1-
	ROCKER SWITCH				M372-399-1R2 1PIT	S8100688		1-
	TRANS.				GSV-3000-TR011	S8100658	AC:100V	1-
	TRANS.				GSV-3000-TR527	S8100659	AC:120V	1-
	TRANS.				GSV-3000-TR002	S8100655	AC:230V	1-
	TRANS.				GSV-3000-TR040	S8100660	AC:240V	1-
	THERMISTOR				NT-101NA	S8100738		1-
	AC CODE				4610-2000-9328	S8100744	AC:100V	1-
	AC CODE				4610-1720-5030	S8100746	AC:120V	1-
	AC CODE				4610-2000-7238	S8100745	AC:230V	1-
	AC CODE				4690-3000-7232	S8100747	AC:240V	1-
	UK PLUG	13A	250V		BLACK	S8100748	AC:240V	1-
	TERMINAL				SPT-004	S8001578		1-
	TERMINAL (2pcs)				SL5.5-5 (F/FP1030A)	S8001594		1-
	CONNECTOR				7021-0000-0805	S8100689		1-
	PANEL METER				DE-2895	S8100668		1-
	CIGARETTE SOCKET COVER				FP1030A	S8001580		1-
	HEAT SINK (2pcs)				FP1030A	S8001581		1-
	FRAME				FP1030A	S8001582		1-
	METAL TOP CABINET				FP1030A	S8001583	AC:100V	1-
	METAL TOP CABINET				FP1030A	S8001583	AC:120V	1-
	ALUMINUM TOP CABINET				FP1030A	S8001584	AC:230V	1-
	ALUMINUM TOP CABINET				FP1030A	S8001584	AC:240V	1-
	BRACKET (2pcs)				FP1030A	S8001585		1-
	PLATE (2pcs)				TYPE(I)	S8001586		1-
	PLATE (4pcs)				TYPE(L)	S8001587		1-
	POST (2pcs)				3X0.5X5.5X10M/M	S8001595		1-
	POST (2pcs)				5X10M/M	S8001596		1-
	FUSE HOLDER				JEF-609 BLK10A	S8001623	AC:100V	1-
	FUSE HOLDER				JEF-609 BLK10A	S8001623	AC:120V	1-
	FUSE HOLDER				FHB-02 BLK10A	S8001624	AC:230V	1-
	FUSE HOLDER				FHB-02 BLK10A	S8001624	AC:240V	1-
	SHEET				750MO 52X80M/M	S8001626		1-
	SHEET				33X41X0.8THK M/M	S8001627		1-
	SHEET (4pcs)				TO-3P3 THK 0.1M/M	S8001628		1-
	SILICON RUBBER (2pcs)				TO-220 THK 0.3M/M	S8001629		1-
	BUSH				TO-3B 3.3M/M THK	S8001630		1-
	BUSH (2pcs)				TO-220 1.8M/M THK	S8001631		1-
	BUSH				SRB-F-4	S8001632	AC:100V	1-
	BUSH				SRB-R-6	S8001633	AC:120V	1-
	BUSH				SRB-R-6	S8001633	AC:230V	1-
	BUSH				SRB-R-6	S8001633	AC:240V	1-
	PLASTIC TIE				L=5 BLACK	S8001634		1-
	NYLON CLAMP (17pcs)				PLT-1M BK-1	S3000022		1-
	FRONT PANEL ASS'Y					S8001645		1-
	with FRONT PANEL							
	KNOB (RED, BLACK)							
	CIGGER SOCKET							
	FIBER WASHER							
	TERMINAL (RED, BLACK)							

Mechanical Details (Exploded Views & Mechanical Parts)

Screw List		
No.	VXSTD P/N	Qty.
1	S8001598	2
2	S8001599	12
3	S8001600	4
4	S8001601	11
5	S8001602	1
6	S8001603	2
7	-	-
8	S8001605	4
9	S8001606	2
10	S8001607	4
11	S8001608	2
12	S8001609	7
13	S8001615	5
14	S8001619	13
15	-	-
16	S8001621	2
17	S8001597	14
18	S8001611	20
19	S8001612	4
20	S8001613	4
21	S8001616	17
22	S8001617	4
23	S8001618	2
24	S8001622	4
25	U60300302	1

TRANS. VERS. AC:100V, p/n S8100658
TRANS. VERS. AC:120V, p/n S8100659
TRANS. VERS. AC:230V, p/n S8100655
TRANS. VERS. AC:240V, p/n S8100660

METAL TOP CABINET VERS. AC:100V, p/n S8001583
METAL TOP CABINET VERS. AC:120V, p/n S8001583
ALUMINUM TOP CABINET VERS. AC:230V, p/n S8001584
ALUMINUM TOP CABINET VERS. AC:240V, p/n S8001584

FUSE(8A, 250V) VERS. AC:100V, p/n S8100665
FUSE(8A, 250V) VERS. AC:120V, p/n S8100665
FUSE(5A) VERS. AC:230V, p/n Q0000027
FUSE(5A) VERS. AC:240V, p/n Q0000027

Capacitor-Unit

ONTL-Unit

POST (x2 pcs)
p/n S8001596

POST (x2 pcs)
p/n S8001595

PANEL METER, p/n S8100668

BRACKET (x2 pcs)
p/n S8001585

PLATE (x4 pcs) TYPE(L), p/n S8001587

TERMINAL, p/n S8001578

AUX5-Unit

AUX2-Unit

AUX6-Unit

AUX1-Unit

ROCKER SWITCH, p/n S8100688

CIGARETTE SOCKET COVER, p/n S8001580

FRONT PANEL ASS'Y, p/n S8001645
with FRONT PANEL
KNOB (RED, BLACK)
CIGGER SOCKET
FIBER WASHER
TERMINAL (RED, BLACK)

FRAME ASSY VERS. AC:100V, p/n S8001647
FRAME ASSY VERS. AC:120V, p/n S8001648
FRAME ASSY VERS. AC:230V, p/n S8001649
FRAME ASSY VERS. AC:240V, p/n S8001650

BUSH SRB-F-4 VERS. AC:100V, p/n S8001632
BUSH SRB-R-6 VERS. AC:120V, p/n S8001633
BUSH SRB-R-6 VERS. AC:230V, p/n S8001633
BUSH SRB-R-6 VERS. AC:240V, p/n S8001633

AC CODE VERS. AC:100V, p/n S8100746
AC CODE VERS. AC:120V, p/n S8100746
AC CODE VERS. AC:230V, p/n S8100745
AC CODE VERS. AC:240V, p/n S8100747
UK PLUG VERS. AC:240V(13A, 250V), p/n S8100748

FUSE HOLDER VERS. AC:100V, p/n S8001623
FUSE HOLDER VERS. AC:120V, p/n S8001623
FUSE HOLDER VERS. AC:230V, p/n S8001624
FUSE HOLDER VERS. AC:240V, p/n S8001624

HEAT SINK(x2 pcs), p/n S8001581

SILICON RUBBER (x2 pcs)
p/n S8001629

BUSH, p/n S8001631

SHEET (x4 pcs), p/n S8001626

SHEET (x4 pcs), p/n S8001628

THERMISTOR, p/n S8100738

BRIDGE DIODE GBPC3502 8A, 250V
p/n S8100663

AUX7-Unit, AUX10-Unit

SHEET, p/n S8001627

BUSH, p/n S8001630

BUSH, p/n S8001631

