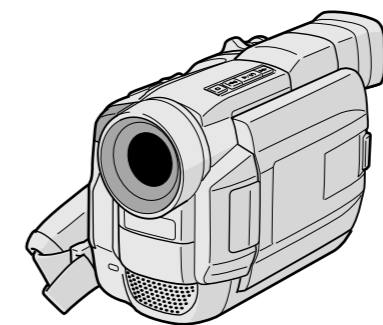


JVC

SERVICE MANUAL

DIGITAL VIDEO CAMERA

GR-DVL300KR



Mini **DV** NTSC

Regarding service information other than these sections, refer to the GR-DVL300U service manual (No. 86551). Also, be sure to note important safety precautions provided in the service manual.

SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-DVL300KR)*

Camcorder	
For General	
Power supply	: DC 6.3 V \approx (Using AC Power Adapter/Charger) DC 7.2 V \approx (Using battery pack)
Power consumption	
LCD monitor off, viewfinder on	: Approx. 4.3 W
LCD monitor on, viewfinder off	: Approx. 5.3 W
Video light	: Approx. 3.5 W
Dimensions (W x H x D)	: 80 mm x 96 mm x 159 mm (with the LCD monitor closed and the viewfinder pushed down)
Weight	: Approx. 570 g (1.3 lbs)
Operating temperature	: 0°C to 40°C
Operating humidity	: 35% to 80%
Storage temperature	: -20°C to 50°C
Pickup	: 1/4" CCD
Lens	: F 1.8, f = 3.6 mm to 36 mm, 10:1 power zoom lens
Filter diameter	: ϕ 37 mm
LCD monitor	: 2.5" diagonally measured, LCD panel/TFT active matrix system
Viewfinder	: Electronic viewfinder with 0.24" black/white LCD
Speaker	: Monaural
For Digital Video Camera	
Format	: DV format (SD mode)
Signal format	: NTSC standard
Recording/Playback format	: Video: Digital component recording : Audio: PCM digital recording, 32 kHz 4-channel (12-bit), 48 kHz 2-channel (16-bit)
Cassette	: Mini DV cassette
Tape speed	: SP: 18.8 mm/s LP: 12.5 mm/s
Maximum recording time (using 80 min. cassette)	: SP: 80 min. LP: 120 min.
For Connectors	
S	: Y : 1 V (p-p), 75 Ω , analog output C : 0.29 V (p-p), 75 Ω , analog output
AV	
Video output	: 1 V (p-p), 75 Ω , analog
Audio output	: 300 mV (rms), 1 k Ω , analog, stereo
DV	
Input/output	: 4-pin, IEEE 1394 compliant
PC (DIGITAL PHOTO)	
Digital still output	: ϕ 2.5 mm, 3-pole
JLIP/EDIT	: ϕ 3.5 mm, 4-pole
AC Power Adapter/Charger AA-V40KR	
Power requirement	: AC 110 V to 220 V \sim , 60 Hz
Power consumption	: 23 W
Output	
Charge	: DC 7.2 V \approx , 1.2 A
VTR	: DC 6.3 V \approx , 1.8 A
Dimensions (W x H x D)	: 68 mm x 38 mm x 110 mm
Weight	: Approx. 250 g
<i>Specifications shown are for SP mode unless otherwise indicated. E & O.E. Design and specifications subject to change without notice.</i>	

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VICTOR COMPANY OF JAPAN, LIMITED
VIDEO DIVISION

S40894

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The following table indicate main different points between models GR-DVL300U and GR-DVL300KR.

ITEM	MODEL	GR-DVL300U	GR-DVL300KR
AC POWER ADAPTER CHARGER		AA-V40U	AA-V40KR

The following table indicate different parts number between models GR-DVL300U and GR-DVL300KR.

PACKING AND ACCESSORY ASSEMBLY <M1> Note: As for IB (INSTRUCTIONS), refer to sec.5.

REF NO.	ITEM	MODEL	GR-DVL300U	GR-DVL300KR
1	PACKING CASE		LY31631-005A	LY31631-025A
9	Q.CARD (JCA)		YU10350	—
10	WARRANTY INF.		BT-51005-4	—
11	REGIST. CARD		BT-51020-2	—
23	LENS CAP		LY42182-001A	—
△ 29	AC POWER ADAPTER CHARGER		LY20591-001B	LY20591-010A

FINAL ASSEMBLY <M2>

REF NO.	ITEM	MODEL	GR-DVL300U	GR-DVL300KR
△ 101	LOWER CASE ASSY		LY20560-001B	LY20560-004B
104	CASS.COVER ASSY		LY31609-001A	LY31609-003C
104C	BKT (E.KNOB)		* LY42173-001B	←
108	REAR COVER ASSY		LY31596-001A	LY31596-003B
111	UPPER CASE (2.5) ASSY		LY20557-001A	LY20557-003E
111A	SHEET (EARTH)		* Not used	←
111C	SPACER, X2		* LY40664-001A	←
139	SCREW		* QYSPSPT1725R	←
143	SCREW		* QYSPSGT1760R	←
148	CAP (HOOD) ASSY		—	LY2182-002A
150	HOLDER (MECHA) ASSY		* LY31618-001C	←
150B	SPECIAL SCREW, X4		* LY30018-0B4A	←
214	SHEET		* LY42583-001A	←

Note: Mark — is not used. Mark ← is same as left. Mark * reference model was also changed.

ELECTRONIC VIEWFINDER ASSEMBLY <M4>

REF NO.	ITEM	MODEL	GR-DVL300U	GR-DVL300KR
356	HINGE(VF)ASSY		* LY31602-001C	←

MONITOR ASSEMBLY <M5>

REF NO.	ITEM	MODEL	GR-DVL300U	GR-DVL300KR
△ 501	MONITOR COVER ASSY		* LY20569-001B	←

MAIN BOARD ASSEMBLY <01>

REF NO.	ITEM	MODEL	GR-DVL300U	GR-DVL300KR
PW	MAIN BOARD ASSY		* YB10277E-05	←
IC5601	IC (DIGITAL)		* TC7S32FU	←
IC5602	IC (DIGITAL)		* TC7S04FU	←
R2101 to R2105 R2205 R3007 R3201 R3202 R3215 R3234 R3309 R3330	MG RESISTOR		* Not used	←
R4207	MG RESISTOR		* NRSA6AJ-243W	←
R4301	MG RESISTOR		* Not used	←
R4354 R4355	MG RESISTOR		* NRSA6AJ-272W	←
R5509 to R5511	MG RESISTOR		* NRSA6AJ-470W	←
R5602	MG RESISTOR		* NRSA6AJ-0R0W	←
RA4305 RA4306	NETWORK RESISTOR		* Not used	←
C2203 C2205	CAPACITOR		* NCB11CK-105X	←
C3702	CAPACITOR		* NCB30JK-105X	←
C5601 C5602	CAPACITOR		* NCBA1AK-104W	←
L2601 to L2603	MG RESISTOR		* Not used	←
OT2	SPACER(A)		* LY30029-055B	←

Note: Mark – is not used. Mark ← is same as left. Mark * reference model was also changed.

MONITOR BOARD ASSEMBLY <02>

REF NO.	ITEM	MODEL	GR-DVL300U	GR-DVL300KR
PW1	MONITOR BOARD ASSY		* YB10280E1-02	←
IC7101	IC		* XCVVQ110CFB	←
R7109	CMF RESISTOR		* NRVA63D-393X	←
R7110	CMF RESISTOR		* NRVA63D-183X	←
R7114	MG RESISTOR		* NRSA63J-153X	←
R7119	MG RESISTOR		* NRSA63J-333X	←
R7121	MG RESISTOR		* Not used	←
VR7101	TRIM RESISTOR, GAIN		* Not used	←
VR7103	TRIM RESISTOR, GAMMA		* NVP0016-223X	←
C7118	T CAPACITOR		* Not used	←

CCD BOARD ASSEMBLY <04>

REF NO.	ITEM	MODEL	GR-DVL300U	GR-DVL300KR
OT1 OT2	SPACER-A		* Not used	←
L1	FERRITE CORE		* Not used	←

JUNCTION BOARD ASSEMBLY <05>

REF NO.	ITEM	MODEL	GR-DVL300U	GR-DVL300KR
PW2	JUNCTION BOARD ASSY		* YB10278A2-02	←

JACK BOARD ASSEMBLY <06>

REF NO.	ITEM	MODEL	GR-DVL300U	GR-DVL300KR
PW1	JACK BOARD ASSY		* YB10278A1-02	←
D504 D505	ZENER DIODE		* Not used	←

REAR BOARD ASSEMBLY <07>

REF NO.	ITEM	MODEL	GR-DVL300U	GR-DVL300KR
PW3	REAR BOARD ASSY		* YB10278C3-02	←
R551 R552	MG RESISTOR		* NRSA63J-331X	←
OT1	PIN		* LY42702-001A	←

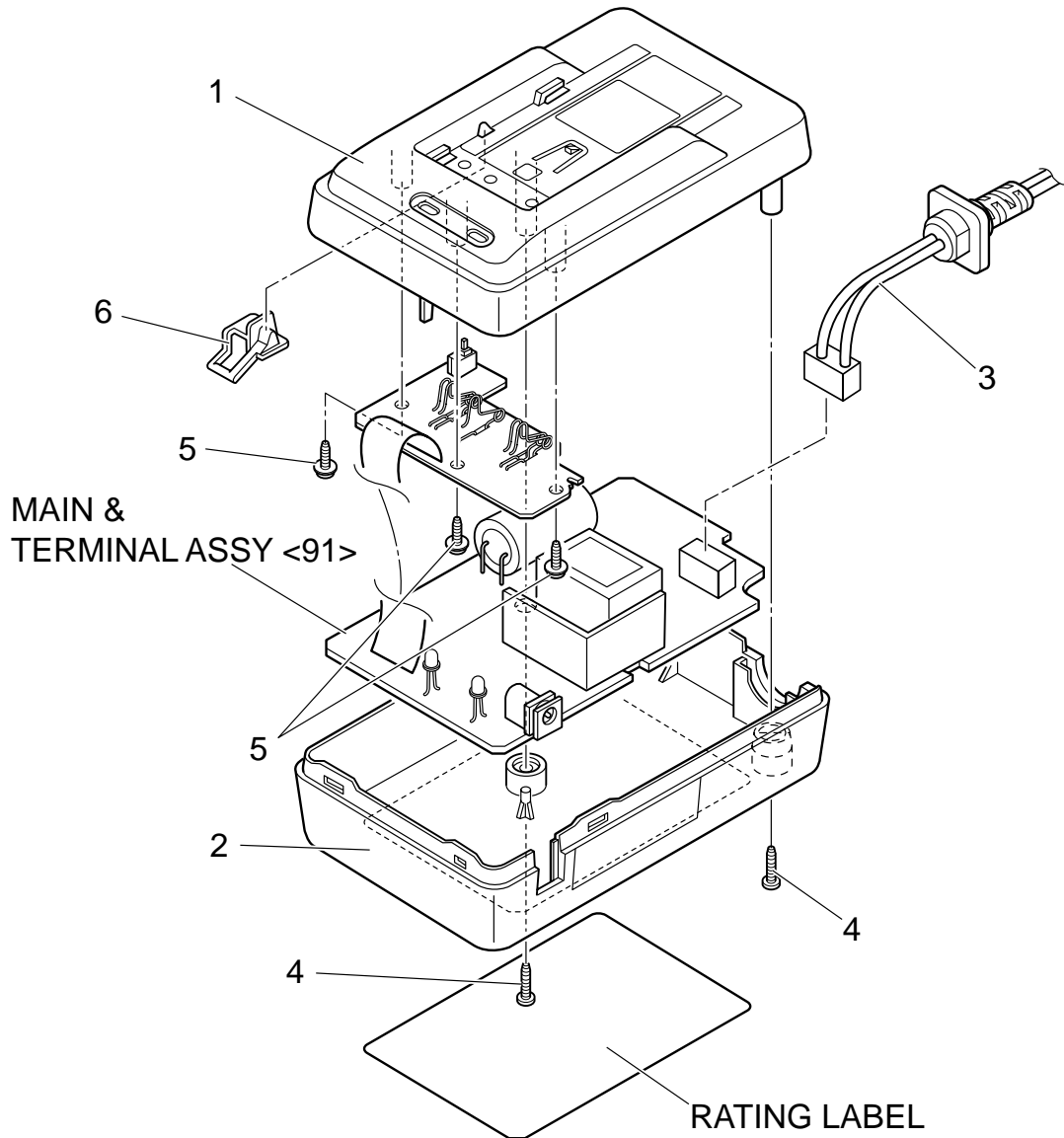
Note: Mark – is not used. Mark ← is same as left. Mark * reference model was also changed.

SECTION 6 AC POWER ADAPTER CHARGER (AA-V40KR)

SAFETY PRECAUTION

Parts identified by the \triangle symbol are critical for safety. Replace only with specified part numbers.

6.1 CABINET ASSEMBLY <MA>



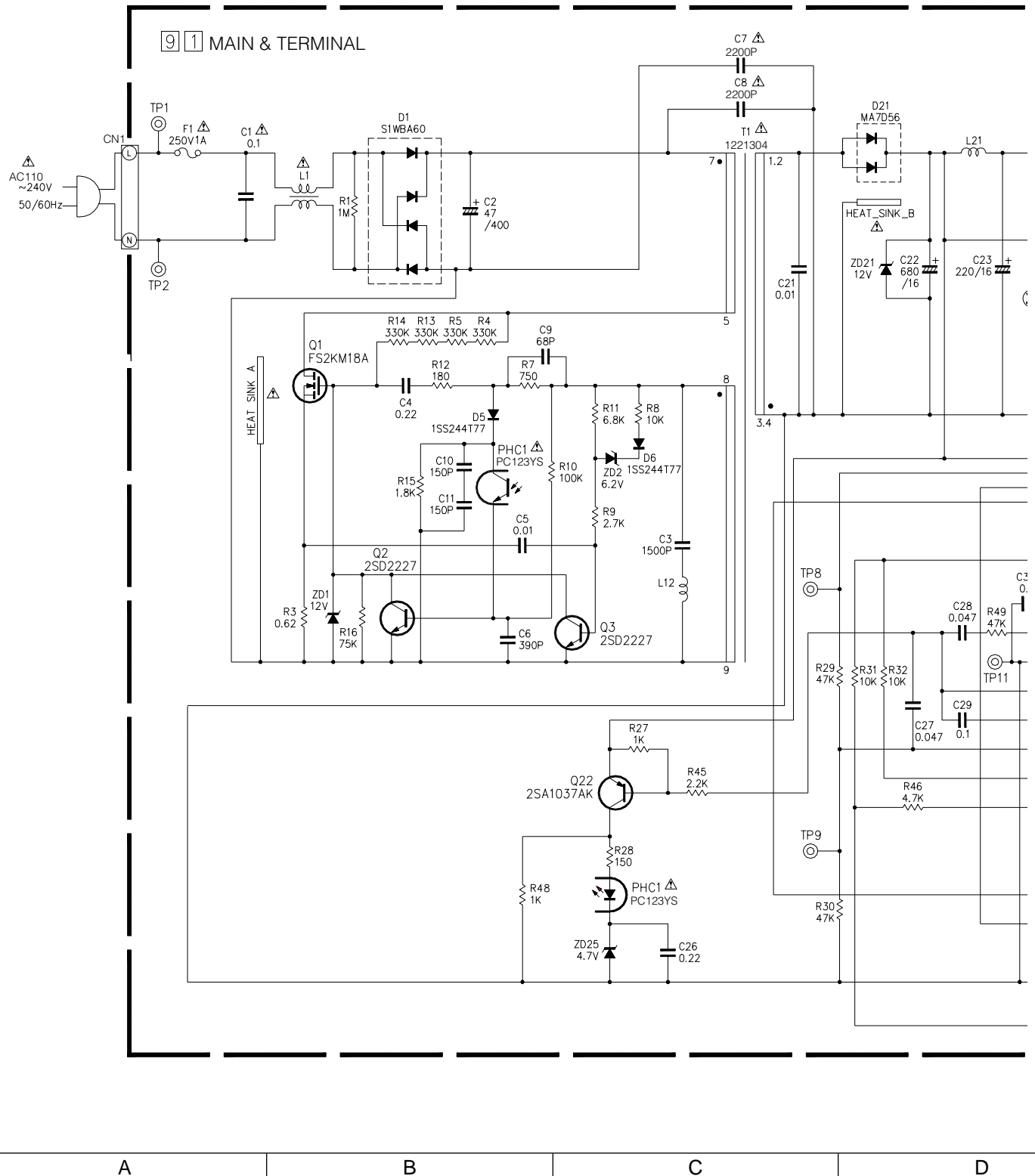
\triangle REF No. PART No. PART NAME, DESCRIPTION

CABINET ASSEMBLY <MA>

\triangle 1	PTY20591-013	UPPER CASE ASSY
\triangle 2	PTY20483-023	LOWER CASE
\triangle 3	PTY20539-081	POWER CORD
4	YQ10531-011	SCREW,x2
5	PTY20545-055	SCREW,x3
6	PTY20591-053	SWITCH COVER

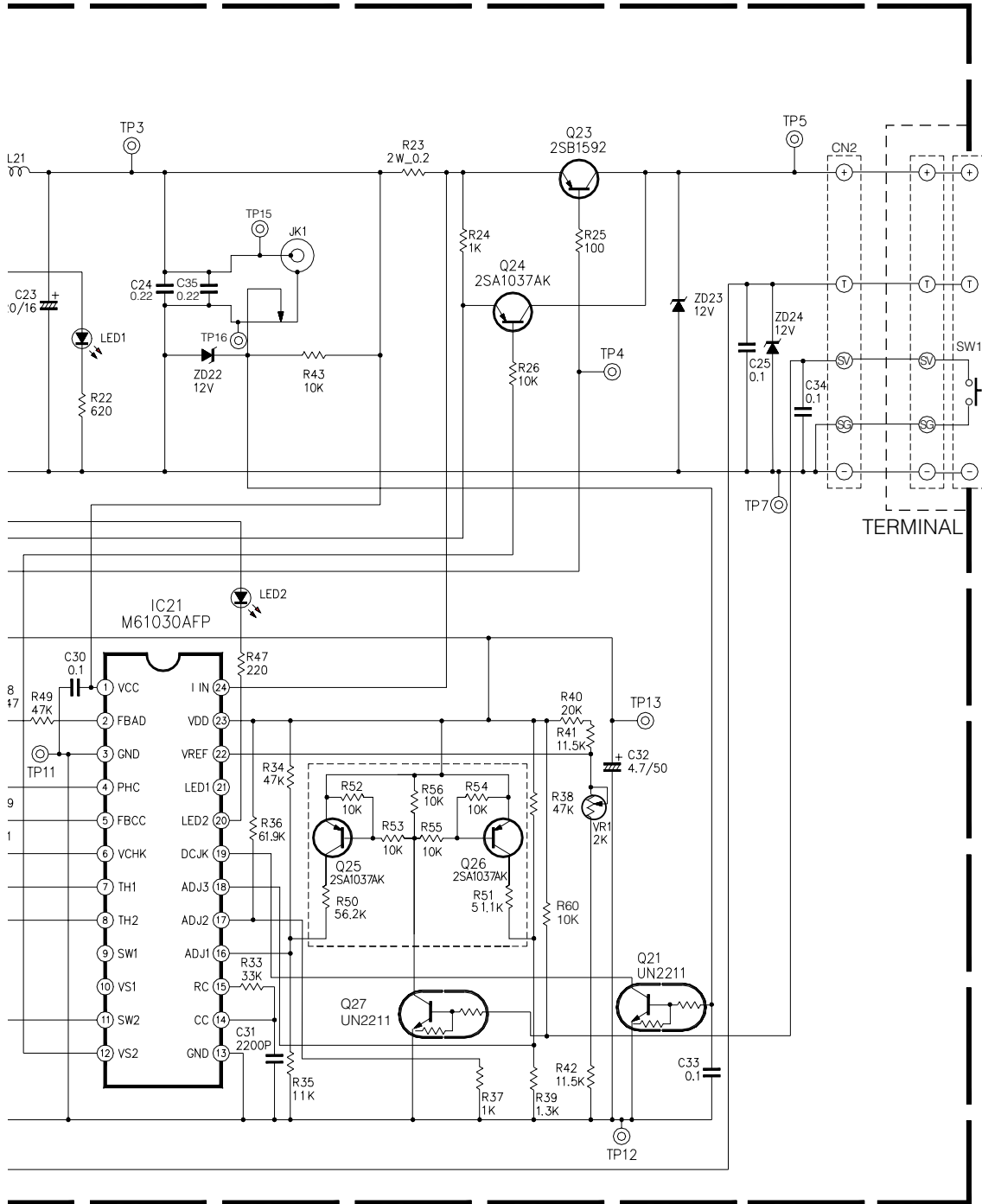
6.2 SCHEMATIC DIAGRAM

NOTE: When ordering parts, be sure to order according to the Part Number indicated in the Parts List.

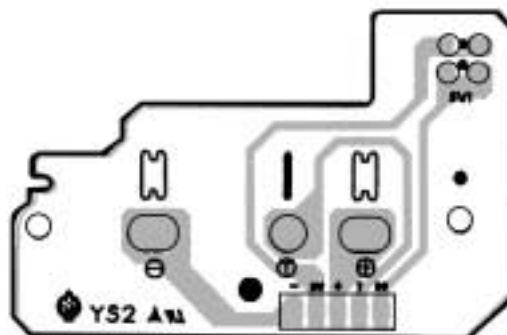
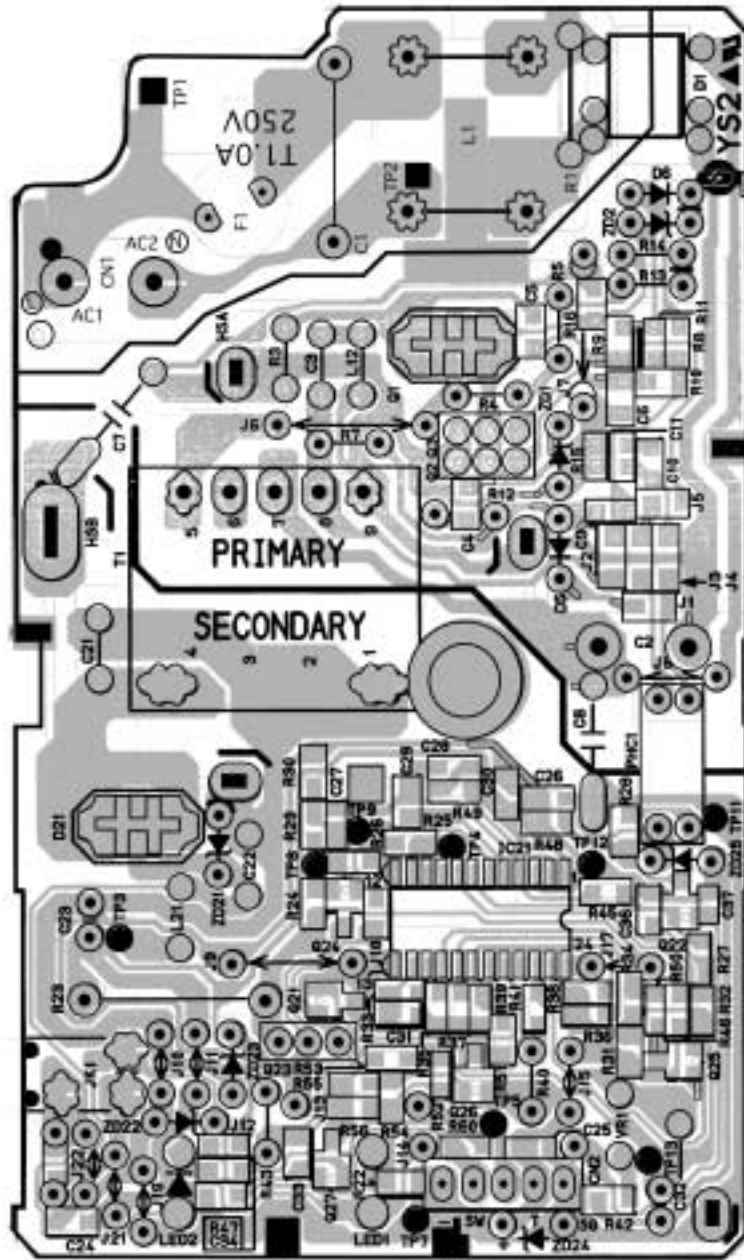


Safety precautions

The components identified by the symbol \triangle are critical for safety. For continued safety, replace safety critical components only with manufacturer's recommended parts.



6.3 CIRCUIT BOARD



6.4 ELECTRICAL PARTS LIST

#	REF No.	PART No.	PART NAME, DESCRIPTION	#	REF No.	PART No.	PART NAME, DESCRIPTION

MAIN & TERMINAL BOARD ASSY <91>							
△	PW1	PTY20591-503	MAIN & TERMINAL BOARD ASSY				
△	HS1	PTY20483-071	HEAT SINK A				
△	HS2	PTY20591-072	HEAT SINK B				
	OT1	PTY10067-551	SCREW				
	IC21	M61030AFP	CHARGE COTROL IC 24pin SOP				
	Q1	FS2KM18A	MOS FET				
	Q2	2SD2227	TRANSISTER				
	Q3	2SD2227	TRANSISTER				
	Q21	UN2211TX	DIG.TRANSISTER				
	Q22	2SA1037AK/QR/-X	CHIP TRANSISTER				
	Q23	2SB1592	TRANSISTER				
	Q24	2SA1037AK/QR/-X	TRANSISTER				
	Q25	2SA1037AK/QR/-X	TRANSISTER				
	Q26	2SA1037AK/QR/-X	TRANSISTER				
	Q27	UN2211TX	DIG TRANSISTOR				
	D1	S1WBA60	B.DIODE			600V 1A	
	D5	1SS244T77	DIODE			200V 6A	
	D6	1SS244T77	DIODE			200V 6A	
	D21	MA7D56	DIODE			60V 10A	
	ZD1	MTZJ12C-T2	ZENER DIODE			12V	
	ZD2	MTZJ6.2B-T2	ZENER DIODE			6.2V 500mW	
	ZD21	MTZJ12C-T2	ZENER DIODE			12V	
	ZD22	MTZJ12C-T2	ZENER DIODE			12V	
	ZD23	MTZJ12C-T2	ZENER DIODE			12V	
	ZD24	MTZJ12C-T2	ZENER DIODE			12V	
	ZD25	MA4047NM	ZENER DIODE			4.7V 500mW	
	LED1	YQ10531-540	LED RED POWER				
	LED2	YQ10531-542	LED GREEN CHARGE				
	R1	QRN141J-105	RESISTOR			1MΩ 1/4W	
	R3	PTY10067-601	MF RESISTOR			0.62Ω 1W	
	R4	QRE141J-334Y	RESISTOR			330kΩ 1/4W	
	R5	QRE141J-334Y	RESISTOR			330kΩ 1/4W	
	R7	QRE141J-751Y	RESISTOR			750Ω 1/4W	
	R8	NRSA02J-103X	MG RESISTOR			10kΩ 1/10W	
	R9	NRSA02J-272X	MG RESISTOR			2.7kΩ 1/10W	
	R10	NRSA02J-104X	MG RESISTOR			100kΩ 1/10W	
	R11	NRSA02J-682X	MG RESISTOR			6.8kΩ 1/10W	
	R12	QRE141J-181Y	RESISTOR			180Ω 1/4W	
	R13	QRE141J-334Y	RESISTOR			330kΩ 1/4W	
	R14	QRE141J-334Y	RESISTOR			330kΩ 1/4W	
	R15	NRSA02J-182X	MG RESISTOR			1.8kΩ 1/10W	
	R16	NRSA02J-753X	MG RESISTOR			75kΩ 1/10W	
	R22	NRSA02J-621X	MG RESISTOR			620Ω 1/10W	
	R23	PTY20539-605	MF RESISTOR			0.20Ω 2W	
	R24	NRSA02J-102X	MG RESISTOR			1kΩ 1/10W	
	R25	NRSA02J-101X	MG RESISTOR			100Ω 1/10W	
	R26	NRSA02J-103X	MG RESISTOR			10kΩ 1/10W	
	R27	NRSA02J-102X	MG RESISTOR			1kΩ 1/10W	
	R28	NRSA02J-151X	MG RESISTOR			150Ω 1/10W	
	R29	PTY20539-601	MG RESISTOR			47.0kΩ 1/10W	
	R30	PTY20539-601	MG RESISTOR			47.0kΩ 1/10W	
	R31	NRSA02F-103X	MG RESISTOR			10.0kΩ 1/10W	
	R32	NRSA02J-103X	MG RESISTOR			10kΩ 1/10W	
	R33	NRSA02J-333X	MG RESISTOR			33kΩ 1/10W	
	R34	PTY20539-601	MG RESISTOR			47.0kΩ 1/10W	
	R35	PTY20539-602	MG RESISTOR			11.0kΩ 1/10W	
	R36	NRSA02F-6192X	MG RESISTOR			61.9kΩ 1/10W	
	R37	PTY20539-603	MG RESISTOR			1.0kΩ 1/10W	
	R38	PTY20539-601	MG RESISTOR			47.0kΩ 1/10W	
	R39	PTY20539-604	MG RESISTOR			1.3kΩ 1/10W	
	R40	PTY20450-200	MG RESISTOR			20.0kΩ 1/4W	
	R41	NRSA02F-1152X	MG RESISTOR			11.5kΩ 1/10W	
	R42	NRSA02F-1152X	MG RESISTOR			11.5kΩ 1/10W	
	R43	QRE141J-103Y	MF RESISTOR			10kΩ 1/4W	
	R45	NRSA02J-222X	MG RESISTOR			2.2kΩ 1/10W	
	R46	NRSA02J-472X	MG RESISTOR			4.7kΩ 1/10W	
	R47	NRSA02J-221X	MG RESISTOR			220Ω 1/10W	
	R48	NRSA02J-102X	MG RESISTOR			1kΩ 1/10W	
	R49	NRSA02J-473X	MG RESISTOR			47kΩ 1/10W	
	R50	NRSA02F-5622X	MG RESISTOR			56.2kΩ 1/10W	
	R51	NRSA02F-5112X	MG RESISTOR			51.1kΩ 1/10W	
	R52	NRSA02J-103X	MG RESISTOR			10kΩ 1/10W	
	R53	NRSA02J-103X	MG RESISTOR			10kΩ 1/10W	
	R54	NRSA02J-103X	MG RESISTOR			10kΩ 1/10W	
	R55	NRSA02J-103X	MG RESISTOR			10kΩ 1/10W	
	R56	NRSA02J-103X	MG RESISTOR			10kΩ 1/10W	
	R60	NRSA02J-103X	MG RESISTOR			10kΩ 1/10W	
△	C1	PTY20292-303	CAPACITOR			0.068μF 275V	
	C2	YQ10626-402	E CAPACITOR			47μF 400V	
	C3	PTY10067-651	CAPACITOR			1500pF 250V	
	C4	NCB21CK-224X	CAPACITOR			0.22μF 16V	
	C5	PTY10067-653	CAPACITOR			0.01μF 50V	
	C6	NCB21HK-391X	CAPACITOR			390pF 50V	
△	C7	PTY20538-611	CAPACITOR			2200pF 250V	
△	C8	PTY20538-611	CAPACITOR			2200pF 250V	
	C9	NDC21HJ-680X	CAPACITOR			68pF 50V	
	C10	NDC21HJ-151X	CAPACITOR			150pF 50V	
	C11	NDC21HJ-151X	CAPACITOR			150pF 50V	
	C21	PTY10067-657	CAPACITOR			0.01μF 250V	
	C22	PTY20292-321	E CAPACITOR			680μF 16V	
	C23	QETL1CM-227	E CAPACITOR			220μF 16V	
	C24	NCB21CK-224X	CAPACITOR			0.22μF 16V	
	C25	NCF21EZ-104X	CAPACITOR			0.1μF 25V	
	C26	NCB21CK-224X	CAPACITOR			0.22μF 16V	
	C27	NCB21EK-473X	CAPACITOR			0.047μF 25V	
	C28	NCB21HK-473X	CAPACITOR			0.047μF 50V	
	C29	NCB21EK-104X	CAPACITOR			0.1μF 25V	
	C30	NCF21EZ-104X	CAPACITOR			0.1μF 25V	
	C31	NCB21HK-222X	CAPACITOR			0.0022μF 50V	
	C32	QEHA1HM-475	E CAPACITOR			4.7μF 50V	
	C33	NCF21EZ-104X	CAPACITOR			0.1μF 25V	
	C34	NCF21EZ-104X	CAPACITOR			0.1μF 25V	
	C35	QLA11HJ-224	F CAPACITOR			0.22μF 50V	
△	T1	PTY20538-801	SW TRANS				
	VR1	PTY20483-101	VOLUME			2kΩ	
△	F1	PTY20450-041	FUSE			1A 250V	
	JK1	YQ21032-301	DC JACK				
△	L1	PTY20450-401	LINE FILTER				
	L12	PTY10067-702	BEAD INDUCTOR				
	L21	PTY10067-703	COIL				
△	PHC1	PC123YS	PHOTO COUPLER				
	SW1	PTY20545-662	SWITCH				
	WR1	PTY20591-052	FLAT CABLE (5P)				
	TB1	PTY20545-051	TERMINAL,x5				
	CN1	PTY20483-001	CONNECTOR				