

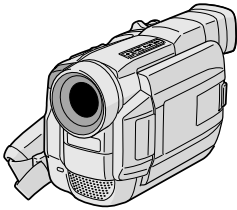


JVC

SERVICE MANUAL

DIGITAL VIDEO CAMERA

GR-DVL505UM/805UM



(AUDINAC KIT)

Regarding service information other than these sections, refer to the GR-DVL505U, 805U service manual (No. 86550). Also, be sure to note important safety precautions provided in the service manual.

SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-DVL505U, 805U)*

Camcorder		For Digital Still Camera	
For General		For Digital Still Camera	
Power supply	: DC 6.3 V \square (Using AC Power Adapter/Charger) DC 7.2 V \square (Using battery pack)	Storage media	: Built-in flash memory, 2 Mbyte
Power consumption		Compression system	: JPEG (compatible)
LCD monitor off, viewfinder on	: Approx. 4.3 W	File size	: VGA: 640 x 480 pixels
LCD monitor on, viewfinder off	: Approx. 5.3 W	Picture quality	: 2 modes (FINE/STANDARD)
Video light	: Approx. 3.5 W	Approximate number of storable images	
Dimensions (W x H x D)	: 80 mm x 96 mm x 159 mm (3-3/16" x 3-13/16" x 6-5/16") (with the LCD monitor closed and the viewfinder pushed down)	FINE	: 30
Weight	: Approx. 580 g (1.3 lb)	STANDARD	: 60
Operating temperature	: 0°C to 40°C (32°F to 104°F)	For Connectors	
Operating humidity	: 35% to 80%	S	: Y: 1 V (p-p), 75 Ω , analog output C: 0.29 V (p-p), 75 Ω , analog output
Storage temperature	: -20°C to 50°C (-4°F to 122°F)	AV	
Pickup	: 1/4" CCD	Video output	: 1 V (p-p), 75 Ω , analog
Lens	: F 1.8, f = 3.6 mm to 36 mm, 10:1 power zoom lens	Audio output	: 300 mV (rms), 1 k Ω , analog, stereo
Filter diameter	: ϕ 37 mm	DV	: 4-pin, IEEE 1394 compliant
LCD monitor		Input/output	
GR-DVL805	: 3.5" diagonally measured, LCD panel/TFT active matrix system	PC (DIGITAL PHOTO)	
GR-DVL505	: 3.0" diagonally measured, LCD panel/TFT active matrix system	Digital still output	: ϕ 2.5 mm, 3-pole
Viewfinder		JLIP/EDIT	: ϕ 3.5 mm, 4-pole
GR-DVL805	: Electronic viewfinder with 0.44" color LCD		
GR-DVL505	: Electronic viewfinder with 0.24" black/white LCD		
Speaker	: Monaural		
For Digital Video Camera		AC Power Adapter /Charger AA-V40EN	
Format	: DV format (SD mode)	Power requirement	: AC 110 V to 240 V \sim , 50 Hz/60 Hz
Signal format	: NTSC standard	Power consumption	: 23 W
Recording/Playback format	: Video: Digital component recording Audio: PCM digital recording, 32 kHz 4-channel (12-bit), 48 kHz 2-channel (16-bit)	Output	
Cassette	: Mini DV cassette	Charge	: DC 7.2 V \square , 1.2 A
Tape speed	: SP: 18.8 mm/s LP: 12.5 mm/s	VTR	: DC 6.3 V \square , 1.8 A
Maximum recording time (using 80 min. cassette)	: SP: 80 min. LP: 120 min.	Dimensions (W x H x D)	: 68 mm x 38 mm x 110 mm (2-11/16" x 1-1/2" x 4-3/8")
		Weight	: Approx. 250 g (0.56 lb)

Specifications shown are for SP mode unless otherwise indicated. E & O.E. Design and specifications subject to change without notice.

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The following table indicate main different points between models GR-DVL805U,DVL505U,DVL805UM and GR-DVL505UM.

ITEM \ MODEL	GR-DVL805U	GR-DVL505U	GR-DVL805UM	GR-DVL505UM
AC POWER ADAPTER CHARGER	AA-V40U	←	AA-V40EN	←
LCD MONITOR	3.5"	3"	3.5"	3"
S CABLE,S-VIDEO CABLE	Optional	←	Provided	←
VIEW FINDER	Color	Black/White	Color	Black/White

Note: Mark ← is same as left.

The following table indicate different parts number between models GR-DVL805U,DVL505U,DVL805UM and GR-DVL505UM.

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

REF. NO. \ MODEL	GR-DVL805U	GR-DVL505U	GR-DVL805UM/505UM
1 PACKING CASE	LY31631-008B	LY31631-007B	-
3 POLY BAG	* LY30023-015A	←	LY30023-008A
9 Q.CARD(JCA)	YU10350	←	-
10 WARRANTY INF.	BT-51005-4	←	-
11 REGIST.CARD	BT-51020-2	←	-
△ 29 AC POWER ADAPTER CHARGER	LY20591-001B	←	LY20591-011A
30 S CABLE,S-VIDEO CABLE	-	-	QAM0004-003
31 CORE FILTER	-	-	QQR0491-002
32 MINI DV TAPE	Not used	←	Used

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

FINAL ASSEMBLY <M2>

REF. NO.	MODEL		GR-DVL805U	GR-DVL805UM	GR-DVL505U	GR-DVL505UM
	ITEM					
△ 101	LOWER CASE ASSY		* LY20560-001B	LY20560-001D	* LY20560-001B	LY20560-001D
104	CASS.COVER ASSY		* LY31609-001A	LY31609-001C	* LY31609-001A	LY31609-001C
104C	BKT(E.KNOB)		* LY42173-001A	LY42173-001B	* LY42173-001A	LY42173-001B
111	UPPER CASE(3)ASSY		* LY20550-002A	LY20550-002C	* LY20550-002A	LY20550-002C
111A	SHEET(EARTH)		* LY31599-001A	—	* LY31599-001A	—
127	TOP COVER (3)		LY20552-010A	←	LY20552-006A	←
131	SPECIAL SCREW		* LY30018-084A	LY30018-079A	* LY30018-084A	LY30018-079A
139	SCREW		* LY30018-096A	QYSPSPT1725R	* LY30018-096A	QYSPSPT1725R
141	SCREW		* LY30018-084A	QYSPSGT1760R	* LY30018-084A	QYSPSGT1760R
143	SPECIAL SCREW		* LY30018-059A	LY30018-084A	* LY30018-059A	LY30018-084A
150	HOLDER(MECHA)ASSY		* LY31618-001B	LY31618-001C	* LY31618-001B	LY31618-001C
150B	SPECIAL SCREW, X4		* LY30018-056A	LY30018-0B4A	* LY30018-056A	LY30018-0B4A
214	SHEET		* —	LY42583-001A	* —	LY42583-001A

ELECTRONIC VIEWFINDER ASSEMBLY <M4>

REF. NO.	MODEL		GR-DVL805U	GR-DVL805UM	GR-DVL505U	GR-DVL505UM
	ITEM					
300	COLOR VF UNIT		* LY20596-001A	LY20596-001C	—	—
350	E.VF ASSY		—	—	LYH20136-001A	←
301/351	VF CASE(UPPER)ASSY		* LY31600-001A	LY31600-001C	* LY31600-001A	LY31600-001C
306/356	HINGE(VF)ASSY		* LY31602-001A	LY31602-001C	* LY31602-001B	LY31602-001C
362	HOLDER(B/W LCD)		—	—	* LY20481-001A	LY20481-002A

MONITOR ASSEMBLY <M5>

REF. NO.	MODEL		GR-DVL805U	GR-DVL805UM	GR-DVL505U	GR-DVL505UM
	ITEM					
△ 500	MONITOR ASSY		LYH20135-006B	←	LYH20135-005B	←
△ 501	MONITOR COVER ASSY		* LY20565-006A	LY20565-006B	* LY20565-005A	LY20565-005B
502	MONITOR CASE ASSY		LY20598-002A	←	LY20598-001A	←
503	HOLDER(3LCD)		—	—	* LY20566-001A	LY20566-001B
504	HOLDER(3.5/3PWB)		LY20568-001A	←	LY20567-001A	←
509	BACK LIGHT		QLL0081-001	←	QLL0080-001	←
510	LCD MODULE		QLD0096-002	←	QLD0118-001	←

MAIN BOARD ASSEMBLY <01>

REF. NO.	MODEL		GR-DVL805U	GR-DVL805UM	GR-DVL505U	GR-DVL505UM
	ITEM					
PW	MAIN BOARD ASSY		* YB10277F-02	YB10277F-04	* YB10277F-02	YB10277F-04
R4301	MG RESISTOR		* —	NRSA6AJ-560W	* —	NRSA6AJ-560W
WR3	THIN WIRE		* —	YU40017-060-1	* —	YU40017-060-1
OT2	SPACER(A)		* LY30029-055A	LY30029-055B	* LY30029-055A	LY30029-055B
OT3	SPACER(A)		* —	LY30029-051A	* —	LY30029-051A

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-DVL805U	GR-DVL805UM	GR-DVL505U	GR-DVL505UM
PW1	MONITOR BOARD ASSY	YB10280G1-01		←	* YB10280F1-01	YB10280F1-02

LCD BL BOARD ASSEMBLY <03>

REF. NO.	ITEM	MODEL	GR-DVL805U	GR-DVL805UM	GR-DVL505U	GR-DVL505UM
PW2	LCD BL BOARD ASSY	YB10280B2-01		←	YB10280A2-01	←
C7501	CAPACITOR	NCZ1016-180X		←	NCZ1016-150X	←

JUNCTION BOARD ASSEMBLY <05>

REF. NO.	ITEM	MODEL	GR-DVL805U	GR-DVL805UM	GR-DVL505U	GR-DVL505UM
PW2	JUNCTION BOARD ASSY	* YB10278A2-01		YB10278A2-02	* YB10278A2-01	YB10278A2-02

JACK BOARD ASSEMBLY <06>

REF. NO.	ITEM	MODEL	GR-DVL805U	GR-DVL805UM	GR-DVL505U	GR-DVL505UM
PW1	JACK BOARD ASSY	* YB10278A1-01		YB10278A1-02	* YB10278A1-01	YB10278A1-02

REAR BOARD ASSEMBLY <07>

REF. NO.	ITEM	MODEL	GR-DVL805U	GR-DVL805UM	GR-DVL505U	GR-DVL505UM
PW3	REAR BOARD ASSY	* YB10278A3-01		YB10278C3-02	* YB10278A3-01	YB10278C3-02

B/W VF BOARD ASSEMBLY <08>

REF. NO.	ITEM	MODEL	GR-DVL805U	GR-DVL805UM	GR-DVL505U	GR-DVL505UM
PW3	B/W VF BOARD ASSY		-	-	YB10280A3-01	←

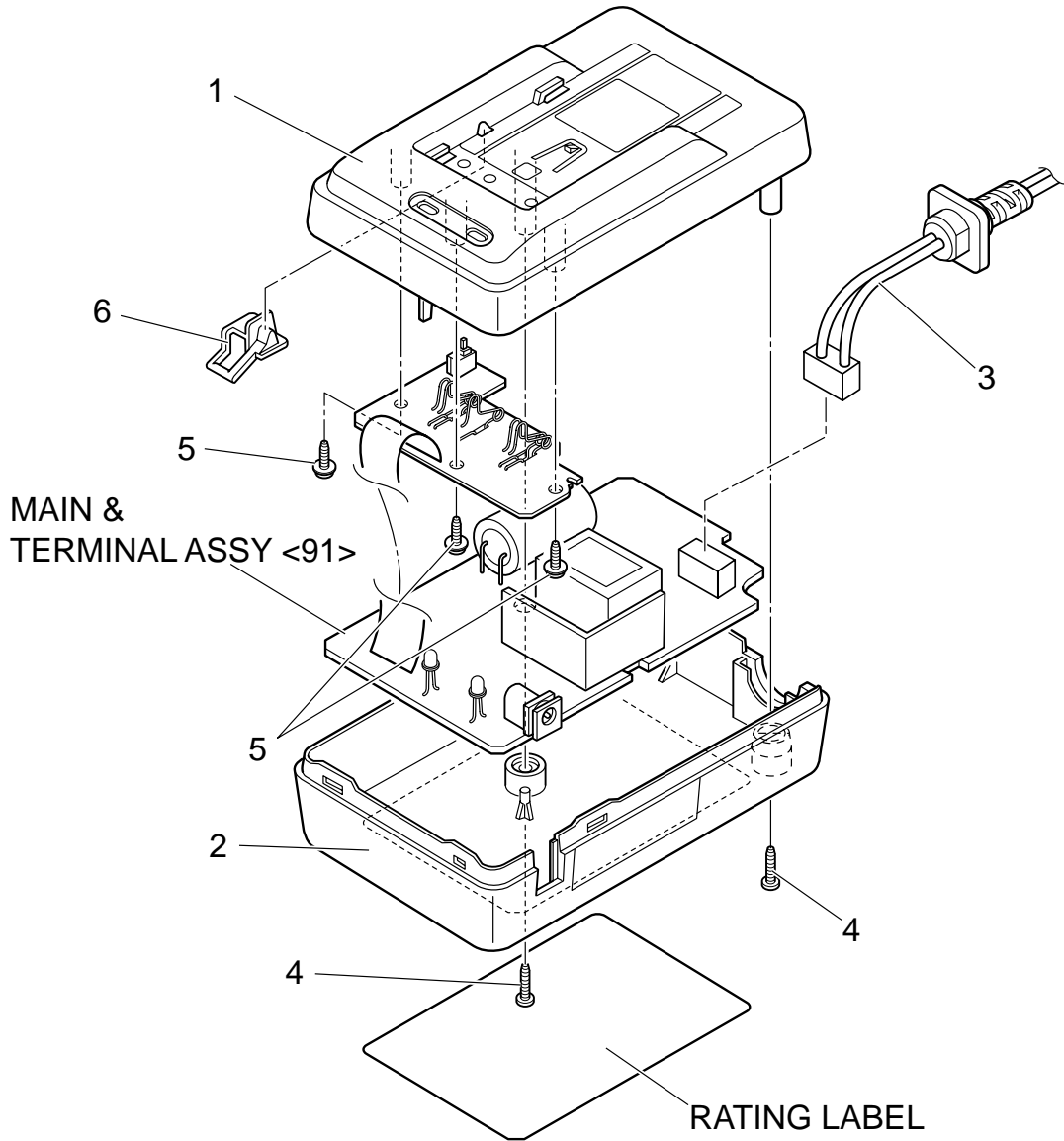
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SECTION 6 AC POWER ADAPTER CHARGER (AA-V40EN)

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	PTY20483-035	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.

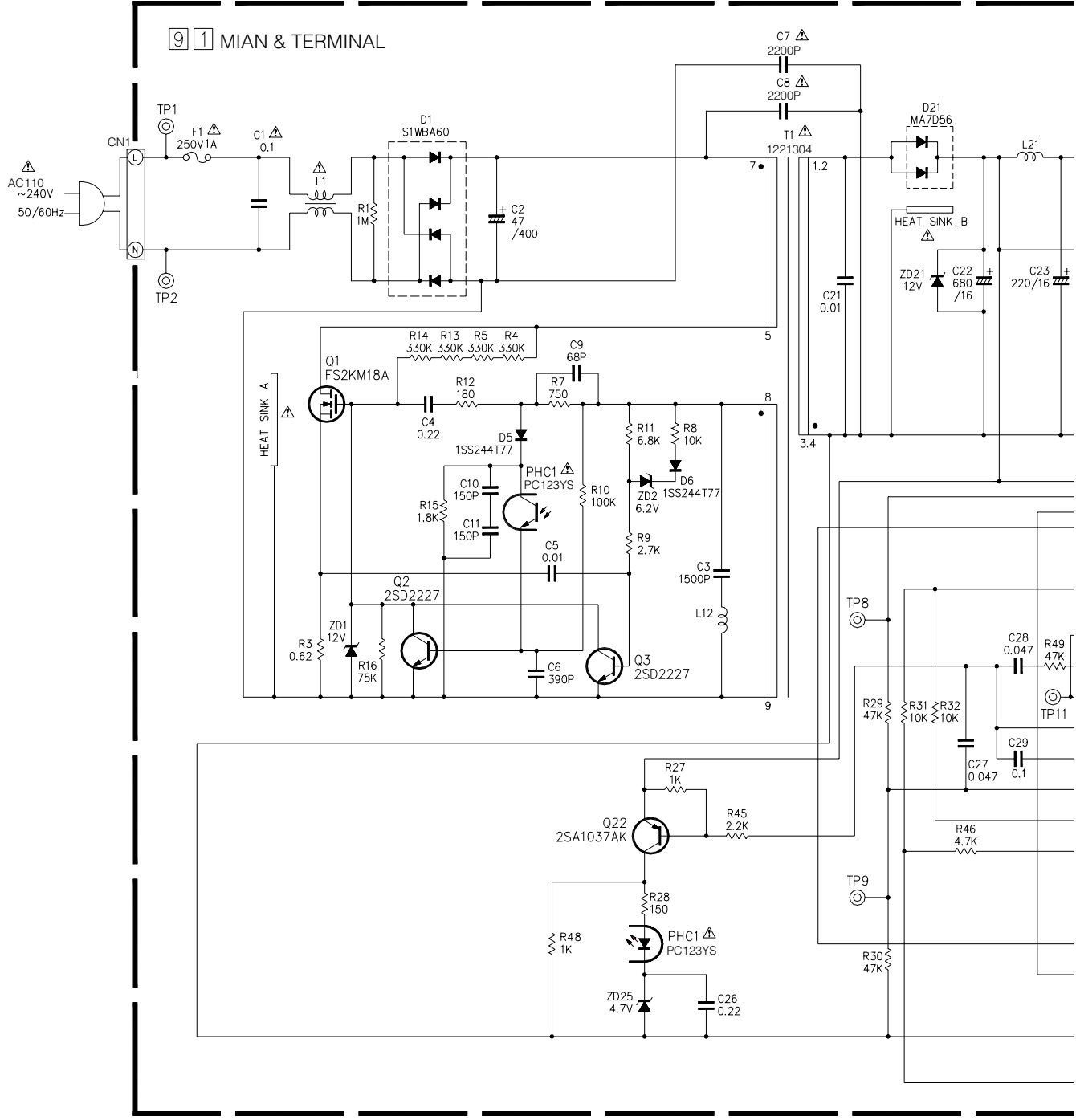
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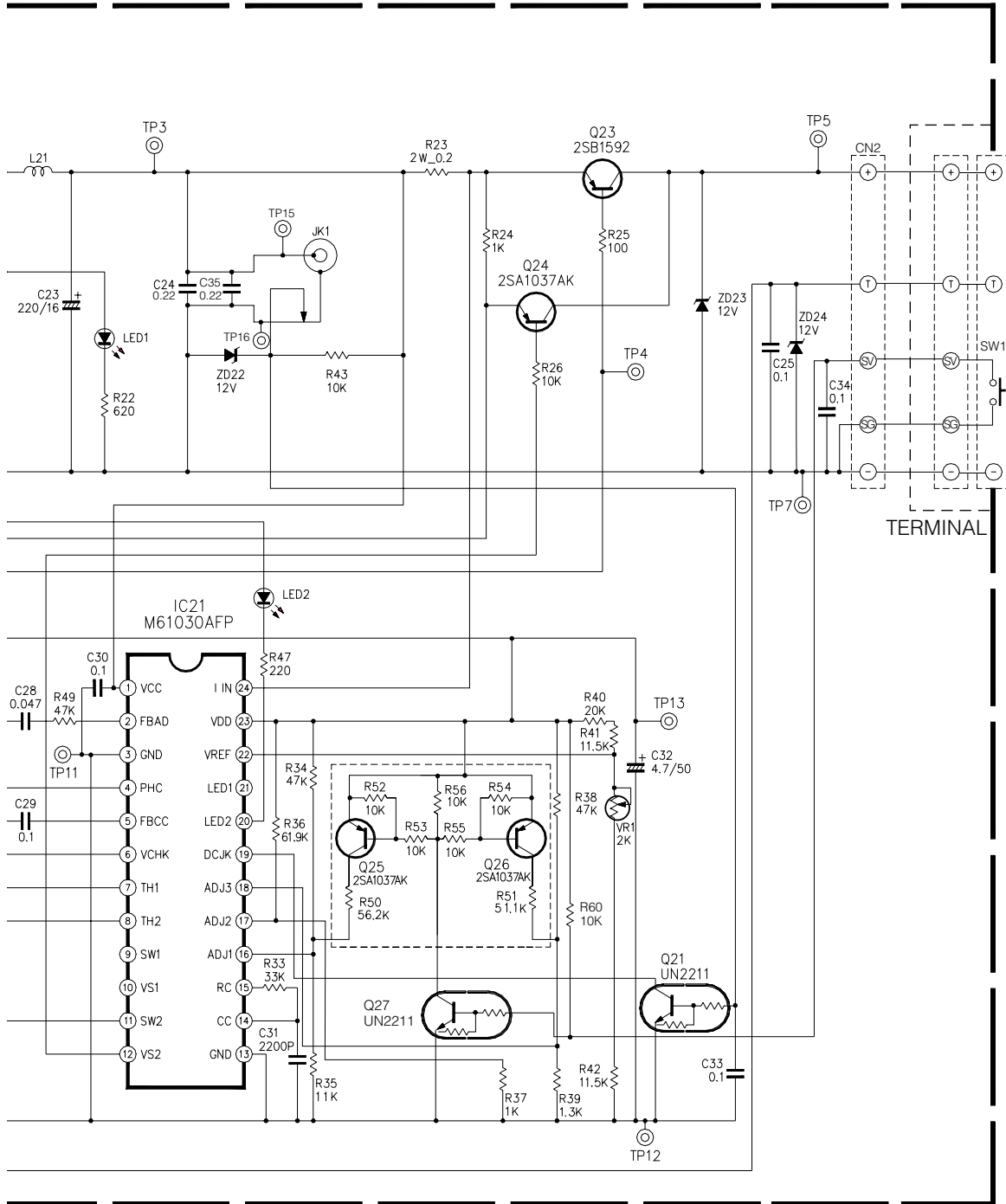
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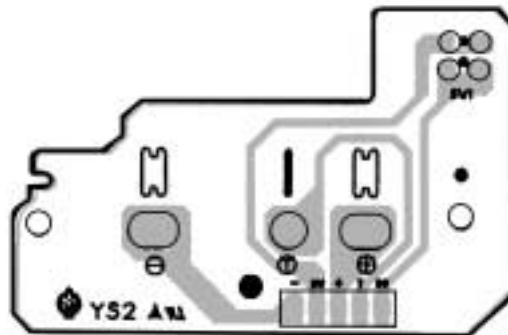
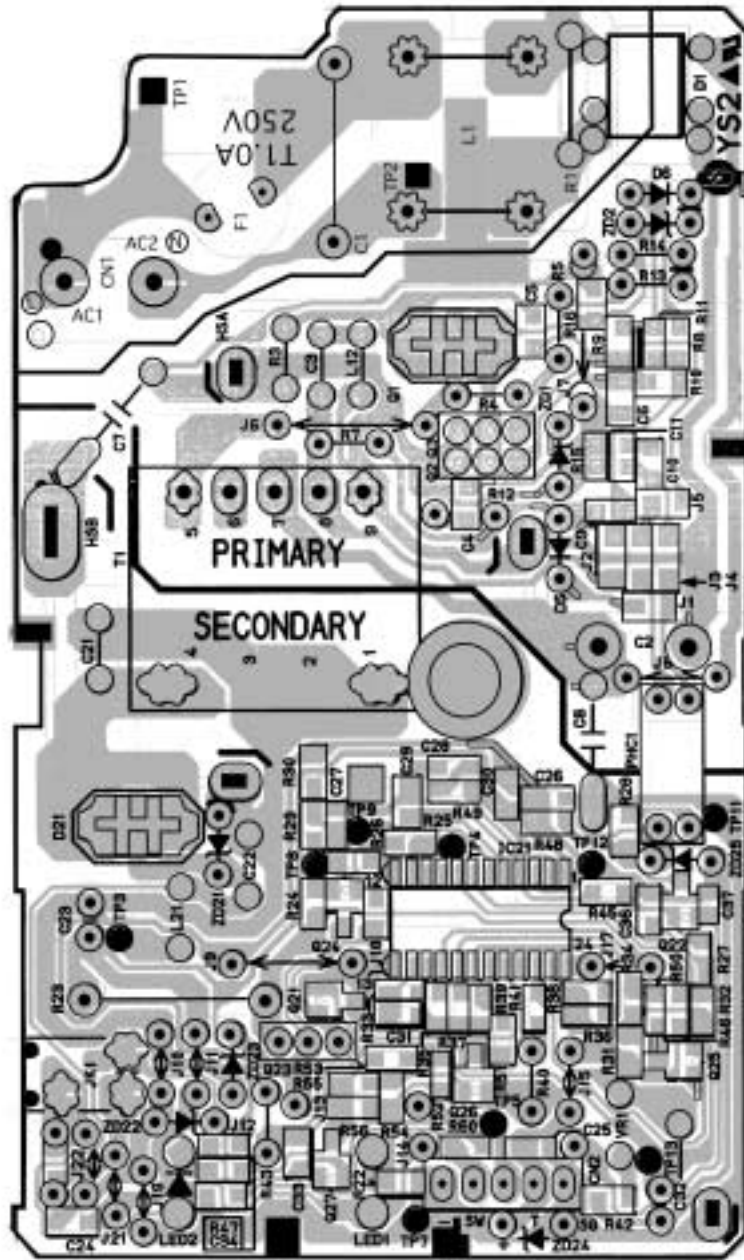
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Safety precautions

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	R40	PTY20450-200	MG RESISTOR 20.0kΩ 1/4W
△ HS1	PTY20483-071	HEAT SINK A	R41	NRSA02F-1152X	MG RESISTOR 11.5kΩ 1/10W
△ HS2	PTY20591-072	HEAT SINK B	R42	NRSA02F-1152X	MG RESISTOR 11.5kΩ 1/10W
OT1	PTY10067-551	SCREW	R43	QRE141J-103Y	MF RESISTOR 10kΩ 1/4W
IC21	M61030AFP	CHARGE COTROL IC 24pin SOP	R45	NRSA02J-222X	MG RESISTOR 2.2kΩ 1/10W
Q1	FS2KM18A	MOS FET	R46	NRSA02J-472X	MG RESISTOR 4.7kΩ 1/10W
Q2	2SD2227	TRANSISTER	R47	NRSA02J-221X	MG RESISTOR 220Ω 1/10W
Q3	2SD2227	TRANSISTER	R48	NRSA02J-102X	MG RESISTOR 1kΩ 1/10W
Q21	UN2211TX	DIG.TRANSISTER	R49	NRSA02J-473X	MG RESISTOR 47kΩ 1/10W
Q22	2SA1037AK/QR/-X	CHIP TRANSISTER	R50	NRSA02F-5622X	MG RESISTOR 56.2kΩ 1/10W
Q23	2SB1592	TRANSISTER	R51	NRSA02F-5112X	MG RESISTOR 51.1kΩ 1/10W
Q24	2SA1037AK/QR/-X	TRANSISTER	R52	NRSA02J-103X	MG RESISTOR 10kΩ 1/10W
Q25	2SA1037AK/QR/-X	TRANSISTER	R53	NRSA02J-103X	MG RESISTOR 10kΩ 1/10W
Q26	2SA1037AK/QR/-X	TRANSISTER	R54	NRSA02J-103X	MG RESISTOR 10kΩ 1/10W
Q27	UN2211TX	DIG TRANSISTOR	R55	NRSA02J-103X	MG RESISTOR 10kΩ 1/10W
D1	S1WBA60	B.DIODE 600V 1A	R56	NRSA02J-103X	MG RESISTOR 10kΩ 1/10W
D5	1SS244T77	DIODE 200V 6A	R60	NRSA02J-103X	MG RESISTOR 10kΩ 1/10W
D6	1SS244T77	DIODE 200V 6A	△ C1	PTY20292-303	CAPACITOR 0.068μF 275V
D21	MA7D56	DIODE 60V 10A	C2	YQ10626-402	E CAPACITOR 47μF 400V
ZD1	MTZJ12C-T2	ZENER DIODE 12V	C3	PTY10067-651	CAPACITOR 1500pF 250V
ZD2	MTZJ6.2B-T2	ZENER DIODE 6.2V 500mW	C4	NCB21CK-224X	CAPACITOR 0.22μF 16V
ZD21	MTZJ12C-T2	ZENER DIODE 12V	C5	PTY10067-653	CAPACITOR 0.01μF 50V
ZD22	MTZJ12C-T2	ZENER DIODE 12V	C6	NCB21HK-391X	CAPACITOR 390pF 50V
ZD23	MTZJ12C-T2	ZENER DIODE 12V	△ C7	PTY20538-611	CAPACITOR 2200pF 250V
ZD24	MTZJ12C-T2	ZENER DIODE 12V	△ C8	PTY20538-611	CAPACITOR 2200pF 250V
ZD25	MA4047NM	ZENER DIODE 4.7V 500mW	C9	NDC21HJ-680X	CAPACITOR 68pF 50V
LED1	YQ10531-540	LED RED POWER	C10	NDC21HJ-151X	CAPACITOR 150pF 50V
LED2	YQ10531-542	LED GREEN CHARGE	C11	NDC21HJ-151X	CAPACITOR 150pF 50V
R1	QRN141J-105	RESISTOR 1MΩ 1/4W	C21	PTY10067-657	CAPACITOR 0.01μF 250V
R3	PTY10067-601	MF RESISTOR 0.62Ω 1W	C22	PTY20292-321	E CAPACITOR 680μF 16V
R4	QRE141J-334Y	RESISTOR 330kΩ 1/4W	C23	QETL1CM-227	E CAPACITOR 220μF 16V
R5	QRE141J-334Y	RESISTOR 330kΩ 1/4W	C24	NCB21CK-224X	CAPACITOR 0.22μF 16V
R7	QRE141J-751Y	RESISTOR 750Ω 1/4W	C25	NCF21EZ-104X	CAPACITOR 0.1μF 25V
R8	NRSA02J-103X	MG RESISTOR 10kΩ 1/10W	C26	NCB21CK-224X	CAPACITOR 0.22μF 16V
R9	NRSA02J-272X	MG RESISTOR 2.7kΩ 1/10W	C27	NCB21EK-473X	CAPACITOR 0.047μF 25V
R10	NRSA02J-104X	MG RESISTOR 100kΩ 1/10W	C28	NCB21HK-473X	CAPACITOR 0.047μF 50V
R11	NRSA02J-682X	MG RESISTOR 6.8kΩ 1/10W	C29	NCB21EK-104X	CAPACITOR 0.1μF 25V
R12	QRE141J-181Y	RESISTOR 180Ω 1/4W	C30	NCF21EZ-104X	CAPACITOR 0.1μF 25V
R13	QRE141J-334Y	RESISTOR 330kΩ 1/4W	C31	NCB21HK-222X	CAPACITOR 0.0022μF 50V
R14	QRE141J-334Y	RESISTOR 330kΩ 1/4W	C32	QEHA1HM-475	E CAPACITOR 4.7μF 50V
R15	NRSA02J-182X	MG RESISTOR 1.8kΩ 1/10W	C33	NCF21EZ-104X	CAPACITOR 0.1μF 25V
R16	NRSA02J-753X	MG RESISTOR 75kΩ 1/10W	C34	NCF21EZ-104X	CAPACITOR 0.1μF 25V
R22	NRSA02J-621X	MG RESISTOR 620Ω 1/10W	C35	QFLA1HJ-224	F CAPACITOR 0.22μF 50V
R23	PTY20539-605	MF RESISTOR 0.20Ω 2W	△ T1	PTY20538-801	SW TRANS
R24	NRSA02J-102X	MG RESISTOR 1kΩ 1/10W	VR1	PTY20483-101	VOLUME 2kΩ
R25	NRSA02J-101X	MG RESISTOR 100Ω 1/10W	△ F1	PTY20450-041	FUSE 1A 250V
R26	NRSA02J-103X	MG RESISTOR 10kΩ 1/10W	JK1	YQ21032-301	DC JACK
R27	NRSA02J-102X	MG RESISTOR 1kΩ 1/10W	△ L1	PTY20450-401	LINE FILTER
R28	NRSA02J-151X	MG RESISTOR 150Ω 1/10W	L12	PTY10067-702	BEAD INDUCTOR
R29	PTY20539-601	MG RESISTOR 47.0kΩ 1/10W	L21	PTY10067-703	COIL
R30	PTY20539-601	MG RESISTOR 47.0kΩ 1/10W	△ PHC1	PC123YS	PHOTO COUPLER
R31	NRSA02F-103X	MG RESISTOR 10.0kΩ 1/10W	SW1	PTY20545-662	SWITCH
R32	NRSA02J-103X	MG RESISTOR 10kΩ 1/10W	WR1	PTY20591-052	FLAT CABLE (5P)
R33	NRSA02J-333X	MG RESISTOR 33kΩ 1/10W	TB1	PTY20545-051	TERMINAL,x5
R34	PTY20539-601	MG RESISTOR 47.0kΩ 1/10W	CN1	PTY20483-001	CONNECTOR
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			