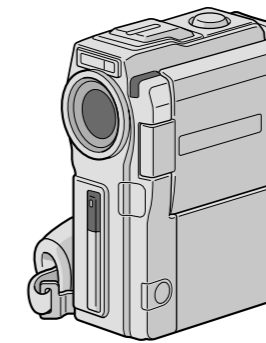


JVC

SERVICE MANUAL

DIGITAL VIDEO CAMERA

GR-DVM80KR/90KR



Mini DV NTSC
DSC
DIGITAL
STILL CAMERA

Regarding service information other than these sections, refer to the GR-DVM90U service manual (No. 86565). Also, be sure to note important safety precautions provided in the service manual.

SPECIFICATIONS *(The specifications shown pertain specifically to the model GR-DVM90KR)*

Camcorder	
For General	
Power supply	: DC 6.3 V --- (Using AC Power Adapter/Charger) DC 7.2 V --- (Using battery pack)
Power consumption	: Approx. 4.6 W LCD monitor on, viewfinder on LCD monitor on, viewfinder off
Dimensions (W x H x D)	: 51 mm x 125 mm x 97 mm (2-1/16" x 4-15/16" x 3-7/8") (with the LCD monitor closed and the viewfinder pushed back in)
Weight	: Approx. 510 g (1.2 lbs) (without cassette, MultiMediaCard and battery) Approx. 585 g (1.3 lbs) (incl. cassette, MultiMediaCard and battery)
Operating temperature	: 0°C to 40°C (32°F to 104°F)
Operating humidity	: 35% to 80%
Storage temperature	: -20°C to 50°C (-4°F to 122°F)
Pickup	: 1/4" CCD (Progressive Scan)
Lens	: F 1.8, f = 3.8 mm to 38 mm, 10:1 power zoom lens
Filter diameter	: ϕ 27 mm
LCD monitor	: 2.5" diagonally measured, LCD panel/TFT active matrix system
Viewfinder	: Electronic viewfinder with 0.55" color 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 Digital Still Camera	
Storage media	: MultiMediaCard
Compression system	: JPEG (compatible)
File size	: 2 modes (XGA: 1024 x 768 pixels/VGA: 640 x 480 pixels)
Picture quality	: 2 modes (FINE/STANDARD)
Approximate number of storable images (with the provided MultiMediaCard [8 MB], with Sound Effects pre-stored)	: FINE : 46 (VGA), 21 (XGA) STANDARD : 133 (VGA), 64 (XGA)

(with an optional MultiMediaCard [4 MB])	
FINE	: 26 (VGA), 12 (XGA)
STANDARD	: 76 (VGA), 36 (XGA)
(with an optional MultiMediaCard [8 MB])	
FINE	: 54 (VGA), 24 (XGA)
STANDARD	: 155 (VGA), 75 (XGA)

For Connectors

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
Headphone output	: ϕ 3.5 mm, stereo

AC Power Adapter/Charger AA-V51KR

Power requirement	: AC 120 V \sim , 60 Hz
U.S.A. and Canada	: AC 110 V to 240 V \sim , 50 Hz/60 Hz
Other countries	: 23 W
Power consumption	: 23 W
Output	
Charge	: DC 7.2 V --- , 0.77 A
VTR	: DC 6.3 V --- , 1.8 A
Dimensions (W x H x D)	: 68 mm x 45 mm x 110 mm (2-3/16" x 1-7/16" x 4-3/8")
Weight	: Approx. 254.5 g (0.57 lbs)

Docking Station

For General	
Dimensions (W x H x D)	: 55 mm x 36 mm x 107 mm (2-3/16" x 1-7/16" x 4-1/4")
Weight	: Approx. 89.9 g (0.2 lbs)
For Connectors	
S-Video	: Y: 1 V (p-p), 75 Ω , analog output C: 0.29 V (p-p), 75 Ω , analog output
Video	: 1 V (p-p), 75 Ω , analog output
Audio	: 300 mV (rms), 1 k Ω , analog output
JLIP/EDIT	: ϕ 3.5 mm, 4-pole, mini-head jack (compatible with RC-5325 plug)
PC	: ϕ 2.5 mm, 3-pole
External microphone input	: 506 μ V (rms), high impedance unbalanced with ϕ 3.5 mm (stereo)
PRINTER	: For an optional video printer equipped with a PRINT DATA connector

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

JVC

VICTOR COMPANY OF JAPAN, LIMITED
VIDEO DIVISION

S40894

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The following table indicate main different points between models GR-DVM90U, DVM90KR and GR-DVM80KR.

ITEM \ MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
DSC	Used	←	Not used
STROBE	Used	←	Not used
DOCKING STATION	CU-V502U	CU-V502KR	CU-V503KR
MULTIMEDIA CARD	Used	←	Not used
AC POWER ADAPTER CHARGER	AA-V51U	AA-V51KR	←

Note: Mark ← is same as left.

The following table indicate different parts number between models GR-DVM90U, DVM90KR and GR-DVM80KR.

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

REF. NO.	ITEM \ MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
1	PACKING CASE	LY31717-001A	LY32032-006A	LY32032-005A
△ 5	AC POWER ADAPTER CHARGER	LY20603-001B	LY20603-010A	←
△ 6	DOCKING STATION	LY20590-001A	LY20590-007A	LY20590-009A
8	CD ROM	* LY31133-013A	LY31133-013B	LY31133-015A
9	MULTIMEDIA CARD	QAM0262-002	←	-
29	WARRANTY INF.	BT-51005-4	-	-
34	REGIST. CARD	BT-51020-2	-	-
35	SHEET (ATT.)	LYT0584-007A	-	-
40	ACC. LEAFLET	-	-	LYT0162-022A

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

FINAL ASSEMBLY <M2>

REF. NO.	ITEM	MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
△ 101	LOWER CASE ASSY		LY20576-001B	←	LY20576-003B
106	ARM ASSY		* LY20601-001A	LY20601-001B	←
114	ZOOM UNIT		* LY31680-001A	LY31680-001B	LY31680-002B
115	MICROPHONE		* LY31671-001A	LY31671-001B	←
121	CASS. COVER ASSY		LY20602-001A	←	LY20602-003A
121A	PLATE (HINGE)		LY31675-001A	←	-
121B	BRACKET (HINGE)		LY42261-001A	←	-
121C	SHAFT (C)		LY30014-009A	←	-
121E	COVER (C.C.)		LY20599-001A	←	LY20599-002A
123	GRIP BELT		* LY31745-001A	LY31745-001B	←
134	SUB OPE ASSY		LY31684-001A	←	-
135	CAMERA OPE UNIT		LY20600-001A	←	LY20600-003A
140	SPACER (A)		* LY30029-054B	LY30029-099A	←
141	SHEET		-	-	LY42406-001A
146	FRONT COVER ASSY		LY20581-001D	←	LY20581-003D
146C	WINDOW (STB)		LY42278-001A	←	-
147	FRONT COVER2		* LY31761-002A	LY31761-002B	←
151	HOOD ASSY		* LY31767-001A	LY31767-001B	←
152	HOOK		* LY31691-001A	LY31691-001B	←
168	SPECIAL SCREW		* LY30018-008A	LY30018-0B9A	←
176	SPECIAL SCREW		LY30018-060A	←	-
197	SPECIAL SCREW, X5		LY30018-070A	←	LY30018-049A
205	SPECIAL SCREW		* LY30018-060A	LY30018-0B7A	←
206	SPECIAL SCREW		* LY30018-060A	LY30018-0B7A	←
223	BASE (T.P.)		* LY31693-001A	LY31693-001B	←
225	BRACKET (BASE) 2		* LY42291-001A	LY42291-001B	←
228	HEAT TAPE		* LY42756-001A	LY42756-001B	←
229	SHIELD ASSY		* LY42748-001A	LY42748-001B	←

ELECTRONIC VIEWFINDER ASSEMBLY <M4>

REF. NO.	ITEM	MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
300	VF UNIT		* LY31749-001A	LY31749-001C	←

MONITOR ASSEMBLY <M5>

REF. NO.	ITEM	MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
△ 500	MONITOR ASSY		* LYH20164-001B	LYH20164-001C	LYH20164-002C
△ 504	MONITOR COVER ASSY		LY20585-001A	←	LY20585-003A
504C	SCREW, X2		* QYSPSPT1720R	LY30018-057A	←
520	SPACER (A)		* -	LY30029-0A1A	←

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

MAIN BOARD ASSEMBLY <01>

REF. NO.	MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
PW	MAIN BOARD ASSY	* YB10284B-02	YB10284B-05	YB10284C-03
IC1001	CSP IC ASSY	* YQ44856A	YQ44866A	←
IC6601	IC	TC7W74FK	←	-
IC8001	IC	JCY0121-4	←	-
IC8002	IC	MSM56V16160D1LS	←	-
IC8003	IC	M32310D5WG	←	-
IC8004	IC	* MBV800TA90PBA00	MBV800TA90PBA06	-
IC8005	IC	TC7S00FU	←	-
IC8006	IC	MM1385NN	←	-
IC8007	IC	MM1385EN	←	-
IC8008	IC	TC7WHU04FK	←	-
IC8009	IC	TC7WH34FK	←	-
IC8101	IC	TMS320DA050-G	←	-
IC8102	IC	TC7MA2244FK	←	-
IC8103	IC	TC7S04FU	←	-
Q6601	TRANSISTOR	RN1104FT	←	-
Q6602	PAIR TRANSISTOR	2SA1873/YG/-X	←	-
Q6611	TRANSISTOR	2SA1832FT/G/-X	←	-
Q6612	PAIR TRANSISTOR	2SA1873/YG/-X	←	-
Q6613	TRANSISTOR	2SA4738FT/G/-X	←	-
Q6614	TRANSISTOR	RN1702	←	-
Q6615	TRANSISTOR	UMC4N	←	-
R3338	MG RESISTOR	* NRSA6AJ-123W	NRSA6AJ-153W	←
R3340	MG RESISTOR	* NRSA6AJ-473W	NRSA6AJ-393W	←
R5022	MG RESISTOR	* NRSA6AJ-181W	NRSA6AJ-121W	←
R6601	MG RESISTOR	NRSA6AJ-822W	←	-
R6603	CMF RESISTOR	NRVA6AD-683W	←	-
R6604	CMF RESISTOR	NRVA6AD-104W	←	-
R6605	MG RESISTOR	NRSA6AJ-184W	←	-
R6606	MG RESISTOR	NRSA6AJ-823W	←	-
R6611	MG RESISTOR	NRSA6AJ-335W	←	-
R6612	MG RESISTOR	NRSA6AJ-474W	←	-
R6613	MG RESISTOR	NRSA6AJ-473W	←	-
R6614	MG RESISTOR	NRSA6AJ-473W	←	-
R6615	MG RESISTOR	NRSA6AJ-684W	←	-
R6616	MG RESISTOR	NRSA6AJ-333W	←	-
R8001	MG RESISTOR	NRSA6AJ-103W	←	-
R8002	MG RESISTOR	NRSA6AJ-101W	←	-
R8003	MG RESISTOR	NRSA6AJ-473W	←	-
R8004	MG RESISTOR	NRSA6AJ-103W	←	-
R8011	MG RESISTOR	NRSA6AJ-473W	←	-
R8012	MG RESISTOR	NRSA6AJ-0R0W	←	-
R8015	MG RESISTOR	NRSA6AJ-0R0W	←	-
R8016	CMF RESISTOR	NRVA6AD-133W	←	-
R8017	MG RESISTOR	NRSA6AJ-0R0W	←	-
R8018	MG RESISTOR	NRSA6AJ-473W	←	-
R8021	MG RESISTOR	NRSA6AJ-103W	←	-

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

REF. NO.	MODEL		GR-DVM90U	GR-DVM90KR	GR-DVM80KR
	ITEM				
R8022	MG RESISTOR		NRSA6AJ-101W	←	-
R8023	MG RESISTOR		NRSA6AJ-101W	←	-
R8049	MG RESISTOR		NRSA6AJ-105W	←	-
R8050	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8051	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8064	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8065	MG RESISTOR		NRSA6AJ-101W	←	-
R8069	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8076	MG RESISTOR		NRSA6AJ-103W	←	-
R8077	MG RESISTOR		NRSA6AJ-101W	←	-
R8101	MG RESISTOR		NRSA6AJ-473W	←	-
R8102	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8104	MG RESISTOR		NRSA6AJ-473W	←	-
R8105	MG RESISTOR		NRSA6AJ-473W	←	-
R8106	MG RESISTOR		NRSA6AJ-221W	←	-
R8107	MG RESISTOR		NRSA6AJ-221W	←	-
R8108	MG RESISTOR		NRSA6AJ-473W	←	-
R8109	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8110	MG RESISTOR		NRSA6AJ-473W	←	-
R8111	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8112	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8113	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8115	MG RESISTOR		NRSA6AJ-221W	←	-
R8116	MG RESISTOR		NRSA6AJ-473W	←	-
R8117	MG RESISTOR		NRSA6AJ-473W	←	-
R8118	MG RESISTOR		NRSA6AJ-221W	←	-
R8119	MG RESISTOR		NRSA6AJ-473W	←	-
R8120	MG RESISTOR		NRSA6AJ-221W	←	-
R8121	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8122	MG RESISTOR		NRSA6AJ-105W	←	-
R8124	MG RESISTOR		NRSA6AJ-472W	←	-
R8128	MG RESISTOR		NRSA6AJ-472W	←	-
R8129	MG RESISTOR		NRSA6AJ-105W	←	-
R8130	MG RESISTOR		NRSA6AJ-101W	←	-
R8131	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8132	MG RESISTOR		NRSA6AJ-680W	←	-
R8133	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8134	MG RESISTOR		NRSA6AJ-0R0W	←	-
R8135	MG RESISTOR		NRSA6AJ-0R0W	←	-
RA4301	NETWORK RESISTOR		NRZ0034-221W	←	-
RA4302	NETWORK RESISTOR		NRZ0034-221W	←	-
RA4303	NETWORK RESISTOR		NRZ0034-221W	←	-
RA4304	NETWORK RESISTOR		NRZ0034-221W	←	-
RA8001	NETWORK RESISTOR		NRZ0034-100W	←	-
RA8002	NETWORK RESISTOR		NRZ0034-100W	←	-
RA8003	NETWORK RESISTOR		NRZ0034-100W	←	-
RA8004	NETWORK RESISTOR		NRZ0034-100W	←	-
C6601	CAPACITOR		NCBA1CK-103W	←	-

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

REF. NO.	MODEL		GR-DVM90U	GR-DVM90KR	GR-DVM80KR
	ITEM				
C6602	T CAPACITOR		NBE90JM-106X	←	-
C6603	CAPACITOR		NCBA1HK-102W	←	-
C6604	CAPACITOR		NCBA1AK-473W	←	-
C6611	CAPACITOR		NCBA1CK-153W	←	-
C6612	CAPACITOR		NDCA1EJ-221W	←	-
C6613	CAPACITOR		NDCA1EJ-121W	←	-
C8001	T CAPACITOR		NBE90JM-106X	←	-
C8002	CAPACITOR		NCBA1CK-103W	←	-
C8003	CAPACITOR		NCBA1CK-103W	←	-
C8004	CAPACITOR		NCBA1CK-103W	←	-
C8006	CAPACITOR		NCBA1AK-104W	←	-
C8007	T CAPACITOR		NBE90JM-106X	←	-
C8008	CAPACITOR		NCB30JK-105X	←	-
C8009	CAPACITOR		NCBA1AK-104W	←	-
C8010	T CAPACITOR		NBE90JM-106X	←	-
C8011	CAPACITOR		NCB30JK-105X	←	-
C8017	CAPACITOR		NCBA1AK-104W	←	-
C8020	T CAPACITOR		NBE90JM-106X	←	-
C8021	CAPACITOR		NCBA1CK-103W	←	-
C8022	CAPACITOR		NCBA1CK-103W	←	-
C8023	CAPACITOR		NCBA1CK-103W	←	-
C8024	CAPACITOR		NCBA1CK-103W	←	-
C8025	CAPACITOR		NCBA1CK-103W	←	-
C8026	CAPACITOR		NCBA1CK-103W	←	-
C8027	CAPACITOR		NCBA1CK-103W	←	-
C8028	CAPACITOR		NCBA1CK-103W	←	-
C8029	CAPACITOR		NCBA1CK-103W	←	-
C8030	CAPACITOR		NCBA1CK-103W	←	-
C8031	CAPACITOR		NCBA1CK-103W	←	-
C8032	CAPACITOR		NCBA1CK-103W	←	-
C8033	CAPACITOR		NCBA1CK-103W	←	-
C8034	CAPACITOR		NCBA1CK-103W	←	-
C8035	CAPACITOR		NCBA1CK-103W	←	-
C8036	CAPACITOR		NCBA1CK-103W	←	-
C8037	CAPACITOR		NCBA1CK-103W	←	-
C8038	CAPACITOR		NCBA1CK-103W	←	-
C8039	CAPACITOR		NCBA1CK-103W	←	-
C8040	CAPACITOR		NCBA1CK-103W	←	-
C8041	CAPACITOR		NCBA1CK-103W	←	-
C8042	CAPACITOR		NCBA1CK-103W	←	-
C8043	CAPACITOR		NCBA1CK-103W	←	-
C8044	T CAPACITOR		NBE20GM-476X	←	-
C8045	T CAPACITOR		NBE20JM-226X	←	-
C8046	T CAPACITOR		NBE90JM-106X	←	-
C8048	T CAPACITOR		NBE20GM-476X	←	-
C8049	CAPACITOR		NCBA1CK-103W	←	-
C8050	CAPACITOR		NCBA1CK-103W	←	-
C8051	T CAPACITOR		NBE20GM-476X	←	-

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

REF. NO.	ITEM	MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
C8052	CAPACITOR		NCBA1CK-103W	←	-
C8054	CAPACITOR		NCB31HK-392X	←	-
C8056	CAPACITOR		NCBA1CK-103W	←	-
C8057	CAPACITOR		NCBA1CK-103W	←	-
C8058	CAPACITOR		NCBA1AK-104W	←	-
C8059	CAPACITOR		NCBA1CK-103W	←	-
C8060	CAPACITOR		NCBA1CK-103W	←	-
C8101	T CAPACITOR		NBE90JM-106X	←	-
C8102	T CAPACITOR		NBE90JM-106X	←	-
C8103	CAPACITOR		NCBA1CK-103W	←	-
C8104	CAPACITOR		NCBA1CK-103W	←	-
C8105	CAPACITOR		NCBA1CK-103W	←	-
C8106	CAPACITOR		NCBA1CK-103W	←	-
C8107	CAPACITOR		NCBA1CK-103W	←	-
C8108	CAPACITOR		NCBA1CK-103W	←	-
C8109	CAPACITOR		NCBA1CK-103W	←	-
C8110	CAPACITOR		NCBA1CK-103W	←	-
C8111	CAPACITOR		NCBA1CK-103W	←	-
C8112	CAPACITOR		NCBA1CK-103W	←	-
C8113	CAPACITOR		NCBA1CK-103W	←	-
C8114	CAPACITOR		NCBA1CK-103W	←	-
C8115	CAPACITOR		NCBA1CK-103W	←	-
C8116	CAPACITOR		NCBA1CK-103W	←	-
C8117	CAPACITOR		NDCA1HJ-5R0W	←	-
C8118	CAPACITOR		NDCA1HJ-5R0W	←	-
C8119	CAPACITOR		NCBA1CK-103W	←	-
L6601	COIL		NQL402M-100X	←	-
L8001	FERRITE BEAD		NQR0129-002X	←	-
L8002	FERRITE BEAD		NQR0129-002X	←	-
L8003	FERRITE BEAD		NQR0129-002X	←	-
L8005	FERRITE BEAD		NQR0129-002X	←	-
L8006	FERRITE BEAD		NQR0129-002X	←	-
L8007	FERRITE BEAD		NQR0129-002X	←	-
L8008	FERRITE BEAD		NQR0129-002X	←	-
L8010	FERRITE BEAD		NQR0129-002X	←	-
L8011	FERRITE BEAD		NQR0129-002X	←	-
L8101	FERRITE BEAD		NQR0006-001X	←	-
L8102	FERRITE BEAD		NQR0006-001X	←	-
X8002	RESONATOR		NAX0354-001X	←	-
X8101	CRYSTAL RESONATOR		NAX0402-001X	←	-
WR3	E-SH C WIRE C-F		* WJR0016-001A	WJR0016-001C	←
CN1011	FPC CONNECTOR		QGF0513F1-12X	←	-
OT7	SPACER (A), X2		* -	LY30029-0A7A	←

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

MDA BOARD ASSEMBLY <02>

REF. NO.	ITEM	MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
R4850	MG RESISTOR		* NRSA6AJ-104W	-	-

CCD BOARD ASSEMBLY <03>

REF. NO.	ITEM	MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
WR1	E-SH C WIRE C-F		* WJR0017-001A	WJR0017-001C	←

MONITOR BOARD ASSEMBLY <04>

REF. NO.	ITEM	MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
PW	MONITOR BOARD ASSY		* YB10289A-01	YB10289A-03	←
R7527	MG RESISTOR		* -	NRSA6AJ-221W	←

MMC BOARD ASSEMBLY <06>

REF. NO.	ITEM	MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
PW3	MMC BOARD ASSY		* YB10288A3	YB10288A3-01	YB10288B3-01
R8501	MG RESISTOR		NRSA63J-103X	←	-
R8502	MG RESISTOR		NRSA63J-473X	←	-
R8503	MG RESISTOR		NRSA63J-103X	←	-
R8505	MG RESISTOR		NRSA63J-153X	←	NRSA63J-0R0X
R8506	MG RESISTOR		NRSA63J-183X	←	NRSA63J-333X
R8507	MG RESISTOR		NRSA63J-103X	←	-
R8508	MG RESISTOR		NRSA63J-103X	←	-
R8511	MG RESISTOR		NRSA63J-0R0X	←	-
R8512	MG RESISTOR		NRSA63J-0R0X	←	-
R8513	MG RESISTOR		NRSA63J-0R0X	←	-
R8515	MG RESISTOR		NRSA63J-0R0X	←	-
R8516	MG RESISTOR		NRSA63J-0R0X	←	-
R8517	MG RESISTOR		NRSA63J-0R0X	←	-
C8501	T CAPACITOR		NBE20JM-106X	←	-
L8501	FERRITE BEAD		NQR0129-002X	←	-
CN604	MMC CONNECTOR		NNZ0035-001X	←	-

STROBE BOARD ASSEMBLY <07>

REF. NO.	ITEM	MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
PW	STROBE BOARD ASSY		YB10249C	←	-

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

AUDIO VF BOARD ASSEMBLY <08>

REF. NO.	ITEM	MODEL	GR-DVM90U	GR-DVM90KR	GR-DVM80KR
PW1	AUDIO VF BOARD ASSY		YB10285B2-02	←	YB10285C2-02
IC2102	IC		AK4550VT	←	-
IC2301	IC		NJM2100V	←	-
IC2302	IC		NJM2100V	←	-
Q2301	TRANSISTOR		2SC4617/QR/-X	←	-
R2111	MG RESISTOR		NRSA6AJ-471W	←	-
R2112	MG RESISTOR		NRSA6AJ-471W	←	-
R2113	MG RESISTOR		NRSA6AJ-0R0W	←	-
R2114	MG RESISTOR		NRSA6AJ-0R0W	←	-
R2121	MG RESISTOR		NRSA6AJ-564W	←	-
R2122	MG RESISTOR		NRSA6AJ-564W	←	-
R2301	MG RESISTOR		NRSA6AJ-560W	←	-
R2302	MG RESISTOR		NRSA6AJ-560W	←	-
R2303	MG RESISTOR		NRSA6AJ-0R0W	←	-
R2305	MG RESISTOR		NRSA6AJ-183W	←	-
R2306	MG RESISTOR		NRSA6AJ-473W	←	-
R2307	MG RESISTOR		NRSA6AJ-183W	←	-
R2309	MG RESISTOR		NRSA6AJ-184W	←	-
R2310	MG RESISTOR		* NRSA6AJ-223W	NRSA6AJ-393W	-
R2311	MG RESISTOR		NRSA6AJ-473W	←	-
R2312	MG RESISTOR		NRSA6AJ-183W	←	-
R2314	MG RESISTOR		NRSA6AJ-183W	←	-
R2315	MG RESISTOR		* NRSA6AJ-223W	NRSA6AJ-393W	-
R2316	MG RESISTOR		NRSA6AJ-184W	←	-
R2317	MG RESISTOR		NRSA6AJ-104W	←	-
R2318	MG RESISTOR		NRSA6AJ-104W	←	-
R2319	MG RESISTOR		NRSA6AJ-104W	←	-
R2321	MG RESISTOR		NRSA6AJ-104W	←	-
R2322	MG RESISTOR		NRSA6AJ-104W	←	-
R2323	MG RESISTOR		NRSA6AJ-104W	←	-
R2324	MG RESISTOR		NRSA6AJ-104W	←	-
R2325	MG RESISTOR		NRSA6AJ-104W	←	-
R2326	MG RESISTOR		NRSA6AJ-104W	←	-
R2327	MG RESISTOR		NRSA6AJ-102W	←	-
R2328	MG RESISTOR		NRSA6AJ-103W	←	-
R2329	MG RESISTOR		NRSA63J-0R0X	←	-
R2330	MG RESISTOR		NRSA63J-0R0X	←	-
R2333	MG RESISTOR		NRSA6AJ-0R0W	←	-
R2334	MG RESISTOR		NRSA6AJ-0R0W	←	-
R2635	MG RESISTOR		-	-	NRSA6AJ-0R0W
R2636	MG RESISTOR		-	-	NRSA6AJ-0R0W
R2775	MG RESISTOR		NRSA6AJ-223W	←	-
R2776	MG RESISTOR		NRSA6AJ-223W	←	-
R2777	MG RESISTOR		NRSA6AJ-103W	←	-
R2778	MG RESISTOR		NRSA6AJ-103W	←	-

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

REF. NO.	MODEL		GR-DVM90U	GR-DVM90KR	GR-DVM80KR
	ITEM				
R7442	CMF RESISTOR		* NRVA6AD-153W	NRVA6AD-183W	←
R7443	MG RESISTOR		* NRSA6AJ-224W	NRSA6AJ-334W	←
R7445	MG RESISTOR		* NRSA6AJ-153W	NRSA6AJ-393W	←
C2111	CAPACITOR		NCB30JK-105X	←	-
C2112	CAPACITOR		NCB30JK-105X	←	-
C2113	CAPACITOR		NCBA1HK-222W	←	-
C2114	CAPACITOR		NCBA1HK-222W	←	-
C2115	T CAPACITOR		NBE90JM-475X	←	-
C2116	CAPACITOR		NCB31CK-104X	←	-
C2117	CAPACITOR		NCB31CK-104X	←	-
C2118	T CAPACITOR		NBE90JM-106X	←	-
C2119	CAPACITOR		NCB31CK-104X	←	-
C2120	CAPACITOR		NCB31CK-104X	←	-
C2301	T CAPACITOR		NBE90JM-106X	←	-
C2303	CAPACITOR		NCB30JK-105X	←	-
C2304	CAPACITOR		NCB30JK-105X	←	-
C2305	CAPACITOR		NCB30JK-105X	←	-
C2306	CAPACITOR		NCB30JK-105X	←	-
C2307	CAPACITOR		NCB30JK-105X	←	-
C2308	CAPACITOR		NCB30JK-105X	←	-
C2309	CAPACITOR		NCB30JK-105X	←	-
C2310	CAPACITOR		NCB30JK-105X	←	-
C2311	CAPACITOR		NCB31CK-104X	←	-
C2312	CAPACITOR		NCB30JK-105X	←	-
C2313	CAPACITOR		NCB30JK-105X	←	-
C2314	CAPACITOR		NCB30JK-105X	←	-
C2315	CAPACITOR		NCB31CK-104X	←	-
C2316	CAPACITOR		NCB31CK-104X	←	-
L2102	COIL		NQL402M-100X	←	-
OT2	S. SHEET (AU/VF)		* -	LY42775-001A	←

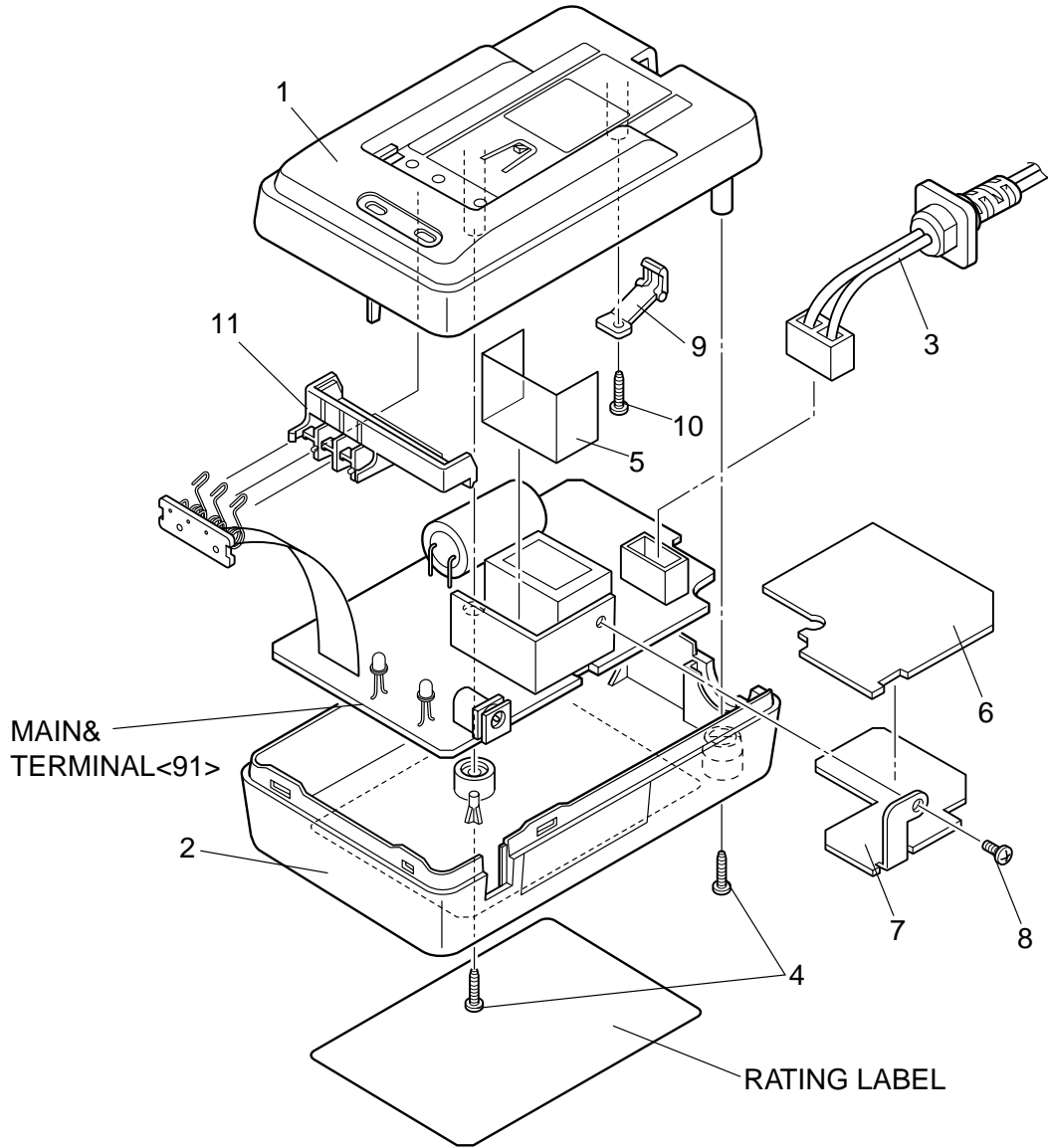
Note: Mark - is not used. Mark ← is same as left. Mark * reference model was also changed.

SECTION 6 AC POWER ADAPTER CHARGER (AA-V51KR)

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

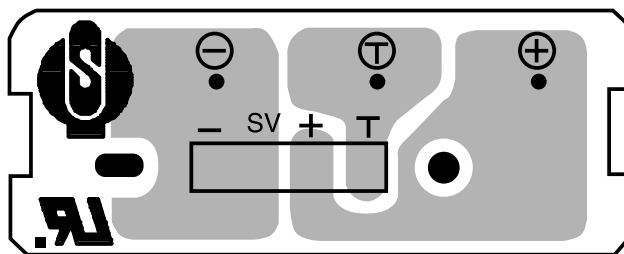
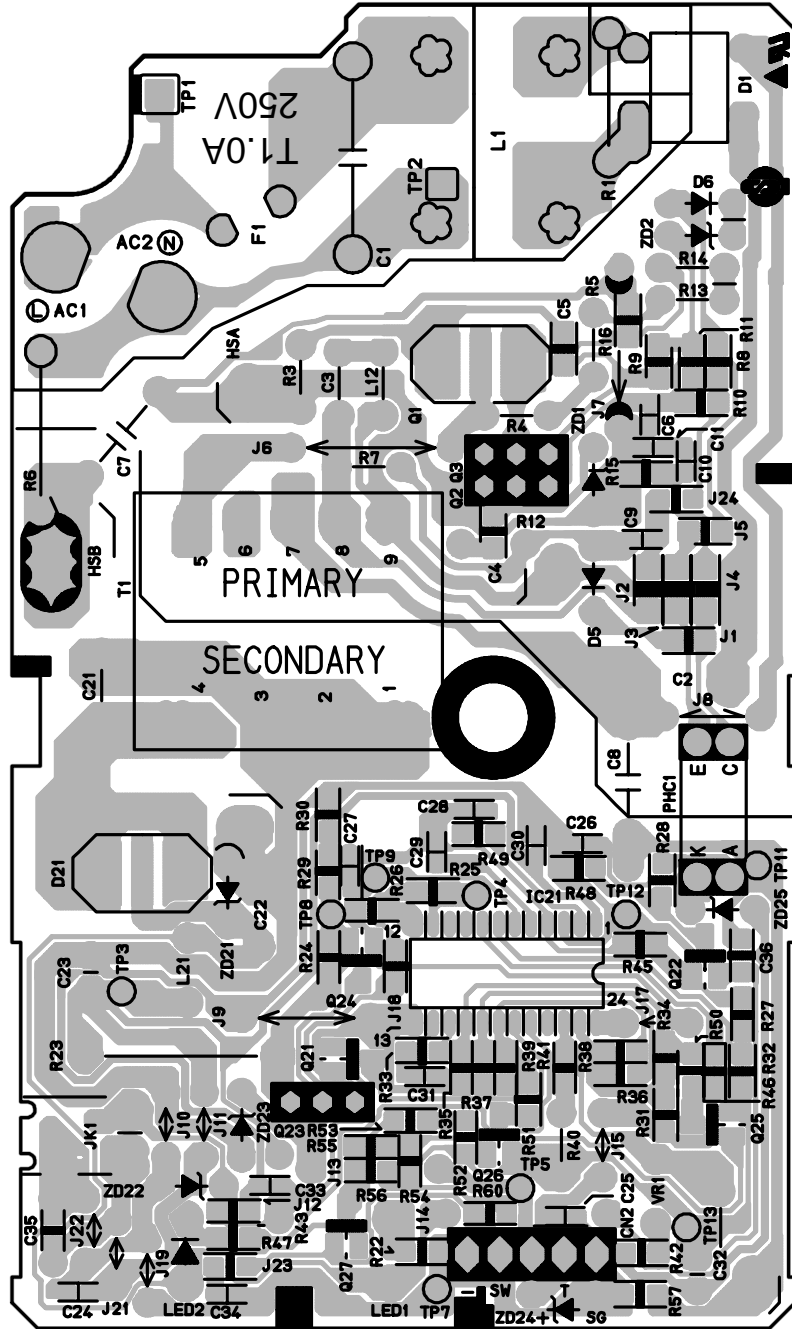
CABINET ASSEMBLY <MA>

\triangle 1	PTY20603-013	UPPER CASE ASSY
\triangle 2	PTY20483-023	LOWER CASE
\triangle 3	PTY20539-081	POWER CORD
4	YQ10531-011	SCREW,x2
\triangle 5	PTY20483-078	INSULATOR B
\triangle 6	PTY20483-076	SHILED PLATE

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

\triangle 7	PTY20483-077	INSULATOR A
8	PTY20483-079	SCREW, for shield plate
9	PTY20603-055	LOCK LEVER
10	PTY20545-055	SCREW
11	PTY20603-054	TERMINAL HOLDER

6.2 CIRCUIT BOARD



6.3 SCHEMATIC DIAGRAM

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

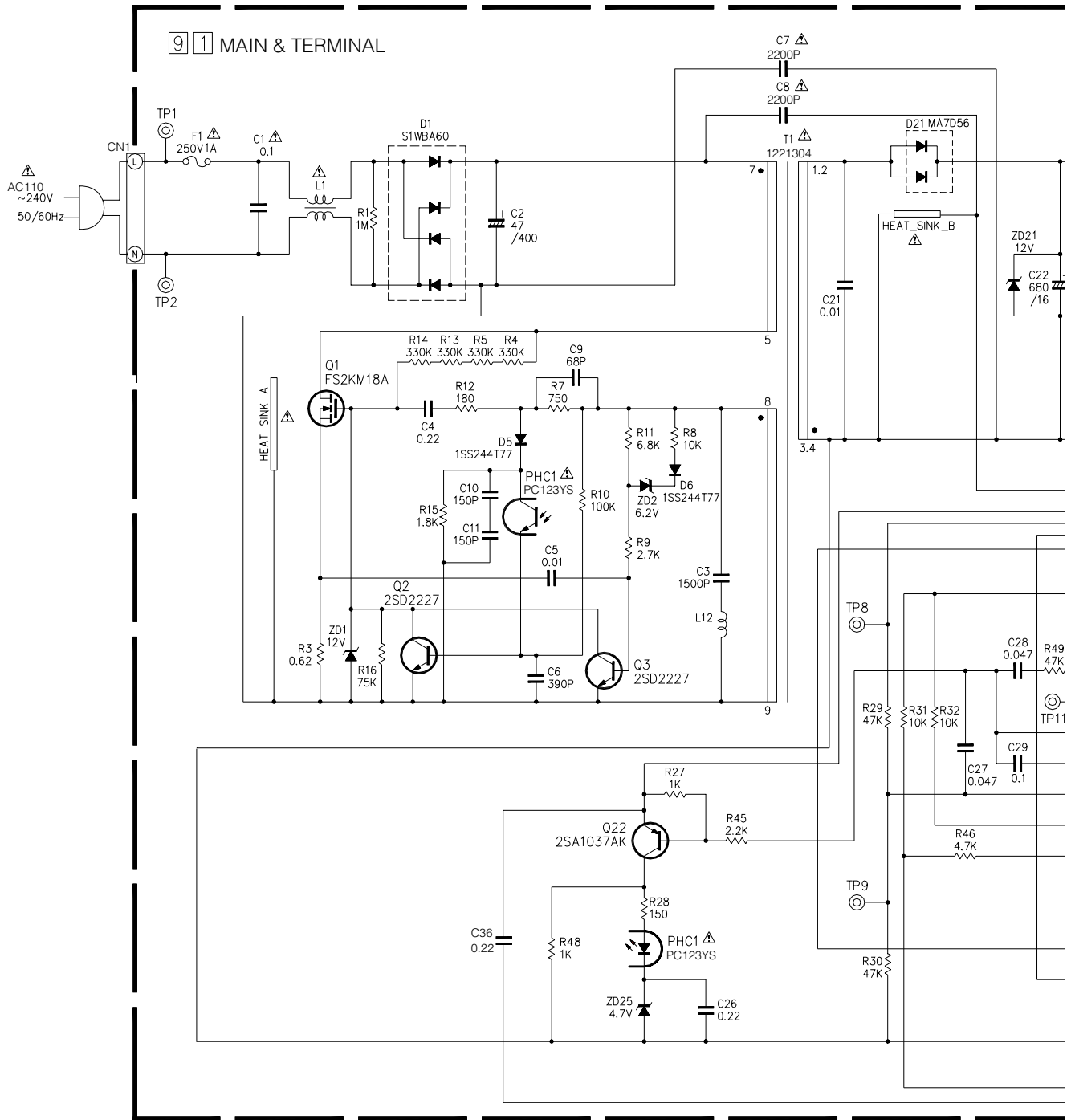
5

4

3

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1



A

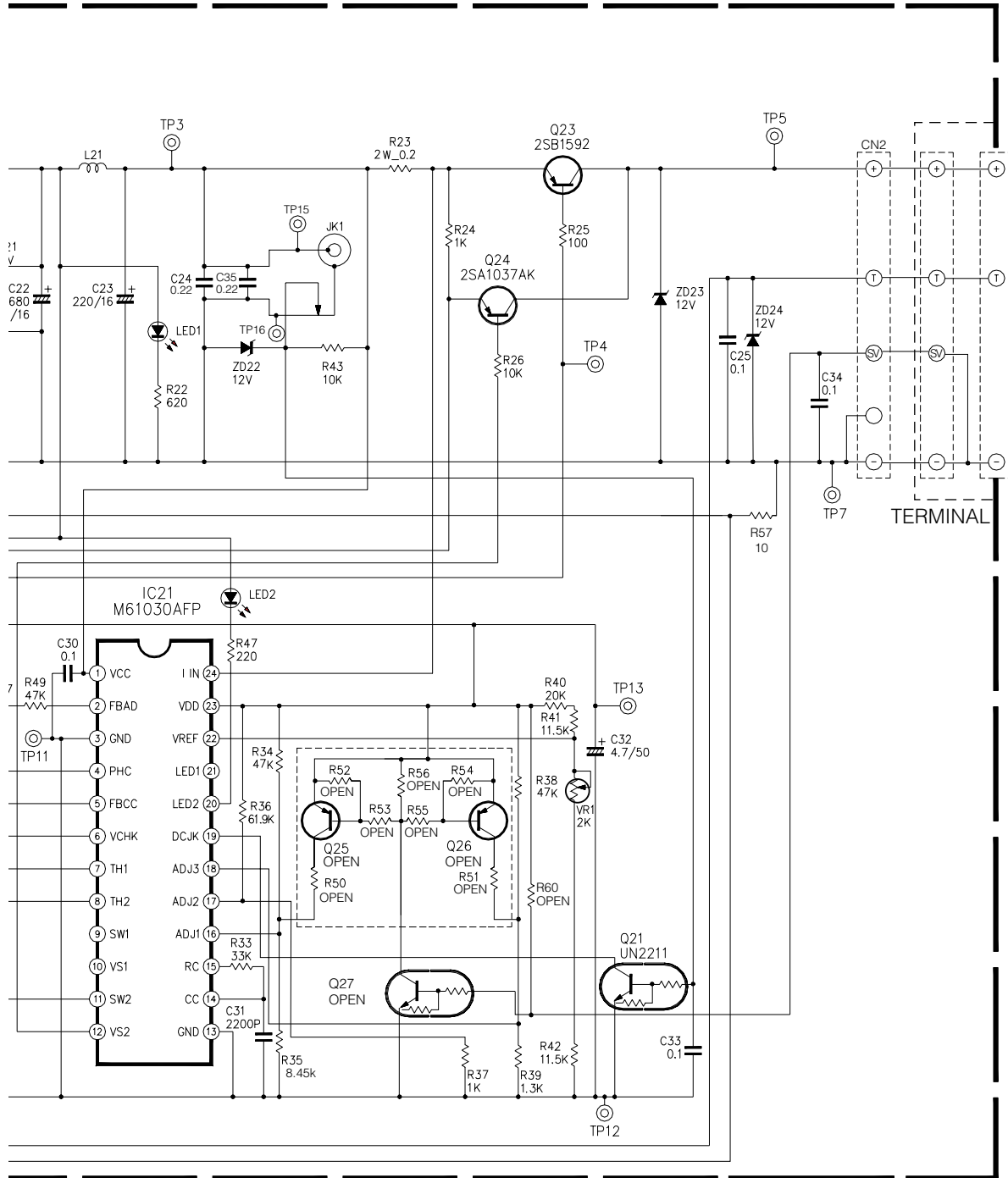
B

C

D

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.



6.4 ELECTRICAL PARTS LIST

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

MAIN & TERMINAL BOARD ASSY <91>					
△ PW1	PTY20603-503	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			
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	PTY20292-227	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	NRSA02F-8451X	MG RESISTOR	8.45kΩ 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		
R57	NRSA02J-100X	MG RESISTOR	10Ω 1/10W		
△ C1	QFZ9072-104	CAPACITOR	0.1μF 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	NCB31HK-391X	CAPACITOR	390pF 50V		
△ C7	PTY20538-611	CAPACITOR	2200pF 250V		
△ C8	PTY20538-611	CAPACITOR	2200pF 250V		
C9	NDC31HJ-680X	CAPACITOR	68pF 50V		
C10	NDC31HJ-151X	CAPACITOR	150pF 50V		
C11	NDC31HJ-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	PTY20603-601	CAPACITOR	0.22μF 10V		
C25	NCF31EZ-104X	CAPACITOR	0.1μF 25V		
C26	PTY20603-601	CAPACITOR	0.22μF 10V		
C27	NCB31CK-473X	CAPACITOR	0.047μF 16V		
C28	NCB31CK-473X	CAPACITOR	0.047μF 16V		
C29	NCB31CK-104X	CAPACITOR	0.1μF 16V		
C30	NCF31EZ-104X	CAPACITOR	0.1μF 25V		
C31	NCB31HK-222X	CAPACITOR	0.0022μF 50V		
C32	QEHA1HM-475	E CAPACITOR	4.7μF 50V		
C33	NCF31EZ-104X	CAPACITOR	0.1μF 25V		
C34	NCF31EZ-104X	CAPACITOR	0.1μF 25V		
C35	QFLA1HJ-224	F CAPACITOR	0.22μF 50V		
C36	NCB21CK-224X	CAPACITOR	0.22μF 16V		
△ 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			
TB1	PTY20603-053	TERMINAL, x3			
WR1	PTY20603-052	FLAT CABLE, (4P)			
CN1	PTY20603-056	CONNECTOR			