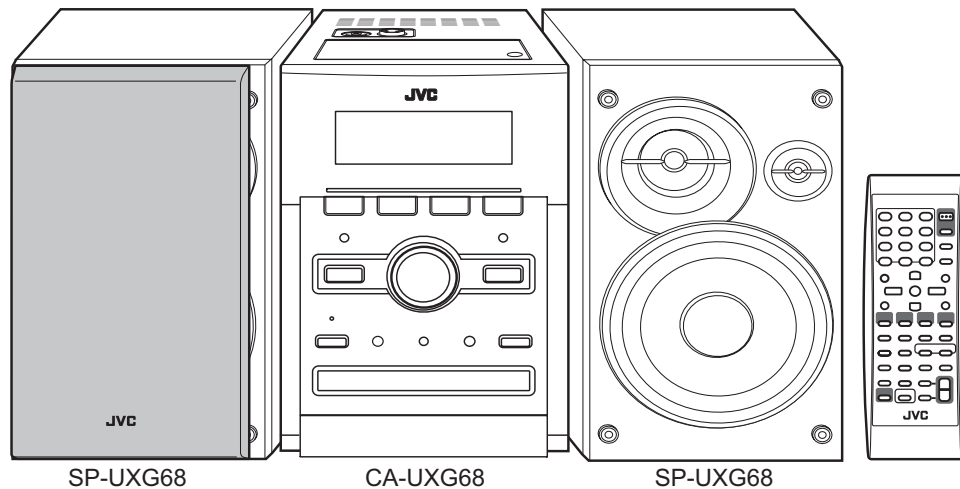


JVC

SERVICE MANUAL

MICRO COMPONENT SYSTEM

UX-G68EE, UX-G68UW, UX-G68UX



MP3/WMA/WAV

MPEG-4
ASF PLAYBACK

Digital Direct Progressive Scan



Lead free solder used in the board (material : Sn-Ag-Cu, melting point : 219 Centigrade)
Lead free solder used in the board (material : Sn-Cu, melting point : 230 Centigrade)

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SPECIFICATION

Amplifier section CA-UXG68	Output Power		120 W (60 W + 60 W) at 6 Ω (10% THD)
	Audio Input	AUX	500 mV/50 kΩ (at "AUX LVL1") 250 mV/50 kΩ (at "AUX LVL2") 125 mV/50 kΩ (at "AUX LVL3")
	Digital output	OPTICAL DIGITAL OUT	-21 dBm to -15 dBm (660 nm ±30 nm)
	Digital input		USB MEMORY
	Video Out	Color system	NTSC or PAL (interlaced/progressive)
		VIDEO (composite)	1 V(p-p)/75 Ω
		S-VIDEO	Y (luminance) : 1 V(p-p)/75 Ω C (chrominance, burst) : (NTSC) 0.286 V(p-p)/75 Ω C (chrominance, burst) : (PAL) 0.3 V(p-p)/75 Ω
		COMPONENT	(Y) : 1 V(p-p)/75 Ω (PB/PR) : 0.7 V(p-p)/75 Ω
Speaker impedance		6 Ω - 16 Ω	
Tuner section	FM tuning range		87.50 MHz - 108.00 MHz
	AM (MW) tuning range		531 kHz - 1 710 kHz (at 9 kHz intervals) 530 kHz - 1 710 kHz (at 10 kHz intervals)
	AM (MW) tuning range (For Saudi Arabia only)		531 kHz - 1 602 kHz (at 9 kHz intervals) 530 kHz - 1 600 kHz (at 10 kHz intervals)
Tape section	Frequency response		60 Hz - 14 000 Hz
	Wow and flutter		0.15 % (WRMS)
Disc/file player section	Region codes		Middle East: 2 South East Asia: 3 Central and South America, Australia: 4
	Playable disc		DVD Video/DVD Audio/CD/VCD/SVCD/CD-R/CD-RW (CD/SVCD/VCD/MP3/WMA/WAV/JPEG/MPEG-1/MPEG-2/ASF/DivX format) DVD-R/-RW (DVD-VR/DVD Video/MP3/WMA/WAV/JPEG/MPEG-1/MPEG-2/ASF/DivX format) +R/+RW (DVD Video/MP3/WMA/WAV/JPEG/MPEG-1/MPEG-2/ASF/DivX format) DVD-ROM (MP3/WMA/WAV/JPEG/MPEG-1/MPEG-2/ASF/DivX format)
	Playable file		MP3/WMA/WAV/JPEG/MPEG-1/MPEG-2/ASF/DivX format
	Dynamic range		80 dB
	Horizontal resolution		500 lines
	Wow and flutter		Immeasurable
General	Power requirement		AC 110 V/AC 127V/AC 220 V/AC 230 V-240V (adjustable with the voltage selector), 50 Hz/60 Hz
	Power requirement (for Oceanian countries)		AC 240 V , 50 Hz
	Power consumption		125 W (at operation) 14 W (at standby) 3.5 W (at standby dimmer OFF mode)
	Dimensions (approx.)		170 mm × 250 mm × 342 mm (W/H/D)
	Mass (approx.)		5.7 kg
Speaker section SP-UXG68	Speaker units	Tweeter	1.5 cm dome × 1
		Squawker	4 cm cone × 1
		Woofer	13.5 cm cone × 1
	Impedance		6 Ω
	Dimensions (approx.)		166 mm × 250 mm × 232 mm (W/H/D)
	Mass (approx.)		2.8 kg each

Design and specifications are subject to change without notice.

SECTION 1

PRECAUTION

1.1 Safety Precautions

- (1) This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
- (2) Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturers warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
- (3) Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
- (4) The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after reassembling.

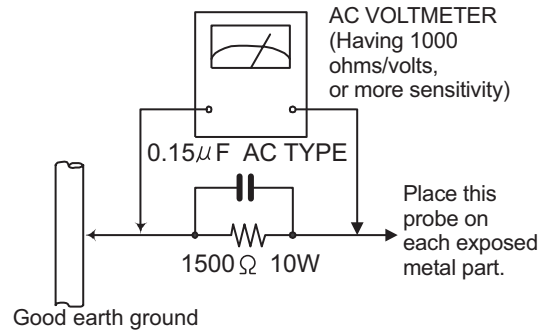
(5) Leakage shock hazard testing

After reassembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).
- Alternate check method
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 Ω per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC

voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



1.2 Warning

- (1) This equipment has been designed and manufactured to meet international safety standards.
- (2) It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
- (3) Repairs must be made in accordance with the relevant safety standards.
- (4) It is essential that safety critical components are replaced by approved parts.
- (5) If mains voltage selector is provided, check setting for local voltage.

1.3 Caution

Burrs formed during molding may be left over on some parts of the chassis.

Therefore, pay attention to such burrs in the case of pre-forming repair of this system.

1.4 Critical parts for safety

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor ($\blacksquare$), diode ($\blacksquare$) and ICP ($\bullet$) or identified by the " Δ " mark nearby are critical for safety. When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer.
(This regulation dose not Except the J and C version)

1.5 Preventing static electricity

Electrostatic discharge (ESD), which occurs when static electricity stored in the body, fabric, etc. is discharged, can destroy the laser diode in the traverse unit (optical pickup). Take care to prevent this when performing repairs.

1.5.1 Grounding to prevent damage by static electricity

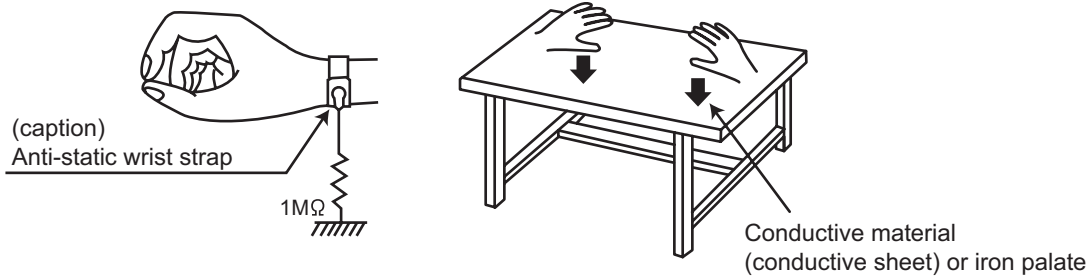
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as laser products. Be careful to use proper grounding in the area where repairs are being performed.

(1) Ground the workbench

Ground the workbench by laying conductive material (such as a conductive sheet) or an iron plate over it before placing the traverse unit (optical pickup) on it.

(2) Ground yourself

Use an anti-static wrist strap to release any static electricity built up in your body.



(3) Handling the optical pickup

- In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
- Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

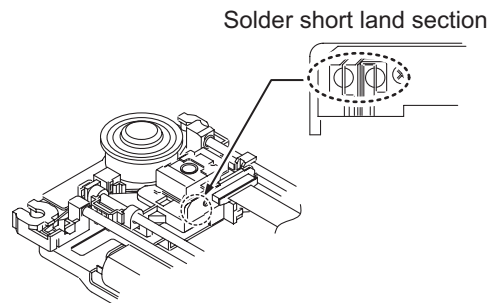
1.6 Handling the traverse unit (optical pickup)

- (1) Do not subject the traverse unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
- (2) Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the traverse unit. Be careful not to take too long a time when attaching it to the connector.
- (3) Handle the flexible cable carefully as it may break when subjected to strong force.
- (4) It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

1.7 Attention when traverse unit is decomposed

***Please refer to "Disassembly method" in the text for the pickup unit.**

- Apply solder to the short land sections before the card wire is disconnected from the connector on the servo board. (If the card wire is disconnected without applying solder, the pickup may be destroyed by static electricity.)
- In the assembly, be sure to remove solder from the short land sections after connecting the card wire.



1.8 Important for laser products

1.CLASS 1 LASER PRODUCT

2.CAUTION :

(For U.S.A.) Visible and/or invisible class II laser radiation when open. Do not stare into beam.

(Others) Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments.

3.CAUTION : Visible and/or invisible laser radiation when open and inter lock failed or defeated. Avoid direct exposure to beam.

4.CAUTION : This laser product uses visible and/or invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

(For U.S.A.)

CAUTION : Visible and/or invisible class II laser radiation when open. Do not stare into beam.

(Others)

CAUTION : Visible and/or invisible class 1M laser radiation when open. Do not view directly with optical instruments

ACHTUNG: Sichtbare und/oder unsichtbare Laserstrahlung der Klasse 1M bei offenen Abdeckungen. Nicht direkt mit optischen Instrumenten betrachten.

ATTENTION: Rayonnement laser visible et/ou invisible de classe 1M une fois ouvert. Ne pas regarder directement avec des instruments optiques.

VOORZICHTIG: Zichtbare en/of onzichtbare klasse 1M laserstralen indien geopend. Bekijk niet direct met optische instrumenten.

ATTENZIONE: Radiazione laser in classe 1M visibile e/o invisibile quando aperto. Non osservare direttamente con strumenti ottici.

WARNING: Synlig och/eller osynlig laserstrålning, klass 1M, när denna del är öppnad. Betrakta ej strålen med optiska instrument.

VARO! Avattaessa olet alttiina näkyvälle ja/tai näkymättömälle luokan 1M lasersäteilylle. Älä tarkastele sitä optisen laitteen läpi.

ADVARSEL: Synlig og/eller usynlig klasse 1M-laserstrålning ved åbning. Se ikke direkte med optiske instrumenter.

AVISO: Radiación láser de clase 1M visible y/o invisible cuando está abierto. No mirar directamente con instrumental óptico.

PRECAUÇÃO: Radiação laser de classe 1M visível e/ou invisível quando aberto. Não olhe diretamente com instrumentos ópticos.

5.CAUTION : If safety switches malfunction, the laser is able to function.

6.CAUTION : Use of controls, adjustments or performance of procedures other than those specified here in may result in hazardous radiation exposure.



CAUTION Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

PRECAUÇÃO: Radiação laser de classe 1M visível e/ou invisível quando aberto. Não olhe diretamente com instrumentos ópticos.

ПРЕДУПРЕЖДЕНИЕ: В открытом состоянии происходит видимое и/или невидимое излучение лазера класса 1M. Не смотрите непосредственно в оптические инструменты.

UWAGA: Otwarcie spowoduje narażenie na widzialne i/lub niewidzialne promieniowanie lasera klasy 1M. Nie patrzeć bezpośrednio w przyrządy optyczne.

UPOZORNĚNÍ: Při otevření vydává viditelné popř. neviditelné laserové ozaření třídy 1M. Nedívejte se do otvoru přímo s optickými nástroji.

FIGYELMEZTETÉS: Látható és/vagy láthatatlan 1M osztályú sugárzás nyitott állapotban. Ne nézze közvetlenül optikai műszerekkel.

注意：打開蓋板可能會產生可見或不可見的 1M 級鐳射。不要使用光學儀器直接進行窺視。

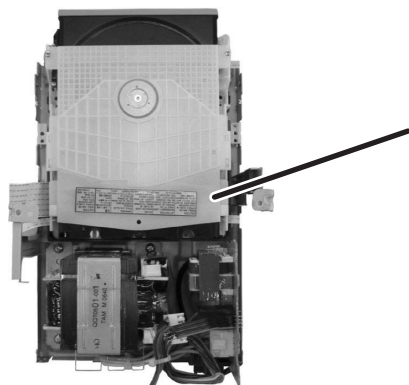
注意：打开盖板可能会产生可见或不可见的 1M 级辐射。不要使用光学仪器直接进行窥视。

تنبيه: يوجد إشعاع ليزري مرئي و/أو غير مرئي من الفئة 1M عندما يكون الجهاز مفتوحاً. تجنب النظر مباشرة داخل الجهاز باستخدام أدوات بصرية.

احتياط: هنگامی که باز گردد، تشعشع مرئی و یا نامرئی کلاس 1M لیزر وجود دارد. با لوازم چشمی مستقیماً به آن نگاه نکنید.

주의: 개방하면 가시 및/또는 비가시 클래스 1M 레이저 방사선이 나옵니다. 광학 기구로 직접 들여다보지 마십시오.

REPRODUCTION AND POSITION OF LABELS and PRINT WARNING LABEL and PRINT



CAUTION	ATTENTION	AVISO	WARNING	注意	CAUTION
VISIBLE AND/OR INVISIBLE CLASS 1M LASER RADIATION WHEN OPEN. DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. IEC60825-1:2001 (ENG)	RAYONNEMENT LASER VISIBLE ET/OU INVISIBLE DE CLASSE 1M UNE FOIS OUVERT. NE PAS REGARDER DIRECTEMENT AVEC DES INSTRUMENTS OPTIQUES. (FRA)	RADIACIÓN LÁSER DE CLASE 1M VISIBLE Y/O INVISIBLE CUANDO ESTA ABIERTO. NO MIRAR DIRECTAMENTE CON INSTRUMENTAL ÓPTICO. (ESP)	SYNLIG OCH/ELLER OSYNLIG LASERSTRÅLNING, KLASSE 1M, NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN MED OPTISKA INSTRUMENT. (SWE)	ここを覗くと可視及び/または不可視のクラス1Mレーザー放射線が出ます。光学装置で直接見ないでください。 (JPN)	VISIBLE AND/OR INVISIBLE CLASS 1 LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. FDA 21 CFR (ENG) LV44603-003A

SECTION 2

SPECIFIC SERVICE INSTRUCTIONS

Please use the UX-G68 service manual ([No.MB609](#)) excluding the published content as follows.
The use number has changed when a part number of the reference origin and this part number are the same.

Parts list (General assembly) [Block No.M1MM]

UX-G68EE

⚠	Item	Parts name	Parts number		Q'ty
			US	EE	
	42	REAR PANEL	GV20410-017A	GV20410-024A	1
	83	RATING LABEL	GV30993-003A	GV30993-007A	1

UX-G68UW

⚠	Item	Parts name	Parts number		Q'ty
			US	UW	
	42	REAR PANEL	GV20410-017A	GV20410-020A	1

UX-G68UX

⚠	Item	Parts name	Parts number		Q'ty
			US	UX	
	42	REAR PANEL	GV20410-017A	GV20410-016A	1
	83	RATING LABEL	GV30993-003A	GV30993-005A	1

Parts list (Main board) [Block No.01]

UX-G68UW

⚠	Item	Parts name	Parts number		Q'ty
			US	UW	
	R302	MG RESISTOR	-----	NRSA63J-103X	1
	R303	MG RESISTOR	NRSA63J-103X	NRSA63J-332X	1
	R304	MG RESISTOR	NRSA63J-103X	-----	0
	R305	MG RESISTOR	-----	NRSA63J-103X	1

UX-G68UX

⚠	Item	Parts name	Parts number		Q'ty
			US	UX	
	R302	MG RESISTOR	-----	NRSA63J-103X	1
	R303	MG RESISTOR	NRSA63J-103X	NRSA63J-752X	1

Parts list (Packing accessories) [Block No.M3MM]

UX-G68EE

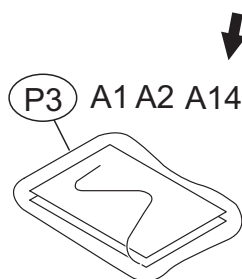
⚠	Item	Parts name	Parts number		Q'ty
			US	EE	
	A 1	INST BOOK	GVT0203-006A CHI(PEKIN)	GVT0203-005A RUS	1
	A 2	INST BOOK	GVT0203-009A CHI(PEKIN)	-----	0
⚠	A 5	AC PLUG ADAPTER	QAM0112-002	-----	0
	P 1	CARTON	GV30994-003A	GV30994-006A	1

UX-G68UW

⚠	Item	Parts name	Parts number		Q'ty
			US	UW	
	A 2	INST BOOK	GVT0203-009A CHI(PEKIN)	GVT0203-007A SPA	1
	A14	INST BOOK	-----	GVT0203-008A POR	1

UX-G68UX

⚠	Item	Parts name	Parts number		Q'ty
			US	UX	
	A 2	INST BOOK	GVT0203-009A CHI(PEKIN)	GVT0203-012A ARA PER	1
⚠	A 5	AC PLUG ADAPTER	QAM0112-002	-----	0



SECTION 3 DISASSEMBLY

Please refer to "UX-G60 ([No.MB609](#))" about this section.

SECTION 4 ADJUSTMENT

Please refer to "UX-G60 ([No.MB609](#))" about this section.

SECTION 5 TROUBLESHOOTING

Please refer to "UX-G60 ([No.MB609](#))" about this section.



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