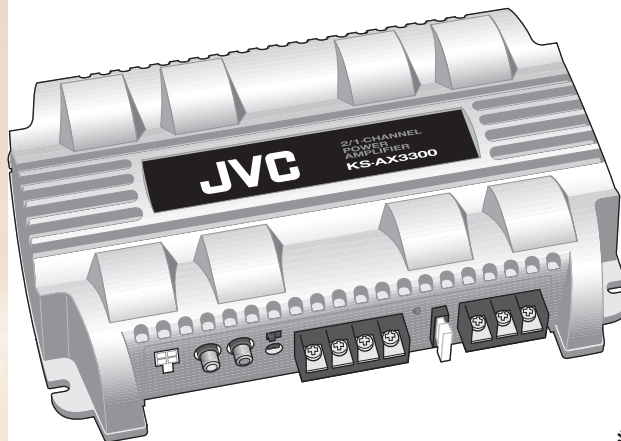


JVC

SERVICE MANUAL

POWER AMPLIFIER

KS-AX3300



Area suffix

J ----- Northern America
E ----- Southern Europe
U ----- Other Areas



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SPECIFICATION


Power Output	65 W RMS × 2 channels at 4 Ω and [\leq or =] 1% THD + N
Signal-to-Noise Ratio	86 dBA (reference: 1 W into 4 Ω)
Maximum Power Output	320 W
Load Impedance	4 Ω (2 Ω to 8 Ω allowance) 4 Ω (4 Ω to 8 Ω allowance) (Bridge mode)
Frequency Response	5 Hz to 50,000 Hz (+0, -3 dB)
Input Sensitivity/Impedance	1 V/20 kΩ (0.3 V to 6 V, variable)
Distortion	Less than 0.005% (at 1 kHz)
Power Requirement	DC 14.4 V (11 V to 16 V allowance)
Grounding system	Negative ground
Dimensions (W/H/D)	259 mm × 54 mm × 172 mm (10-1/4 in. × 2-3/16 in. × 6-13/16 in.)
Mass (approx.)	1.6 kg (3.6 lbs.)

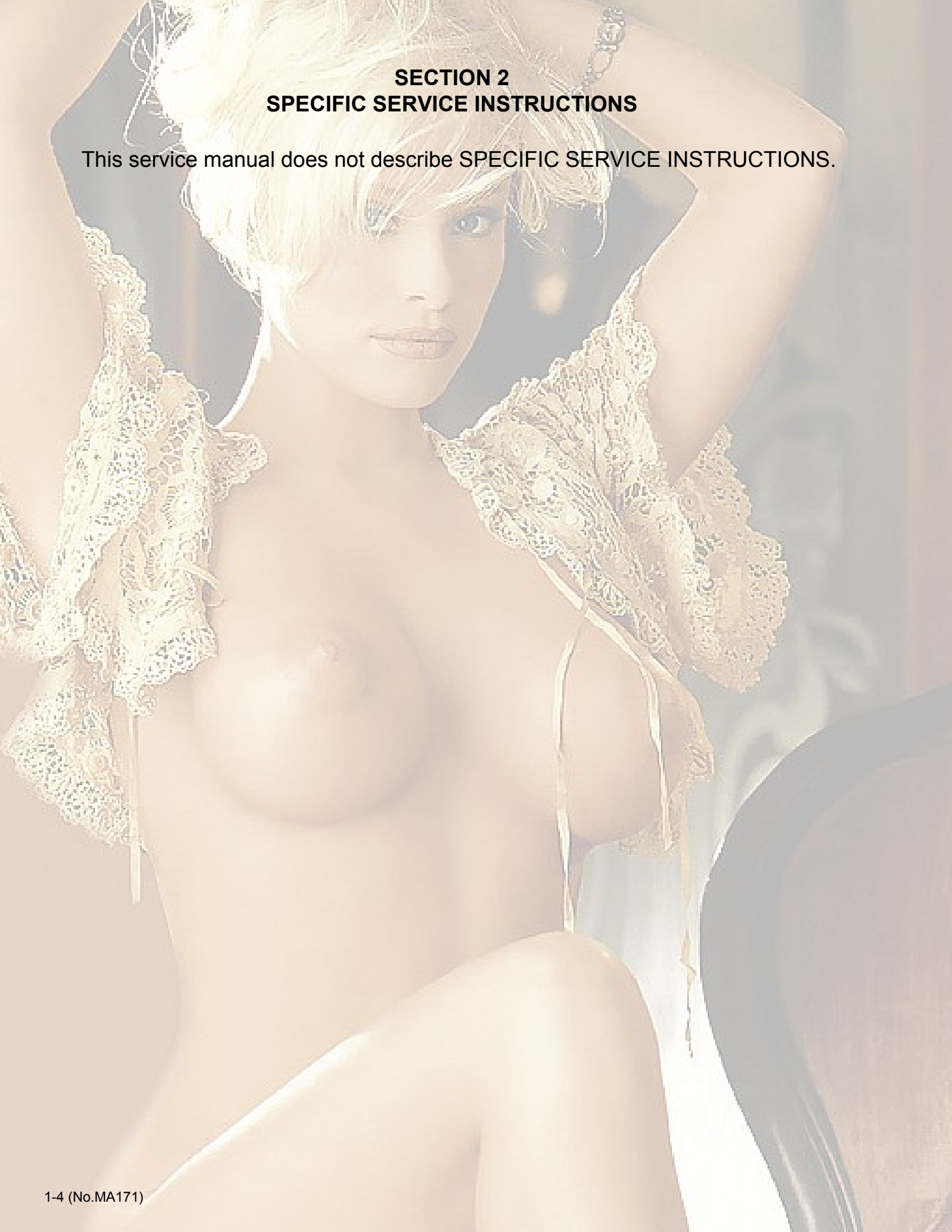
Design and specifications are subject to change without notice.

A woman with blonde hair, wearing a white lace bra and matching underwear, is posing for a photograph. She is looking directly at the camera with a neutral expression. Her arms are raised, and she is holding a thin, light-colored object, possibly a cigarette or a pen, near her face. The background is a soft, out-of-focus indoor setting.

SECTION 1 PRECAUTION

1.1 Safety Precautions

 **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 performing repair of this system.

A woman with short, wavy blonde hair is the central focus of the image. She is wearing a white lace bra with thin straps. She is sitting on a dark-colored chair, with her hands raised behind her head. The background is softly blurred, showing what appears to be a room with a lamp and some furniture. The overall lighting is warm and soft.

SECTION 2
SPECIFIC SERVICE INSTRUCTIONS

This service manual does not describe SPECIFIC SERVICE INSTRUCTIONS.

SECTION 3 DISASSEMBLY

3.1 Main board

3.1.1 Removing the main board (See Fig.1 ~ 4)

- (1) From the bottom of the amplifier, remove the five screws **A** attaching the cover.
- (2) From the main body of the amplifier, remove the nine screws **B** attaching the main board.
- (3) Remove the two screws **C** on top of the rear cover.
- (4) Remove the screw **D** and the two screws **E** on the front side of the rear cover.

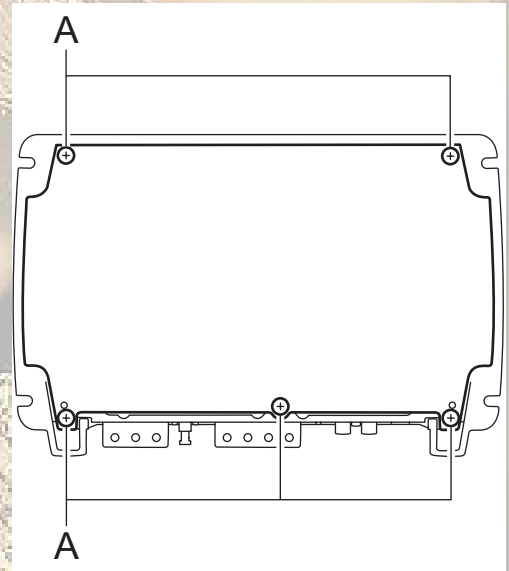


Fig.1

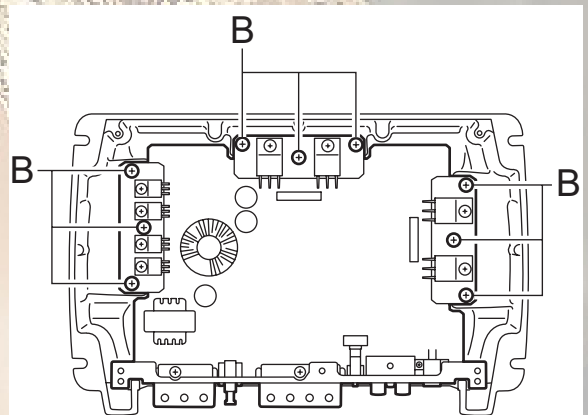


Fig.2

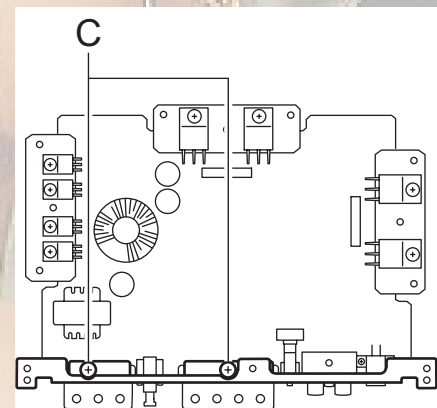


Fig.3

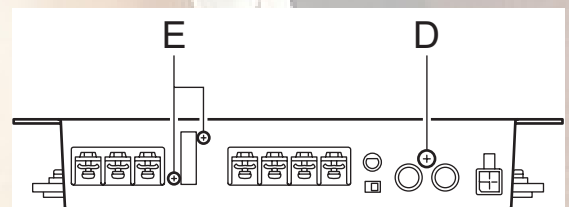
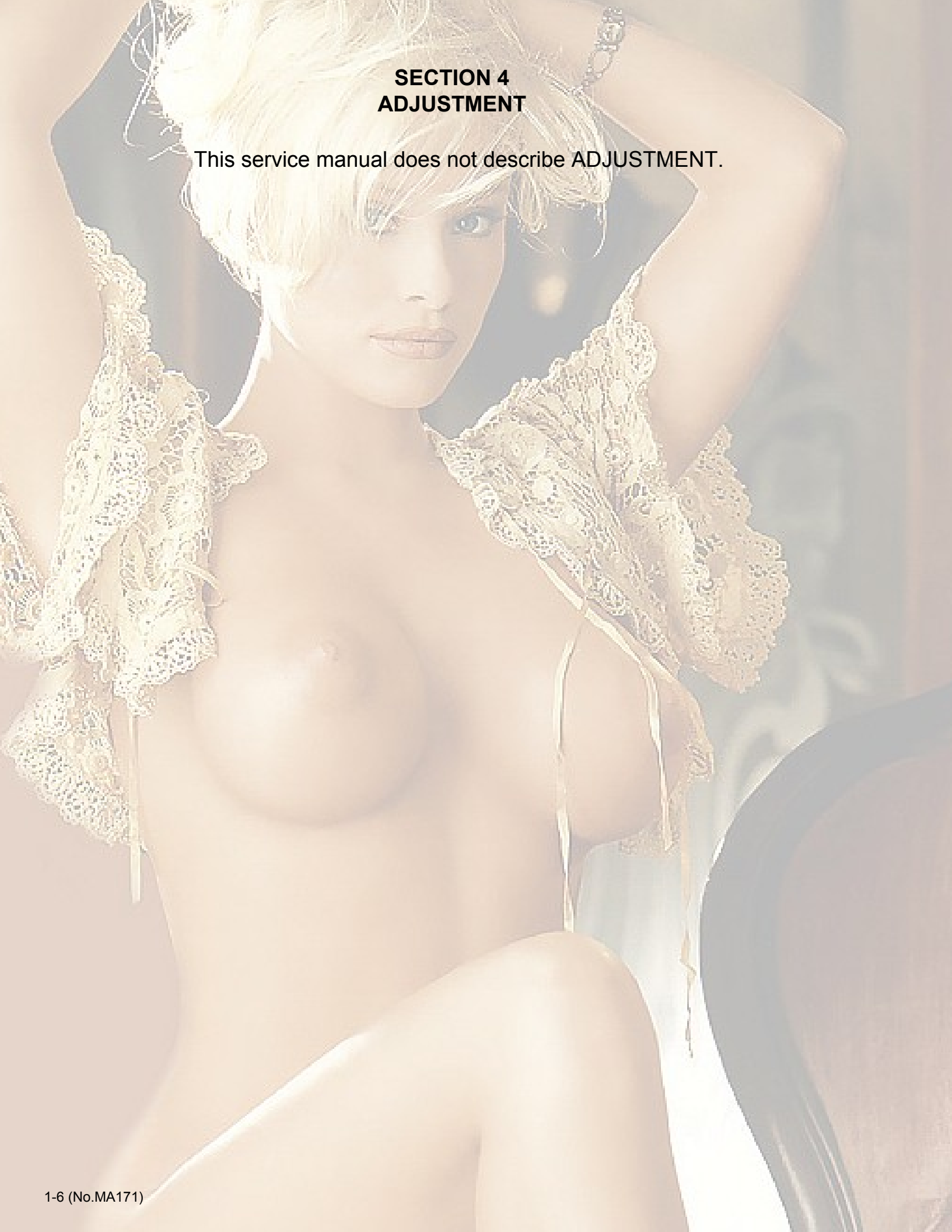


Fig.4

A woman with short blonde hair is posing for a photograph. She is wearing a white lace bra and a matching garter belt. Her hands are raised behind her head. The background is a soft, out-of-focus indoor setting.

**SECTION 4
ADJUSTMENT**

This service manual does not describe ADJUSTMENT.

A woman with short, wavy blonde hair is posing for a photograph. She is wearing a white lace bra with thin straps. Her arms are raised, and she is looking directly at the camera with a neutral expression. The background is softly blurred, showing what appears to be a chair and some fabric. The overall lighting is warm and soft.

SECTION 5
TROUBLESHOOTING

This service manual does not describe TROUBLESHOOTING.



JVC

Victor Company of Japan, Limited

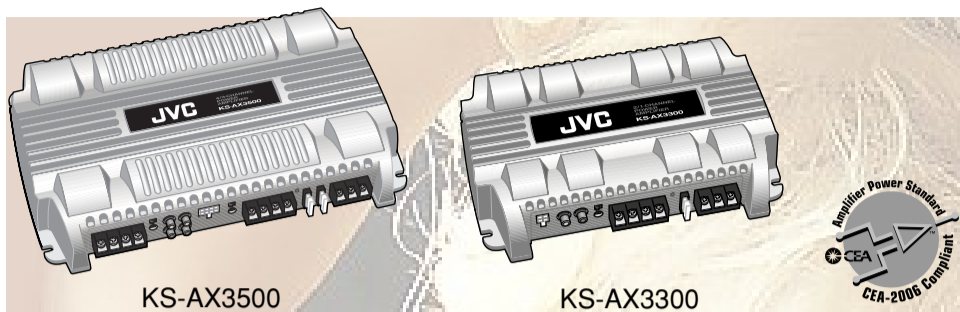
AV & MULTIMEDIA COMPANY CAR ELECTRONICS CATEGORY 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

(No.MA171)



Printed in Japan
VPT

ENGLISH



Thank you for purchasing a JVC product. Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

For safety....

- Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operations.

CAUTIONS AND NOTES

This unit is designed to operate on **12 V DC, NEGATIVE ground electrical systems.**

- This unit uses BTL (Balanced Trans-formerless) amplifier circuitry, i.e., floating ground system, so please comply with the following:
 - * Do not connect the "⊖" terminals of the speakers to each other.
 - * Do not connect the "⊖" terminals of the speakers to the metal body or chassis.
- Cover the unused terminals with insulating tape to prevent them from short circuiting.
- When an extension lead is used, it should be as thick and short as possible; connect it firmly with insulating tape.
- Be sure to leave an appropriate space between the antenna (aerial) and the wires of this unit.
- When replacing the fuse, only use a 25 A fuse for KS-AX3500 and 30 A fuse for KS-AX3300.
- Do not let pebbles, sand or metallic objects get inside the unit.
- To keep the heat dissipation mechanism running effectively, wipe the accumulated dust off periodically.
- Listening to the tape, radio, CD or MD, etc. with the volume on loud for a long period of time will exhaust the battery, while the engine is turned off or while the engine is idling.

DO NOT disassemble the units since there are no user serviceable parts inside.

For Customer Use:

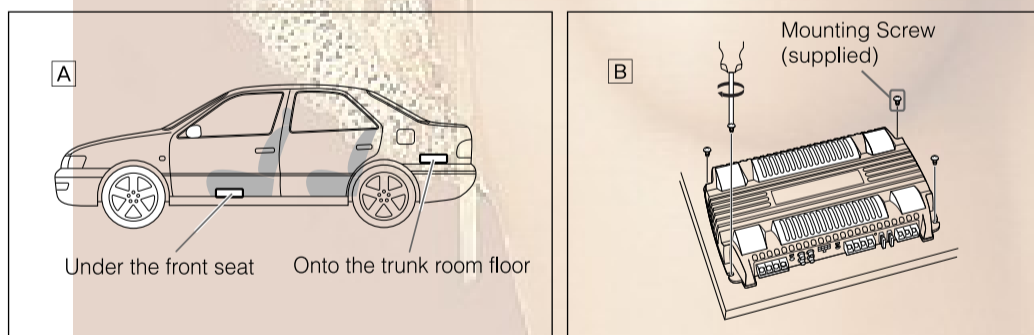
Enter below the Model No. and Serial No. which are located on the top or bottom of the cabinet. Retain this information for future reference.

Model No. _____

Serial No. _____

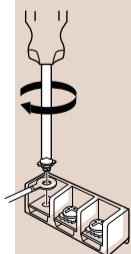
INSTALLATION

The following illustration shows a typical installation. However, you should make adjustments corresponding to your specific car. If you have any questions or require information regarding installation kits, consult your "JVC IN-CAR ENTERTAINMENT" car audio dealer or a company supplying kits.



- A** Mount on a firm surface, such as in the trunk room or under the front seat.
- Since heat is generated in this unit, do not mount near inflammable objects. In addition, mount in an area that will not prevent the unit from dissipating heat.
 - Do not mount the unit in the places subject to heat such as near a radiator, in a glove compartment or in insulated areas such as under a car mat that will prevent the unit from dissipating heat.
- B** When mounting this unit, be sure to use the screws provided. If any other screws are used, there is a risk of loosening the unit or damaging parts inside it.

TERMINAL CONNECTIONS



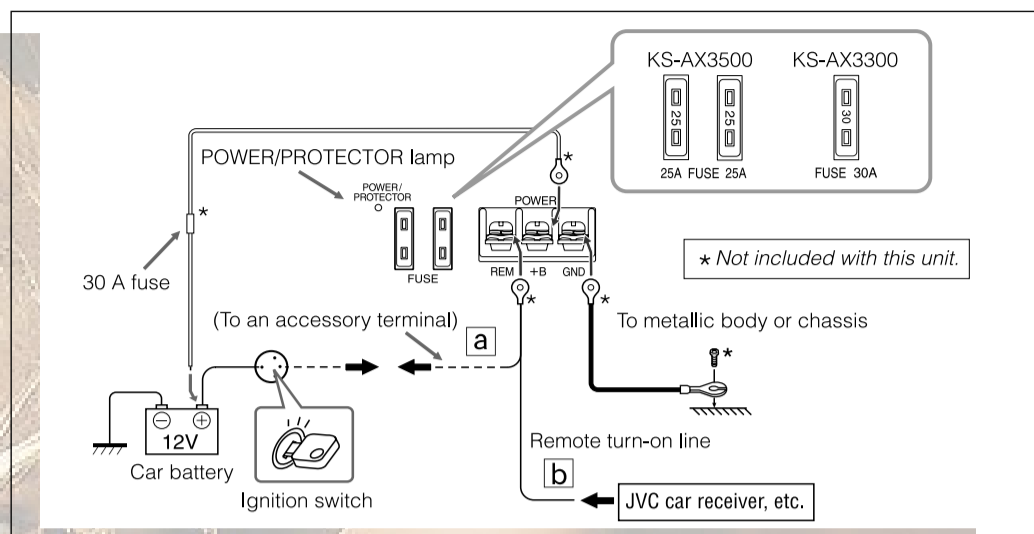
When making the terminal connections...

Properly fix the terminal with the screw provided by turning it in the direction as illustrated.

Note

When you tighten the screw, make sure that the screw is securely fixed in place to prevent disconnection of the terminal. Avoid over-tightening as it may cause damage to the screw or its head slot.

POWER SUPPLY



CAUTION

To prevent short circuits while making connections, keep the battery's negative terminal disconnected.

- When using a power cord, be sure to place the 30 A fuse near the battery as shown.
- Connect the lead wire (purchased separately) through which power is supplied directly to the battery's "⊕" terminal only after all the other connections have been made.

The lead wire connected to the + B terminal of this unit should have a cross-section of more than 5 mm². Be sure to use a ring terminal (optional) for secure connection.

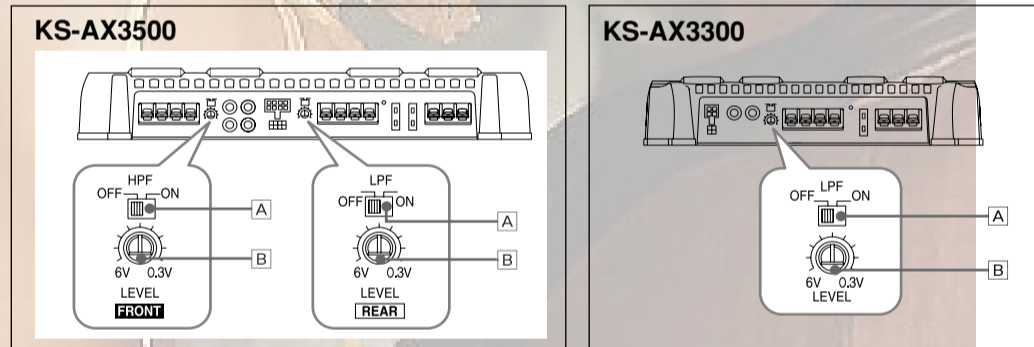
- If you have any questions regarding the thickness of the power cord, etc., consult your nearest "JVC IN-CAR ENTERTAINMENT" car audio dealer.

When connecting a unit without a remote lead (a), connect to the accessory circuit of the car which is activated by the ignition switch. In this case, noise may occur when the car receiver is turned on or off. To avoid this noise, do not turn on or off the car receiver itself. You can turn on or off the car receiver along with the on/off operation of the ignition switch.

If you use JVC car receiver with a remote lead (b), connect to the REM terminal on this unit.

If the POWER/PROTECTOR lamp lights in red, it indicates incorrect speaker wiring or connections. In normal status, the POWER/PROTECTOR lamp lights in green. Make sure to correct speaker wiring and other connections.

CONTROLS



A Crossover filter switch

OFF: Normally, set to this position. (Preset to this position at the factory.)

ON: (For LPF switch) Set to this position when you want to turn on the LPF (Low-pass filter) switch. You can use the following terminals for a subwoofer system.

KS-AX3500: REAR SPEAKER OUTPUT

KS-AX3300: SPEAKER OUTPUT

(For HPF switch—only for KS-AX3500)

Set to this position when you want to turn on the HPF (High-pass filter) switch. The low frequency signals are not applied to the left/right speaker when a subwoofer is connected.

B Input LEVEL controller

The input level can be adjusted with this control when this unit is connected to other source equipments. Turn it in the clockwise direction when the output level of the car audio seems low.

SPEAKER SYSTEMS

This amplifier provides two types of speaker connections: Normal mode and Bridge mode. You can choose either type of connections depending on the speakers configuration equipped on your car.

Make sure to comply with the following notes:

- Be sure not to connect the "⊖" terminals of the speakers to a common point.
- If the ground wire is common to both left/right and front/rear speaker wirings, this unit cannot be used. Always use the independent lead wires for the speakers to be used. In this case, redo the wirings.
- Use the speakers with an impedance of 2 Ω to 8 Ω (4 Ω to 8 Ω: when used in Bridge mode).
- Use the speakers which have sufficient power to the unit.

SPEAKER CONNECTIONS

Connection varies depending on the number of the speakers used in your car. Select the appropriate connection referring to the diagrams below.

Before connecting: Securely connect all the parts. If the connections are loose, due to contact resistance etc., heat will break out and may cause an accident. Secure and cover the cords with insulating tape and run them under the car mats.

KS-AX3500

4-speaker system

a JVC car receiver, etc.

Line Out (Front) *1

Line Out (Rear) *1

b Speaker input connector

Connector lead	Speaker lead
A White (stripe)	Front left (-)
B White	Front left (+)
C Gray (stripe)	Front right (-)
D Gray	Front right (+)
E Green (stripe)	Rear left (-)
F Green	Rear left (+)
G Purple (stripe)	Rear right (-)
H Purple	Rear right (+)

Front Speaker (left/right)

Rear Speaker (left/right)

2-speaker system plus subwoofer—BRIDGE MODE*2

a JVC car receiver, etc.

Line Out (Front) *1

Line Out (Rear) or Subwoofer Out *1

b Speaker input connector

Connector lead	Speaker lead
A White (stripe)	Front left (-)
B White	Front left (+)
C Gray (stripe)	Front right (-)
D Gray	Front right (+)
E Green (stripe)	Rear left (-)
F Green	Rear left (+)
G Purple (stripe)	Rear right (-)
H Purple	Rear right (+)

Front Speaker (left/right)

Subwoofer System

2-speaker system—BRIDGE MODE*2

a JVC car receiver, etc.

Line Out *1

b Speaker input connector

Connector lead	Speaker lead
A White (stripe)	Left (-)
C Gray (stripe)	Left (+)
B White	Right (-)
D Gray	Right (+)
E Green (stripe)	Right (-)
F Purple (stripe)	Right (+)
G Green	Right (-)
H Purple	Right (+)

Left Speaker

Right Speaker

TROUBLESHOOTING

For more details, consult your "JVC IN-CAR ENTERTAINMENT" car audio dealer.

The POWER/PROTECTOR lamp does not light.

- Confirm if the fuse is blown.
- Confirm if the ground lead is connected securely to a metal part of the car.
- Make sure that the equipment connected to this unit is turned on.
- Use a relay if your system employs too many amplifiers.
- Confirm the battery voltage (11 V to 16 V).

The POWER/PROTECTOR lamp lights in red and/or the unit heats up abnormally.

- Confirm if the impedance of the connected speaker is suitable.
- Confirm if the speaker wirings are short-circuited.
- Leave the unit turned off for a while as it cools down.

No sound is heard.

- Confirm if the POWER/PROTECTOR lamp lights in green (see "POWER SUPPLY" on page 1).
- Is the remote turn-on line lead connected correctly?
- Are RCA pin cords connected to the LOW INPUT jacks?
- Is the speaker input connector from the receiver connected to the HIGH INPUT terminal?
- Is this amplifier grounded?

Alternator noise is heard.

- Keep the power connecting leads away from the RCA pin cords.
- Keep the RCA pin cords away from other electrical cables in the car.
- Confirm if the ground lead is connected securely to a metal part of the car.
- Confirm if the negative speaker leads are touching the car chassis.
- Confirm if the noise originates in the receiver.
- Replace the plugs or use plugs with load resistors.
- Connect a bypass capacitor across the accessory switches (horn, fan, etc.).

Noise when connected to AM (MW/LW) tuner.

- Move the speaker and power leads away from the antenna (aerial) lead.

• Depending on the manufacturer and model of the car, speaker wiring may have been finished when purchased. If the ground wire is common to both left and right speakers, this unit cannot be used. In this case, redo the speaker wiring.

- When your receiver is equipped with Line Output, connect the Line Output (through the receiver) to the LOW INPUT jacks on this unit.
- When your receiver is NOT equipped with Line Output, connect the speaker connector (through the receiver) to the HIGH INPUT terminal on this unit.

KS-AX3300

2-speaker system

b Speaker input connector

Connector lead	Speaker lead
A White (stripe)	Left (-)
B White	Left (+)
C Gray (stripe)	Right (-)
D Gray	Right (+)

Line Out

Left Speaker

Right Speaker

Subwoofer system—BRIDGE MODE*2

b Speaker input connector

Connector lead	Speaker lead
A White (stripe)	Left (-)
C Gray (stripe)	Left (+)
B White	Left (+)
D Gray	Left (+)

Line Out or Subwoofer Out

Subwoofer System

1-speaker system—BRIDGE MODE*2

a JVC car receiver, etc.

Line Out *1

b Speaker input connector

Connector lead	Speaker lead
A White (stripe)	Left (-)
C Gray (stripe)	Left (-)
B White	Left (+)
D Gray	Left (+)

Left Speaker

Right Speaker

b Speaker input connector

Connector lead	Speaker lead
A White (stripe)	Right (-)
C Gray (stripe)	Right (-)
B White	Right (+)
D Gray	Right (+)

*1 Not supplied for this unit.

*2 BRIDGE MODE: Be sure to connect the line output from the receiver to the left (L) jack on this unit.

SPECIFICATIONS

Power Output	KS-AX3500: 55 W RMS × 4 channels at 4 Ω and ≤ 1% THD + N
Signal-to-Noise Ratio	KS-AX3300: 65 W RMS × 2 channels at 4 Ω and ≤ 1% THD + N 86 dBA (reference: 1 W into 4 Ω)



Maximum Power Output	KS-AX3500: 580 W KS-AX3300: 320 W
Load Impedance	4 Ω (2 Ω to 8 Ω allowance) 4 Ω (4 Ω to 8 Ω allowance) (Bridge mode)
Frequency Response	5 Hz to 50,000 Hz (+0, -3 dB)
Input Sensitivity/Impedance	1 V/20 kΩ (0.3 V to 6 V, variable)
Distortion	Less than 0.005% (at 1 kHz)
Power Requirement	DC 14.4 V (11 V to 16 V allowance)
Grounding system	Negative ground
Dimensions (W/H/D)	KS-AX3500: 347 mm × 54 mm × 222 mm (13-11/16 in. × 2-3/16 in. × 8-3/4 in.) KS-AX3300: 259 mm × 54 mm × 172 mm (10-1/4 in. × 2-3/16 in. × 6-13/16 in.)
Mass (approx.)	KS-AX3500: 2.8 kg (6.2 lbs.) KS-AX3300: 1.6 kg (3.6 lbs.)
Supplied Accessories	Speaker input connector × 1 Mounting Screw (φ 4.0 × 20 mm (13/16 in.)) × 4

Design and specifications are subject to change without notice.

JVC

SCHEMATIC DIAGRAMS

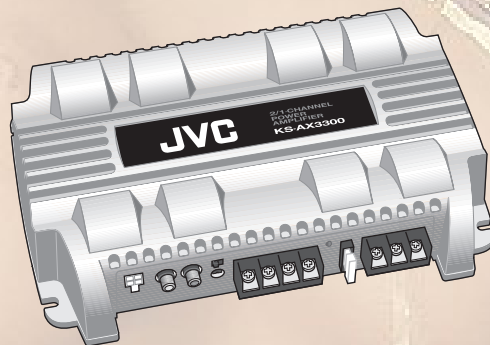
POWER AMPLIFIER

KS-AX3300

CD-ROM No.SML200503

Area suffix

J ----- Northern America
E ----- Southern Europe
U ----- Other Areas




Contents

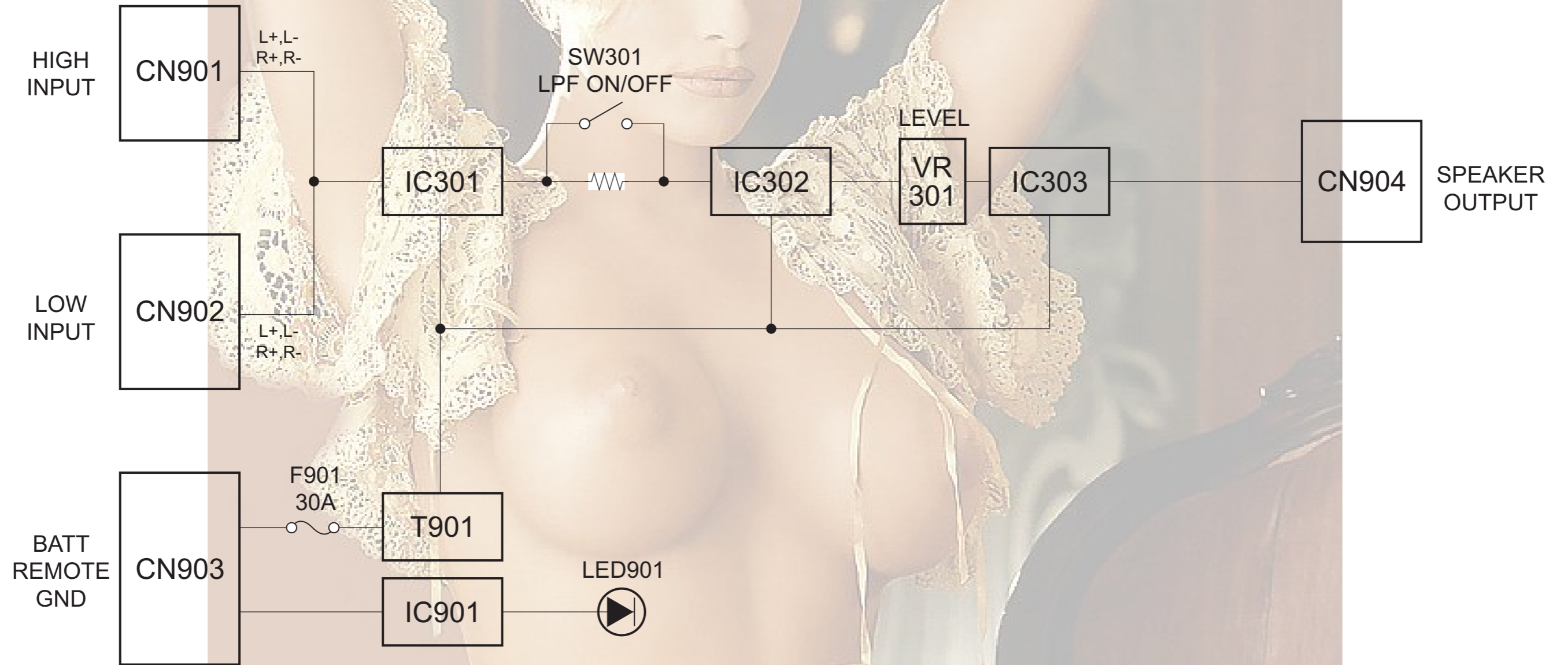
Block diagram	2-1
Standard schematic diagram	2-2
Printed circuit board	2-3



Safety precaution

 **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 performing repair of this system.

Block diagram

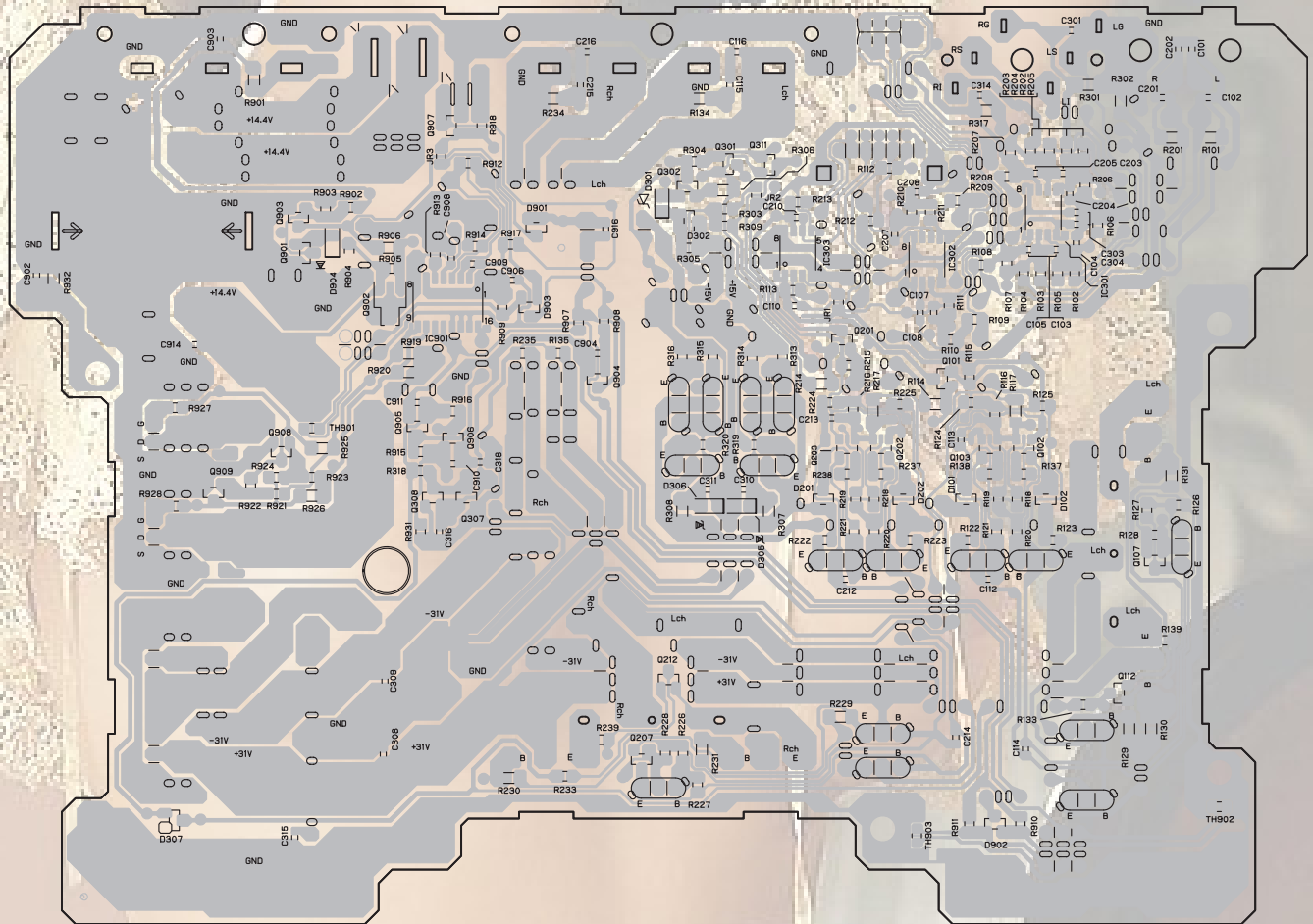


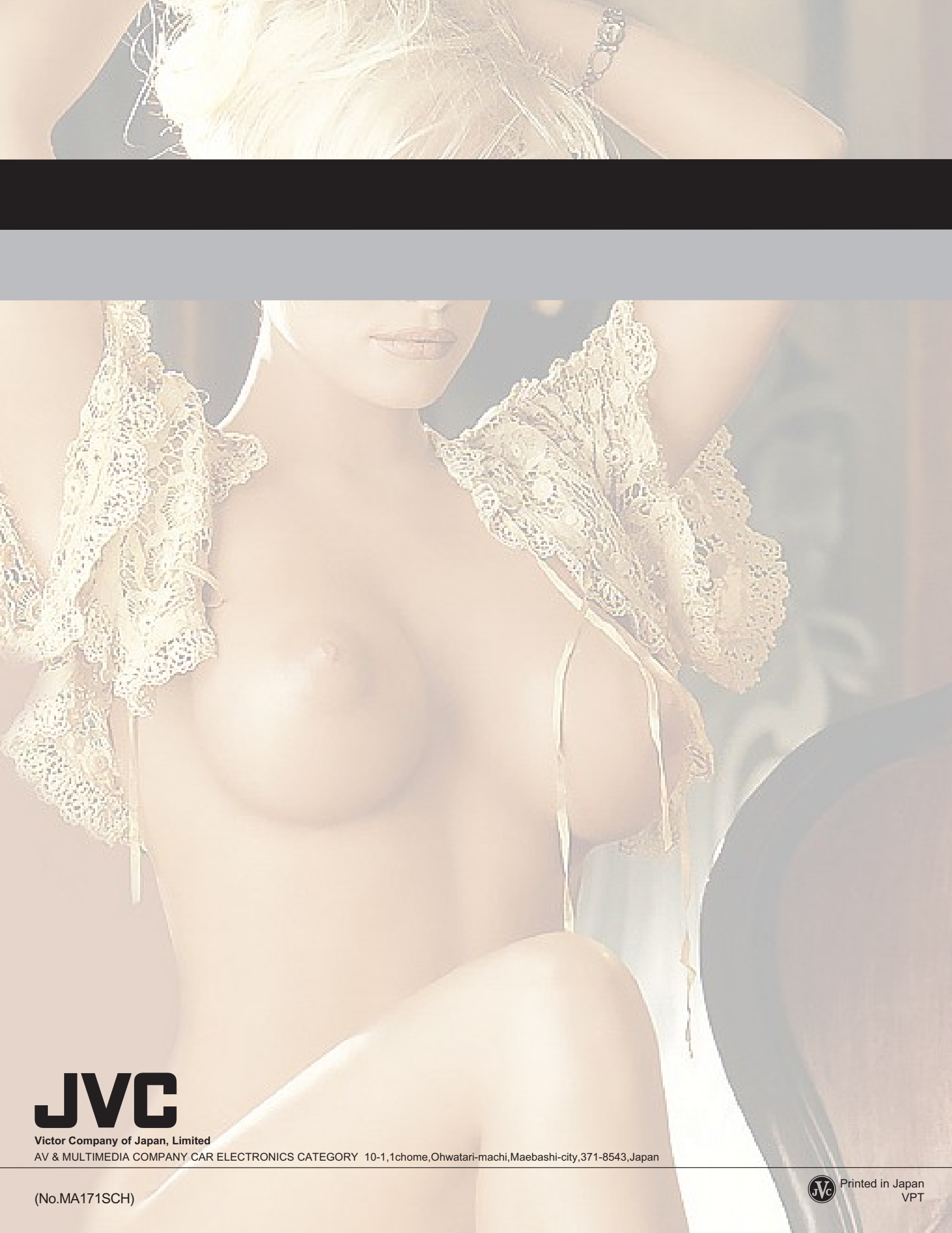
Standard schematic diagram



Printed circuit board

■ Main board





JVC

Victor Company of Japan, Limited

AV & MULTIMEDIA COMPANY CAR ELECTRONICS CATEGORY 10-1, 1chome, Ohwatari-machi, Maebashi-city, 371-8543, Japan

(No.MA171SCH)



Printed in Japan
VPT

PARTS LIST

[KS-AX3300]

* All printed circuit boards and its assemblies are not available as service parts.

Area suffix

J ----- Northern America
E ----- Southern Europe
U ----- Other Areas

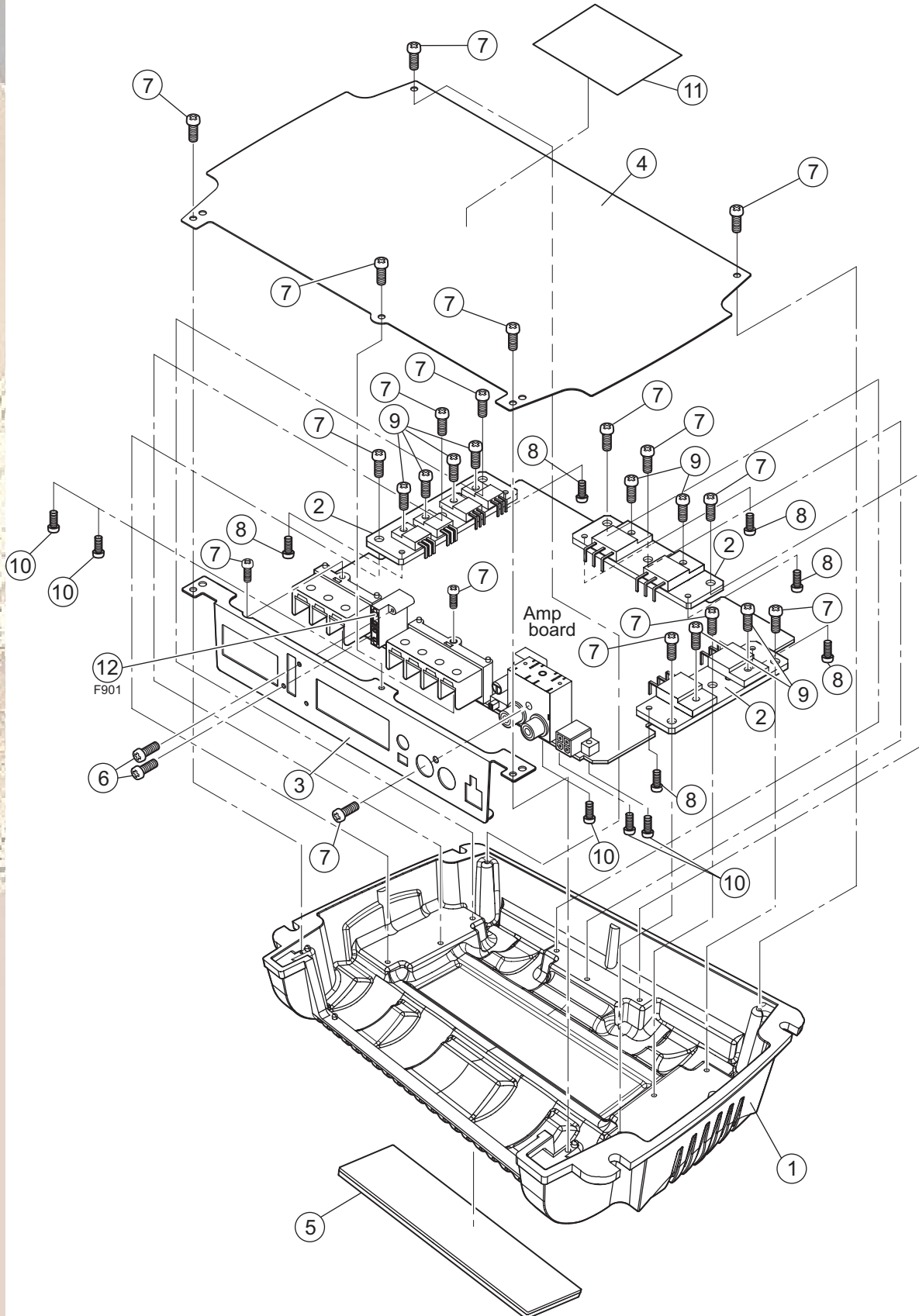
- Contents -

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Electrical parts list (Block No.01)	3-4
Packing materials and accessories parts list (Block No.M3)	3-8

Exploded view of general assembly and parts list

Block No.

M	1	M	M
---	---	---	---



General Assembly

Block No. [M][1][M][M]

Symbol No.	Part No.	Part Name	Description	Local
1	A4265359-001-0	HEAT SINK		
2	A1265343-001-0	HEAT SINK SUB	(x3)	
3	A3146065-001-0	FRONT CHASSIS		
4	A2146066-001-0	BOTTOM COVER		
5	A3247033-001-A	PLATE		
6	A3292008-004-2	SCREW	2x8(x2)	
7	A3293008-032-2	SCREW	3x8(x17)	
8	A2285199-003-0	SCREW	3x8(x6)	
9	A2285195-002-0	SCREW	3x8.5(x8)	
10	A3293008-002-7	SCREW	3x8(x5)	
11	A1236255-003-0	RATING LABEL		E
11	A1236255-001-0	RATING LABEL		J
11	A1236255-002-0	RATING LABEL		U
12	A151-5190-030	FUSE	30A F901	

Electrical parts list

AMP board

				△ Symbol No.	Part No.	Part Name	Description	Local
Block No. [0][1]								
△ Symbol No.	Part No.	Part Name	Description	Local				
				Q904	DTC114EKA	TRANSISTOR	AC04-311-003 T146	
				Q905	DTA144EKA	TRANSISTOR	AC04-310-005 T146	
				Q906	DTC114EKA	TRANSISTOR	AC04-311-003 T146	
				Q907	DTC114EKA	TRANSISTOR	AC04-311-003 T146	
				Q908	2SC3326	TRANSISTOR	AC04-083-003 TE85R F	
				Q909	2SC3326	TRANSISTOR	AC04-083-003 TE85R F	
				Q910	FKV550N	FET	A148-5560-001	
				Q911	FKV550N	FET	A148-5560-001	
				D101	DAN202K	DIODE ARRAY	AC04-053-002 T146	
				D102	DAN202K	DIODE ARRAY	AC04-053-002 T146	
				D201	DAN202K	DIODE ARRAY	AC04-053-002 T146	
				D202	DAN202K	DIODE ARRAY	AC04-053-002 T146	
				D301	UDZS6.8B	Z DIODE	AC04-312-068 TE-17	
				D302	DAN202K	DIODE ARRAY	AC04-053-002 T146	
				D303	FCH08A15	DIODE ARRAY	A148-5550-002	
				D304	FRH08A15	DIODE ARRAY	A148-5551-002	
				D305	UDZS13B	Z DIODE	AC04-312-130 TE-17	
				D306	UDZS15B	Z DIODE	AC04-312-150 TE-17	
				D307	DAN202K	DIODE ARRAY	AC04-053-002 T146	
				D901	DAN202K	DIODE ARRAY	AC04-053-002 T146	
				D902	DAN202K	DIODE ARRAY	AC04-053-002 T146	
				D903	DAN202K	DIODE ARRAY	AC04-053-002 T146	
				D904	UDZS16B	Z DIODE	AC04-312-160 TE-17	
				C101	AC03-430-101	C CAPACITOR	100pF 50V	
				C102	AC03-430-101	C CAPACITOR	100pF 50V	
				C103	AC03-430-470	C CAPACITOR	47pF 50V	
				C104	AC03-430-101	C CAPACITOR	100pF 50V	
				C105	AC03-430-101	C CAPACITOR	100pF 50V	
				C106	AT03-B80-105	E CAPACITOR	1uF 50V	
				C107	AC03-428-474	C CAPACITOR	0.47uF 10V	
				C108	AC03-432-104	C CAPACITOR	0.1uF 25V	
				C109	AT03-B77-107	E CAPACITOR	100uF 16V	
				C110	AC03-430-101	C CAPACITOR	100pF 50V	
				C111	AT03-B80-105	E CAPACITOR	1uF 50V	
				C112	AC03-430-470	C CAPACITOR	47pF 50V	
				C113	AC03-430-220	C CAPACITOR	22pF 50V	
				C114	AC03-432-104	C CAPACITOR	0.1uF 25V	
				C115	AC03-432-104	C CAPACITOR	0.1uF 25V	
				C116	AC03-432-104	C CAPACITOR	0.1uF 25V	
				C201	AC03-430-101	C CAPACITOR	100pF 50V	
				C202	AC03-430-101	C CAPACITOR	100pF 50V	
				C203	AC03-430-470	C CAPACITOR	47pF 50V	
				C204	AC03-430-101	C CAPACITOR	100pF 50V	
				C205	AC03-430-101	C CAPACITOR	100pF 50V	
				C206	AT03-B80-105	E CAPACITOR	1uF 50V	
				C207	AC03-428-474	C CAPACITOR	0.47uF 10V	
				C208	AC03-432-104	C CAPACITOR	0.1uF 25V	
				C209	AT03-B77-107	E CAPACITOR	100uF 16V	
				C210	AC03-430-101	C CAPACITOR	100pF 50V	
				C211	AT03-B80-105	E CAPACITOR	1uF 50V	
				C212	AC03-430-470	C CAPACITOR	47pF 50V	
				C213	AC03-430-220	C CAPACITOR	22pF 50V	
				C214	AC03-432-104	C CAPACITOR	0.1uF 25V	
				C215	AC03-432-104	C CAPACITOR	0.1uF 25V	
				C216	AC03-432-104	C CAPACITOR	0.1uF 25V	
				C301	AC03-433-224	C CAPACITOR	0.22uF 16V	
				C302	AT03-B77-227	E CAPACITOR	220uF 16V	
IC301	NJM4565M	IC	AC08-086-002 TE1					
IC302	NJM4565M	IC	AC08-086-002 TE1					
IC303	NJM4565M	IC	AC08-086-002 TE1					
IC901	UPC494GS-E1-A	IC	AC08-004-002					
IC902	PS2501-1	IC	A149-5233-008					
Q101	2SC3326	TRANSISTOR	AC04-083-003 TE85R F					
Q102	2SA1618	TRANSISTOR	AC04-178-003 TE85L F					
Q103	2SC4207	TRANSISTOR	AC04-177-004 TE85R F					
Q104	2SA988F	TRANSISTOR	AT04-095-005					
Q105	2SC1841F	TRANSISTOR	AT04-094-005					
Q106	2SD637	TRANSISTOR	A148-5484-002					
Q107	2SA1037AK	TRANSISTOR	AC04-051-005 T146					
Q108	2SC2235	TRANSISTOR	AT04-219-004 TPE6 F					
Q109	2SA965	TRANSISTOR	AT04-220-004 TPE6 F					
Q110	2SC5100	TRANSISTOR	A148-5363-005 LF719					
Q111	2SA1908	TRANSISTOR	A148-5364-005 LF719					
Q112	DTC114EKA	TRANSISTOR	AC04-311-003 T146					
Q201	2SC3326	TRANSISTOR	AC04-083-003 TE85R F					
Q202	2SA1618	TRANSISTOR	AC04-178-003 TE85L F					
Q203	2SC4207	TRANSISTOR	AC04-177-004 TE85R F					
Q204	2SA988F	TRANSISTOR	AT04-095-005					
Q205	2SC1841F	TRANSISTOR	AT04-094-005					
Q206	2SD637	TRANSISTOR	A148-5484-002					
Q207	2SA1037AK	TRANSISTOR	AC04-051-005 T146					
Q208	2SC2235	TRANSISTOR	AT04-219-004 TPE6 F					
Q209	2SA965	TRANSISTOR	AT04-220-004 TPE6 F					
Q210	2SC5100	TRANSISTOR	A148-5363-005 LF719					
Q211	2SA1908	TRANSISTOR	A148-5364-005 LF719					
Q212	DTC114EKA	TRANSISTOR	AC04-311-003 T146					
Q301	DTA114EKA	TRANSISTOR	AC04-310-003 T146					
Q302	2SC2412K	TRANSISTOR	AC04-050-005 T146					
Q303	2SC1815	TRANSISTOR	AT04-075-006 TPE2 F					
Q304	2SC1815	TRANSISTOR	AT04-075-006 TPE2 F					
Q305	2SA1015	TRANSISTOR	AT04-101-006 TPE2 F					
Q306	2SA1015	TRANSISTOR	AT04-101-006 TPE2 F					
Q307	2SC2412K	TRANSISTOR	AC04-050-005 T146					
Q308	2SC2412K	TRANSISTOR	AC04-050-005 T146					
Q309	2SC1815	TRANSISTOR	AT04-075-006 TPE2 F					
Q310	2SA1015	TRANSISTOR	AT04-101-006 TPE2 F					
Q311	DTA114EKA	TRANSISTOR	AC04-310-003 T146					
Q901	DTC114EKA	TRANSISTOR	AC04-311-003 T146					
Q902	2SB1132	TRANSISTOR	AC04-044-003 T100					
Q903	2SC2412K	TRANSISTOR	AC04-050-005 T146					

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C303	AC03-432-104	C CAPACITOR	0.1uF 25V		R210	AC02-081-103	C RESISTOR	10KΩ 1/10W	
C304	AC03-432-104	C CAPACITOR	0.1uF 25V		R211	AC02-081-182	C RESISTOR	1.8KΩ 1/10W	
C305	AT03-B80-226	E CAPACITOR	22uF 50V		R212	AC02-081-681	C RESISTOR	680Ω 1/10W	
C306	A116-6405-158	E CAPACITOR	1500uF 35V		R213	AC02-081-682	C RESISTOR	6.8KΩ 1/10W	
C307	A116-6405-158	E CAPACITOR	1500uF 35V		R214	AC02-083-103	C RESISTOR	10KΩ 1/4W	
C308	AC03-431-103	C CAPACITOR	0.01uF 50V		R215	AC02-081-472	C RESISTOR	4.7KΩ 1/10W	
C309	AC03-431-103	C CAPACITOR	0.01uF 50V		R216	AC02-081-222	C RESISTOR	2.2KΩ 1/10W	
C310	AC03-432-104	C CAPACITOR	0.1uF 25V		R217	AC02-083-103	C RESISTOR	10KΩ 1/4W	
C311	AC03-432-104	C CAPACITOR	0.1uF 25V		R218	AC02-081-333	C RESISTOR	33KΩ 1/10W	
C312	AT03-B77-107	E CAPACITOR	100uF 16V		R219	AC02-081-333	C RESISTOR	33KΩ 1/10W	
C313	AT03-B77-107	E CAPACITOR	100uF 16V		R220	AC02-081-152	C RESISTOR	1.5KΩ 1/10W	
C314	AC03-432-104	C CAPACITOR	0.1uF 25V		R221	AC02-081-152	C RESISTOR	1.5KΩ 1/10W	
C315	AC03-431-103	C CAPACITOR	0.01uF 50V		R222	AC02-081-101	C RESISTOR	100Ω 1/10W	
C316	AC03-431-102	C CAPACITOR	1000pF 50V		R223	AC02-081-101	C RESISTOR	100Ω 1/10W	
C317	AT03-B75-477	E CAPACITOR	470uF 6.3V		R224	AC02-081-104	C RESISTOR	100KΩ 1/10W	
C318	AC03-431-103	C CAPACITOR	0.01uF 50V		R225	AC02-081-104	C RESISTOR	100KΩ 1/10W	
C901	AT03-B82-474	M CAPACITOR	0.47uF 50V		R226	AC02-081-152	C RESISTOR	1.5KΩ 1/10W	
C902	AC03-432-104	C CAPACITOR	0.1uF 25V		R227	AC02-081-471	C RESISTOR	470Ω 1/10W	
C903	AC03-431-102	C CAPACITOR	1000pF 50V		R228	AC02-081-133	C RESISTOR	13KΩ 1/10W	
C904	AC03-431-103	C CAPACITOR	0.01uF 50V		R229	AC02-083-221	C RESISTOR	220Ω 1/4W	
C905	AT03-B77-107	E CAPACITOR	100uF 16V		R230	AC02-083-2R2	C RESISTOR	2.2Ω 1/4W	
C906	AC03-432-104	C CAPACITOR	0.1uF 25V		R231	AC02-083-2R2	C RESISTOR	2.2Ω 1/4W	
C907	AT03-B77-107	E CAPACITOR	100uF 16V		R232	A142-5470-R10	RESISTOR	0.1Ωk+0.1ΩkS/ L3.5	
C908	AC03-431-102	C CAPACITOR	1000pF 50V		R233	AC02-081-103	C RESISTOR	10KΩ 1/10W	
C909	AC03-431-103	C CAPACITOR	0.01uF 50V		R234	AC02-083-2R2	C RESISTOR	2.2Ω 1/4W	
C910	AC03-431-102	C CAPACITOR	1000pF 50V		R235	AC02-081-473	C RESISTOR	47KΩ 1/10W	
C911	AC03-429-105	C CAPACITOR	1uF 10V		R237	AC02-081-152	C RESISTOR	1.5KΩ 1/10W	
C914	AC03-432-104	C CAPACITOR	0.1uF 25V		R238	AC02-081-152	C RESISTOR	1.5KΩ 1/10W	
C915	A116-6419-228	E CAPACITOR	2200uF 16V		R239	AC02-081-472	C RESISTOR	4.7KΩ 1/10W	
R101	AC02-083-222	C RESISTOR	2.2KΩ 1/4W		R301	AC02-083-102	C RESISTOR	1KΩ 1/4W	
R102	AC02-081-223	C RESISTOR	22KΩ 1/10W		R302	AC02-083-222	C RESISTOR	2.2KΩ 1/4W	
R103	AC02-081-223	C RESISTOR	22KΩ 1/10W		R303	AC02-081-475	C RESISTOR	4.7MΩ 1/10W	
R104	AC02-081-224	C RESISTOR	220KΩ 1/10W		R304	AC02-081-104	C RESISTOR	100KΩ 1/10W	
R105	AC02-081-224	C RESISTOR	220KΩ 1/10W		R305	AC02-081-823	C RESISTOR	82KΩ 1/10W	
R106	AC02-081-153	C RESISTOR	15KΩ 1/10W		R306	AC02-083-103	C RESISTOR	10KΩ 1/4W	
R107	AC02-081-153	C RESISTOR	15KΩ 1/10W		R307	AC02-083-332	C RESISTOR	3.2KΩ 1/4W	
R108	AC02-081-182	C RESISTOR	1.8KΩ 1/10W		R308	AC02-083-332	C RESISTOR	3.2KΩ 1/4W	
R109	AC02-081-103	C RESISTOR	10KΩ 1/10W		R309	AC02-081-475	C RESISTOR	4.7MΩ 1/10W	
R110	AC02-081-103	C RESISTOR	10KΩ 1/10W		R313	AC02-081-100	C RESISTOR	10Ω 1/10W	
R111	AC02-081-182	C RESISTOR	1.8KΩ 1/10W		R314	AC02-081-100	C RESISTOR	10Ω 1/10W	
R112	AC02-081-681	C RESISTOR	680Ω 1/10W		R315	AC02-081-100	C RESISTOR	10Ω 1/10W	
R113	AC02-081-682	C RESISTOR	6.8KΩ 1/10W		R316	AC02-081-100	C RESISTOR	10Ω 1/10W	
R114	AC02-083-103	C RESISTOR	10KΩ 1/4W		R317	AC02-083-222	C RESISTOR	2.2KΩ 1/4W	
R115	AC02-081-472	C RESISTOR	4.7KΩ 1/10W		R318	AC02-081-102	C RESISTOR	1KΩ 1/10W	
R116	AC02-081-222	C RESISTOR	2.2KΩ 1/10W		R319	AC02-081-100	C RESISTOR	10Ω 1/10W	
R117	AC02-083-103	C RESISTOR	10KΩ 1/4W		R320	AC02-081-100	C RESISTOR	10Ω 1/10W	
R118	AC02-081-333	C RESISTOR	33KΩ 1/10W		R901	AC02-083-103	C RESISTOR	10KΩ 1/4W	
R119	AC02-081-333	C RESISTOR	33KΩ 1/10W		R902	AC02-081-103	C RESISTOR	10KΩ 1/10W	
R120	AC02-081-152	C RESISTOR	1.5KΩ 1/10W		R903	AC02-081-103	C RESISTOR	10KΩ 1/10W	
R121	AC02-081-152	C RESISTOR	1.5KΩ 1/10W		R904	AC02-081-102	C RESISTOR	1KΩ 1/10W	
R122	AC02-081-101	C RESISTOR	100Ω 1/10W		R905	AC02-081-271	C RESISTOR	270Ω 1/10W	
R123	AC02-081-101	C RESISTOR	100Ω 1/10W		R906	AC02-083-222	C RESISTOR	2.2KΩ 1/4W	
R124	AC02-081-104	C RESISTOR	100KΩ 1/10W		R907	AC02-081-472	C RESISTOR	4.7KΩ 1/10W	
R125	AC02-081-104	C RESISTOR	100KΩ 1/10W		R908	AC02-081-223	C RESISTOR	22KΩ 1/10W	
R126	AC02-081-152	C RESISTOR	1.5KΩ 1/10W		R909	AC02-081-681	C RESISTOR	680Ω 1/10W	
R127	AC02-081-471	C RESISTOR	470Ω 1/10W		R910	AC02-081-102	C RESISTOR	1KΩ 1/10W	
R128	AC02-081-133	C RESISTOR	13KΩ 1/10W		R911	AC02-081-102	C RESISTOR	1KΩ 1/10W	
R129	AC02-083-221	C RESISTOR	220Ω 1/4W		R912	AC02-081-104	C RESISTOR	100KΩ 1/10W	
R130	AC02-083-2R2	C RESISTOR	2.2Ω 1/4W		R913	AC02-081-183	C RESISTOR	18KΩ 1/10W	
R131	AC02-083-2R2	C RESISTOR	2.2Ω 1/4W		R914	AC02-081-682	C RESISTOR	6.8KΩ 1/10W	
R132	A142-5470-R10	RESISTOR	0.1Ωk+0.1ΩkS/ L3.5		R915	AC02-081-472	C RESISTOR	4.7KΩ 1/10W	
R133	AC02-081-103	C RESISTOR	10KΩ 1/10W		R916	AC02-081-472	C RESISTOR	4.7KΩ 1/10W	
R134	AC02-083-2R2	C RESISTOR	2.2Ω 1/4W		R917	AC02-081-221	C RESISTOR	220Ω 1/10W	
R135	AC02-081-473	C RESISTOR	47KΩ 1/10W		R918	AC02-081-471	C RESISTOR	470Ω 1/10W	
R137	AC02-081-152	C RESISTOR	1.5KΩ 1/10W		R919	AC02-083-471	C RESISTOR	470Ω 1/4W	
R138	AC02-081-152	C RESISTOR	1.5KΩ 1/10W		R920	AC02-083-471	C RESISTOR	470Ω 1/4W	
R139	AC02-081-472	C RESISTOR	4.7KΩ 1/10W		R921	AC02-081-102	C RESISTOR	1KΩ 1/10W	
R201	AC02-083-222	C RESISTOR	2.2KΩ 1/4W		R922	AC02-081-102	C RESISTOR	1KΩ 1/10W	
R202	AC02-081-223	C RESISTOR	22KΩ 1/10W		R923	AC02-081-102	C RESISTOR	1KΩ 1/10W	
R203	AC02-081-223	C RESISTOR	22KΩ 1/10W		R924	AC02-081-102	C RESISTOR	1KΩ 1/10W	
R204	AC02-081-224	C RESISTOR	220KΩ 1/10W		R925	AC02-083-220	C RESISTOR	22Ω 1/4W	
R205	AC02-081-224	C RESISTOR	220KΩ 1/10W		R926	AC02-083-220	C RESISTOR	22Ω 1/4W	
R206	AC02-081-153	C RESISTOR	15KΩ 1/10W		R927	AC02-081-2R2	C RESISTOR	2.2Ω 1/10W	
R207	AC02-081-153	C RESISTOR	15KΩ 1/10W		R928	AC02-081-2R2	C RESISTOR	2.2Ω 1/10W	
R208	AC02-081-182	C RESISTOR	1.8KΩ 1/10W		R931	AC02-081-473	C RESISTOR	47KΩ 1/10W	
R209	AC02-081-103	C RESISTOR	10KΩ 1/10W		R932	AC02-083-222	C RESISTOR	2.2KΩ 1/4W	
					VR301	A142-5461-001	VOLUME	14T 5461 10K C X2	

Symbol No.	Part No.	Part Name	Description	Local
L301	A118-5259-002	COIL	BL01RN1A2A2B	
L901	A118-5423-001	COIL	EI-28	
T901	A118-5414-003	TRANS	DC/DC 6:13	
CN901	A121-5461-004	CONNECTOR	CONN 5569-04A1	
CN902	A321-5529-001	PIN JACK	2P	
CN903	A321-5531-001	TERMINAL	3P	
CN904	A321-5532-001	TERMINAL	4P	
JR1	AC01-015-000	C RESISTOR	0Ω	
JR2	AC01-015-000	C RESISTOR	0Ω	
JR3	AC01-015-000	C RESISTOR	0Ω	
LED901	L-489EGW	LED	A148-5559-001	
SW301	A151-5181-001	SWITCH	SSAA22-4	
TH901	AC04-219-223	THERMISTOR	NCP18XW223K03 RB	
TH902	AC04-219-224	THERMISTOR	NCP18XW223K03 RB	
TH903	AC04-219-225	THERMISTOR	NCP18XW223K03 RB	
XXXXX	AC06355-301-0	AMP PWB		

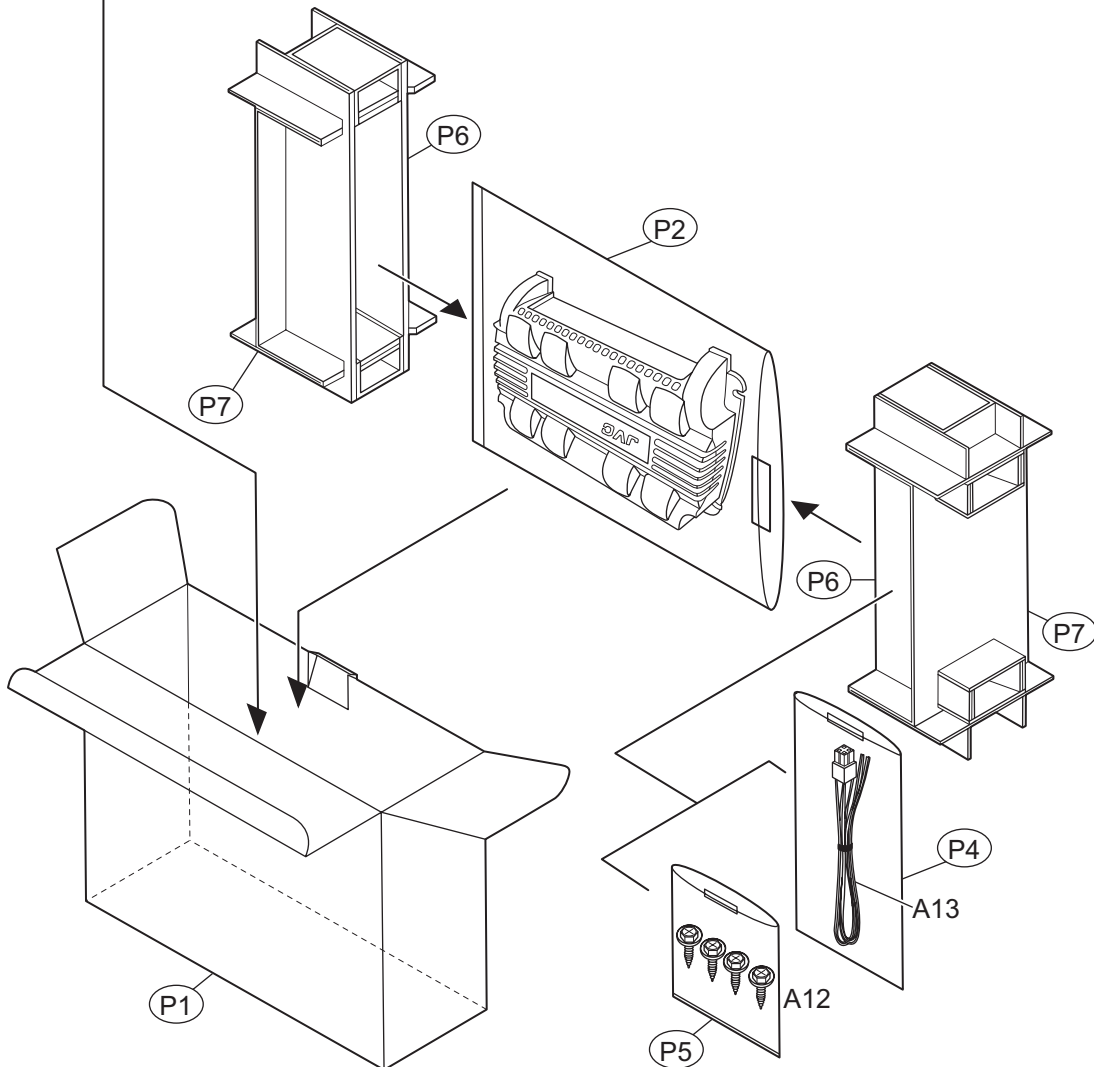
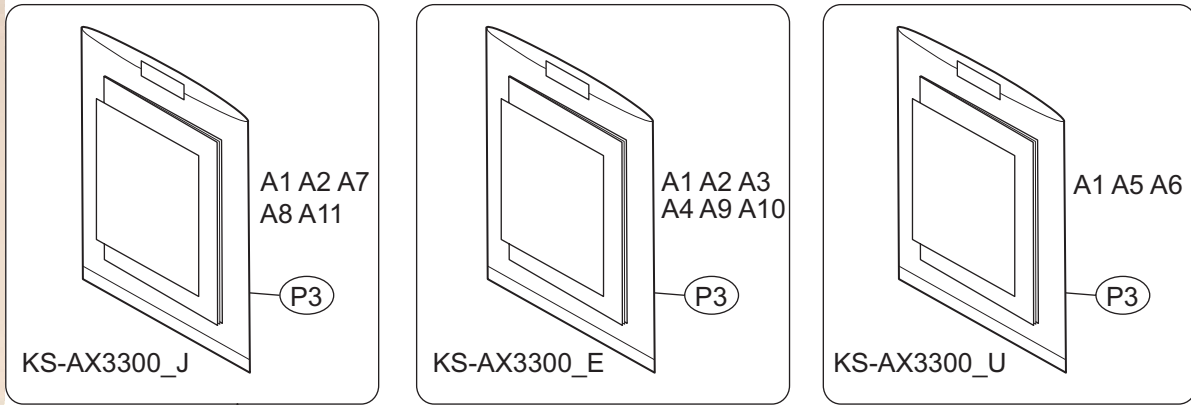
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Packing materials and accessories parts list

Block No. **M** **3** **M** **M**

No additional / supplemental order of WARRANTY CARDS are available.



Packing and Accessories

Block No. [M][3][M][M]

△ Symbol No.	Part No.	Part Name	Description	Local
A 1	A1935592-001-0	INST BOOK	LVT1329-001A ENG FRE	
A 2	A1935592-002-0	INST BOOK	LVT1329-002A GER SPA	E,J
A 3	A1935592-003-0	INST BOOK	LVT1329-003A ITA DUT	E
A 4	A1935592-004-0	INST BOOK	LVT1329-004A SWE RUS	E
A 5	A1935592-005-0	INST BOOK	LVT1329-005A CHI(TAIWAN) THA	U
A 6	A1935592-006-0	INST BOOK	LVT1329-006A ARA PER	U
A 7	-----	WARRANTY CARD	BT-51080-4	J
A 8	-----	WARRANTY CARD	BT-52006-2	J
A 9	-----	WARRANTY CARD	BT-54023-1	E
A 10	-----	WARRANTY CARD LABEL		E
A 11	A1935596-001-0	REGIST CARD	BT-51034-2	J
A 12	A1285217-001-0	SCREW	(x4)	
A 13	A160-6911-001	SP-IN CODE	4P CN901	
P 1	A2506769-001-A	CARTON		
P 2	A1506777-001-0	POLY BAG		
P 3	A1506778-001-0	POLY BAG		
P 4	A1505666-005-0	POLY BAG		
P 5	A1505666-001-0	POLY BAG		
P 6	A2506771-001-0	PACKING TRAY A	(x2)	
P 7	A2506771-002-0	PACKING TRAY B	(x2)	