

TA-VE110

SERVICE MANUAL

AEP Model
UK Model



SPECIFICATIONS

Amplifier section

Power output
Surround mode (DIN 1 kHz)
Front:
25 W+25 W/8 ohms
Center:
25 W/8 ohms
(only in the PRO LOGIC
and C, STUDIO modes)
Rear:
10 W+10 W/8 ohms

Frequency
response VIDEO 1+2, TV, AUX:
20 Hz-20 kHz $\pm$ 2 dB

Audio section

Inputs

	Sensitivity	Impedance
VIDEO1, VIDEO2, TV, AUX	150mV	50kilohms

Outputs

VIDEO 1 REC:
Voltage: 150 mV,
Impedance: 470 ohms
REAR, MIX:
Voltage: 1 V
Impedance: 1 kilohms

BASS BOOST +7 dB at 60 Hz

General

Power
requirements 220-230 V AC, 50/60 Hz

Power
consumption 110 W

Dimensions 430 $\times$ 95 $\times$ 280 mm
(17 $\times$ 3 3/4 $\times$ 11 1/8 inches)

Mass (Approx.) 4.6 kg
(10 lb 2 oz)

Supplied
accessories Remote controller
(remote) (1)
Size AA (R6) batteries (2)
Scart adaptor (1)

Design and specifications are subject to
change without notice.

STEREO AV AMPLIFIER

SONY®

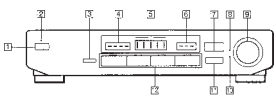


TABLE OF CONTENTS

1. GENERAL	3	SAFETY-RELATED COMPONENT WARNING!!
2. IC PIN FUNCTION	5	
3. DIAGRAMS	8	COMPONENTS IDENTIFIED BY MARK $\triangle$ OR DOTTED LINE WITH MARK $\triangle$ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.
3-1. CIRCUIT BOARDS LOCATION	8	
3-2. PRINTED WIRING BOARD	9	
3-3. SCHEMATIC DIAGRAM	12	
3-4. IC BLOCK DIAGRAMS	14	
4. EXPLODED VIEWS	21	
4-1. FRONT PANEL SECTION	21	
4-2. CHASSIS SECTION	22	
5. ELECTRICAL PARTS LIST	23	

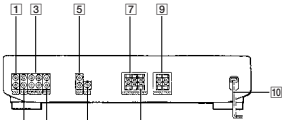
SECTION 1
GENERAL

Front panel



- 1 POWER switch
- 2 STANDBY indicator
- 3 CENTER MODE button
- 4 LEVEL indicator
- 5 SURROUND indicator
- 7 EFFECT +, - button
- 8 BASS BOOST indicator
- 9 MASTER VOLUME control
- 10 MUTE indicator
- 11 SURROUND MODE button
- 12 Function button

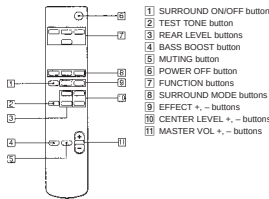
Rear panel



- 1 AUX IN
- 2 VIDEO 2 IN
- 3 VIDEO 1 (Audio in/out)
- 4 TV (Audio in)
- 5 SURROUND REAR out
- 6 SURROUND MIX out
- 7 REAR SPEAKERS
- 8 CENTER SPEAKERS
- 9 FRONT SPEAKERS
- 10 Mains lead

SECTION 2
IC PIN FUNCTION

Remote commander (RM-UE110)



- 1 SURROUND ON/OFF button
- 2 TEST TONE button
- 3 REAR LEVEL buttons
- 4 BASS BOOST button
- 5 MUTE button
- 6 POWER OFF button
- 7 FUNCTION buttons
- 8 SURROUND MODE buttons
- 9 EFFECT +, - buttons
- 10 CENTER LEVEL +, - buttons
- 11 MASTER VOL +, - buttons

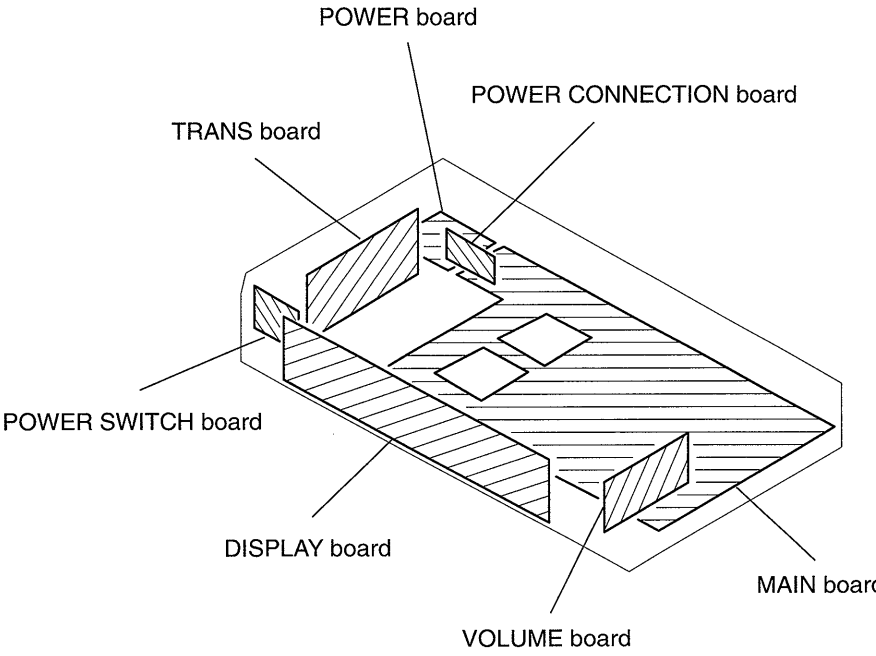
IC501 u PD78001BGC-627-AB8

Pin No.	Pin Name	I/O	Pin Description
1	POWER	O	Power relay ON/OFF control pin.
2	SRV	O	Speaker relay ON/OFF control pin.
3	SRVLY	O	Surround speaker relay ON/OFF control pin.
4	VOLUP	O	Volume up signal output.
5	VOLDWN	O	Volume down signal output.
6	MUTE	O	Mute ON/OFF control pin.
7	TV SCART	O	TV ON signal output.
8	NC	---	Not used.
9	VSS	---	Power supply GND pin. (Ground)
10	NC	---	Not used.
11	DIRFB	O	DIRFB ON/OFF control pin.
12	MUTE	O	Mute LED ON/OFF control pin.
13	LEV1	O	Level LED ON/OFF control pin.
14	LEV2	O	
15	LEV3	O	
16	LEV4	O	
17	LEV5	O	Surround LED ON/OFF control pin.
18	SRCLATED	O	
19	THEATER	O	
20	PROLOGIC	O	
21	VIDEO1	O	Video 1 LED ON/OFF control pin.
22	TV	O	TV LED ON/OFF control pin.
23	VIDEO2	O	Video 2 LED ON/OFF control pin.
24	VSS	---	Ground
25	AUXLINE	O	AUXLINE LED ON/OFF control pin.
26	STANDBY	O	Power LED ON/OFF control pin.
27	PHANTOM	O	
28	3CH LOGIC	O	CENTER MODE LED ON/OFF control pin.
29	NORMAL	O	
30	WIDE	O	
31	INH1	O	Video 1 picture output loop-cut control pin.
32	V1	O	Video 1 image output loop-cut control pin.
33	V2	O	Video 2 image output loop-cut control pin.
34	INH2	O	Video 2 picture output loop-cut control pin.
35	RESET	I	Reset pin. Reset at L.
36	STOP	I	Power failure detection pin.
37	PROTECT	I	Speaker output protector detection input pin.
38	SIRCS IN	I	Remote control signal input pin.
39	VIDEO SCART	O	Video input detect
40	VDD	---	Power supply pin. (+5 V)

Pin No.	Pin Name	I/O	Pin Description
41	X1	---	System clock pin. (10 MHz)
42	X2	---	
43	ICD	---	Not used. (Ground)
44	X12	---	Not used. (Open)
45	GND	---	Ground
46	R-1	---	Not used. (Ground)
47	K01	O	Key matrix output pin.
48	K02	O	
49	K03	O	
50	K11	I	Key matrix input pin.
51	K12	I	
52	K13	I	
53	K14	I	
54	5043/5044	I	Model identification pin.
55	IC2	---	VDD connection. (+5 V)
56	IC3	---	Not used. (Ground)
57	P20	I	Not used.
58	P21	I	Not used.
59	7823, CE	O	Serial data output to audio function switch.
60	DATA	O	Serial data output to surround processor.
61	CLK	O	Serial clock output.
62	27B5, CE	O	Data latch output to surround processor.
63	P26	---	Not used.
64	P5W	I	Power switch ON/OFF detection pin.

SECTION 3
DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION

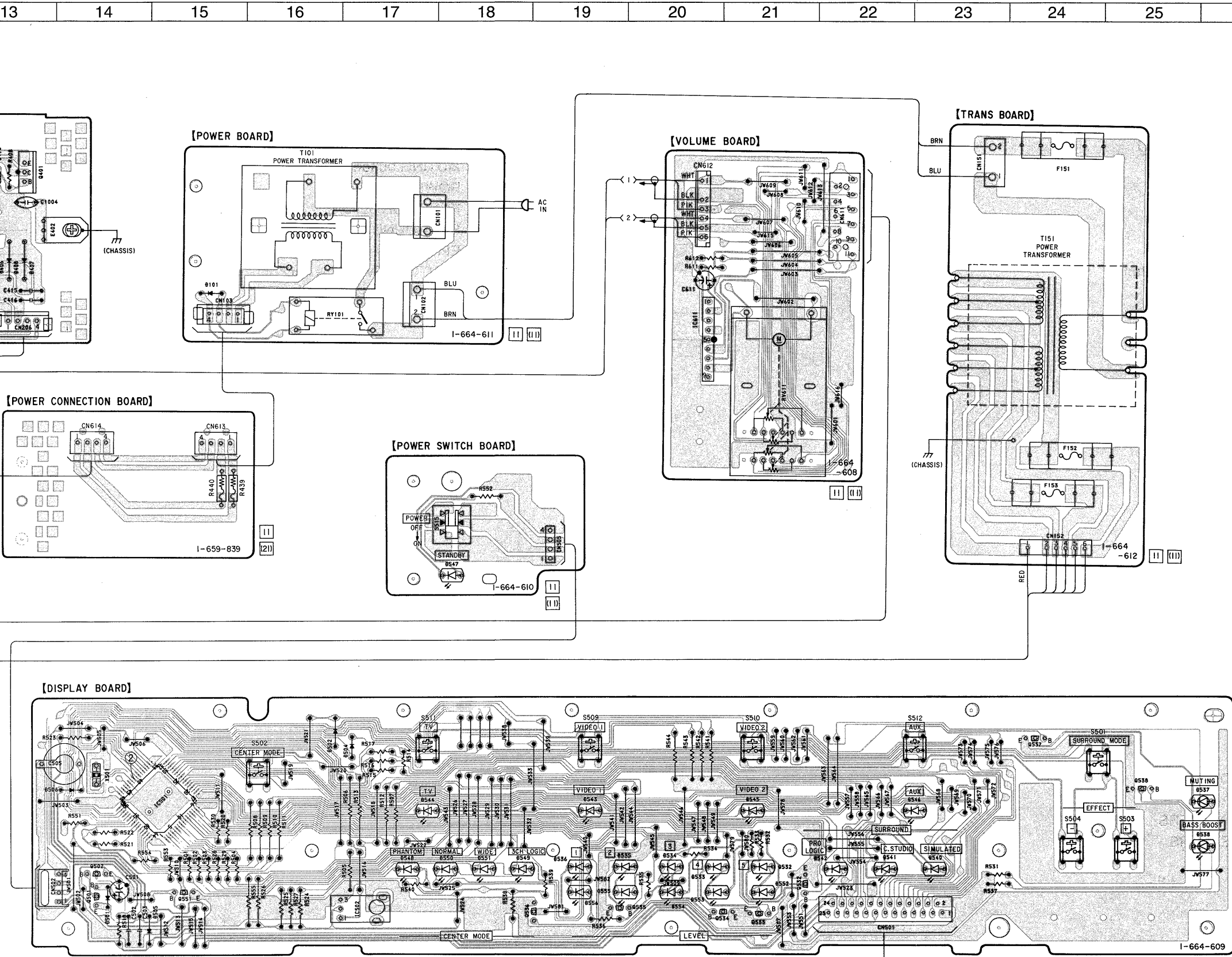
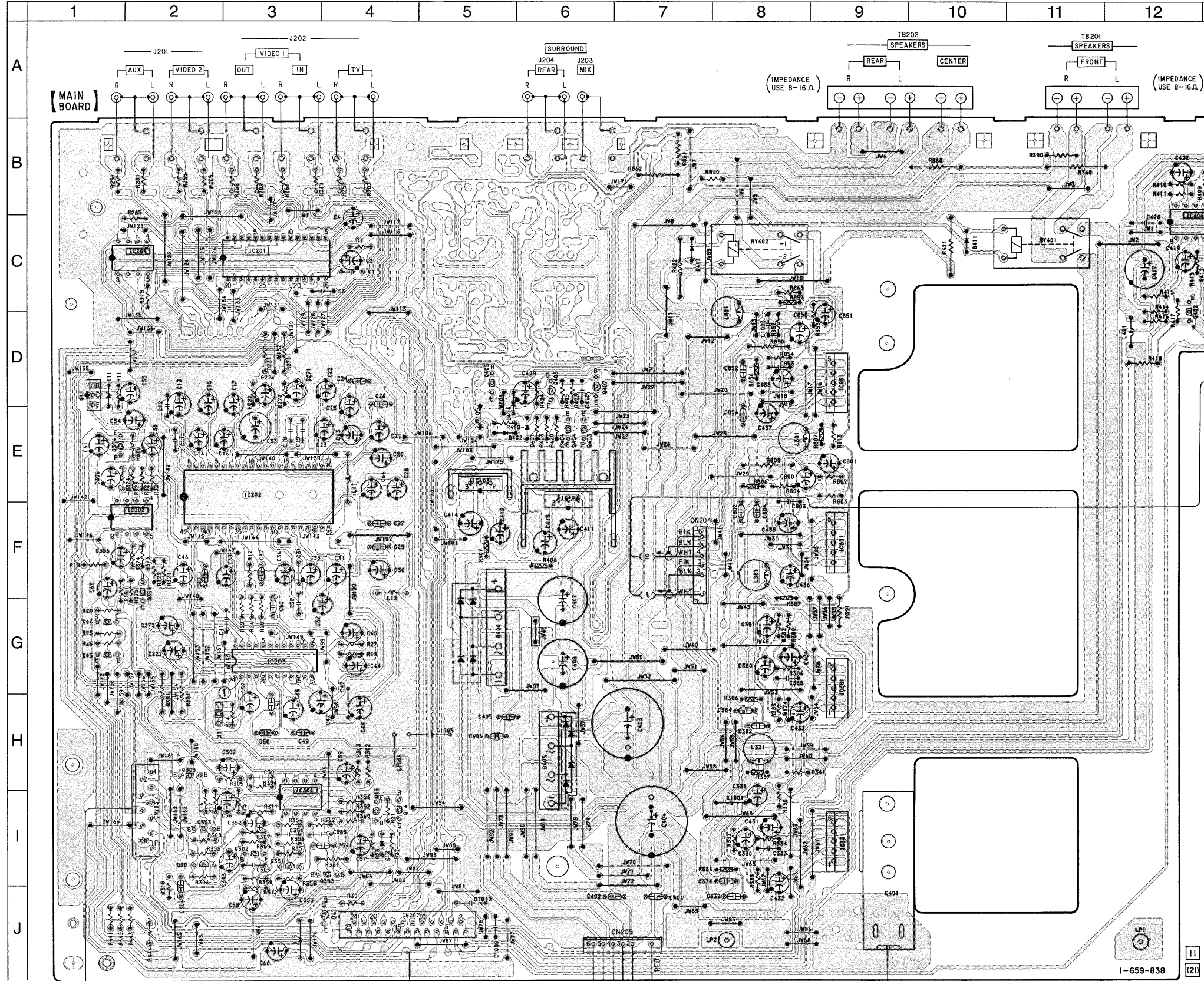


• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D11	D-1	IC202	E-3
D12	I-4	IC203	G-3
D15	J-3	IC204	C-2
D101	C-15	IC301	I-3
D401	E-6	IC302	F-2
D402	F-5	IC331	I-9
D403	H-6	IC381	G-9
D404	G-5	IC402	E-6
D405	C-13	IC403	E-5
D406	C-13	IC404	C-12
D407	C-13	ICS01	I-15
D408	C-13	ICS02	J-17
D409	C-13	IC611	D-20
D410	D-13	IC801	F-9
D411	C-10	IC851	D-9
D412	C-7		
D414	E-5	Q11	D-1
D501	J-14	Q12	J-4
D502	H-16	Q13	I-4
D504	H-17	Q14	I-4
D505	J-15	Q15	G-1
D506	I-14	Q16	G-1
D532	J-21	Q301	I-2
D533	J-20	Q302	I-3
D534	I-20	Q303	H-2
D535	I-19	Q304	E-1
D536	I-19	Q351	I-3
D537	I-26	Q352	I-4
D538	I-26	Q353	I-2
D540	I-23	Q354	F-2
D541	I-22	Q401	B-13
D542	I-22	Q402	D-12
D543	I-19	Q403	E-6
D544	I-17	Q404	E-6
D545	I-21	Q405	D-5
D546	I-23	Q406	D-6
D547	F-18	Q407	D-6
D548	I-17	Q501	J-14
D549	I-18	Q502	J-14
D550	I-18	Q532	J-21
D551	I-18	Q533	J-21
D552	J-21	Q534	J-21
D553	J-20	Q535	J-20
D554	J-20	Q536	J-18
D555	J-19	Q537	H-24
D556	J-19	Q538	I-25
		Q551	J-15
IC201	C-3		

Note :
○ — : Parts extracted from the component side.
● — : Pattern on the side with is seen.

3-2. PRINTED WIRING BOARDS



Note :

- All capacitors are in μF unless otherwise noted, pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{ W}$ or less unless otherwise specified.
- Δ : internal component.
- W : nonflammable resistor.

Note : The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

- $\text{B}+$: B+Line.
- $\text{B}-$: B-Line.
- $\square$: adjustment for repair.

- Voltage is dc with respect to ground under no-signal conditions.
- Voltage are taken with a VOM (input Impedance $10\text{M}\Omega$).
- Voltage variations may be noted due to normal production tolerance.

Waveforms are measured by an oscilloscope.

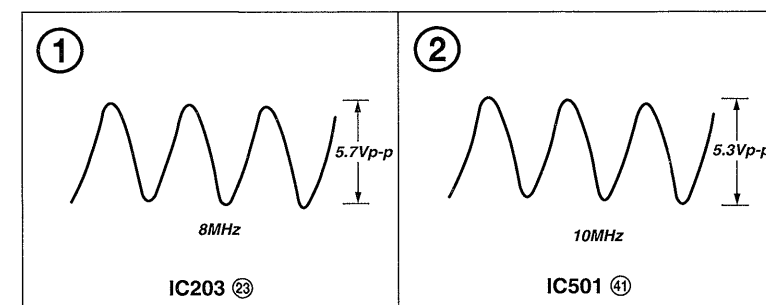
Waveform variation may be noted due to normal production tolerance.

- Numbers in round mark (O) are the reference number with waveform diagram.

- Signal path.

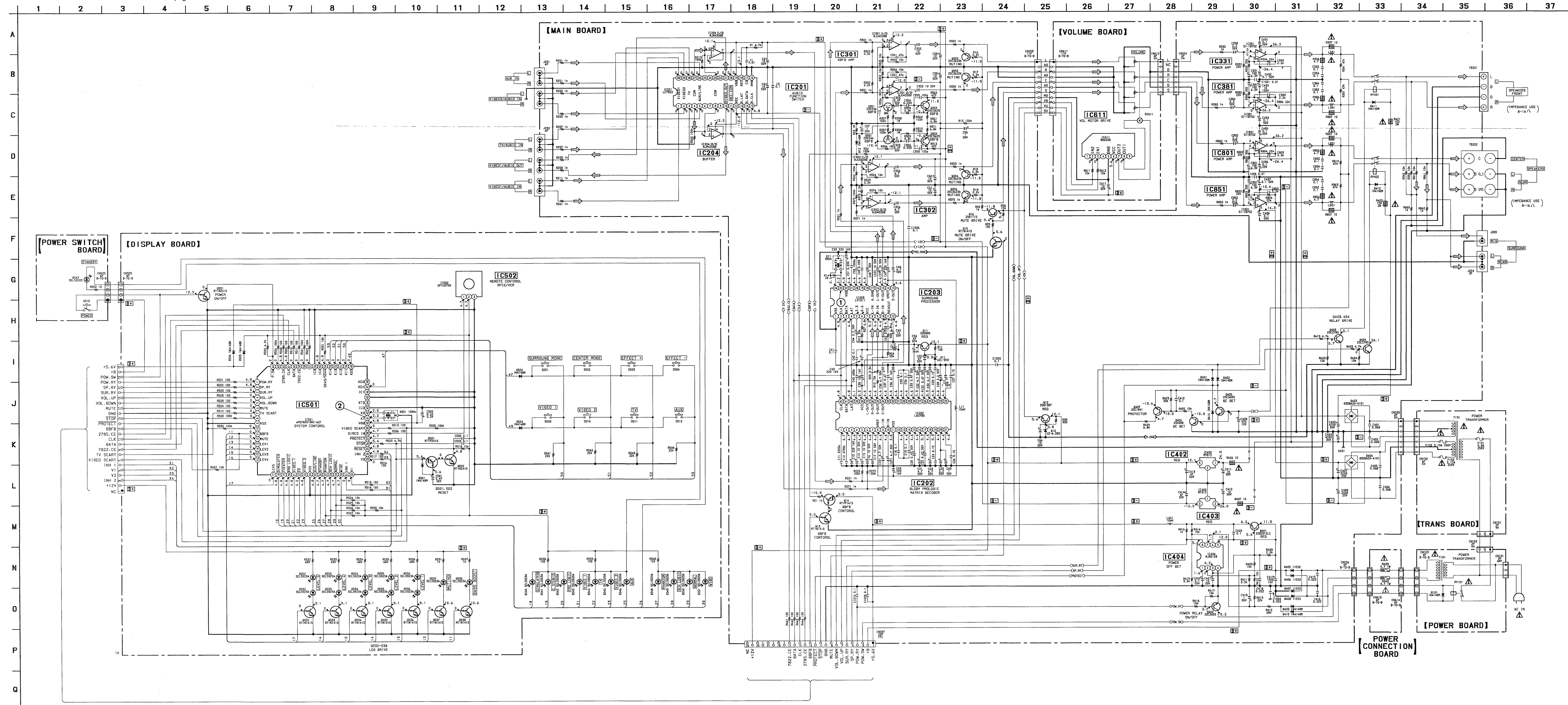


• WAVEFORM DIAGRAMS



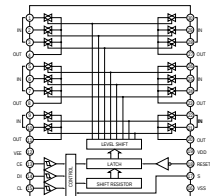
3-3. SCHEMATIC DIAGRAM

• See page 18 for IC BLOCK DIAGRAMS.

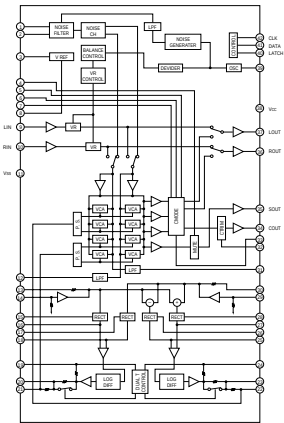


3-4. IC BLOCK DIAGRAMS

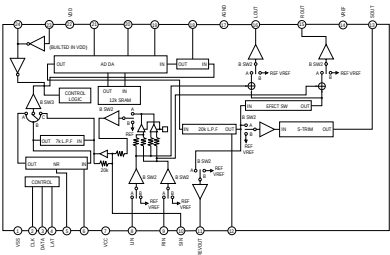
IC201 LC7822



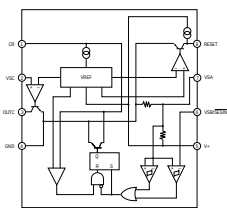
IC202 LA2785



IC203 LV1011



IC404 NJM2103D



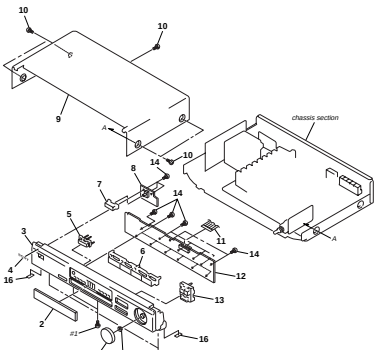
SECTION 4
EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "not supplied" are not included since they are seldom required for routine service. Some items should be ordered when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation:
 - G: German model
 - EE: East European model

The components identified by mark Δ, or dotted line with mark Δ, are critical for safety. Replace only with part number specified.

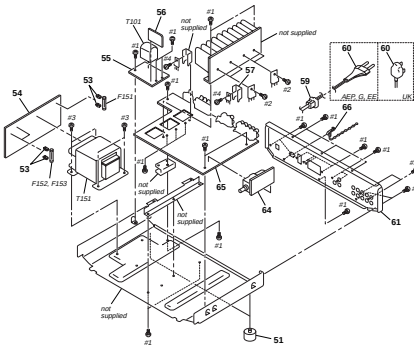
4-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remarks
1	4-980-041-01	KNOB (VOL)	
2	4-980-052-11	WINDCOW	
3	1-4840-083-1	PANEL ASSY. FRONT	
4	4-950-404-01	SHIELDING (G.A.) SCREW	
5	4-980-029-01	BUTTON (LEVEL)	
6	4-980-040-01	BUTTON (FUNCTION)	
7	5-931-423-01	BUTTON (POWER)	
8	1-664-610-11	POWER SWITCH BOARD	

Ref. No.	Part No.	Description	Remarks
9	4-980-193-21	CASE (480X230)	
10	3-705-566-01	SCREW (2.6X5) (M3X38)	
11	1-773-215-11	WIRE (FLAT TYPE) (25 CORE)	
12	4-430-561-A	DISPLAY BOARD, COMPLETE	
13	4-980-038-01	BUTTON (SURROUND)	
14	4-951-620-01	SCREW (2.6X6) -BVTP	
15	4-977-030-11	TRIG. DIA. X30, ORNAMENTAL	
16	4-977-358-11	CLUSHION (BX12.5)	

4-2. CHASSIS SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	X-3371-405-1	FOOT (SMALL) ASSY		61	4-988-714-11	PANEL BACK (UK)	
53	1-533-219-11	FUSE HOLDER		64	1-664-409-11	VOLUME BOARD	
54	1-664-612-11	TRANE BOARD		65	A-4302-566-A	MAIN BOARD, COMPLETE	
55	1-664-611-11	POWER BOARD		66	4-950-370-02	BANG. PLUG FIXED (UK)	
56	1-669-639-11	POWER CONNECTION BOARD		Δ.F151	1-530-501-51	FUSE (T800X420X)	
57	3-308-144-01	HEAT SINK		Δ.F152	1-530-465-51	FUSE TIME LAG (T1.154X250V)	
59	3-703-244-00	BUSHING (21X4), CORD		Δ.F153	1-532-465-51	FUSE TIME LAG (T1.154X250V)	
Δ.60	1-696-571-11	CORD, POWER (SA)		Δ.T102	1-432-145-11	TRANSFORMER, POWER	
Δ.61	1-777-071-11	CORD, POWER (AFY G, EE)		Δ.T151	1-431-146-11	TRANSFORMER, POWER	

The components identified by mark Δ, or dotted line with mark Δ, are critical for safety. Replace only with part number specified.

SECTION 5 ELECTRICAL PARTS LIST

DISPLAY

NOTE:

When indicating parts by reference number, please include the board name.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- Abbreviation
G: German model
EE: East European model

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
uF: μ F

- RESISTORS
All resistors are in ohms.
METAL: metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- COILS
uH: μ H
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A... , uPA... , μ PA... ,
uPB... , μ PB... , uPC... , μ PC... ,
uPD... , μ PD...

Ref. No.	Part No.	Description	Remarks				Ref. No.	Part No.	Description	Remarks			
*	A-4392-561-A	DISPLAY BOARD, COMPLETE *****							< IC >				
		< CAPACITOR >					IC501	8-759-429-36	IC uPD78001BGC-627-AB8				
							IC502	8-759-332-18	IC GP1U27XB				
									< TRANSISTOR >				
C501	1-124-465-00	ELECT	0.47uF	20%	50V		Q501	8-729-900-63	TRANSISTOR DTA124ES				
C502	1-164-159-11	CERAMIC	0.1uF		50V		Q502	8-729-661-95	TRANSISTOR RT1N241SK-TP				
C503	1-164-159-11	CERAMIC	0.1uF		50V		Q532	8-729-661-94	TRANSISTOR RT1N141SK-TP				
C505	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V		Q533	8-729-661-94	TRANSISTOR RT1N141SK-TP				
							Q534	8-729-661-94	TRANSISTOR RT1N141SK-TP				
		< CONNECTOR >					Q535	8-729-661-94	TRANSISTOR RT1N141SK-TP				
CN501	1-569-310-11	SOCKET, CONNECTOR (L TYRE) 25P					Q536	8-729-661-94	TRANSISTOR RT1N141SK-TP				
CN502	1-562-087-00	SOCKET, CONNECTOR 4P					Q537	8-729-661-94	TRANSISTOR RT1N141SK-TP				
		< DIODE >					Q538	8-729-661-94	TRANSISTOR RT1N141SK-TP				
D501	8-719-987-63	DIODE 1N4148M					Q551	8-729-661-95	TRANSISTOR RT1N241SK-TP				
D502	8-719-987-63	DIODE 1N4148M							< RESISTOR >				
D504	8-719-987-63	DIODE 1N4148M					R501	1-247-807-31	CARBON	100	5%	1/4W	
D505	8-719-987-63	DIODE 1N4148M					R502	1-247-807-31	CARBON	100	5%	1/4W	
D506	8-719-987-63	DIODE 1N4148M					R503	1-247-807-31	CARBON	100	5%	1/4W	
D532	8-719-057-97	LED SEL5923A-TP15 (LEVEL 5)					R504	1-247-807-31	CARBON	100	5%	1/4W	
D533	8-719-057-97	LED SEL5923A-TP15 (LEVEL 4)					R505	1-249-441-11	CARBON	100K	5%	1/4W	
D534	8-719-057-97	LED SEL5923A-TP15 (LEVEL 3)					R506	1-247-807-31	CARBON	100	5%	1/4W	
D535	8-719-057-97	LED SEL5923A-TP15 (LEVEL 2)					R507	1-247-807-31	CARBON	100	5%	1/4W	
D536	8-719-057-97	LED SEL5923A-TP15 (LEVEL 1)					R508	1-247-807-31	CARBON	100	5%	1/4W	
D537	8-719-057-97	LED SEL5923A-TP15 (MUTING)					R509	1-247-807-31	CARBON	100	5%	1/4W	
D538	8-719-057-97	LED SEL5923A-TP15 (BASS BOOST)					R510	1-247-807-31	CARBON	100	5%	1/4W	
D540	8-719-057-97	LED SEL5923A-TP15 (SIMULATED)					R511	1-247-807-31	CARBON	100	5%	1/4W	
D541	8-719-057-97	LED SEL5923A-TP15 (C STUDIO)					R512	1-247-807-31	CARBON	100	5%	1/4W	
D542	8-719-057-97	LED SEL5923A-TP15 (PRO LOGIC)					R513	1-247-807-31	CARBON	100	5%	1/4W	
D543	8-719-033-06	LED SEL5920A (VIDEO 1)					R514	1-247-807-31	CARBON	100	5%	1/4W	
D544	8-719-033-06	LED SEL5920A (TV)					R515	1-247-807-31	CARBON	100	5%	1/4W	
D545	8-719-033-06	LED SEL5920A (VIDEO 2)					R516	1-247-807-31	CARBON	100	5%	1/4W	
D546	8-719-033-06	LED SEL5920A (AUX)					R517	1-247-807-31	CARBON	100	5%	1/4W	
D548	8-719-057-97	LED SEL5923A-TP15 (PHANTOM)					R518	1-249-429-11	CARBON	10K	5%	1/4W	
D549	8-719-057-97	LED SEL5923A-TP15 (3CH LOGIC)					R520	1-249-441-11	CARBON	100K	5%	1/4W	
D550	8-719-057-97	LED SEL5923A-TP15 (NORMAL)					R521	1-249-441-11	CARBON	100K	5%	1/4W	
D551	8-719-057-97	LED SEL5923A-TP15 (WIDE)					R522	1-249-441-11	CARBON	100K	5%	1/4W	
D552	8-719-057-97	LED SEL5923A-TP15 (LEVEL 5)					R523	1-249-425-11	CARBON	4.7K	5%	1/4W	F
D553	8-719-057-97	LED SEL5923A-TP15 (LEVEL 4)					R524	1-249-429-11	CARBON	10K	5%	1/4W	
D554	8-719-057-97	LED SEL5923A-TP15 (LEVEL 3)					R525	1-249-429-11	CARBON	10K	5%	1/4W	
D555	8-719-057-97	LED SEL5923A-TP15 (LEVEL 2)					R526	1-249-429-11	CARBON	10K	5%	1/4W	
D556	8-719-057-97	LED SEL5923A-TP15 (LEVEL 1)											

DISPLAY

MAIN

Ref. No.	Part No.	Description			Remarks
R527	1-249-429-11	CARBON	10K	5%	1/4W
R528	1-247-807-31	CARBON	100	5%	1/4W
R529	1-247-807-31	CARBON	100	5%	1/4W
R530	1-249-441-11	CARBON	100K	5%	1/4W
R531	1-249-417-11	CARBON	1K	5%	1/4W F
R532	1-249-415-11	CARBON	680	5%	1/4W F
R533	1-249-415-11	CARBON	680	5%	1/4W F
R534	1-249-415-11	CARBON	680	5%	1/4W F
R535	1-249-415-11	CARBON	680	5%	1/4W F
R536	1-249-415-11	CARBON	680	5%	1/4W F
R537	1-249-417-11	CARBON	1K	5%	1/4W F
R538	1-249-407-11	CARBON	150	5%	1/4W F
R539	1-247-807-31	CARBON	100	5%	1/4W
R540	1-249-407-11	CARBON	150	5%	1/4W F
R541	1-249-433-11	CARBON	22K	5%	1/4W
R542	1-249-433-11	CARBON	22K	5%	1/4W
R543	1-249-433-11	CARBON	22K	5%	1/4W
R544	1-249-433-11	CARBON	22K	5%	1/4W
R551	1-249-429-11	CARBON	10K	5%	1/4W
R553	1-249-425-11	CARBON	4.7K	5%	1/4W F
R554	1-249-441-11	CARBON	100K	5%	1/4W
R555	1-249-429-11	CARBON	10K	5%	1/4W
< SWITCH >					
S501	1-554-303-21	SWITCH, TACTILE (SURROUND MODE)			
S502	1-554-303-21	SWITCH, TACTILE (CENTER MODE)			
S503	1-554-303-21	SWITCH, TACTILE (EFFECT +)			
S504	1-554-303-21	SWITCH, TACTILE (EFFECT -)			
S509	1-554-303-21	SWITCH, TACTILE (VIDEO 1)			
S510	1-554-303-21	SWITCH, TACTILE (VIDEO 2)			
S511	1-554-303-21	SWITCH, TACTILE (TV)			
S512	1-554-303-21	SWITCH, TACTILE (AUX)			
< VIBRATOR >					
X501	1-579-175-11	VIBRATOR, CERAMIC 10MHZ			

*	A-4392-566-A	MAIN BOARD, COMPLETE			

*	3-309-144-21	HEAT SINK			
	7-685-646-79	SCREW +BVTP	3X8	TYPE2	IT-3
	7-685-647-79	SCREW +BVTP	3X10	TYPE2	IT-3
	7-685-872-09	SCREW +BVTT	3X8	(S)	
< CAPACITOR >					
C1	1-162-306-11	CERAMIC	0.01uF	20%	16V
C2	1-126-964-11	ELECT	10uF	20%	50V
C3	1-164-159-11	CERAMIC	0.1uF		50V
C4	1-126-964-11	ELECT	10uF	20%	50V
C11	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C12	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C13	1-126-934-11	ELECT	220uF	20%	16V
C14	1-126-964-11	ELECT	10uF	20%	50V
C15	1-126-964-11	ELECT	10uF	20%	50V
C16	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description	Remarks		
C17	1-126-964-11	ELECT	10uF	20%	50V
C18	1-164-159-11	CERAMIC	0.1uF		50V
C19	1-164-159-11	CERAMIC	0.1uF		50V
C20	1-126-959-11	ELECT	0.47uF	20%	50V
C21	1-126-963-11	ELECT	4.7uF	20%	50V
C22	1-126-959-11	ELECT	0.47uF	20%	50V
C23	1-126-963-11	ELECT	4.7uF	20%	50V
C24	1-136-167-00	FILM	0.15uF	5%	50V
C25	1-126-961-11	ELECT	2.2uF	20%	50V
C26	1-136-167-00	FILM	0.15uF	5%	50V
C27	1-136-167-00	FILM	0.15uF	5%	50V
C28	1-126-961-11	ELECT	2.2uF	20%	50V
C29	1-136-167-00	FILM	0.15uF	5%	50V
C30	1-126-963-11	ELECT	4.7uF	20%	50V
C31	1-126-959-11	ELECT	0.47uF	20%	50V
C32	1-126-963-11	ELECT	4.7uF	20%	50V
C33	1-126-959-11	ELECT	0.47uF	20%	50V
C34	1-164-159-11	CERAMIC	0.1uF		50V
C35	1-164-159-11	CERAMIC	0.1uF		50V
C36	1-126-967-11	ELECT	47uF	20%	16V
C37	1-136-173-00	FILM	0.47uF	5%	50V
C38	1-126-963-11	ELECT	4.7uF	20%	50V
C39	1-126-933-11	ELECT	100uF	20%	16V
C40	1-137-363-91	FILM	680PF	5%	50V
C41	1-164-159-11	CERAMIC	0.1uF		50V
C42	1-164-159-11	CERAMIC	0.1uF		50V
C43	1-126-934-11	ELECT	220uF	20%	16V
C44	1-126-961-11	ELECT	2.2uF	20%	50V
C45	1-126-964-11	ELECT	10uF	20%	50V
C46	1-126-963-11	ELECT	4.7uF	20%	50V
C47	1-126-934-11	ELECT	220uF	20%	16V
C48	1-126-960-11	ELECT	1uF	20%	50V
C49	1-136-159-00	FILM	0.033uF	5%	50V
C50	1-130-473-00	MYLAR	0.0015uF	5%	50V
C51	1-136-159-00	FILM	0.033uF	5%	50V
C52	1-126-934-11	ELECT	220uF	20%	16V
C53	1-126-934-11	ELECT	220uF	20%	16V
C54	1-126-967-11	ELECT	47uF	20%	50V
C55	1-126-967-11	ELECT	47uF	20%	50V
C56	1-126-960-11	ELECT	1uF	20%	50V
C57	1-126-960-11	ELECT	1uF	20%	50V
C58	1-126-964-11	ELECT	10uF	20%	50V
C59	1-126-964-11	ELECT	10uF	20%	50V
C60	1-126-964-11	ELECT	10uF	20%	50V
C61	1-126-964-11	ELECT	10uF	20%	50V
C62	1-136-159-00	FILM	0.033uF	5%	50V
C63	1-126-960-11	ELECT	1uF	20%	50V
C64	1-126-960-11	ELECT	1uF	20%	50V
C66	1-126-964-11	ELECT	10uF	20%	50V
C221	1-126-963-11	ELECT	4.7uF	20%	50V
C222	1-126-964-11	ELECT	10uF	20%	50V
C271	1-126-963-11	ELECT	4.7uF	20%	50V
C272	1-126-964-11	ELECT	10uF	20%	50V
C301	1-162-215-31	CERAMIC	47PF	5%	50V
C302	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
C303	1-126-959-11	ELECT	0.47uF	20%	50V	C850	1-126-961-11	ELECT	2.2uF	20%	50V
C304	1-136-159-00	FILM	0.033uF	5%	50V	C851	1-126-933-11	ELECT	100uF	20%	10V
C305	1-162-282-31	CERAMIC	100PF	10%	50V	C852	1-136-165-00	FILM	0.1uF	5%	50V
C306	1-126-963-11	ELECT	4.7uF	20%	50V	C853	1-162-191-31	CERAMIC	2.2PF	10%	50V
C330	1-126-961-11	ELECT	2.2uF	20%	50V	C854	1-136-165-00	FILM	0.1uF	5%	50V
C331	1-126-933-11	ELECT	100uF	20%	10V	C1001	1-162-306-11	CERAMIC	0.01uF	20%	16V
C332	1-136-165-00	FILM	0.1uF	5%	50V	C1003	1-162-306-11	CERAMIC	0.01uF	20%	16V
C333	1-162-191-31	CERAMIC	2.2PF	10%	50V	C1004	1-101-005-00	CERAMIC	22000PF		50V
C334	1-136-165-00	FILM	0.1uF	5%	50V	C1005	1-164-159-11	CERAMIC	0.1uF		50V
C351	1-162-215-31	CERAMIC	47PF	5%	50V	C1006	1-164-159-11	CERAMIC	0.1uF		50V
C352	1-126-964-11	ELECT	10uF	20%	50V	C1009	1-164-159-11	CERAMIC	0.1uF		50V
C353	1-126-959-11	ELECT	0.47uF	20%	50V	C1010	1-164-159-11	CERAMIC	0.1uF		50V
C354	1-136-159-00	FILM	0.033uF	5%	50V			< CONNECTOR >			
C355	1-162-282-31	CERAMIC	100PF	10%	50V						
C356	1-126-963-11	ELECT	4.7uF	20%	50V						
C380	1-126-961-11	ELECT	2.2uF	20%	50V	* CN203	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P			
C381	1-126-933-11	ELECT	100uF	20%	10V	* CN206	1-565-495-11	CONNECTOR, BOARD TO BOARD 4P			
C382	1-136-165-00	FILM	0.1uF	5%	50V			< DIODE >			
C383	1-162-191-31	CERAMIC	2.2PF	10%	50V						
C384	1-136-165-00	FILM	0.1uF	5%	50V	D11	8-719-001-30	DIODE	UZL-9H3		
C401	1-137-375-11	FILM	0.068uF	5%	50V	D12	8-719-987-63	DIODE	1N4148M		
C402	1-137-375-11	FILM	0.068uF	5%	50V	D15	8-719-109-93	DIODE	RD6.2ESB2		
C403	1-126-955-11	ELECT	4700uF	20%	35V	D401	8-719-987-63	DIODE	1N4148M		
C404	1-126-955-11	ELECT	4700uF	20%	35V	D402	8-719-987-63	DIODE	1N4148M		
C405	1-137-375-11	FILM	0.068uF	5%	50V	D403	8-719-028-23	DIODE	D3SBA20-4101		
C406	1-137-375-11	FILM	0.068uF	5%	50V	D404	8-719-028-23	DIODE	D3SBA20-4101		
C407	1-126-943-11	ELECT	2200uF	20%	25V	D405	8-719-024-99	DIODE	11ES2-NTA2B		
C408	1-126-943-11	ELECT	2200uF	20%	25V	D406	8-719-024-99	DIODE	11ES2-NTA2B		
C409	1-126-925-11	ELECT	470uF	20%	10V	D407	8-719-024-99	DIODE	11ES2-NTA2B		
C410	1-164-159-11	CERAMIC	0.1uF		50V	D408	8-719-024-99	DIODE	11ES2-NTA2B		
C411	1-126-964-11	ELECT	10uF	20%	50V	D409	8-719-987-63	DIODE	1N4148M		
C412	1-126-964-11	ELECT	10uF	20%	50V	D410	8-719-987-63	DIODE	1N4148M		
C413	1-126-967-11	ELECT	47uF	20%	50V	D411	8-719-987-63	DIODE	1N4148M		
C414	1-126-967-11	ELECT	47uF	20%	50V	D412	8-719-987-63	DIODE	1N4148M		
C415	1-161-494-00	CERAMIC	0.022uF		25V	D414	8-719-987-63	DIODE	1N4148M		
C416	1-161-494-00	CERAMIC	0.022uF		25V			< TERMINAL >			
C417	1-126-952-11	ELECT	1000uF	20%	16V	* E401	4-962-200-01	PLATE (TR), GROUND			
C418	1-164-097-11	CERAMIC	0.022uF		50V	E402	1-537-770-21	TERMINAL BOARD, GROUND			
C419	1-126-960-11	ELECT	1uF	20%	50V			< IC >			
C420	1-164-159-11	CERAMIC	0.1uF		50V						
C421	1-126-964-11	ELECT	10uF	20%	50V	IC201	8-759-805-14	IC	LC7822		
C422	1-126-956-91	ELECT	0.1uF	20%	50V	IC202	8-759-248-74	IC	LA2785		
C431	1-126-964-11	ELECT	10uF	20%	50V	IC203	8-759-341-23	IC	LV1011		
C432	1-126-964-11	ELECT	10uF	20%	50V	IC204	8-759-634-51	IC	M5218AP		
C433	1-126-964-11	ELECT	10uF	20%	50V	IC301	8-759-634-51	IC	M5218AP		
C434	1-126-964-11	ELECT	10uF	20%	50V	IC302	8-759-634-51	IC	M5218AP		
C435	1-126-964-11	ELECT	10uF	20%	50V	IC331	8-759-502-33	IC	SI18752		
C436	1-126-964-11	ELECT	10uF	20%	50V	IC381	8-759-502-33	IC	SI18752		
C437	1-126-964-11	ELECT	10uF	20%	50V	IC402	8-759-231-58	IC	TA7812S		
C438	1-126-964-11	ELECT	10uF	20%	50V	IC403	8-759-245-86	IC	TA79012S		
C800	1-126-961-11	ELECT	2.2uF	20%	50V	IC404	8-759-333-83	IC	NJM2103D		
C801	1-126-933-11	ELECT	100uF	20%	10V	IC801	8-759-502-33	IC	SI18752		
C802	1-136-165-00	FILM	0.1uF	5%	50V	IC851	8-759-502-33	IC	SI18752		
C803	1-162-191-31	CERAMIC	2.2PF	10%	50V						
C804	1-136-165-00	FILM	0.1uF	5%	50V						

MAIN

Ref. No.	Part No.	Description	Remarks
< JACK >			
J201	1-770-614-11	JACK, PIN 4P (AUX/VIDEO 2)	
J202	1-580-825-11	JACK, PIN 6P (VIDEO 1/TV)	
J203	1-774-843-11	JACK, PIN 1P (SURROUND MIX)	
J204	1-774-822-11	JACK, PIN 2P (SURROUND REAR)	
< COIL >			
L11	1-410-509-11	INDUCTOR 10uH	
L12	1-410-509-11	INDUCTOR 10uH	
L331	1-420-872-00	COIL, AIR-CORE	
L381	1-420-872-00	COIL, AIR-CORE	
L401	1-410-509-11	INDUCTOR 10uH	
L801	1-420-872-00	COIL, AIR-CORE	
L851	1-420-872-00	COIL, AIR-CORE	
< TRANSISTOR >			
Q11	8-729-180-92	TRANSISTOR 2SD809-K	
Q12	8-729-801-93	TRANSISTOR 2SD1387	
Q13	8-729-661-94	TRANSISTOR RT1N141SK-TP	
Q14	8-729-661-98	TRANSISTOR RT1P141SK-TP	
Q15	8-729-661-94	TRANSISTOR RT1N141SK-TP	
Q16	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q301	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q302	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q303	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q304	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q351	8-729-202-67	TRANSISTOR 2SK246-GR3	
Q352	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q353	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q354	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q401	8-729-018-60	TRANSISTOR 2SD2012-LC	
Q402	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q404	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q405	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q406	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q407	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
< RESISTOR >			
R1	1-249-425-11	CARBON 4.7K 5%	1/4W F
R11	1-249-407-11	CARBON 150 5%	1/4W F
R12	1-249-431-11	CARBON 15K 5%	1/4W
R13	1-249-435-11	CARBON 33K 5%	1/4W
R14	1-247-903-00	CARBON 1M 5%	1/4W
R15	1-249-441-11	CARBON 100K 5%	1/4W
R16	1-249-421-11	CARBON 2.2K 5%	1/4W F
R17	1-249-421-11	CARBON 2.2K 5%	1/4W F
R18	1-249-421-11	CARBON 2.2K 5%	1/4W F
R19	1-249-421-11	CARBON 2.2K 5%	1/4W F
R20	1-249-417-11	CARBON 1K 5%	1/4W F
R21	1-249-417-11	CARBON 1K 5%	1/4W F
R22	1-249-441-11	CARBON 100K 5%	1/4W
R23	1-247-903-00	CARBON 1M 5%	1/4W
R24	1-249-435-11	CARBON 33K 5%	1/4W

Ref. No.	Part No.	Description	Remarks
R25	1-249-429-11	CARBON 10K 5%	1/4W
R26	1-249-429-11	CARBON 10K 5%	1/4W
R27	1-249-427-11	CARBON 6.8K 5%	1/4W F
R28	1-249-427-11	CARBON 6.8K 5%	1/4W F
R29	1-247-843-11	CARBON 3.3K 5%	1/4W
R30	1-249-411-11	CARBON 330 5%	1/4W
R201	1-249-417-11	CARBON 1K 5%	1/4W F
R205	1-249-417-11	CARBON 1K 5%	1/4W F
R207	1-249-417-11	CARBON 1K 5%	1/4W F
R209	1-249-417-11	CARBON 1K 5%	1/4W F
R211	1-249-417-11	CARBON 1K 5%	1/4W F
R215	1-249-441-11	CARBON 100K 5%	1/4W
R221	1-249-417-11	CARBON 1K 5%	1/4W F
R222	1-249-441-11	CARBON 100K 5%	1/4W
R251	1-249-417-11	CARBON 1K 5%	1/4W F
R255	1-249-417-11	CARBON 1K 5%	1/4W F
R257	1-249-417-11	CARBON 1K 5%	1/4W F
R259	1-249-417-11	CARBON 1K 5%	1/4W F
R261	1-249-417-11	CARBON 1K 5%	1/4W F
R265	1-249-441-11	CARBON 100K 5%	1/4W
R271	1-249-417-11	CARBON 1K 5%	1/4W F
R272	1-249-441-11	CARBON 100K 5%	1/4W
R301	1-249-417-11	CARBON 1K 5%	1/4W F
R302	1-249-421-11	CARBON 2.2K 5%	1/4W F
R303	1-249-429-11	CARBON 10K 5%	1/4W
R304	1-249-431-11	CARBON 15K 5%	1/4W
R305	1-249-417-11	CARBON 1K 5%	1/4W F
R306	1-247-903-00	CARBON 1M 5%	1/4W
R307	1-249-441-11	CARBON 100K 5%	1/4W
R308	1-247-903-00	CARBON 1M 5%	1/4W
R309	1-247-843-11	CARBON 3.3K 5%	1/4W
R310	1-247-883-00	CARBON 150K 5%	1/4W
R311	1-249-427-11	CARBON 6.8K 5%	1/4W F
R312	1-249-413-11	CARBON 470 5%	1/4W F
R321	1-249-417-11	CARBON 1K 5%	1/4W F
R322	1-249-441-11	CARBON 100K 5%	1/4W
R323	1-249-421-11	CARBON 2.2K 5%	1/4W F
R324	1-249-429-11	CARBON 10K 5%	1/4W
R325	1-249-417-11	CARBON 1K 5%	1/4W F
R330	1-249-417-11	CARBON 1K 5%	1/4W F
R332	1-249-433-11	CARBON 22K 5%	1/4W
R333	1-249-411-11	CARBON 330 5%	1/4W
R334	1-249-433-11	CARBON 22K 5%	1/4W
△ R336	1-249-389-11	CARBON 4.7 5%	1/4W F
△ R337	1-249-393-11	CARBON 10 5%	1/4W F
R340	1-249-429-11	CARBON 10K 5%	1/4W
R341	1-249-437-11	CARBON 47K 5%	1/4W
R351	1-249-417-11	CARBON 1K 5%	1/4W F
R352	1-249-421-11	CARBON 2.2K 5%	1/4W F
R353	1-249-429-11	CARBON 10K 5%	1/4W

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

MAIN

POWER

POWER CONNECTION

Ref. No.	Part No.	Description			Remarks
R354	1-249-431-11	CARBON	15K	5%	1/4W
R355	1-249-417-11	CARBON	1K	5%	1/4W F
R356	1-247-903-00	CARBON	1M	5%	1/4W
R357	1-249-441-11	CARBON	100K	5%	1/4W
R358	1-247-903-00	CARBON	1M	5%	1/4W
R359	1-247-843-11	CARBON	3.3K	5%	1/4W
R360	1-247-883-00	CARBON	150K	5%	1/4W
R361	1-249-427-11	CARBON	6.8K	5%	1/4W F
R362	1-249-413-11	CARBON	470	5%	1/4W F
R371	1-249-417-11	CARBON	1K	5%	1/4W F
R372	1-249-441-11	CARBON	100K	5%	1/4W
R373	1-249-421-11	CARBON	2.2K	5%	1/4W F
R374	1-249-429-11	CARBON	10K	5%	1/4W
R375	1-249-417-11	CARBON	1K	5%	1/4W F
R380	1-249-417-11	CARBON	1K	5%	1/4W F
R382	1-249-433-11	CARBON	22K	5%	1/4W
R383	1-249-411-11	CARBON	330	5%	1/4W
R384	1-249-433-11	CARBON	22K	5%	1/4W
△ R386	1-249-389-11	CARBON	4.7	5%	1/4W F
△ R387	1-249-393-11	CARBON	10	5%	1/4W F
R390	1-249-429-11	CARBON	10K	5%	1/4W
R391	1-249-437-11	CARBON	47K	5%	1/4W
R403	1-249-429-11	CARBON	10K	5%	1/4W
R404	1-249-429-11	CARBON	10K	5%	1/4W
R405	1-249-429-11	CARBON	10K	5%	1/4W
△ R406	1-249-393-11	CARBON	10	5%	1/4W F
△ R407	1-249-393-11	CARBON	10	5%	1/4W F
R408	1-249-421-11	CARBON	2.2K	5%	1/4W F
R409	1-249-429-11	CARBON	10K	5%	1/4W
R410	1-249-429-11	CARBON	10K	5%	1/4W
R411	1-247-843-11	CARBON	3.3K	5%	1/4W
R412	1-249-439-11	CARBON	68K	5%	1/4W
R413	1-249-433-11	CARBON	22K	5%	1/4W
R414	1-249-429-11	CARBON	10K	5%	1/4W
R415	1-247-843-11	CARBON	3.3K	5%	1/4W
R416	1-249-417-11	CARBON	1K	5%	1/4W F
R417	1-249-429-11	CARBON	10K	5%	1/4W
R418	1-249-429-11	CARBON	10K	5%	1/4W
R419	1-249-425-11	CARBON	4.7K	5%	1/4W F
R420	1-249-425-11	CARBON	4.7K	5%	1/4W F
△ R421	1-215-887-00	METAL OXIDE	150	5%	2W F
△ R422	1-215-887-00	METAL OXIDE	150	5%	2W F
R423	1-249-435-11	CARBON	33K	5%	1/4W
R424	1-249-427-11	CARBON	6.8K	5%	1/4W F
R441	1-247-807-31	CARBON	100	5%	1/4W
R442	1-247-807-31	CARBON	100	5%	1/4W
R443	1-247-807-31	CARBON	100	5%	1/4W
R444	1-247-807-31	CARBON	100	5%	1/4W
R800	1-249-417-11	CARBON	1K	5%	1/4W F
R802	1-249-433-11	CARBON	22K	5%	1/4W
R803	1-249-411-11	CARBON	330	5%	1/4W
R804	1-249-433-11	CARBON	22K	5%	1/4W
△ R806	1-249-389-11	CARBON	4.7	5%	1/4W F
△ R807	1-249-393-11	CARBON	10	5%	1/4W F
R810	1-249-429-11	CARBON	10K	5%	1/4W

Ref. No.	Part No.	Description			Remarks
R813	1-249-437-11	CARBON	47K	5%	1/4W
R850	1-249-417-11	CARBON	1K	5%	1/4W F
R852	1-249-433-11	CARBON	22K	5%	1/4W
R853	1-249-411-11	CARBON	330	5%	1/4W
R854	1-249-433-11	CARBON	22K	5%	1/4W
△ R856	1-249-389-11	CARBON	4.7	5%	1/4W F
△ R857	1-249-393-11	CARBON	10	5%	1/4W F
R860	1-249-417-11	CARBON	1K	5%	1/4W F
R861	1-249-429-11	CARBON	10K	5%	1/4W
R862	1-249-417-11	CARBON	1K	5%	1/4W F
R863	1-249-437-11	CARBON	47K	5%	1/4W
< RELAY >					
RY401	1-515-920-11	RELAY (24V)			
RY402	1-515-920-11	RELAY (24V)			
< TERMINAL >					
TB201	1-537-925-31	TERMINAL BOARD(FRONT SPEAKERS)			
TB202	1-537-923-11	TERMINAL BOARD(6P) (REAR/CENTER SPEAKERS)			
< VIBRATOR >					
X11	1-579-952-21	VIBRATOR, CERAMIC (8MHz)			

*	1-664-611-11	POWER BOARD			

< CONNECTOR >					
CN101	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P			
CN102	1-564-321-00	PIN, CONNECTOR 2P			
* CN103	1-565-495-11	CONNECTOR, BOARD TO BOARD 4P			
< DIODE >					
D101	8-719-987-63	DIODE 1N4148M			
< RELAY >					
△ RY101	1-755-018-11	RELAY			
< TRANSFORMER >					
△ T101	1-431-145-11	TRANSFORMER, POWER			

*	1-659-839-11	POWER CONNECTION BOARD			

< CONNECTOR >					
* CN613	1-565-480-11	CONNECTOR, BOARD TO BOARD 4P			
* CN614	1-565-480-11	CONNECTOR, BOARD TO BOARD 4P			

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

POWER CONNECTION

POWER SWITCH

TRANS

VOLUME

Ref. No.	Part No.	Description	Remarks
< RESISTOR >			
△ R439	1-217-477-00	FUSIBLE 4.7 5% 1W F	
△ R440	1-217-477-00	FUSIBLE 4.7 5% 1W F	

*	1-664-610-11	POWER SWITCH BOARD	

< CONNECTOR >			
* CN505	1-506-509-11	PIN, CONNECTOR 4P	
< DIODE >			
D547	8-719-812-44	LED TLO124 (STANDBY)	
< RESISTOR >			
R552	1-249-393-11	CARBON 10 5% 1/4W F	
< SWITCH >			
S515	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER)	

*	1-664-612-11	TRANS BOARD	

	1-533-293-11	FUSE HOLDER	
< CONNECTOR >			
CN152	1-691-768-11	PLUG (MICRO CONNECTOR) 6P	
< FUSE >			
△ F151	1-532-501-51	FUSE (T800mA/250V)	
△ F152	1-532-465-51	FUSE, TIME LAG (T3.15A/250V)	
△ F153	1-532-465-51	FUSE, TIME LAG (T3.15A/250V)	
< TRANSFORMER >			
△ T151	1-431-146-11	TRANSFORMER, POWER	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remarks
*	1-664-608-11	VOLUME BOARD	

< CAPACITOR >			
C611	1-126-964-11	ELECT 10uF 20% 50V	
< CONNECTOR >			
CN611	1-695-094-11	SOCKET, CONNECTOR 11P	
CN612	1-691-768-11	PLUG (MICRO CONNECTOR) 6P	
< IC >			
IC611	8-759-962-08	IC BA6208	
< RESISTOR >			
R611	1-249-429-11	CARBON 10K 5% 1/4W	
R612	1-249-429-11	CARBON 10K 5% 1/4W	
< VARIABLE RESISTOR >			
RV611	1-225-183-11	RES, VAR, CARBON 100KX4 (MASTER VOLUME)	

MISCELLANEOUS			

11	1-773-215-11	WIRE (FLAT TYPE) (25 CORE)	
53	1-533-293-11	FUSE HOLDER	
△ 60	1-696-571-11	CORD, POWER (UK)	
△ 60	1-777-071-11	CORD, POWER (AEP, G, EE)	
△ F151	1-532-501-51	FUSE (T800mA/250V)	
△ F152	1-532-465-51	FUSE, TIME LAG (T3.15A/250V)	
△ F153	1-532-465-51	FUSE, TIME LAG (T3.15A/250V)	
△ T101	1-431-145-11	TRANSFORMER, POWER	
△ T151	1-431-146-11	TRANSFORMER, POWER	

ACCESSORIES & PACKING MATERIALS			

1-475-042-11	ADAPTOR		
1-475-155-11	REMOTE COMMANDER (RM-UE110)		
3-858-974-11	MANUAL, INSTRUCTION		
	(ENGLISH/FRENCH/SPANISH/PORTUGUESE/DANISH/FINNISH)		
3-858-974-21	MANUAL, INSTRUCTION		
	(GERMAN/DUTCH/SWEDISH/ITALIAN)(AEP, G)		
4-981-643-01	COVER, RATTERY (RM-UE110)		

HARDWARE LIST			

#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 TT(B)	
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT,	
#3	7-685-880-09	SCREW +BVTT 4X6 (S)	
#4	7-685-872-09	SCREW +BVTT 3X8 (S)	