

SERVICE MANUAL

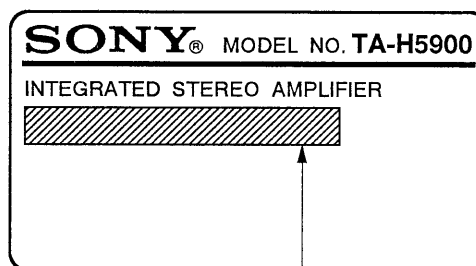
INTEGRATED STEREO AMPLIFIER
SONY®

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MODEL IDENTIFICATION

– Specification Label –



AEP model: AC: 220 – 230 V ~50/60 Hz 170 W

UK model: AC: 240 V ~50/60 Hz

EXCEPT AEP, UK model:

AC: 110 – 120/220 – 240 V ~50/60 Hz 170 W

Note :

There are two type of AEP models which are depend on countries.

AEP2 model : Model for Scandinavian countries,
Switzerland, Spain and Portugal

AEP1 model : Model for other European countries

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  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.

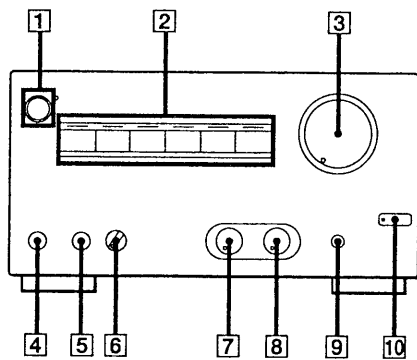
SECTION 1 GENERAL

This section is extracted from MHC-5900 instruction manual.

Index to Parts and Controls

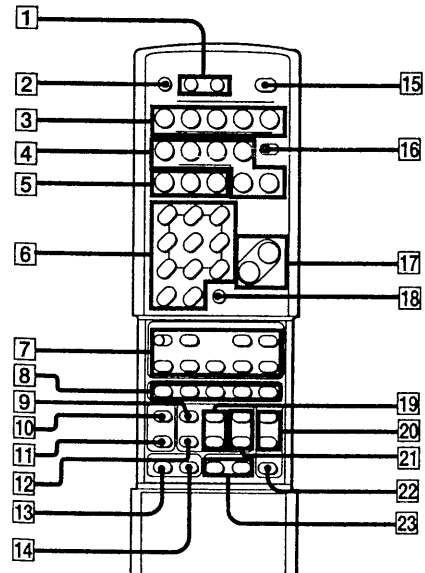
Refer to the pages indicated in parentheses for details on how to use the controls. Controls with an asterisk have indicators on themselves.

Integrated stereo amplifier section



- 1 SYSTEM POWER switch and ON/STANDBY indicator
The indicator remains lit as long as the AC power cord is connected to a wall outlet.
- 2 FUNCTION buttons*
VIDEO 1
MD/DAT/VIDEO 2
TAPE
CD
TUNER
PHONO
- 3 VOLUME control*
- 4 HEADPHONES jack (stereo minijack)
- 5 MIX MIC jack (minijack)
- 6 MIC LEVEL control
- 7 DBS FREQUENCY control
- 8 DBS LEVEL control
- 9 Remote sensor
- 10 MUTING button*

Remote commander

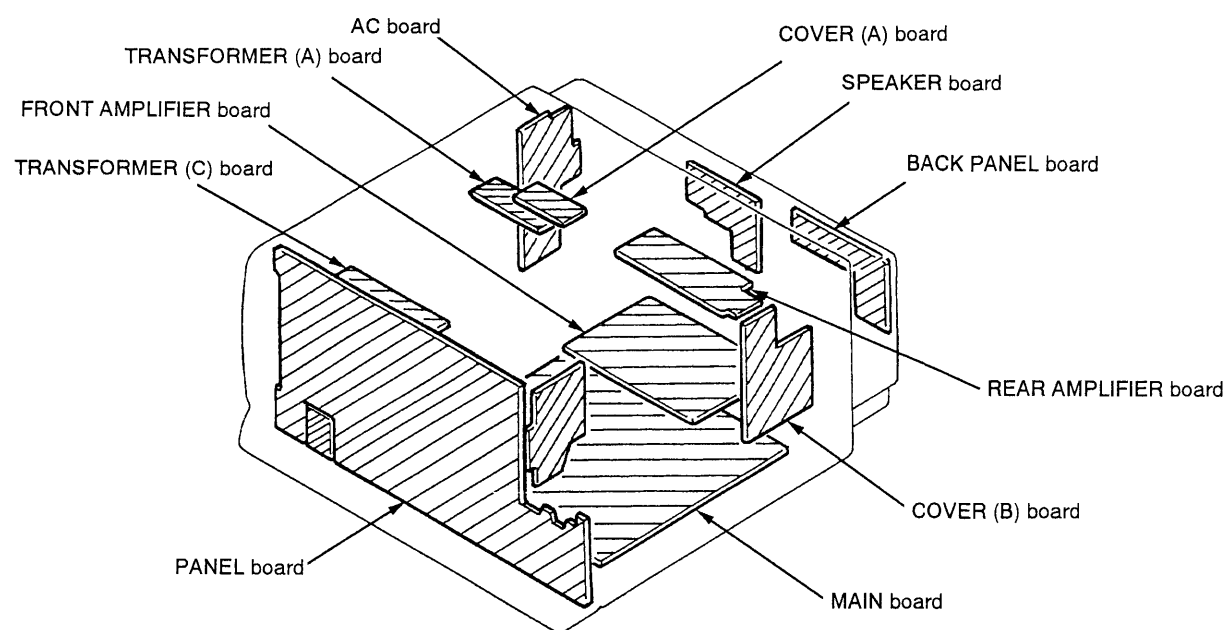


- 1 TAPE DECK A/B buttons
- 2 SLEEP button
- 3 CD/MD operating buttons
- 4 Cassette deck operating buttons
- 5 Tuner operating buttons
- 6 CD/Tuner/numeric buttons
- 7 VCR operating buttons
- 8 TV operating buttons
- 9 PRO LOGIC button
- 10 AUDIO FUNCTION button
- 11 VIDEO FUNCTION button
- 12 TEST TONE button
- 13 CHECK button
- 14 CLEAR button
- 15 SYSTEM POWER switch
- 16 CD/MD switch
- 17 VOLUME +/- buttons
- 18 MUTING button (20)
- 19 REAR LEVEL +/- buttons
- 20 MENU 1, 2 button
- 21 CENTER LEVEL +/- buttons
- 22 DIRECT button
- 23 BALANCE L/R button

2-1. BLOCK DIAGRAM

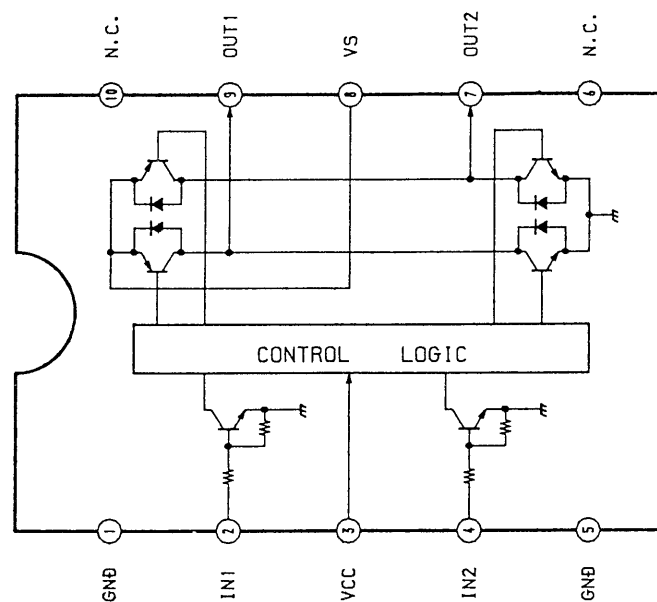


● Circuit Boards Location

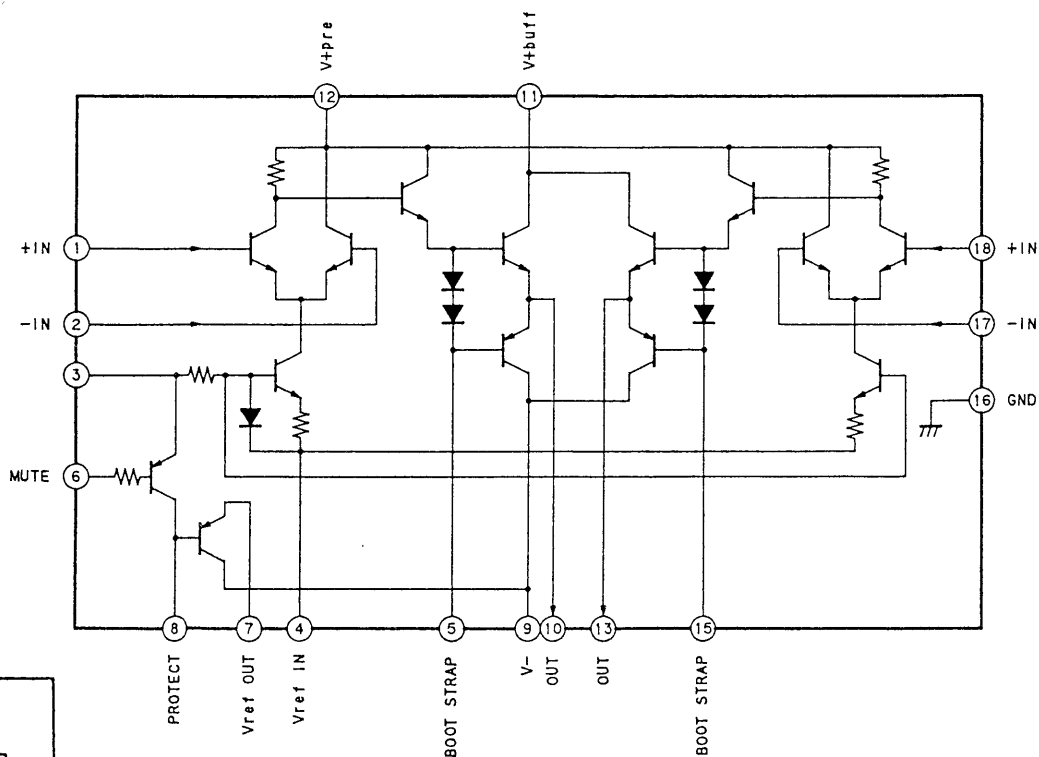


IC Block Diagrams

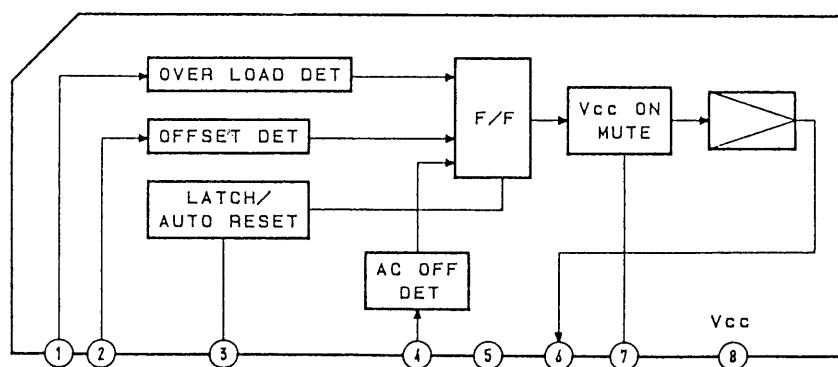
IC551 LB1638M



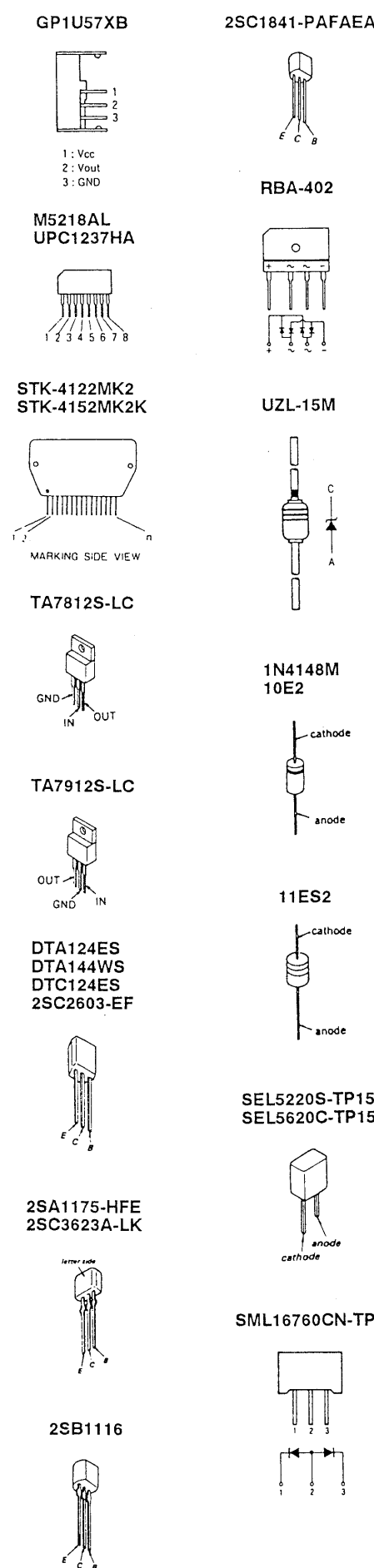
IC701 STK-4122MK2
IC801 STK-4172MK2



IC601 UPC1237HA



Semiconductor Lead Layouts

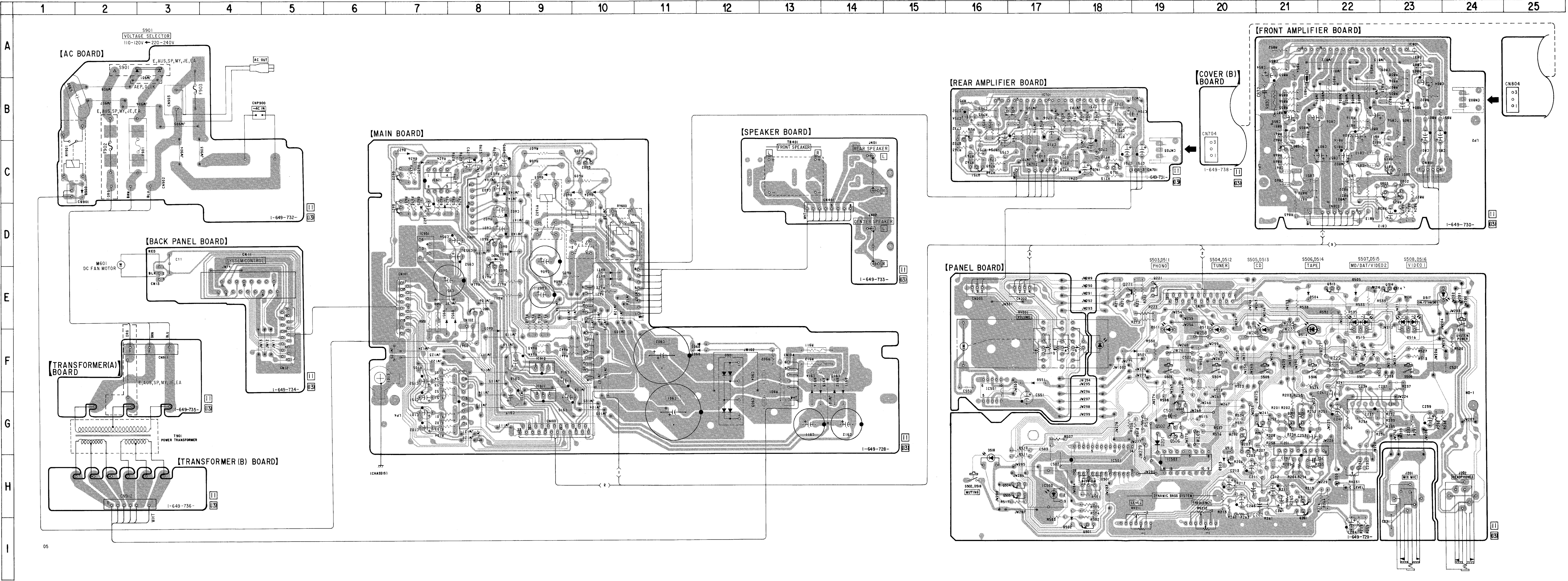


Semiconductor Location

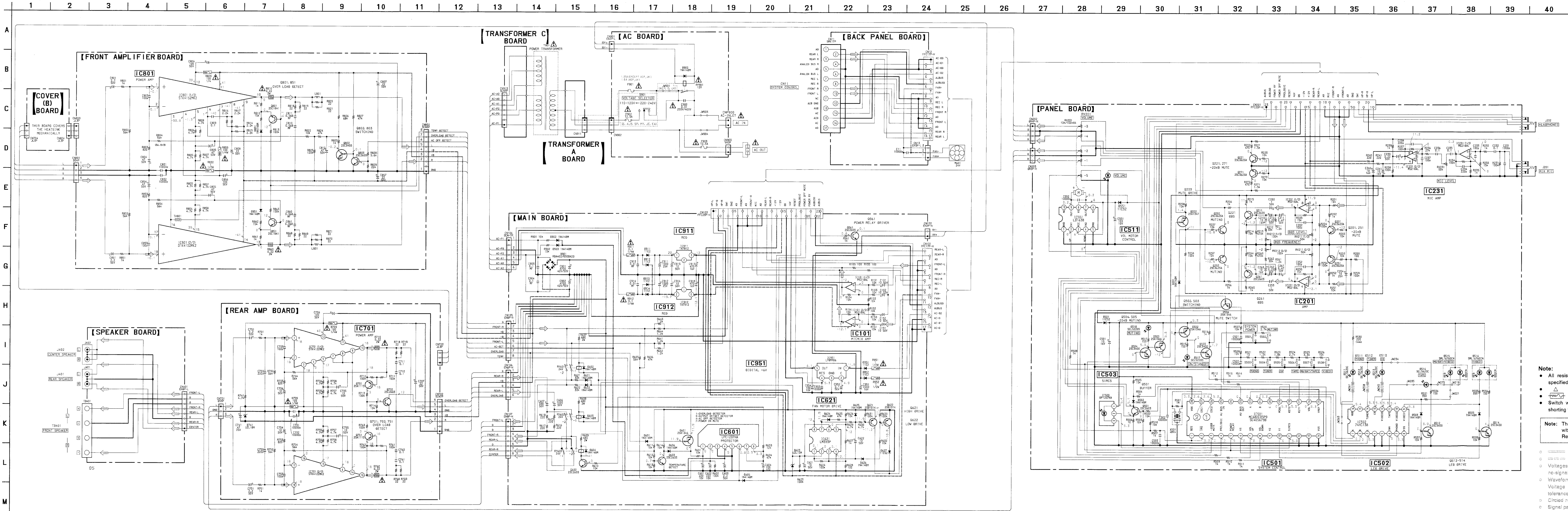
Ref. No.	Location	Ref. No.	Location
D201	G-19	Q201	G-21
D501	F-19	Q202	G-20
D502	I-17	Q203	G-20
D503	H-20	Q211	H-21
D504	E-21	Q221	E-19
D505	E-22	Q251	G-21
D511	F-19	Q252	G-21
D512	F-20	Q261	H-21
D513	F-21	Q271	E-18
D514	E-21	Q501	I-18
D515	E-22	Q502	G-19
D516	E-23	Q503	G-19
D517	E-23	Q504	H-17
D518	H-16	Q505	H-17
D551	F-17	Q506	G-19
D601	D-8	Q512	H-20
D602	C-9	Q514	E-23
D603	C-9	Q601	D-8
D604	C-10	Q602	C-10
D605	F-8	Q603	D-8
D606	D-8	Q621	D-7
D621	E-10	Q622	C-7
D622	E-10	Q701	C-18
D623	C-8	Q702	B-16
D624	D-7	Q751	C-16
D625	D-7	Q801	C-23
D626	C-7	Q802	C-23
D627	C-7	Q803	C-23
D741	C-18	Q851	C-21
D801	B-22	Q851	E-8
D851	B-21		
D900	C-2		
D901	F-12		
D902	F-11		
D903	F-11		
D911	G-14		
D912	G-14		
D913	G-13		
D914	G-13		
D951	E-7		
D952	E-8		
IC101	G-8		
IC201	G-21		
IC231	G-23		
IC501	H-18		
IC502	H-19		
IC503	F-16		
IC551	H-17		
IC601	D-8		
IC621	C-7		
IC701	B-17		
IC801	A-22		
IC911	G-9		
IC912	F-9		
IC951	D-7		

Note:
○ : parts extracted from the component side.

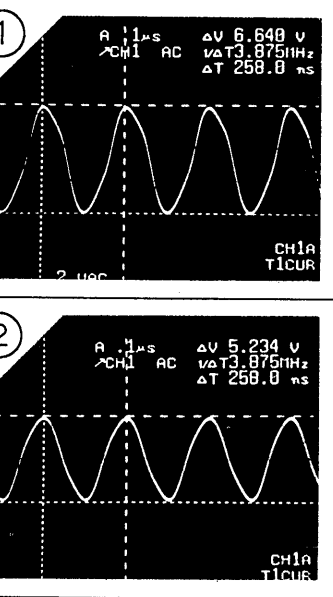
2-2. PRINTED WIRING BOARDS • See page 6 for Circuit Boards Location.



2-3. SCHEMATIC DIAGRAM • See page 6 for IC Block Diagrams.



• Waveforms



Note:

- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.
- Δ : internal component.
- ∇ : fusible resistor.
- Switch with sliding contact indicated by hatched lines shows shorting type.

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

- : B + Line.
- : B - Line.
- : Voltages and waveforms are dc with respect to ground under no-signal (duty) conditions.
- : Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- : Circled numbers refer to waveforms.
- : Signal path.
- : Audio signal.

SECTION 3

EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) . . . (RED)

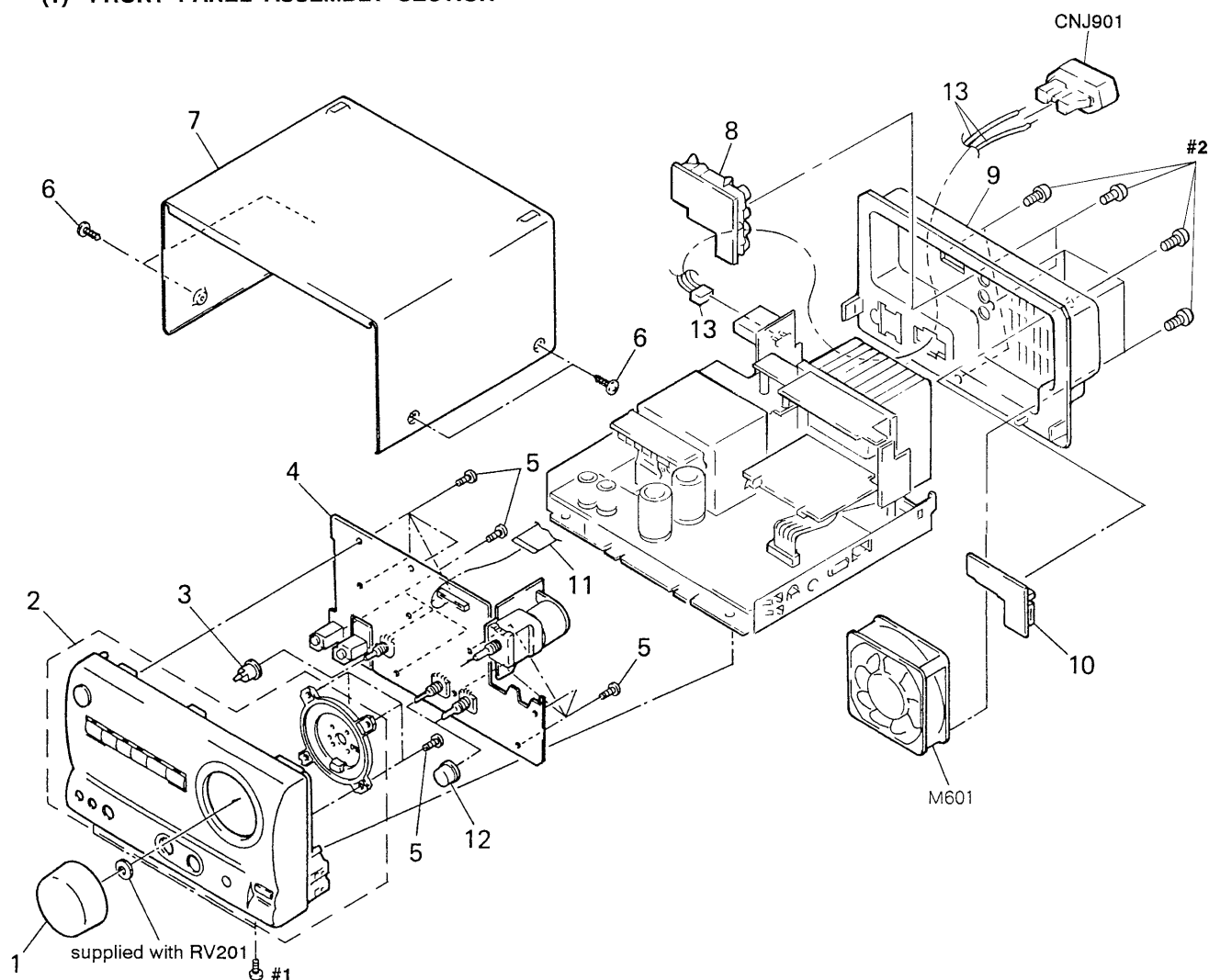
↑
Parts Color

↑
Cabinet's Color

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

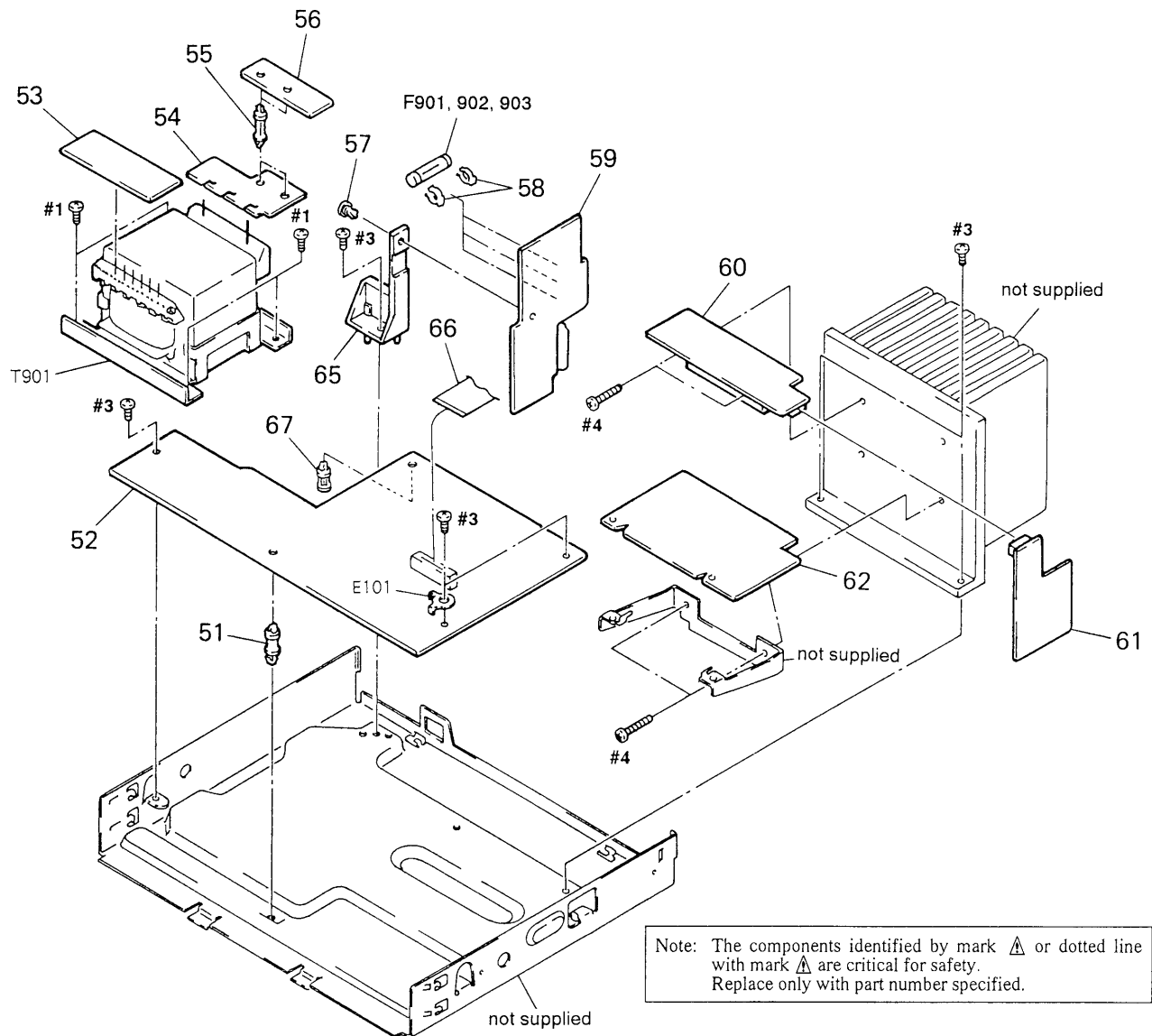
The components identified by mark  or dotted line with mark  are critical for safety.
Replace only with part number specified.

(1) FRONT PANEL ASSEMBLY SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	X-4944-094-1	KNOB (VOLUME) ASSY		* 8	1-649-733-11	SPEAKER BOARD	
2	X-4944-673-1	PANEL ASSY, FRONT (AEP,UK)		* 9	4-954-256-61	PANEL, BACK (AEP,UK)	
2	X-4944-674-1	PANEL ASSY, FRONT (EXCEPT UK)		* 9	4-954-256-71	PANEL, BACK (EXCEPT AEP,UK)	
3	4-961-911-01	KNOB (MICROPHONE)		* 10	1-649-734-11	BACK PANEL BOARD	
* 4	A-4369-274-A	PANEL BOARD, COMPLETE (EXCEPT UK)		11	1-751-718-11	WIRE (FLAT TYPE) (23 CORE)	
* 4	A-4369-275-A	PANEL BOARD, COMPLETE (UK)		12	4-961-912-01	KNOB (DBFB)	
5	4-951-620-01	SCREW (2. 6X8), +BVTP		13	1-751-216-31	LEAD (WITH CONNECTOR) (2 CORE)	
6	3-363-099-21	SCREW (CASE 3 TP2)		△CNJ901	1-526-794-11	OUTLET, AC	
7	4-961-519-21	CASE		M601	1-698-209-11	MOTOR, DC FAN	

(2) CHASSIS SECTION



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
* 51	3-682-419-71	HOLDER, PCB		* 62	A-4369-276-A	FRONT AMPLIFIER BOARD, COMPLETE (AEP)	
* 52	A-4369-271-A	MAIN BOARD, COMPLETE (AEP)		* 62	A-4369-277-A	FRONT AMPLIFIER BOARD, COMPLETE (UK)	
* 52	A-4369-272-A	MAIN BOARD, COMPLETE (UK)		* 62	A-4369-278-A	FRONT AMPLIFIER BOARD, COMPLETE (EXCEPT AEP, UK)	
* 52	A-4369-273-A	MAIN BOARD, COMPLETE (EXCEPT AEP, UK)		* 65	4-954-242-01	BRACKET (IN)	
* 53	1-651-466-11	TRANSFORMER (C) BOARD		66	1-751-717-11	WIRE (FLAT TYPE) (17 CORE)	
* 54	1-649-735-11	TRANSFORMER (A) BOARD		* 67	3-669-610-00	SPACER	
* 55	4-385-948-01	HOLDER, PCB		* E101	4-942-204-01	PLATE, GROUND	
* 56	1-649-737-11	COVER (A) BOARD		⚠F901	1-532-285-00	FUSE (T1. 25A 250V) (EXCEPT AEP, UK)	
57	4-812-134-11	RIVET NYLON, 3.5		⚠F901	1-532-286-00	FUSE (T2. 5A 250V) (AEP, UK)	
58	1-533-293-11	FUSE HOLDER		⚠F902	1-532-286-00	FUSE (T2. 5A 250V) (EXCEPT AEP, UK)	
* 59	A-4369-286-A	AC BOARD, COMPLETE (E, JE)		⚠F903	1-532-259-00	FUSE (T1. 6A 250V) (AEP, UK)	
* 59	1-649-732-11	AC BOARD (EXCEPT E, JE)		⚠F903	1-532-286-00	FUSE (T2. 5A 250V) (EXCEPT AEP, UK)	
* 60	A-4369-279-A	REAR AMPLIFIER BOARD, COMPLETE (AEP)		⚠T901	1-426-683-11	TRANSFORMER, POWER (AEP)	
* 60	A-4369-280-A	REAR AMPLIFIER BOARD, COMPLETE (UK)		⚠T901	1-426-684-11	TRANSFORMER, POWER (UK)	
* 60	A-4369-281-A	REAR AMPLIFIER BOARD, COMPLETE (EXCEPT AEP, UK)		⚠T901	1-426-685-11	TRANSFORMER, POWER (EXCEPT AEP, UK)	
* 61	1-649-738-11	COVER (B) BOARD					

SECTION 4
ELECTRICAL PARTS LIST

AC

BACK PANEL

COVER (A)

COVER (B)

FRONT AMPLIFIER

NOTE:

- 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 and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA.: μ A. uPA.: μ PA.
uPB.: μ PB. uPC.: μ PC. uPD.: μ PD.
- CAPACITORS
uF: μ F
- COILS
uH: μ H
- Abbreviation
JE: Tourist

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4369-286-A	AC BOARD, COMPLETE (E, JE) *****		*	1-649-734-11	BACK PANEL BOARD *****	
*	1-649-732-11	AC BOARD (EXCEPT E, JE) *****				< CAPACITOR >	
	1-533-293-11	FUSE HOLDER		C11	1-164-159-11	CERAMIC 0.1uF	50V
		< CAPACITOR >				< CONNECTOR >	
Δ C900	1-161-744-51	CERAMIC 0.01uF	400V	* CN11	1-580-740-11	SOCKET, CONNECTOR 17P	
		< CONNECTOR >		* CN12	1-568-836-11	SOCKET, CONNECTOR 17P	
CN901	1-564-517-11	PLUG, CONNECTOR 2P		* CN13	1-564-518-11	PLUG, CONNECTOR 3P	
CN902	1-765-186-21	LEAD (WITH CONNECTOR) (3 CORE) (EXCEPT AEP, UK)		*****			
CN902	1-751-206-31	LEAD (WITH CONNECTOR) (2 CORE) (AEP, UK)		*	1-649-737-11	COVER (A) BOARD *****	
CN903	1-564-321-00	PIN, CONNECTOR 2P		*****			
		< CONNECTOR >		*	1-649-738-11	COVER (B) BOARD *****	
Δ CNP900	1-526-930-11	INLET, AC ($\sim$ AC IN) (E, JE)		*****			
Δ CNP900	1-526-931-11	INLET, AC ($\sim$ AC IN) (EXCEPT E, JE)		*	A-4369-276-A	FRONT AMPLIFIER BOARD, COMPLETE (AEP) *****	
		< DIODE >		*	A-4369-277-A	FRONT AMPLIFIER BOARD, COMPLETE (UK) *****	
D900	8-719-987-63	DIODE 1N4148M		*	A-4369-278-A	FRONT AMPLIFIER BOARD, COMPLETE ***** (EXCEPT AEP, UK)	
		< FUSE >				< CAPACITOR >	
Δ F901	1-532-285-00	FUSE (T1. 25A 250V) (EXCEPT AEP, UK)		C801	1-124-257-00	ELECT 2.2uF	20% 50V
Δ F901	1-532-259-00	FUSE (T1. 6A 250V) (AEP, UK)		C803	1-162-282-31	CERAMIC 100PF	10% 50V
Δ F902	1-532-286-00	FUSE (T2. 5A 250V) (EXCEPT AEP, UK)		C804	1-124-910-11	ELECT 47uF	20% 50V
Δ F903	1-532-286-00	FUSE (T2. 5A 250V)		C805	1-124-910-11	ELECT 47uF	20% 50V
		< RELAY >		C806	1-124-122-11	ELECT 100uF	20% 50V
Δ RY901	1-515-738-11	RELAY, POWER		C807	1-124-916-11	ELECT 22uF	20% 63V
		< SWITCH >		C808	1-124-916-11	ELECT 22uF	20% 63V
Δ S901	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR) (EXCEPT AEP, UK)		C809	1-164-159-11	CERAMIC 0.1uF	50V
*****				C810	1-136-163-00	FILM 0.068uF	5% 50V
				C811	1-136-163-00	FILM 0.068uF	5% 50V

FRONT AMPLIFIER

Ref. No.	Part No.	Description	Remark
C812	1-124-910-11	ELECT 47uF	20% 50V
C831	1-161-379-00	CERAMIC 0.01uF	20% 25V
C832	1-161-379-00	CERAMIC 0.01uF	20% 25V
C851	1-124-257-00	ELECT 2.2uF	20% 50V
C853	1-162-282-31	CERAMIC 100PF	10% 50V
C854	1-124-910-11	ELECT 47uF	20% 50V
C855	1-124-910-11	ELECT 47uF	20% 50V
C856	1-124-122-11	ELECT 100uF	20% 50V
C857	1-124-916-11	ELECT 22uF	20% 63V
C860	1-136-163-00	FILM 0.068uF	5% 50V
C861	1-136-163-00	FILM 0.068uF	5% 50V

< CONNECTOR >

* CN803	1-569-499-11	PIN, CONNECTOR 3P
CN804	1-569-490-11	SOCKET, CONNECTOR 3P

< DIODE >

D801	8-719-987-63	DIODE 1N4148M
D851	8-719-987-63	DIODE 1N4148M

< IC >

IC801	8-749-920-10	IC STK4172MK2
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< COIL >

L801	1-420-872-00	COIL, AIR CORE
L851	1-420-872-00	COIL, AIR CORE

< TRANSISTOR >

Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA
Q802	8-729-900-36	TRANSISTOR DTC124ES
Q803	8-729-620-05	TRANSISTOR 2SC2603-EF
Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA

< RESISTOR >

R801	1-249-417-11	CARBON 1K 5%	1/4W F
R802	1-249-438-11	CARBON 56K 5%	1/4W
R803	1-249-416-11	CARBON 820 5%	1/4W F
R804	1-249-438-11	CARBON 56K 5%	1/4W
R805	1-249-425-11	CARBON 4.7K 5%	1/4W F
R806	1-249-425-11	CARBON 4.7K 5%	1/4W F
R807	1-249-425-11	CARBON 4.7K 5%	1/4W F
R808	1-249-425-11	CARBON 4.7K 5%	1/4W F
△R809	1-212-881-11	FUSIBLE 100 5%	1/4W F
△R810	1-217-151-00	RES, METAL PLATE	0.22
R811	1-249-417-11	CARBON 1K 5%	1/4W F
R812	1-249-431-11	CARBON 15K 5%	1/4W
R813	1-249-441-11	CARBON 100K 5%	1/4W
R814	1-249-421-11	CARBON 2.2K 5%	1/4W F

Ref. No.	Part No.	Description	Remark
R815	1-249-421-11	CARBON 2.2K 5%	1/4W F
R816	1-249-421-11	CARBON 2.2K 5%	1/4W F
R817	1-249-421-11	CARBON 2.2K 5%	1/4W F
R818	1-249-397-11	CARBON 22 5%	1/4W F
R819	1-249-397-11	CARBON 22 5%	1/4W F
R820	1-249-397-11	CARBON 22 5%	1/4W F
R821	1-249-397-11	CARBON 22 5%	1/4W F
R822	1-249-429-11	CARBON 10K 5%	1/4W
R823	1-247-881-00	CARBON 120K 5%	1/4W
R824	1-249-437-11	CARBON 47K 5%	1/4W
R825	1-249-417-11	CARBON 1K 5%	1/4W F
R826	1-249-439-11	CARBON 68K 5%	1/4W
R827	1-249-437-11	CARBON 47K 5%	1/4W
R828	1-249-426-11	CARBON 5.6K 5%	1/4W
R829	1-249-433-11	CARBON 22K 5%	1/4W
R830	1-212-934-00	FUSIBLE 1 5%	1/2W F
R851	1-249-417-11	CARBON 1K 5%	1/4W F
R852	1-249-438-11	CARBON 56K 5%	1/4W
R853	1-249-416-11	CARBON 820 5%	1/4W F
R854	1-249-438-11	CARBON 56K 5%	1/4W
R855	1-249-425-11	CARBON 4.7K 5%	1/4W F
R856	1-249-425-11	CARBON 4.7K 5%	1/4W F
R857	1-249-425-11	CARBON 4.7K 5%	1/4W F
R858	1-249-425-11	CARBON 4.7K 5%	1/4W F
△R859	1-212-881-11	FUSIBLE 100 5%	1/4W F
△R860	1-217-151-00	RES, METAL PLATE	0.22
R861	1-249-417-11	CARBON 1K 5%	1/4W F
R862	1-249-431-11	CARBON 15K 5%	1/4W
R863	1-249-441-11	CARBON 100K 5%	1/4W
R868	1-249-397-11	CARBON 22 5%	1/4W F
R869	1-249-397-11	CARBON 22 5%	1/4W F
R870	1-249-397-11	CARBON 22 5%	1/4W F
R871	1-249-397-11	CARBON 22 5%	1/4W F

< THERMISTOR >

TH801	1-807-796-11	THERMISTOR
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The components identified by mark △ or dotted line with mark. △ are critical for safety. Replace only with part number specified.

REAR AMPLIFIER

MAIN

Ref. No.	Part No.	Description	Remark			
*	A-4369-279-A	REAR AMPLIFIER BOARD, COMPLETE	(AEP)			

*	A-4369-280-A	REAR AMPLIFIER BOARD, COMPLETE	(UK)			

*	A-4369-281-A	REAR AMPLIFIER BOARD, COMPLETE				

		(EXCEPT AEP, UK)				
		< CAPACITOR >				
C701	1-124-925-11	ELECT	2. 2uF	20%	100V	
C702	1-162-286-31	CERAMIC	220PF	10%	50V	
C703	1-162-282-31	CERAMIC	100PF	10%	50V	
C704	1-124-907-11	ELECT	10uF	20%	50V	
C705	1-124-907-11	ELECT	10uF	20%	50V	
C706	1-124-122-11	ELECT	100uF	20%	50V	
C707	1-124-916-11	ELECT	22uF	20%	63V	
C710	1-164-159-11	CERAMIC	0. 1uF		50V	
C711	1-164-159-11	CERAMIC	0. 1uF		50V	
C731	1-161-379-00	CERAMIC	0. 01uF	20%	25V	
C732	1-161-379-00	CERAMIC	0. 01uF	20%	25V	
C741	1-124-477-11	ELECT	47uF	20%	25V	
C751	1-124-925-11	ELECT	2. 2uF	20%	100V	
C752	1-162-286-31	CERAMIC	220PF	10%	50V	
C753	1-162-282-31	CERAMIC	100PF	10%	50V	
C754	1-124-907-11	ELECT	10uF	20%	50V	
C755	1-124-907-11	ELECT	10uF	20%	50V	
C760	1-164-159-11	CERAMIC	0. 1uF		50V	
C761	1-164-159-11	CERAMIC	0. 1uF		50V	
		< CONNECTOR >				
* CN703	1-569-499-11	PIN, CONNECTOR 3P				
CN704	1-569-490-11	SOCKET, CONNECTOR 3P				
		< IC >				
IC701	8-749-920-19	IC	STK4122MK2			
		< TRANSISTOR >				
Q701	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q702	8-729-620-05	TRANSISTOR	2SC2603-EF			
Q751	8-729-119-76	TRANSISTOR	2SA1175-HFE			
		< RESISTOR >				
R701	1-249-417-11	CARBON	1K	5%	1/4W	F
R702	1-249-438-11	CARBON	56K	5%	1/4W	
R703	1-249-416-11	CARBON	820	5%	1/4W	F
R704	1-249-438-11	CARBON	56K	5%	1/4W	
R705	1-249-425-11	CARBON	4. 7K	5%	1/4W	F

Ref. No.	Part No.	Description	Remark			
R706	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R707	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R708	1-249-425-11	CARBON	4.7K	5%	1/4W	F
△R709	1-212-881-11	FUSIBLE	100	5%	1/4W	F
△R710	1-217-151-00	RES, METAL PLATE			0.22	
R711	1-249-441-11	CARBON	100K	5%	1/4W	
R712	1-249-441-11	CARBON	100K	5%	1/4W	
R713	1-249-441-11	CARBON	100K	5%	1/4W	
R714	1-249-429-11	CARBON	10K	5%	1/4W	
R718	1-249-397-11	CARBON	22	5%	1/4W	F
R719	1-249-397-11	CARBON	22	5%	1/4W	F
R741	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R751	1-249-417-11	CARBON	1K	5%	1/4W	F
R752	1-249-438-11	CARBON	56K	5%	1/4W	
R753	1-249-416-11	CARBON	820	5%	1/4W	F
R754	1-249-438-11	CARBON	56K	5%	1/4W	
R755	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R756	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R757	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R758	1-249-425-11	CARBON	4.7K	5%	1/4W	F
△R759	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R760	1-217-151-00	RES, METAL PLATE			0.22	
R761	1-249-441-11	CARBON	100K	5%	1/4W	
R762	1-249-441-11	CARBON	100K	5%	1/4W	
R763	1-249-441-11	CARBON	100K	5%	1/4W	
R768	1-249-397-11	CARBON	22	5%	1/4W	F
R769	1-249-397-11	CARBON	22	5%	1/4W	F

*	A-4369-271-A	MAIN BOARD, COMPLETE	(AEP)			

*	A-4369-272-A	MAIN BOARD, COMPLETE	(UK)			

*	A-4369-273-A	MAIN BOARD, COMPLETE	(EXCEPT AEP, UK)			

		< CAPACITOR >				
C101	1-124-907-11	ELECT	10uF	20%	50V	
C102	1-124-907-11	ELECT	10uF	20%	50V	
C151	1-124-907-11	ELECT	10uF	20%	50V	
C152	1-124-907-11	ELECT	10uF	20%	50V	
C601	1-126-176-11	ELECT	220uF	20%	10V	
C602	1-126-176-11	ELECT	220uF	20%	10V	
C603	1-124-925-11	ELECT	2.2uF	20%	100V	
C604	1-124-443-00	ELECT	100uF	20%	10V	
C606	1-126-972-11	ELECT	1000uF	20%	50V	
C607	1-124-912-11	ELECT	330uF	20%	50V	
C621	1-124-907-11	ELECT	10uF	20%	50V	

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

MAIN

Ref. No.	Part No.	Description	Remark
C622	1-124-907-11	ELECT	10uF 20% 50V
C901	1-126-138-11	ELECT	4700uF 20% 50V
C902	1-126-138-11	ELECT	4700uF 20% 50V
C903	1-136-165-00	FILM	0. 1uF 5% 50V
C904	1-136-165-00	FILM	0. 1uF 5% 50V
C911	1-124-557-11	ELECT	1000uF 20% 25V
C912	1-124-557-11	ELECT	1000uF 20% 25V
C913	1-136-153-00	FILM	0. 01uF 5% 50V
C914	1-136-153-00	FILM	0. 01uF 5% 50V
C915	1-124-907-11	ELECT	10uF 20% 50V
C916	1-124-907-11	ELECT	10uF 20% 50V
C917	1-126-935-11	ELECT	470uF 20% 16V
C918	1-126-935-11	ELECT	470uF 20% 16V
C951	1-126-768-11	ELECT	2200uF 20% 16V
C952	1-124-463-00	ELECT	0. 1uF 20% 50V
C953	1-162-294-31	CERAMIC	0. 001uF 10% 50V
C954	1-124-443-00	ELECT	100uF 20% 10V

< CONNECTOR >

* CN101	1-568-836-11	SOCKET, CONNECTOR 17P
CN102	1-564-505-11	PLUG, CONNECTOR 2P
* CN103	1-568-839-11	SOCKET, CONNECTOR 23P
CN105	1-564-511-11	PLUG, CONNECTOR 8P
* CN106	1-564-509-11	PLUG, CONNECTOR 6P
CN107	1-564-511-11	PLUG, CONNECTOR 8P

< DIODE >

D601	8-719-987-63	DIODE	1N4148M
D602	8-719-987-63	DIODE	1N4148M
D603	8-719-987-63	DIODE	1N4148M
D604	8-719-987-63	DIODE	1N4148M
D605	8-719-987-63	DIODE	1N4148M
D606	8-719-987-63	DIODE	1N4148M
D621	8-719-987-63	DIODE	1N4148M
D622	8-719-987-63	DIODE	1N4148M
D623	8-719-001-91	DIODE	UZL-15M
D624	8-719-987-63	DIODE	1N4148M
D625	8-719-987-63	DIODE	1N4148M
D626	8-719-987-63	DIODE	1N4148M
D627	8-719-200-82	DIODE	11ES2
D901	8-719-510-68	DIODE	D5SBA20F01
D902	8-719-987-63	DIODE	1N4148M
D903	8-719-987-63	DIODE	1N4148M
D911	8-719-200-02	DIODE	10E2
D912	8-719-200-02	DIODE	10E2
D913	8-719-200-02	DIODE	10E2
D914	8-719-200-02	DIODE	10E2
D951	8-719-200-02	DIODE	10E2

Ref. No.	Part No.	Description	Remark
D952	8-719-200-02	DIODE	10E2
		< IC >	
IC101	8-759-634-50	IC	M5218AL
IC601	8-759-111-68	IC	uPC1237HA
IC621	8-759-103-93	IC	uPC393C
IC911	8-759-094-64	IC	TA7812S
IC912	8-759-094-59	IC	TA79012S
IC951	8-759-820-13	IC	L78MR06
		< TRANSISTOR >	
Q601	8-729-900-63	TRANSISTOR	DTA124ES
Q602	8-729-620-05	TRANSISTOR	2SC2603-EF
Q603	8-729-620-05	TRANSISTOR	2SC2603-EF
Q621	8-729-118-01	TRANSISTOR	2SB1116-K
Q622	8-729-118-01	TRANSISTOR	2SB1116-K
Q961	8-729-620-05	TRANSISTOR	2SC2603-EF

< RESISTOR >

R101	1-249-429-11	CARBON	10K	5%	1/4W
R102	1-249-429-11	CARBON	10K	5%	1/4W
R103	1-249-429-11	CARBON	10K	5%	1/4W
R104	1-249-429-11	CARBON	10K	5%	1/4W
R105	1-247-807-31	CARBON	100	5%	1/4W
R151	1-249-429-11	CARBON	10K	5%	1/4W
R152	1-249-429-11	CARBON	10K	5%	1/4W
R153	1-249-429-11	CARBON	10K	5%	1/4W
R154	1-249-429-11	CARBON	10K	5%	1/4W
R155	1-247-807-31	CARBON	100	5%	1/4W
R601	1-249-429-11	CARBON	10K	5%	1/4W
R602	1-249-441-11	CARBON	100K	5%	1/4W
R603	1-249-430-11	CARBON	12K	5%	1/4W
R604	1-249-437-11	CARBON	47K	5%	1/4W
R605	1-249-438-11	CARBON	56K	5%	1/4W
R606	1-249-437-11	CARBON	47K	5%	1/4W
R607	1-215-891-11	METAL OXIDE	680	5%	2W F
R608	1-215-891-11	METAL OXIDE	680	5%	2W F
R609	1-215-891-11	METAL OXIDE	680	5%	2W F
R610	1-249-429-11	CARBON	10K	5%	1/4W
R611	1-249-429-11	CARBON	10K	5%	1/4W
R612	1-249-429-11	CARBON	10K	5%	1/4W
R613	1-249-429-11	CARBON	10K	5%	1/4W
R614	1-249-429-11	CARBON	10K	5%	1/4W
R615	1-249-409-11	CARBON	220	5%	1/4W F
R616	1-249-409-11	CARBON	220	5%	1/4W F
R617	1-249-409-11	CARBON	220	5%	1/4W F
R618	1-249-409-11	CARBON	220	5%	1/4W F
R621	1-249-435-11	CARBON	33K	5%	1/4W
R622	1-249-435-11	CARBON	33K	5%	1/4W

MAIN

PANEL

Ref. No.	Part No.	Description	Remark		
R623	1-249-441-11	CARBON	100K	5%	1/4W
R624	1-249-441-11	CARBON	100K	5%	1/4W
R625	1-249-437-11	CARBON	47K	5%	1/4W
R626	1-249-429-11	CARBON	10K	5%	1/4W
R627	1-249-417-11	CARBON	1K	5%	1/4W F
R628	1-247-807-31	CARBON	100	5%	1/4W
R629	1-249-425-11	CARBON	4.7K	5%	1/4W F
R630	1-249-425-11	CARBON	4.7K	5%	1/4W F
R631	1-249-441-11	CARBON	100K	5%	1/4W
R632	1-249-429-11	CARBON	10K	5%	1/4W
R633	1-249-441-11	CARBON	100K	5%	1/4W
R641	1-249-418-11	CARBON	1.2K	5%	1/4W F
R642	1-249-418-11	CARBON	1.2K	5%	1/4W F
R643	1-249-418-11	CARBON	1.2K	5%	1/4W F
R644	1-249-418-11	CARBON	1.2K	5%	1/4W F
R901	1-249-429-11	CARBON	10K	5%	1/4W
R902	1-249-429-11	CARBON	10K	5%	1/4W
△R911	1-219-134-11	FUSIBLE	0.1	10%	1/4W
△R912	1-219-134-11	FUSIBLE	0.1	10%	1/4W
△R951	1-212-934-00	FUSIBLE	1	5%	1/2W F
△R952	1-212-934-00	FUSIBLE	1	5%	1/2W F
R961	1-249-417-11	CARBON	1K	5%	1/4W F

< RELAY >

RY601	1-515-920-11	RELAY (24V)
RY602	1-515-920-11	RELAY (24V)
RY603	1-515-360-21	RELAY

* A-4369-274-A PANEL BOARD, COMPLETE (EXCEPT UK)

* A-4369-275-A PANEL BOARD, COMPLETE (UK)

< CAPACITOR >

C202	1-162-282-31	CERAMIC	100PF	10%	50V
C203	1-126-301-11	ELECT	1uF	20%	50V
C204	1-126-096-11	ELECT	10uF	20%	35V
C211	1-124-465-00	ELECT	0.47uF	20%	50V
C212	1-124-464-11	ELECT	0.22uF	20%	50V
C213	1-126-157-11	ELECT	10uF	20%	16V
C231	1-162-294-31	CERAMIC	0.001uF	10%	50V
C232	1-164-159-11	CERAMIC	0.1uF		50V
C233	1-162-282-31	CERAMIC	100PF	10%	50V
C234	1-162-286-31	CERAMIC	220PF	10%	50V
C235	1-164-159-11	CERAMIC	0.1uF		50V
C236	1-164-159-11	CERAMIC	0.1uF		50V
C237	1-162-282-31	CERAMIC	100PF	10%	50V
C238	1-162-286-31	CERAMIC	220PF	10%	50V

Ref. No.	Part No.	Description	Remark		
C239	1-124-464-11	ELECT	0.22uF	20%	50V
C240	1-126-157-11	ELECT	10uF	20%	16V
C241	1-126-157-11	ELECT	10uF	20%	16V
C252	1-162-282-31	CERAMIC	100PF	10%	50V
C253	1-126-301-11	ELECT	1uF	20%	50V
C261	1-124-465-00	ELECT	0.47uF	20%	50V
C262	1-124-464-11	ELECT	0.22uF	20%	50V
C263	1-126-157-11	ELECT	10uF	20%	16V
C501	1-126-157-11	ELECT	10uF	20%	16V
C502	1-161-379-00	CERAMIC	0.01uF	20%	25V
C503	1-161-379-00	CERAMIC	0.01uF	20%	25V
C521	1-161-379-00	CERAMIC	0.01uF	20%	25V
C522	1-161-379-00	CERAMIC	0.01uF	20%	25V
C551	1-124-443-00	ELECT	100uF	20%	10V
C552	1-161-379-00	CERAMIC	0.01uF	20%	25V

< CONNECTOR >

* CN201 1-568-839-11 SOCKET, CONNECTOR 23P
* CN202 1-564-338-00 PIN, CONNECTOR 4P
* CN203 1-564-337-00 PIN, CONNECTOR 3P

< DIODE >

D201	8-719-987-63	DIODE	1N4148M
D501	8-719-200-82	DIODE	11ES2
D502	8-719-987-63	DIODE	1N4148M
D503	8-719-987-63	DIODE	1N4148M
D505	8-719-987-63	DIODE	1N4148M

D511	8-719-046-70	DIODE	SEL5620C
D512	8-719-046-70	DIODE	SEL5620C
D513	8-719-046-70	DIODE	SEL5620C
D514	8-719-046-70	DIODE	SEL5620C
D515	8-719-045-89	DIODE	SML16760CN

D516	8-719-045-89	DIODE	SML16760CN
D517	8-719-032-83	DIODE	SEL5220S-TP
D518	8-719-032-83	DIODE	SEL5220S-TP
D551	8-719-200-82	DIODE	11ES2
D741	8-719-002-09	DIODE	UZL-18M

< PLATE GROUND >

* E101 4-942-204-01 PLATE, GROUND

< IC >

IC201	8-759-634-50	IC	M5218AL
IC231	8-759-634-50	IC	M5218AL
IC501	8-759-192-72	IC	MC68HC05P9-SC405679B
IC502	8-759-917-43	IC	SN74HC138AN
IC503	8-749-923-43	IC	GP1U57XB
IC551	8-759-184-40	IC	LB1638

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

PANEL

Ref. No.	Part No.	Description	Remark
< JACK >			
J201	1-764-106-11	JACK (MIX MIC)	
J202	1-764-106-11	JACK (HEADPHONES)	
< TRANSISTOR >			
Q201	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q202	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q203	8-729-900-69	TRANSISTOR DTA144WS	
Q211	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q221	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q251	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q252	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q261	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q271	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q501	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q502	8-729-900-63	TRANSISTOR DTA124ES	
Q503	8-729-900-36	TRANSISTOR DTC124ES	
Q504	8-729-900-36	TRANSISTOR DTC124ES	
Q505	8-729-900-63	TRANSISTOR DTA124ES	
Q506	8-729-900-63	TRANSISTOR DTA124ES	
Q512	8-729-900-36	TRANSISTOR DTC124ES	
Q514	8-729-900-36	TRANSISTOR DTC124ES	
< RESISTOR >			
R201	1-249-429-11	CARBON 10K 5% 1/4W	
R202	1-249-417-11	CARBON 1K 5% 1/4W F	
R203	1-249-429-11	CARBON 10K 5% 1/4W	
R204	1-249-441-11	CARBON 100K 5% 1/4W	
R205	1-249-431-11	CARBON 15K 5% 1/4W	
R206	1-249-417-11	CARBON 1K 5% 1/4W F	
R207	1-249-429-11	CARBON 10K 5% 1/4W	
R208	1-249-429-11	CARBON 10K 5% 1/4W	
R209	1-247-807-31	CARBON 100 5% 1/4W	
R211	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R212	1-249-435-11	CARBON 33K 5% 1/4W	
R213	1-247-895-00	CARBON 470K 5% 1/4W	
R214	1-249-429-11	CARBON 10K 5% 1/4W	
R215	1-249-417-11	CARBON 1K 5% 1/4W F	
R221	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R222	1-249-413-11	CARBON 470 5% 1/4W F	
R223	1-249-429-11	CARBON 10K 5% 1/4W	
R231	1-249-441-11	CARBON 100K 5% 1/4W	
R232	1-249-417-11	CARBON 1K 5% 1/4W F	
R233	1-249-431-11	CARBON 15K 5% 1/4W	
R234	1-249-441-11	CARBON 100K 5% 1/4W	
R235	1-249-417-11	CARBON 1K 5% 1/4W F	
R236	1-249-434-11	CARBON 27K 5% 1/4W	
R237	1-249-441-11	CARBON 100K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R238	1-249-441-11	CARBON 100K 5% 1/4W	
R239	1-249-417-11	CARBON 1K 5% 1/4W F	
R240	1-249-409-11	CARBON 220 5% 1/4W F	
R241	1-249-409-11	CARBON 220 5% 1/4W F	
R251	1-249-429-11	CARBON 10K 5% 1/4W	
R252	1-249-417-11	CARBON 1K 5% 1/4W F	
R253	1-249-429-11	CARBON 10K 5% 1/4W	
R254	1-249-441-11	CARBON 100K 5% 1/4W	
R255	1-249-431-11	CARBON 15K 5% 1/4W	
R256	1-249-417-11	CARBON 1K 5% 1/4W F	
R257	1-249-429-11	CARBON 10K 5% 1/4W	
R258	1-249-441-11	CARBON 100K 5% 1/4W	
R259	1-249-441-11	CARBON 100K 5% 1/4W	
R261	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R262	1-249-435-11	CARBON 33K 5% 1/4W	
R263	1-247-895-00	CARBON 470K 5% 1/4W	
R264	1-249-429-11	CARBON 10K 5% 1/4W	
R265	1-249-417-11	CARBON 1K 5% 1/4W F	
R271	1-249-419-11	CARBON 1.5K 5% 1/4W F	
R272	1-249-413-11	CARBON 470 5% 1/4W F	
R273	1-249-429-11	CARBON 10K 5% 1/4W	
R501	1-247-903-00	CARBON 1M 5% 1/4W	
R502	1-249-429-11	CARBON 10K 5% 1/4W	
R503	1-249-429-11	CARBON 10K 5% 1/4W	
R504	1-249-417-11	CARBON 1K 5% 1/4W F	
R505	1-249-429-11	CARBON 10K 5% 1/4W	
R506	1-249-429-11	CARBON 10K 5% 1/4W	
R507	1-249-417-11	CARBON 1K 5% 1/4W F	
R508	1-249-417-11	CARBON 1K 5% 1/4W F	
R509	1-249-417-11	CARBON 1K 5% 1/4W F	
R510	1-249-417-11	CARBON 1K 5% 1/4W F	
R511	1-249-417-11	CARBON 1K 5% 1/4W F	
R512	1-249-417-11	CARBON 1K 5% 1/4W F	
R513	1-249-417-11	CARBON 1K 5% 1/4W F	
R514	1-249-417-11	CARBON 1K 5% 1/4W F	
R515	1-247-811-31	CARBON 150 5% 1/4W	
R516	1-249-417-11	CARBON 1K 5% 1/4W F	
R517	1-247-811-31	CARBON 150 5% 1/4W	
R518	1-249-429-11	CARBON 10K 5% 1/4W	
R520	1-249-422-11	CARBON 2.7K 5% 1/4W F	
R521	1-249-393-11	CARBON 10 5% 1/4W F	
R522	1-249-418-11	CARBON 1.2K 5% 1/4W F	
R523	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R524	1-249-422-11	CARBON 2.7K 5% 1/4W F	
R525	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R526	1-249-431-11	CARBON 15K 5% 1/4W	
R527	1-249-429-11	CARBON 10K 5% 1/4W	
R528	1-249-429-11	CARBON 10K 5% 1/4W	

PANEL**SPEAKER****TRANSFORMER (A)****TRANSFORMER (C)**

Ref. No.	Part No.	Description	Remark
R530	1-249-409-11	CARBON	220 5% 1/4W F
R531	1-249-412-11	CARBON	390 5% 1/4W F
R533	1-249-412-11	CARBON	390 5% 1/4W F

R534	1-247-811-31	CARBON	150 5% 1/4W
R536	1-247-811-31	CARBON	150 5% 1/4W
R537	1-249-429-11	CARBON	10K 5% 1/4W
R539	1-249-429-11	CARBON	10K 5% 1/4W

< VARIABLE RESISTOR >

RV201	1-223-520-11	RES, VAR, CARBON 10K/100KX4 (VOLUME)	
RV211	1-223-336-11	RES, VAR, CARBON 50K/50K (DYNAMIC BASS SYSTEM:LEVEL)	
RV212	1-223-201-11	RES, VAR, CARBON 100K/100K (DYNAMIC BASS SYSTEM:FREQUENCY)	
RV231	1-241-813-11	RES, VAR, CARBON 50K (MIC LEVEL)	

< SWITCH >

S501	1-572-184-11	SWITCH, KEYBOARD (SYSTEM POWER)	
S502	1-572-184-11	SWITCH, KEYBOARD (MUTING)	
S503	1-572-184-11	SWITCH, KEYBOARD (PHONO)	
S504	1-572-184-11	SWITCH, KEYBOARD (TUNER)	
S505	1-572-184-11	SWITCH, KEYBOARD (CD)	
S506	1-572-184-11	SWITCH, KEYBOARD (TAPE)	
S507	1-572-184-11	SWITCH, KEYBOARD (MD/DAT/VIDEO 2)	
S508	1-572-184-11	SWITCH, KEYBOARD (VIDEO 1)	

< VIBRATOR >

X501	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	
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*	1-649-733-11	SPEAKER BOARD	
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< CONNECTOR >

* CN401	1-564-523-11	PLUG, CONNECTOR 8P	
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< JACK >

J401	1-568-572-11	JACK, PIN 2P (REAR SPEAKERS)	
J402	1-580-893-11	JACK, PIN 2P (CENTER SPEAKERS)	

< TERMINAL >

TB401	1-537-445-11	TERMINAL BOARD (SP) (FRONT SPEAKER)	
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*	1-649-735-11	TRANSFORMER (A) BOARD	
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Ref. No.	Part No.	Description	Remark
*	1-651-466-11	TRANSFORMER (C) BOARD	

MISCELLANEOUS

11	1-751-718-11	WIRE (FLAT TYPE) (23 CORE)	
13	1-751-216-31	LEAD (WITH CONNECTOR) (2 CORE)	
66	1-751-717-11	WIRE (FLAT TYPE) (17 CORE)	
△CNJ901	1-526-794-11	OUTLET, AC	
M601	1-698-209-11	MOTOR, DC FAN	

ACCESSORIES & PACKING MATERIALS

	3-703-845-01	LABEL, CAUTION, NEW UL (UK)	
*	4-962-377-01	CUSHION (A) (FRONT) (EXCEPT UK)	
*	4-962-378-01	CUSHION (A) (REAR) (EXCEPT UK)	

HARDWARE LIST

#1	7-682-547-09	SCREW +BVTT 3X6 (S)	
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#3	7-682-548-04	SCREW +BVTT 3X8 (S)	
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	

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

