

TA-A50

SERVICE MANUAL

*E Model
Australian Model
Tourist Model*



This set is the amplifier section in LBT-A50/A50CD/A50CDM.

SPECIFICATIONS

Peak music power output 750 W (4 speakers driven)
Continuous RMS power output 60 W + 60 W
(6 ohms, at 1 kHz, 5 % THD)

Input	Jack type	Sensitivity	Impedance
PHONO (MM)	Phono	3.3 mV	47 kohms
VIDEO	Phono	270 mV	47 kohms
MIC	Phone	1.0 mV	10 kohms

Audio output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 8 to 16 ohms
HEADPHONES	Stereophone	Accepts headphones of 8 ohms or more

Frequency response 10 Hz to 50 kHz $+0$ -3 dB
Power requirements 120/220/240 V AC adjustable, 50/60 Hz
Power consumption 180 W
Weight Approx. 6.0 kg
Dimensions Approx. 355 × 132 × 320 mm (w/h/d, including projections)

Design and specifications are subject to change without notice.



INTEGRATED STEREO AMPLIFIER
SONY®



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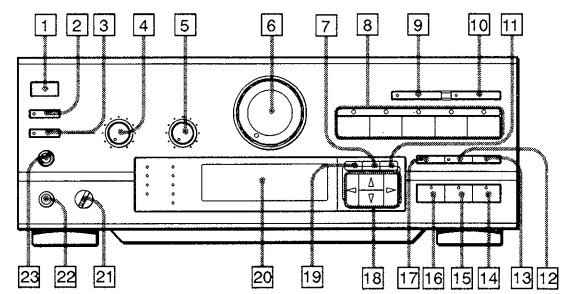
SAFETY-RELATED COMPONENT WARNING!!

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 instruction manual.

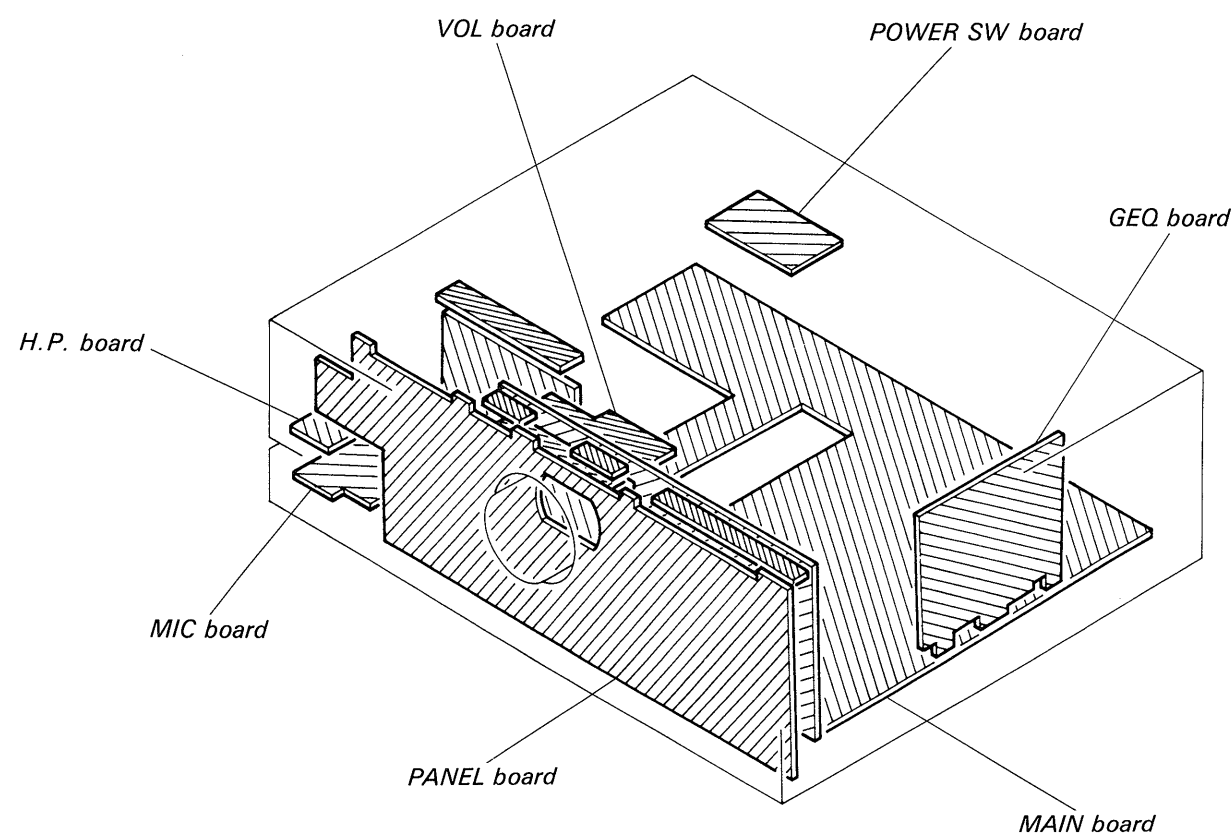
Location of Controls



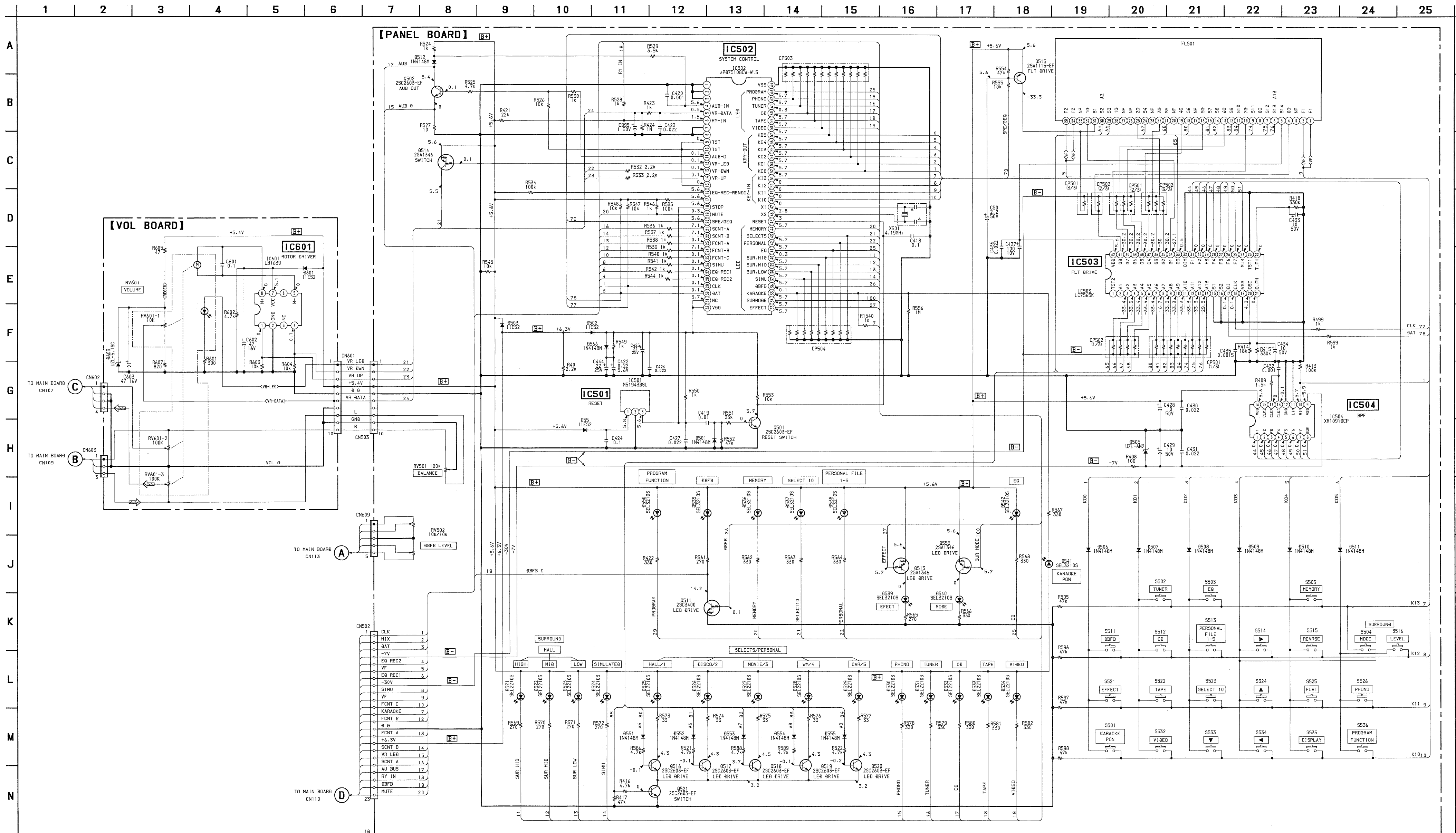
- 1 POWER switch (16)
- 2 EFFECT button and indicator (68)
- 3 DBFB button and indicator (18)
- 4 DBFB LEVEL control (18)
- 5 BALANCE control (18)
- 6 VOLUME control and indicator (18)
- 7 FLAT button (70)
- 8 Function selectors and indicators
- 9 KARAOKE PON button and indicator (68)
- 10 PROGRAM FUNCTION button and indicator (130)
- 11 REVERSE button (70)
- 12 SURROUND MODE button and indicator (62)
- 13 SURROUND LEVEL button (62)
- 14 EQ button and indicator (66)
- 15 PERSONAL FILE 1-5 button and indicator (72)
- 16 SELECT 5 button and indicator (64)
- 17 MEMORY button and indicator (72)
- 18 CURSOR CONTROL buttons (64, 66, 72, 74)
- 19 DISPLAY button (70)
- 20 Display window
- 21 MIC (microphone) LEVEL control (56)
- 22 MIC (microphone) jack (56)
- 23 HEADPHONES jack

SECTION 2 DIAGRAMS

2-1. CIRCUIT BOARDS LOCATION



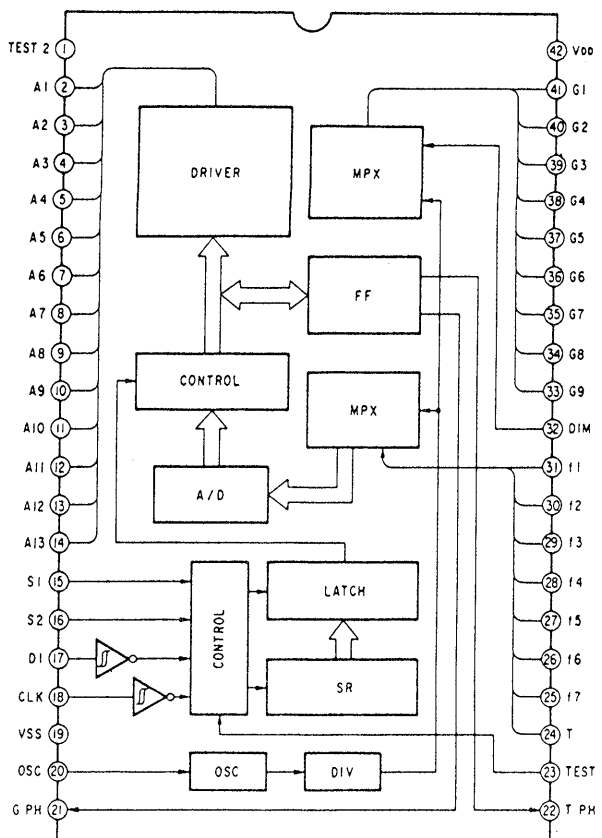
2-2. SCHEMATIC DIAGRAMS – PANEL Section –










- Note:**
- All capacitors are in μF unless otherwise noted. pF : μF : μF 50WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
 - \triangle : internal component.
 - \square : nonflammable resistor.
 - \square : fusible resistor.
 - \square : printed resistor.
 - \square : B+ Line
 - \square : B- Line
 - \square : adjustment for repair.
 - \ast : selected to yield optimum performance.
 - AC voltage readings in the bias oscillator with a VTVM.
 - Total current is measured with no cassette installed.

- Power voltage is dc V and fed with regulated dc power supply from external power voltage jack.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (input impedance 10M Ω).
- Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- \square : CD

IC503 LC7565K



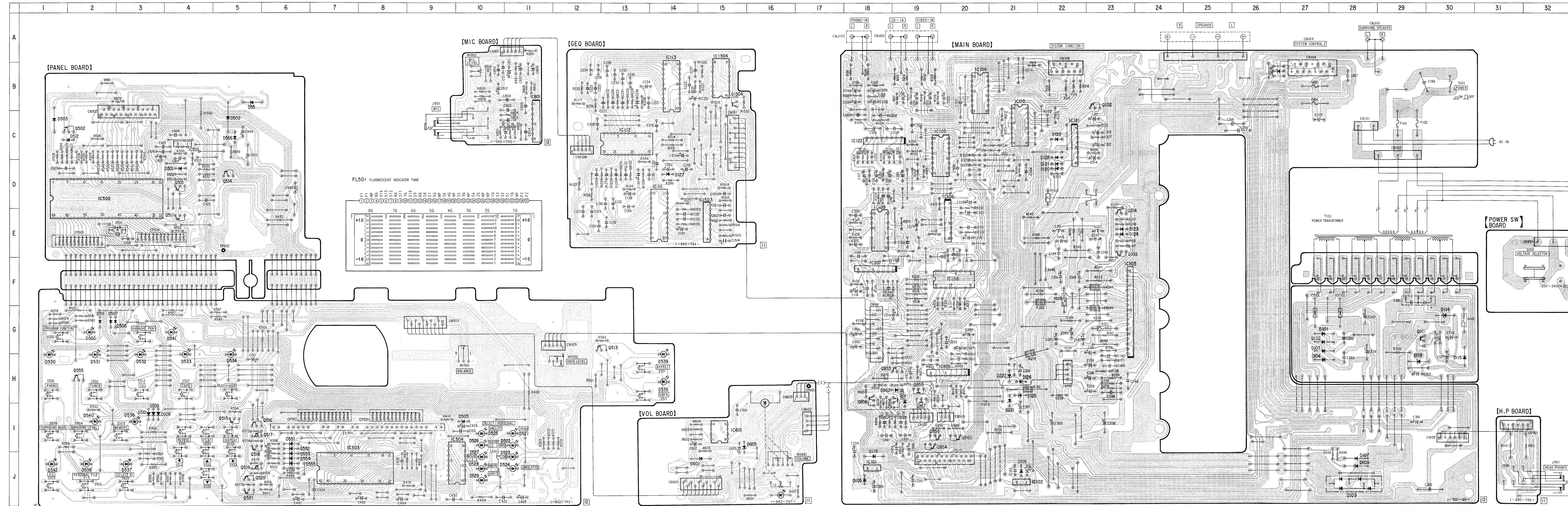
[illegible]

- All capacitors are in μF unless otherwise noted. pF : $\mu\text{F} \times 500\text{W}$ or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
-  : internal component.
-  : nonflammable resistor.
-  : fusible resistor.
-  : printed resistor.
-  : B+ Line
-  : B- Line
-  : adjustment for repair.
- * : selected to yield optimum performance.
- AC voltage readings in the bias oscillator with a VTVM.
- Total current is measured with no cassette installed.
- Voltage is dc $\pm 5\text{V}$ and fed with regulated dc power supply from external power voltage jack.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input Impedance $10\text{M}\Omega$)
- Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- CD

2-4. PRINTED WIRING BOARDS

● Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D55	B-5	D527	J-10	IC504	J-10
D101	G-27	D528	J-10	IC601	I-15
D102	G-27	D529	J-10	IC855	H-20
D103	G-27	D530	G-1	IC1503	E-15
D104	H-27	D531	G-2	IC1504	B-15
D105	J-18	D532	G-3		
D106	J-21	D533	G-4	Q101	G-29
D107	J-28	D534	G-5	Q102	B-23
D108	J-28	D535	H-14	Q103	E-23
D109	J-28	D536	I-3	Q104	E-23
D113	B-23	D537	J-3	Q511	E-4
D114	G-30	D538	J-2	Q513	G-13
D115	H-30	D539	G-14	Q514	D-5
D116	B-24	D540	I-2	Q515	I-5
D117	B-23	D541	G-2	Q516	I-5
D118	J-18	D542	J-1	Q517	I-5
D119	H-29	D543	G-2	Q518	I-5
D120	D-22	D551	I-6	Q519	J-5
D121	D-22	D552	I-6	Q520	J-5
D122	C-22	D553	I-6	Q521	J-5
D123	E-23	D554	J-6	Q555	H-2
D124	E-23	D555	J-6	Q853	H-19
D125	H-21	D566	C-5	Q854	I-19
D126	H-21	D601	J-14	Q855	H-19
D127	D-14	D603	J-15	Q856	H-18
D128	C-22	D862	H-19	Q857	H-19
D218	B-26	D863	H-19	Q858	H-18
D221	H-21			Q859	I-19
D222	H-21	IC101	J-18	Q860	I-19
D501	D-4	IC102	J-21	Q1504	B-15
D502	C-5	IC103	F-23		
D503	C-1	IC104	B-20		
D505	I-10	IC105	C-19		
D506	G-2	IC106	E-20		
D507	G-2	IC107	F-18		
D508	I-3	IC108	F-20		
D509	I-3	IC109	E-18		
D510	I-3	IC110	C-21		
D511	G-2	IC111	E-14		
D512	C-1	IC112	C-13		
D521	I-11	IC113	B-14		
D522	I-11	IC121	C-22		
D523	J-11	IC122	C-18		
D524	J-11	IC501	C-4		
D525	I-10	IC502	D-2		
D526	I-10	IC503	J-7		



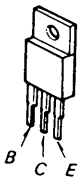
Note:
● — : parts extracted from the component side.

2-5. SEMICONDUCTOR LEAD LAYOUT

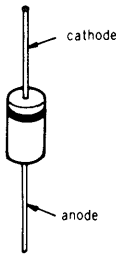
M51943BSL



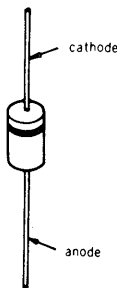
2SB1094-LK



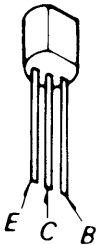
10E2N
1N4148M
1S1585



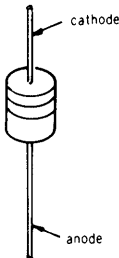
UZL-6L3
UZL-6M2
UZL-7L3
UZP-5.6B



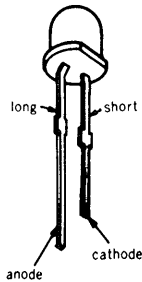
2SC1841-PAFAEA



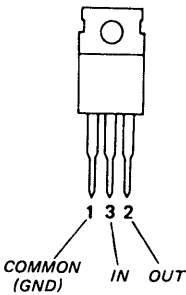
11ES2
HZL-7M1
HZS33-2L
HZS6AIL



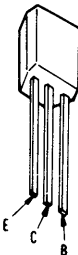
SEL2210S-D



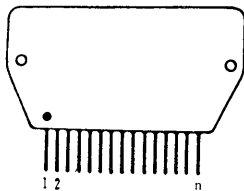
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2SC2603-EF
2SC3622A-LK
DTA-124ES
DTC-124ES

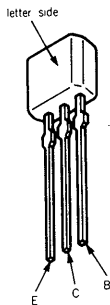


STK-4192MK2K

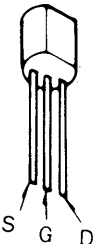


(Making side View)

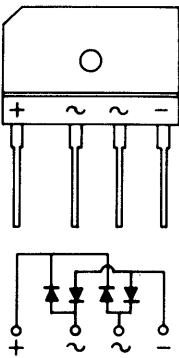
2SA1175-HFE



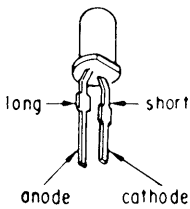
2SK246-Y



RBV-602-01



SEL3210S-CD



SECTION 3 EXPLODED VIEWS

NOTE:

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

↑
Parts color

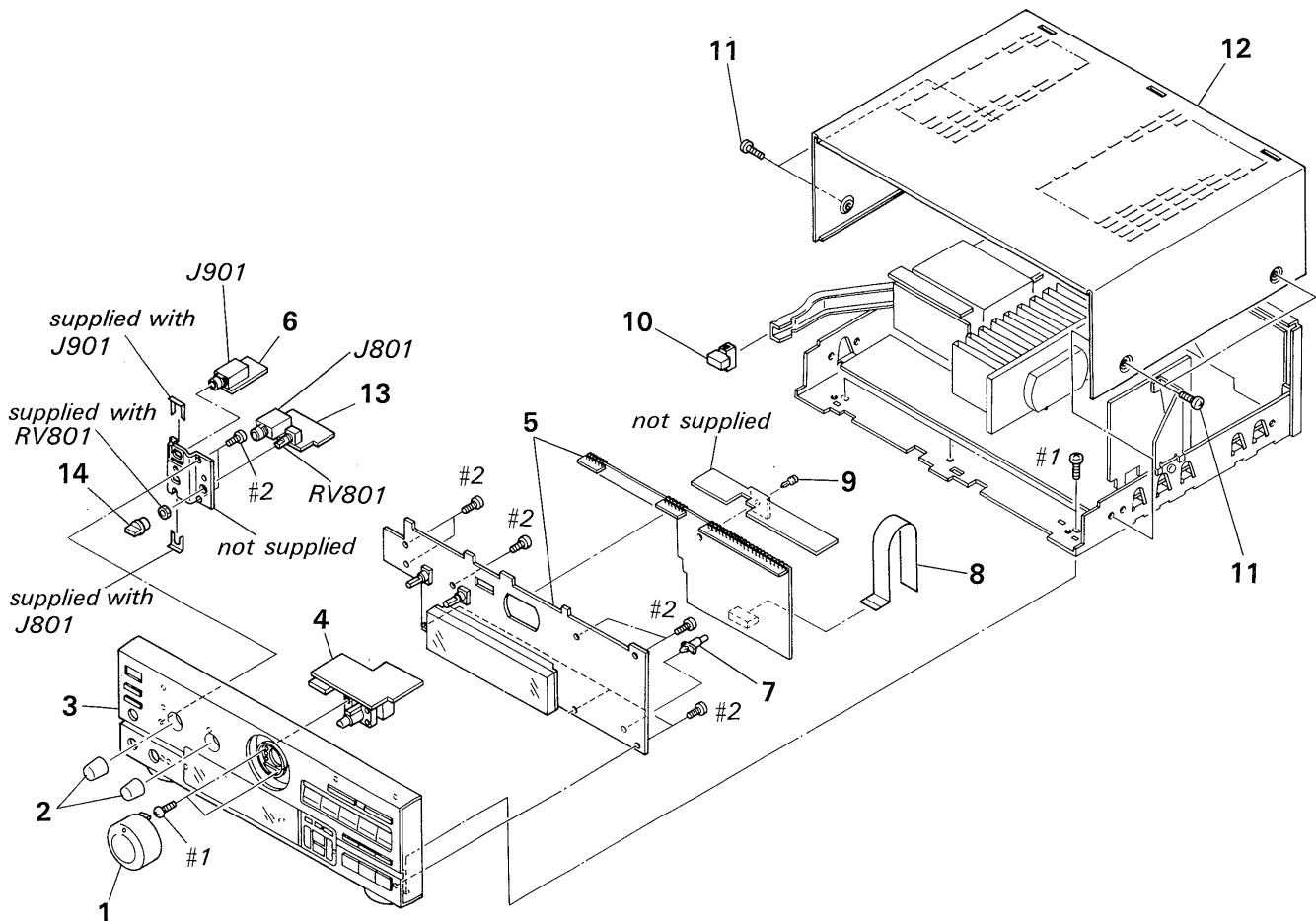
↑
Cabinet's color

- 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 is given in the last of this parts list.

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

JE:Tourist
EA:Saudi Arabia
AUS: Australian

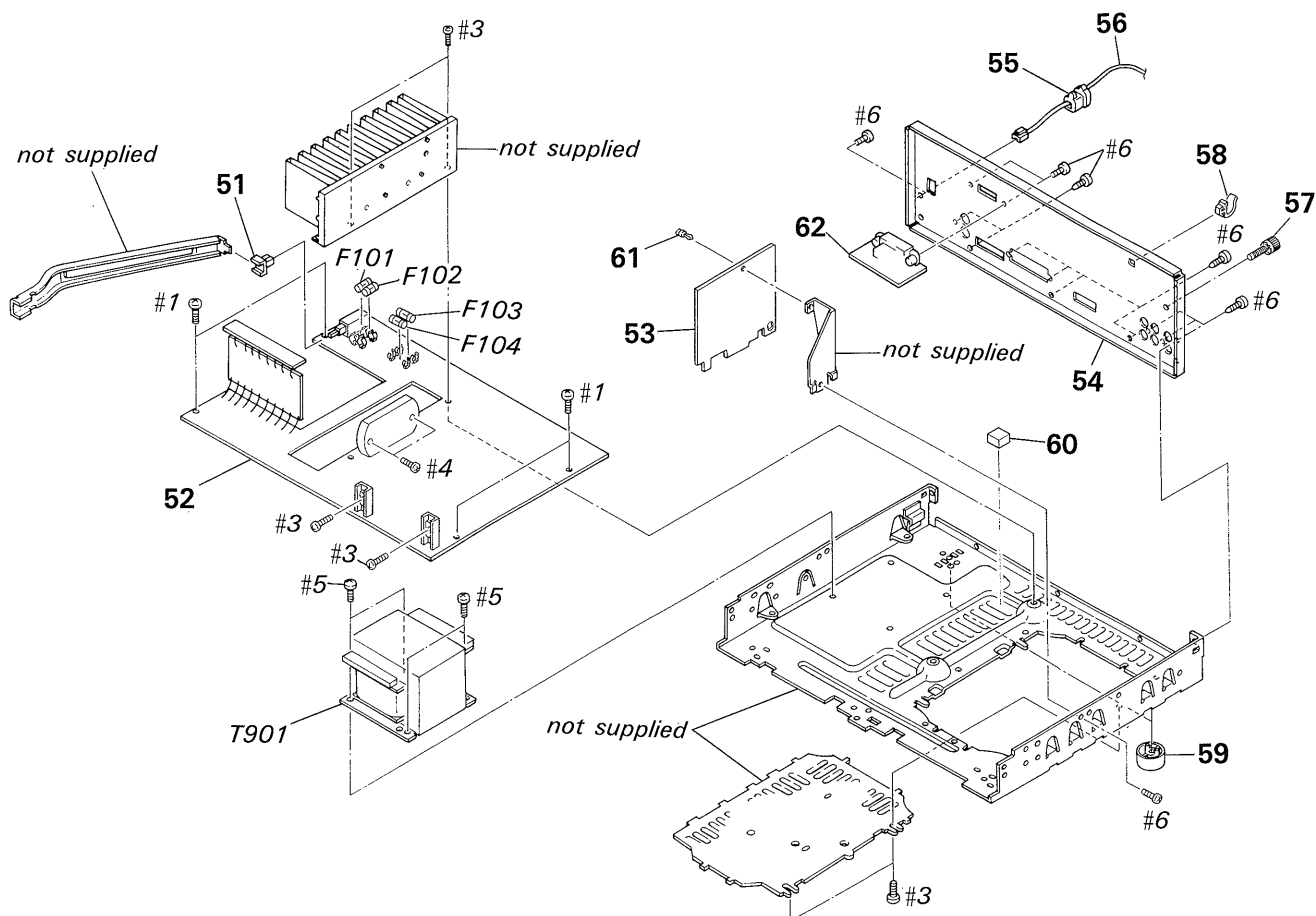
3-1. CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	X-4942-418-1	KNOB ASSY, ROUND	
2	4-950-651-11	KNOB (DIA. 16), ROUND	
3	X-4942-432-1	PANEL ASSY, FRONT	
* 4	1-642-747-11	VOL BOARD	
* 5	A-4347-274-A	PANEL BOARD, COMPLETE	
* 6	1-642-746-11	H. P. BOARD	
* 7	4-924-098-31	HOLDER, PC BOARD	
8	1-690-697-11	WIRE (FLAT TYPE) (23 CORE)	
9	4-812-134-11	RIVET NYLON, 3.5	



Ref. No.	Part No.	Description	Remark
10	4-942-061-11	BUTTON (P)	
11	3-363-099-01	SCREW (CASE +3X8 TP2)	
* 12	4-949-912-11	CASE	
* 13	A-4347-284-A	MIC BOARD, COMPLETE	
14	4-950-652-11	KNOB (DIA. 12), ROUND	
J801	1-507-854-00	JACK, PHONE (MIC)	
J901	1-507-854-00	JACK, PHONE (HEADPHONE)	
RV801	1-241-317-11	RES, VAR, CARBON 50K (MIC LEVEL)	

3-2. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remark
51	4-866-342-00	JOINT (B), KNOB	
* 52	A-4347-267-A	MAIN BOARD, COMPLETE	
* 53	A-4347-283-A	GEQ BOARD, COMPLETE	
* 54	4-950-662-31	PANEL (B3120), BACK	
* 55	3-703-244-00	BUSHING (2104), CORD (EA, AUS)	
* 55	3-703-571-11	BUSHING (S) (4516), CORD (E, JE)	
△56	1-575-651-11	CORD, POWER (EA)	
△56	1-575-656-11	CORD, POWER (E, JE)	
△56	1-690-056-11	CORD, POWER (AUS)	
57	4-947-010-01	SCREW, FEEDER FIXED	

Ref. No.	Part No.	Description	Remark
* 58	4-949-235-01	HOOK	
59	4-931-169-01	FOOT	
* 60	4-932-867-01	CUSHION	
61	4-812-134-11	RIVET NYLON, 3.5	
* 62	1-642-742-11	POWER SW BOARD	
△F101	1-532-259-00	FUSE (T1. 6A)	
△F102	1-532-259-00	FUSE (T1. 6A)	
△F103	1-532-203-00	FUSE (T2. 0A)	
△F104	1-532-203-00	FUSE (T2. 0A)	
△T901	1-450-813-11	TRANSFORMER, POWER	

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

SECTION 4 ELECTRICAL PARTS LIST

MAIN

POWER SW

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

The components identified by mark \triangle or dotted line with mark \triangle 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-4347-267-A	MAIN BOARD, COMPLETE *****		C170	1-126-049-11	ELECT 22uF 20% 25V	
*	1-642-742-11	POWER SW BOARD *****		C199	1-161-744-00	CERAMIC 0.01uF 400V	
*	1-533-213-31	HOLDER, FUSE		C201	1-126-161-11	ELECT 2.2uF 20% 50V	
*	3-309-144-21	HEAT SINK		C202	1-162-282-31	CERAMIC 100PF 10% 50V	
*	4-942-204-01	PLATE, GROUND		C203	1-126-022-11	ELECT 47uF 20% 16V	
	7-682-548-04	SCREW +BVTT 3X8 (S)		C204	1-106-347-00	MYLAR 1500PF 5% 200V	
< CAPACITOR >				C205	1-130-480-00	MYLAR 0.0056uF 5% 50V	
C101	1-126-161-11	ELECT 2.2uF 20% 50V		C206	1-124-464-11	ELECT 0.22uF 20% 50V	
C102	1-162-282-31	CERAMIC 100PF 10% 50V		C207	1-126-022-11	ELECT 47uF 20% 16V	
C103	1-126-022-11	ELECT 47uF 20% 16V		C209	1-162-219-31	CERAMIC 68PF 5% 50V	
C104	1-106-347-00	MYLAR 1500PF 5% 200V		C210	1-162-207-31	CERAMIC 22PF 5% 50V	
C105	1-130-480-00	MYLAR 0.0056uF 5% 50V		C212	1-126-163-11	ELECT 4.7uF 20% 50V	
C106	1-124-464-11	ELECT 0.22uF 20% 50V		C213	1-126-163-11	ELECT 4.7uF 20% 50V	
C107	1-126-022-11	ELECT 47uF 20% 16V		C216	1-162-207-31	CERAMIC 22PF 5% 50V	
C109	1-162-219-31	CERAMIC 68PF 5% 50V		C217	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C110	1-162-207-31	CERAMIC 22PF 5% 50V		C218	1-126-059-11	ELECT 10uF 20% 50V	
C112	1-126-163-11	ELECT 4.7uF 20% 50V		C219	1-126-022-11	ELECT 47uF 20% 16V	
C113	1-126-163-11	ELECT 4.7uF 20% 50V		C238	1-126-059-11	ELECT 10uF 20% 50V	
C116	1-162-207-31	CERAMIC 22PF 5% 50V		C239	1-162-282-31	CERAMIC 100PF 10% 50V	
C117	1-162-294-31	CERAMIC 0.001uF 10% 50V		C240	1-162-286-31	CERAMIC 220PF 10% 50V	
C118	1-126-059-11	ELECT 10uF 20% 50V		C241	1-126-101-11	ELECT 100uF 20% 16V	
C119	1-126-022-11	ELECT 47uF 20% 16V		C243	1-124-910-11	ELECT 47uF 20% 50V	
C138	1-126-059-11	ELECT 10uF 20% 50V		C244	1-136-163-00	FILM 0.068uF 5% 50V	
C139	1-162-282-31	CERAMIC 100PF 10% 50V		C245	1-136-163-00	FILM 0.068uF 5% 50V	
C140	1-162-286-31	CERAMIC 220PF 10% 50V		C248	1-161-494-00	CERAMIC 0.022uF 25V	
C141	1-126-101-11	ELECT 100uF 20% 16V		C257	1-136-161-00	FILM 0.047uF 5% 50V	
C143	1-124-910-11	ELECT 47uF 20% 50V		C258	1-164-159-11	CERAMIC 0.1uF 50V	
C144	1-136-163-00	FILM 0.068uF 5% 50V		C260	1-124-572-11	ELECT 100uF 20% 63V	
C145	1-136-163-00	FILM 0.068uF 5% 50V		C270	1-126-049-11	ELECT 22uF 20% 25V	
C148	1-161-494-00	CERAMIC 0.022uF 25V		C301	1-161-494-00	CERAMIC 0.022uF 25V	
C157	1-136-161-00	FILM 0.047uF 5% 50V		C302	1-126-059-11	ELECT 10uF 20% 50V	
				C303	1-161-494-00	CERAMIC 0.022uF 25V	
				C304	1-161-494-00	CERAMIC 0.022uF 25V	

MAIN

POWER SW

Ref. No.	Part No.	Description	Remark	
C305	1-161-494-00	CERAMIC	0.022uF	25V
C306	1-136-158-00	FILM	0.027uF 5%	50V
C307	1-130-477-00	MYLAR	0.0033uF 5%	50V
C309	1-126-059-11	ELECT	10uF 20%	63V
C310	1-124-572-11	ELECT	100uF 20%	63V
C311	1-124-587-11	ELECT	220uF 20%	6.3V
C312	1-126-163-11	ELECT	4.7uF 20%	50V
C313	1-124-587-11	ELECT	220uF 20%	6.3V
C314	1-124-994-11	ELECT	100uF 20%	10V
C315	1-164-159-11	CERAMIC	0.1uF	50V
C316	1-164-159-11	CERAMIC	0.1uF	50V
C317	1-124-910-11	ELECT	47uF 20%	50V
C318	1-124-910-11	ELECT	47uF 20%	50V
C319	1-126-059-11	ELECT	10uF 20%	50V
C320	1-126-059-11	ELECT	10uF 20%	50V
C325	1-126-258-11	ELECT	4700uF 20%	56V
C326	1-126-258-11	ELECT	4700uF 20%	56V
C327	1-124-920-11	ELECT	330uF 20%	63V
C330	1-124-473-11	ELECT	1000uF 20%	10V
C331	1-102-394-11	CERAMIC	0.01uF	250V
C332	1-136-161-00	FILM	0.047uF 5%	50V
C333	1-136-161-00	FILM	0.047uF 5%	50V
C334	1-124-994-11	ELECT	100uF 20%	10V
C335	1-124-994-11	ELECT	100uF 20%	10V
C336	1-126-059-11	ELECT	10uF 20%	50V
C337	1-126-059-11	ELECT	10uF 20%	50V
C338	1-124-887-00	ELECT	3300uF 20%	16V
C339	1-124-887-00	ELECT	3300uF 20%	16V
C361	1-136-155-00	FILM	0.015uF 5%	50V
C362	1-136-161-00	FILM	0.047uF 5%	50V
C851	1-136-176-00	FILM	0.82uF 5%	50V
C852	1-136-164-00	FILM	0.082uF 5%	50V
C853	1-162-219-31	CERAMIC	68PF 5%	50V
C854	1-126-049-11	ELECT	22uF 20%	25V
C855	1-126-049-11	ELECT	22uF 20%	25V
C856	1-126-300-11	ELECT	0.47uF 20%	50V
C857	1-126-059-11	ELECT	10uF 20%	50V
C861	1-136-176-00	FILM	0.82uF 5%	50V
C862	1-136-164-00	FILM	0.082uF 5%	50V
C863	1-162-219-31	CERAMIC	68PF 5%	50V
C865	1-126-049-11	ELECT	22uF 20%	25V
C866	1-126-300-11	ELECT	0.47uF 20%	50V
C867	1-126-059-11	ELECT	10uF 20%	50V
C880	1-124-994-11	ELECT	100uF 20%	10V

< CONNECTOR >

- * CN101 1-564-321-00 PIN, CONNECTOR 2P
 * CN102 1-535-140-00 BASE POST 22MM (10MM PITCH) 3P

Ref. No.	Part No.	Description	Remark
* CN104	1-566-859-11	SOCKET, CONNECTOR 15P	
* CN105	1-564-509-11	PLUG, CONNECTOR 6P	
* CN106	1-566-858-41	SOCKET, CONNECTOR 11P	
CN107	1-564-507-11	PLUG, CONNECTOR 4P	
* CN109	1-564-337-00	PIN, CONNECTOR 3P	
* CN110	1-568-839-11	SOCKET, CONNECTOR 23P	
* CN113	1-564-339-00	PIN, CONNECTOR 5P	
* CN181	1-573-978-11	CONNECTOR, BOARD TO BOARD 11P	
* CN901	1-573-565-11	PIN, CONNECTOR 5P	

< JACK >

CNJ101	1-565-352-41	JACK, PIN 2P
CNJ102	1-565-258-11	JACK, PIN 4P
CNJ103	1-565-352-11	JACK, PIN 2P

< DIODE >

D101	8-719-200-77	DIODE 10E2N
D102	8-719-200-77	DIODE 10E2N
D103	8-719-200-77	DIODE 10E2N
D104	8-719-200-77	DIODE 10E2N
D105	8-719-987-63	DIODE 1N4148M
D107	8-719-815-85	DIODE 1S1585
D108	8-719-815-85	DIODE 1S1585
D109	8-719-302-38	DIODE RBV-602-01
D114	8-719-934-26	DIODE HZS33-2L
D115	8-719-200-77	DIODE 10E2N
D118	8-719-200-82	DIODE 11ES2
D119	8-719-014-66	DIODE UZP-5.6B
D120	8-719-815-85	DIODE 1S1585
D121	8-719-815-85	DIODE 1S1585
D122	8-719-815-85	DIODE 1S1585
D123	8-719-815-85	DIODE 1S1585
D124	8-719-815-85	DIODE 1S1585
D125	8-719-000-84	DIODE UZL-7M1
D126	8-719-000-84	DIODE UZL-7M1
D128	8-719-815-85	DIODE 1S1585
D218	8-719-000-81	DIODE UZL-7L3
D221	8-719-000-84	DIODE UZL-7M1
D222	8-719-000-84	DIODE UZL-7M1
D862	8-719-987-63	DIODE 1N4148M
D863	8-719-987-63	DIODE 1N4148M

< FUSE >

△F101	1-532-259-00	FUSE (T1.6A)
△F102	1-532-203-00	FUSE (T1.6A)
△F103	1-532-203-00	FUSE (T2.0A)
△F104	1-532-259-00	FUSE (T2.0A)

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

MAIN

POWER SW

Ref. No.	Part No.	Description	Remark
< IC >			
IC101	8-759-604-86 IC	M5F7807L	
IC102	8-759-604-90 IC	M5F7907L	
IC103	8-749-900-78 IC	STK-4192MK2	
IC104	8-759-000-48 IC	uPD4052BC-A	
IC105	8-759-140-53 IC	uPD4053BC	
IC106	8-759-634-50 IC	M5218AL	
IC107	8-759-634-50 IC	M5218AL	
IC108	8-759-000-48 IC	uPD4052BC-A	
IC109	8-759-140-53 IC	uPD4053BC	
IC110	8-759-000-48 IC	uPD4052BC-A	
IC121	8-759-111-68 IC	uPC1237HA	
IC122	8-759-710-73 IC	NJM4580L	
IC855	8-759-634-50 IC	M5218AL	
< LINK, IC >			
ICP101	1-532-842-11 LINK, IC		
ICP102	1-532-842-11 LINK, IC		
< COIL >			
L101	1-420-872-00 COIL, AIR CORE	1.9uH	
L102	1-420-872-00 COIL, AIR CORE		
< TRANSISTOR >			
Q101	8-729-141-83 TRANSISTOR	2SB1094-LK	
Q102	8-729-900-63 TRANSISTOR	DTA124ES	
Q103	8-729-140-84 TRANSISTOR	2SC1841-PAFAEA	
Q104	8-729-140-84 TRANSISTOR	2SC1841-PAFAEA	
Q853	8-729-900-63 TRANSISTOR	DTA124ES	
Q854	8-729-119-76 TRANSISTOR	2SA1175-HFE	
Q855	8-729-224-61 TRANSISTOR	2SK246-Y	
Q856	8-729-620-05 TRANSISTOR	2SC2603-EF	
Q857	8-729-224-61 TRANSISTOR	2SK246-Y	
Q858	8-729-620-05 TRANSISTOR	2SC2603-EF	
Q859	8-729-141-26 TRANSISTOR	2SC3622A-LK	
Q860	8-729-141-26 TRANSISTOR	2SC3622A-LK	
< RESISTOR >			
R101	1-249-417-11 CARBON	1K 5% 1/4W	
R103	1-249-441-11 CARBON	100K 5% 1/4W	
R104	1-249-441-11 CARBON	100K 5% 1/4W	
R105	1-249-415-11 CARBON	680 5% 1/4W	
R106	1-249-437-11 CARBON	47K 5% 1/4W	
R107	1-247-897-11 CARBON	560K 5% 1/4W	
R108	1-249-417-11 CARBON	1K 5% 1/4W	
R109	1-249-409-11 CARBON	220 5% 1/4W	
R110	1-249-421-11 CARBON	2.2K 5% 1/4W	
R111	1-249-428-11 CARBON	8.2K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R112	1-249-417-11 CARBON	1K 5% 1/4W	
R113	1-247-903-00 CARBON	1M 5% 1/4W	
R114	1-249-417-11 CARBON	1K 5% 1/4W	
R115	1-249-417-11 CARBON	1K 5% 1/4W	
R116	1-249-413-11 CARBON	470 5% 1/4W	
R118	1-249-437-11 CARBON	47K 5% 1/4W	
R119	1-249-437-11 CARBON	47K 5% 1/4W	
R120	1-249-441-11 CARBON	100K 5% 1/4W	
R121	1-249-425-11 CARBON	4.7K 5% 1/4W	
R122	1-249-427-11 CARBON	6.8K 5% 1/4W	
R123	1-249-432-11 CARBON	18K 5% 1/4W	
R124	1-249-421-11 CARBON	2.2K 5% 1/4W	
R125	1-249-441-11 CARBON	100K 5% 1/4W	
R126	1-249-429-11 CARBON	10K 5% 1/4W	
R136	1-249-441-11 CARBON	100K 5% 1/4W	
R137	1-249-417-11 CARBON	1K 5% 1/4W	
R138	1-249-438-11 CARBON	56K 5% 1/4W	
R139	1-249-438-11 CARBON	56K 5% 1/4W	
R140	1-247-758-11 CARBON	3.3K 5% 1/2W	
R142	1-247-758-11 CARBON	3.3K 5% 1/2W	
R144	1-217-156-00 RES, METAL PLATE	0.22 5W	
R145	1-247-727-11 CARBON	10 5% 1/2W	
R147	1-249-417-11 CARBON	1K 5% 1/4W	
R148	1-249-431-11 CARBON	15K 5% 1/4W	
R149	1-249-437-11 CARBON	47K 5% 1/4W	
R150	1-247-727-11 CARBON	10 5% 1/2W	
△R152	1-215-918-00 METAL OXIDE	1.5K 5% 3W F	
R156	1-249-414-11 CARBON	560 5% 1/4W	
R157	1-249-441-11 CARBON	100K 5% 1/4W	
△R193	1-212-934-00 FUSIBLE	1 5% 1/2W F	
R201	1-249-417-11 CARBON	1K 5% 1/4W	
R203	1-249-441-11 CARBON	100K 5% 1/4W	
R205	1-249-415-11 CARBON	680 5% 1/4W	
R206	1-249-437-11 CARBON	47K 5% 1/4W	
R207	1-247-897-11 CARBON	560K 5% 1/4W	
R208	1-249-417-11 CARBON	1K 5% 1/4W	
R209	1-249-409-11 CARBON	220 5% 1/4W	
R210	1-249-421-11 CARBON	2.2K 5% 1/4W	
R211	1-249-428-11 CARBON	8.2K 5% 1/4W	
R212	1-249-417-11 CARBON	1K 5% 1/4W	
R213	1-247-903-00 CARBON	1M 5% 1/4W	
R214	1-249-417-11 CARBON	1K 5% 1/4W	
R215	1-249-417-11 CARBON	1K 5% 1/4W	
R216	1-249-413-11 CARBON	470 5% 1/4W	
R218	1-249-437-11 CARBON	47K 5% 1/4W	
R219	1-249-437-11 CARBON	47K 5% 1/4W	
R220	1-249-441-11 CARBON	100K 5% 1/4W	
R221	1-249-425-11 CARBON	4.7K 5% 1/4W	
R222	1-249-427-11 CARBON	6.8K 5% 1/4W	

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MAIN

POWER SW

GEQ

Ref. No.	Part No.	Description	Remark		
R223	1-249-432-11	CARBON	18K	5%	1/4W
R224	1-249-421-11	CARBON	2. 2K	5%	1/4W
R225	1-249-441-11	CARBON	100K	5%	1/4W
R226	1-249-429-11	CARBON	10K	5%	1/4W
R236	1-249-441-11	CARBON	100K	5%	1/4W
R237	1-249-417-11	CARBON	1K	5%	1/4W
R238	1-249-438-11	CARBON	56K	5%	1/4W
R239	1-249-438-11	CARBON	56K	5%	1/4W
R240	1-247-758-11	CARBON	3. 3K	5%	1/2W
R242	1-247-758-11	CARBON	3. 3K	5%	1/2W
R244	1-217-156-00	RES, METAL PLATE	0. 22		5W
R245	1-247-727-11	CARBON	10	5%	1/2W
R247	1-249-417-11	CARBON	1K	5%	1/4W
R248	1-249-431-11	CARBON	15K	5%	1/4W
R249	1-249-438-11	CARBON	56K	5%	1/4W
R250	1-247-727-11	CARBON	10	5%	1/2W
△R252	1-215-918-00	METAL OXIDE	1. 5K	5%	3W F
R254	1-249-441-11	CARBON	100K	5%	1/4W
R256	1-249-414-11	CARBON	560	5%	1/4W
R257	1-249-441-11	CARBON	100K	5%	1/4W
R301	1-249-433-11	CARBON	22K	5%	1/4W
R302	1-249-433-11	CARBON	22K	5%	1/4W
R303	1-249-433-11	CARBON	22K	5%	1/4W
R304	1-249-433-11	CARBON	22K	5%	1/4W
R305	1-249-429-11	CARBON	10K	5%	1/4W
R307	1-249-415-11	CARBON	680	5%	1/4W
R308	1-249-429-11	CARBON	10K	5%	1/4W
R309	1-249-429-11	CARBON	10K	5%	1/4W
R310	1-249-432-11	CARBON	18K	5%	1/4W
R311	1-249-435-11	CARBON	33K	5%	1/4W
R312	1-249-433-11	CARBON	22K	5%	1/4W
R313	1-249-433-11	CARBON	22K	5%	1/4W
R316	1-247-752-11	CARBON	1K	5%	1/2W
R318	1-247-752-11	CARBON	1K	5%	1/2W
△R320	1-212-881-11	FUSIBLE	100	5%	1/4W F
△R321	1-212-881-11	FUSIBLE	100	5%	1/4W F
△R322	1-215-892-11	METAL OXIDE	1K	5%	2W F
R323	1-249-429-11	CARBON	10K	5%	1/4W
R324	1-249-427-11	CARBON	6. 8K	5%	1/4W
R325	1-249-427-11	CARBON	6. 8K	5%	1/4W
R326	1-249-437-11	CARBON	47K	5%	1/4W
R327	1-249-441-11	CARBON	100K	5%	1/4W
R328	1-247-760-11	CARBON	4. 7K	5%	1/2W
R329	1-249-421-11	CARBON	2. 2K	5%	1/4W
R341	1-249-433-11	CARBON	22K	5%	1/4W
R342	1-249-425-11	CARBON	4. 7K	5%	1/4W
R348	1-249-433-11	CARBON	22K	5%	1/4W
R349	1-249-433-11	CARBON	22K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R352	1-249-437-11	CARBON	47K	5%	1/4W
R410	1-249-435-11	CARBON	33K	5%	1/4W
R411	1-249-435-11	CARBON	33K	5%	1/4W
R412	1-249-426-11	CARBON	5. 6K	5%	1/4W
R851	1-249-417-11	CARBON	1K	5%	1/4W
R852	1-249-441-11	CARBON	100K	5%	1/4W
R853	1-249-425-11	CARBON	4. 7K	5%	1/4W
R854	1-249-425-11	CARBON	4. 7K	5%	1/4W
R855	1-249-412-11	CARBON	390	5%	1/4W
R857	1-249-418-11	CARBON	1. 2K	5%	1/4W
R858	1-249-438-11	CARBON	56K	5%	1/4W
R859	1-249-429-11	CARBON	10K	5%	1/4W
R860	1-249-429-11	CARBON	10K	5%	1/4W
R861	1-249-417-11	CARBON	1K	5%	1/4W
R862	1-249-441-11	CARBON	100K	5%	1/4W
R863	1-249-425-11	CARBON	4. 7K	5%	1/4W
R864	1-249-425-11	CARBON	4. 7K	5%	1/4W
R865	1-249-412-11	CARBON	390	5%	1/4W
R867	1-249-418-11	CARBON	1. 2K	5%	1/4W
R868	1-249-438-11	CARBON	56K	5%	1/4W
R869	1-249-429-11	CARBON	10K	5%	1/4W
R870	1-247-887-00	CARBON	220K	5%	1/4W
R871	1-249-433-11	CARBON	22K	5%	1/4W
R872	1-249-423-11	CARBON	3. 3K	5%	1/4W
R873	1-249-423-11	CARBON	3. 3K	5%	1/4W
R876	1-249-417-11	CARBON	1K	5%	1/4W
R878	1-247-887-00	CARBON	220K	5%	1/4W

< RELAY >

RY101 1-515-765-11 RELAY

< SWITCH >

△S101 1-554-920-51 SWITCH, PUSH (AC POWER) (1 KEY)

△S102 1-572-009-11 SWITCH (VOLTAGE SELECTOR)

< TERMINAL BOARD >

TB101 1-537-238-11 TERMINAL BOARD

* A-4347-283-A GEQ BOARD, COMPLETE

< CAPACITOR >

C120	1-126-022-11	ELECT	47uF	20%	16V
C121	1-126-059-11	ELECT	10uF	20%	50V
C122	1-162-283-31	CERAMIC	120PF	10%	50V
C123	1-106-359-00	MYLAR	4700PF	5%	200V
C124	1-110-340-11	MYLAR	270PF	5%	50V

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

GEO

Ref. No.	Part No.	Description	Remark		
C125	1-136-154-00	FILM	0.012uF	5%	50V
C126	1-130-469-00	MYLAR	680PF	5%	50V
C127	1-136-159-00	FILM	0.033uF	5%	50V
C128	1-130-474-00	MYLAR	0.0018uF	5%	50V
C129	1-136-163-00	FILM	0.068uF	5%	50V
C130	1-130-478-00	MYLAR	0.0039uF	5%	50V
C131	1-136-168-00	FILM	0.18uF	5%	50V
C132	1-136-153-00	FILM	0.01uF	5%	50V
C133	1-136-163-00	FILM	0.068uF	5%	50V
C134	1-126-301-11	ELECT	1uF	20%	50V
C135	1-136-158-00	FILM	0.027uF	5%	50V
C136	1-126-300-11	ELECT	0.47uF	20%	50V
C137	1-162-207-31	CERAMIC	22PF	5%	50V
C210	1-126-022-11	ELECT	47uF	20%	16V
C221	1-126-059-11	ELECT	10uF	20%	50V
C222	1-162-283-31	CERAMIC	120PF	10%	50V
C223	1-106-359-00	MYLAR	4700PF	5%	200V
C224	1-110-340-11	MYLAR	270PF	5%	50V
C225	1-136-154-00	FILM	0.012uF	5%	50V
C226	1-130-469-00	MYLAR	680PF	5%	50V
C228	1-130-474-00	MYLAR	0.0018uF	5%	50V
C229	1-136-163-00	FILM	0.068uF	5%	50V
C230	1-130-478-00	MYLAR	0.0039uF	5%	50V
C231	1-136-168-00	FILM	0.18uF	5%	50V
C232	1-136-153-00	FILM	0.01uF	5%	50V
C233	1-136-163-00	FILM	0.068uF	5%	50V
C234	1-126-301-11	ELECT	1uF	20%	50V
C235	1-136-158-00	FILM	0.027uF	5%	50V
C236	1-126-300-11	ELECT	0.47uF	20%	50V
C237	1-162-207-31	CERAMIC	22PF	5%	50V
C277	1-136-159-00	FILM	0.033uF	5%	50V
C308	1-164-159-11	CERAMIC	0.1uF		50V
C351	1-164-159-11	CERAMIC	0.1uF		50V
C352	1-126-049-11	ELECT	22uF	20%	25V
C375	1-164-159-11	CERAMIC	0.1uF		50V
C1509	1-136-167-00	FILM	0.15uF	5%	50V
C1511	1-136-167-00	FILM	0.15uF	5%	50V
C1512	1-130-477-00	MYLAR	0.0033uF	5%	50V
C1514	1-126-059-11	ELECT	10uF	20%	50V

< CONNECTOR >

- * CN191 1-573-979-11 CONNECTOR, BOARD TO BOARD 11P
 * CN1108 1-564-339-71 PIN, CONNECTOR 5P

< CONPOSITION CIRCUIT BLOCK >

CP501	1-239-054-11	COMPOSITION CIRCUIT BLOCK
CP502	1-239-054-11	COMPOSITION CIRCUIT BLOCK
CP503	1-239-054-11	COMPOSITION CIRCUIT BLOCK
CP504	1-239-054-11	COMPOSITION CIRCUIT BLOCK

Ref. No.	Part No.	Description	Remark		
< DIODE >					
D127	8-719-000-54	DIODE	UZL-6L3		
< IC >					
IC111	8-759-633-78	IC	M5289P		
IC112	8-759-822-26	IC	LC7522K		
IC113	8-759-633-78	IC	M5289P		
IC1503	8-759-634-50	IC	M5218AL		
IC1504	8-759-000-48	IC	MC14052BCP		
< TRANSISTOR >					
Q1504	8-729-900-36	TRANSISTOR	DTC124ES		
< RESISTOR >					
R127	1-249-431-11	CARBON	15K	5%	1/4W
R128	1-247-903-00	CARBON	1M	5%	1/4W
R129	1-247-903-00	CARBON	1M	5%	1/4W
R130	1-247-903-00	CARBON	1M	5%	1/4W
R131	1-247-903-00	CARBON	1M	5%	1/4W
R132	1-247-903-00	CARBON	1M	5%	1/4W
R133	1-247-903-00	CARBON	1M	5%	1/4W
R134	1-247-903-00	CARBON	1M	5%	1/4W
R135	1-249-431-11	CARBON	15K	5%	1/4W
R227	1-249-431-11	CARBON	15K	5%	1/4W
R228	1-247-903-00	CARBON	1M	5%	1/4W
R229	1-247-903-00	CARBON	1M	5%	1/4W
R230	1-247-903-00	CARBON	1M	5%	1/4W
R231	1-247-903-00	CARBON	1M	5%	1/4W
R232	1-247-903-00	CARBON	1M	5%	1/4W
R233	1-247-903-00	CARBON	1M	5%	1/4W
R234	1-247-903-00	CARBON	1M	5%	1/4W
R235	1-249-431-11	CARBON	15K	5%	1/4W
R314	1-249-417-11	CARBON	1K	5%	1/4W
R315	1-249-417-11	CARBON	1K	5%	1/4W
R346	1-249-425-11	CARBON	4.7K	5%	1/4W
R399	1-249-405-11	CARBON	100	5%	1/4W
R1117	1-249-431-11	CARBON	15K	5%	1/4W
R1227	1-249-431-11	CARBON	15K	5%	1/4W
R1504	1-249-429-11	CARBON	10K	5%	1/4W
R1512	1-247-818-11	CARBON	300	5%	1/4W
R1513	1-249-429-11	CARBON	10K	5%	1/4W
R1514	1-249-425-11	CARBON	4.7K	5%	1/4W
R1525	1-249-437-11	CARBON	47K	5%	1/4W
R1529	1-249-433-11	CARBON	22K	5%	1/4W
R1530	1-249-417-11	CARBON	1K	5%	1/4W
R1531	1-249-431-11	CARBON	15K	5%	1/4W
R1532	1-249-431-11	CARBON	15K	5%	1/4W

HEADPHONE

MICROPHONE

PANEL

Ref.No.	Part No.	Description	Remark
*	1-642-746-11	HEADPHONE BOARD *****	
		< CONNECTOR >	
* CN901	1-564-509-11	PLUG, CONNECTOR 6P < JACK >	
J901	1-507-854-00	JACK (HEADPHONES) < RESISTOR >	
R901	1-247-747-11	CARBON 470 5% 1/2W	
R911	1-247-747-11	CARBON 470 5% 1/2W	

*	A-4347-284-A	MICROPHONE BOARD, COMPLETE *****	
		< CAPACITOR >	
C51	1-164-159-11	CERAMIC 0.1uF 50V	
C801	1-126-161-11	ELECT 2.2uF 20% 50V	
C802	1-161-377-00	CERAMIC 0.0047uF 20% 16V	
C803	1-162-219-31	CERAMIC 68PF 5% 50V	
C804	1-162-290-31	CERAMIC 470PF 10% 50V	
C805	1-136-161-00	FILM 0.047uF 5% 50V	
C806	1-126-049-11	ELECT 22uF 20% 25V	
C807	1-126-049-11	ELECT 22uF 20% 25V	
C808	1-162-219-31	CERAMIC 68PF 5% 50V	
C809	1-162-293-31	CERAMIC 820PF 10% 50V	
C811	1-126-157-11	ELECT 10uF 20% 16V	
C812	1-124-257-00	ELECT 2.2uF 20% 50V	
		< CONNECTOR >	
* CN801	1-564-339-71	PIN, CONNECTOR 5P < IC >	
IC801	8-759-710-73	IC NJM4580L < JACK >	
J801	1-507-854-00	JACK (MIC) < RESISTOR >	
R801	1-249-441-11	CARBON 100K 5% 1/4W	
R802	1-249-417-11	CARBON 1K 5% 1/4W	
R803	1-249-429-11	CARBON 10K 5% 1/4W	
R804	1-249-417-11	CARBON 1K 5% 1/4W	
R805	1-249-432-11	CARBON 18K 5% 1/4W	
R806	1-249-441-11	CARBON 100K 5% 1/4W	

Ref.No.	Part No.	Description	Remark
R807	1-249-437-11	CARBON 47K 5% 1/4W	
R808	1-249-432-11	CARBON 18K 5% 1/4W	
R809	1-249-417-11	CARBON 1K 5% 1/4W	
R810	1-249-416-11	CARBON 820 5% 1/4W	
R890	1-249-405-11	CARBON 100 5% 1/4W	
R891	1-249-405-11	CARBON 100 5% 1/4W	
		< VARIABLE RESISTOR >	
RV801	1-241-317-11	RES, VAR, CARBON 50K (MIC LEVEL) *****	
*	A-4347-274-A	PANEL BOARD, COMPLETE *****	
*	4-921-941-01	CUSHION (FL)	
*	4-923-103-01	HOLDER, FL TUBE	
*	4-950-658-01	HOLDER (FU), LED	
*	4-950-660-01	HOLDER, LED	
		< CAPACITOR >	
C50	1-124-257-00	ELECT 2.2uF 20% 50V	
C418	1-164-159-11	CERAMIC 0.1uF 50V	
C419	1-136-153-00	FILM 0.01uF 5% 50V	
C420	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C422	1-125-486-11	DOUBLE LAYERS 0.22F 5.5V	
C423	1-161-494-00	CERAMIC 0.022uF 25V	
C424	1-164-159-11	CERAMIC 0.1uF 50V	
C425	1-126-049-11	ELECT 22uF 20% 25V	
C426	1-161-494-00	CERAMIC 0.022uF 25V	
C427	1-161-494-00	CERAMIC 0.022uF 25V	
C428	1-126-059-11	ELECT 10uF 20% 50V	
C429	1-126-059-11	ELECT 10uF 20% 50V	
C430	1-161-494-00	CERAMIC 0.022uF 25V	
C431	1-161-494-00	CERAMIC 0.022uF 25V	
C432	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C433	1-126-059-11	ELECT 10uF 20% 50V	
C434	1-126-059-11	ELECT 10uF 20% 50V	
C435	1-161-374-11	CERAMIC 0.0015uF 20% 50V	
C436	1-161-494-00	CERAMIC 0.022uF 25V	
C437	1-124-994-11	ELECT 100uF 20% 10V	
C444	1-126-049-11	ELECT 22uF 20% 25V	
C995	1-126-301-11	ELECT 1uF 20% 50V	
		< CONNECTOR >	
* CN502	1-568-839-11	SOCKET, CONNECTOR 23P	
* CN503	1-568-322-11	PLUG, CONNECTOR 10P	
* CN609	1-564-339-00	PIN, CONNECTOR 5P	

PANEL

Ref. No.	Part No.	Description	Remark
< DIODE >			
D55	8-719-200-82	DIODE 11ES2	
D501	8-719-987-63	DIODE 1N4148M	
D502	8-719-200-82	DIODE 11ES2	
D503	8-719-200-82	DIODE 11ES2	
D505	8-719-000-60	DIODE UZL-6M2	
D506	8-719-987-63	DIODE 1N4148M	
D507	8-719-987-63	DIODE 1N4148M	
D508	8-719-987-63	DIODE 1N4148M	
D509	8-719-987-63	DIODE 1N4148M	
D510	8-719-987-63	DIODE 1N4148M	
D511	8-719-987-63	DIODE 1N4148M	
D512	8-719-987-63	DIODE 1N4148M	
D521	8-719-301-39	LED SEL2210S-D	
D522	8-719-301-39	LED SEL2210S-D	
D523	8-719-301-39	LED SEL2210S-D	
D524	8-719-301-39	LED SEL2210S-D	
D525	8-719-301-39	LED SEL2210S-D	
D526	8-719-301-39	LED SEL2210S-D	
D527	8-719-301-39	LED SEL2210S-D	
D528	8-719-301-39	LED SEL2210S-D	
D529	8-719-301-39	LED SEL2210S-D	
D530	8-719-301-39	LED SEL2210S-D	
D531	8-719-301-39	LED SEL2210S-D	
D532	8-719-301-39	LED SEL2210S-D	
D533	8-719-301-39	LED SEL2210S-D	
D534	8-719-301-39	LED SEL2210S-D	
D535	8-719-313-69	LED SEL3210S-CD	
D536	8-719-313-69	LED SEL3210S-CD	
D537	8-719-313-69	LED SEL3210S-CD	
D538	8-719-313-69	LED SEL3210S-CD	
D539	8-719-313-69	LED SEL3210S-CD	
D540	8-719-313-69	LED SEL3210S-CD	
D541	8-719-313-69	LED SEL3210S-CD	
D542	8-719-313-69	LED SEL3210S-CD	
D550	8-719-313-69	LED SEL3210S-CD	
D551	8-719-987-63	DIODE 1N4148M	
D552	8-719-987-63	DIODE 1N4148M	
D553	8-719-987-63	DIODE 1N4148M	
D554	8-719-987-63	DIODE 1N4148M	
D555	8-719-987-63	DIODE 1N4148M	
D566	8-719-987-63	DIODE 1N4148M	
< FLUORESCENT INDICATOR >			
FL501	1-519-648-31	INDICATOR TUBE, FLUORESCENT	

Ref. No.	Part No.	Description	Remark
< IC >			
IC501	8-759-635-63	IC M51943BSL	
IC502	8-759-066-29	IC uPD75108CW-C98	
IC503	8-759-822-27	IC LC7565K	
IC504	8-759-991-11	IC XR1091DCP	
< COIL >			
L501	1-408-121-00	INDUCTOR 22uH	
< TRANSISTOR >			
Q501	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q502	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q511	8-729-900-36	TRANSISTOR DTC124ES	
Q513	8-729-900-63	TRANSISTOR DTA124ES	
Q514	8-729-900-63	TRANSISTOR DTA124ES	
Q515	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q516	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q517	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q518	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q519	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q520	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q521	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q555	8-729-900-63	TRANSISTOR DTA124ES	
< RESISTOR >			
R40	1-249-421-11	CARBON 2.2K 5% 1/4W	
R408	1-249-405-11	CARBON 100 5% 1/4W	
R409	1-249-419-11	CARBON 1.5K 5% 1/4W	
R413	1-249-441-11	CARBON 100K 5% 1/4W	
R414	1-249-432-11	CARBON 18K 5% 1/4W	
R415	1-247-891-00	CARBON 330K 5% 1/4W	
R416	1-249-425-11	CARBON 4.7K 5% 1/4W	
R417	1-249-437-11	CARBON 47K 5% 1/4W	
R418	1-247-891-00	CARBON 330K 5% 1/4W	
R421	1-249-433-11	CARBON 22K 5% 1/4W	
R422	1-249-411-11	CARBON 330 5% 1/4W	
R423	1-249-417-11	CARBON 1K 5% 1/4W	
R424	1-247-903-00	CARBON 1M 5% 1/4W	
R499	1-249-417-11	CARBON 1K 5% 1/4W	
R521	1-249-425-11	CARBON 4.7K 5% 1/4W	
R522	1-249-425-11	CARBON 4.7K 5% 1/4W	
R524	1-249-417-11	CARBON 1K 5% 1/4W	
R525	1-249-425-11	CARBON 4.7K 5% 1/4W	
R526	1-249-429-11	CARBON 10K 5% 1/4W	
R527	1-249-393-11	CARBON 10 5% 1/4W	
R528	1-249-417-11	CARBON 1K 5% 1/4W	
R529	1-249-424-11	CARBON 3.9K 5% 1/4W	
R530	1-249-417-11	CARBON 1K 5% 1/4W	

PANEL

VOLUME

Ref. No.	Part No.	Description	Remark		
R532	1-249-421-11	CARBON	2. 2K	5%	1/4W
R533	1-249-421-11	CARBON	2. 2K	5%	1/4W
R534	1-249-441-11	CARBON	100K	5%	1/4W
R535	1-249-441-11	CARBON	100K	5%	1/4W
R536	1-249-417-11	CARBON	1K	5%	1/4W
R537	1-249-417-11	CARBON	1K	5%	1/4W
R538	1-249-417-11	CARBON	1K	5%	1/4W
R539	1-249-417-11	CARBON	1K	5%	1/4W
R540	1-249-417-11	CARBON	1K	5%	1/4W
R541	1-249-417-11	CARBON	1K	5%	1/4W
R542	1-249-417-11	CARBON	1K	5%	1/4W
R544	1-249-417-11	CARBON	1K	5%	1/4W
R545	1-249-429-11	CARBON	10K	5%	1/4W
R546	1-249-417-11	CARBON	1K	5%	1/4W
R547	1-249-429-11	CARBON	10K	5%	1/4W
R548	1-249-429-11	CARBON	10K	5%	1/4W
R549	1-249-417-11	CARBON	1K	5%	1/4W
R550	1-249-417-11	CARBON	1K	5%	1/4W
R551	1-249-435-11	CARBON	33K	5%	1/4W
R552	1-249-437-11	CARBON	47K	5%	1/4W
R553	1-249-429-11	CARBON	10K	5%	1/4W
R554	1-249-437-11	CARBON	47K	5%	1/4W
R555	1-249-429-11	CARBON	10K	5%	1/4W
R556	1-247-903-00	CARBON	1M	5%	1/4W
R561	1-249-410-11	CARBON	270	5%	1/4W
R562	1-249-411-11	CARBON	330	5%	1/4W
R563	1-249-411-11	CARBON	330	5%	1/4W
R564	1-249-411-11	CARBON	330	5%	1/4W
R565	1-249-410-11	CARBON	270	5%	1/4W
R566	1-249-411-11	CARBON	330	5%	1/4W
R567	1-249-411-11	CARBON	330	5%	1/4W
R568	1-249-411-11	CARBON	330	5%	1/4W
R569	1-249-410-11	CARBON	270	5%	1/4W
R570	1-249-410-11	CARBON	270	5%	1/4W
R571	1-249-410-11	CARBON	270	5%	1/4W
R572	1-249-410-11	CARBON	270	5%	1/4W
R573	1-249-399-11	CARBON	33	5%	1/4W
R574	1-249-399-11	CARBON	33	5%	1/4W
R575	1-249-399-11	CARBON	33	5%	1/4W
R576	1-249-399-11	CARBON	33	5%	1/4W
R577	1-249-399-11	CARBON	33	5%	1/4W
R578	1-249-411-11	CARBON	330	5%	1/4W
R579	1-249-411-11	CARBON	330	5%	1/4W
R580	1-249-411-11	CARBON	330	5%	1/4W
R581	1-249-411-11	CARBON	330	5%	1/4W
R582	1-249-411-11	CARBON	330	5%	1/4W
R586	1-249-425-11	CARBON	4. 7K	5%	1/4W
R588	1-249-425-11	CARBON	4. 7K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R589	1-249-425-11	CARBON	4. 7K	5%	1/4W
R595	1-249-437-11	CARBON	47K	5%	1/4W
R596	1-249-437-11	CARBON	47K	5%	1/4W
R597	1-249-437-11	CARBON	47K	5%	1/4W
R598	1-249-437-11	CARBON	47K	5%	1/4W
R599	1-249-417-11	CARBON	1K	5%	1/4W
R1540	1-249-417-11	CARBON	1K	5%	1/4W

< VARIABLE RESISTOR >

RV501	1-238-459-11	RES. VAR. CARBON 100K	(BALANCE)
RV502	1-241-307-11	RES. VAR. CAREBON 10K/10K	(DBFB LEVEL)

< SWITCH >

S501	1-554-303-21	SWITCH, TACTILE	(KARAOKE PON)
S502	1-554-303-21	SWITCH, TACTILE	(TUNER)
S503	1-554-303-21	SWITCH, TACTILE	(EQ)
S504	1-554-303-21	SWITCH, TACTILE	(SURROUND MODE)
S505	1-554-303-21	SWITCH, TACTILE	(MEMORY)
S511	1-554-303-21	SWITCH, TACTILE	(DBFB)
S512	1-554-303-21	SWITCH, TACTILE	(CD)
S513	1-554-303-21	SWITCH, TACTILE	(PERSONAL FILE 1-5)
S514	1-554-303-21	SWITCH, TACTILE	(<)
S515	1-554-303-21	SWITCH, TACTILE	(REVERSE)
S516	1-554-303-21	SWITCH, TACTILE	(SURROUND LEVEL)
S521	1-554-303-21	SWITCH, TACTILE	(EFFECT)
S522	1-554-303-21	SWITCH, TACTILE	(TAPE)
S523	1-554-303-21	SWITCH, TACTILE	(SELECT 10)
S524	1-554-303-21	SWITCH, TACTILE	(△)
S525	1-554-303-21	SWITCH, TACTILE	(FLAT)
S526	1-554-303-21	SWITCH, TACTILE	(PHONO)
S532	1-554-303-21	SWITCH, TACTILE	(VIDEO)
S533	1-554-303-21	SWITCH, TACTILE	(▽)
S534	1-554-303-21	SWITCH, TACTILE	(▷)
S535	1-554-303-21	SWITCH, TACTILE	(DISPLAY)
S536	1-554-303-21	SWITCH, TACTILE	(PROGRAM FUNCTION)

< VIBRATOR >

X501	1-577-359-21	VIBRATOR, CERAMIC	(4.19MHz)
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* 1-642-747-11 VOLUME BOARD

< CAPACITOR >

C601	1-136-165-00	FILM	0. 1uF	5%	50V
C602	1-126-022-11	ELECT	47uF	20%	16V
* C603	1-126-022-11	ELECT	47uF	20%	16V

VOLUME

Ref.No.	Part No.	Description	Remark
< CONNECTOR >			
CN601	1-568-321-11	SOCKET, CONNECTOR 10P	
CN602	1-564-507-11	PLUG, CONNECTOR 4P	
CN603	1-564-337-51	PLUG, CONNECTOR 3P	
< DIODE >			
D601	8-719-200-82	DIODE 11ES2	
D603	8-719-333-33	DIODE HZS6AIL	
< IC >			
IC601	8-759-820-62	IC LB1639	
< RESISTOR >			
R601	1-249-412-11	CARBON 390 5% 1/4W	
R602	1-249-425-11	CARBON 4.7K 5% 1/4W	
R603	1-249-429-11	CARBON 10K 5% 1/4W	
R604	1-249-429-11	CARBON 10K 5% 1/4W	
R605	1-249-401-11	CARBON 47 5% 1/4W	
R607	1-249-416-11	CARBON 820 5% 1/4W	
< VARIABLE RESISTOR >			
RV601	1-238-708-21	RES, VAR, CARBON 10K/100K/100K (VOLUME)	

MISCELLANEOUS			

8	1-690-697-11	WIRE (FLAT TYPE) (23 CORE)	
△56	1-575-651-11	CORD, POWER (EA)	
△56	1-575-656-11	CORD, POWER (E, JE)	
△56	1-690-056-11	CORD, POWER (AUS)	
△F101	1-532-259-00	FUSE (T1. 6A)	
△F102	1-532-259-00	FUSE (T1. 6A)	
△F103	1-532-203-00	FUSE (T2. 0A)	
△F104	1-532-203-00	FUSE (T2. 0A)	
△T901	1-450-813-11	TRANSFORMER, POWER	

ACCESSORIES & PACKING MATERIALS			

	3-703-710-41	STICKER, SONY SYMBOL (12)	
	4-920-940-01	SHEET (A), PROTECTION	
	4-934-859-01	CUSHION	

Ref.No.	Part No.	Description	Remark

HARDWARE LIST			

#1	7-685-646-79	SCREW, TAPPING	
#2	7-621-773-93	SCREW (PANEL 2. 6 TP2)	
#3	7-682-548-04	SCREW +BVTT 3X8 (S)	
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#5	7-682-560-04	SCREW +BVTT 4X6 (S)	
#6	7-621-849-00	SCREW (BV/RING)	

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

TA-A50

SONY[®] SERVICE MANUAL

*E Model
Australian Model
Tourist Model*

SUPPLEMENT-1

File this supplement with the service manual.

Subject : Malay model added

- Malay model has been added in TA-A50.
- Malay model is the same as Saudi Arabia model.
- Please refer to it in SERVICE MANUAL.