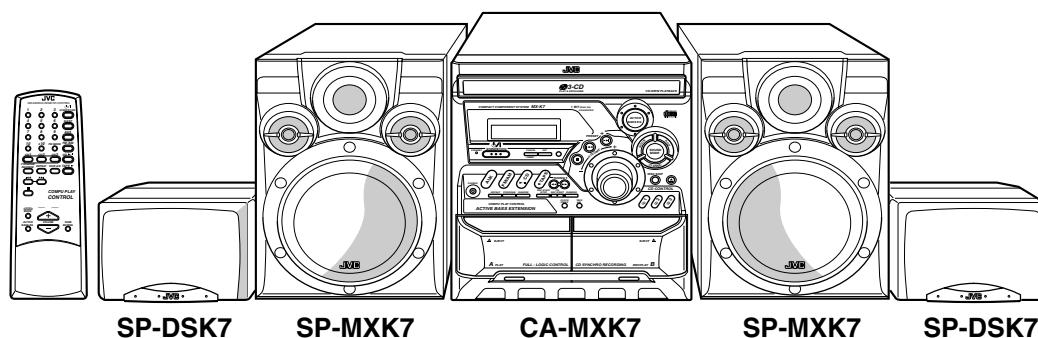


# JVC

# SERVICE MANUAL

## COMPACT COMPONENT SYSTEM

### MX-K7



COMPACT  
disc  
DIGITAL AUDIO

COMPACT  
disc  
DIGITAL AUDIO  
Recordable

COMPACT  
disc  
DIGITAL AUDIO  
ReWritable

**Area Suffix**

J ..... U.S.A.

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## Safety Precautions

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

### 5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

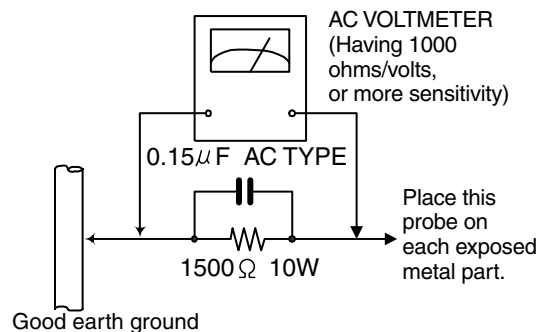
Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).

- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500  $\Omega$  10W resistor paralleled by a 0.15  $\mu$ F AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter.

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



## Warning

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

## CAUTION

**Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system.**

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (▣) and ICP (●) or identified by the " $\triangle$ " mark nearby are critical for safety.

When replacing them, be sure to use the parts of the same type and rating as specified by the manufacturer. (Except the J and C version)

# Important for laser products

## 1.CLASS 1 LASER PRODUCT

**2.DANGER** : Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.

**3.CAUTION** : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.

**4.CAUTION** : The compact disc player uses invisible laserradiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.

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

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

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

**WARNING** : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen.

**VARO** : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

**ADVARSEL** : Usynlig laserstrålning ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

**ADVARSEL** : Usynlig laserstrålning ved åbning, når sikkerhedsbryteren er avslott. unngå utsettelse for stråling.

## REPRODUCTION AND POSITION OF LABELS

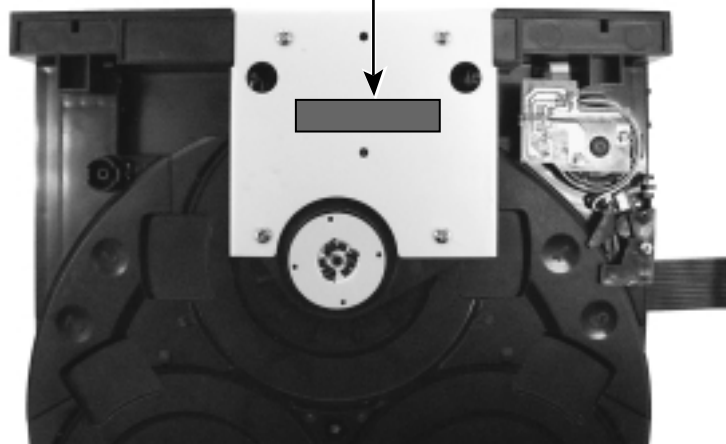
### WARNING LABEL

DANGER : Invisible laser radiation when open and interlock or defeated.  
AVOID DIRECT EXPOSURE TO BEAM (e)

VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (d)

WARNING : Osynlig laserstrålning är denna del är öppnad och spårren är urkopplad. Betrakta ej strålen. (s)

ADVARSEL : Usynlig laserstrålning ved åbning , når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling. (f)



# Preventing static electricity

## 1. Grounding to prevent damage by static electricity

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

## 2. About the earth processing for the destruction prevention by static electricity

In the equipment which uses optical pick-up (laser diode), optical pick-up is destroyed by the static electricity of the work environment.

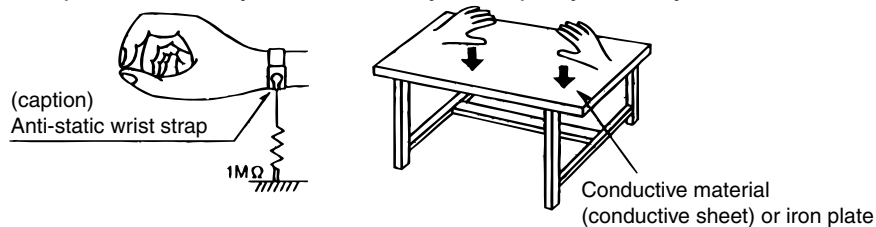
Be careful to use proper grounding in the area where repairs are being performed.

### 2-1 Ground the workbench

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

### 2-2 Ground yourself

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



## 3. Handling the optical pickup

1. In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)

2. Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

## 4. Handling the CD changer unit (optical pickup)

1. Do not subject the CD changer unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.

2. Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text. Remove the anti-static pin when replacing the CD changer unit. Be careful not to take too long a time when attaching it to the connector.

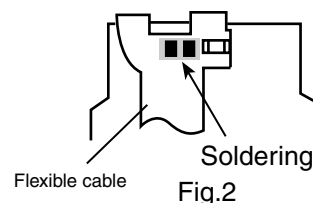
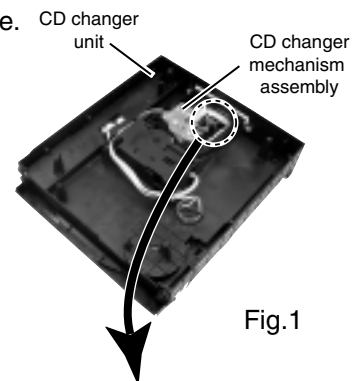
3. Handle the flexible cable carefully as it may break when subjected to strong force.

4. It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it

## Attention when traverse unit is decomposed

**\*Please refer to "Disassembly method" in the text for pick-up and how to detach the CD changer mechanism.**

1. Remove the CD changer unit.
2. Disconnect the harness from connector on the CD motor board.
3. Solder is put up before the card wire is removed from connector CN601 on the main board as shown in Fig.1 and Fig. 2.  
(When the wire is removed without putting up solder, the CD pick-up assembly might destroy.)
4. Please remove solder after connecting the card wire with CN601 when you install picking up in the substrate.



# Disassembly method

Commence disassembly of this set by removing the main units and then proceed to the components and assemblies inside the units.

## Replacement of the fuses and the power IC

- Top cover
- CD changer unit
- Front panel assembly
- Chassis unit
  
- CD changer unit
  - Removing the main PCB
  - Removing the CD changer mechanism assembly
  - Removing the CD pickup
  - Replacing the loading motor and belt of the CD changer tray
  - Replacing the CD tray rotor belt of CD changer, and removing the motor
  
- Front panel assembly
  - Removing the cassette deck mechanism
  - Removing the earphone jack PCB
  - Removing the control/FL PCB
  - Removing the switch PCB and ACTIVE BASS EX. switch PCB
  - Removing the cassette deck main motor, and replacing the main belts
  - Removing the leaf switches of the cassette deck mechanism
  - Removing the cassette deck heads
  
- Chassis unit
  - Removing the 3-pin regulator
  - Removing the power amp and supply PCB and the Power Trans PCB

## &lt;Disassembly of the main blocks of this set&gt;

## Replacement of the fuses and the power IC

## ■ Replacing the fuses (See Fig.1)

- Prior to performing the following procedure, remove the top cover.

1. Replace the fuses inside.

**[Caution]** Be sure to use fuses with the specified ratings.

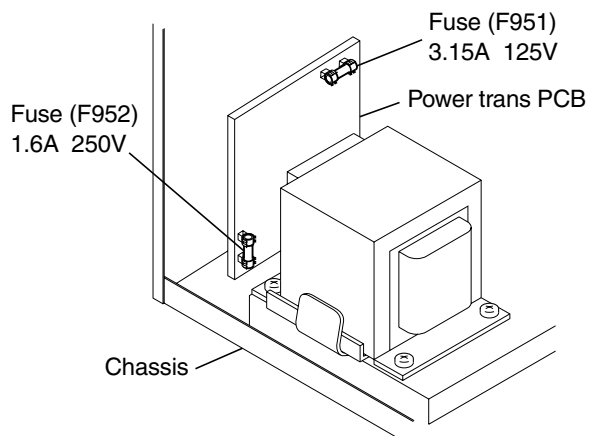


Fig.1

### ■ Replacing the power IC (See Fig.2 and 3)

- Prior to performing the following procedure, remove the top cover.

- Also remove the rear panel and power amp and supply PCB. (See Fig.33 to 37)

1. Remove the two screws "A" that retain the power IC.  
2. Remove the solder fixing the power IC.

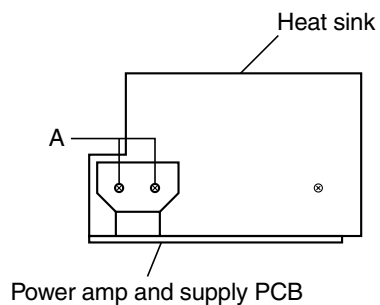


Fig.2

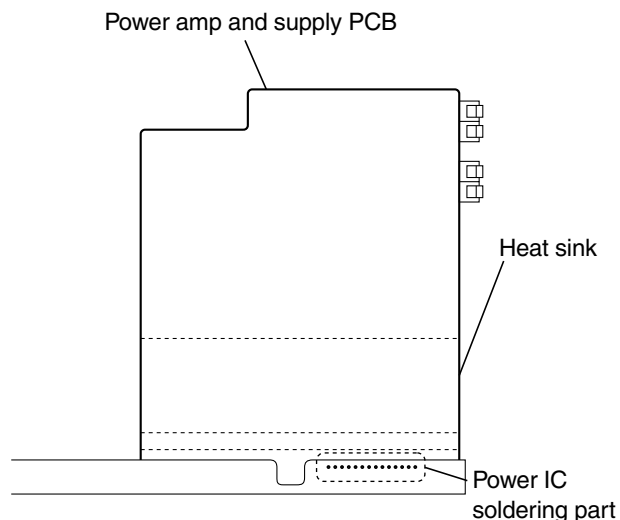


Fig.3

**■ Removing the top cover**  
**(See Fig.4 and 5)**

1. Remove the six screws "B" that retain the top cover from the rear of the body.
2. Remove the four screws "C" that retain the top cover from the two sides of the body.
3. Remove the top cover from the body by lifting it toward the rear.

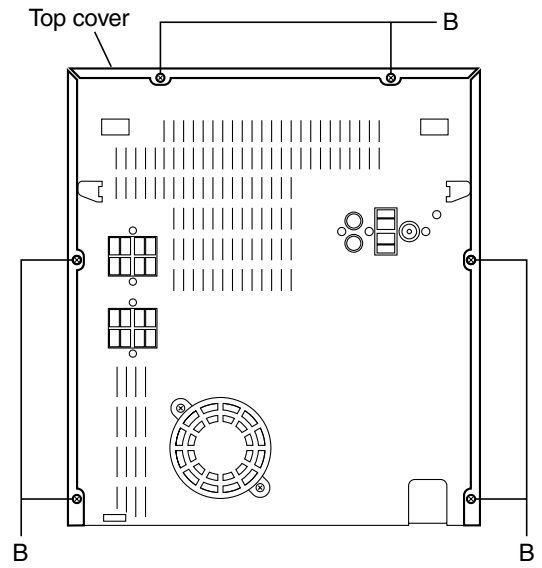


Fig.4

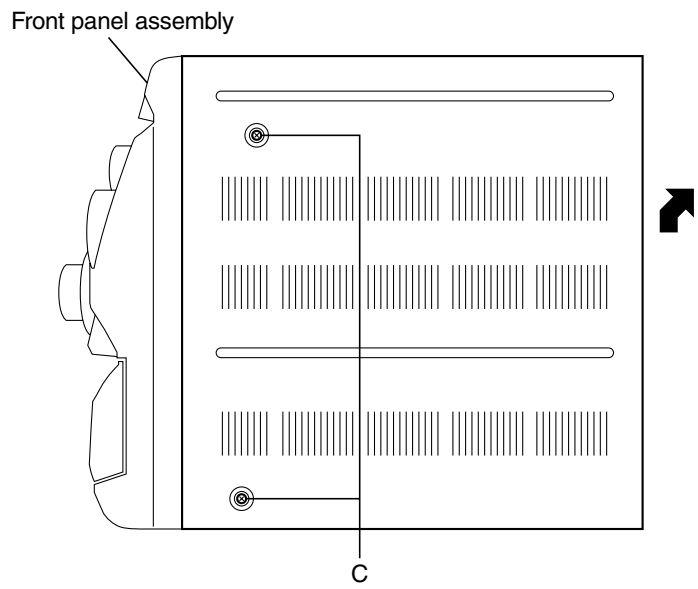


Fig.5

**■ Removing the CD changer unit**  
**(See Fig.6 to 9)**

- Prior to performing the following procedures, remove the top cover.

**[Caution]** Although the CD mechanism unit can be removed without removing the CD tray panel, it is still recommended to remove it in order to prevent damage.

- From the front panel side of this set, push in the sections marked with arrows and pull out the CD tray toward the front.
  - Remove the CD tray panel by pushing both of its extremities upward in the direction of the arrows.
  - Push the CD tray deep into the set.
1. Disconnect the cassette head wires from the connectors CN307 and CN308 on the main PCB, which is located below the CD changer unit.
  2. Disconnect the card wires from the connectors CN301, CN302 and CN305 on the main PCB.
  3. Disconnect the parallel wires from the connectors CN902A, CN902B and CN902C on the power amp and supply PCB.
  4. From the rear of the set, remove the two screws "D" retaining the CD changer unit, then remove the three screws "E" and the screw "F" retaining the ANTENNA terminal and the AUX IN terminal.
  5. Push down and disengage the two claws "a" holding the CD changer unit at the bottom of its front panel and then remove the CD changer unit (Fig. 9).

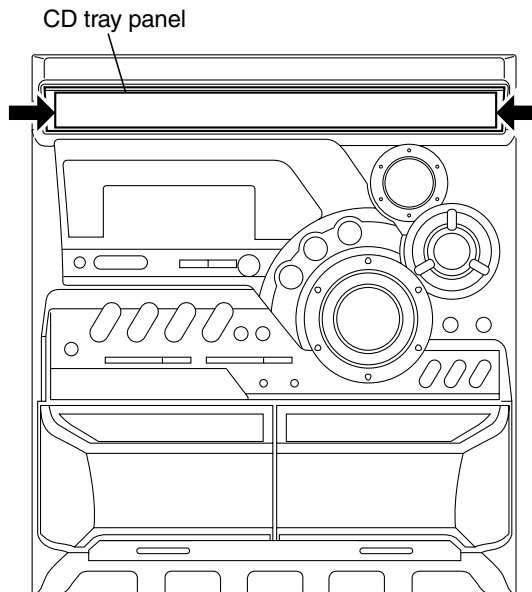


Fig.6

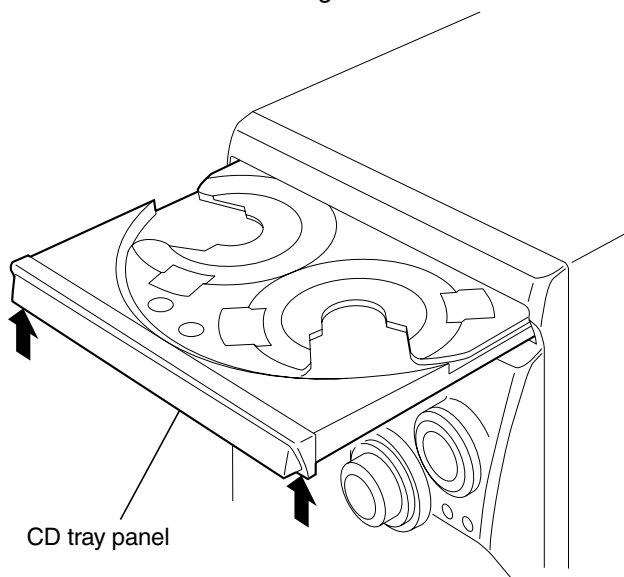


Fig.7

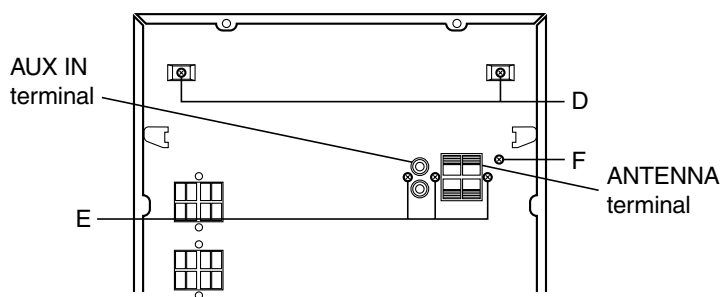


Fig.8

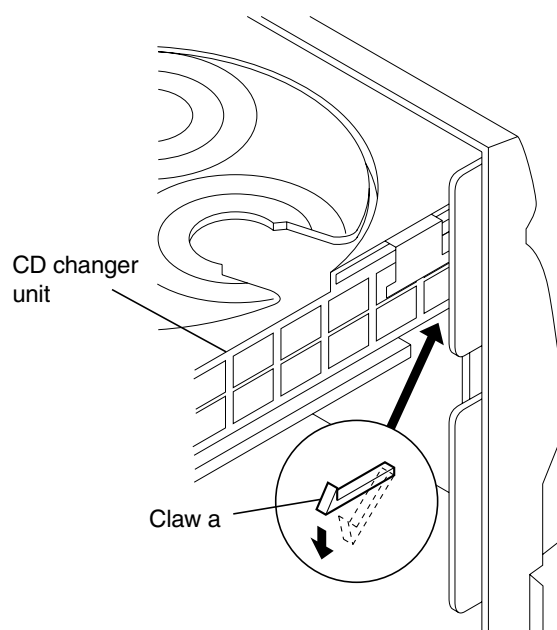


Fig.9



## ■ Removing the front panel assembly (See Fig.10 and 11)

- Prior to performing the following procedures, remove the top cover.
  - Also remove the CD changer unit.
1. Disconnect the parallel wire and card wire from the connectors CN101 and CN901 on the power amp and supply PCB.
  2. Remove the two screws "G" retaining the front panel assembly onto the bottom of the body.
  3. Remove the screw "H" retaining the cassette deck mechanism and then remove the GND lug "b" that comes from the power amp and supply PCB.
  4. Remove the solder connecting the wire on the control/FL PCB.
  5. Disengage the claws "c" on both sides at the bottom of the front panel assembly and then remove the assembly.

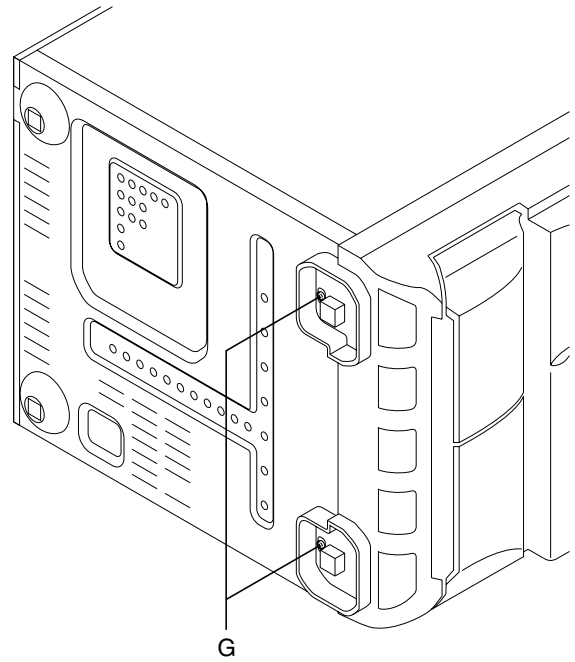


Fig.10

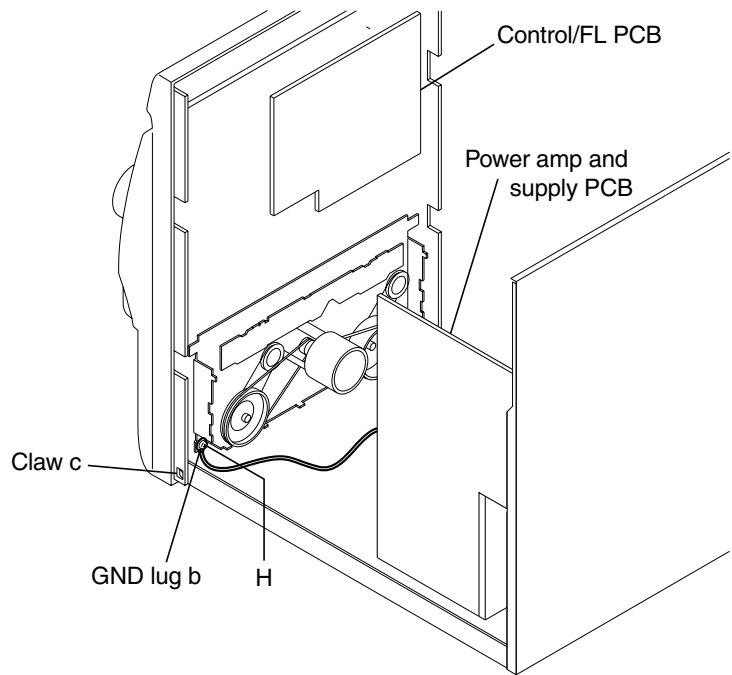


Fig.11

## <Disassembly of units and assembly inside this set>

### ■ Removing the main PCB

(See Fig.12 and 13)

- Prior to performing the following procedures, remove the top cover.
  - Also remove the CD changer unit.
1. Disconnect the wires from CN602 and CN603 on the main PCB, which is located on the backside of the CD changer unit.
  2. Disconnect the card wire from connector CN604 of the main PCB at the back of the CD changer unit.
  3. The three screws "I" and the screw with the washer "J" that retain the main PCB should be removed.
  4. Remove the main PCB by pulling it toward the side where the CN601 is located.
  5. Using solder, short the CD pickup to connect to short round.

**[Caution]** After re-connecting the wires, be sure to remove the shorting solder from the GND connection.

6. Disconnect the card wire from the connector CN601 on the main PCB and then remove the main PCB.

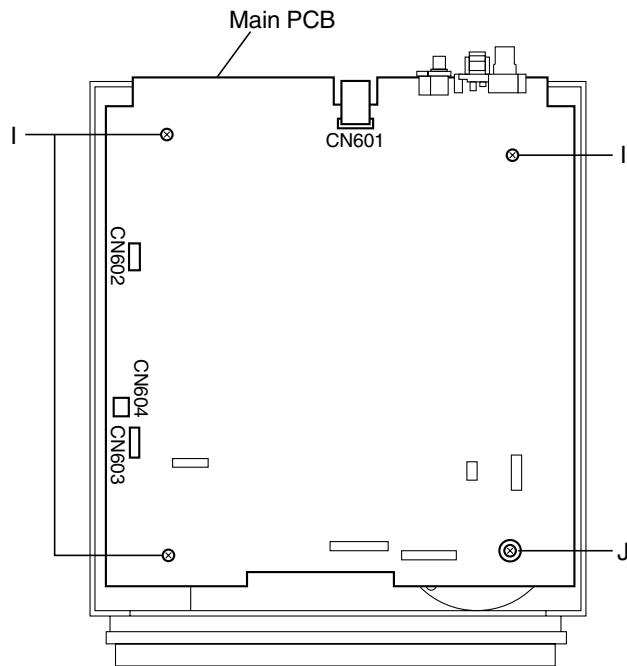


Fig.12

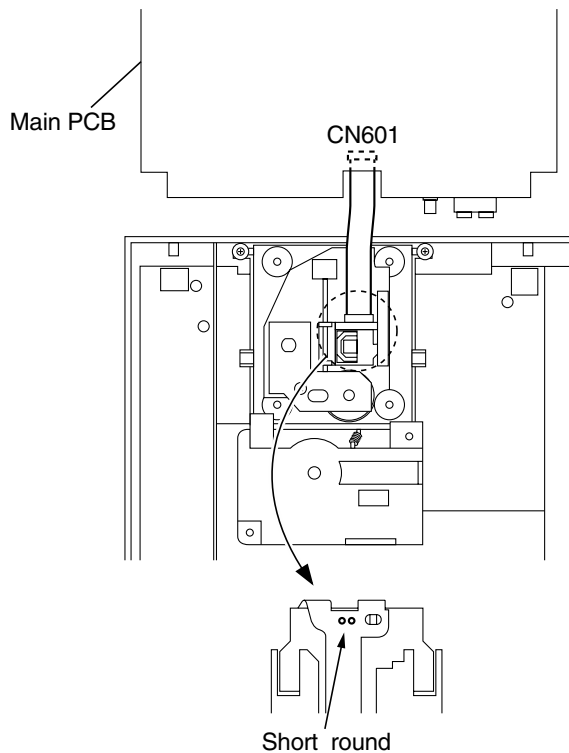


Fig.13

## ■ Removing the CD changer mechanism assembly (See Fig.14 to 16)

- Prior to performing the following procedures, remove the top cover.
  - Also remove the CD changer unit.
1. Remove the spring "d" from the front surface of the CD changer mechanism unit.
  2. Turn the CD changer mechanism unit upside down, and remove the spring "e" connecting the unit to the CD changer mechanism assembly.

**[Note]** When re-assembling after the disassembly work, apply bonding agent on the spring to prevent it from slipping off.

3. Remove the two screws "K" retaining the CD changer mechanism assembly.

**[Caution]** When replacing the CD changer mechanism assembly, be sure not to mistake the positions of the red and blue dampers.

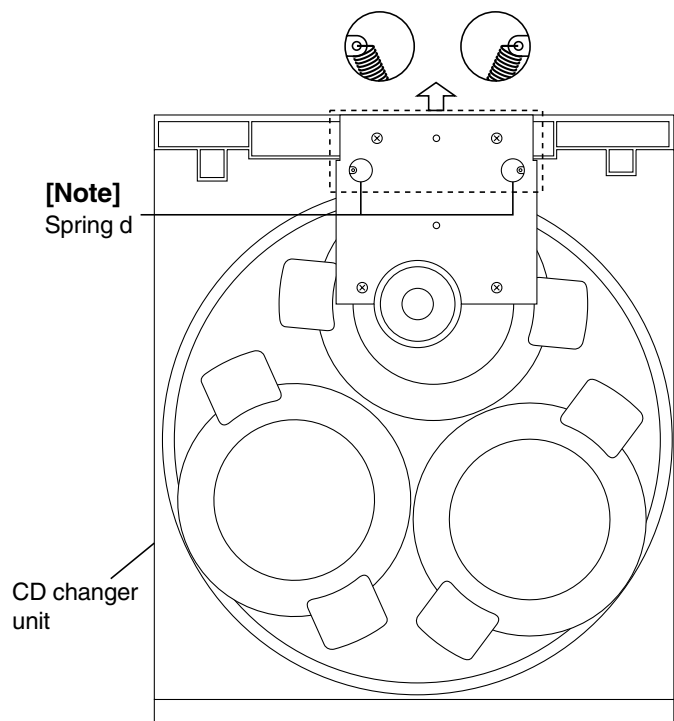


Fig.14

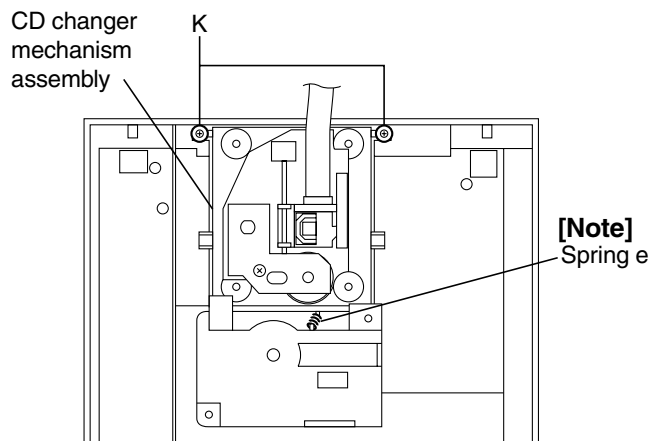


Fig.15

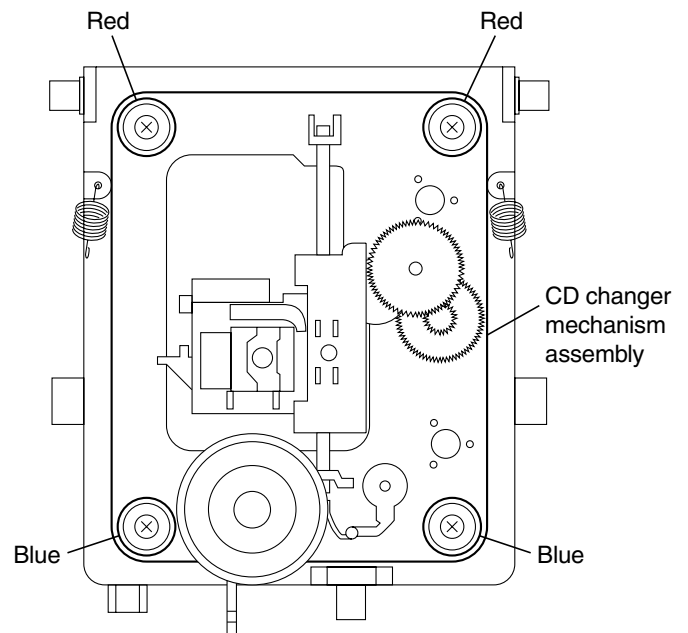
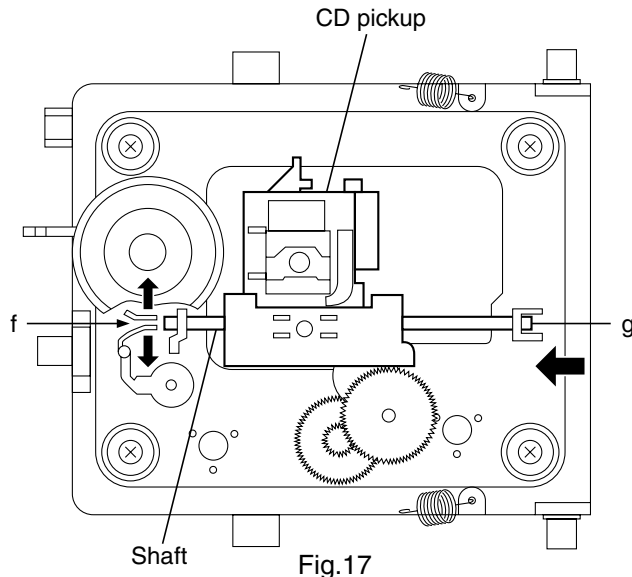


Fig.16

**■ Removing the CD pickup (See Fig.17)**

- Prior to performing the following procedures, remove the top cover.
- Also remove the CD changer unit.
- Also remove the CD changer mechanism

1. Widen the section "f".
2. While keeping the section "f" wide open, push the section "g" in the direction of the arrow to remove the shaft, and then remove the CD pickup.



**■ Replacing the loading motor and belt of the CD changer tray (See Fig.18)**

- Prior to performing the following procedure, remove the top cover.

1. Pull out the CD changer tray.
2. Remove the belt from the pulley.
3. Remove the two screws "L" retaining the CD changer tray loading motor.

**[Caution]** When pushing in the CD changer tray, be sure to lower the CD changer mechanism assembly by manually turning the UD cam gear in the direction of the arrow.

**■ Replacing the CD tray rotor belt of the CD changer, and removing the motor (See Fig.19 and 20)**

- Prior to performing the following procedures, remove the top cover.
- Also remove the CD changer unit.

1. Remove the two screws "M" retaining the stopper brackets on both sides of the CD changer unit.
2. Remove the stopper brackets from both sides of the CD changer unit.
3. Pull out the CD tray from the CD changer unit, all the way and then lift the tray upward to remove.
4. Turn the CD tray upside down and remove the tray rotor belt from the pulley.
5. Turn the CD tray upside down and disconnect the card wire from the connector CN605 on the CD tray rotor motor assembly.
6. Remove the two screws "N" retaining the CD tray rotor motor, and then remove the CD tray rotor motor.

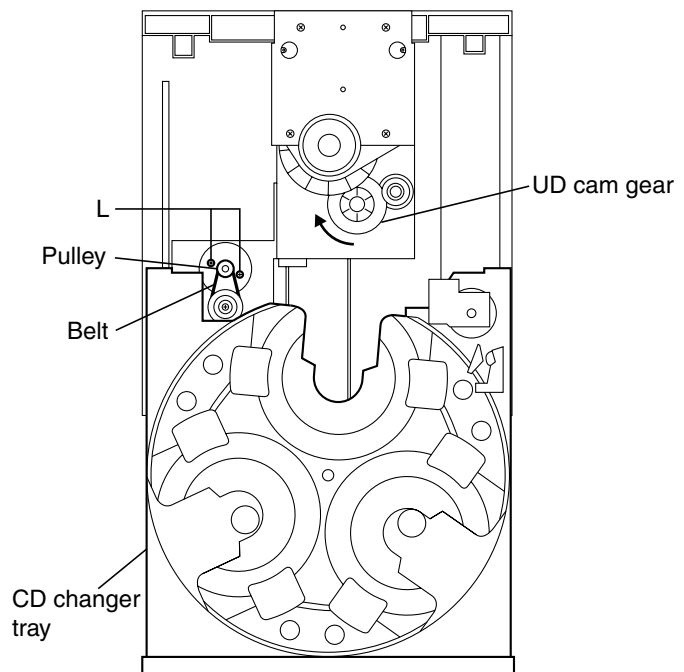


Fig.18

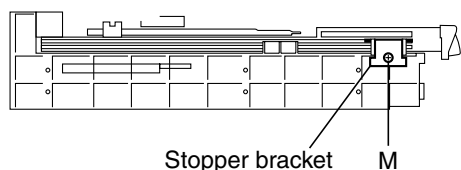


Fig.19

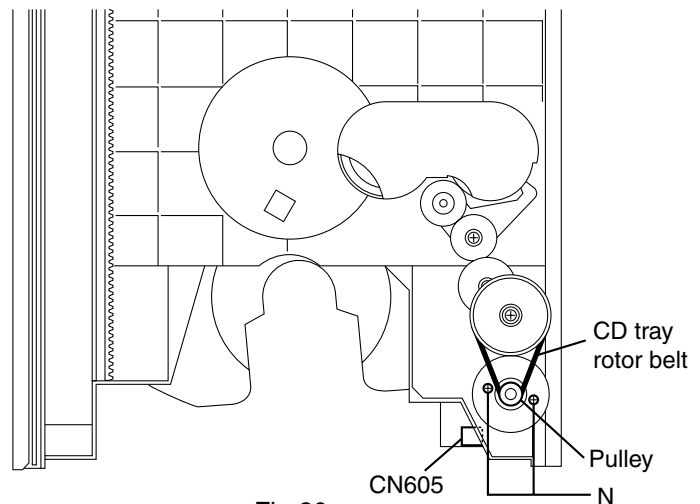


Fig.20

## ■ Removing the cassette deck mechanism (See Fig.21)

- Prior to performing the following procedure, remove the top cover.
- Also remove the CD changer unit.
- Also remove the front panel assembly.

1. Remove the five screws "O" retaining the cassette deck mechanism from the back of the front panel assembly.

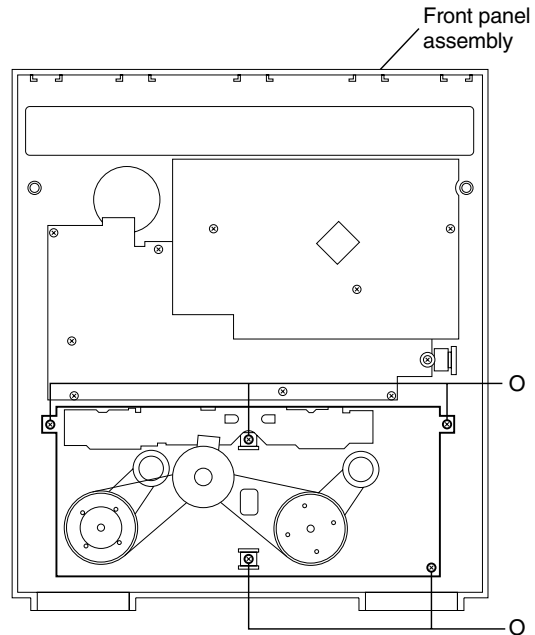


Fig.21

## ■ Removing the earphone jack PCB (See Fig.22)

- Prior to performing the following procedure, remove the top cover
- Also remove the CD changer unit.
- Also remove the front panel assembly.

1. Remove the screw with the washer, "P" that retains the earphone jack PCB from the back of the front panel assembly.

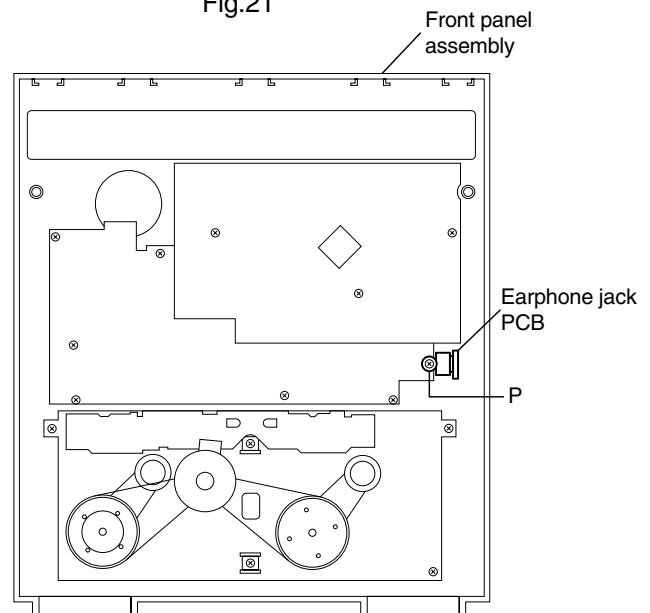


Fig.22

## ■ Removing the control/FL PCB (See Fig.23)

- Prior to performing the following procedure, remove the top cover.
- Also remove the CD changer unit.

1. Remove the three screws "Q" that retain the control/FL PCB from the back of the front panel assembly.

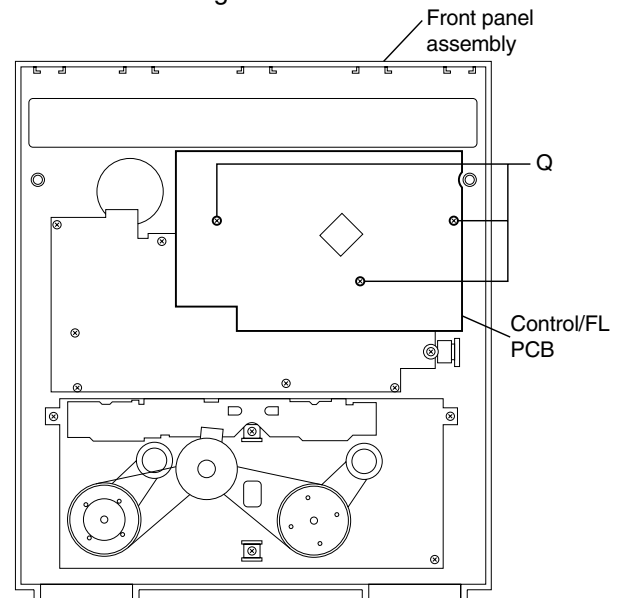


Fig.23

■ **Removing the switch PCB and ACTIVE BASS EX. switch PCB (See Fig.23 to 26)**

- Prior to performing the following procedures, remove the top cover.
  - Also remove the CD changer unit.
  - Also remove the front panel assembly.
1. Pull out the volume control knob from the front of the front panel assembly.
  2. Remove the nut and washer retaining the volume knob shaft.
  3. Remove the three screws "Q" retaining the control/FL PCB from the back of the front panel assembly.
  4. Remove the control/FL PCB.
  5. Remove the eleven screws "R" retaining the switch PCB.
  6. Remove the two screws "S" retaining the ACTIVE BASS EX. switch PCB.

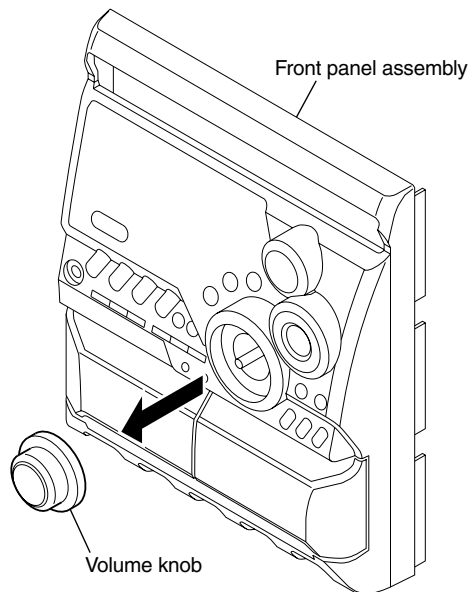


Fig.24

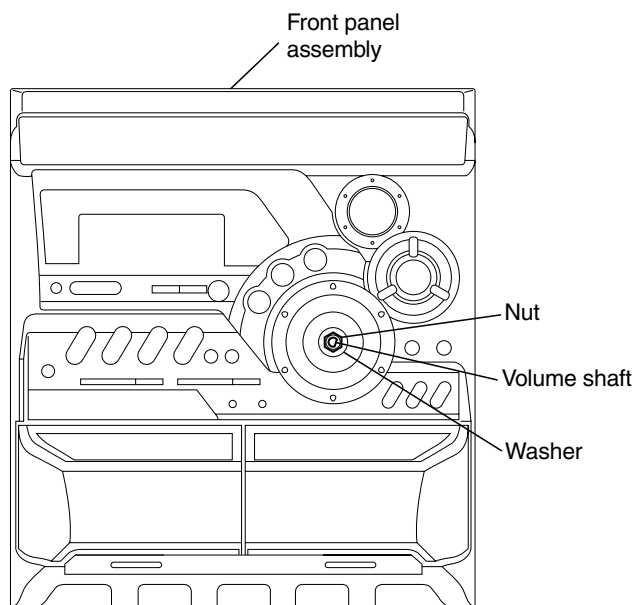


Fig.25

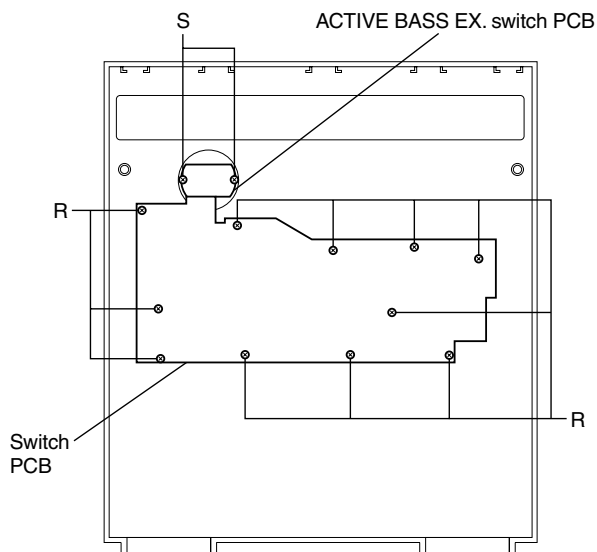


Fig.26

## ■ Removing the cassette deck main motor, and replacing the main belts (See Fig.21, 27 and 28)

- Prior to performing the following procedures, remove the top cover.
  - Also remove the CD changer unit.
  - Also remove the front panel assembly.
1. Remove the five screws "O" retaining the cassette deck mechanism.
  2. Remove the cassette deck mechanism.
  3. Remove the two screws "T" retaining the main motor from the front side of the cassette deck.

**[Caution]** After attaching the main motor, check the orientation of the motor and the polarity of the wires.

4. From the backside of the cassette deck, remove the main motor and two main belts.

**[Caution]** The lengths of the cassette A (playback only) and cassette B (record/play) main belts are different. When attaching the main belts, use the longer belt for cassette A.

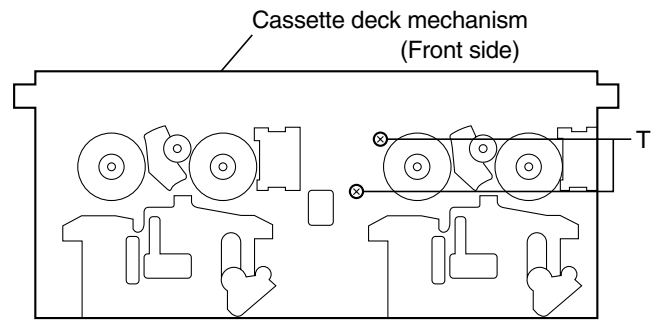


Fig.27

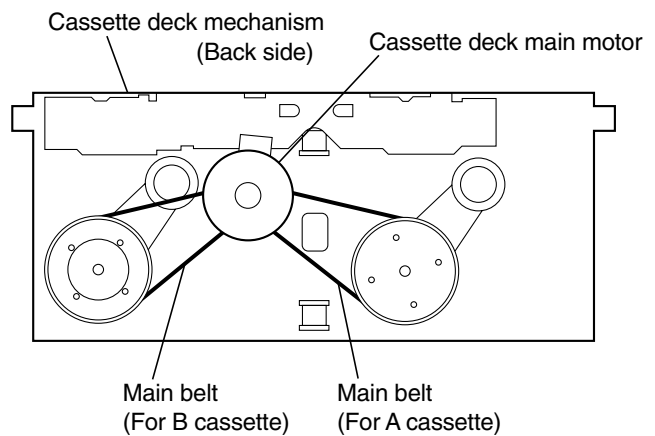


Fig.28

## ■ Removing the leaf switches of the cassette deck mechanism (See Fig.21 and 29)

- Prior to performing the following procedures, remove the top cover.
  - Also remove the CD changer unit.
  - Also remove the front panel assembly.
1. Remove the five screws "O" that retain the cassette deck mechanism.
  2. Remove the cassette deck mechanism.
  3. Turn the cassette deck mechanism upside down.
  4. Remove the solder from around the leaf switches.
  5. Pull out the leaf switches from the front side of the cassette deck mechanism.

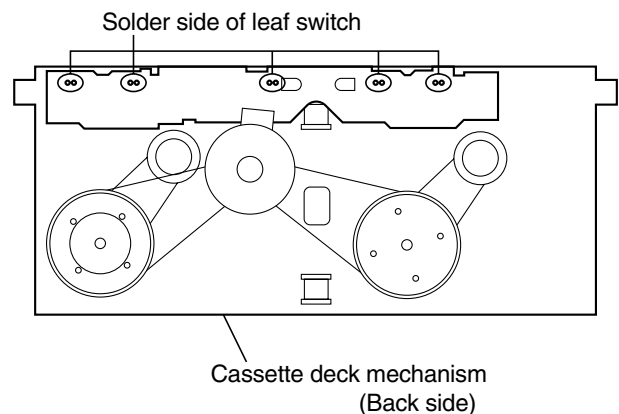


Fig.29

## ■ Removing the cassette deck heads (See Fig.21 and 30)

- Prior to performing the following procedures, remove the top cover.
  - Also remove the CD changer unit.
  - Also remove the front panel assembly.
1. Remove the five screws "O" that retain the cassette deck mechanism.
  2. Remove the cassette deck mechanism and place it so that the front side faces up.
  3. Remove the solder from the bottom side of the head terminal and disconnect the wire.
  4. Remove the screw "U" that retains the head.
  5. Loosen the screw "V" that retains the head.
  6. Hold the head and slide it in the direction of the arrow to remove it.

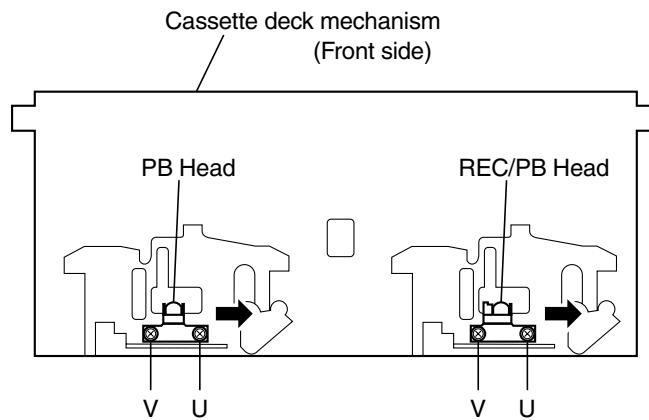


Fig.30

## ■ Removing the 3-pin regulator (See Fig.31 and 32)

- Prior to performing the following procedures, remove the top cover.
  - Also remove the rear panel and power amp and supply PCB. (See Fig.33 to 37)
1. Remove the screw "W" that retains the bracket holding the 3-pin terminal regulator.
  2. Remove the solder fixing the 3-pin regulator.

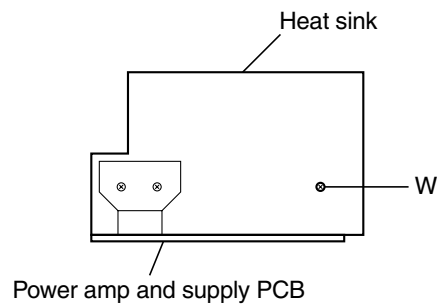


Fig.31

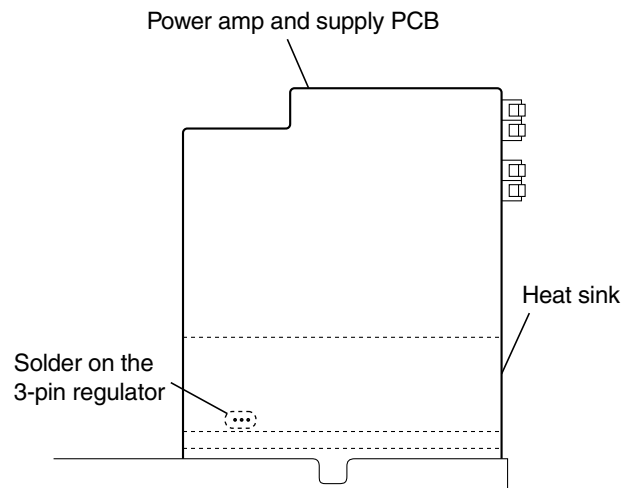


Fig.32



## ■ Removing the power amp and supply PCB and the power trans PCB (See Fig.33 to 37)

- Prior to performing the following procedures, remove the top cover.
  - Also remove the CD changer unit.
1. Remove the four screws "X" that retain the SPEAKERS terminals.
  2. Remove the two screws "Y" that retain the fan motor, and then remove the fan motor.
  3. Remove the screw "Z" that retains the rear panel, and then remove the rear panel.
  4. Remove the four screws "AA" that retain the heat sink cover onto the heat sink.
  5. Disconnect the parallel wire and wire from the connectors CN901A, CN901B and CN903 on the power amp and supply PCB.
  6. Disconnect the parallel wire and card wire from the connectors CN101 and CN901 on the power amp and supply PCB.
  7. Remove the two screws "AB" and the screw "AC" that retain the power amp and supply PCB, and then remove the assembly.
  8. Remove the clamp of AC power cord from the chassis.
  9. Remove the four screws "AD" that retain the power trans PCB and then remove the assembly.

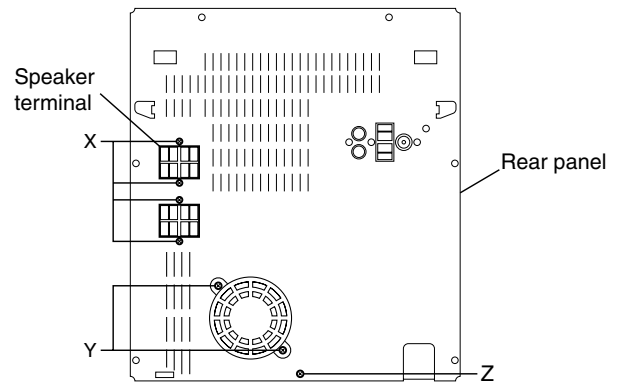


Fig.33

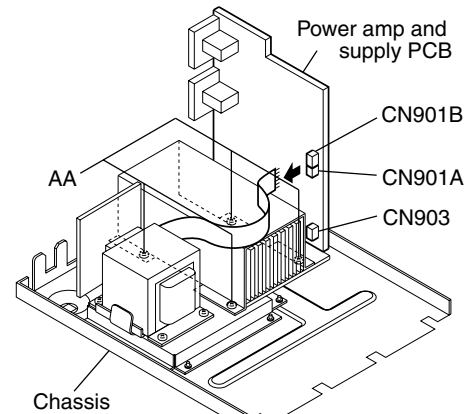


Fig.34

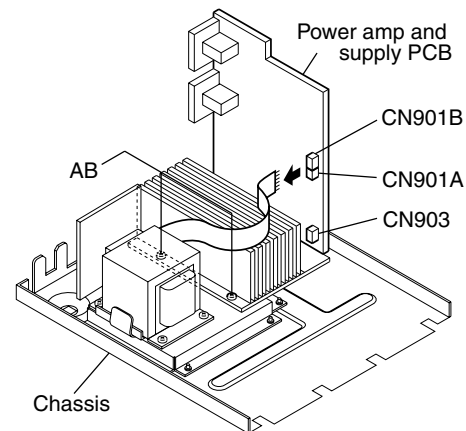


Fig.35

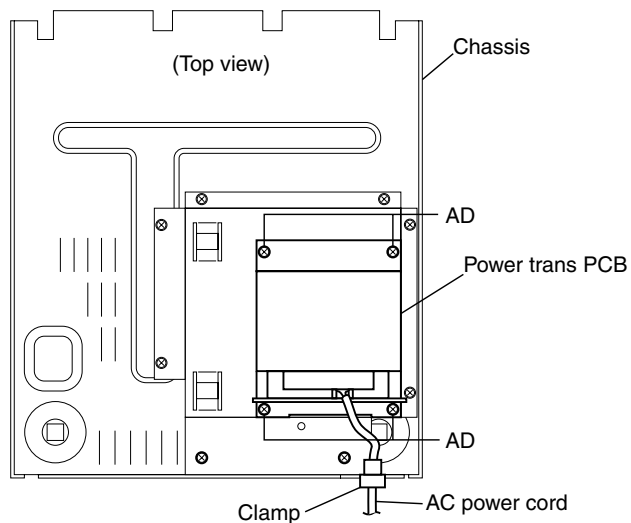


Fig.37

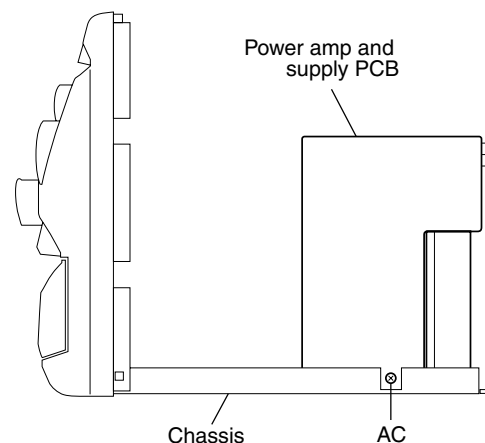


Fig.36

# Adjustment method

## Measurement instruments required for adjustment

1. Low frequency oscillator,  
This oscillator should have a capacity to output 0dB to 600ohm at an oscillation frequency of 50Hz-20kHz.
2. Attenuator impedance : 600ohm
3. Electronic voltmeter
4. Frequency counter
5. Wow flutter meter
6. Test tape  
VT712 : For Tape speed and wow flutter ( 3kHz)  
VT703 : For Head angle(10kHz),Play back frequency characteristics(1kHz),and dubbing frequency characteristics(63,1,10kHz)
7. Blank tape  
TAPE I : AC-225, TAPE II : AC-514
8. Torque gauge : For play and back tension  
Forward ; TW2111A, Reverse ; TW2121A  
Fast Forward and Rewind ; TW2231A
9. Test disc  
: CTS-1000(12cm),GRG-1211(8cm)
10. Jitter meter

## Measurement conditions

Power supply voltage  
AC120V (60Hz)

Measurement  
output terminal : Speaker out  
: TP101(Measuring for TUNER/DECK/CD)  
: Dummy load 6ohm

## Radio input signal

AM modulation frequency : 400Hz  
Modulation factor : 30%  
FM modulation frequency : 400Hz  
Frequency displacement : 22.5kHz

## Frequency Range

AM 531kHz~1710kHz  
FM 87.5MHz~108MHz

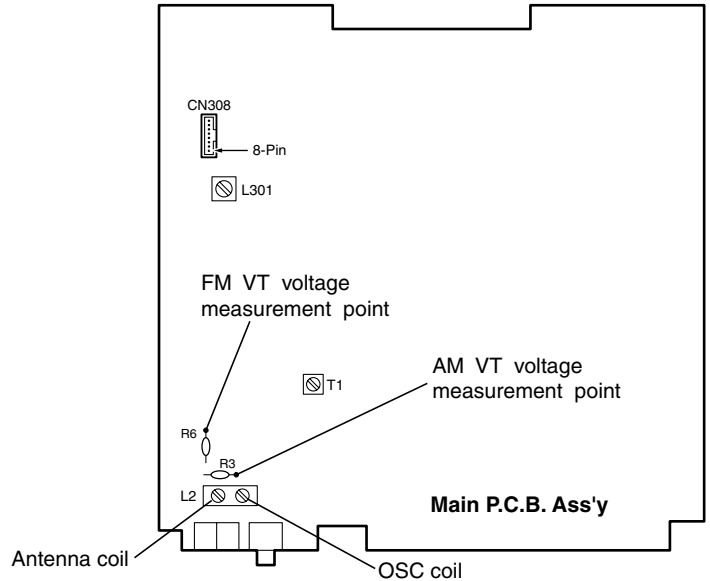
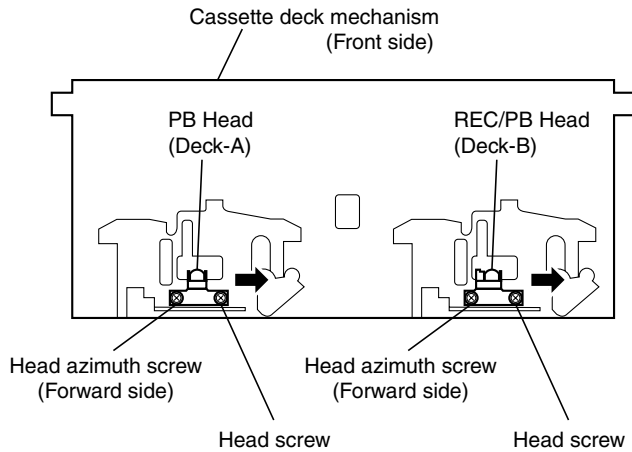
## Standard measurement positions of volume and switch

Power : Standby (Light STANDBY Indicator)  
S,A,BASS : OFF  
Sound mode : OFF  
Main VOL. : 0 Minimum  
Travers mecha set position : Disc 1  
Mic MIX VOL : MAX  
ECHO : OFF

## Precautions for measurement

1. Apply 30pF and 33kohm to the IF sweeper output side and 0.082 $\mu$ F and 100kohm in series to the sweeper input side.
2. The IF sweeper output level should be made as low as possible within the adjustable range.
3. Since the IF sweeper is a fixed device, there is no need to adjust this sweeper.
4. Since a ceramic oscillator is used, there is no need to perform any MPX adjustment.
5. Since a fixed coil is used, there is no need to adjust the FM tracking.
6. The input and output earth systems are separated. In case of simultaneously measuring the voltage in both of the input and output systems with an electronic voltmeter for two channels, therefore, the earth should be connected particularly.
7. In the case of BTL connection amplifier, the minus terminal of speaker is not for earthing. Therefore, be sure not to connect any other earth terminal to this terminal. This system is of an OTL system.

### ■ Arrangement of adjusting positions



### ■ Tape recorder section

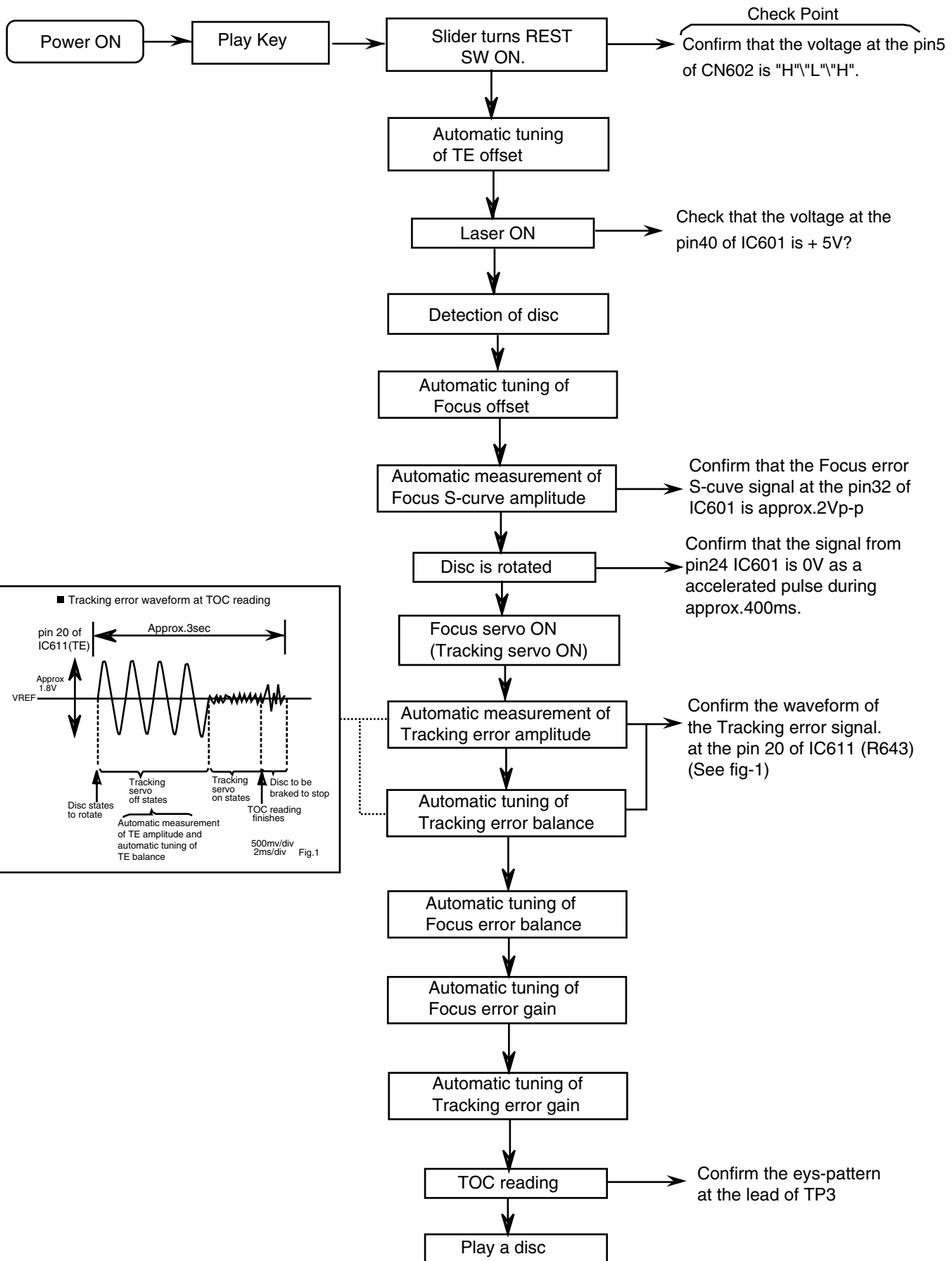
Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Cassette Head Azimuth Alignments	Test tape : VT703 (10kHz) Measurement output terminal : Left and Right speaker output (6-ohm loaded) or Headphone Output (32-ohm loaded)	1. Playback the test tape VT703 (10kHz) or equivalent. 2. Adjust the head azimuth screw to obtain maximum output and both output of L / R is in 3dB. 3. Put on the screw lock paint after alignments.	Maximum output	Head azimuth screw  Adjust the head azimuth screw only when the head has been changed.
Recording Bias Frequency Alignment	Test tape : TYPE II AC-514 Measurement output terminal : Erase head terminal (CN308 8-Pin)	1. Insert the recording tape in deck-B. 2. Starting the recording. 3. Adjust the oscillation frequency to 80kHz $\pm$ 3kHz by core of Oscillation coil of L301.	80kHz $\pm$ 3kHz	Bias coil: L301  Use the High-Impedance Probe for Frequency counter input.

### ■ Tuner section

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
AM Tracking Alignments	Input signal : 530kHz Measurement point : Resistor R3 (AM) Resistor R6 (FM)	OSC coil adjustment 1. Set the Signal Generator signal to 530kHz the feed to Loop Antenna. 2. Receiving the signal and the adjust the OSC coil (L2) obtain the V.T is 1.40V $\pm$ 0.05V.	V.T : 1.40V $\pm$ 0.05V	OSC/Antenna coil : L2 Adjust the OSC coil only when the AM coil block has been changed.
	Input signal : 600kHz	Antenna coil check or adjustment 1. Change the receiving frequency to 600kHz. 2. Adjust the Antenna coil ( L2 ) obtain maximum sensitivity. (Adjust the SSG output to out of AGC range.)	Maximum sensitivity	
AM IFT Alignments	Input signal : 530kHz	1. Set the receiving frequency to 530kHz. 2. Feed the 450kHz signal to AM IF input. 3. Adjust the IFT Block T1 obtain to maximum output. (Adjust the SSG output to out of AGC range.)	Maximum output	IFT (T1) Adjust the IFT only when the IFT block has been changed.

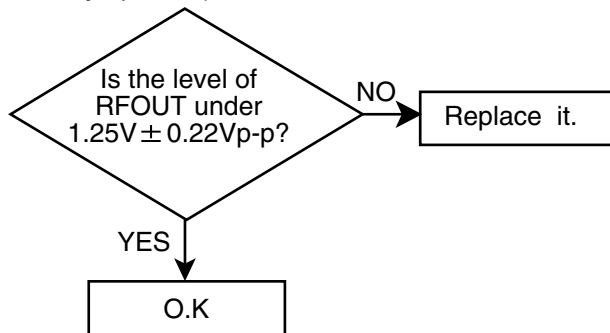
**Note: The adjustment of CD section is not required.**

# Flow of functional operation until TOC read

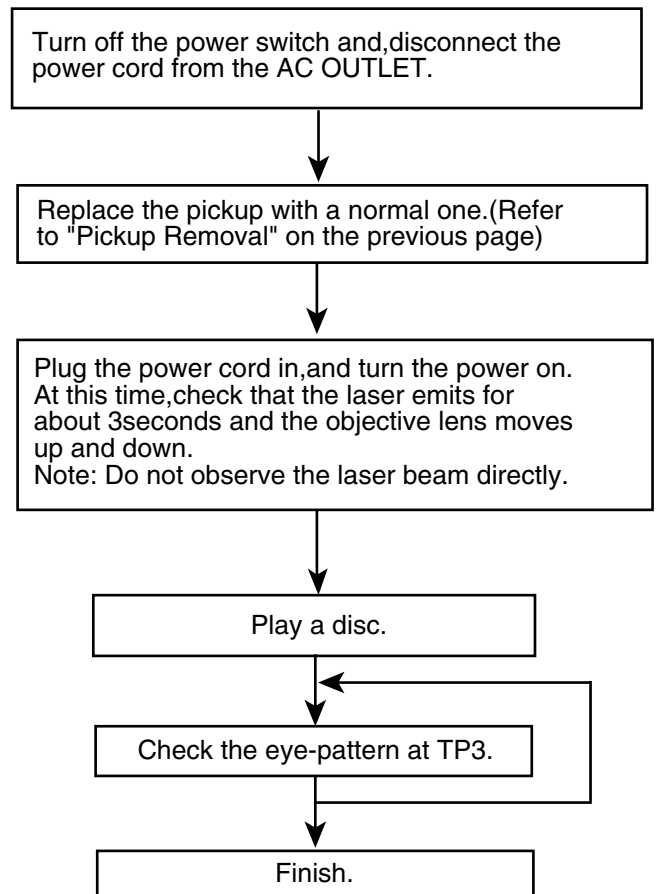


## Maintenance of laser pickup

- (1) Cleaning the pick up lens  
Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.
- (2) Life of the laser diode  
When the life of the laser diode has expired, the following symptoms will appear.
  1. The level of RF output (EFM output: amplitude of eye pattern) will below.



## Replacement of laser pickup



### (3) Semi-fixed resistor on the APC PC board

The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.

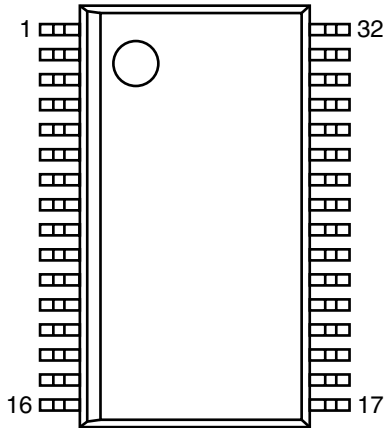
If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.

If the semi-fixed resistor would be adjusted when the pickup operates normally, the laser pickup may be damaged due to excessive current.

# Description of major ICs

## ■ AN22000A (IC611) : CD-DA Head Amp.

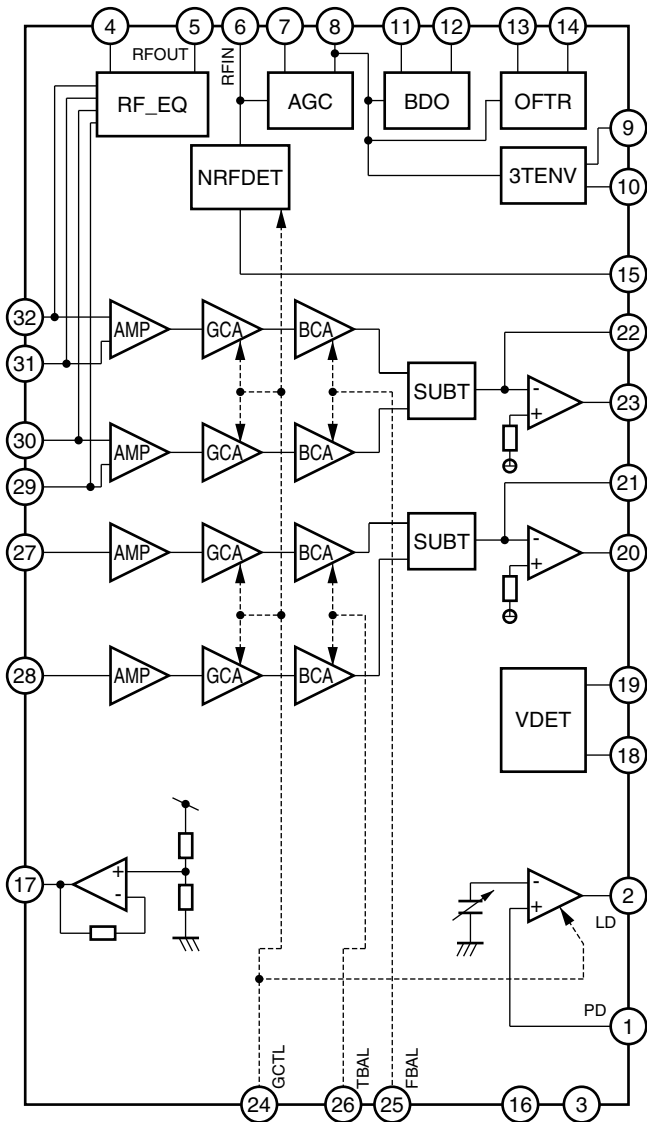
### 1. Terminal layout



### 2. Pin function

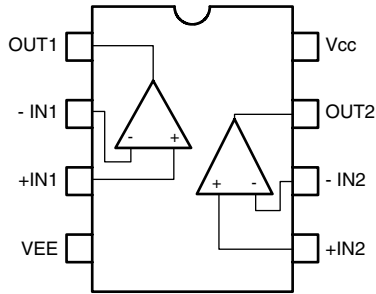
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	PD	I	APC Amp. input terminal	15	NRFDET	O	NRFDET output terminal
2	LD	O	APC Amp. output terminal	16	GND	-	Ground
3	VCC	-	Power supply terminal	17	VREF	O	VREF output terminal
4	RFN	I	RF adder Amp. inverting input terminal	18	VDET	O	VDET output terminal
5	RFOUT	O	RF adder Amp. output terminal	19	TEBPF	I	VDET output terminal
6	RFIN	I	AGC input terminal	20	TEOUT	O	TE Amp. output terminal
7	CAGC	I	Input terminal for AGC loop filter capacitor	21	TEN	I	TE Amp. inverting input terminal
8	ARF	O	AGC output terminal	22	FEN	I	FE Amp. inverting input terminal
9	CBA	I	Capacitor connecting terminal for HPF-Amp.	23	FEOUT	O	FE Amp. output terminal
10	3TOUT	O	3 TENV output terminal	24	GCTL	O	GCTL & APC terminal
11	CBOO	I	Capacitor connecting terminal for envelope detection on the darkness side	25	FBAL	O	FBAL control terminal
12	BDO	O	BDO output terminal	26	TBAL	O	TBAL control terminal
13	COFTR	I	Capacitor connecting terminal for envelope detection on the light side	27	E	I	Tracking signal input terminal 1
14	OFTR	O	OFTR output terminal	28	F	I	Tracking signal input terminal 2
				29	D	I	Focus signal input terminal 4
				30	B	I	Focus signal input terminal 3
				31	C	I	Focus signal input terminal 2
				32	A	I	Focus signal input terminal 1

### 3. Block diagram



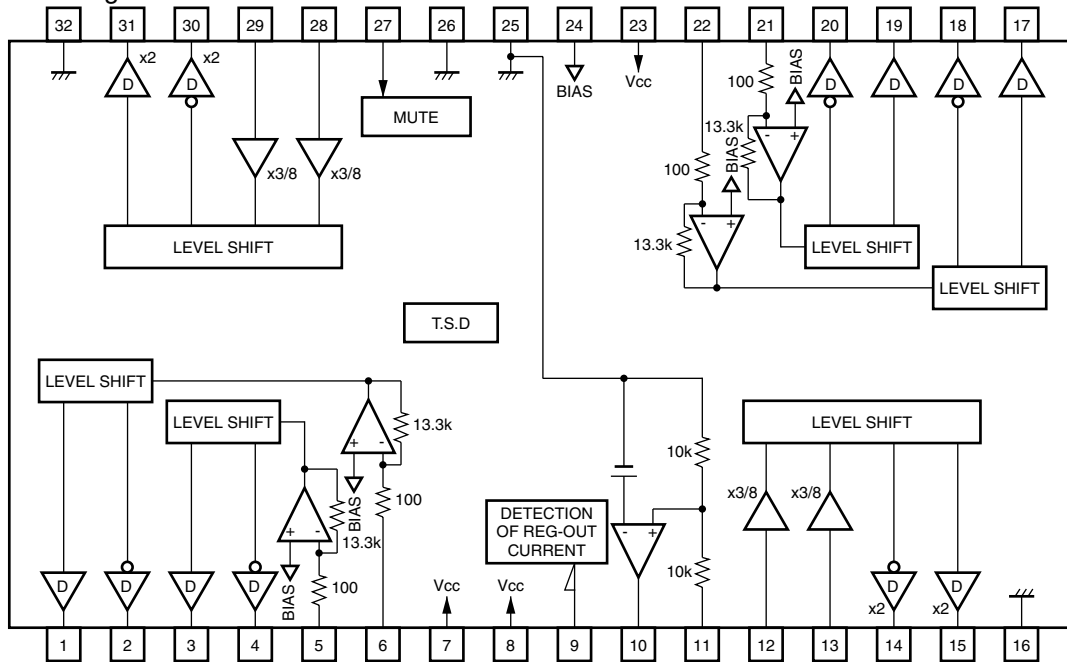
**BA15218 (IC102) : Dual low noise operational amp.**

1. Terminal layout



**BA5936S (IC621) : 6 channel BTL driver**

1. Block diagram

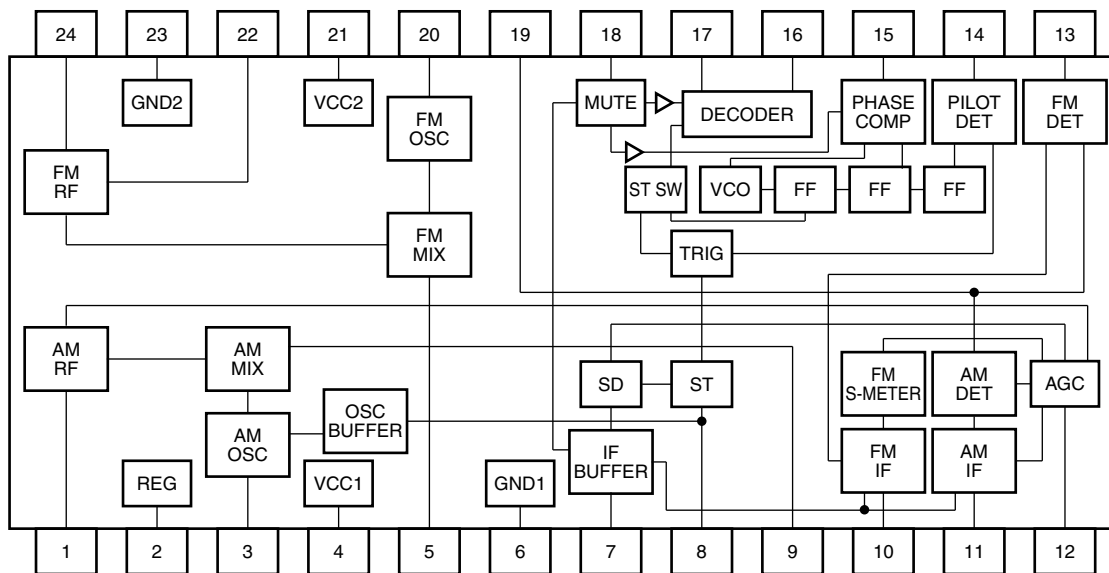


2. Pin function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	OUT1-	O	CH1 negative output	17	OUT4-	O	CH4 negative output
2	OUT1+	O	CH1 positive output	18	OUT4+	O	CH4 positive output
3	OUT2-	O	CH2 negative output	19	OUT5-	O	CH5 negative output
4	OUT2+	O	CH2 positive output	20	OUT5+	O	CH5 positive output
5	IN2	I	CH2 input	21	IN5	I	CH5 input
6	IN1	I	CH1 input	22	IN4	I	CH4 input
7	VCC	-	Power supply terminal	23	VCC	-	Power supply terminal
8	VCC	-	Power supply terminal	24	BIAS IN	I	Bias input terminal
9	REG-I	I	Regulator current detection terminal	25	GND	-	Ground
10	REG-B	O	Connect to base terminal of external transistor	26	GND	-	Ground
11	REG-OUT	O	Constant voltage output (Connect to collector terminal of external transistor)	27	MUTE IN	I	Mute input terminal
12	IN3-R	I	CH3 reverse input	28	IN6-R	I	CH6 reverse input
13	IN3-F	I	CH3 forward input	29	IN6-F	I	CH6 forward input
14	OUT3+	O	CH3 positive output	30	OUT6+	O	CH6 positive output
15	OUT3-	O	CH3 negative output	31	OUT6-	O	CH6 negative output
16	GND	-	Ground	32	GND	-	Ground

## ■ LA1823 (IC1) : 1chip AM/FM, MPX tuner system

### 1. Block diagram



### 2. Pin function

Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	AM_RFIN	I	AMRF signal input	13	FM_DET	O	FM detection signal output
2	REG.	-		14	ST/MON_SW	I	Stereo/Monaural switching signal input
3	AM_OSC	-	AM local oscillation circuit	15	AM/FM_SW	I	AM/FM switching signal input
4	VCC_1	-	Power supply terminal	16	L_OUT	O	Output L-channel
5	FM_MIXOUT	O	Output terminal for FM mixer	17	R_OUT	O	Output R-channel
6	GND_1	-	Ground	18	MPX_IN	I	Multiplex signal input
7	IF_BUFFER	O	IF buffer output	19	DET_OUT	O	AM/FM detection output
8	ST_IND	O	Stereo indicator output	20	FM_OSC	-	FM local oscillation circuit
9	AM_MIXOUT	O	Output terminal for AM mixer	21	VCC_2	-	Power supply terminal
10	FM_IF IN	I	Input of FMIF signal	22	FM_RFOUT	O	Output of FMRF signal
11	AM_IF IN	I	Input of AMIF signal	23	GND_2	-	Ground
12	AGC	I	AGC voltage input terminal	24	FM_RFIN	I	Input of FMRF signal

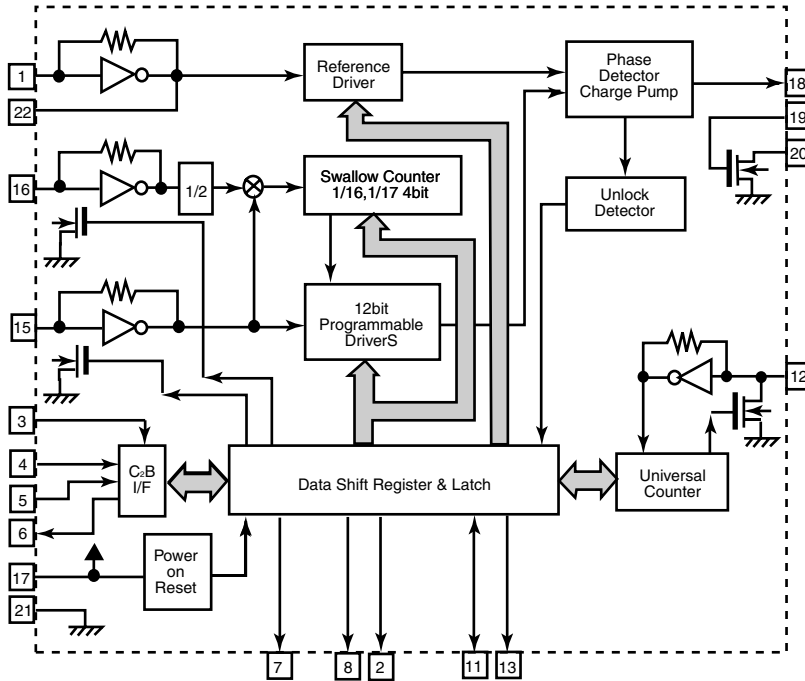


■ LC72136N (IC2) : PLL Frequency synthesizer

1. Terminal layout

XTI	1	22	$\overline{XT}$
FM	2	21	GND
CE	3	20	LPFI
DI	4	19	LPFO
CLOCK	5	18	PD
DO	6	17	VCC
VCOSTOP	7	16	FMIN
AM/FM	8	15	AMIN
LW	9	14	NC
MW	10	13	IFCNT
SDIN	11	12	IFIN

2. Block diagram

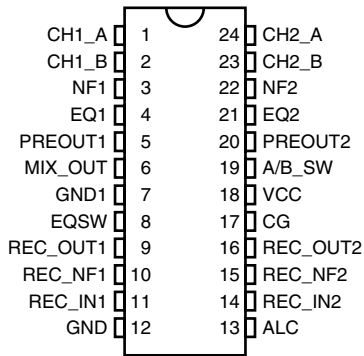


3. Pin function

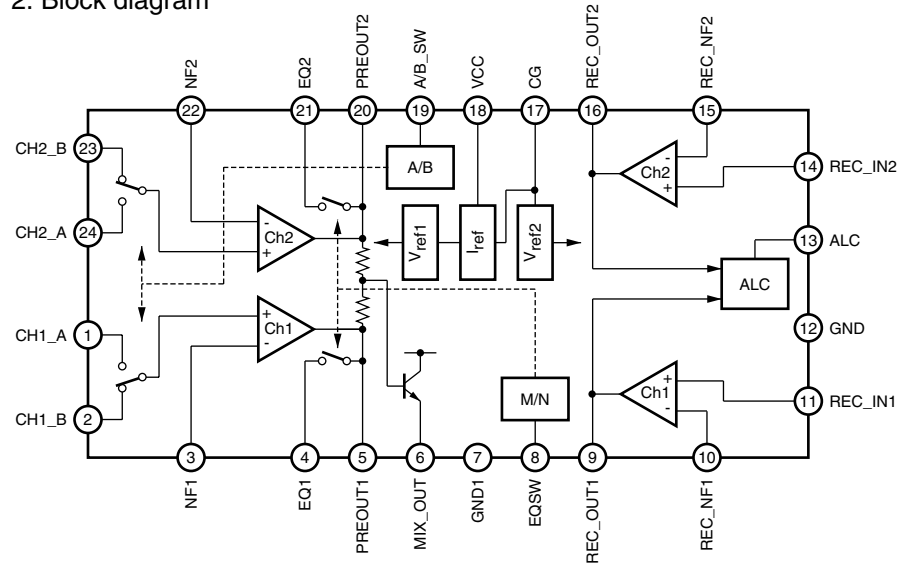
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	XTI	I	X'tal oscillator connect (75KHz)	12	IFIN	I	IF counter signal input
2	$\overline{FM}$	O	LOW:FM mode	13	IFCNT	O	IF signal output
3	CE	I	When data output/input for 4pin(input) and 6pin(output): H	14	NC	-	Not use
4	DI	I	Input for receive the serial data from controller	15	AMIN	I	AM Local OSC signal output
5	CLOCK	I	Sync signal input use	16	FMIN	I	FM Local OSC signal input
6	DO	O	Data output for Controller Output port	17	VCC	-	Power supply(VDD=4.5~ 5.5V) When power ON:Reset circuit move
7	VCOSTOP	O	"Low": MW mode	18	PD	O	PLL charge pump output(H: Local OSC frequency Height than Reference frequency. L: Low Agreement: Height impedance)
8	AM/FM	O	Open state after the power on reset	19	LPFO	O	Output for active lowpassfilter of PLL
9	NC	-	Input/output port	20	LPFI	I	Input for active lowpassfilter of PLL
10	NC	-	Input/output port	21	GND	-	Connected to GND
11	SDIN	I/O	Data input/output	22	$\overline{XT}$	I	X'tal oscillator(75KHz)

■ TA8189N (IC401) : REC/PB amp.

1. Terminal layout



2. Block diagram

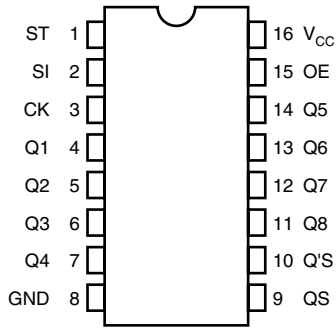


3. Pin function

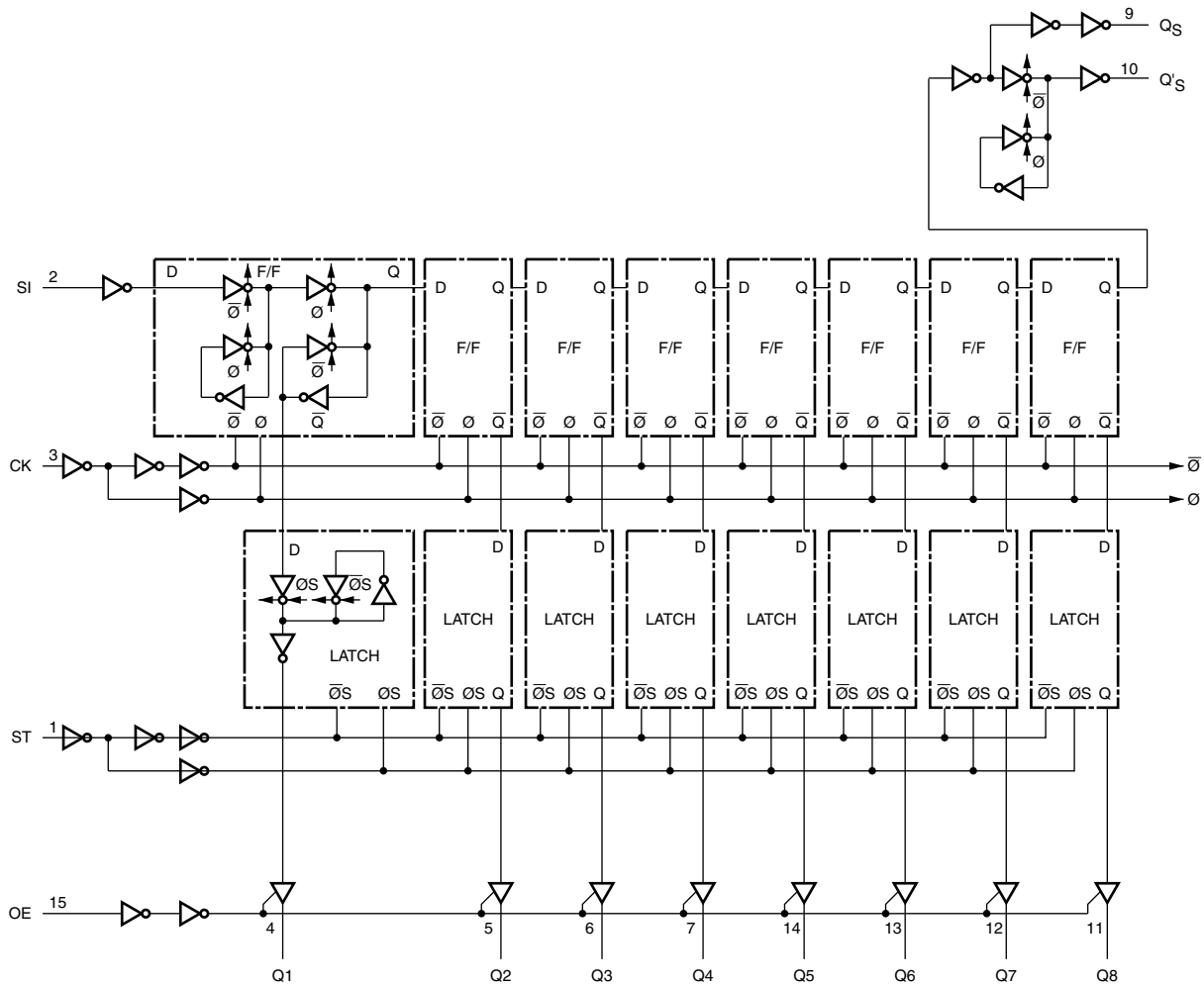
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	CH1_A	I	Input for playback amp. (Ch1): A cassette (PB)	13	ALC	I	ALC filter terminal
2	CH1_B	I	Input for playback amp. (Ch1): B cassette (REC/PB)	14	REC_IN2	I	Input for recording amp.
3	NF1	I	NF terminal for playback amp.	15	REC_NF2	I	NF terminal for recording amp.
4	EQ1	O	Metal output for playback amp.	16	REC_OUT2	O	Output for recording amp.
5	PREOUT1	O	Output terminal for playback amp.	17	CG	O	Charge detection terminal
6	MIX_OUT	O	Mixing output	18	VCC	-	Power supply terminal
7	GND1	-	Ground	19	A/B_SW	I	REC amp. Select switch (A cassette/B cassette)
8	EQSW	I	Metal/Normal mode select switch	20	PREOUT2	O	Output terminal for playback amp.
9	REC_OUT1	O	Output for recording amp.	21	EQ2	O	Metal output for playback amp.
10	REC_NF1	I	NF terminal for recording amp.	22	NF2	I	NF terminal for playback amp.
11	REC_IN1	I	Input for recording amp.	23	CH2_B	I	Input for playback amp. (Ch2): B cassette (REC/PB)
12	GND1	-	Ground terminal	24	CH2_A	I	Input for playback amp. (Ch2): A cassette (PB)

**TC74HC4094AP (IC402) : 8-bit shift and store register**

1. Terminal layout

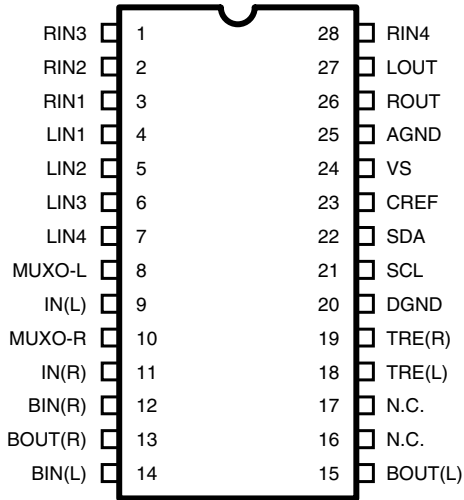


2. Block diagram

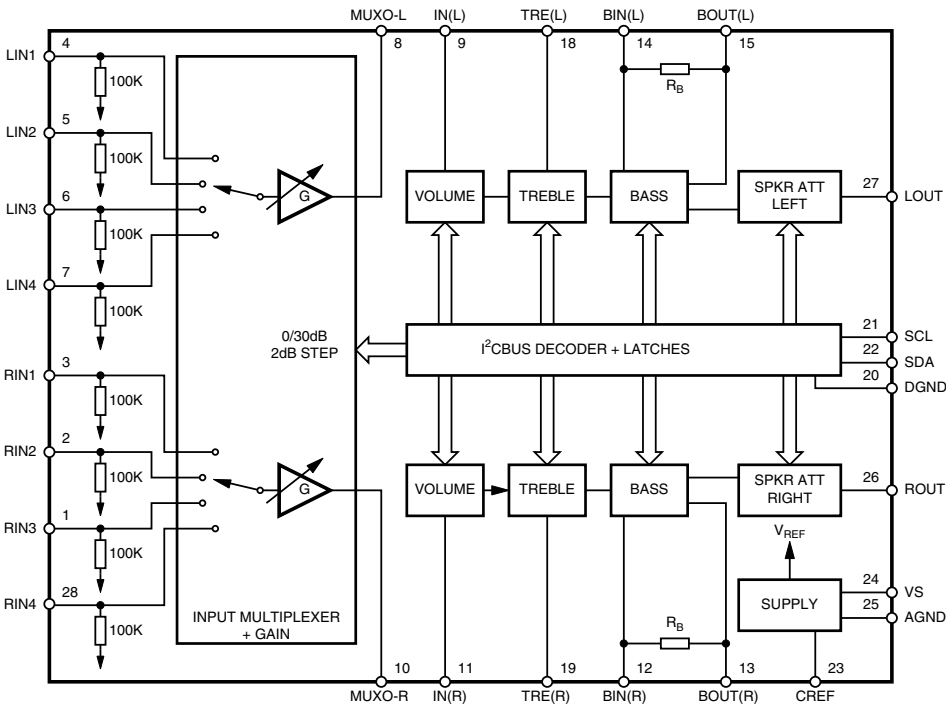


■ TDA7440D (IC101) : Audio processor

1. Terminal layout

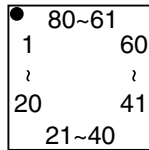


2. Block diagram



## ■ MN662748RPM (IC601) : Digital servo & digital signal processor

### 1. Terminal layout



### 2. Pin function

Pin No	Symbol	I/O	Function	Pin No	Symbol	I/O	Function
1	BCLK	-	Not use	41	PLL2	-	Not use
2	LRCK	-	Not use	42	TOFS	-	Not use
3	SRDATA	-	Not use	43	WVEL	-	Not use
4	DVDD1	-	Power supply for digital circuit	44	ARF	I	RF signal input
5	DVSSI	-	GND for digital circuit	45	IREF	I	Reference current input
6	TX	-	Not use	46	DRF	I	Bias pin for DSL
7	MCLK	I	Micro computer command clock signal input	47	DSL2	I/O	Loop filter pin for DSL
8	MDATA	I	Micro computer command data input	48	PLL2	I/O	Loop filter pin for PLL
9	MLD	I	Micro computer command load signal input (L: Load)	49	VCOF	I/O	Loop filter pin for VCO
10	SENSE	-	Not use, connect to TP7	50	AVDD2	-	Power supply for analog circuit
11	FLOCK	-	Not use, connect to TP6	51	AVSS2	-	GND for analog circuit
12	TLOCK	-	Not use, connect to TP5	52	EFM	-	Not use, connect to TP12
13	BLKCK	O	Sub code block clock signal output	53	PCK	O	Clock output for PLL
14	SQCK	I	External clock input for sub code Q register input	54	VCOF2	I/O	Loop filter pin for Digital servo VCO
15	SUBQ	O	Sub code Q data output	55	SUBC	-	Not use
16	DMUTE	I	Muting input (H: Mute)	56	SBCK	-	Not use
17	STAT	O	Status signal input	57	VSS	-	GND for crystal oscillation circuit
18	RST	I	Reset signal input (L: Reset)	58	X1	I	Input for crystal oscillation circuit (f=16.9344MHz)
19	SMCK	-	Not use	59	X2	O	Output for crystal oscillation circuit (f=16.9344MHz)
20	PMCK	-	Not use, connect to TP8	60	VDD	-	Power supply for crystal oscillation circuit
21	TRV	O	Traverse enforced output	61	BYTCK/TRVSTP	-	Not use
22	TVD	O	Traverse drive output	62	CLDCK	O	Sub code frame clock signal output
23	PC	-	Not used	63	FCLK	-	Not used
24	ECM	O	Spindle motor drive signal (Enforced mode output)	64	IPFLAG	O	Interpolation flag signal output, Connect to TP11
25	ECS	O	Spindle motor drive signal (Servo error signal output)	65	FLAG	O	Flag signal output, Connect to TP10
26	KICK	O	Kick pulse output	66	CLVS	-	Not use
27	TRD	O	Tracking drive output	67	CRC	-	Not use
28	FOD	O	Focus drive output	68	DEMPH	O	De-emphasis detect signal output, Connect to TP9
29	VREF	I	Reference voltage for D/A output block	69	RESY	-	Not use
30	FBAL	O	Focus balance adjust signal output	70	IOSEL	I	Mode select pin, Connect to DVDD1 (H fix)
31	TBAL	O	Tracking balance adjust signal output	71	/TEST	I	Test pin, Connect to DVDD1 (H fix)
32	FE	I	Focus error signal input (Analog input)	72	AVDD1	-	Power supply for analog circuit
33	TE	I	Tracking error signal input (Analog input)	73	OUTL	O	L-channel audio output
34	RFENV	I	RF envelope signal input (Analog input)	74	AVSS1	-	GND for analog circuit
35	VDET	I	Vibration detect signal input (H:Detect)	75	OUTR	O	R-channel audio output
36	OFT	I	Off track signal input (H:Off track)	76	RSEL	I	RF signal polarity setting pin, Connect to DVDD1 (H fix)
37	TRCRS	I	Track cross signal input	77	CSEL	I	Oscillation frequency setting pin, Connect to GND (L fix)
38	/RFDET	I	RF detect signal input (L:Detect)	78	PSEL	I	IOSEL=H, Test pin, Connect to GND (L fix)
39	BDO	I	Drop out signal input (H:Drop out)	79	MSEL	I	IOSEL=H, SMCK output, Frequency select pin
40	LDON	O	Laser on signal output (H:ON)	80	SSEL	I	IOSEL=H, SMCK output, SUBQ output mode select pin

**JVC**

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PERSONAL & MOBILE NETWORK B.U. 10-1, 1Chome, Ohwatari-machi, maebashi-city, 371-8543, Japan

# PARTS LIST

[ MX-K7 ]

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

<p>Area suffix</p> <p>J ----- U.S.A.</p>
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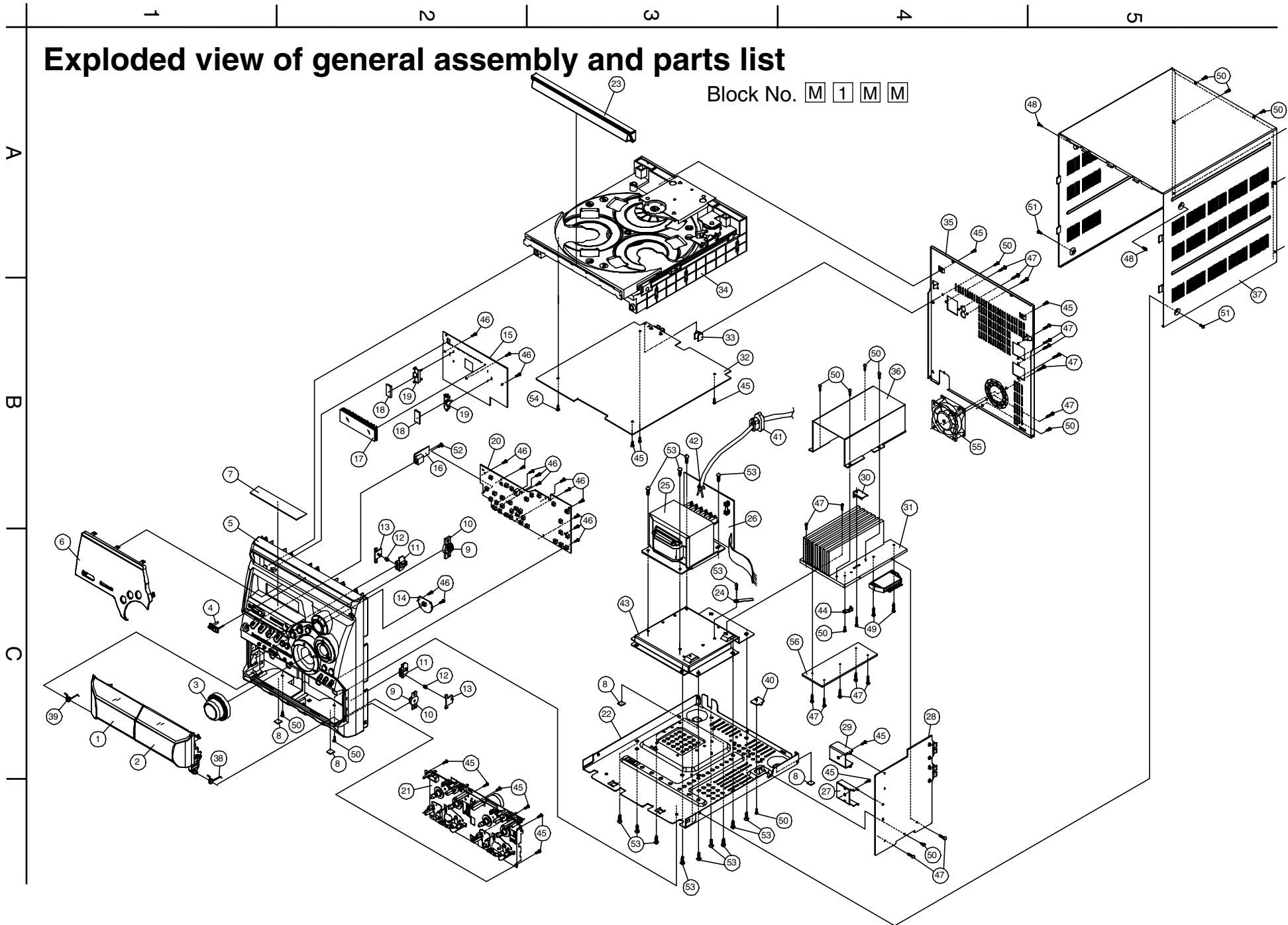
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# Exploded view of general assembly and parts list

Block No. 

M	1	M	M
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**Parts list (General assembly)**
**Block No. M1MM**

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	GJA2031003001C	CASSETTE DOOR L	1	ASS'Y ( L )	
	2	GJA2032001001C	CASSETTE DOOR R	1	ASS'Y ( R )	
	3	GJ4A05303001B0	KNOB	1	VOLUME	
	4	GJ460170330201	JVC MARK	1	ASS'Y	
	5	GJA2020061001C		1	ASS'Y	
	6	GJ4C05316005C0		1		
	7	GJ772007940101	LABEL	1		
	8	GJ763000320106	FELT SHEET	4	10X10MM T=2MM	
	9	GJ660490020101	GEAR	2		
	10	GJ660490030101	GEAR BASE	2		
	11	GJ4D04048001A1	LOCK HOLDER	2		
	12	GJ422253701	SPRING	2	(LOCK)	
	13	GJ460400250101	HOLDER	2		
	14	-----	SWITCH PCB(1)	1	ASS'Y	
	15	-----	CONTROL PCB	1	ASS'Y	
	16	-----	HEAD PHONE PCB	1	ASS'Y	
	17	GJ373020041000	DISPLAY	1	BJ828GNK	
	18	GJ793000150001	SPONGY	2		
	19	GJ560530400101	DISPLAY BRACKET	2	DISPLAY	
	20	-----	SWITCH PCB(2)	1	ASS'Y	
	21	-----	CASSETTE MECHA	1	(CMAT6Z219A)	
	22	GJ560530200101	BOTTOM CASE	1		
	23	GJ4B05315001E0	CD FITTING	1		
	24	GJ727450540503	SOLDER TAG	1	M4.5X54X0.5MM W	
△	25	GJ336860010016	POWER TRANS	1	EI-66AC120VT951	
	26	-----	AC POWER PCB	1	ASS'Y	
	27	GJ780000180100	HEAT SINK	1		
	28	-----	AMP PCB	1	ASS'Y	
	29	GJ780000220100	HEATSINK	1		
	30	GJ560170110101	BRACKET B	1		
	31	GJ780000350100	HEAT SINK	1		
	32	-----	MAIN PCB	1	ASS'Y	
	33	GJ560170040101	BRACKET PCB	1		
	34	-----	CD CHANGER UNIT	1	910-EXLM75-03	
	35	GJ560530320221	REAR CASE	1		
	36	GJ560530800101		1	HEAT SINK	
	37	GJ560530100101	TOP CASE	1		
	38	GJ711001850101	SPRING	1		
	39	GJ711001840100	C.DOOR SPRING	1		
	40	GJ560170290101	BRACKET	1		
△	41	GJ796000030000	CORD BUSHING	1		
	42	GJ732000010101	POWERCORD BAND	1		
	43	GJ560530500101		1		
	44	GJ560530700101	SENSEOR BRACKET	1		
	45	GJ702244300810	SCREW	13	TT'3X8 +BV TYPE	
	46	GJ702244260810	SCREW	16	TT2.6X8 +BV TYP	
	47	GJ702244301010	SCREW	18	TT3X10 +BV TYPE	
	48	GJ702244301050	SCREW	2	TT3X10 +BV TYPE	

**Parts list (General assembly)**

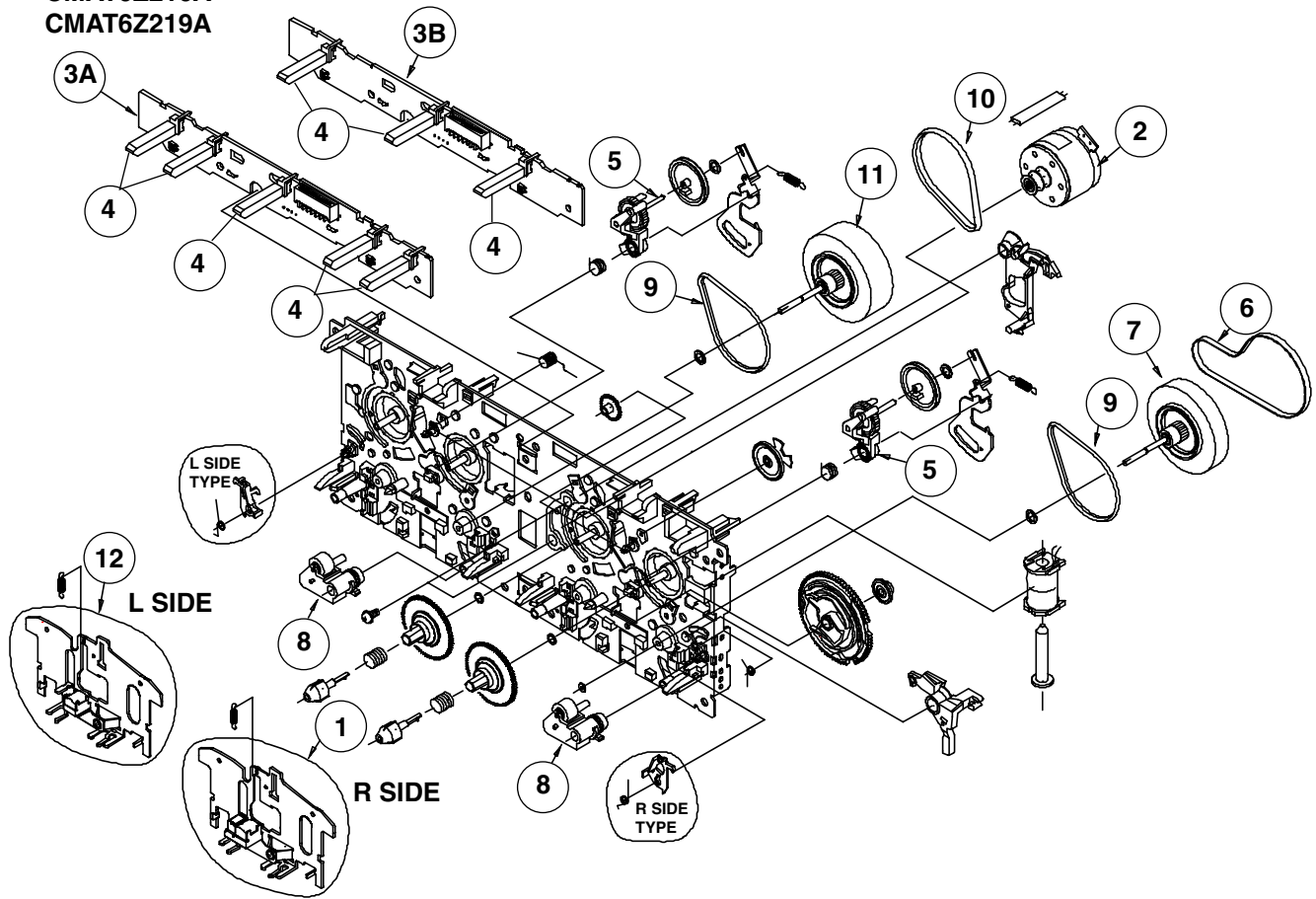
Block No. M1MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	49	GJ702244301410	SCREW	3	TT3X14 +BV TYPE	
	50	GJ702244300610	SCREW	17	TT3X6 +BV TYPE	
	51	GJ702244300650	SCREW	2	TT3X6 +BV TYPE	
	52	GJ703260800100	SPECIAL SCREW	1	TT2.6X8 D10 +BW	
	53	GJ702264400610	SCREW	14	TT4X6 +PW=8 TYP	
	54	GJ703300802000	SCREW	1	TT3X8 D=12 +BW	
	55	GJ385000030000	FAN	1	DC C162 EJ10H12	
	56	GJ780000460100	HEAT SINK PLATE	1		
⚠	57	GJ350162001119	POWER CORD	1		

# Cassette mechanism assembly and parts list

Block No. M 2 M M

CMAT6Z216A  
CMAT6Z219A



Note: Parts listed on the Parts List below can be supplied. However, parts that are not listed below cannot be supplied individually but only by purchasing the whole Cassette Mechanism Assembly Unit. (When ordering, use the Parts No. CMAT6Z216A or CMAT6Z219A for Cassette Mechanism Assembly Unit.)

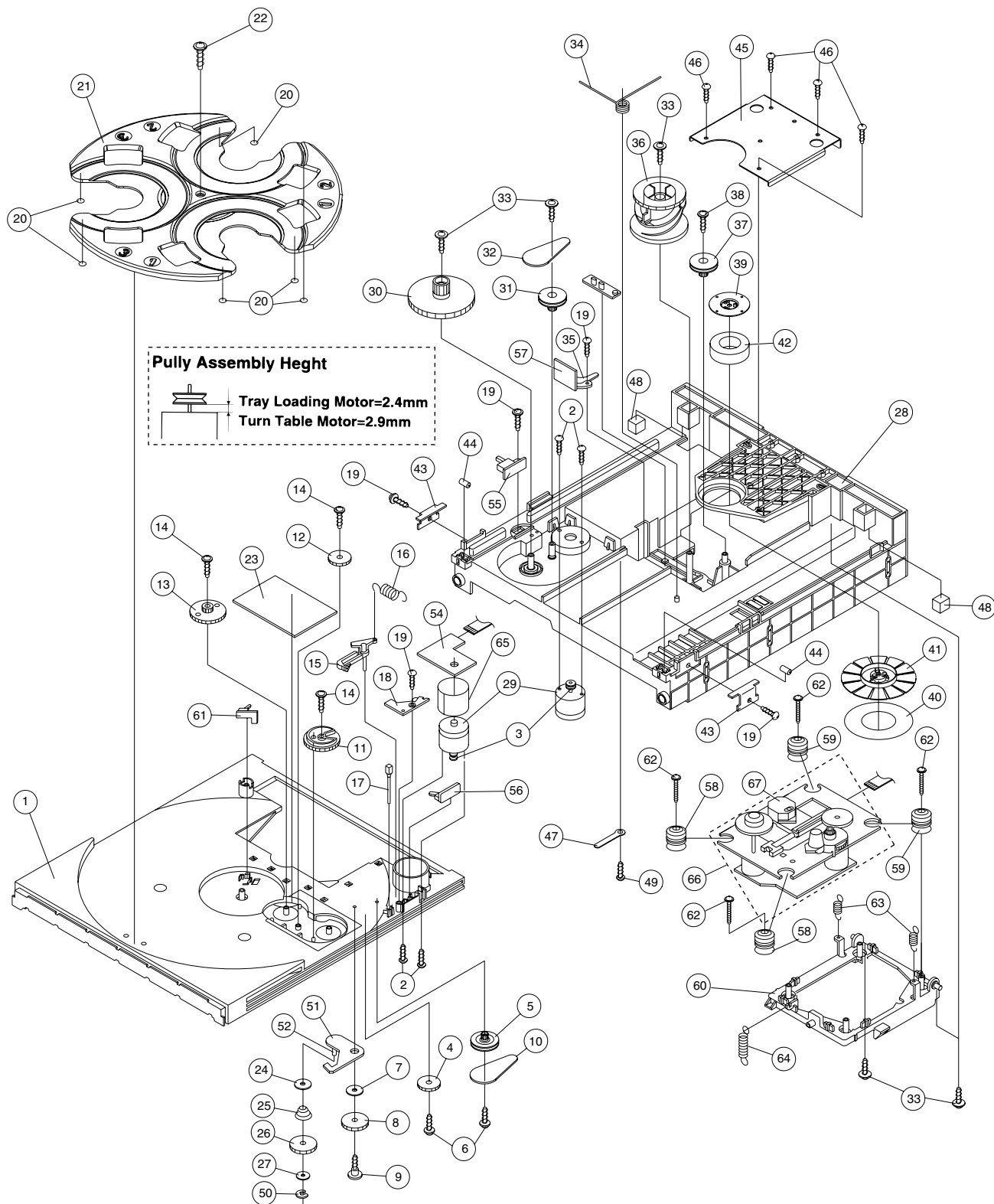
## Parts list (Cassette mechanism)

Block No. M2MM

⚠	Item	Parts number	Parts name	Q'ty	Description	Area
	1	F513-858	PLATE HD BLK	1		
	2	F525-338	MTR MAIN BLK	1		
	3A	-----	PCB CONTROL BLK	1	CMAT6Z216A	
	3B	-----	PCB CONTROL BLK	1	CMAT6Z219A	
	4	UE20P-12	LEAF SWITCH	5	CMAT6Z216A	
		UE20P-12	LEAF SWITCH	3	CMAT6Z219A	
	5	F522-063	CLUTCH ASSY BLK	2		
	6	FF19U-12	MAIN BELT	1		
	7	FR25P-11	ASSY F/W	1		
	8	F514-135	ROLLER PINCH BLK R	2		
	9	FF19S-31	F/R BELT MO	2		
	10	FF19N-11	MAIN BELT	1		
	11	FR25R-11	ASSY F/W	1		
	12	F513-855	PLATE HD BLK	1		

# CD changer mechanism assembly and parts list

Block No. M 3 M M



**Parts list (CD changer mechanism)**

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	GJ4A0430201A1	TRAY	1		
	2	GJ701222260432	SCREW	4	M2.6 X 4	
	3	GJ4D01068100A1	MOTOR PULLEY	2	VE75984	
	4	GJ4D04300501A1	RELAY GEAR-A	1		
	5	GJ4D04301801A1	PULLEY GEAR	1		
	6	GJ700263260812	SCREW	2	2.6 X 8	
	7	GJ721271400500	METAL WASHER	1	2.7 X 14 X 0.5T	
	8	GJ4D04300601A1	RELAY GEAR-B	1		
	9	GJ703260000100	SCREW	1	SPECIAL	
	10	GJ560430010101	LOADING BELT	1		
	11	GJ4D04300901A1	TRAY LOCK GEAR	1		
	12	GJ4D04301001A1	RELAY GEAR-C	1		
	13	GJ4D04301101A1	TRAY GEAR	1		
	14	GJ700263260612	SCREW	3	2.6 X6	
	15	GJ4D04301301A2	S.S.W. LEVER	1	SENSOR	
	16	GJ711001630100	SPRING	1	SENSOR SWITCH	
	17	GJ460430220101	CUSHION RUBBER	1		
	18	GJ460430230101	GUIDE BRACKET	1	SENSOR SWICH	
	19	GJ70022320812	SCREW	5	2.6 X 8	
	20	GJ761000190100	CUSHION	6		
	21	GJ4A04300101A1	TURRETTO	1		
	22	GJ700263261042	SCREW	1	2.6 X 10 BLACK	
	23	GJ560430050101	BLIND SHEET	1		
	24	GJ729421400300	WASHER	1	4 X 14 X 0.3T	
	25	GJ711001620100	SPRING	1	CHANGER GEAR	
	26	GJ4D04300701A1	CHANGER GEAR	1		
	27	GJ721311000500	WASHER	1	3.1 X 10 X 0.5T	
	28	GJ4B04301201A2	MAINCHASSIS	1		
	29	GJ381020310004	MOTOR	2	TRAY MOTOR	
	30	GJ4L04301901A1	SLIDE GEAR	1		
	31	GJ4D04300401A1	GEAR PULLEY -A	1		
	32	GJ560430060101	GEAR BELT	1	LOADING	
	33	GJ703330800202	SCREW	5	3 X 8	
	34	GJ711001640100	SPRING	1	CAM BRACKET	
	35	GJ460430160101	SWITCH LEVER	1		
	36	GJ4D04301401A1	UD CAM GEAR	1		
	37	GJ4D04301501A1	UD REDUCE GEAR	1		
	38	GJ700264200812	SCREW	1	2 X 10	
	39	GJ793312711	CHUCKING YOKE	1		
	40	GJ763000440100	FELT	1	35 X 65 X 0.5T	
	41	GJ4A04301703A1	CLAMPER	1		
	42	GJ383000040100	MAGNET	1		
	43	GJ560430070101	RAIL GUIDE	2		
	44	GJ4D04302001A1	ROLLER	2		
	45	GJ560430100101	M.C. BRACKET	1	MAIN SHASSIS	
	46	GJ700221300510	SCREW	4	3 X 5	
	47	GJ560430110101	EARTH TERMINAL	1		
	48	GJ761000220100	CUSHION	2	12 X 8 X 5T	

**Parts list (CD changer mechanism)**

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	49	GJ768564711	SCREW	1	3 X 10	
	50	GJ560430090101	E RING	1		
	51	GJA2039002001A	CHANGE PLATE	1		
	52	GJ560430030101	C. GEAR SHAFT	1		
	54	-----	SWITCH PWB	1	TURN TABLE	
	55	-----	SWITCH PWB	1	TRAY SWITCH	
	56	-----	SWITCH PWB	1	DISC COUNT	
	57	-----	SWITCH PWB	1	PICK-UP	
	58	GJ302237001	RUBBER CUSHION	1		
	59	GJ302237011	RUBBER CUSHION	1		
	60	GJ4004302101A1	MECHA BASE	1		
	61	GJ390170021204	SWITCH DIRECT	1		
	62	GJ700264261840	SCREW	1		
	63	GJ711001650100	SPRING	1		
	64	GJ711001660100	SPRING	1		
	65	GJ560533800101	SHIELD RING	1		
	66	EXL-M71-03	CD MECHA UNIT	1		
	67	OPTIMA-7B	PICK UP ASS'Y	1		

## ■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
C 1	GJ111067121	C.CAPACITOR	47000PF F Z 50V			C 108	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF		
C 2	GJ116222821	C.CAPACITOR	50V CH J 4.7PF			C 109	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF		
C 3	GJ116229421	C.CAPACITOR	50V B K 1000PF			C 110	GJ283108232415	C.CAPACITOR	50V K 0.082UF		
C 4	GJ116259621	C.CAPACITOR	25V F Z 0.022UF			C 111	GJ283108232415	C.CAPACITOR	50V K 0.082UF		
C 5	GJ111067121	C.CAPACITOR	47000PF F Z 50V			C 112	GJ283105622415	C.CAPACITOR	50V K 0.0056UF		
C 6	GJ116219921	C.CAPACITOR	50V SL J 10PF			C 113	GJ283101242415	POLI CAPACITOR	50V K 0.12UF		
C 7	GJ116223421	C.CAPACITOR	50V CH J 12PF			C 114	GJ283101042415	C.CAPACITOR	50V K 0.1UF		
C 8	GJ116223121	C.CAPACITOR	50V CH J 8.2PF			C 115	GJ270111070310	E.CAPACITOR	10V M 100UF		
C 9	GJ111067121	C.CAPACITOR	47000PF F Z 50V			C 116	GJ270191050310	E.CAPACITOR	50V VX M 1UF		
C 10	GJ116230621	C.CAPACITOR	16V Y M 0.01UF			C 201	GJ116228221	C.CAPACITOR	50V B K 100PF		
C 11	GJ111067121	C.CAPACITOR	47000PF F Z 50V			C 202	GJ270191050310	E.CAPACITOR	50V VX M 1UF		
C 12	GJ116230621	C.CAPACITOR	16V Y M 0.01UF			C 203	GJ270191050310	E.CAPACITOR	50V VX M 1UF		
C 13	GJ270111070310	E.CAPACITOR	10V M 100UF			C 204	GJ270191050310	E.CAPACITOR	50V VX M 1UF		
C 14	GJ116259621	C.CAPACITOR	25V F Z 0.022UF			C 205	GJ270191050310	E.CAPACITOR	50V VX M 1UF		
C 15	GJ116259621	C.CAPACITOR	25V F Z 0.022UF			C 206	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF		
C 16	GJ270141060310	E.CAPACITOR	25V VX M 10UF			C 207	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF		
C 17	GJ116222621	C.CAPACITOR	50V CH J 3.3PF			C 208	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF		
C 18	GJ116230621	C.CAPACITOR	16V Y M 0.01UF			C 209	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF		
C 19	GJ116230621	C.CAPACITOR	16V Y M 0.01UF			C 210	GJ283108232415	C.CAPACITOR	50V K 0.082UF		
C 20	GJ116230621	C.CAPACITOR	16V Y M 0.01UF			C 211	GJ283108232415	C.CAPACITOR	50V K 0.082UF		
C 21	GJ116223121	C.CAPACITOR	50V CH J 8.2PF			C 212	GJ283105622415	C.CAPACITOR	50V K 0.0056UF		
C 22	GJ116229421	C.CAPACITOR	50V B K 1000PF			C 213	GJ283101242415	POLI CAPACITOR	50V K 0.12UF		
C 23	GJ116230621	C.CAPACITOR	16V Y M 0.01UF			C 214	GJ283101042415	C.CAPACITOR	50V K 0.1UF		
C 24	GJ116229421	C.CAPACITOR	50V B K 1000PF			C 215	GJ270111070310	E.CAPACITOR	10V M 100UF		
C 25	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF			C 216	GJ270191050310	E.CAPACITOR	50V VX M 1UF		
C 26	GJ264266822101	C.CAPACITOR	16V X M 0.0068U			C 301	GJ116229421	C.CAPACITOR	50V B K 1000PF		
C 27	GJ116228821	C.CAPACITOR	50V B K 330PF			C 302	GJ116230621	C.CAPACITOR	16V Y M 0.01UF		
C 28	GJ282034742415	C.CAPACITOR	50V J 0.47UF			C 303	GJ270192250310	E.CAPACITOR	50V VX M 2.2UF		
C 29	GJ270192240310	E.CAPACITOR	50V VX M 0.22UF			C 304	GJ116229421	C.CAPACITOR	50V B K 1000PF		
C 30	GJ270193350310	E.CAPACITOR	50V VX M 3.3UF			C 305	GJ270121070310	E.CAPACITOR	16V VX M 100UF		
C 33	GJ270192260310	E.CAPACITOR	50V M 22UF			C 306	GJ270114760310	C.CAPACITOR	10V M 47UF		
C 34	GJ116259621	C.CAPACITOR	25V F Z 0.022UF			C 307	GJ116229321	C.CAPACITOR	50V B K 820PF		
C 36	GJ282031032415	CAPACITOR	50V J 0.01UF			C 308	GJ283101532415	POLI CAPACITOR	50V K 0.015UF		
C 37	GJ282031032415	CAPACITOR	50V J 0.01UF			C 309	GJ116230621	C.CAPACITOR	16V Y M 0.01UF		
C 38	GJ116229421	C.CAPACITOR	50V B K 1000PF			C 310	GJ270121070310	E.CAPACITOR	16V VX M 100UF		
C 39	GJ116229421	C.CAPACITOR	50V B K 1000PF			C 311	GJ283106822415	C.CAPACITOR	50V K 0.0068UF		
C 40	GJ270192250310	E.CAPACITOR	50V VX M 2.2UF			C 312	GJ282031032415	CAPACITOR	50V J 0.01UF		
C 41	GJ270192250310	E.CAPACITOR	50V VX M 2.2UF			C 313	GJ116230621	C.CAPACITOR	16V Y M 0.01UF		
C 42	GJ116229421	C.CAPACITOR	50V B K 1000PF			C 314	GJ116230621	C.CAPACITOR	16V Y M 0.01UF		
C 43	GJ116229421	C.CAPACITOR	50V B K 1000PF			C 315	GJ116230621	C.CAPACITOR	16V Y M 0.01UF		
C 50	GJ270124760310	E.CAPACITOR	16V M 47UF			C 316	GJ116230621	C.CAPACITOR	16V Y M 0.01UF		
C 51	GJ116223421	C.CAPACITOR	50V CH J 12PF			C 317	GJ270121070310	E.CAPACITOR	16V VX M 100UF		
C 52	GJ116223421	C.CAPACITOR	50V CH J 12PF			C 318	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF		
C 53	GJ282031052415	C.CAPACITOR	50V J 1UF (1-			C 319	GJ270121080110	E.CAPACITOR	16V M 1000UF		
C 54	GJ283103922415	C.CAPACITOR	50V K 0.0039UF			C 320	GJ116228421	C.CAPACITOR	50V B K 150PF		
C 55	GJ116229021	C.CAPACITOR	50V B K 470PF			C 321	GJ116228421	C.CAPACITOR	50V B K 150PF		
C 56	GJ116230621	C.CAPACITOR	16V Y M 0.01UF			C 322	GJ116228421	C.CAPACITOR	50V B K 150PF		
C 57	GJ116230621	C.CAPACITOR	16V Y M 0.01UF			C 323	GJ116230621	C.CAPACITOR	16V Y M 0.01UF		
C 58	GJ116229421	C.CAPACITOR	50V B K 1000PF			C 324	GJ270111070310	E.CAPACITOR	10V M 100UF		
C 59	GJ270111070310	E.CAPACITOR	10V M 100UF			C 325	GJ270192250310	E.CAPACITOR	50V VX M 2.2UF		
C 60	GJ116230621	C.CAPACITOR	16V Y M 0.01UF			C 326	GJ116230621	C.CAPACITOR	16V Y M 0.01UF		
C 61	GJ116228221	C.CAPACITOR	50V B K 100PF			C 327	GJ270121060310	E.CAPACITOR	16V M 10UF		
C 62	GJ116228221	C.CAPACITOR	50V B K 100PF			C 328	GJ270124760310	E.CAPACITOR	16V M 47UF		
C 63	GJ116228221	C.CAPACITOR	50V B K 100PF			C 329	GJ116230621	C.CAPACITOR	16V Y M 0.01UF		
C 65	GJ116259621	C.CAPACITOR	25V F Z 0.022UF			C 330	GJ116228221	C.CAPACITOR	50V B K 100PF		
C 66	GJ270124760310	E.CAPACITOR	16V M 47UF			C 331	GJ270111070310	E.CAPACITOR	10V M 100UF		
C 101	GJ116228221	C.CAPACITOR	50V B K 100PF			C 332	GJ270124760310	E.CAPACITOR	16V M 47UF		
C 102	GJ270191050310	E.CAPACITOR	50V VX M 1UF			C 333	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF		
C 103	GJ270191050310	E.CAPACITOR	50V VX M 1UF			C 334	GJ270191050310	E.CAPACITOR	50V VX M 1UF		
C 104	GJ270191050310	E.CAPACITOR	50V VX M 1UF			C 335	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF		
C 105	GJ270191050310	E.CAPACITOR	50V VX M 1UF			C 336	GJ270191050310	E.CAPACITOR	50V VX M 1UF		
C 106	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF			C 337	GJ270124760310	E.CAPACITOR	16V M 47UF		
C 107	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF			C 338	GJ116229421	C.CAPACITOR	50V B K 1000PF		

## ■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 341	GJ116230621	C.CAPACITOR	16V Y M 0.01UF			C 631	GJ270112270310	E. CAPACITOR	10V VX M 220UF	
	C 342	GJ116230621	C.CAPACITOR	16V Y M 0.01UF			C 632	GJ283112732432	C.CAPACITOR	100V K 0.027UF	
	C 343	GJ270121080110	E.CAPACITOR	16V M 1000UF			C 633	GJ282031032415	CAPACITOR	50V J 0.01UF	
	C 345	GJ116230621	C.CAPACITOR	16V Y M 0.01UF			C 635	GJ283101042415	C.CAPACITOR	50V K 0.1UF	
	C 346	GJ270121060310	E.CAPACITOR	16V M 10UF			C 636	GJ116259621	C.CAPACITOR	25V F Z 0.022UF	
	C 401	GJ116229221	C.CAPACITOR	680PF BX 10% 50			C 638	GJ116256191	C.CAPACITOR	0.1MF F Z% 16V	
	C 402	GJ116229221	C.CAPACITOR	680PF BX 10% 50			C 639	GJ270111070310	E.CAPACITOR	10V M 100UF	
	C 403	GJ116221121	C.CAPACITOR	50V SL J 33PF			C 640	GJ116259621	C.CAPACITOR	25V F Z 0.022UF	
	C 404	GJ283101832415	C.CAPACITOR	50V K 0.018UF			C 642	GJ116220721	C.CAPACITOR	50V SL J 22PF	
	C 405	GJ270111070310	E.CAPACITOR	10V M 100UF			C 643	GJ116228221	C.CAPACITOR	50V B K 100PF	
	C 407	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF			C 643	GJ264264722101	C.CAPACITOR		
	C 408	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF			C 644	GJ116259621	C.CAPACITOR	25V F Z 0.022UF	
	C 409	GJ264261822101	C.CAPACITOR	16V X M 0.0018U			C 645	GJ116259621	C.CAPACITOR	25V F Z 0.022UF	
	C 410	GJ264263322101	C.CAPACITOR	16V X M 0.0033U			C 646	GJ116229421	C.CAPACITOR	50V B K 1000PF	
	C 411	GJ270141060310	E.CAPACITOR	25V VX M 10UF			C 647	GJ116229421	C.CAPACITOR	50V B K 1000PF	
	C 413	GJ260771812412	C.CAPACITOR	C 50V SL J 180P			C 648	GJ116259621	C.CAPACITOR	25V F Z 0.022UF	
	C 414	GJ116229421	C.CAPACITOR	50V B K 1000PF			C 649	GJ112696491	E.CAPACITOR	10MF 20% 50V	
	C 415	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF			C 650	GJ270112270310	E. CAPACITOR	10V VX M 220UF	
	C 417	GJ116229021	C.CAPACITOR	50V B K 470PF			C 651	GJ116259621	C.CAPACITOR	25V F Z 0.022UF	
	C 418	GJ116230221	C.CAPACITOR	16V X M 0.0022U			C 652	GJ116228921	C.CAPACITOR	50V B K 390PF	
	C 501	GJ116229221	C.CAPACITOR	680PF BX 10% 50			C 653	GJ116228921	C.CAPACITOR	50V B K 390PF	
	C 502	GJ116229221	C.CAPACITOR	680PF BX 10% 50			C 654	GJ283106822415	C.CAPACITOR	50V K 0.0068UF	
	C 503	GJ116221121	C.CAPACITOR	50V SL J 33PF			C 656	GJ264264722101	C.CAPACITOR	16V X M 0.0047U	
	C 504	GJ283101832415	C.CAPACITOR	50V K 0.018UF			C 657	GJ110988991	E.CAPACITOR	1MF 20% 50V (N.	
	C 505	GJ270111070310	E.CAPACITOR	10V M 100UF			C 658	GJ116228921	C.CAPACITOR	50V B K 390PF	
	C 507	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF			C 659	GJ116228921	C.CAPACITOR	50V B K 390PF	
	C 508	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF			C 660	GJ116229421	C.CAPACITOR	50V B K 1000PF	
	C 509	GJ264261822101	C.CAPACITOR	16V X M 0.0018U			C 661	GJ116229421	C.CAPACITOR	50V B K 1000PF	
	C 510	GJ264263322101	C.CAPACITOR	16V X M 0.0033U			C 690	GJ116229021	C.CAPACITOR	50V B K 470PF	
	C 511	GJ270141060310	E.CAPACITOR	25V VX M 10UF			C 797	GJ112427491	E.CAPACITOR	BIPOLAR 4.7MF 5	
	C 513	GJ260771812412	C.CAPACITOR	C 50V SL J 180P			CF 1	GJ176012711	CERAMIC FILTER	CDA10.7 MG74	
	C 514	GJ116229421	C.CAPACITOR	50V B K 1000PF			CF 2	GJ176012711	CERAMIC FILTER	CDA10.7 MG74	
	C 515	GJ270144750310	E.CAPACITOR	25V VX M 4.7UF			CF 3	GJ176012711	CERAMIC FILTER	CDA10.7 MG74	
	C 517	GJ116229021	C.CAPACITOR	50V B K 470PF			CN301	GJ340022210102	CONNECTOR	P=1.25MM ST 21	
	C 518	GJ116230221	C.CAPACITOR	16V X M 0.0022U			CN302	GJ340022200102	CONNECTOR	P=1.25MM ST 20	
	C 601	GJ282033342499	C.CAPACITOR	50V J 0.33UF			CN305	GJ340022130109	CONNECTOR	P=1.25 ST 13 P	
	C 602	GJ116230221	C.CAPACITOR	16V X M 0.0022U			CN308	GJ345202080101	WAFER	P=2MM 8PIN ST	
	C 603	GJ116230221	C.CAPACITOR	16V X M 0.0022U			CN601	GJ340122150102	CONNECTOR	P=1MM ST 15PIN	
	C 604	GJ116230221	C.CAPACITOR	16V X M 0.0022U			CN602	GJ340152060109	CONNECTOR		
	C 605	GJ270112270310	E. CAPACITOR	10V VX M 220UF			CN603	GJ345202070101	CONNECTOR	7PIN ST P=2MM	
	C 606	GJ116256191	C.CAPACITOR	0.1MF F Z% 16V			CN604	GJ340021050102	CONNECTOR	5PIN P=1.25MM	
	C 607	GJ116259621	C.CAPACITOR	25V F Z 0.022UF			CN605	GJ178472711	CONNECTOR		
	C 608	GJ116256191	C.CAPACITOR	0.1MF F Z% 16V			D 1	GJ871999133	DIODE	1SS133T-77	
	C 610	GJ270112270310	E. CAPACITOR	10V VX M 220UF			D 2	GJ871999133	DIODE	1SS133T-77	
	C 611	GJ116256191	C.CAPACITOR	0.1MF F Z% 16V			D 3	GJ871999133	DIODE	1SS133T-77	
	C 612	GJ116259621	C.CAPACITOR	25V F Z 0.022UF			D 4	GJ871999133	DIODE	1SS133T-77	
	C 613	GJ116259621	C.CAPACITOR	25V F Z 0.022UF			D 5	GJ871999133	DIODE	1SS133T-77	
	C 614	GJ113718891	M.CAPACITOR	0.15MF 5% 50V			D 6	GJ871999133	DIODE	1SS133T-77	
	C 615	GJ282031052415	C.CAPACITOR	50V J 1UF (1-			D 7	GJ310050080104	VARIABLE CAPA	SVC203SPA-JV TA	
	C 616	GJ116223421	C.CAPACITOR	50V CH J 12PF			D 8	GJ310050080104	VARIABLE CAPA	SVC203SPA-JV TA	
	C 617	GJ116223421	C.CAPACITOR	50V CH J 12PF			D 9	GJ871999133	DIODE	1SS133T-77	
	C 618	GJ112696491	E.CAPACITOR	10MF 20% 50V			D 10	GJ871999133	DIODE	1SS133T-77	
	C 619	GJ116256191	C.CAPACITOR	0.1MF F Z% 16V			D 11	GJ871999133	DIODE	1SS133T-77	
	C 620	GJ116256191	C.CAPACITOR	0.1MF F Z% 16V			D 50	GJ871999133	DIODE	1SS133T-77	
	C 621	GJ270112270310	E. CAPACITOR	10V VX M 220UF			D 51	GJ871999133	DIODE	1SS133T-77	
	C 622	GJ270121060310	E.CAPACITOR	16V M 10UF			D 307	GJ871992333	ZENER DIODE	MTZJ-T-77-5.1A	
	C 624	GJ270114760310	C.CAPACITOR	10V M 47UF			D 308	GJ871999133	DIODE	1SS133T-77	
	C 625	GJ116228821	C.CAPACITOR	50V B K 330PF			D 309	GJ871999133	DIODE	1SS133T-77	
	C 626	GJ116259621	C.CAPACITOR	25V F Z 0.022UF			D 310	GJ871999133	DIODE	1SS133T-77	
	C 627	GJ116221121	C.CAPACITOR	50V SL J 33PF			D 311	GJ871999133	DIODE	1SS133T-77	
	C 628	GJ283112732432	C.CAPACITOR	100V K 0.027UF			D 312	GJ871999133	DIODE	1SS133T-77	
	C 629	GJ111067121	C.CAPACITOR	47000PF F Z 50V			D 313	GJ871999133	DIODE	1SS133T-77	
	C 630	GJ116230221	C.CAPACITOR	16V X M 0.0022U			D 321	GJ871999133	DIODE	1SS133T-77	



## ■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	D 322	GJ871999133	DIODE	1SS133T-77			Q 317	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	D 323	GJ310020020104	DIODE	RECT 1N4001 B-A			Q 318	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	D 324	GJ871999133	DIODE	1SS133T-77			Q 319	GJ312011231210	TRANSISTOR	KTA1267Y (TAPE)	
	D 602	GJ871999133	DIODE	1SS133T-77			Q 321	GJ872990437	TRANSISTOR	DTC114YS-TP	
	FB601	GJ141039721	FERRITE BEAD	1.1UH (F.B)			Q 401	GJ872992241	TRANSISTOR	2SD2144S-TP	
	FF603	GJ353130170107	FFC CABLE	13PINS P=1.25MM			Q 402	GJ872992241	TRANSISTOR	2SD2144S-TP	
	FW303	GJ353110190107	CABLE FLAT	11PINS L=190MM			Q 501	GJ872992241	TRANSISTOR	2SD2144S-TP	
	FW601	GJ353150150107	FFC CABLE	15PINS P=1MM F-			Q 502	GJ872992241	TRANSISTOR	2SD2144S-TP	
	FW602	GJ354005690100	WIRE KIT				Q 601	GJ312011231210	TRANSISTOR	KTA1267Y (TAPE)	
	FW604	GJ353050300107	FFC CABLE	5PINS P=1.25MM			Q 602	GJ872990437	TRANSISTOR	DTC114YS-TP	
	IC 1	GJ313011361106	IC	LA1823 DIP			R 1	GJ250031522199	CARBON RESISTOR	1/4WM J 1.5K	
	IC 2	GJ313070221000	IC	LC72136N			R 2	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	IC101	GJ313070541318	IC	TDA7440D			R 3	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	IC102	GJ313010023103	IC	BA15218 DIP			R 4	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	IC401	GJ313080521101	IC	TA8189N			R 5	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	IC402	GJ313070041101	IC	TC74HC4094AP			R 6	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	IC601	GJ313060841223	IC	MN662748RPMFA			R 7	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	IC611	GJ313020851323	IC	AN22000A			R 8	GJ250031002199	CARBON RESISTOR	1/4WM J 10	
	IC621	GJ313050221003	IC	BA5936S			R 9	GJ250031002199	CARBON RESISTOR	1/4WM J 10	
	J 1	GJ342040190113	JACK	SPK 4PIN (MSP-			R 10	GJ250034712199	CARBON RESISTOR	1/4WM J 470	
	J 301	GJ342030140109	JACK	RCA D=8.2MM 4PI			R 11	GJ250033312199	CARBON RESISTOR	1/4WM J 330	
	L 1	GJ241112292102	INDUCTOR				R 12	GJ250034742199	CARBON RESISTOR	1/4WM J 470K	
	L 2	GJ320130010103	COIL	COIL MW RF BLOC			R 13	GJ250035602199	CARBON RESISTOR	1/4WM J 56	
	L 3	GJ320020260109	COIL				R 14	GJ250033312199	CARBON RESISTOR	1/4WM J 330	
	L 4	GJ320020270109	COIL				R 15	GJ250031532199	CARBON RESISTOR	1/4WM J 15K	
	L 5	GJ141052131	INDUCTOR	100UH 5% Q40			R 16	GJ250032202199	CARBON RESISTOR	1/4WM J 22	
	L 6	GJ241112202102	INDUCTOR				R 17	GJ250031012199	CARBON RESISTOR	1/4WM J 100	
	L 7	GJ141039721	FERRITE BEAD	1.1UH (F.B)			R 18	GJ250032242199	CARBON RESISTOR	1/4WM J 220K	
	L 50	GJ241112212102	INDUCTOR	220UH 10% Q40			R 19	GJ250031222199	CARBON RESISTOR	1/4WM J 1.2K	
	L 301	GJ320060040105	COIL	BIAS 10X10MM BL			R 20	GJ250031012199	CARBON RESISTOR	1/4WM J 100	
	L 302	GJ141039721	FERRITE BEAD	1.1UH (F.B)			R 21	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K	
	L 303	GJ141039721	FERRITE BEAD	1.1UH (F.B)			R 22	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	L 304	GJ141039721	FERRITE BEAD	1.1UH (F.B)			R 23	GJ250035622199	CARBON RESISTOR	1/4WM J 5.6K	
	L 305	GJ241111002102	INDUCTOR				R 24	GJ250035622199	CARBON RESISTOR	1/4WM J 5.6K	
	L 306	GJ141039721	FERRITE BEAD	1.1UH (F.B)			R 25	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	L 307	GJ141039721	FERRITE BEAD	1.1UH (F.B)			R 26	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	L 601	GJ241111002102	INDUCTOR				R 27	GJ250031012199	CARBON RESISTOR	1/4WM J 100	
	LC 1	GJ123671122	B.P.FILTER	GFMB3-1-T			R 51	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	M 1	GJ381020310004	MOTOR				R 52	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	M 2	GJ176336711	MOTOR				R 53	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K	
	Q 1	GJ312030141210	TRANSISTOR	KTC3194 (O) (TA			R 54	GJ250031822199	CARBON RESISTOR	1/4WM J 1.8K	
	Q 2	GJ312030152210-	TRANSISTOR	KTC3195(Y) (TA			R 55	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	Q 3	GJ872990437	TRANSISTOR	DTC114YS-TP			R 56	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	Q 4	GJ872990437	TRANSISTOR	DTC114YS-TP			R 57	GJ250033312199	CARBON RESISTOR	1/4WM J 330	
	Q 5	GJ872903720	TRANSISTOR	KRA107M			R 58	GJ250031012199	CARBON RESISTOR	1/4WM J 100	
	Q 6	GJ872990437	TRANSISTOR	DTC114YS-TP			R 59	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	Q 7	GJ312030111210	TRANSISTOR	KTC3199TP-GR			R 60	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	Q 8	GJ312011231210	TRANSISTOR	KTA1267Y (TAPE)			R 61	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	Q 101	GJ312030111210	TRANSISTOR	KTC3199TP-GR			R 62	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	Q 201	GJ312030111210	TRANSISTOR	KTC3199TP-GR			R 63	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	Q 301	GJ312030131210	TRANSISTOR	KTC3200 (GR)			R 64	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	Q 302	GJ872903720	TRANSISTOR	KRA107M			R 65	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	Q 303	GJ872903686	TRANSISTOR	KTC3203Y (TAPE)			R 66	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	Q 304	GJ312011231210	TRANSISTOR	KTA1267Y (TAPE)			R 67	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	Q 305	GJ872903003	TRANSISTOR	DTC144ESA-TP			R 68	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	Q 308	GJ872903003	TRANSISTOR	DTC144ESA-TP			R 69	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	Q 309	GJ872904076	TRANSISTOR	KTA1273(Y) (TAP			R 70	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	Q 310	GJ312030111210	TRANSISTOR	KTC3199TP-GR			R 71	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K	
	Q 311	GJ872904076	TRANSISTOR				R 72	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	Q 312	GJ312030111210	TRANSISTOR	KTC3199TP-GR			R 73	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	Q 313	GJ872904076	TRANSISTOR	KTA1273(Y) (TAP			R 73	GJ250034712199	CARBON RESISTOR	1/4WM J 470	
	Q 315	GJ312030111210	TRANSISTOR	KTC3199TP-GR			△ R 74	GJ250033302199	FUSE RESISTOR	1/4WM J 33	
	Q 316	GJ312030111210	TRANSISTOR	KTC3199TP-GR			R 101	GJ250033932199	CARBON RESISTOR	1/4WM J 39K	

## ■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	R 102	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K			R 344	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 103	GJ250032722199	CARBON RESISTOR	1/4WM J 2.7K			R 345	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 104	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R 346	GJ250034702199	CARBON RESISTOR	1/4WM J 47	
	R 105	GJ250031242199	CARBON RESISTOR	1/4WM J 120K			R 347	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 106	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K			R 348	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 107	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 349	GJ250032212199	CARBON RESISTOR	1/4WM J 220	
	R 108	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 350	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 109	GJ250031222199	CARBON RESISTOR	1/4WM J 1.2K			R 351	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	R 110	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R 352	GJ250031532199	CARBON RESISTOR	1/4WM J 15K	
	R 111	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 353	GJ250031812199	CARBON RESISTOR	1/4WM J 180	
	R 112	GJ250035622199	CARBON RESISTOR	1/4WM J 5.6K			R 354	GJ250038212199	CARBON RESISTOR	1/4WM J 820	
	R 113	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 355	GJ250033302199	CARBON RESISTOR	1/4WM J 33	
	R 114	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			R 356	GJ250032212199	CARBON RESISTOR	1/4WM J 220	
	R 115	GJ250032232199	CARBON RESISTOR	1/4WM J 22K			R 357	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 201	GJ250033932199	CARBON RESISTOR	1/4WM J 39K			R 358	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	R 202	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K			R 359	GJ250034712199	CARBON RESISTOR	1/4WM J 470	
	R 203	GJ250032722199	CARBON RESISTOR	1/4WM J 2.7K			R 361	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K	
	R 204	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K		△	R 362	GJ255052291611	FUSE RESISTOR	1/4W J 2.2	
	R 205	GJ250031242199	CARBON RESISTOR	1/4WM J 120K			R 363	GJ250034712199	CARBON RESISTOR	1/4WM J 470	
	R 206	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K			R 364	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 207	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 365	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K	
	R 208	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 366	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K	
	R 209	GJ250031222199	CARBON RESISTOR	1/4WM J 1.2K			R 401	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	R 211	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 402	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K	
	R 212	GJ250035622199	CARBON RESISTOR	1/4WM J 5.6K			R 404	GJ250031012199	CARBON RESISTOR	1/4WM J 100	
	R 213	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 405	GJ250038222199	CARBON RESISTOR	1/4WM J 8.2K	
	R 214	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			R 406	GJ250038222199	CARBON RESISTOR	1/4WM J 8.2K	
	R 215	GJ250032232199	CARBON RESISTOR	1/4WM J 22K			R 407	GJ250036832199	CARBON RESISTOR	1/4WM J 68K	
	R 301	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			R 408	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K	
	R 302	GJ250032212199	CARBON RESISTOR	1/4WM J 220			R 409	GJ250031542199	CARBON RESISTOR	1/4WM J 150K	
	R 303	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			R 410	GJ250031222199	CARBON RESISTOR	1/4WM J 1.2K	
	R 304	GJ250031012199	CARBON RESISTOR	1/4WM J 100			R 412	GJ250031822199	CARBON RESISTOR	1/4WM J 1.8K	
	R 305	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 413	GJ250032232199	CARBON RESISTOR	1/4WM J 22K	
	R 306	GJ250031052199	CARBON RESISTOR	1/4WM J 1M			R 414	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	R 307	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 415	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 308	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 416	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K	
	R 309	GJ250031002199	CARBON RESISTOR	1/4WM J 10			R 417	GJ250032232199	CARBON RESISTOR	1/4WM J 22K	
	R 310	GJ250033302199	CARBON RESISTOR	1/4WM J 33			R 418	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 311	GJ250034792199	CARBON RESISTOR	1/4WM J 4.7			R 421	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 312	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			R 422	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 316	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 501	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	R 317	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K			R 502	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K	
	R 319	GJ250032232199	CARBON RESISTOR	1/4WM J 22K			R 504	GJ250031012199	CARBON RESISTOR	1/4WM J 100	
	R 320	GJ250034732199	CARBON RESISTOR	1/4WM J 47K			R 505	GJ250038222199	CARBON RESISTOR	1/4WM J 8.2K	
	R 321	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R 506	GJ250038222199	CARBON RESISTOR	1/4WM J 8.2K	
	R 322	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R 507	GJ250036832199	CARBON RESISTOR	1/4WM J 68K	
	R 323	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R 508	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K	
	R 324	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R 509	GJ250031542199	CARBON RESISTOR	1/4WM J 150K	
	R 325	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R 510	GJ250031222199	CARBON RESISTOR	1/4WM J 1.2K	
	R 328	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R 512	GJ250031822199	CARBON RESISTOR	1/4WM J 1.8K	
	R 329	GJ250032232199	CARBON RESISTOR	1/4WM J 22K			R 513	GJ250032232199	CARBON RESISTOR	1/4WM J 22K	
	R 330	GJ250034732199	CARBON RESISTOR	1/4WM J 47K			R 514	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	R 331	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K			R 515	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 332	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K			R 516	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K	
	R 333	GJ250031512199	CARBON RESISTOR	1/4WM J 150			R 517	GJ250032232199	CARBON RESISTOR	1/4WM J 22K	
	R 334	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K			R 518	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 335	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K			R 521	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 336	GJ250031512199	CARBON RESISTOR	1/4WM J 150			R 522	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 337	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K			R 601	GJ250032722199	CARBON RESISTOR	1/4WM J 2.7K	
	R 338	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			R 602	GJ250031212199	CARBON RESISTOR	1/4WM J 120	
	R 339	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R 603	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 340	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R 604	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 341	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R 605	GJ250032212199	CARBON RESISTOR	1/4WM J 220	

## ■ Electrical parts list (Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area
	R 611	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 615	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 616	GJ250033932199	CARBON RESISTOR	1/4WM J 39K	
	R 617	GJ250031052199	CARBON RESISTOR	1/4WM J 1M	
	R 618	GJ250036832199	CARBON RESISTOR	1/4WM J 68K	
	R 619	GJ250031012199	CARBON RESISTOR	1/4WM J 100	
	R 621	GJ250036832199	CARBON RESISTOR	1/4WM J 68K	
	R 622	GJ250036832199	CARBON RESISTOR	1/4WM J 68K	
	R 623	GJ250031242199	CARBON RESISTOR	1/4WM J 120K	
	R 625	GJ250033312199	CARBON RESISTOR	1/4WM J 330	
	R 628	GJ250035622199	CARBON RESISTOR	1/4WM J 5.6K	
	R 629	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 630	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 631	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 632	GJ250031002199	CARBON RESISTOR	1/4WM J 10	
	R 633	GJ250031002199	CARBON RESISTOR	1/4WM J 10	
	R 634	GJ250031202199	CARBON RESISTOR	1/4WM J 12	
	R 635	GJ250033932199	CARBON RESISTOR	1/4WM J 39K	
	R 636	GJ250032232199	CARBON RESISTOR	1/4WM J 22K	
	R 637	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 638	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K	
	R 639	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K	
	R 640	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K	
	R 642	GJ250031542199	CARBON RESISTOR	1/4WM J 150K	
	R 643	GJ250035642199	CARBON RESISTOR	1/4WM J 560K	
	R 644	GJ250031842199	CARBON RESISTOR	1/4WM J 180K	
	R 645	GJ250032742199	CARBON RESISTOR	1/4WM J 270K	
	R 646	GJ250032242199	CARBON RESISTOR	1/4WM J 220K	
	R 647	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 648	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 649	GJ250032292199	CARBON RESISTOR	1/4WM J 2.2	
	R 650	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	R 651	GJ250032732199	CARBON RESISTOR	1/4WM J 27K	
	R 652	GJ250031222199	CARBON RESISTOR	1/4WM J 1.2K	
	R 653	GJ250031222199	CARBON RESISTOR	1/4WM J 1.2K	
	R 654	GJ250031232199	CARBON RESISTOR	1/4WM J 12K	
	R 655	GJ250032432199	CARBON RESISTOR	1/4WM J 24K	
	R 656	GJ250032722199	CARBON RESISTOR	1/4WM J 2.7K	
	R 657	GJ250033922199	CARBON RESISTOR	1/4WM J 3.9K	
	R 659	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	R 660	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K	
	R 661	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K	
	R 662	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 663	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 664	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K	
	R 665	GJ250036822199	CARBON RESISTOR	1/4WM J 6.8K	
	R 666	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 667	GJ250031832199	CARBON RESISTOR	1/4WM J 18K	
	R 668	GJ250032722199	CARBON RESISTOR	1/4WM J 2.7K	
	R 669	GJ250032712199	CARBON RESISTOR	1/4WM J 270	
	R 670	GJ250033942199	CARBON RESISTOR	1/4WM J 390K	
	R 671	GJ250038222199	CARBON RESISTOR	1/4WM J 8.2K	
	R 672	GJ250035642199	CARBON RESISTOR	1/4WM J 560K	
	R 673	GJ250035642199	CARBON RESISTOR	1/4WM J 560K	
	R 675	GJ250038222199	CARBON RESISTOR	1/4WM J 8.2K	
	R210R	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	SW703	GJ157328721	HOLDER	HOLDER CABLE2P	
	SW703	GJ390170021204	SWITCH	DETECTOR SWITCH	
	SW704	GJ390170021204	SWITCH	DETECTOR SWITCH	
	T 1	GJ321000720109	IFT	IFT 7MM BLACK P	
	TRSW	GJ390070031204	SWITCH	DOUBLSWING SWIT	
	TRSW	GJ156538421	HOLDER	R8130178	
	W 603	GJ156538621	HOLDER	HOLDER CABLE 5P	

△	Item	Parts number	Parts name	Remarks	Area
	W 603	GJ354005930100	WIRE KIT		
	W 606	GJ156538421	HOLDER	HOLDER CABLE3P	
	W 606	GJ353030180107	CABLE		
	W 607	GJ353020120207	CABLE		
	W 607	GJ157328721	HOLDER		
	W 608	GJ354005380100	WIRE KIT		
	WK307	GJ354005940100	WIRE KIT	3PINS P=2MM L=	
	WK308	GJ354005950100	WIRE KIT	8PINS P=2MM L=	
	X 1	GJ361000130003	CRYSTAL	75KHZ +/-20PPM	
	X 601	GJ361000400009	CRYSTAL	16.9344MHZ HC-4	

## ■ Electrical parts list (Control board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	C 701	GJ264291042101	C.CAPACITOR	0.1MF F-F 50V	
	C 702	GJ270112270310	E.CAPACITOR	10V VX M 220UF	
	C 703	GJ270112270310	E.CAPACITOR	10V VX M 220UF	
	C 704	GJ270112270310	E.CAPACITOR	10V VX M 220UF	
	C 705	GJ116229421	C.CAPACITOR	50V B K 1000PF	
	C 706	GJ116229421	C.CAPACITOR	50V B K 1000PF	
	C 707	GJ116221321	C.CAPACITOR	50V SL J 39PF	
	C 708	GJ116221121	C.CAPACITOR	50V SL J 33PF	
	C 709	GJ116220721	C.CAPACITOR	50V SL J 22PF	
	C 710	GJ116220721	C.CAPACITOR	50V SL J 22PF	
	C 711	GJ116220721	C.CAPACITOR	50V SL J 22PF	
	C 712	GJ116220721	C.CAPACITOR	50V SL J 22PF	
	C 713	GJ264291042101	C.CAPACITOR	0.1MF F-F 50V	
	C 714	GJ116230621	C.CAPACITOR	16V Y M 0.01UF	
	C 715	GJ116229421	C.CAPACITOR	50V B K 1000PF	
	C 716	GJ270114760310	C.CAPACITOR	10V M 47UF	
	C 717	GJ264291042101	C.CAPACITOR	0.1MF F-F 50V	
	C 718	GJ270192260310	E.CAPACITOR	50V M 22UF	
	C 719	GJ270192260310	E.CAPACITOR	50V M 22UF	
	C 723	GJ270191050310	E.CAPACITOR	50V VX M 1UF	
	C 740	GJ116228221	C.CAPACITOR	50V B K 100PF	
	CN701	GJ340021110102	CONNECTOR	CONNECTOR FFC/F	
	CN702	GJ340021200102	CONNECTOR	CONNECTOR FFC/F	
	CN703	GJ340021210102	CONNECTOR	CONNECTOR FFC/F	
	C1001	GJ116230621	C.CAPACITOR	16V Y M 0.01UF	
	C1002	GJ116230621	C.CAPACITOR	16V Y M 0.01UF	
	C1051	GJ116229421	C.CAPACITOR	50V B K 1000PF	
	C1052	GJ116229421	C.CAPACITOR	50V B K 1000PF	
	D 701	GJ871999133	DIODE	1SS133T-77	
	D 702	GJ871999133	DIODE	1SS133T-77	
	D 703	GJ871999133	DIODE	1SS133T-77	
	D 705	GJ871999133	DIODE	1SS133T-77	
	FF701	GJ353110300107	CABLE	CABLFFC/FPC P=1	
	FF702	GJ353200180107	FFC CABLE	CABLFFC/FPC L=1	
	FF703	GJ353210180107	FFC CABLE	CABLFFC/FPC L=1	
	FL701	GJ373020041000	DISPLAY	DISPLAY FL BJ82	
	FW101	GJ353040350107	CABLE	FLAT CABL4PINS	
	FW701	GJ353100200107	CABLE FLAT	CABLFLAT P=2.54	
	FW702	GJ353020300107	CABLE	CABLFLAT P=2.54	
	IC701	GJ313010662223	IC	IC MN101C35DYC	
	IC702	GJ313040901006	IC	SPS-440-1-E(IIR	
	J1053	GJ342010240113	JACK		
	L 701	GJ241112202102	INDUCTOR		
	L 702	GJ241111002102	INDUCTOR		
	L 703	GJ141039721	FERRITE BEAD	FERRITBEAD INDU	
	L 707	GJ241111002102	INDUCTOR		
	LED01	GJ374301012101	LED	D=3MM RED L-934	
	L1051	GJ241114702102	INDUCTOR	47UH 10% Q40	
	L1052	GJ241114702102	INDUCTOR	47UH 10% Q40	
	L1053	GJ141039721	FERRITE BEAD	1.1UH (F.B.)	
	Q 701	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	Q 702	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	Q 703	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	Q 704	GJ312030152210	TRANSISTOR	KTC3195(Y) (TA	
	Q 705	GJ312030152210	TRANSISTOR	KTC3195(Y) (TA	
	Q 706	GJ312011231210	TRANSISTOR	KTA1267Y (TAPE	
	Q 707	GJ872990437	TRANSISTOR	DTC114YS-TP	
	Q 711	GJ312011171210	TRANSISTOR	KRA102M	
	Q 713	GJ872990437	TRANSISTOR	DTC114YS-TP	
	Q 714	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	Q 715	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	R 701	GJ250032242199	CARBON RESISTOR	1/4WM J 220K	

△	Item	Parts number	Parts name	Remarks	Area
	R 702	GJ250032242199	CARBON RESISTOR	1/4WM J 220K	
	R 703	GJ250032242199	CARBON RESISTOR	1/4WM J 220K	
	R 704	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 705	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 706	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 707	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 709	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 710	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 711	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 712	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 713	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 714	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 715	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 716	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 717	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 718	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 719	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 720	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 721	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 722	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 723	GJ250032212199	CARBON RESISTOR	1/4WM J 220	
	R 724	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 725	GJ250033312199	CARBON RESISTOR	1/4WM J 330	
	R 726	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 727	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 728	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 729	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 730	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 731	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 732	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 733	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	R 734	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	R 736	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 737	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 738	GJ250032212199	CARBON RESISTOR	1/4WM J 220	
	R 739	GJ250032212199	CARBON RESISTOR	1/4WM J 220	
	R 740	GJ250032212199	CARBON RESISTOR	1/4WM J 220	
	R 741	GJ250033312199	CARBON RESISTOR	1/4WM J 330	
	R 742	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 743	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 744	GJ250032212199	CARBON RESISTOR	1/4WM J 220	
	R 745	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 746	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 747	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 748	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 749	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	R 750	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	R 751	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	R 752	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	R 753	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 754	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 755	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 756	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 757	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 758	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 761	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 762	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 763	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 764	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 768	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 769	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 770	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 772	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	

## ■ Electrical parts list(Control board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	R 773	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R1018	GJ250036812199	CARBON RESISTOR	1/4WM J 680	
	R 774	GJ250031822199	CARBON RESISTOR	1/4WM J 1.8K			R1019	GJ250038212199	CARBON RESISTOR	1/4WM J 820	
	R 775	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			R1020	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 776	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R1021	GJ250031522199	CARBON RESISTOR	1/4WM J 1.5K	
	R 777	GJ250034732199	CARBON RESISTOR	1/4WM J 47K			R1022	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 778	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			R1023	GJ250032722199	CARBON RESISTOR	1/4WM J 2.7K	
	R 779	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R1024	GJ250035622199	CARBON RESISTOR	1/4WM J 5.6K	
	R 780	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R1025	GJ250031232199	CARBON RESISTOR	1/4WM J 12K	
	R 781	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			R1026	GJ250036812199	CARBON RESISTOR	1/4WM J 680	
	R 782	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R1027	GJ250036812199	CARBON RESISTOR	1/4WM J 680	
	R 783	GJ250034732199	CARBON RESISTOR	1/4WM J 47K			R1028	GJ250038212199	CARBON RESISTOR	1/4WM J 820	
	R 784	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R1029	GJ250031522199	CARBON RESISTOR	1/4WM J 1.5K	
	R 785	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R1029	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 786	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R1031	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 787	GJ250031032199	CARBON RESISTOR	1/4WM J 10K			R1032	GJ250032722199	CARBON RESISTOR	1/4WM J 2.7K	
	R 788	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			R1033	GJ250035622199	CARBON RESISTOR	1/4WM J 5.6K	
	R 789	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			R1034	GJ250031232199	CARBON RESISTOR	1/4WM J 12K	
	R 790	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			R1037	GJ250032232199	CARBON RESISTOR	1/4WM J 22K	
	R 791	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			R1038	GJ250032232199	CARBON RESISTOR	1/4WM J 22K	
	R 792	GJ250033312199	CARBON RESISTOR	1/4WM J 330			R1039	GJ250031242199	CARBON RESISTOR	1/4WM J 120K	
	RA701	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1040	GJ250031242199	CARBON RESISTOR	1/4WM J 120K	
	RA702	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1041	GJ250035632199	CARBON RESISTOR	1/4WM J 56K	
	RA703	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1042	GJ250035632199	CARBON RESISTOR	1/4WM J 56K	
	RA704	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1043	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	RA705	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1047	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	RA706	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1048	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	RA707	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1060	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	RA708	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1061	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	RA709	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1062	GJ250032212199	CARBON RESISTOR	1/4WM J 220	
	RA710	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1063	GJ250032212199	CARBON RESISTOR	1/4WM J 220	
	RA711	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1064	GJ250031232199	CARBON RESISTOR	1/4WM J 12K	
	RA712	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1065	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	RA713	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1066	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	RA714	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1067	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	RA715	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1068	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	RA716	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1069	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	RA717	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1070	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	RA718	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1071	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	RA719	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1072	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	RA720	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1073	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	RA721	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1074	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	RA722	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			R1075	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	RA723	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			SW101	GJ299000570003	ENCODER	VR EVEKD2F3024B	
	RA724	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			S1001	GJ390110181120	TACT SWITCH	(POWER)	
	RA725	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			S1002	GJ390110181120	TACT SWITCH	(TAPE)	
	RA726	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			S1003	GJ390110181120	TACT SWITCH	(AUX)	
	RA727	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			S1004	GJ390110181120	TACT SWITCH	(BAND)	
	RA728	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			S1005	GJ390110181120	TACT SWITCH	(CANCEL)	
	RA729	GJ250032242199	CARBON RESISTOR	1/4WM J 220K			S1006	GJ390110181120	TACT SWITCH	(SET)	
	R1001	GJ250036812199	CARBON RESISTOR	1/4WM J 680			S1007	GJ390110181120	TACT SWITCH	(CD)	
	R1002	GJ250036812199	CARBON RESISTOR	1/4WM J 680			S1008	GJ390110181120	TACT SWITCH	(CD1)	
	R1003	GJ250038212199	CARBON RESISTOR	1/4WM J 820			S1009	GJ390110181120	TACT SWITCH	(CD2)	
	R1004	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			S1010	GJ390110181120	TACT SWITCH	(CD3)	
	R1005	GJ250031522199	CARBON RESISTOR	1/4WM J 1.5K			S1011	GJ390110181120	TACT SWITCH	(EJECT)	
	R1008	GJ250036812199	CARBON RESISTOR	1/4WM J 680			S1012	GJ390110181120	TACT SWITCH	(DISC)	
	R1009	GJ250036812199	CARBON RESISTOR	1/4WM J 680			S1013	GJ390110181120	TACT SWITCH	(DECK A/B)	
	R1010	GJ250036812199	CARBON RESISTOR	1/4WM J 680			S1014	GJ390110181120	TACT SWITCH	(TIM/CLK)	
	R1011	GJ250038212199	CARBON RESISTOR	1/4WM J 820			S1015	GJ390110181120	TACT SWITCH	(STOP)	
	R1012	GJ250031022199	CARBON RESISTOR	1/4WM J 1K			S1016	GJ390110181120	TACT SWITCH	(TUN+)	
	R1013	GJ250031522199	CARBON RESISTOR	1/4WM J 1.5K			S1017	GJ390110181120	TACT SWITCH	(TUN-)	
	R1014	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K			S1018	GJ390110181120	TACT SWITCH	(PRESET-)	
	R1015	GJ250032722199	CARBON RESISTOR	1/4WM J 2.7K			S1019	GJ390110181120	TACT SWITCH	(PRESET+)	
	R1017	GJ250036812199	CARBON RESISTOR	1/4WM J 680			S1020	GJ390110181120	TACT SWITCH	(ROCK)	

## ■ Electrical parts list (Control board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	S1021	GJ390110181120	TACT SWITCH	(CLASSIC)	
	S1022	GJ390110181120	TACT SWITCH	(POP)	
	S1023	GJ390110181120	TACT SWITCH	(A.BASS)	
	S1025	GJ390110181120	TACT SWITCH	(REC)	
	S1026	GJ390110181120	TACT SWITCH	(DUBBING)	
	S1027	GJ390110181120	TACT SWITCH	(CD REC)	
	S1028	GJ390110181120	TACT SWITCH	(REPEAT)	
	S1029	GJ390110181120	TACT SWITCH	(PROGRAM)	
	S1030	GJ390110181120	TACT SWITCH	(RANDOM)	
	S1031	GJ390110181120	TACT SWITCH	(DISPLAY)	
	S1032	GJ390110181120	TACT SWITCH	(PTY/EON)	
	S1033	GJ390110181120	TACT SWITCH	(SELECT+)	
	S1034	GJ390110181120	TACT SWITCH	(SELECT-)	
	X 701	GJ362000370001	RESONATOR	RESONATOR CER C	
	X 702	GJ361000230009	CRYSTAL	CRYSTAL 32.768K	

## ■ Electrical parts list (Amp board)

Block No. 03

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 118	GJ270144750399	E.CAPACITOR	25V VX M 4.7UF			D 332	GJ310010220205	DIODE	1SS133T-77	
	C 119	GJ26426222199	C.CAPACITOR	16V X M 0.0022U			D 333	GJ310010220205	DIODE	1SS133T-77	
	C 120	GJ264142212101	C.CAPACITOR	50V B K 220PF			△ D 901	GJ310020320223	DIODE	TS6B02G (RECIF	
	C 121	GJ270192260399	E.CAPACITOR	50V VX M 22UF			△ D 902	GJ310020020104	DIODE	1N4001	
	C 123	GJ264100332199	C.CAPACITOR	50V CH K 3.3PF			△ D 903	GJ310020020104	DIODE	1N4001	
	C 124	GJ270304760399	E.CAPACITOR	63V VX M 47UF 8			△ D 904	GJ310020020104	DIODE	1N4001	
	C 125	GJ283101042415	C.CAPACITOR	50V K 0.1UF			△ D 905	GJ310020020104	DIODE	1N4001	
	C 126	GJ283101042415	C.CAPACITOR	50V K 0.1UF			D 906	GJ310020020104	DIODE	1N4001	
	C 218	GJ270144750399	E.CAPACITOR	25V VX M 4.7UF			D 907	GJ310030018905	ZENER DIOD	MTZJ-T-77-33C	
	C 219	GJ26426222199	C.CAPACITOR	16V X M 0.0022U			D 908	GJ310030011105	ZENER DIOD	MTZJ-T-77-6.2A	
	C 220	GJ264142212101	C.CAPACITOR	50V B K 220PF			D 909	GJ310010220205	DIODE	1SS133T-77	
	C 221	GJ270192260399	E.CAPACITOR	50V VX M 22UF			D 910	GJ310030011105	ZENER DIOD	MTZJ-T-77-6.2A	
	C 223	GJ264100332199	C.CAPACITOR	50V CH K 3.3PF			D 911	GJ310030012205	ZENER DIOD	MTZJ-T-77-5.6A	
	C 224	GJ270304760399	E.CAPACITOR	63V VX M 47UF 8			D 912	GJ310030016205	ZENER DIODE	MTZJ-T-77-13C	
	C 225	GJ283101042415	C.CAPACITOR	50V K 0.1UF			D 913	GJ310030133305	ZENER DIOD	MTZJ-T-77-12C	
	C 226	GJ283101042415	C.CAPACITOR	50V K 0.1UF			D 914	GJ310030012705	ZENER DIOD	MTZJ-T-77-6.8B	
	C 351	GJ270141060399	E.CAPACITOR	25V VX M 10UF			△ IC304	GJ313040711406	IC	STK442-130	
	C 352	GJ270191050310	E.CAPACITOR	50V VX M 1UF			J 303	GJ342020150913	JACK	SPK 4PINS (MSP-	
	C 353	GJ270124760399	E.CAPACITOR	16V M 47UF			J 304	GJ342020150913	JACK	SPK 4PINS (MSP-	
	C 354	GJ270122260310	E.CAPACITOR	16V VX M 22UF			L 101	GJ320080170105	COIL	SPRING 10X19.5	
	C 355	GJ270141060399	E.CAPACITOR	25V VX M 10UF			L 201	GJ320080170105	COIL	SPRING 10X19.5	
	C 356	GJ270141060399	E.CAPACITOR	25V VX M 10UF			M 301	GJ385000030000	MOTOR		
	C 358	GJ270121070399	E.CAPACITOR	16V VX M 100UF			NC904	GJ354005120100	WIRE KIT	2PINS UL1007 L	
	C 359	GJ264291042101	C.CAPACITOR	0.1MF F-F 50V			PCB	GJ190301460101	PCB		
	C 381	GJ264182232199	C.CAPACITOR	25V F Z 0.022UF			Q 103	GJ312020204203	TRANSISTOR	2SD2144S-TP	
	C 390	GJ270112270310	E.CAPACITOR	10V VX M 220UF			Q 104	GJ312011231210	TRANSISTOR	KTA1267Y (TAPE)	
	C 901	GJ283116832499	C.CAPACITOR	100V AMZ K 0.0			Q 105	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	C 902	GJ283116832499	C.CAPACITOR	100V AMZ K 0.0			Q 106	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
△	C 905	GJ270303380799	E. CAPACITOR	63V SMG M 3300M			Q 203	GJ312020204203	TRANSISTOR	2SD2144S-TP	
△	C 906	GJ270303380799	E. CAPACITOR	63V SMG M 3300M			Q 204	GJ312011231210	TRANSISTOR	KTA1267Y (TAPE)	
	C 907	GJ264291042101	C.CAPACITOR	0.1MF F-F 50V			Q 205	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	C 908	GJ264291042101	C.CAPACITOR	0.1MF F-F 50V			Q 206	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	C 909	GJ264291042101	C.CAPACITOR	0.1MF F-F 50V			Q 331	GJ312030131210	TRANSISTOR	KTC3200 (GR)	
	C 910	GJ264291042101	C.CAPACITOR	0.1MF F-F 50V			Q 332	GJ312011911210	TRANSISTOR	KTA1268(GR)	
△	C 911	GJ270144780110	E. CAPACITOR	25V M 4700UF			Q 333	GJ312010331203	TRANSISTOR	DTC114YS-TP	
	C 912	GJ270304760399	E.CAPACITOR	63V VX M 47UF 8			Q 334	GJ312010461303	TRANSISTOR	DTA114YS-TP	
	C 913	GJ270192260399	E.CAPACITOR	50V VX M 22UF			Q 335	GJ312010461303	TRANSISTOR	DTA114YS-TP	
	C 914	GJ264271032199	C.CAPACITOR	16V Y M 0.01UF			Q 336	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	C 915	GJ270192260399	E.CAPACITOR	50V VX M 22UF			Q 337	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	C 916	GJ270141060399	E.CAPACITOR	25V VX M 10UF			Q 338	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	C 917	GJ270192250399	E.CAPACITOR	50V VX M 2.2UF			Q 339	GJ312010331203	TRANSISTOR	DTC114YS-TP	
	C 918	GJ264271032199	C.CAPACITOR	16V Y M 0.01UF			Q 340	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	C 919	GJ270111070399	E.CAPACITOR	10V M 100UF			Q 341	GJ312010331203	TRANSISTOR	DTC114YS-TP	
	C 920	GJ264291042101	C.CAPACITOR	0.1MF F-F 50V			Q 342	GJ312011231210	TRANSISTOR	KTA1267Y (TAPE)	
	C 921	GJ270121070399	E.CAPACITOR	16V VX M 100UF			Q 343	GJ312011231210	TRANSISTOR	KTA1267Y (TAPE)	
	C 922	GJ270194740399	E.CAPACITOR	50V VX M 0.47UF			Q 344	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	CN101	GJ340072040102	CONNECTOR	4PINS P=2.5MM			Q 345	GJ312011911210	TRANSISTOR	KTA1268(GR)	
	CN901	GJ340022110102	CONNECTOR	P=1.25MM ST 11			Q 901	GJ312090023203	TRANSISTOR	2SA934-QR	
	CN902	GJ340072040102	CONNECTOR	4 PIN CN902A			Q 902	GJ312010331203	TRANSISTOR	DTC114YS-TP	
	CN902	GJ340072030102	CONNECTOR	3 PIN CN902C			Q 903	GJ312010331203	TRANSISTOR	DTC114YS-TP	
	CN902	GJ340072040102	CONNECTOR	4 PIN CN902B			△ Q 904	GJ312011471101	TRANSISTOR	2SB1375	
	CN903	GJ345252030109	WAFER	P=2.5MM 3PIN ST			Q 905	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	CN904	GJ345252020109	WAFER	P=2.5MM 2PIN ST			Q 906	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	CN951	GJ340072050102	CONNECTOR	5PINS CN951B			△ Q 907	GJ312011471101	TRANSISTOR	2SB1375	
	D 301	GJ310010220205	DIODE	1SS133T-77			Q 908	GJ312011231210	TRANSISTOR	KTA1267Y (TAPE)	
	D 302	GJ310010220205	DIODE	1SS133T-77			Q 909	GJ312010461303	TRANSISTOR	DTA114YS-TP	
	D 304	GJ310010220205	DIODE	1SS133T-77			Q 910	GJ312010331203	TRANSISTOR	DTC114YS-TP	
	D 305	GJ686062350000	B.WIRE	B.WIRDIA=0.6MM			Q 911	GJ312030111210	TRANSISTOR	KTC3199TP-GR	
	D 307	GJ310010220205	DIODE	1SS133T-77			Q 912	GJ312010331203	TRANSISTOR	DTC114YS-TP	
	D 325	GJ310010220205	DIODE	1SS133T-77			R 117	GJ25003222199	CARBON RESISTOR	1/4WM J 2.2K	
	D 326	GJ310010220205	DIODE	1SS133T-77			R 118	GJ250031822199	CARBON RESISTOR	1/4WM J 1.8K	
	D 327	GJ310010220205	DIODE	1SS133T-77			R 119	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	D 331	GJ310010220205	DIODE	1SS133T-77			R 120	GJ250035632199	CARBON RESISTOR	1/4WM J 56K	

## ■ Electrical parts list (Amp board)

Block No. 03

△	Item	Parts number	Parts name	Remarks	Area
	R 121	GJ250031522199	CARBON RESISTOR	1/4WM J 1.5K	
	R 123	GJ250035632199	CARBON RESISTOR	1/4WM J 56K	
	R 124	GJ686062350000	B.WIRE	B.WIRDIA=0.6MM	
△	R 125	GJ259222281799	MPC RESISTOR.	2W K 0.22 B	
△	R 126	GJ259222281799	MPC RESISTOR.	2W K 0.22 B-	
△	R 127	GJ255051511699	FUSE RESISTOR	1/4W J 150	
	R 128	GJ250032202199	CARBON RESISTOR	1/4WM J 22	
	R 129	GJ250032202199	CARBON RESISTOR	1/4WM J 22	
	R 130	GJ250252201299	CARBON RESISTOR	1/2W J 22	
	R 131	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
△	R 132	GJ255053911699	FUSE RESISTOR	L1/4W J 390	
△	R 133	GJ255053911699	FUSE RESISTOR	1/4W J 390	
	R 134	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 136	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 137	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	R 138	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 139	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 140	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 141	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 150	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 151	GJ250031532199	CARBON RESISTOR	1/4WM J 15K	
	R 217	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 218	GJ250031822199	CARBON RESISTOR	1/4WM J 1.8K	
	R 219	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 220	GJ250035632199	CARBON RESISTOR	1/4WM J 56K	
	R 221	GJ250031522199	CARBON RESISTOR	1/4WM J 1.5K	
	R 223	GJ250035632199	CARBON RESISTOR	1/4WM J 56K	
	R 224	GJ686062350000	B.WIRE	B.WIRDIA=0.6MM	
△	R 225	GJ259222281799	MPC RESISTOR.	2W K 0.22 B	
△	R 226	GJ259222281799	MPC RESISTOR.	2W K 0.22 B-	
△	R 227	GJ255051511699	FUSE RESISTOR	1/4W J 150	
	R 228	GJ250032202199	CARBON RESISTOR	1/4WM J 22	
	R 229	GJ250032202199	CARBON RESISTOR	1/4WM J 22	
	R 230	GJ250252201299	CARBON RESISTOR	1/2W J 22	
	R 231	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
△	R 232	GJ255053911699	FUSE RESISTOR	1/4W J 390	
△	R 233	GJ255053911699	FUSE RESISTOR	1/4W J 390	
	R 234	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 236	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 237	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	R 238	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 239	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 240	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 241	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 250	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 251	GJ250031532199	CARBON RESISTOR	1/4WM J 15K	
	R 313	GJ250034712199	CARBON RESISTOR	1/4WM J 470	
	R 314	GJ250034742199	CARBON RESISTOR	1/4WM J 470K	
	R 315	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 316	GJ250032232199	CARBON RESISTOR	1/4WM J 22K	
	R 317	GJ250035612199	CARBON RESISTOR	1/4WM J 560	
	R 318	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 370	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 371	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 372	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	R 373	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 381	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	R 382	GJ250032232199	CARBON RESISTOR	1/4WM J 22K	
	R 383	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 384	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 385	GJ250031042199	CARBON RESISTOR	1/4WM J 100K	
	R 386	GJ250031002199	CARBON RESISTOR	1/4WM J 10	
	R 387	GJ250031502199	CARBON RESISTOR	1/4WM J 15	

△	Item	Parts number	Parts name	Remarks	Area
	R 388	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 389	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 390	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	R 392	GJ250032722199	CARBON RESISTOR	1/4WM J 2.7K	
	R 393	GJ250031222199	CARBON RESISTOR	1/4WM J 1.2K	
	R 394	GJ686062350000	B.WIRE	B.WIRDIA=0.6MM	
	R 395	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 396	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 397	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
	R 398	GJ250031012199	CARBON RESISTOR	1/4WM J 100	
△	R 399	GJ255052291699	FUSE RESISTOR	1/4W J 2.2 OHM	
	R 901	GJ250034722199	CARBON RESISTOR	1/4WM J 4.7K	
△	R 902	GJ255051011699	FUSE RESISTOR	1/4W J 100	
	R 903	GJ250032222199	CARBON RESISTOR	1/4WM J 2.2K	
	R 904	GJ250031012199	CARBON RESISTOR	1/4WM J 100	
	R 905	GJ250031012199	CARBON RESISTOR	1/4WM J 100	
	R 906	GJ250031032199	CARBON RESISTOR	1/4WM J 10K	
	R 907	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
△	R 908	GJ255052291699	FUSE RESISTOR	1/4W J 2.2 OHM	
	R 909	GJ250034732199	CARBON RESISTOR	1/4WM J 47K	
	R 910	GJ250032232199	CARBON RESISTOR	1/4WM J 22K	
	R 911	GJ250033322199	CARBON RESISTOR	1/4WM J 3.3K	
	R 912	GJ250034712199	CARBON RESISTOR	1/4WM J 470	
	R 913	GJ250034712199	CARBON RESISTOR	1/4WM J 470	
	R 914	GJ250031092199	CARBON RESISTOR	1/4WM J 1	
	R 915	GJ250031092199	CARBON RESISTOR	1/4WM J 1	
	R 916	GJ250031092199	CARBON RESISTOR	1/4WM J 1	
	R 917	GJ250031022199	CARBON RESISTOR	1/4WM J 1K	
	RY301	GJ391000080002	RELAY	RELAY (12V) OEG	
	TH301	GJ290000030001	THERMISTOR	10K (NTSA0XV1)	



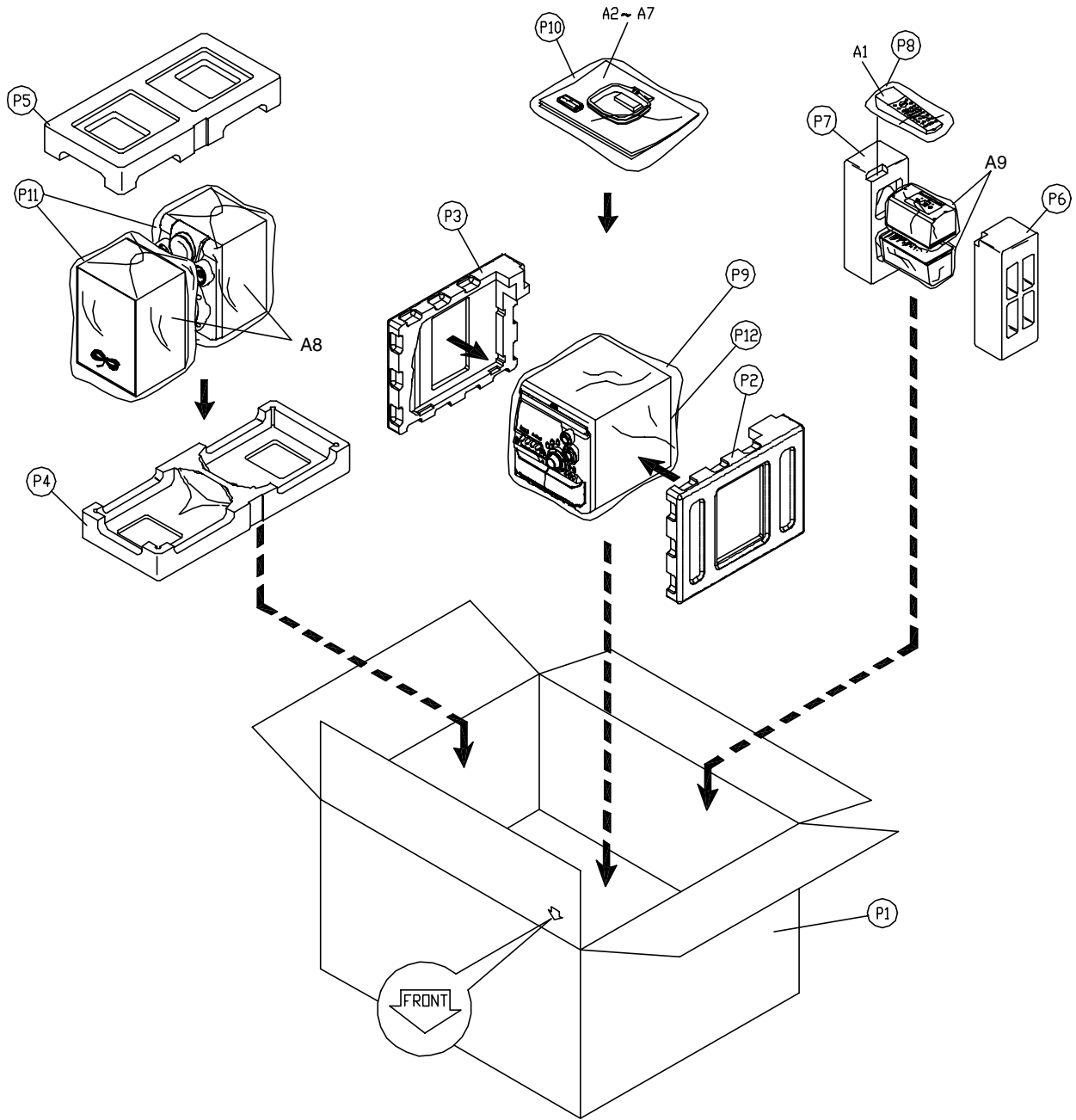
# Packing materials and accessories parts list

Block No. 

M	4	M	M
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Block No. 

M	5	M	M
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**Parts list (Packing)**

Block No. M4MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	GJ560531900101	CARTON	1	UL/CSA 7A 120V	
	P 2	GJ560532900101	POLY FORM	1	RIGHT	
	P 3	GJ560532800101	POLY FORM	1	LEFT	
	P 4	GJ560533100101	POLY FORM	1	BOTTOM(SPEAKER)	
	P 5	GJ560533000101	POLY FORM	1	TOP (SPEAKER)	
	P 6	GJ560533300101	POLY FORM	1	RIGHT(SPEAKER)	
	P 7	GJ560533200101	POLY FORM	1	LEFT (SPEAKER)	
	P 8	GJ740082550400	POLY BAG	1	80X250MM	
	P 9	GJ740707020300	POLY BAG	1	700X700X0.015MM	
	P 10	GJ740362550000	POLY BAG	1	360X250X0.05M	
	P 11	GJ740486230300	POLY BAG	2	480X620X0.03MM	
	P 12	GJ740122550000	POLY BAG	1	120X250X0.05MM	

**Parts list**

Block No. M5MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	GJA1002032001C	REMOCON	1	RM-SMXK3A-CHINA	
	A 2	GJA2052001001C	LOOP ANT	1	HST-D4A	
	A 3	-----	BATTERY	1		
	A 4	GJ773012920101	INSTRUCTIONS	1	ENG	
	A 5	GJ351001402431	ANT.WIRE	1		
	A 6	GJ775000140101	SAFETY GUID	1	(A/N:AS100047)	
	A 7	GJ775000400101	REGISTRATION CA	1		
	A 8	MXK7K-SPBOX-L	SPEAKER BOX	1	MAIN ASS'Y	
		MXK7K-SPBOX-R	SPEAKER BOX	1	MAIN ASS'Y	
	A 9	MXK7S-SPBOX-R	SPEAKER BOX	1	SURROUND ASS'Y	
		MXK7S-SPBOX-L	SPEAKER BOX	1	SURROUND ASS'Y	