

# JVC

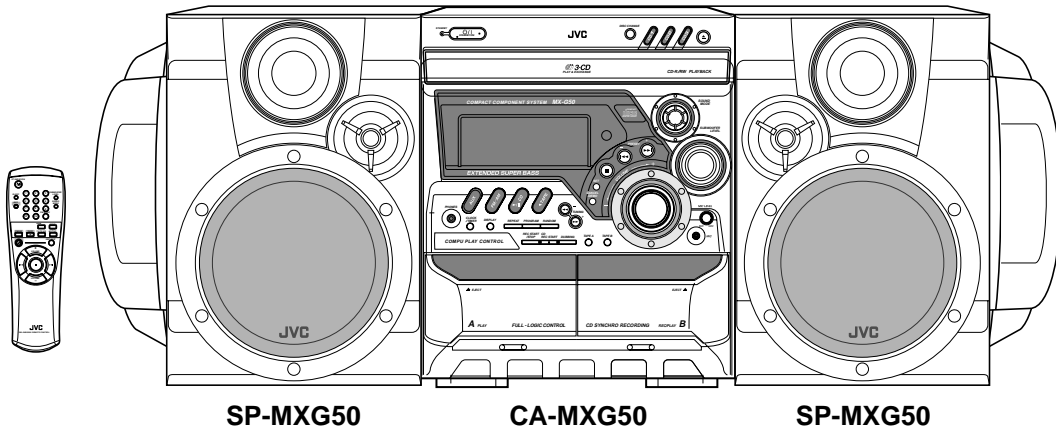
# SERVICE MANUAL

## COMPACT COMPONENT SYSTEM

### MX-G50

**Area Suffix**

US	-----	Singapore
UW	-----	Brazil, Mexico, Peru
UY	-----	Argentina



(No MIC jack and MIC LEVEL volume for UY ver.)

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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.

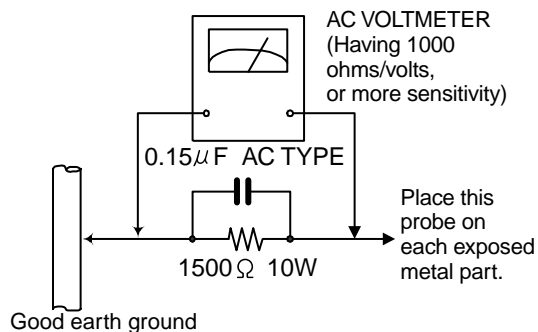
Do not use a line isolation transformer during this check.

- 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 ( $\blacksquare$ ), diode ( $\blacksquare$ ) and ICP ( $\bullet$ ) 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.

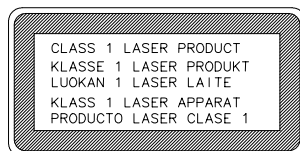
**5.CAUTION** : If safety switches malfunction, the laser is able to function.

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

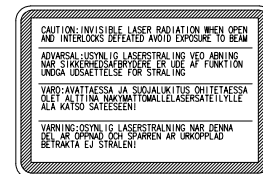
**CAUTION** Please use enough caution not to see the beam directly or touch it in case of an adjustment or operation check.

## Reproduction and position of labels

### CLASS 1 LASER PRODUCT



### WARNING LABEL



# 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.

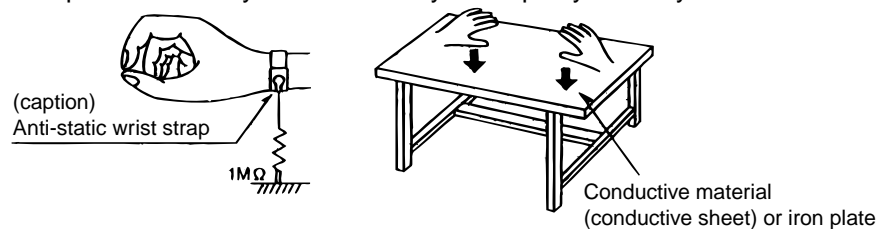
Be careful to use proper grounding in the area where repairs are being performed.

### 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 traverse unit (optical pickup)

1. Do not subject the traverse 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 traverse 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 CD mechanism assembly is decomposed

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

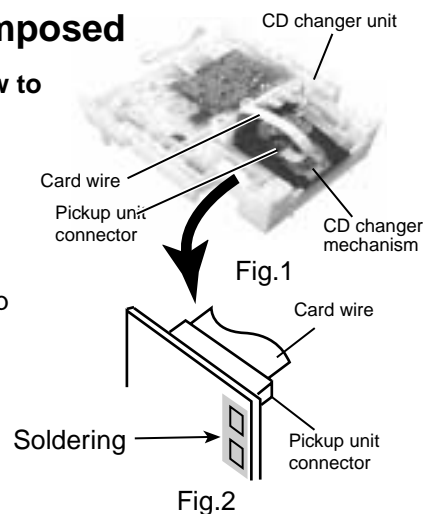
1. Remove the CD changer unit.

2. Remove the CD changer mechanism.

3. Solder is put up before the card wire is removed from the pickup unit connector on the CD mechanism assembly.

(When the card wire is removed without putting up solder, the CD pick-up assembly might destroy.)

4. Please remove solder after connecting the card wire with the pickup unit connector when you install picking up in the substrate.



# Disassembly method

## <Main body>

### ■ Removing the metal cover

(See Fig.1 to 3)

1. Remove the three screws **A** attaching the metal cover on the back of the body.
2. Remove the six screws **B** attaching the metal cover on both sides of the body.
3. Remove the metal cover from the body by lifting the rear part of the cover.

ATTENTION: Do not break the front panel tab fitted to the metal cover.

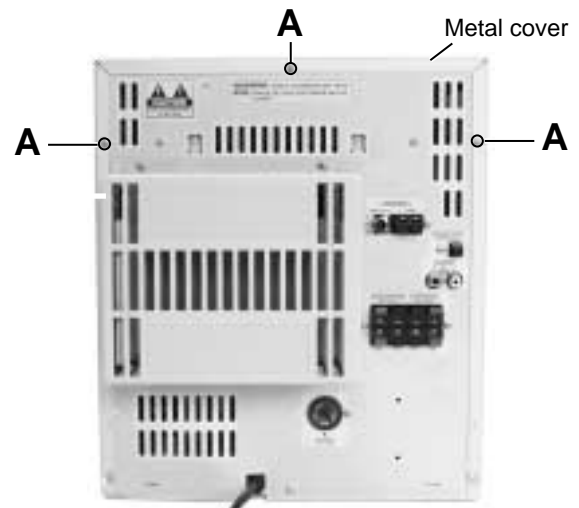


Fig.1

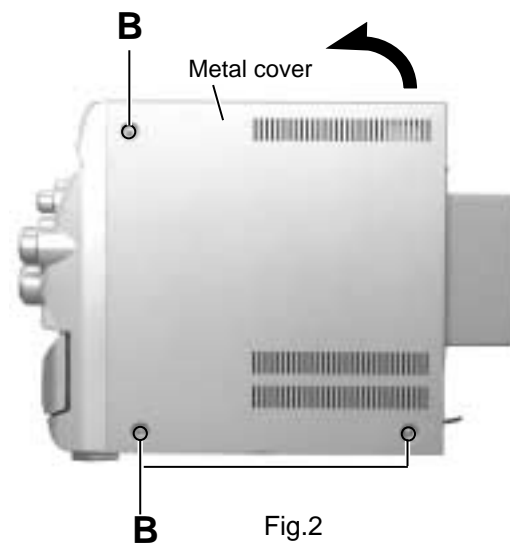


Fig.2

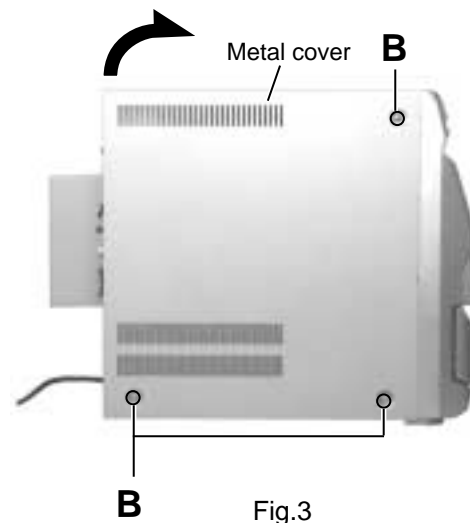


Fig.3

**■Removing the CD Tray fitting (1)**  
**(See Fig. 4 to 6)**

• Prior to performing the following procedure, remove the metal cover.

1. Press the POWER button. Press the OPEN/CLOSE button to eject the CD tray.
2. After drawing the lower part of the tray fitting toward the front, remove the five claws **a**. Then, while moving the tray fitting upward, remove it.
3. Press the OPEN/CLOSE button to insert the tray.

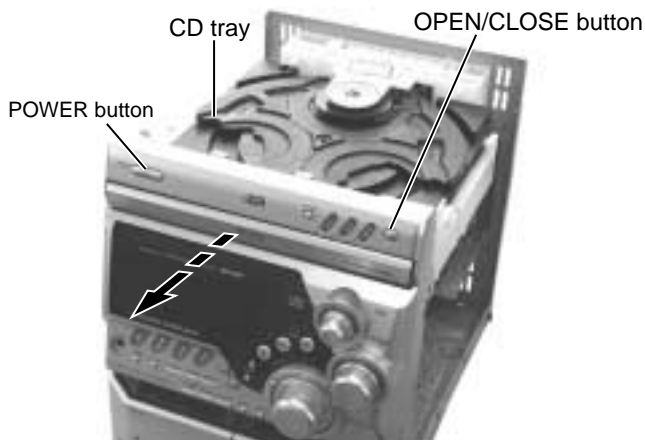


Fig.4

**■Removing the CD Tray fitting (2)**  
**(See Fig. 5 to 7)**

- How to eject the CD tray without turning on power -

1. Turn the black loading pulley gear marked **b** from the back of the CD changer unit as shown in Fig.7 and draw the CD tray toward the front.
2. After drawing the lower part of the tray fitting toward the front, remove the five claws **a**. Then, while moving the tray fitting upward, remove it.
3. Push and insert the CD tray manually.

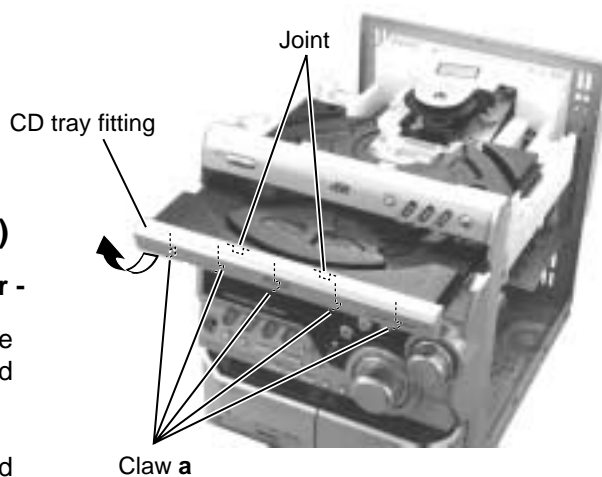


Fig.5

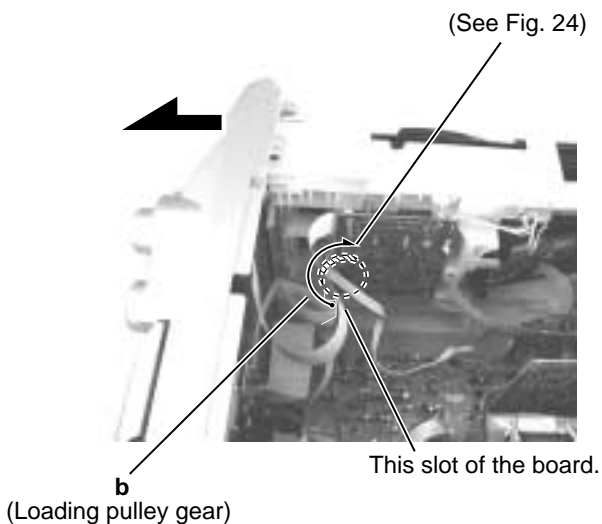


Fig.7

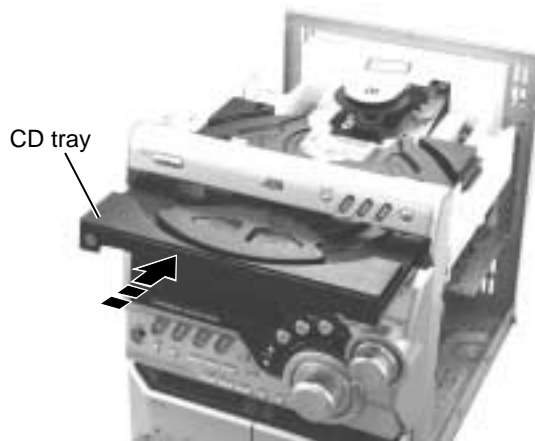


Fig.6

**■ Removing the CD changer unit  
(See Fig.8 to 10)**

• Prior to performing the following procedure, remove the metal cover.

1. Disconnect the card wire which is attached with adhesive to the left side of the CD changer unit.
2. Disconnect the card wire from connector CW105 of the CD servo board on the back of the CD changer unit.
3. Disconnect the harness from connector RCW6 & OCW on the inner side of the main board in the body.
4. Remove the two screws **C** attaching the CD changer unit on the back of the body.
5. Remove the two screws **D** attaching the CD changer unit on the both side of the body.
6. Draw the CD changer unit upward from behind while pulling the rear panel outward.

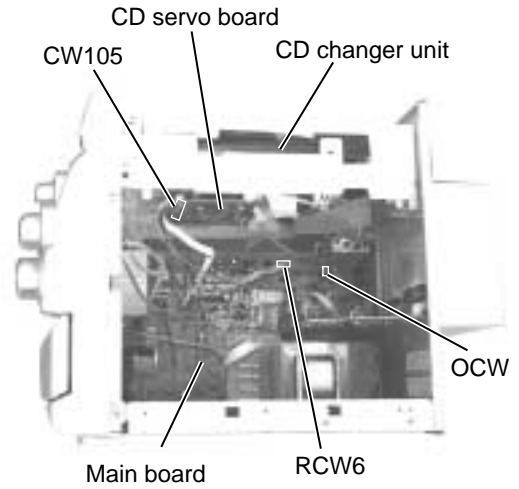


Fig.8

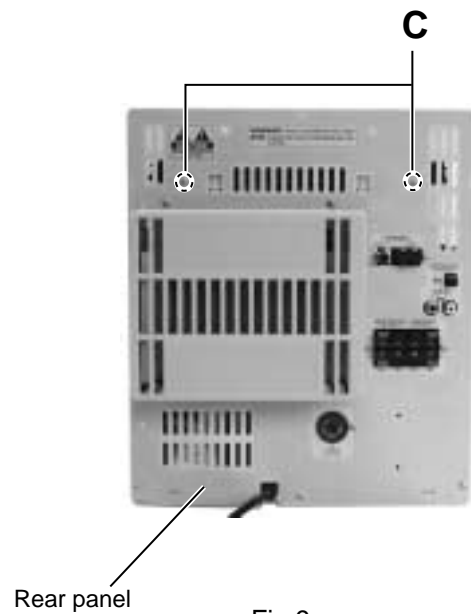


Fig.9

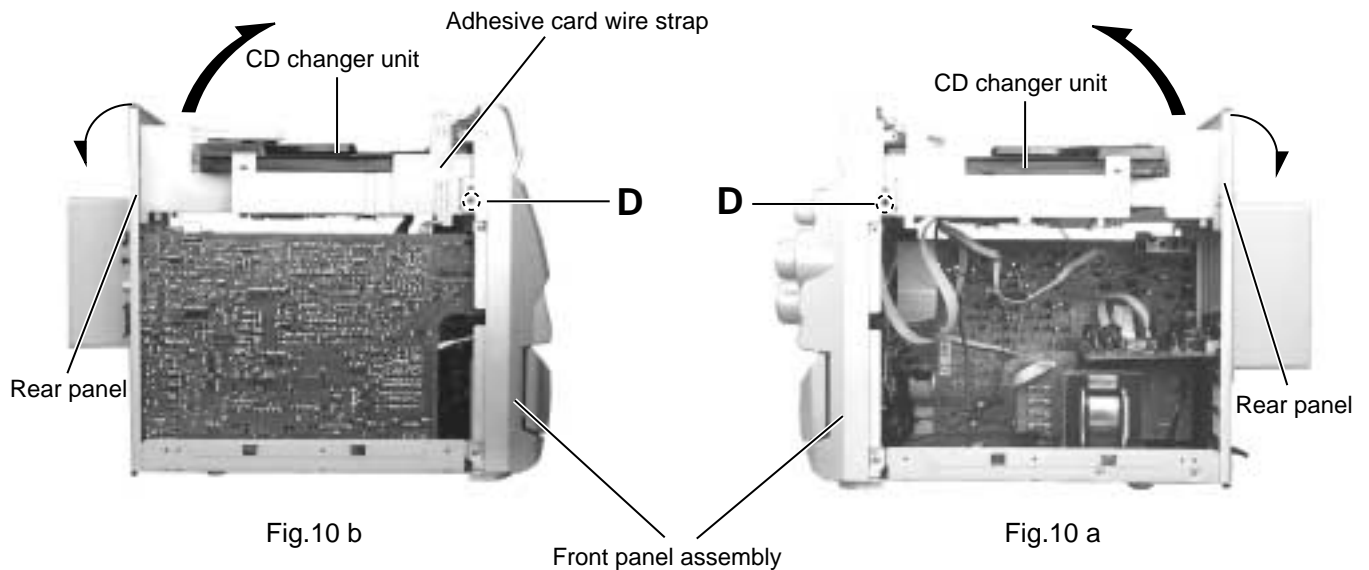
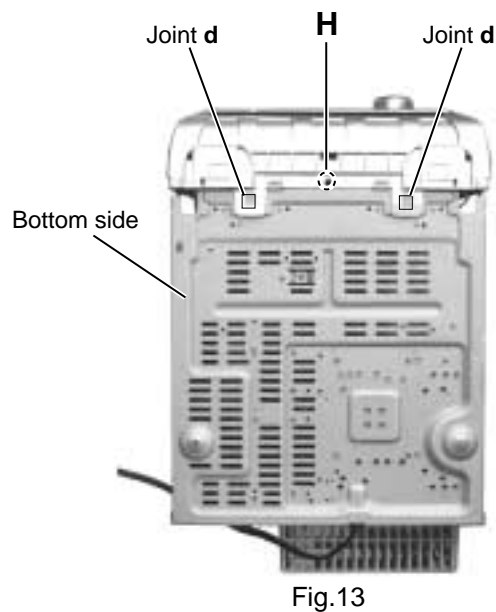
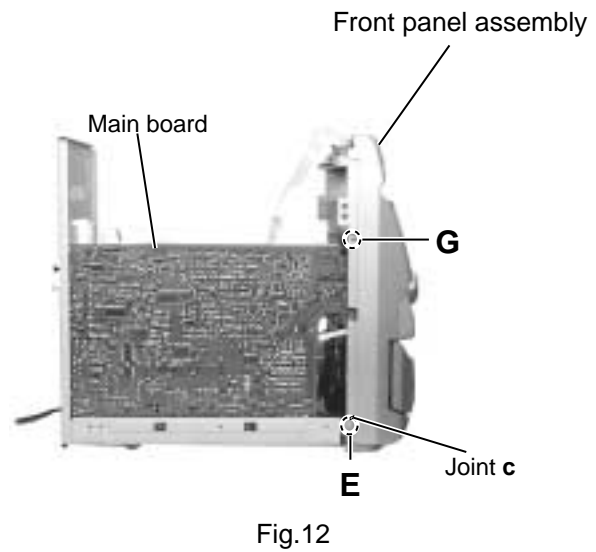
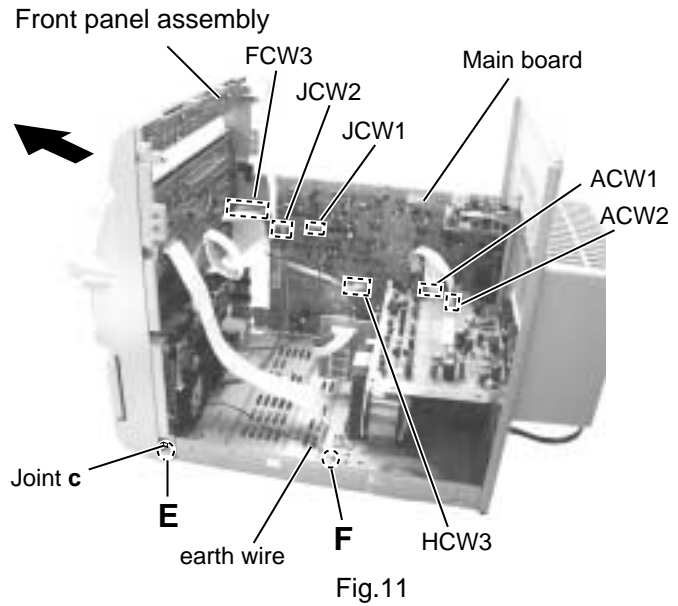


Fig.10 b

Fig.10 a

**■Removing the front panel assembly  
(See Fig.11 to 13)**

- Prior to performing the following procedure, remove the metal cover and the CD changer unit.
1. Disconnect the card wire from connector FCW3 and the harness from connector JCW1, JCW2 and HCW3 on the inner side of the main board in the body.
  2. Remove the two screws **E** attaching the front panel assembly on both sides of the body.
  3. Remove the screw **F** attaching the earth terminal extending from the cassette mechanism assembly.
  4. Remove the screw **G** attaching the front panel assembly and main board.
  5. Remove the screw **H** attaching the front panel assembly on the bottom of the body.
  6. Release the two joints **c** on both sides and two joints **d** on the bottom of the body using a screwdriver.





**■ Removing the heat sink & amp. board**  
(See Fig.14 and 15)

- Prior to performing the following procedure, remove the metal cover and the CD changer unit.
1. Remove the four screws **I** attaching the heat sink cover on the back of the body. Remove the heat sink cover.
  2. Remove the four screws **J** attaching the heat sink & amp. board to the rear panel on the back of the body.
  3. Remove the two screws **K** attaching the speaker terminal to the rear panel on the back of the body.
  4. Disconnect the card wire from connector ACW1 and the harness from connector ACW2 on the amp. board. (See Fig.11)
  5. After moving the heat sink upward, remove the claws. Then pull out the heat sink & AMP board inward.

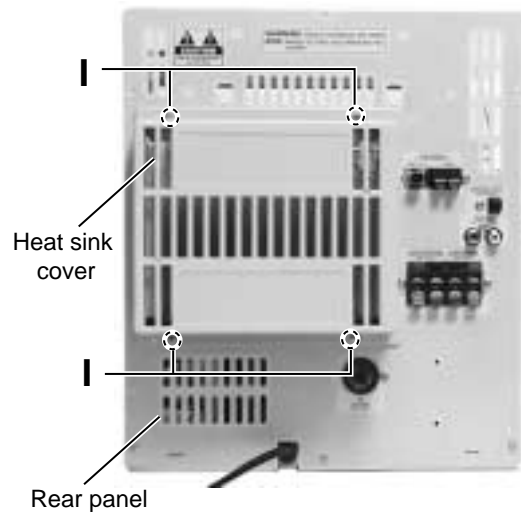


Fig.14

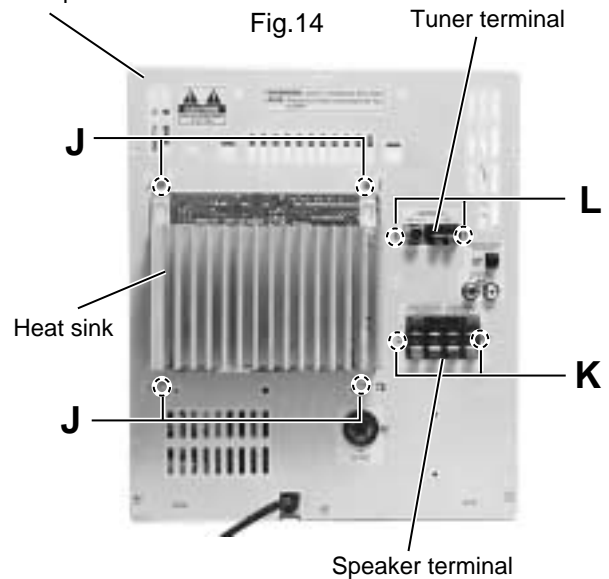


Fig.15

**■ Removing the tuner board**  
(See Fig.15 and 16)

- Prior to performing the following procedure, remove the metal cover and CD changer unit.
1. Disconnect the card wire from connector CON01 on the tuner board.
  2. Remove the two screws **L** attaching the tuner board.

**■ Removing the rear cover** (See Fig.17)

- Prior to performing the following procedure, remove the metal cover, CD changer unit, heat sink & amp. board and tuner board.
1. Remove the five screws **M** attaching the rear panel.
  2. Remove the screw **M'** attaching the voltage selector. (Only US/ UW)

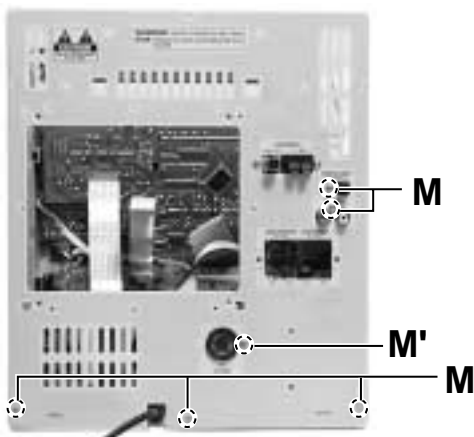


Fig.17

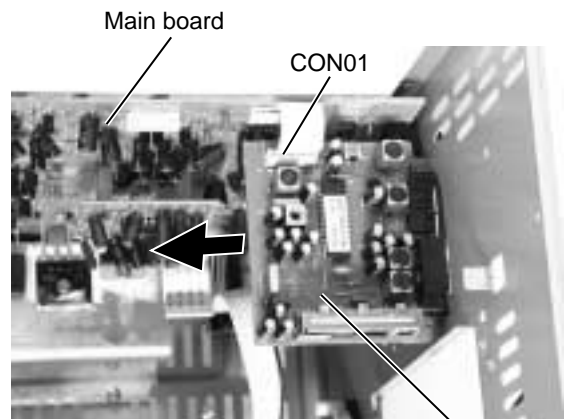


Fig.16

### ■Removing the main board

(See Fig. 18)

- Prior to performing the following procedure, remove the metal cover, CD changer unit, heat sink & amp. board tuner board and rear cover.
1. Disconnect the card wire from connector FCW3 and the harness from connector JCW1, JCW2 and HCW3 on the main board.
  2. Disconnect the harness from connector PCW1 on the power transformer board.
  3. Remove the screw **G** attaching the main board holder. (See Fig.12)
  4. Remove the two screws **N** attaching the heat sink and bottom chassis.

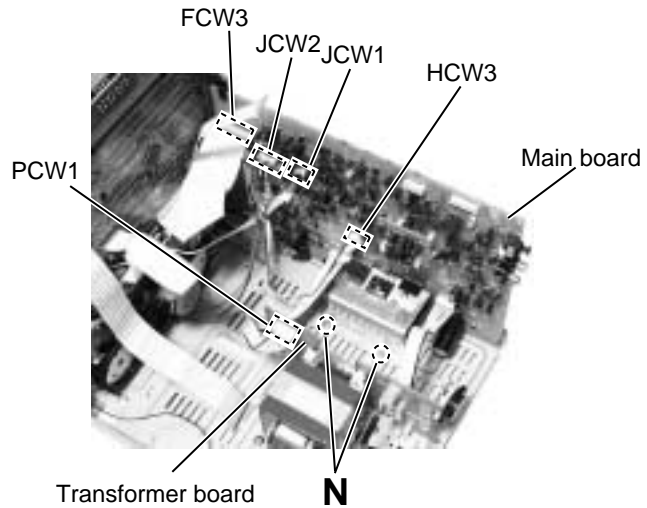


Fig.18

### ■Removing the power ICs

(See Fig.19 and 20)

- Prior to performing the following procedure, remove the metal cover, CD changer unit and heat sink & amp. board.
1. Remove the four screws **P** attaching the power ICs to the heat sink.
  2. Unsolder the power ICs solder point.

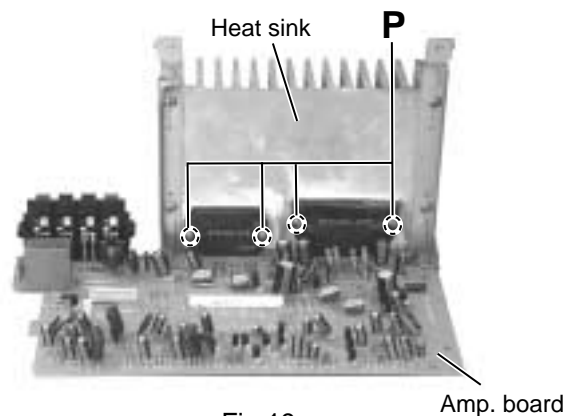


Fig.19

### ■Removing the power transformer

(See Fig .21)

- Prior to performing the following procedure, remove the metal cover, heat sink & amp. board, tuner board and rear cover.
1. Disconnect the power cord from connector RCW2 of the power transformer board.
  2. Disconnect the harness from connector PCW1 of the power transformer board.
  3. Remove the four screws **R** attaching the power transformer and the screw **S** attaching the earth terminal.

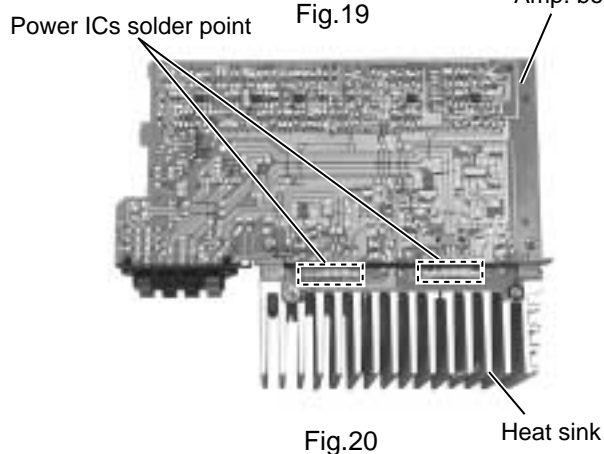


Fig.20

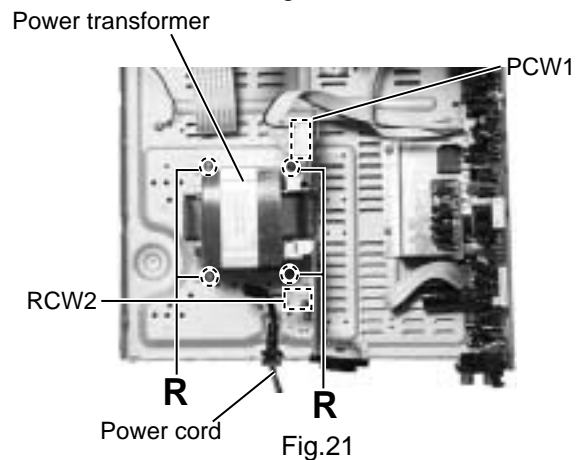


Fig.21

**<Front panel assembly>**

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

**■Removing the power / CD switch board (See Fig.22)**

1. Disconnect the card wire from connector UCW1 on the power / CD switch board.
2. Remove the five screws **Q** attaching the power / CD switch board.

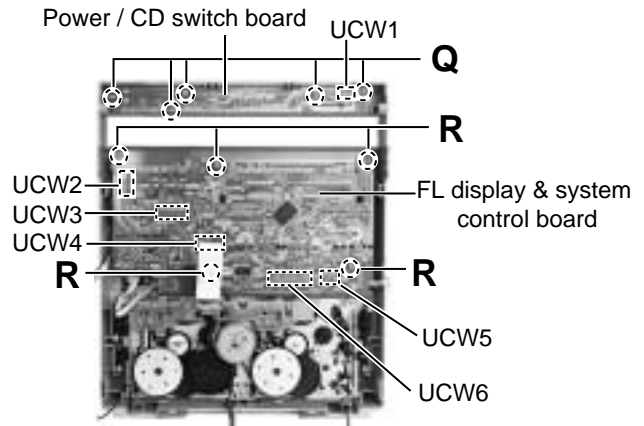


Fig.22

**■Removing the FL display & system control board (See Fig.22)**

1. Disconnect the card wire from the connector UCW3, UCW4, UCW5 and UCW6 on the FL display & system control board.
2. Remove the five screws **R** attaching the FL display & system control board.
3. Disconnect the card wire from the connector UCW2 on the FL display & system control board.

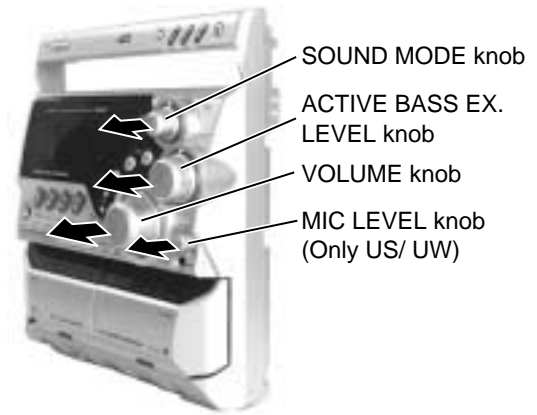


Fig.23

**■Removing the front board (See Fig.23 and 24)**

- Prior to performing the following procedure, remove the FL display & system control board.

1. Pull out the SOUND MODE knob, ACTIVE BASS EX. LEVEL knob, VOLUME knob and MIC LEVEL knob(Only US/ UW) from front side.
2. Remove the ten screws **S** attaching the front board and release the two tabs **e** out ward.

**■Removing the headphone board & mic jack board (See Fig.24)**

- Prior to performing the following procedure remove the FL display & system control board.

1. You can pull out the headphone board.
2. Remove the mic jack board with releasing the tab **f**. (Only US/ UW)

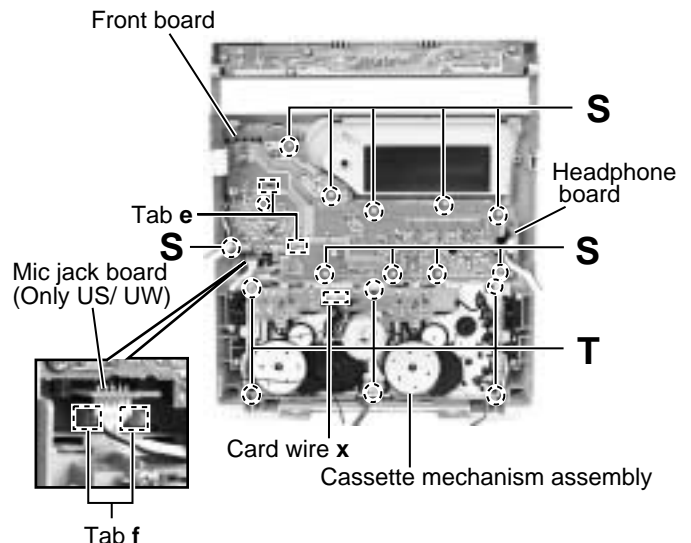


Fig.24

**■Removing the cassette mechanism assembly (See Fig.24)**

1. Disconnect the card wire **x** from the mechanism board on the cassette mechanism assembly.
2. Remove the six screws **T** attaching the cassette mechanism assembly.

<CD changer unit>

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

■Removing the CD tray (See Fig.25 to 27)

1. Turn the black loading pulley gear on the under side of the CD changer unit in the direction of the arrow and draw the CD tray toward the front until it stops.
2. Disconnect the card wire from connector CW103 of the CD servo board on the upper side of the CD changer unit.
3. Push down the two tray stoppers marked **g** and pull out the CD tray.

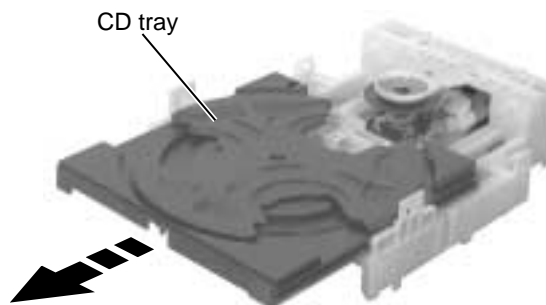
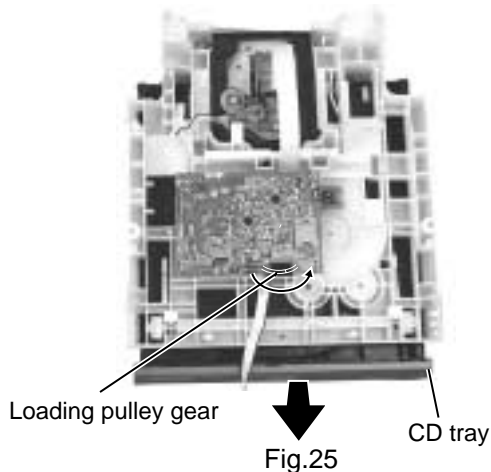


Fig.26

■Reinstall the CD tray (See Fig.28 to 29)

1. Align the gear-cam with the gear-tray as shown fig.27, then mount the CD tray.
2. When assembling the CD tray, take extreme care not engage with gear - synchro.

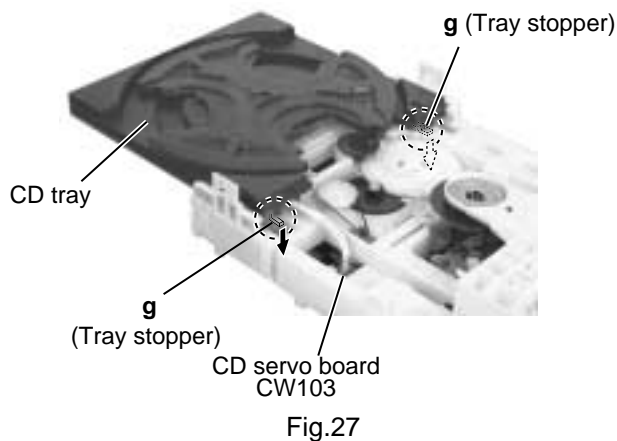


Fig.27

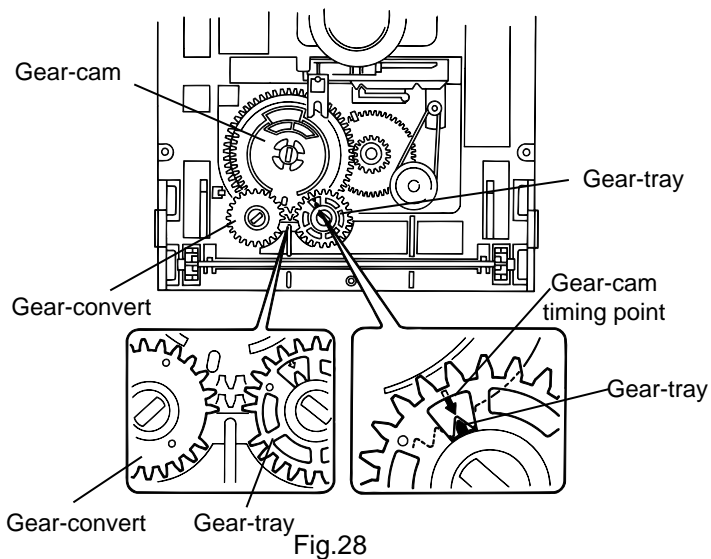


Fig.28

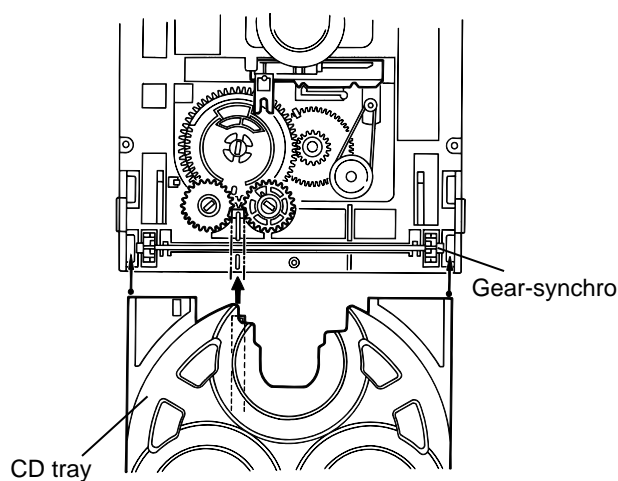


Fig.29

## ■ Removing the sensor board / the turn table motor assembly (See Fig.30 to 32)

• Prior to performing the following procedure, remove the CD tray.

1. Remove the screw **X** attaching the sensor board and release the two tabs **h** attaching the sensor board on the under side of the CD tray.
2. Disconnect the harness from connector **CW1** on the sensor board and release the harness from the two hooks **i**. Remove the sensor board.
3. Remove the screw **Y** attaching the turn table. Detach the turn table from the tray.
4. Pull outward the tab marked **j** attaching the turn table motor assembly on the upper side of the tray and detach the turn table motor assembly from the tray.

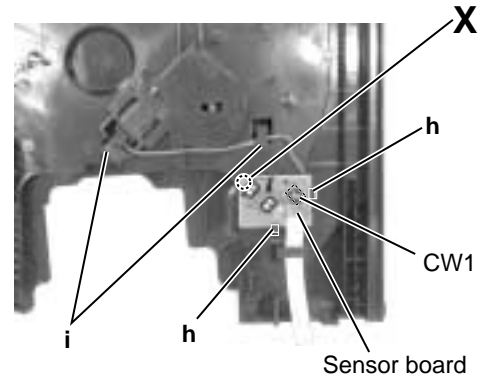


Fig.29

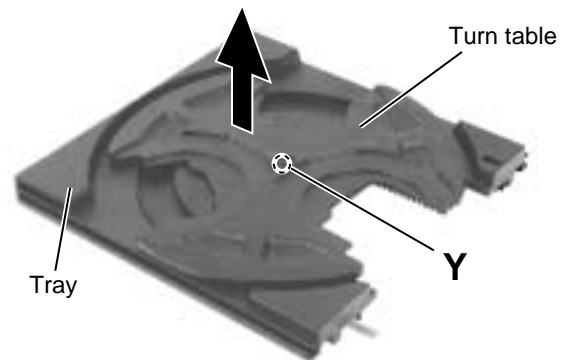


Fig.31

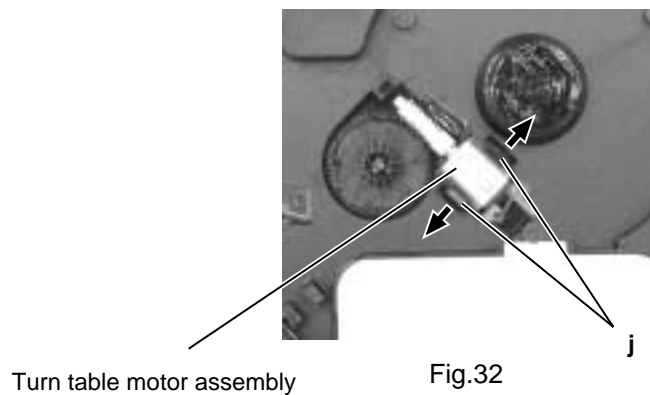


Fig.32

**■Removing the belt, the CD servo board and the switch board (See Fig.33 and 34)**

• Prior to performing the following procedure, remove the CD tray.

1. Detach the belt from the pulley on the upper side of the CD changer unit (Do not stain the belt with grease).
2. Disconnect the card wire from the pickup unit connector on the under side of the CD changer unit.

**Attention :** Solder is put up before the card wire is removed from the pick-up unit connector on the CD mechanism assembly.  
(When the card wire is removed without putting up solder, the CD pick-up unit assembly might destroy.)

3. Disconnect the motor wire harness from connector on the CD servo board.
4. Remove the screw **Z** attaching the switch board and release the two tabs **k** attaching the switch board outward and detach the switch board.
5. Remove the two screws **A'** attaching the CD servo board and . First release the **n** side of the two tabs **l** and two tabs **m** attaching the CD servo board motor to raise the CD servo board slightly, then release the CD servo board.

※If the tabs **l** and **m** are hard to release, it is recommendable to unsolder the two soldered points on the motor terminal of the CD servo board.

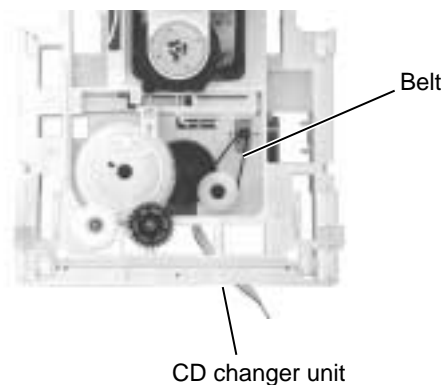


Fig.33

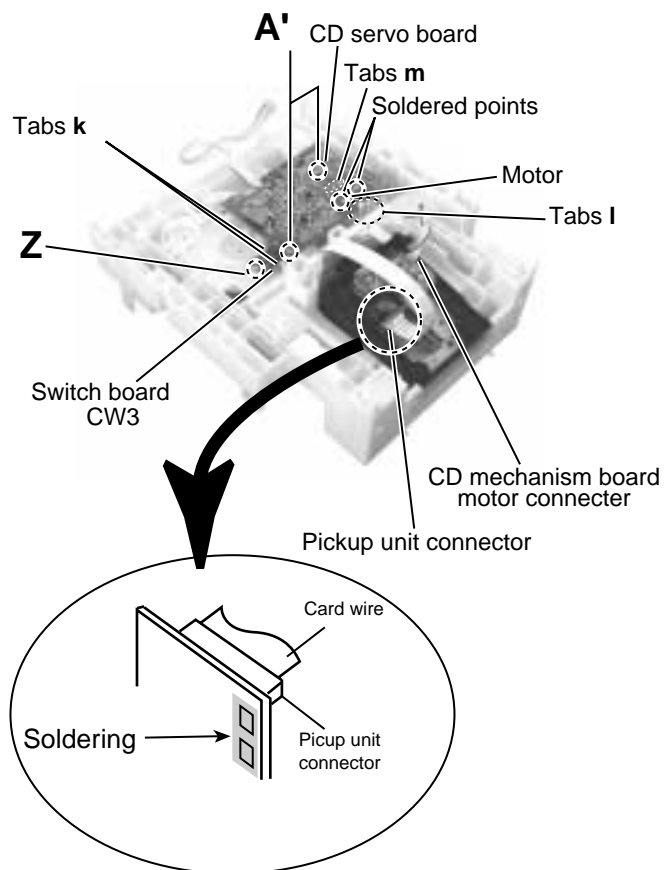


Fig.34

■ **Removing the CD mechanism holder assembly (mechanism included)**  
**(See Fig.35 to 38)**

1. Disconnect the harness from connector on the CD mechanism board in the CD mechanism assembly on the under side of the CD changer unit. Disconnect the card wire from the pickup unit connector.

**Attention :** Solder is put up before the card wire is removed from the pick-up unit connector on the CD mechanism assembly. (Refer to Fig. 34)  
 (When the card wire is removed without putting up solder, the CD pick-up unit assembly might destroy.)

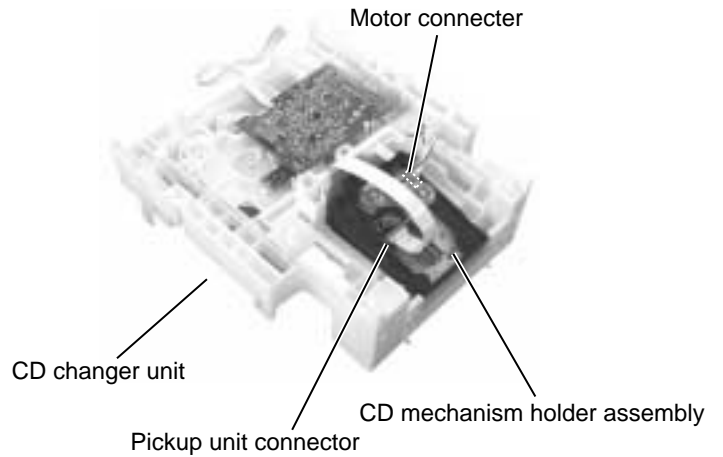


Fig.35

2. Remove the screw **B'** attaching the shaft on the right side of the CD mechanism holder assembly. Pull outward the stopper fixing the shaft on the left side and remove the CD mechanism holder assembly from behind in the direction of the arrow **y**.
3. Turn the CD mechanism holder assembly half around the lift up slide shaft **n** of the CD mechanism holder assembly until the turn table is reversed, and pull out the CD mechanism holder assembly.

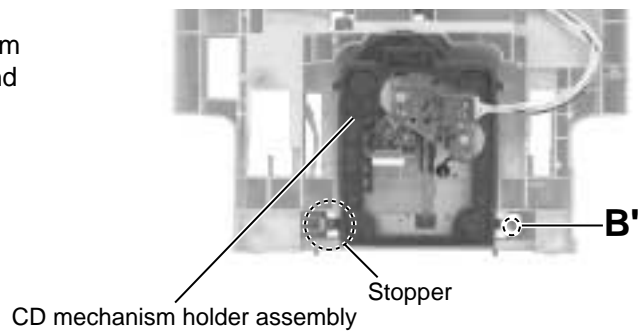


Fig.36

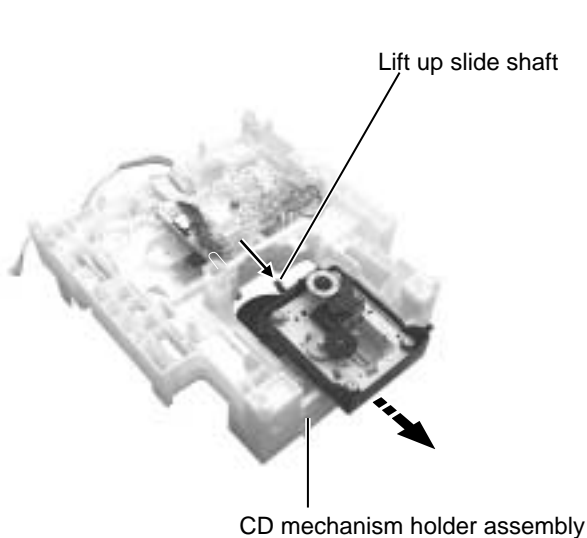


Fig.38

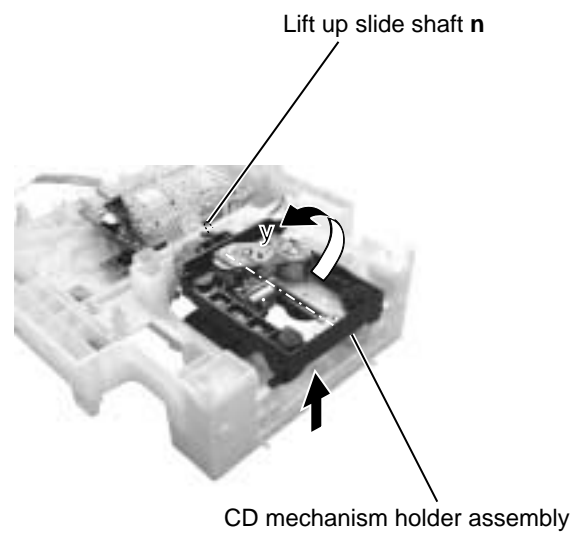


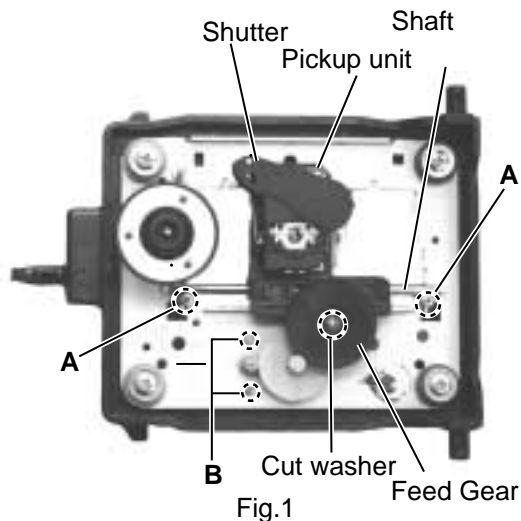
Fig.37

**<CD mechanism section>**

- Removing the CD mechanism holder from the CD chager unit.  
(Refer to "Removing the CD mechanism holder assembly" )

**■ Removing the pickup unit. (See Fig.1)**

1. Removing the cut washer **c** on the feed gear sleeve and pull out the feed gear.
2. Remove the two screws **A** fixing the pickup shaft.
3. Removing the pickup unit.



**■ Removing the motor board. (See Fig.2)**

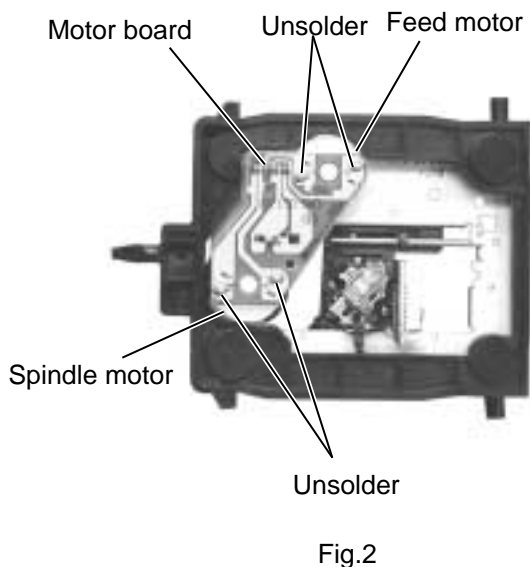
1. Unsolder the motor terminal on the motor board.
2. Remove the moter board.

**■ Removing the feed motor. (See Fig.1)**

Remove the two motor fixing screws at **B** and removing the feed motor.

**■ Removing the spindle motor.**

The spindle motor cannot be removed as a single unit. When removing the spindle motor, change the chasis and turntable together as a unit.





## <Cassette mechanism section>

- Removing the record/playback mechanism.

### ■ Removing the R/P head.

1. Remove the screw **A** on the right side of the R/P head.(Fig.1, Fig.2)
2. Remove the screw **B** on the left side of the R/P head.(Fig.1, Fig.2)

### ■ Remove the erase head.

Remove the screw **C** fixing the erase head.(Fig.1)

### ■ Removing the pinch roller.

1. Pull out the pinch roller by opening the pinch roller stopper outward to unlock .(Fig.3)
2. When reassembling the pinch roller, refer to fig. 4 to hook up the spring.

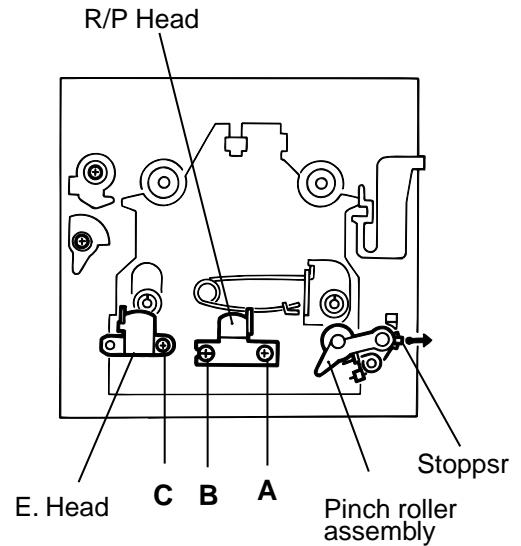


Fig.1

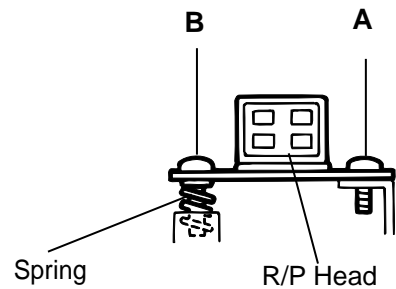


Fig.2

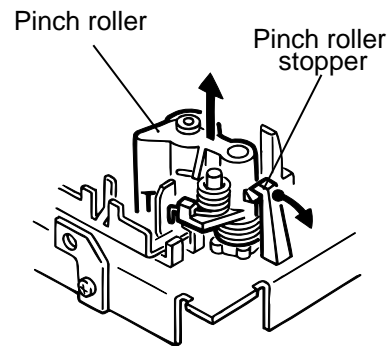


Fig.3

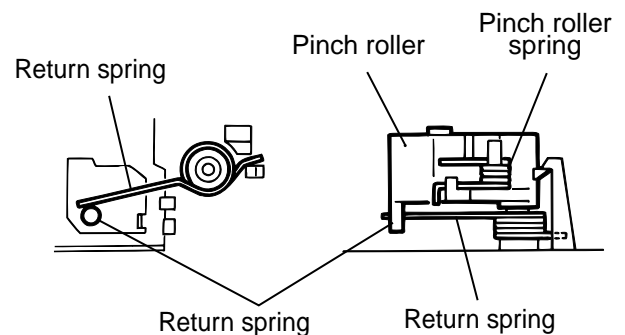


Fig.4

■ **Removing the motor.**

1. Remove the two screws **D** fixing the motor.  
Be careful to grease's splash when the drive belt comes off.(Fig.5, Fig.6)
2. Unsolder the motor terminal.(Fig.5)

■ **Removing the mechanism board.**

1. Unsolder the four parts **a** on the solenoid coil terminal.(Fig.5)
2. Remove the two screws **E** fixing the board.(Fig.5)
3. Unhook the three parts **b** from the board.(Fig.5)
4. Remove the mechanism board.(Fig.5)

■ **Removing the flywheel.**

Remove the cut-washers at **c** and **d** from the capstan shaft, then remove the flywheel.  
When reassembling the flywheel, be sure to use new washers as they cannot be reused.(Fig.8, Fig.9)

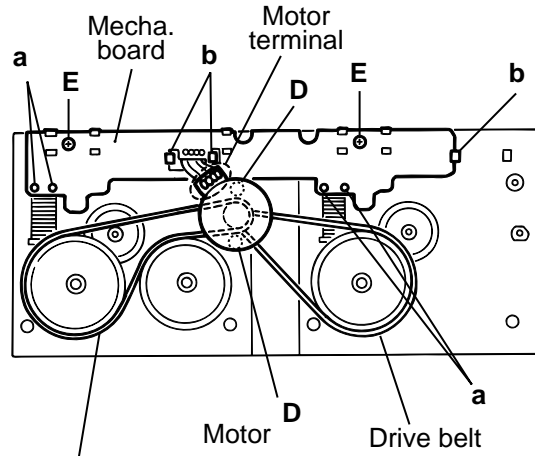


Fig.5

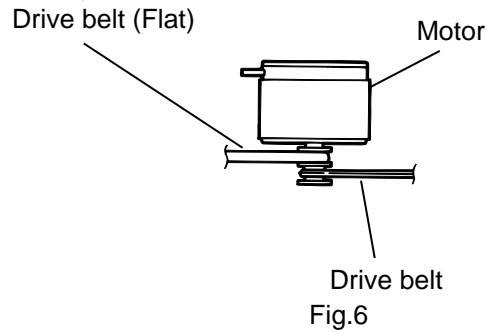


Fig.6

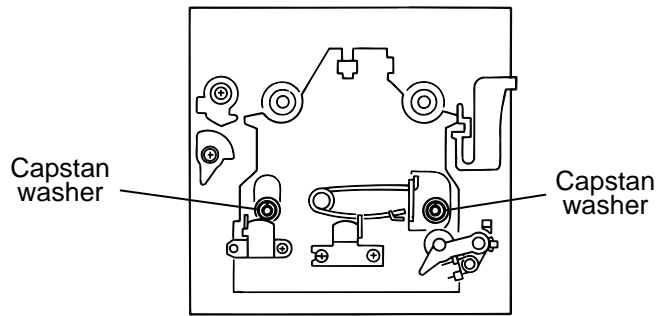


Fig.7

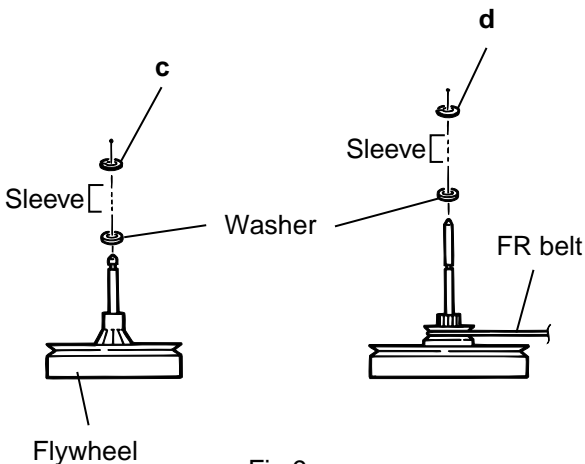


Fig.9

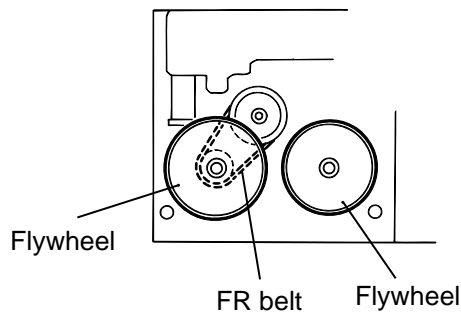


Fig.8

## &lt; Speaker section &gt;

### ■ Removing the side panel (See Fig. 1)

1. Remove the five screws A attaching the side panel, then remove the side panel.

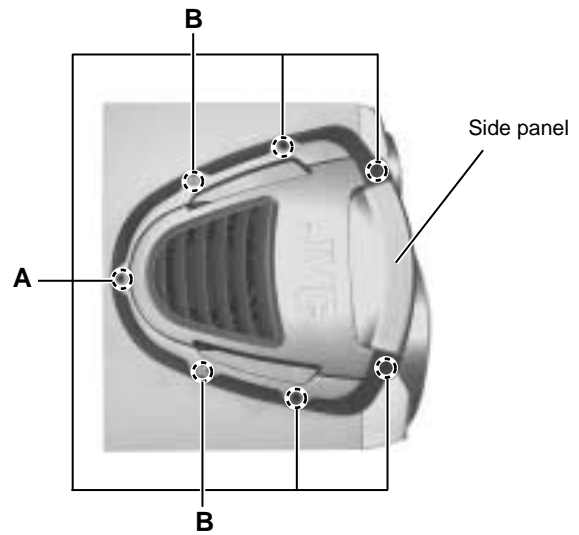


Fig.1

### ■ Removing the side speaker (See Fig. 2 and 3)

Prior to performing the following procedure, remove the side panel.

1. Remove the fore screws C attaching the side speaker.
2. Pull out the side speaker and remove the speaker cord from the speaker terminal.

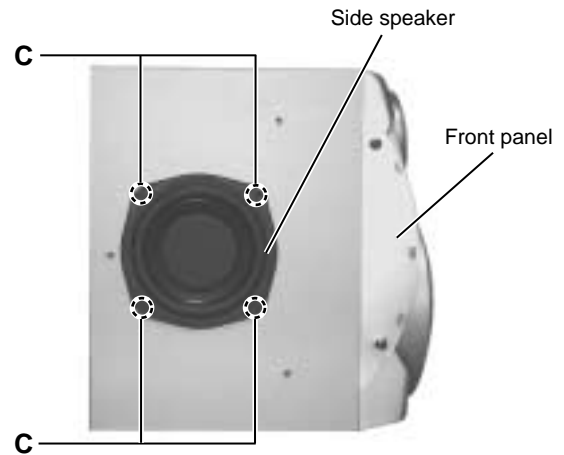


Fig.2

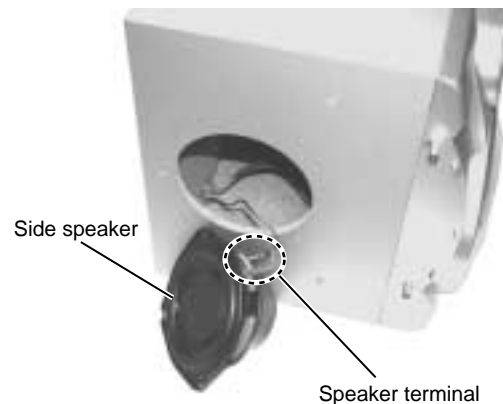
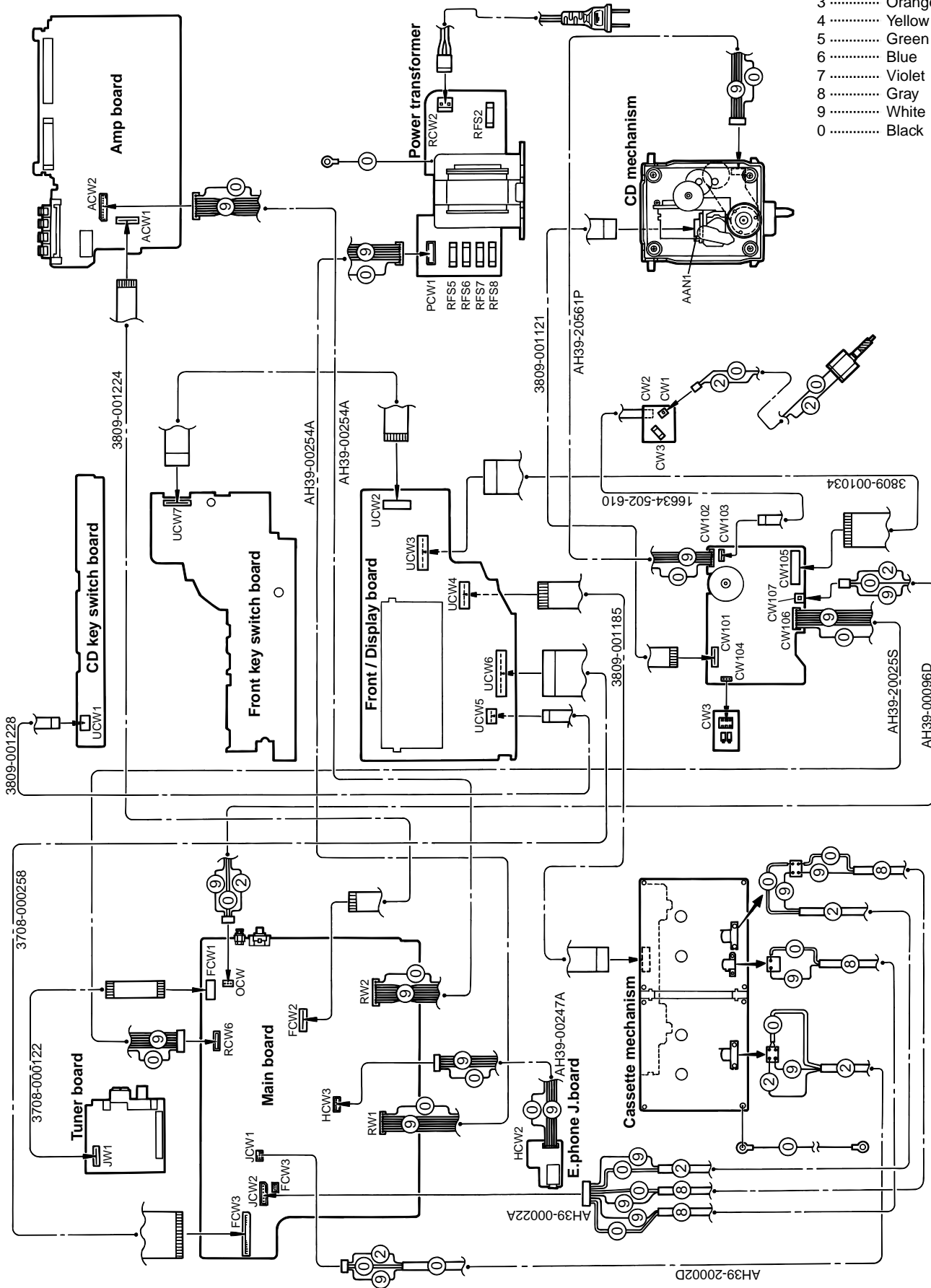


Fig.3

# Wiring connection

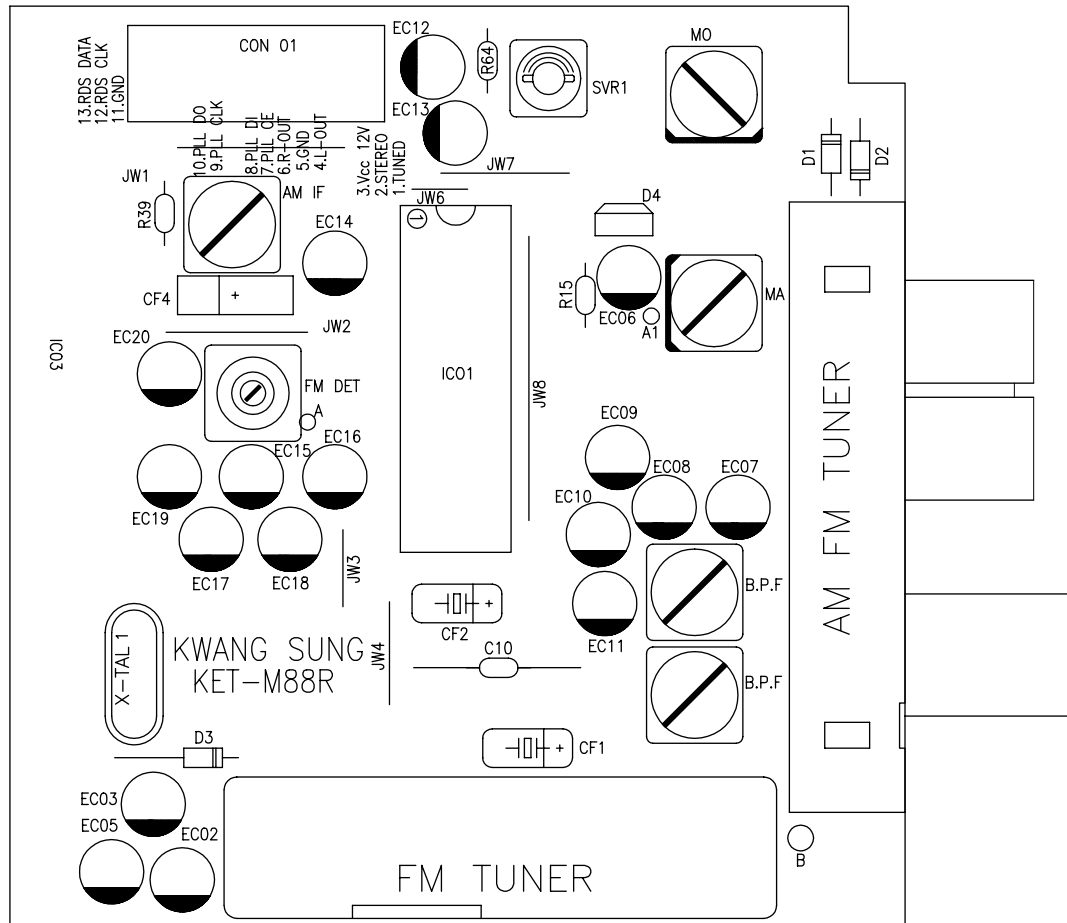
Color codes are shown below.

- 1 ..... Brown
- 2 ..... Red
- 3 ..... Orange
- 4 ..... Yellow
- 5 ..... Green
- 6 ..... Blue
- 7 ..... Violet
- 8 ..... Gray
- 9 ..... White
- 0 ..... Black



# Adjustment method

## 1. Tuner



\* Adjustment Location of Tuner PCB

ITEAM	AM(MW) OSC Adjustment	AM(MW) RF Adjustment
Received FREQ.	522~1611 KHz	594 KHz
Adjustment point	MO	MA
Output	1~7.0 ± 0.5V	Maximum Output(Fig1-4)

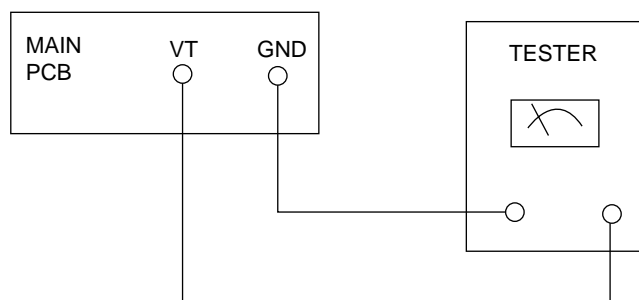


Fig 1-4 OSC Voltage

FM THD Adjustment	
SSG FREQ.	98 MHz
Adjustment point (FM DET)	FM DETECTOR COIL
Output	60 dB
Minimum Distortion (0.4% below) (Figure 1-1)	

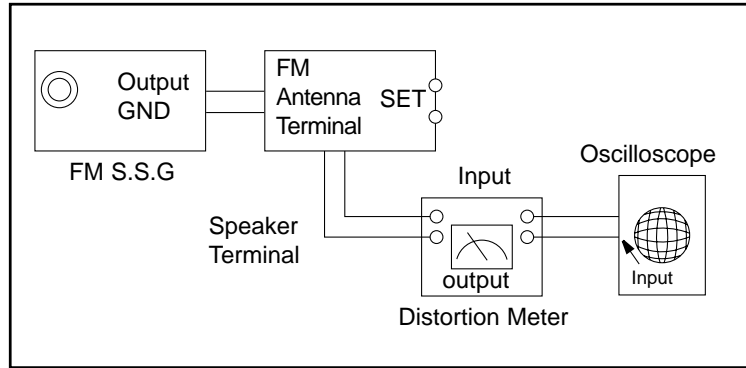


Figure1-1 IF CENTER and THD Adjustment

FM Search Level Adjustment	
SSG FREQ.	98 MHz
Adjustment point (SVR1)	BEACON SENSITIVITY SEMI-VR(20KΩ)
Output	28 dB( ± 2dB)
Adjust SVR1 so that "TUNED" of FL T is lighted (Figure 1-2)	

\*Adjust FM S.S.G level to 28dB

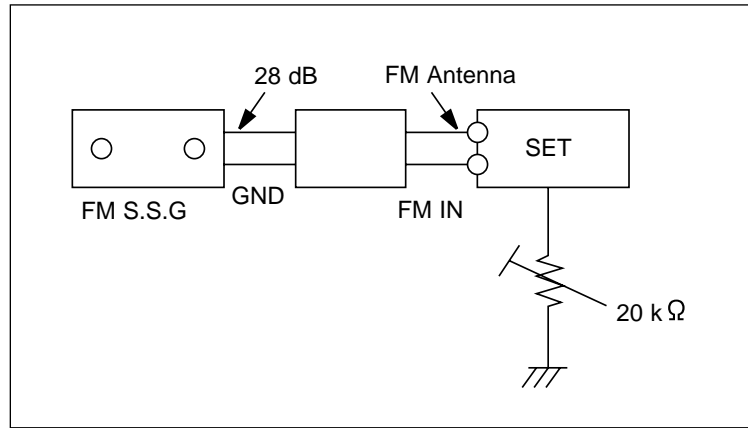


Figure1-2 FM Auto Search Level Adjustment

AM(MW) I.F Adjustment	
SSG FREQ.	450 kHz
Frequency	522 kHz
Adjustment point	AM IF
Maximum output (Figure 1-3)	

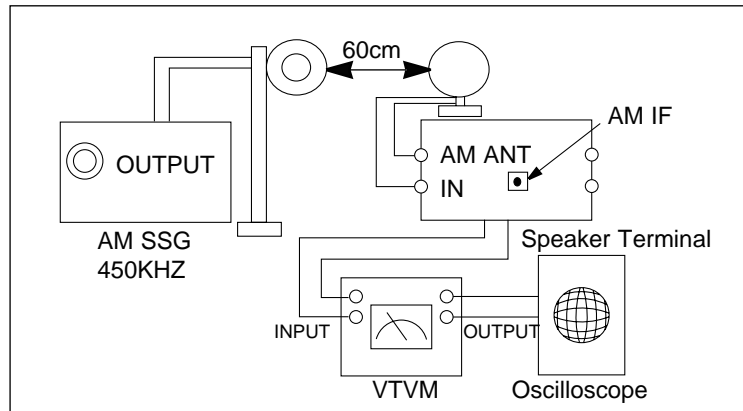


Figure1-3 AM I.F Adjustment

## 2 Cassette Deck

### To adjust tape speed

Notes

- 1) Measuring tape: i) VT-712(or equivalent)  
(Tapes recorded with 3kHz)  
ii) AC-225(or equivalent)
- 2) Connect the cassette deck to the frequency counter as in figure 1-5.

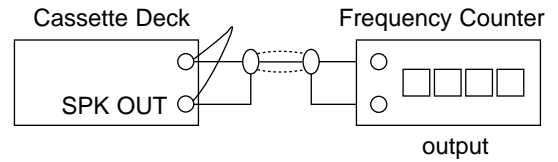


Figure 1-5

Step	Item	Pre-Setup Condition	Pre-Setup	To Adjust	Standard	Remark
1	NOR SPEED Control	OUT (connected to the frequency counter)	1) Deck A:VT-712 2) Press PLAY SW button 3) Deck B:Same as above	Turn VSR1 to left and right (FRONT PCB)	3KHz	$\pm 1\%$ range

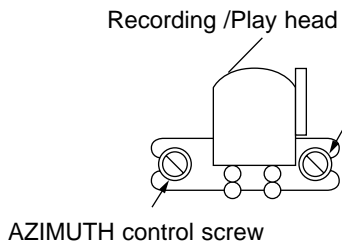


Figure 1-6

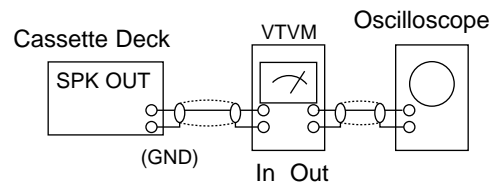


Figure 1-7

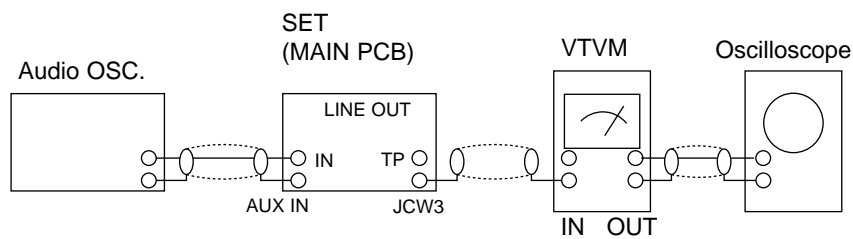


Figure 1-8

## To adjust playback level/REC

### Notes

- 1) Before the actual adjustment, clean the play/recording head.
- 2) Measuring tape :
  - i) VT-703(or equivalent 10kHz AZIMUTH control)
  - ii) AC-225(or equivalent)
- 3) The cassette deck is connections as shown in figure 1-7.

### 1. Adjust Deck A Play Level

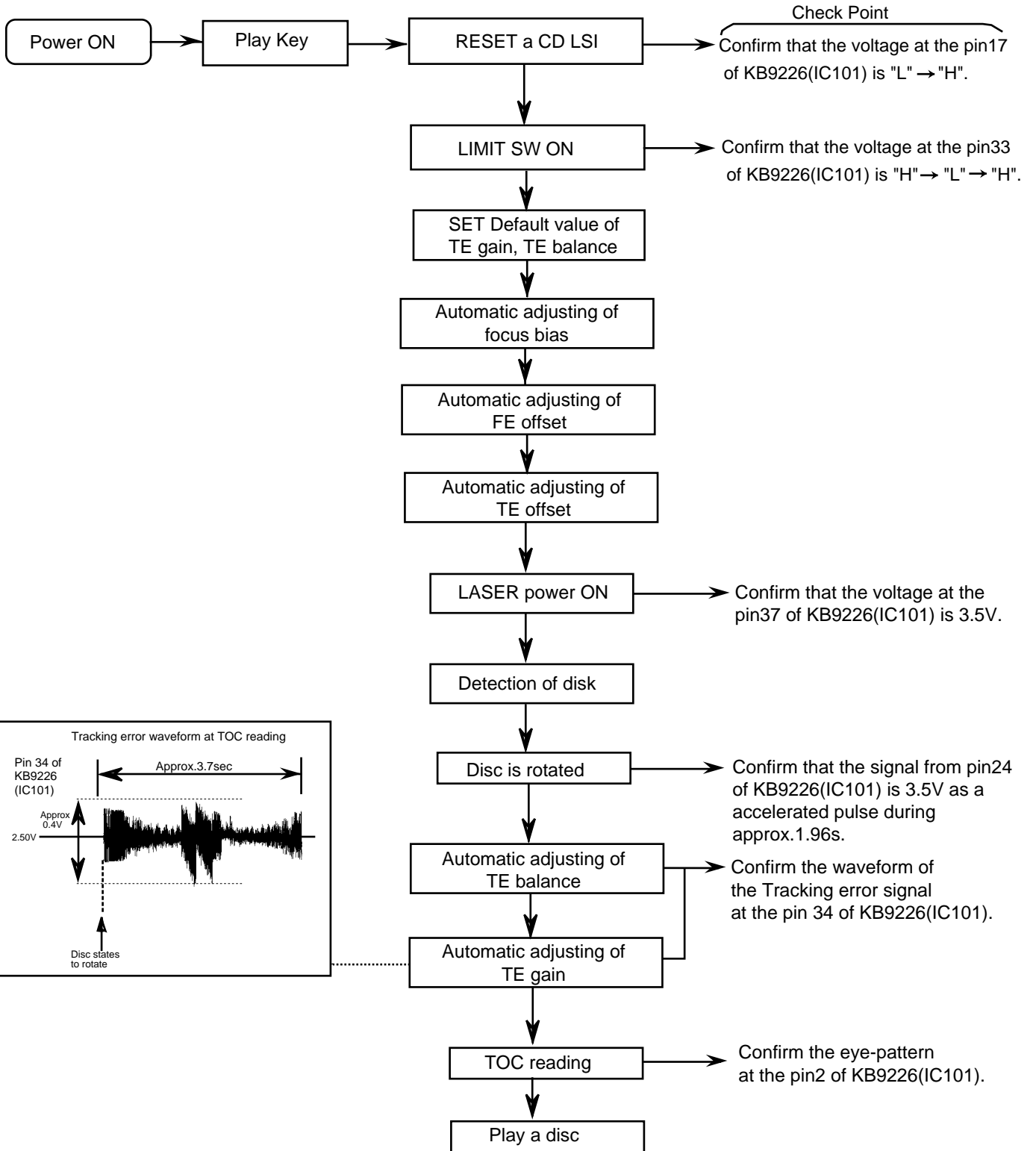
Step	Item	Pre-Setup Condition	Pre-Setup	To Adjust	Standard	Remark
1	AZIMUTH	SPK OUT (VTVM is connected to the scope)	After putting VT-703 into Deck A - Press FWD PLAY button.	- Turn the control screw to as shown in Figure 1-6.	Max output and same phase (both channels)	After adjustment secure it with REGION LOCK.

### 2. Adjust Deck B Play Level/REC BIAS

Step	Item	Pre-Setup Condition	Pre-Setup	To Adjust	Standard	Remark
1	AZIMUTH	SPK OUT (VTVM is connected to the scope)	After putting VT-703 into Deck B 1) Press FWD PLAY button.	- Turn the control screw to as shown in Figure 1-6.	Max output and same phase (both channels)	After adjustment secure it with REGION LOCK.
2	Recording Bias Voltage	Fig 1-8	After putting AC-225 into Deck B 1) Press REC PLAY button. 2) MAIN PCB JCW3, connected to VTVM	Turn JSR2L, JSR2R to the right and left	7mV( $\pm$ 0.5mV)	



# Flow of functional operation until TOC read



## Maintenance of laser pickup

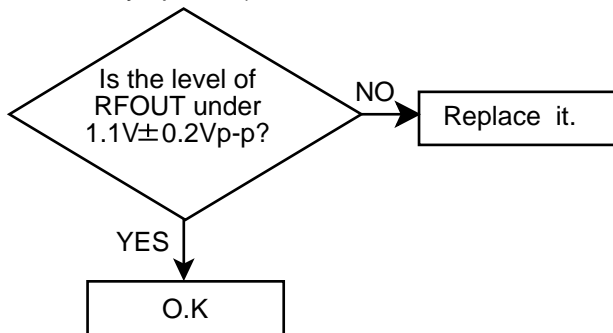
### (1) Cleaning the pick up lens

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.



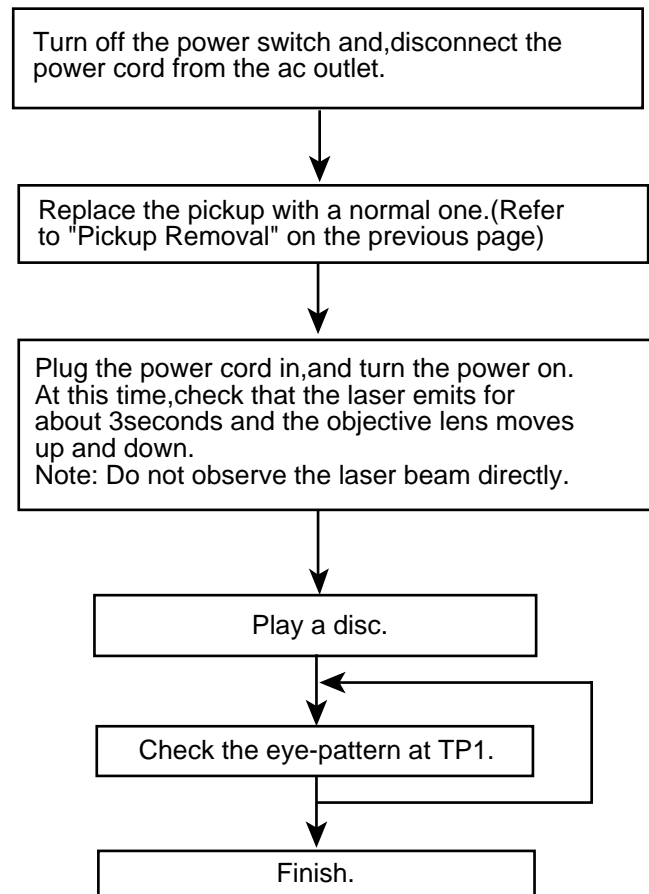
### (3) Semi-fixed resistor on the APC PC board

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 is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

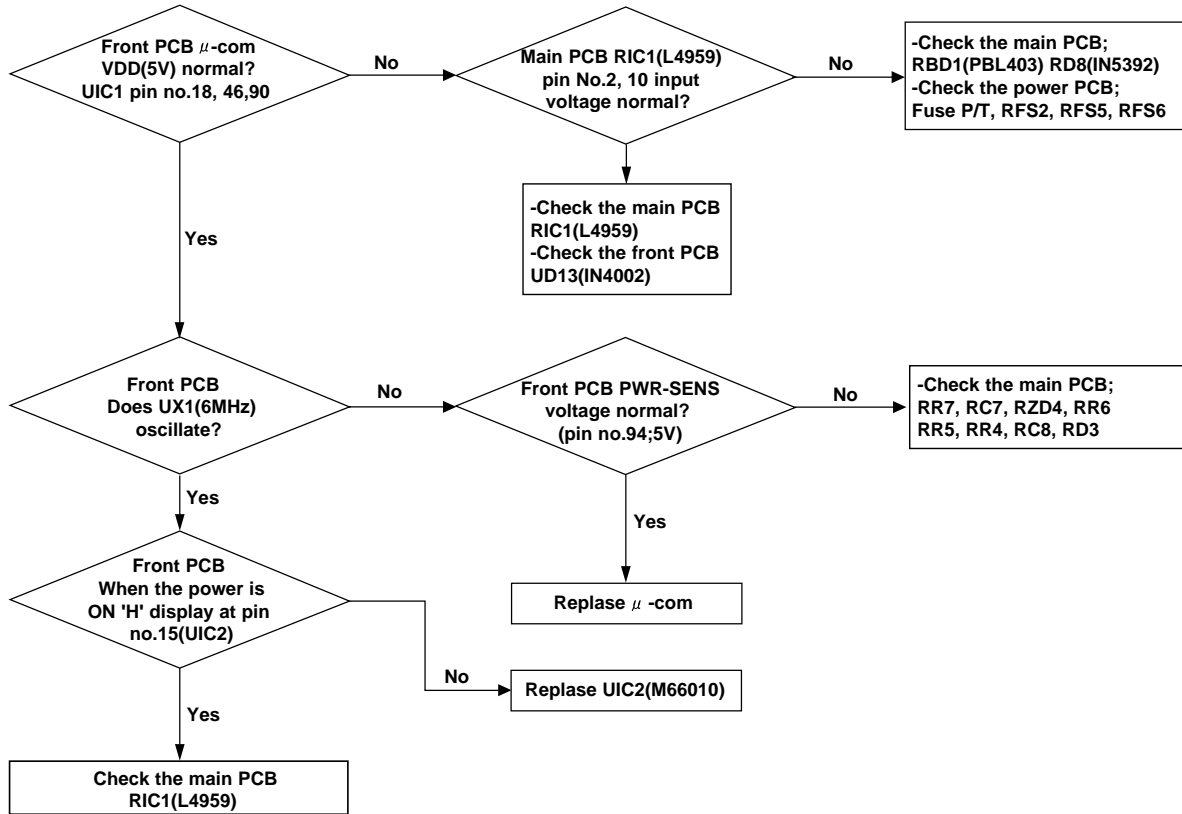
## Replacement of laser pickup



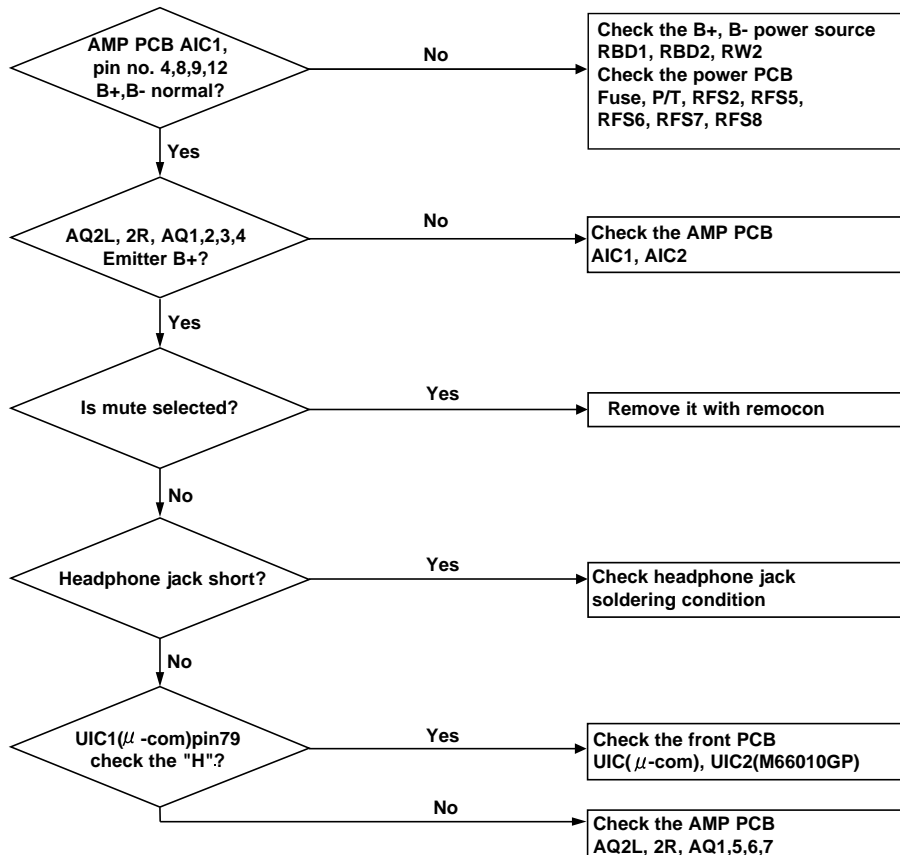
# Troubleshooting

## 1. Amplifier

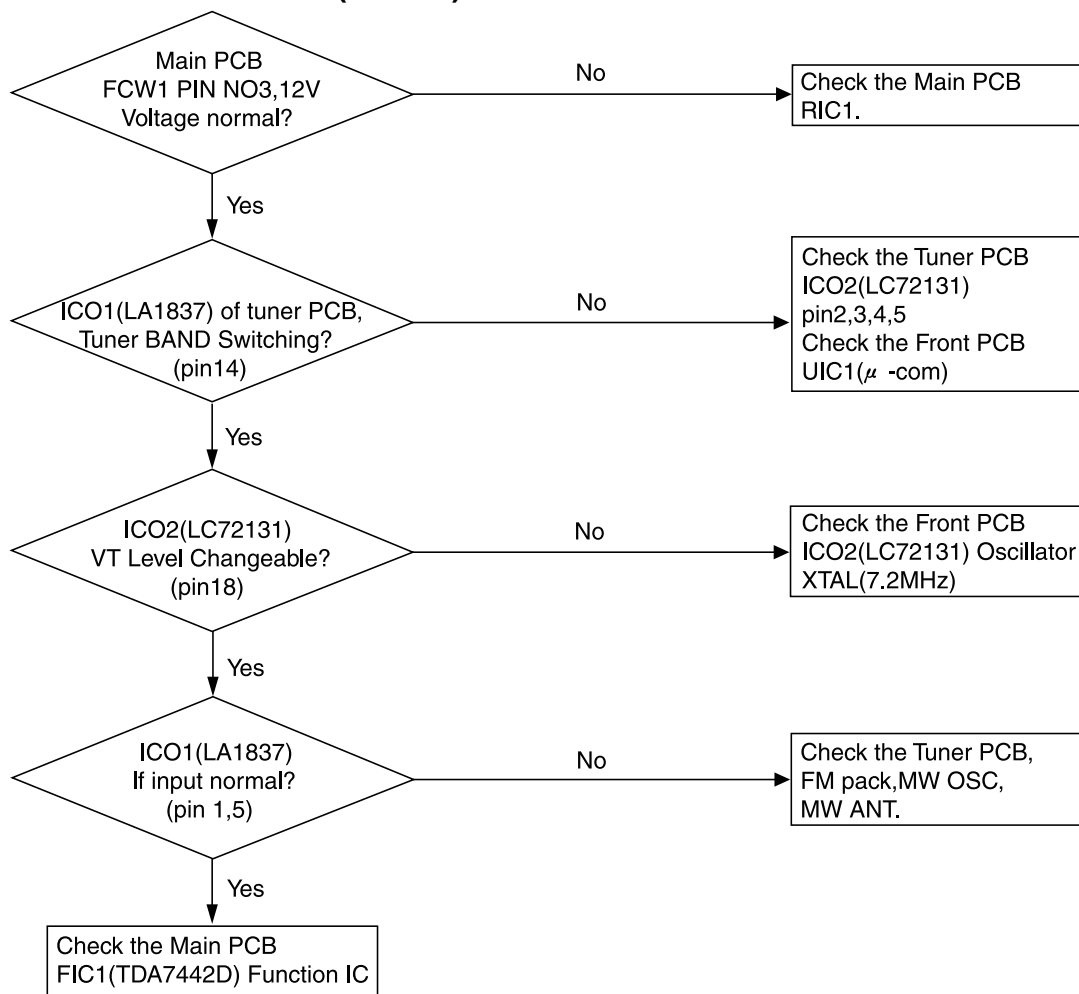
### Power malfunction



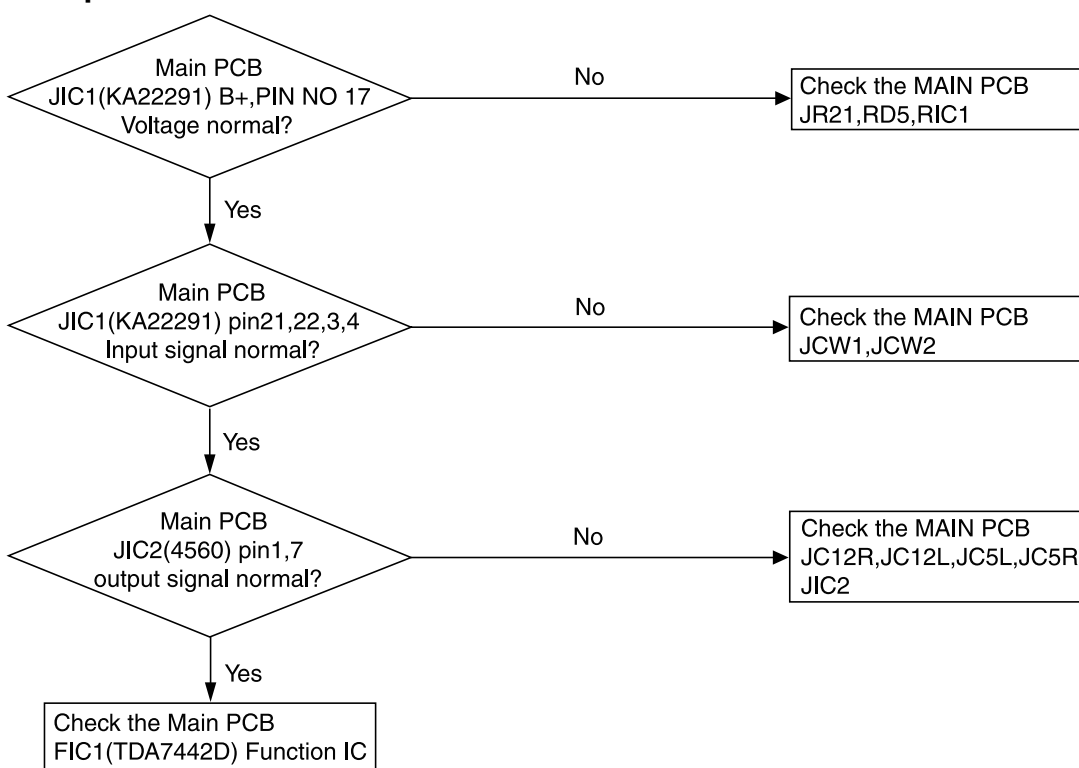
### No output



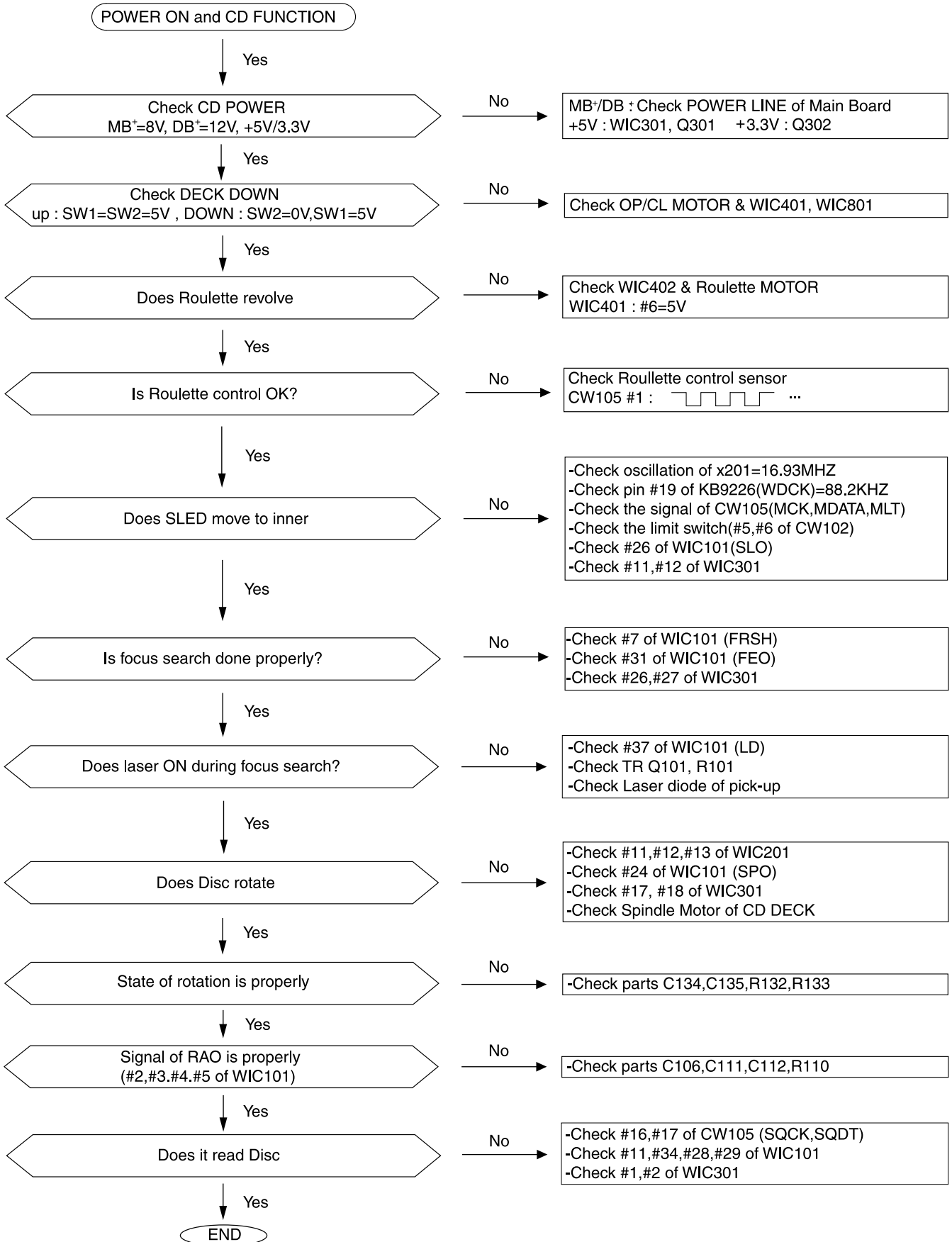
## 2. Tuner malfunction (FM/AM)



## 3. Tape malfunction



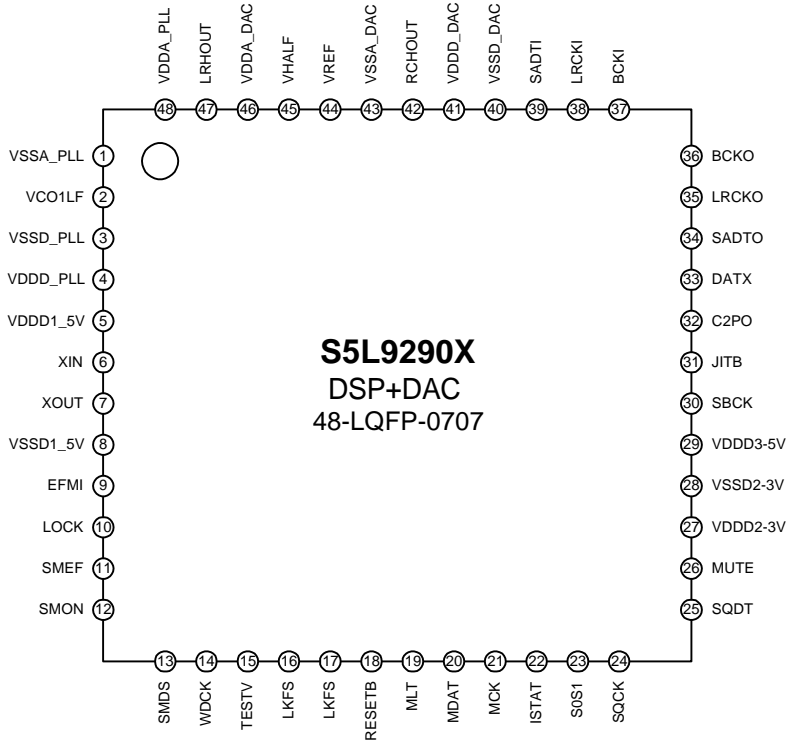
4.CD



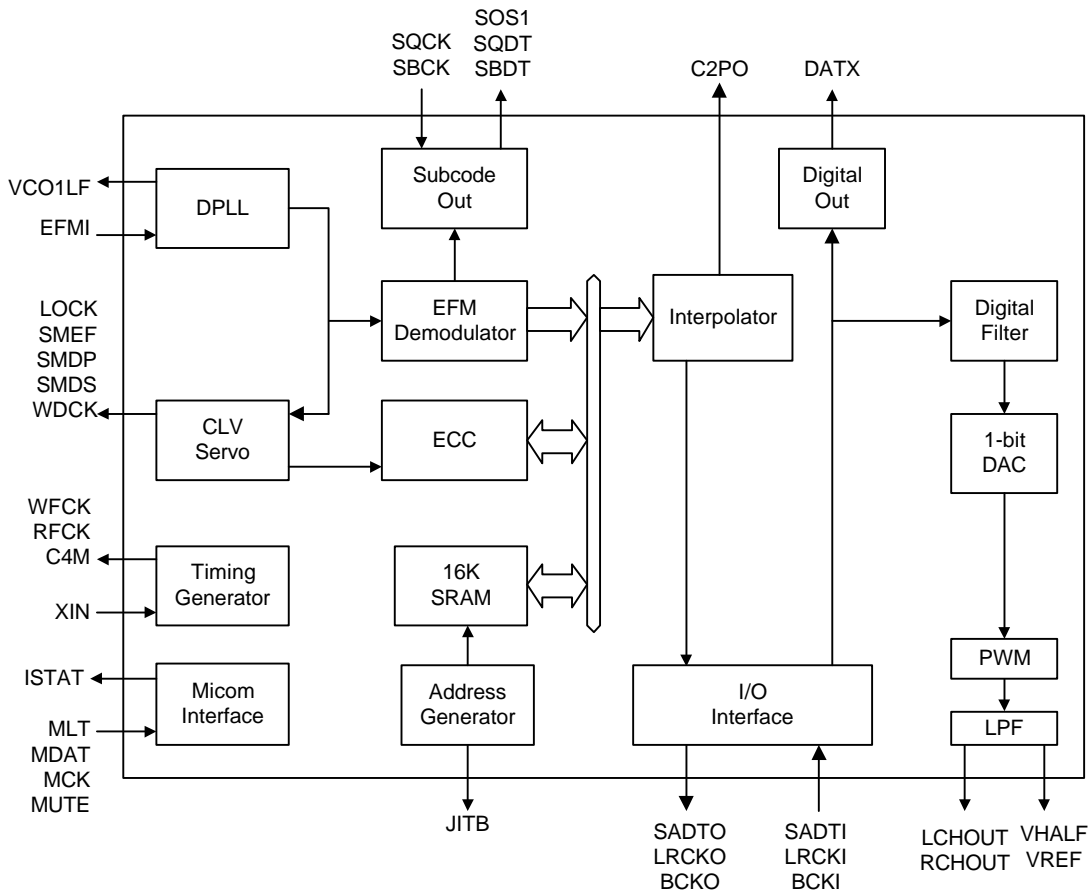
# Description of major ICs

## ■ 5L9290 (IC201) : Digital signal processor for CDP

### 1. Pin layout



### 2. Block diagram



## 3. Pin function

(1/2)

NO.	NAME	I/O	Pin Description
1	VSSA_PLL	-	Analog Ground for DPLL
2	VCO1LF	O	Pump out for VCO1
3	VSSD_PLL	-	Digital Ground Separated Bulk Bias for DPLL
4	VDDD_PLL	-	Digital Power Separated Bulk Bias for DPLL (3V Power)
5	VDDD1-5V	-	Digital Power (5V Power, I/O PAD)
6	XIN	I	X'tal oscillator input (16.9344MHz)
7	XOUT	O	X'tal oscillator output
8	VSSD1	-	Digital Ground (I/O PAD)
9	EFMI	I	EFM signal input
10	LOCK	O	CLV Servo locking status output
11	SMEF	O	LPF time constant control of the spindle servo error signal
12	SMDP	O	Phase control output for Spindle Motor drive
13	SMDS	O	Speed control output for Spindle Motor drive
14	WDCK	O	Word clock output (Normal Speed : 88.2KHz, Double Speed : 176.4KHz)
15	TESTV	I	Various Data/Clock Input
16	LKFS	O	The Lock status output of frame sync
17	C4M	O	4.2336MHz clock output
18	RESETB	I	System Reset at 'L'
19	MLT	I	Latch signal input from Micom
20	MDAT	I	Serial data input from Micom
21	MCK	I	Serial data receiving clock input from Micom
22	ISTAT	O	The internal status output to Micom
23	S0S1	O	Subcode sync signal(S0+S1) output
24	SQCK	I	Subcode-Q data transferring bit clock input

## 3. Pin function

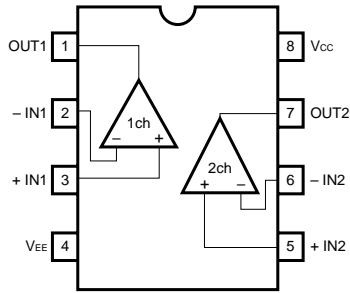
(2/2)

NO.	NAME	I/O	Function Description
25	SQDT	O	Subcode-Q data serial output
26	MUTE	I	System mute at 'H'
27	VDDD2-3V	-	Digital Power (3V Power, Internal Logic)
28	VSSD2	-	Digital Ground (Internal Logic)
28	VDDD3-5V	-	Digital Power (5V Power, I/O PAD)
30	SBCK	I	Subcode data transferring bit clock
31	JITB	O	Internal SRAM jitter margin status output
32	C2PO	O	C2 pointer output
33	DATX	O	Digital audio data output
34	SADTO	O	Serial audio data output (48 slot, MSB first)
35	LRCKO	O	Channel clock output
36	BCKO	O	Bit clock output
37	BCKI	I	Bit clock input
38	LRCKI	I	Channel clock input
39	SADTI	I	Serial audio data input (48 slot, MSB first)
40	VSSD_DAC	-	Digital Ground for DAC
41	VDDD_DAC	-	Digital Power for DAC (3V Power)
42	RCHOUT	O	Right-Channel audio output through DAC
43	VSSA_DAC	-	Analog Ground for DAC
44	VREF	O	Reference Voltage output for bypass
45	VHALF	O	Reference Voltage output for bypass
46	VDDA_DAC	-	Analog Power for DAC (3V Power)
47	LCHOUT	O	Left-Channel audio output through DAC
48	VDDA_PLL	-	Analog Power for PLL (3V Power)

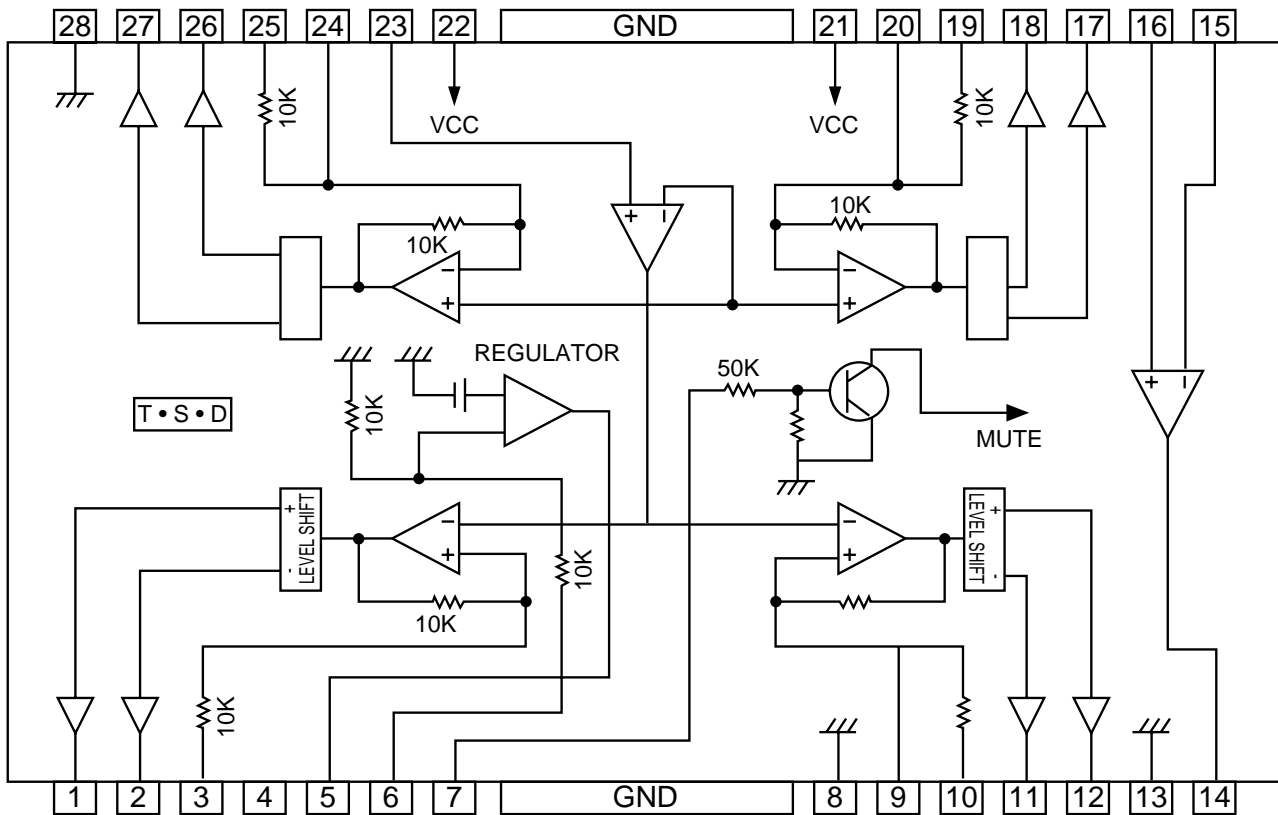


■ BA4560 (AIC3, AIC4, AIC5, AIC6, AIC7, FIC4, JIC2, UIC3) : Op amp.

1.Pin layout

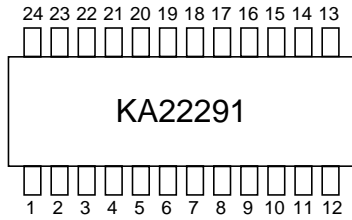


■ KA9258D (IC301) : 4-ch Motor driver

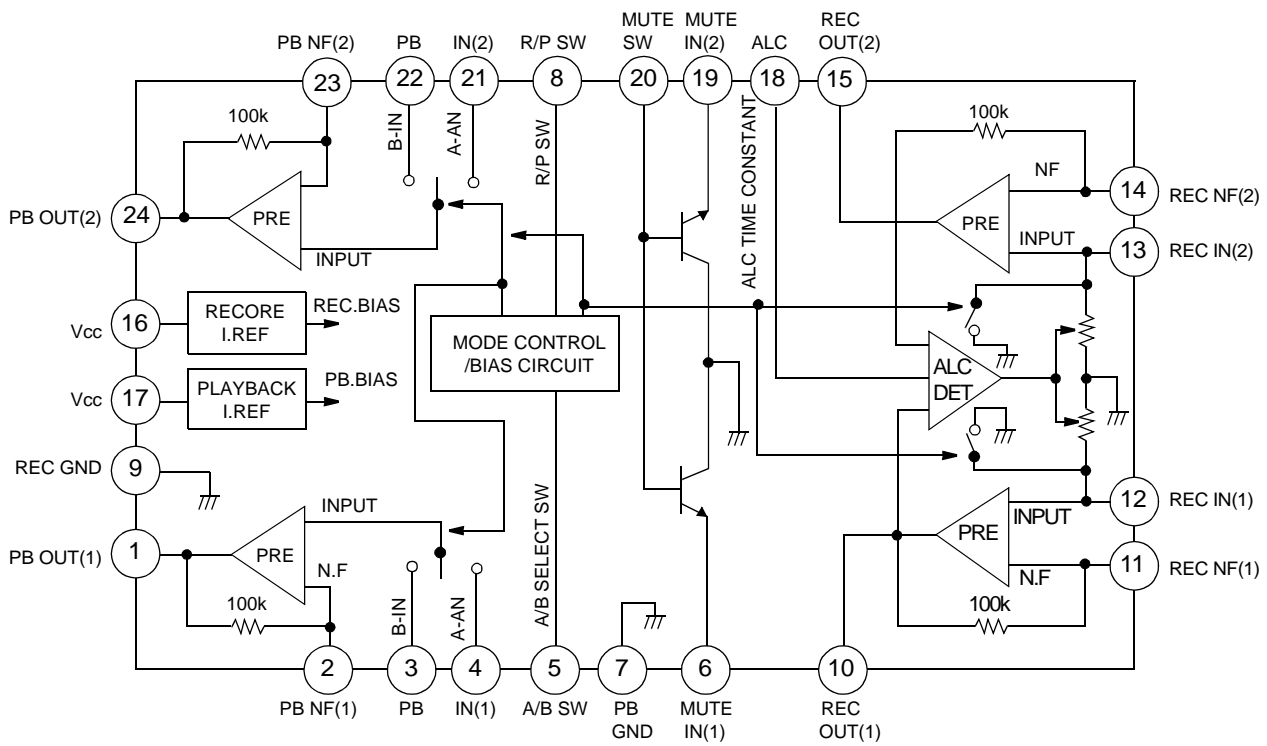


■ KA22291(JIC1) : PB/REC pre amp.

1.Pin layout

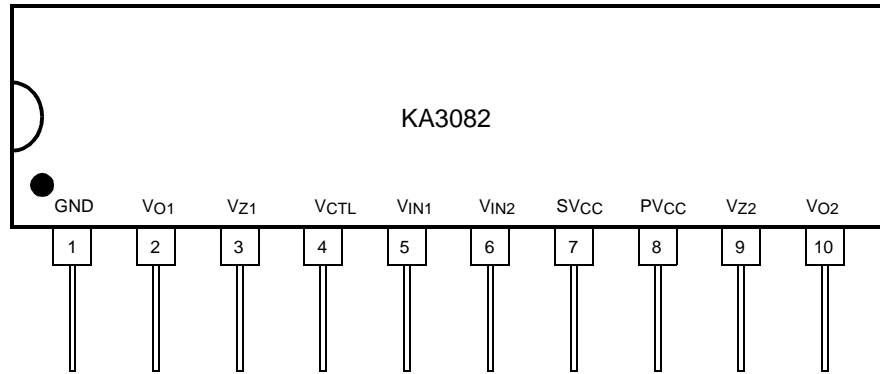


2.Block diagram



■ KA3082 (IC401, IC402) : Bi-directional DC motor driver

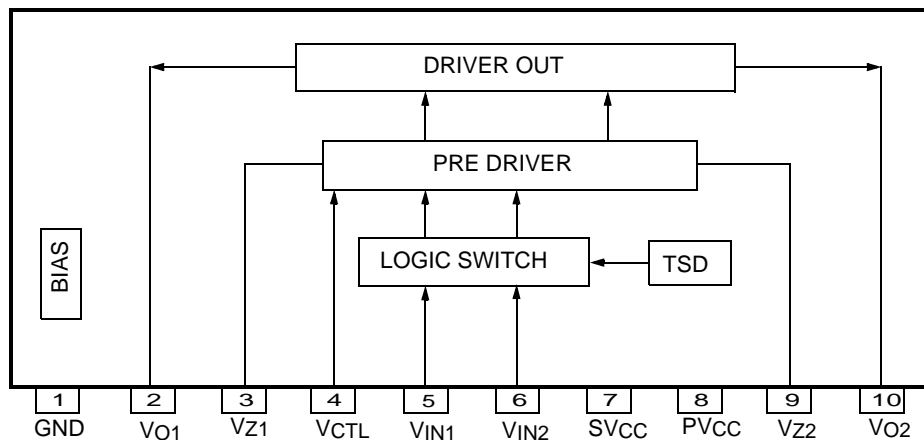
1.Pin layout



2.Pin function

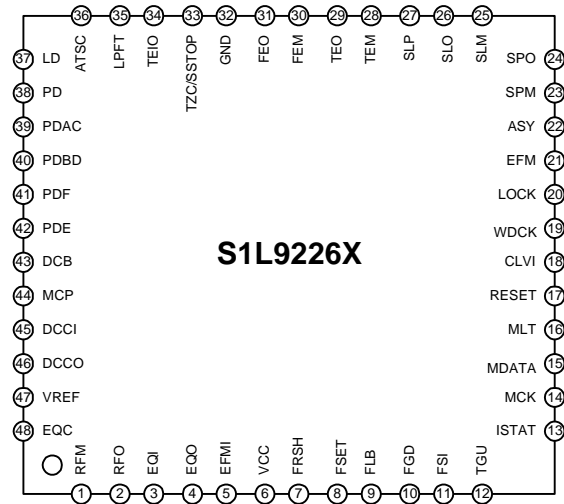
Pin Number	Pin Name	I/O	Pin Function Description
1	GND	-	Ground
2	VO1	O	Output 1
3	VZ1	-	Phase compensation
4	VCTL	I	Motor speed control
5	VIN1	I	Input 1
6	VIN2	I	Input 2
7	SVCC	-	Supply voltage (Signal)
8	PVCC	-	Supply voltage (Power)
9	VZ2	-	Phase compensation
10	VO2	O	Output 2

3.Block Diagram

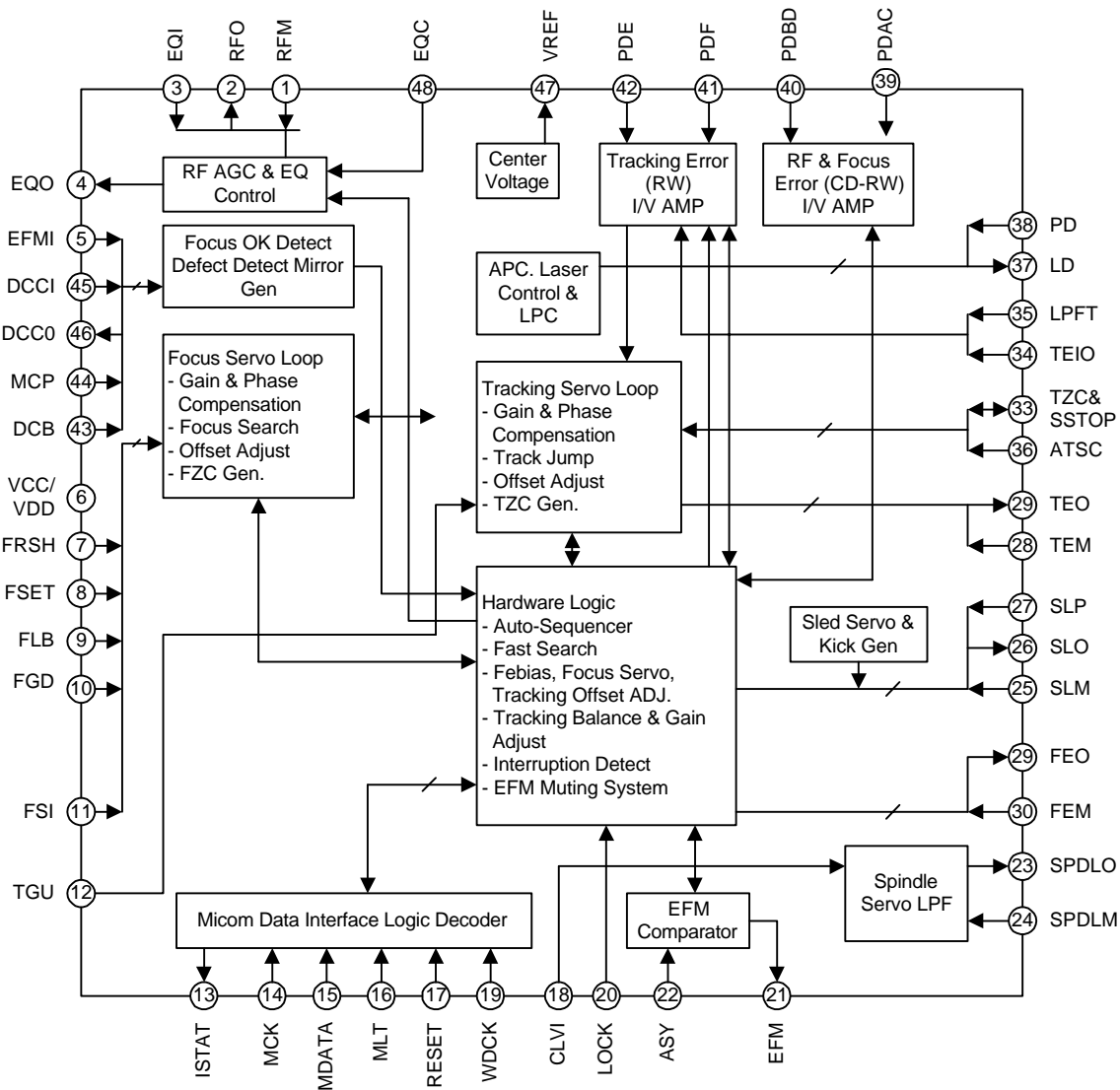


■ KB9226 (IC101) : RF amp & Servo signal processor

1. Pin layout



2. Block diagram



## 3. Pin function

(1/2)

Pin No.	Symbol	I/O	Description
1	RFM	I	RF summing amp. inverting input
2	RFO	O	RF summing amp. output
3	EQI	I	RFO DC eliminating input(use by MIRROR, FOK ,AGC & EQ terminal)
4	EQO	O	RF equalizer output
5	EFMI	I	EFM slice input. (input impedance 47K)
6	VCC	P	Main power supply
7	FRSH	I	Capcitor connection to focus search
8	FSET	I	Filter bias for focus,tracking,spindle
9	FLB	I	Capacitor connection to make focus loop rising band
10	FGD	I	Terminal to change the high frequency gain of focus loop
11	FSI	I	Focus servo input
12	TGU	I	Connect the component to change the high frequency of tracking Loop
13	ISTAT	O	Internal status output
14	MCK	I	Micom clock
15	MDATA	I	Data input
16	MLT	I	Data latch input
17	RESET	I	Reset input
18	CLVI	I	Input the spindle control output from DSP
19	WDCK	I	88.2KHz input terminal from DSP
20	LOCK	I	Sled run away inhibit pin (L: sled off & tracking gain up)
21	EFM	O	EFM output for RFO slice(to DSP)
22	ASY	I	Auto asymmetry control input
23	SPM	I	Spindle amp. inverting input
24	SPO	O	Spindle amp. output
25	SLM	I	Sled servo inverting input
26	SLO	O	Sled servo output
27	SLP	I	Sled servo noninverting input
28	TEM	I	Tracking servo amp.inverting input
29	TEO	O	Tracking servo amp. output
30	FEM	I	Focus servo amp. inverting input
31	FEO	O	Focus servo amp. output pin

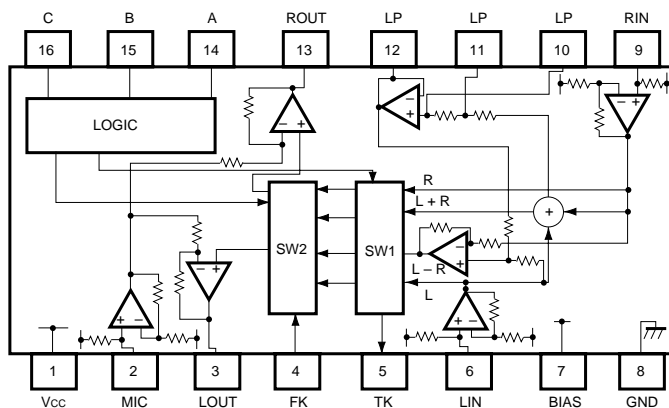
3. Pin function

(2/2)

Pin No.	Symbol	I/O	Description
32	GND	P	Main ground
33	TZC/ SSTOP	I	Tracking zero crossing input & Check the position of pick-up whether inside or not
34	TEIO	B	Tracking error output & Tracking servo input
35	LPFT	I	Tracking error integration input (to automatic control)
36	ATSC	I	Anti-shock input
37	LD	O	APC amp. output
38	PD	I	APC amp. input
39	PDAC	I	Photo diode A & C RF I/V amp. inverting input
40	PDBD	I	Photo diode B & D RF I/V amp. inverting input
41	PDF	I	Photo diode F & tracking(F) I/V amp. inverting input
42	PDE	I	Photo diode E & tracking(E) I/V amp. inverting input
43	DCB	I	Capacitor connection to limit the defect detection
44	MCP	I	Capacitor connection to mirror hold
45	DCCI	O	Output pin to connect the component for defect detect
46	DCCO	I	Input pin to connect the component for defect detect
47	VREF	O	(VCC+GND)/2 Voltage reference output
48	EQC	I	AGC_equalize level control terminal & capacitor terminal to input in to VCA

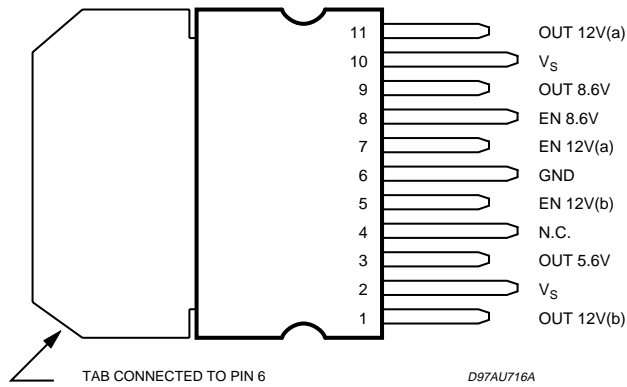
■ BA3837 (IC301) : Mic mixer

1. Block diagram

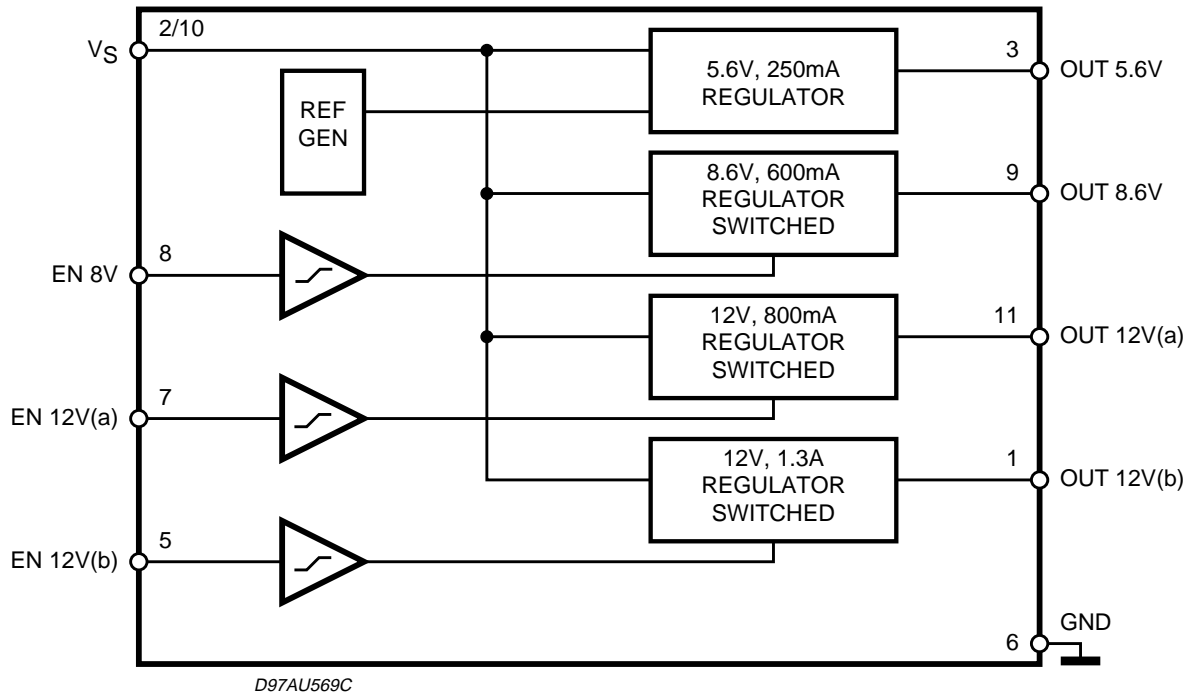


## ■ L4959 (RIC1) : Voltage regulator

### 1.Pin layout



### 2.Block diagram



### 3.Pin function

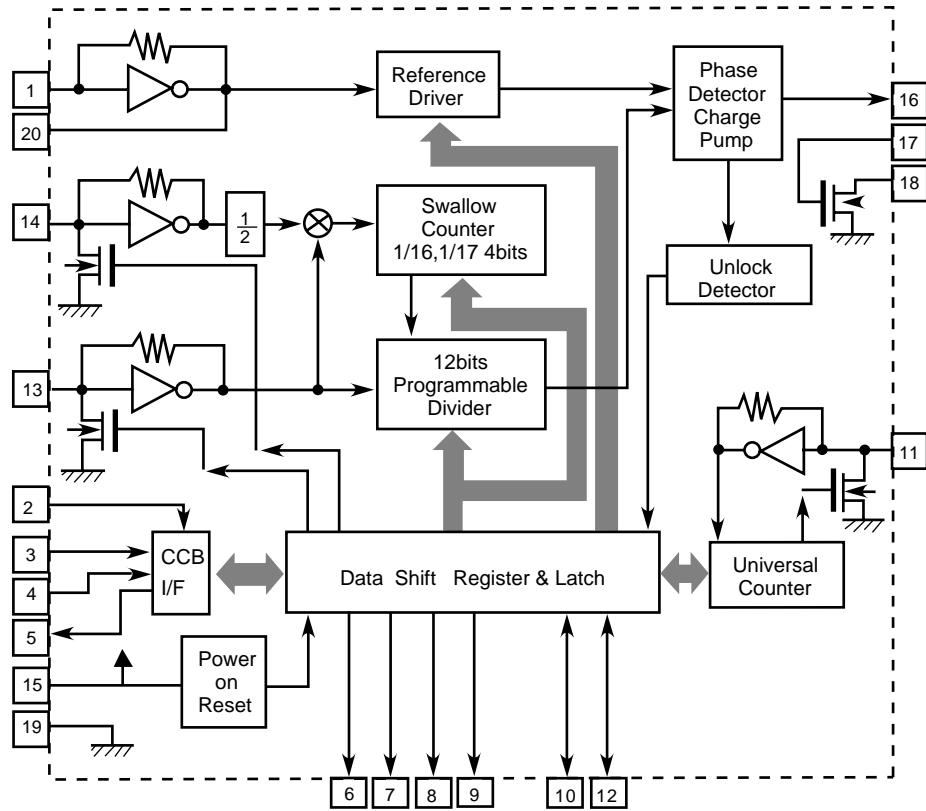
Pin	Pins	Description
1	OUT 12V (b)	12V/1.3A SWITCHED OUTPUT VOLTAGE
2	$V_S$	Supply Voltage
3	OUT 5.6V	5.6V/250mA OUTPUT VOLTAGE
4	N.C.	not connected
5	EN 12V (b)	Enable 12V/1.3A SWITCHED OUTPUT VOLTAGE
6	GND	Ground
7	EN 12V (a)	Enable 12V/0.8A SWITCHED OUTPUT VOLTAGE
8	EN 8.6V	Enable 8.6V/0.6A SWITCHED OUTPUT VOLTAGE
9	OUT 8.6	8.6V/0.6A SWITCHED OUTPUT VOLTAGE
10	$V_S$	Supply Voltage
11	OUT 12V (a)	12V/0.8A SWITCHED OUTPUT VOLTAGE

## LC72131M(IC02): PLL frequency synthesizer for electron alignment

### 1. Pin layout

XIN	1	20	XOUT
CE	2	19	VSS
DI	3	18	AOUT
CL	4	17	AIN
DO	5	16	PD
BO1	6	15	VDD
BO2	7	14	FMIN
BO3	8	13	AMIN
BO4	9	12	102
I01	10	11	IFIN

### 2. Block diagram



### 3. Pin Functions

(1/2)

Symbol	Pin No.	Type	Functions	Circuit configuration
XIN XOUT	1 20	Xtal OSC	<ul style="list-style-type: none"> <li>Crystal resonator connection (4.5MHz/7.2MHz)</li> </ul>	
FMIN	14	Local oscillator signal input	<ul style="list-style-type: none"> <li>Serial data input : FMIN is selected when DVS is set to 1.</li> <li>The input frequency range is from 10 to 160MHz.</li> <li>The signal is passed through a built-in divide-by-two prescaler and then supplied to the swallow counter.</li> <li>A1 though the range of divisor setting is from 272 to 65, 535, the actual divisor is twice the setting since there is also a built-in divide-by-two prescaler.</li> </ul>	
AMIN	13	Local oscillator signal input	<ul style="list-style-type: none"> <li>Serial data input : AMIN is selected when DVS is set to 0.</li> <li>Serial data input : When SNS is set to 1 :                             <ul style="list-style-type: none"> <li>The input frequency range is form 2 to 40MHz</li> <li>The signal is supplied directly to the swallow counter.</li> <li>The range of divisor setting is from 272 to 65, 535 and the actual divisor will be the value set.</li> </ul> </li> <li>Serial data input : When SNS is set to 0 :                             <ul style="list-style-type: none"> <li>The input frequency ranges is from 0.5 to 10MHz.</li> <li>The signal is supplied directly to a 12-bit programmable divider.</li> <li>The range of divisor setting is from 4 to 4,095 and the actual divisor will be the value set.</li> </ul> </li> </ul>	
CE	2	Chip enable	<ul style="list-style-type: none"> <li>Most be set high when serial data is input to the LC72131M (DI), or when serial data is output (DO).</li> </ul>	



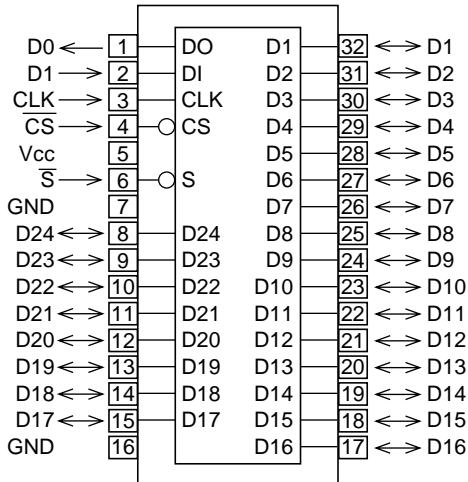
## 3.Pin Functions

(2/2)

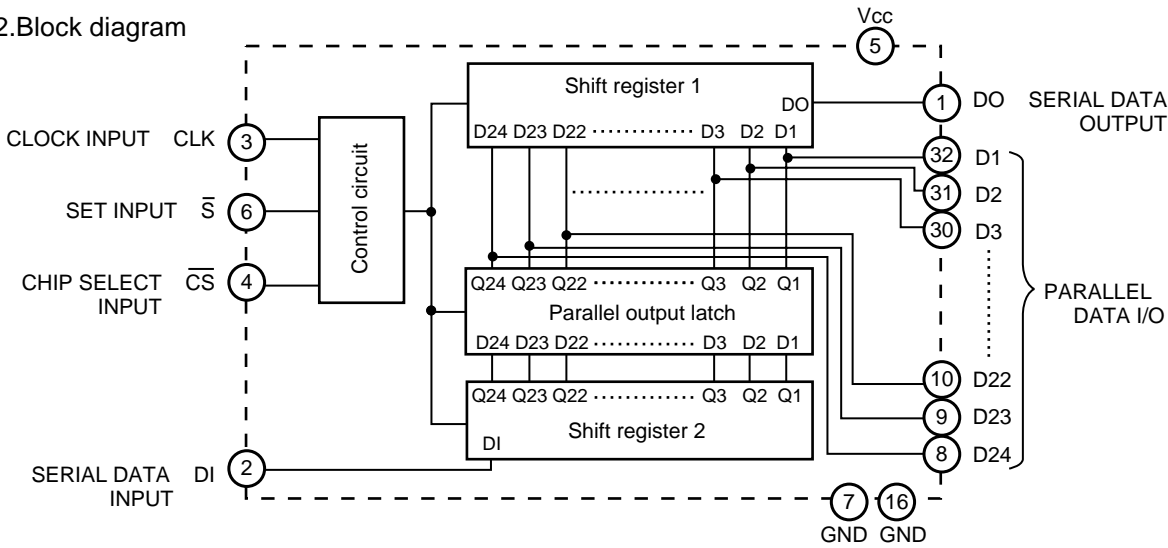
Symbol	Pin No.	Type	Functions	Circuit configuration
CL	4	Clock	<ul style="list-style-type: none"> <li>Used as the synchronization clock when serial data is input to the LC72131 (DI ), or when serial data is output (DO).</li> </ul>	
DI	3	Input data	<ul style="list-style-type: none"> <li>Inputs serial data sent from the controller to the LC72131M.</li> </ul>	
DO	5	Output data	<ul style="list-style-type: none"> <li>Output serial data sent from the LC72131M to the controller. The content of the output data is determined by the serial data DOCO to DOC2.</li> </ul>	
VDD	15	Power supply	<ul style="list-style-type: none"> <li>The LC72131M power supply (VDD=4.5 to 5/5V)</li> <li>The power on reset circuit operates when power is first applied.</li> </ul>	
VSS	19	Ground	<ul style="list-style-type: none"> <li>The LC72131M ground.</li> </ul>	
$\overline{\text{BO1}}$ $\overline{\text{BO2}}$ $\overline{\text{BO3}}$ $\overline{\text{BO4}}$	6 7 8 9	Output port	<ul style="list-style-type: none"> <li>Dedicated output pins</li> <li>The output states are determined by BO1 to BO4 in the serial data. 'Data'=0:Open =1:Low</li> <li>The pins go to the open state after the power-on reset.</li> <li>An 8Hz time base signal can be output from BO1 when TBC in the serial data is set to 1.</li> <li>Note that the ON impedance of the <math>\overline{\text{BO1}}</math> pin is higher than that of the other pins (BO2 to BO4)</li> </ul>	
$\overline{\text{IO1}}$ $\overline{\text{IO2}}$	10 12	I/O Port	<ul style="list-style-type: none"> <li>Pins used for both input and output</li> <li>The input or output state is determined by bits IOC1 and IOC2 in the serial state. 'Data'=0:Input port =1:Output port</li> <li>When specified for use as an input port : The input state is transmitted to the controller through the DO pin. 'Input state'=Low:data value → 0 =High:data value → 1</li> <li>When specified for use as an output port : The output state is determined by bits IO1 and IO2 in the serial state. 'Data'=0:Open =1:Low</li> <li>These pins go to the input port state after the power-on reset.</li> </ul>	
PD	16	Charge pump output	<ul style="list-style-type: none"> <li>PLL Charge pump output</li> <li>When the frequency generated by dividing the Local oscillator frequency by N is higher than the reference frequency, a high level will be output from the PD in. similarly, when that frequency is lower, a low level will be output.</li> <li>The PD pin goes to the high impedance state when the frequencies agree.</li> </ul>	
AIN AOUT	17 18	L.P.F amplifier Tr	<ul style="list-style-type: none"> <li>The MOS transistor used for the PLL active Low-pass filter.</li> </ul>	
IFIN	11	IF counter	<ul style="list-style-type: none"> <li>The input frequency range is from 0.4 to 12MHz.</li> <li>The signal is supplied directly to the IF counter.</li> <li>The result from the IF counter MBS is output through the DO pin.</li> <li>There are four measurement periods: 4, 8, 32 or 64ms.</li> </ul>	

■ M66010 (UIC2) : I/O control

1.Pin layout

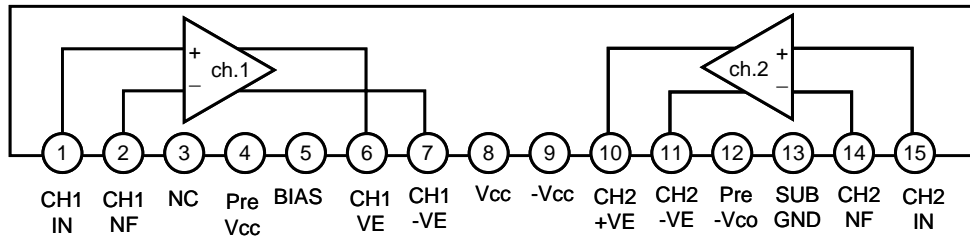
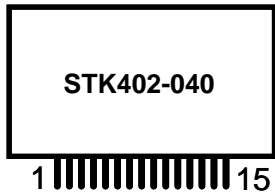


2.Block diagram



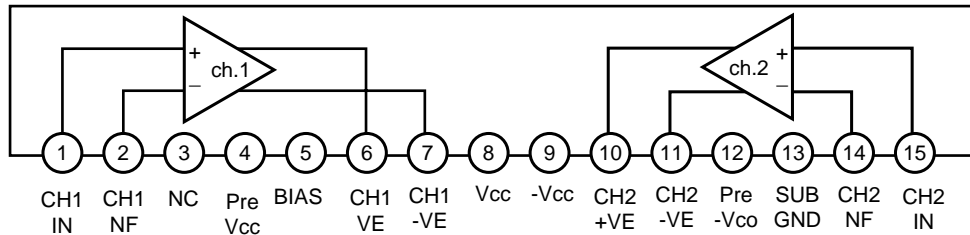
■ STK402-040 (AIC1) : 2channel AF power amp.

1.Pin layout



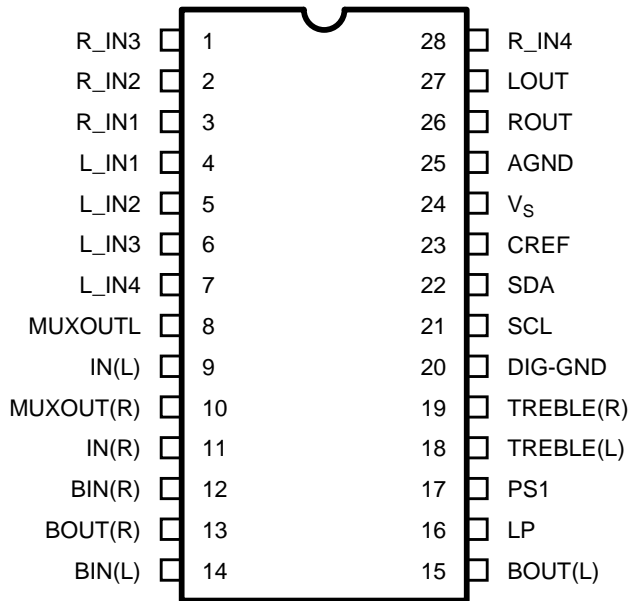
■ STK402-090 (AIC2) : 2channel AF power amp.

1.Pin layout

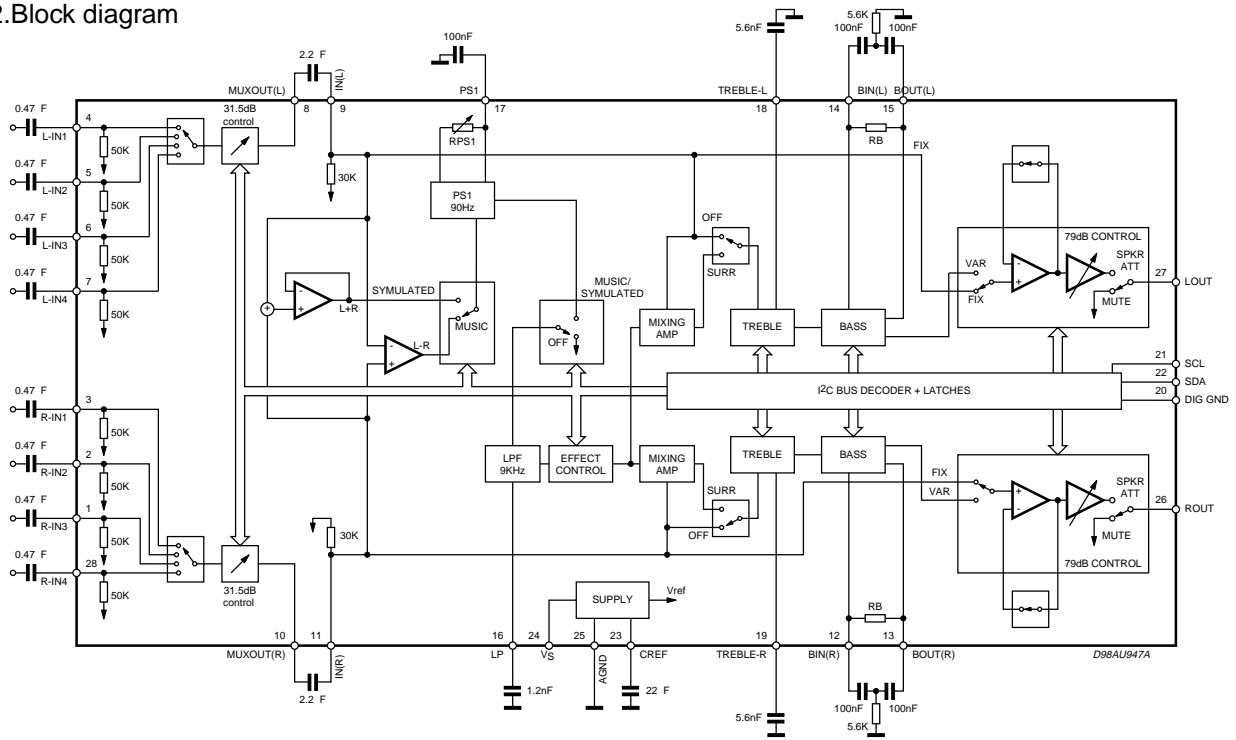


■ TDA7442D (FIC1) : Audio processor

1.Pin layout



2.Block diagram



**MX-G50**

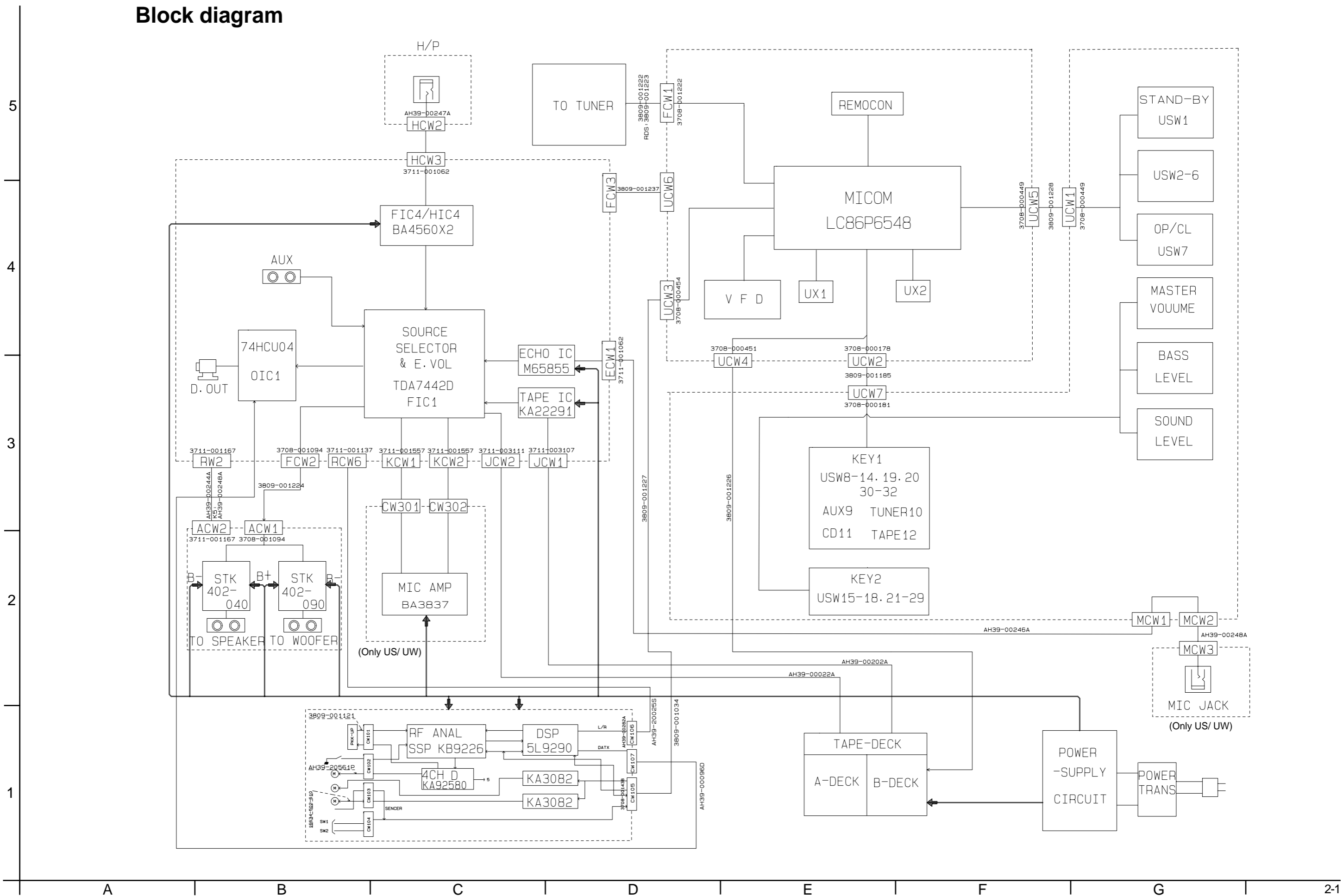
**JVC**

**VICTOR COMPANY OF JAPAN, LIMITED**

AUDIO & COMMUNICATION BUSINESS DIVISION

PERSONAL & MOBILE NETWORK BUSINESS UNIT. 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

# Block diagram



# Standard schematic diagrams

## ■ Main section

SHEET 2/5

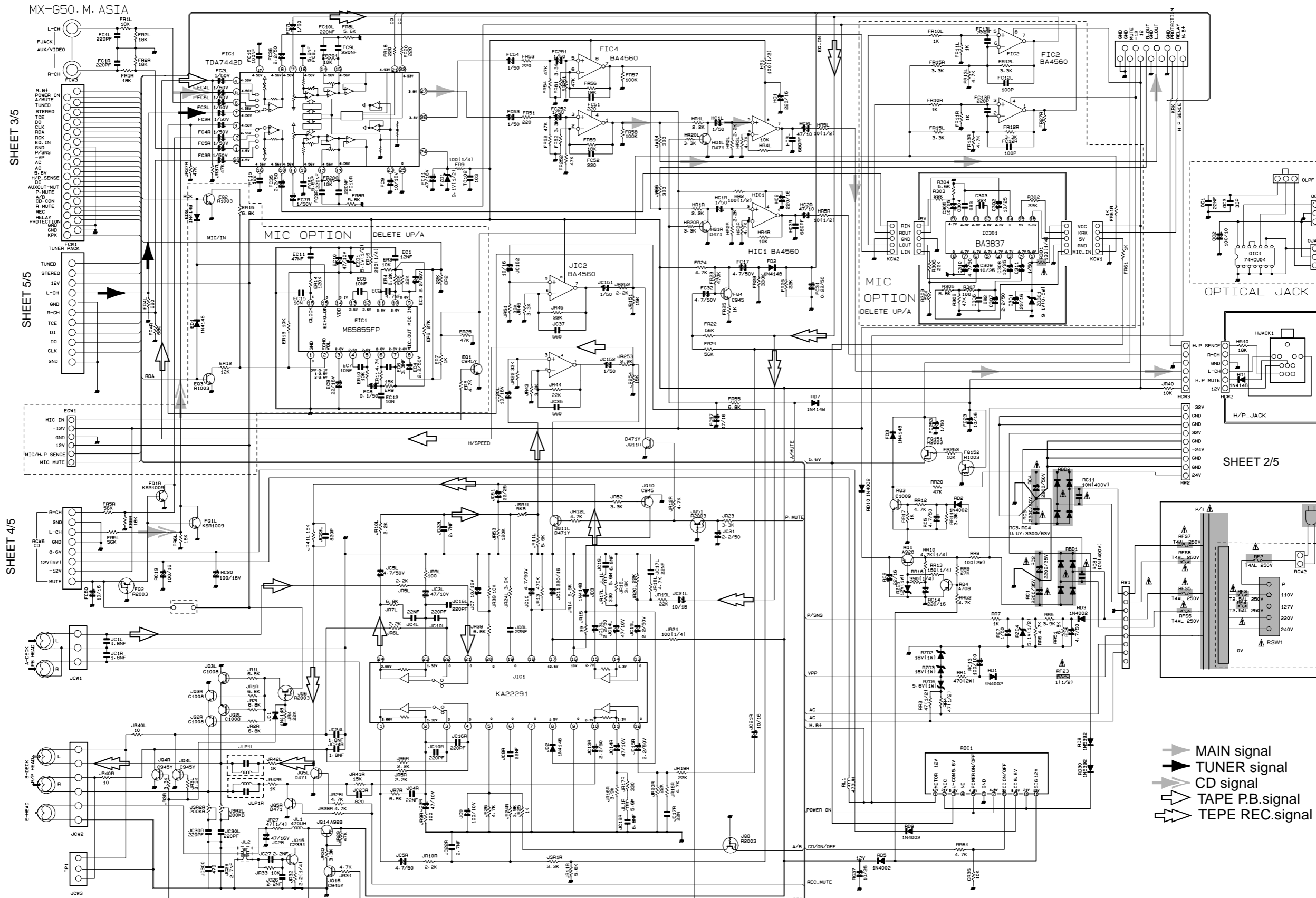
5

4

3

2

1



OPTICAL JACK

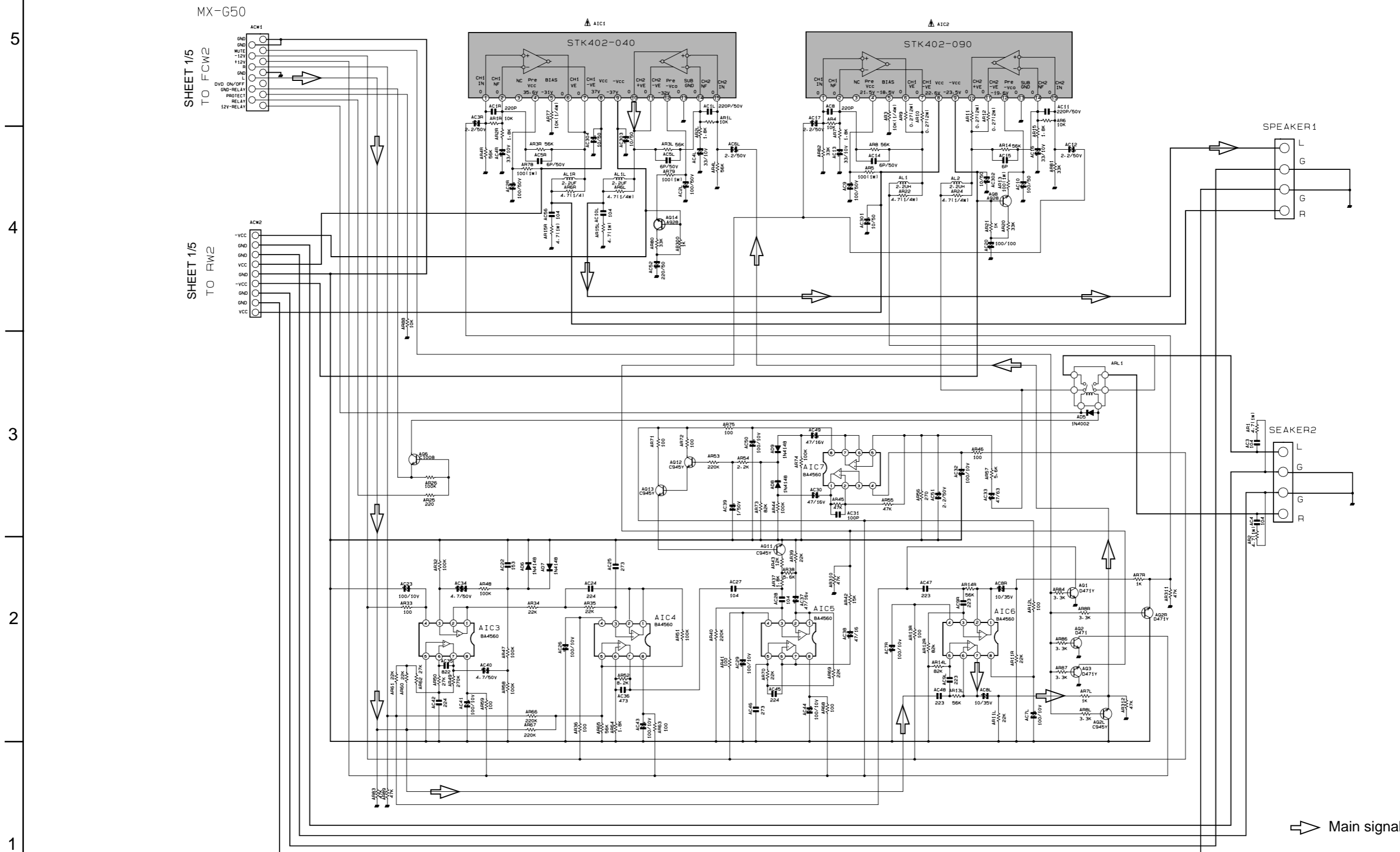
SHEET 2/5

- ➔ MAIN signal
- ➔ TUNER signal
- ➔ CD signal
- ➔ TAPE P.B.signal
- ➔ TEPE REC.signal

⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

SHEET 1/5

Amplifier section



➡ Main signal

▲ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

Front control section

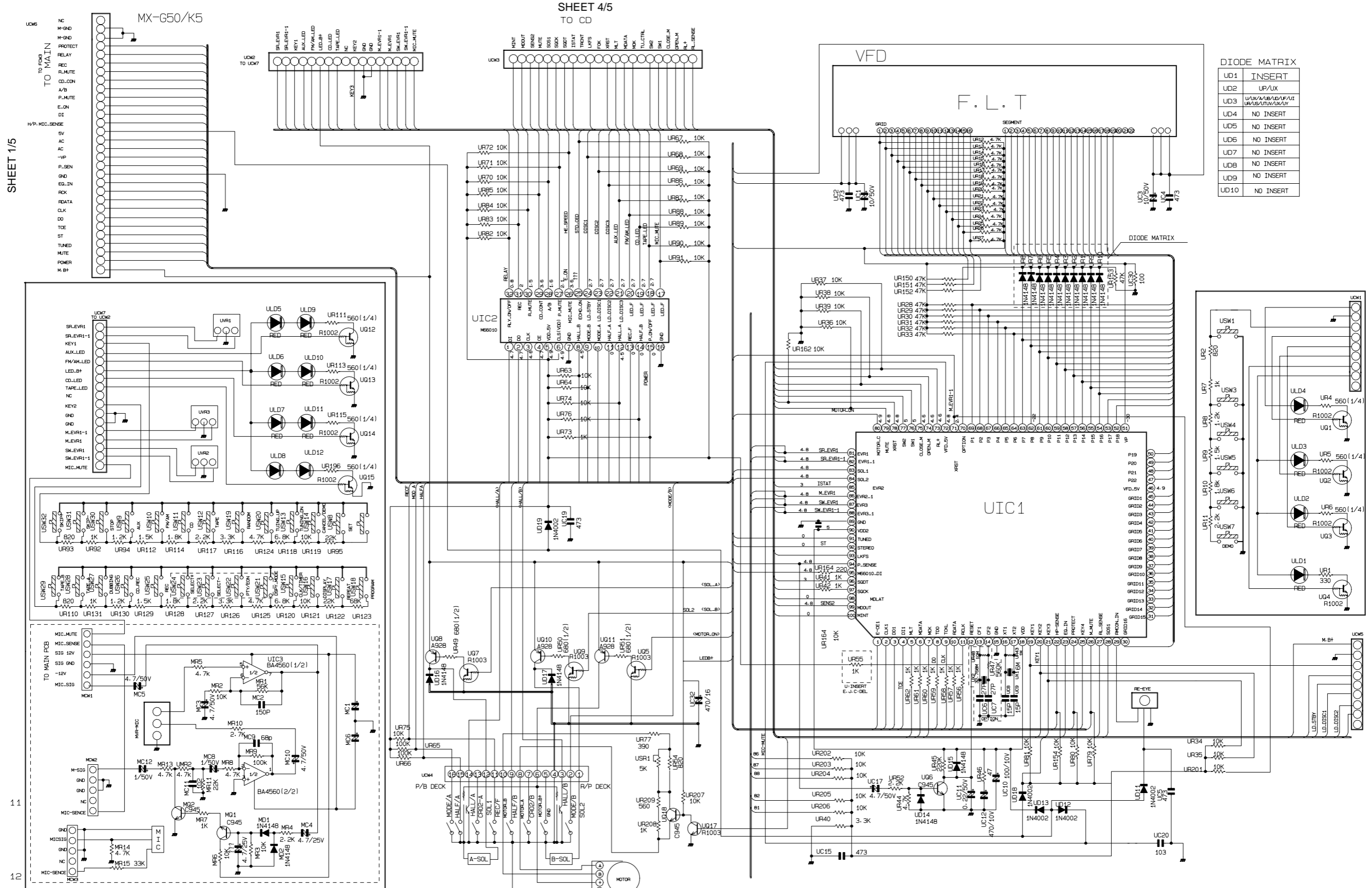
5

4

3

2

1



SHEET 4/5  
TO CD

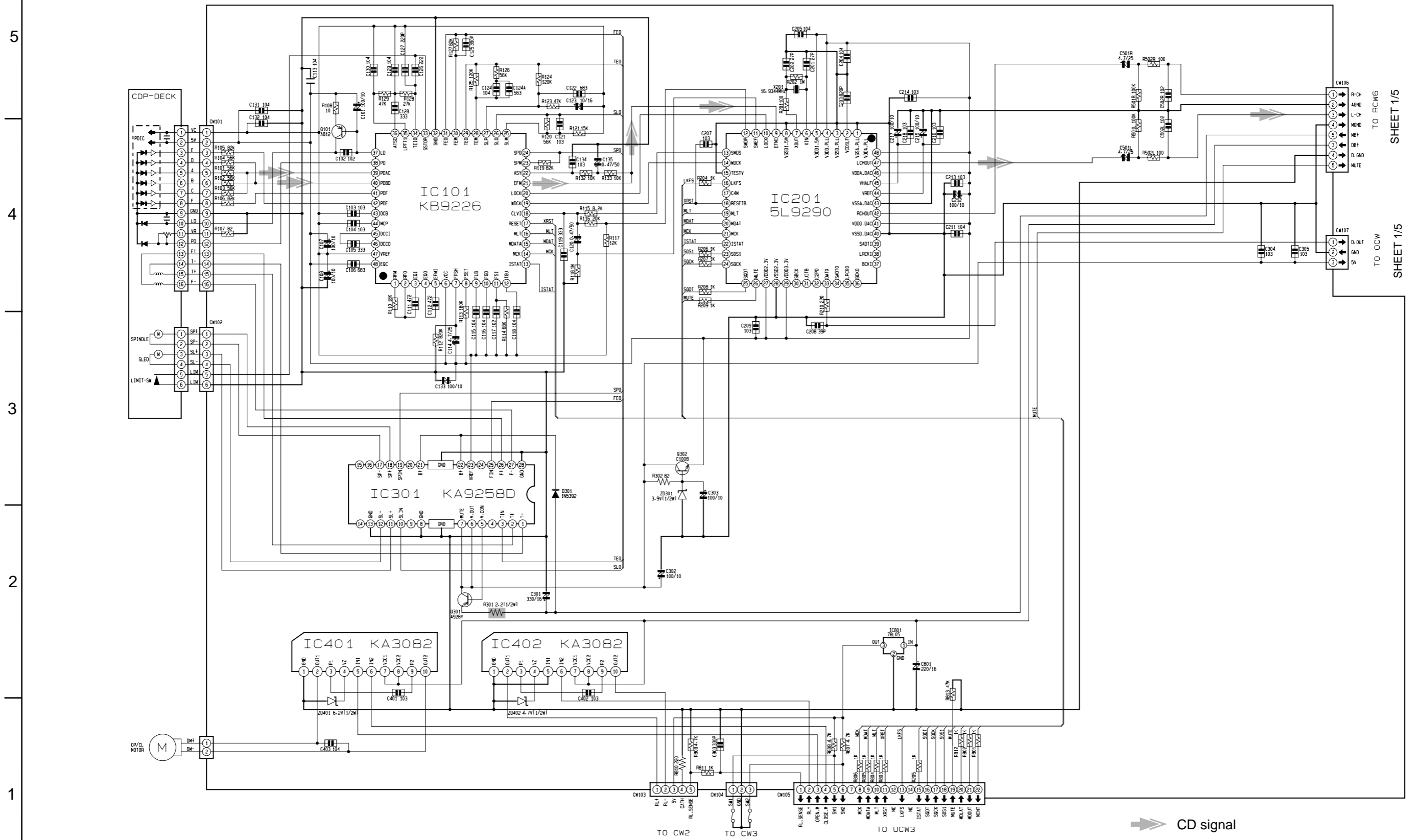
SHEET 1/5

DIODE MATRIX

UD1	INSERT
UD2	UP/UX
UD3	UAX/UA/UB/UA/UF/UT UR/US/UT/UX/UY
UD4	NO INSERT
UD5	NO INSERT
UD6	NO INSERT
UD7	NO INSERT
UD8	NO INSERT
UD9	NO INSERT
UD10	NO INSERT



CD section



➔ CD signal

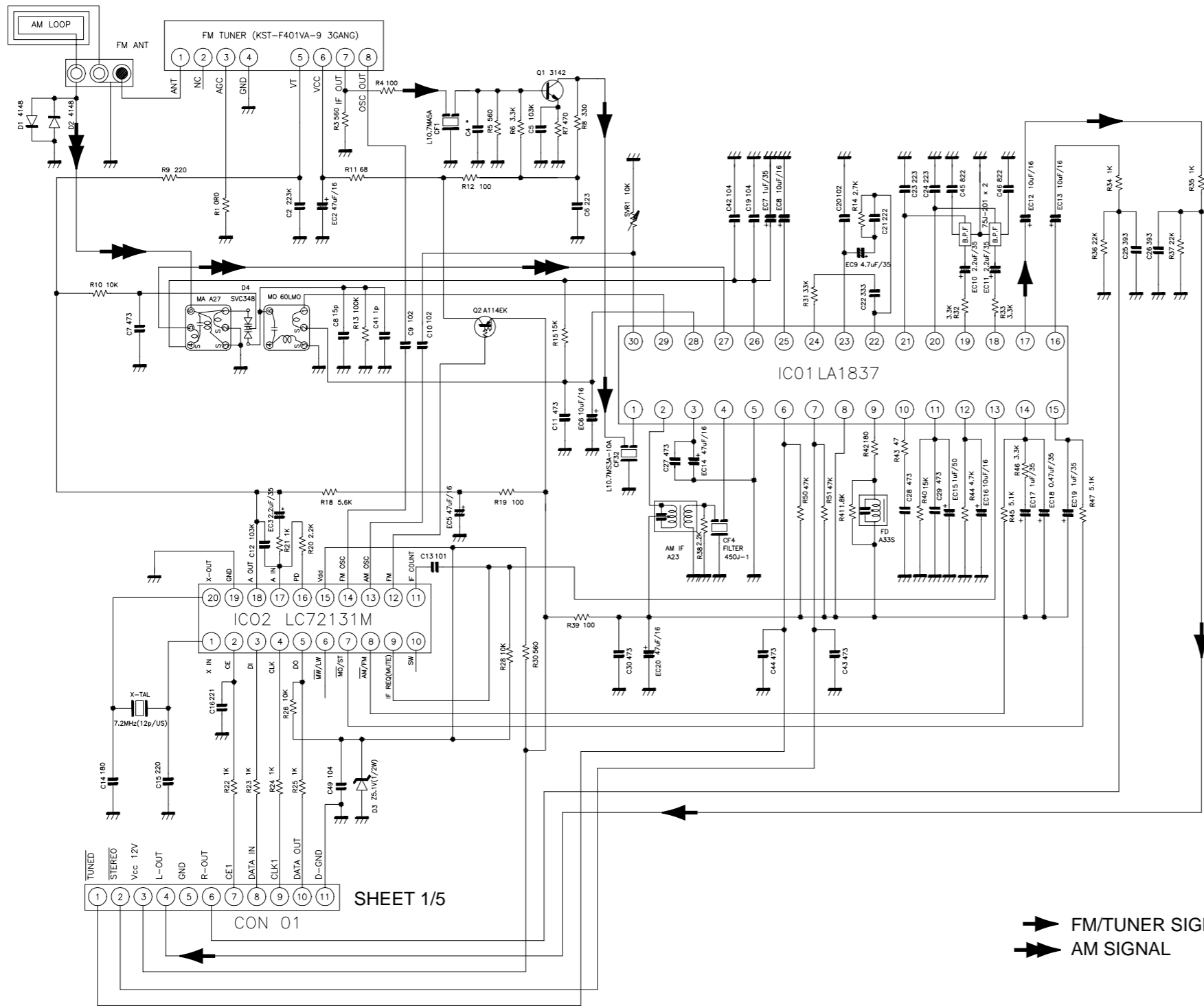
⚠ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

SHEET 3/5

SHEET 4/5

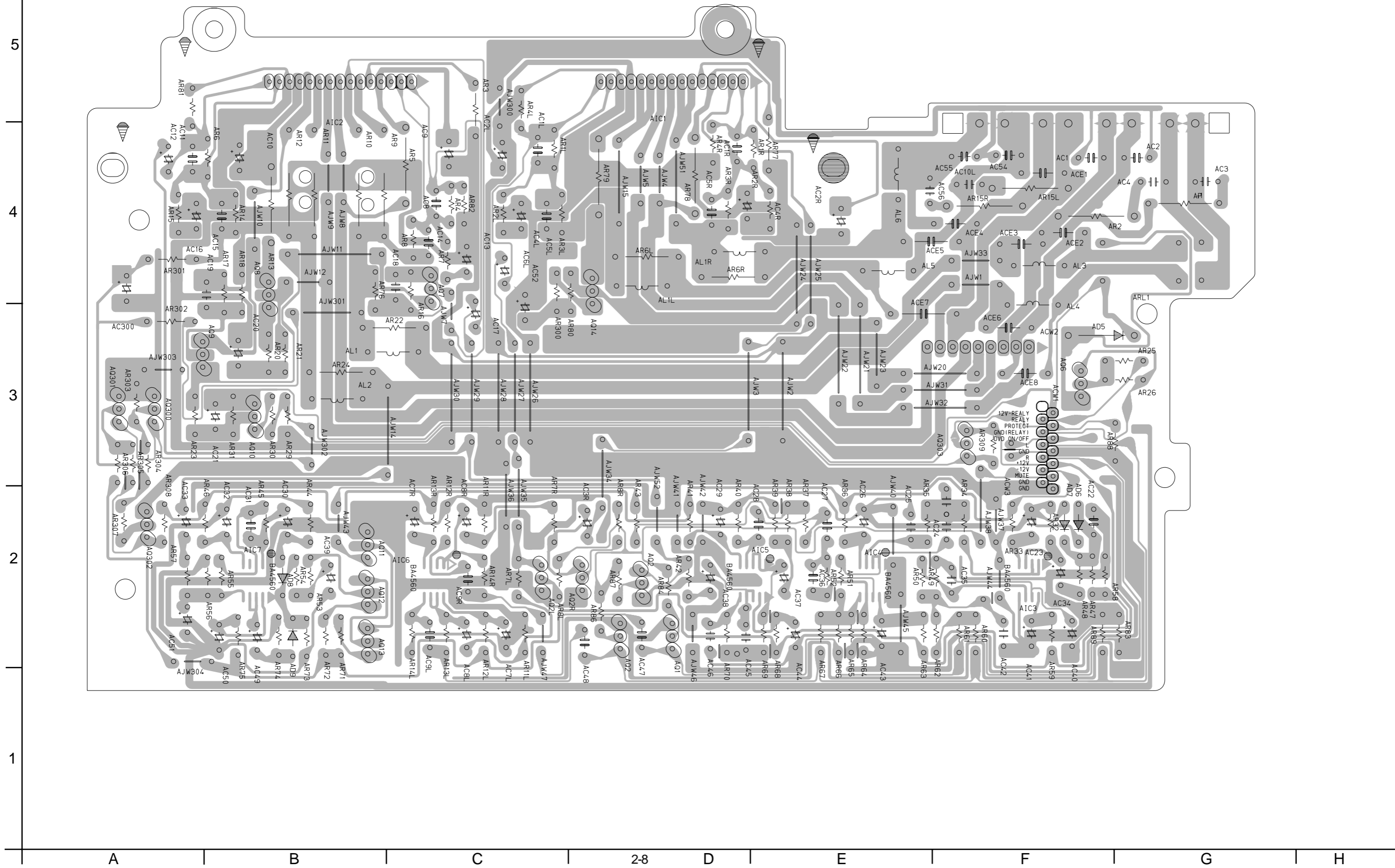
■ Tuner section

5  
4  
3  
2  
1

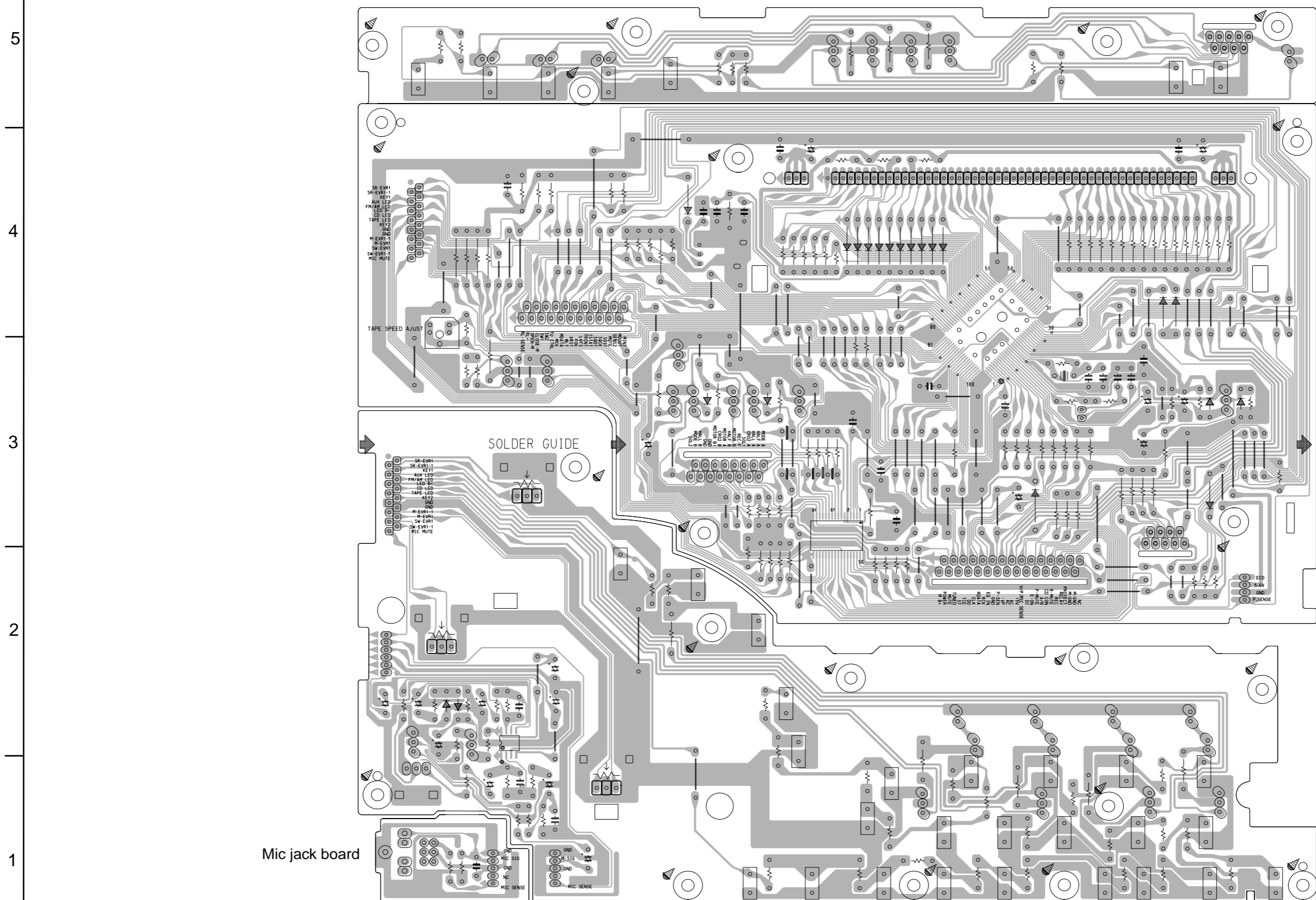




AMP board



■ Front board



Power / CD switch board

FL display & system control board

Front key switch board

Mic jack board

■ CD Servo control board

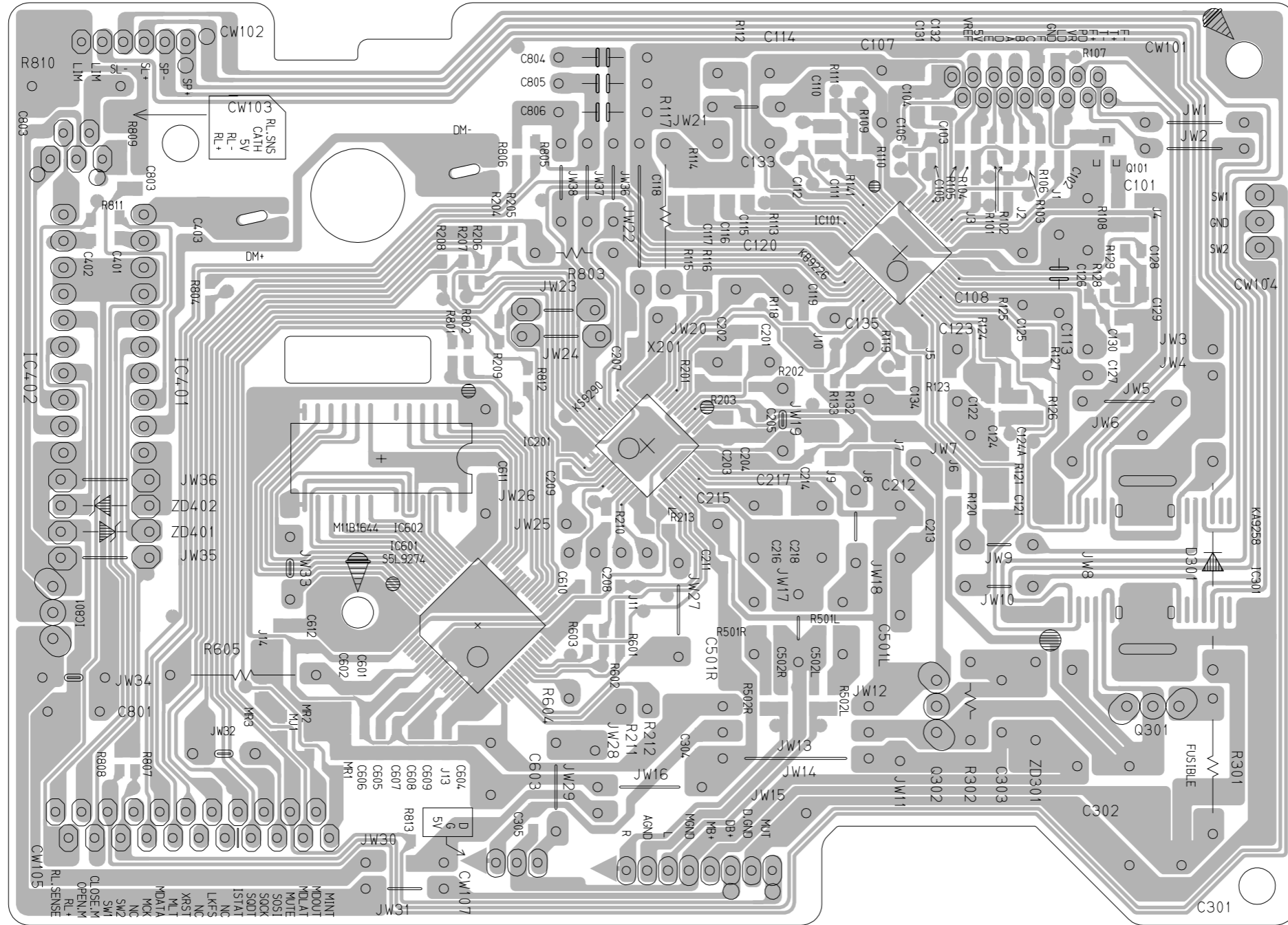
5

4

3

2

1



A

B

C

2-10

D

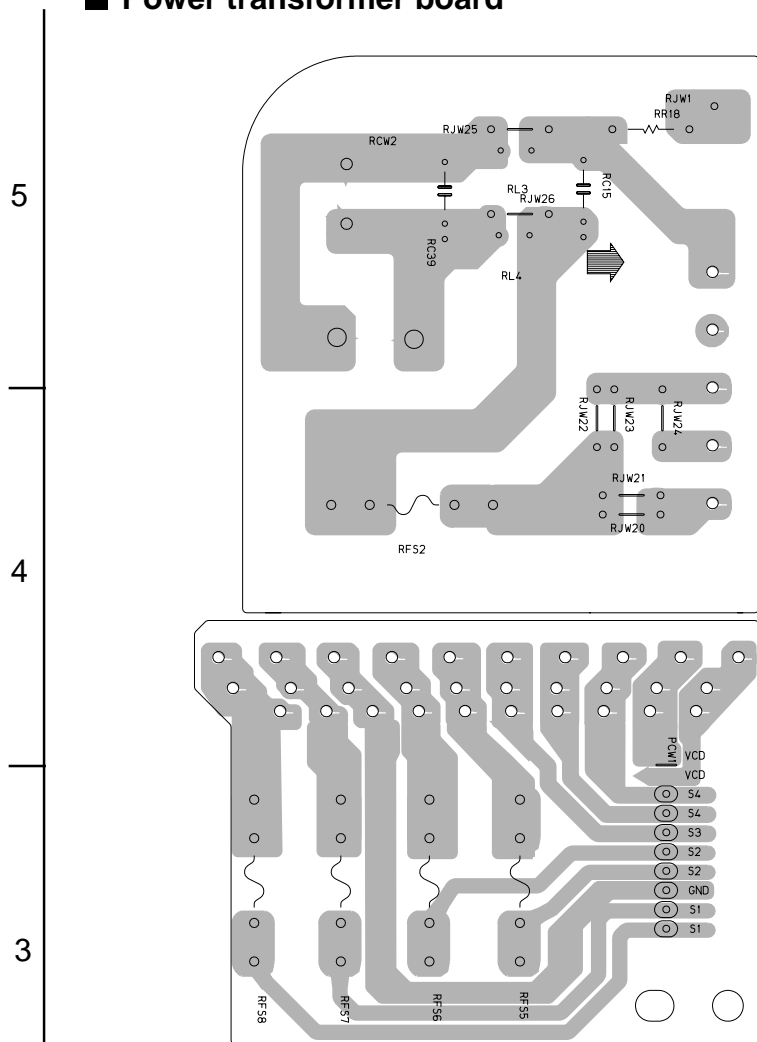
E

F

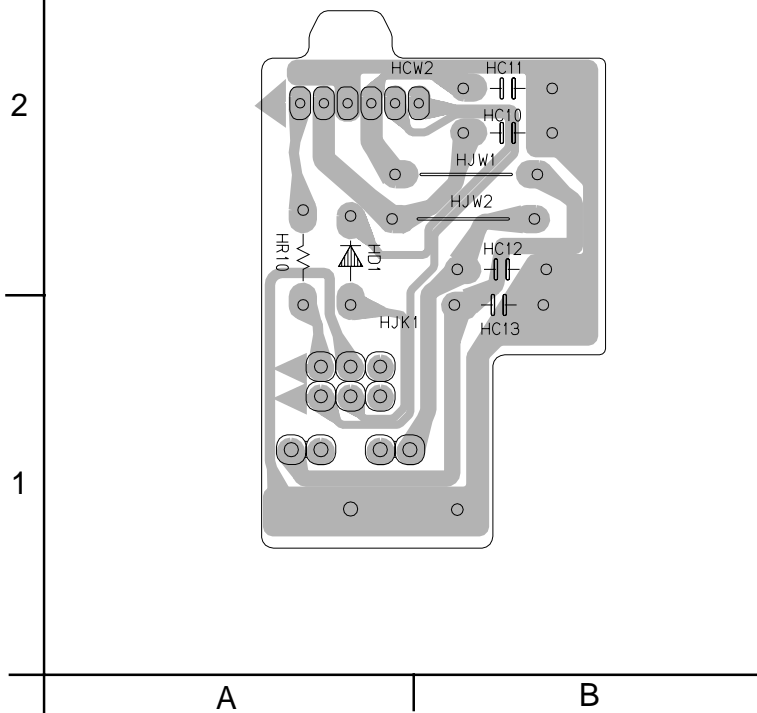
G

H

### ■ Power transformer board

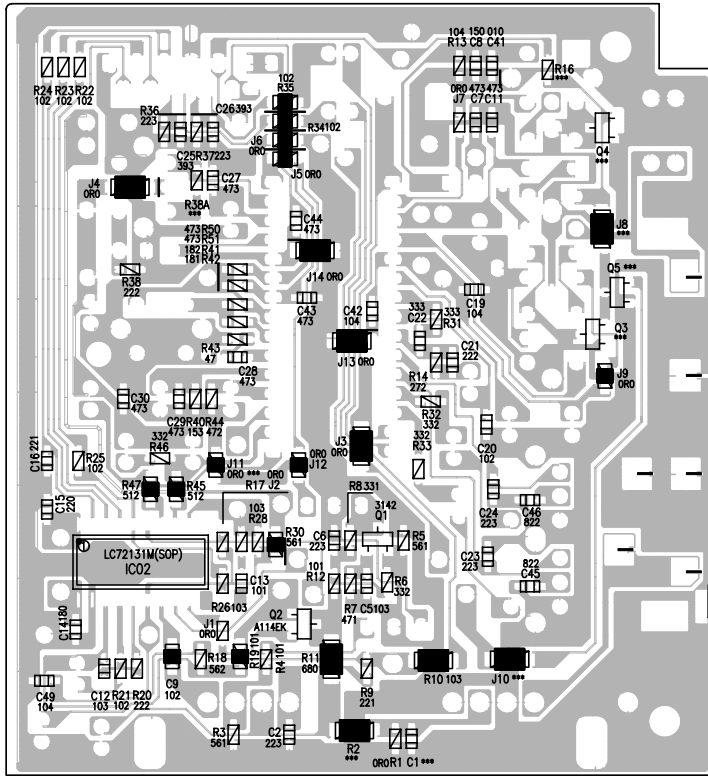


### ■ Head phone board

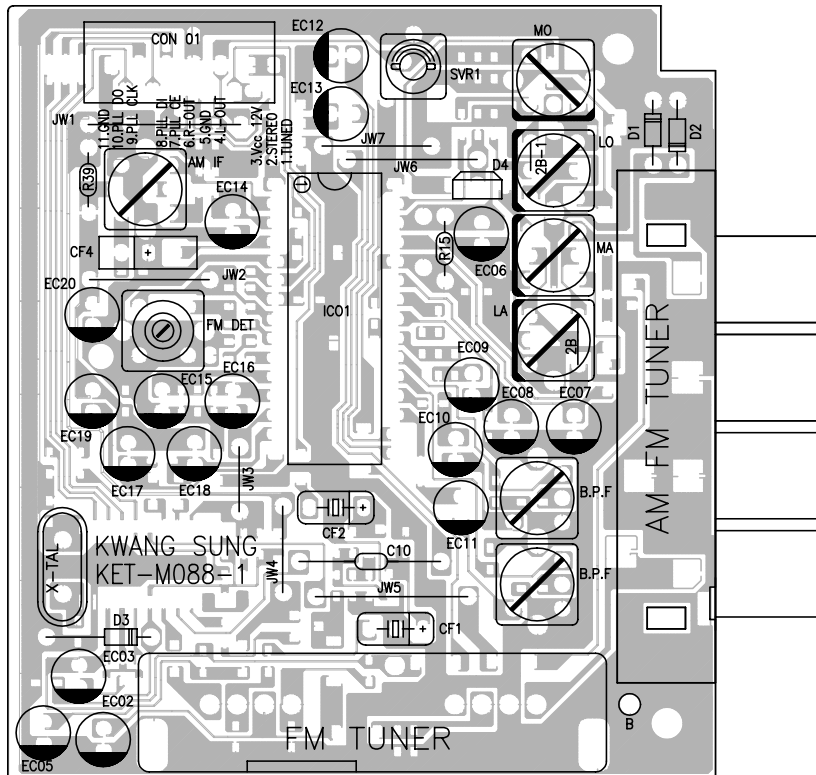


■ Tuner board

Reverse side



Front side





# PARTS LIST

[ MX-G50 ]

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

Area suffix	
US -----	Singapore
UW -----	Brazil, Mexico, Peru
UY -----	Argentina

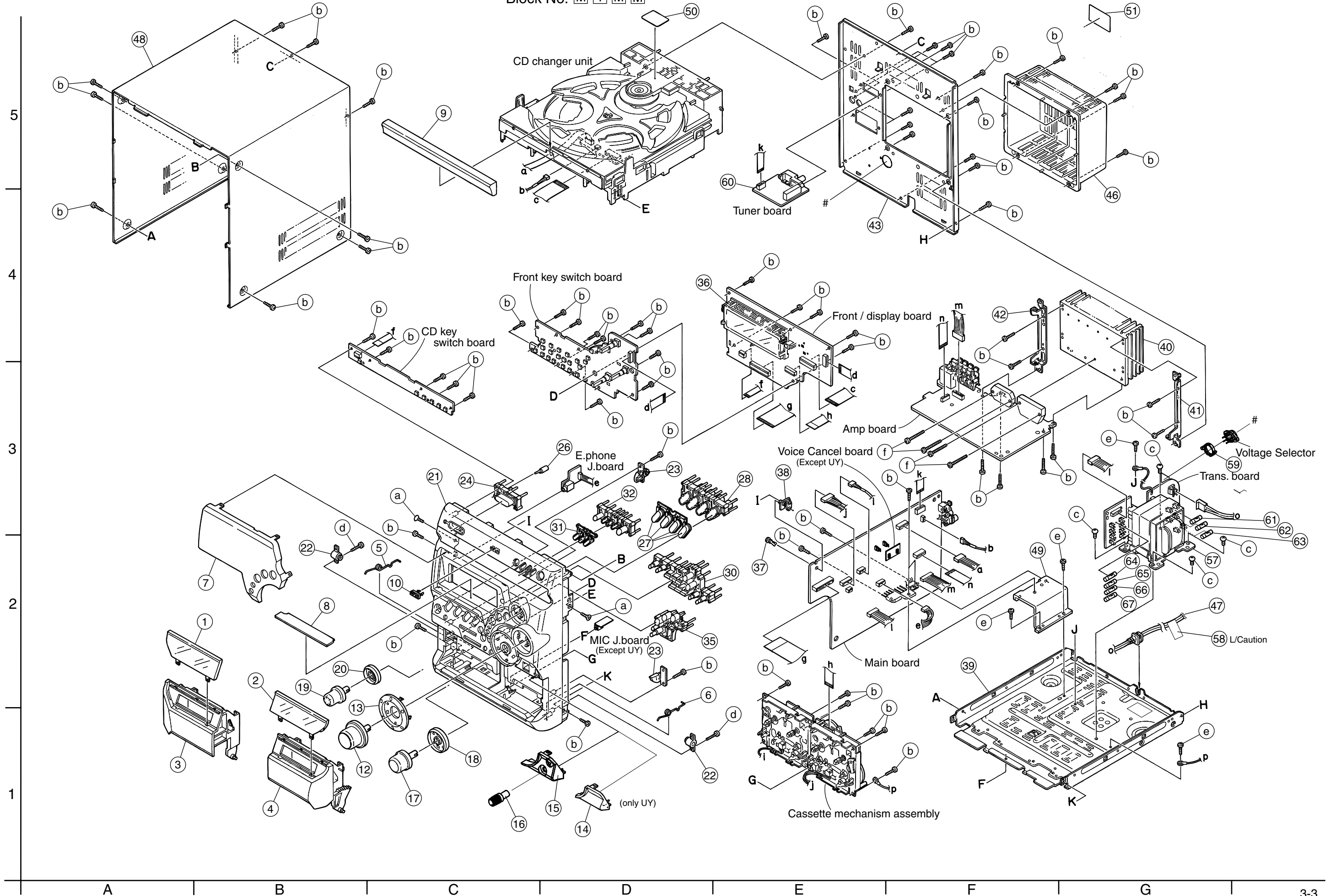
- Contents -

Exploded view of general assembly and parts list .....	3- 3
CD mechanism assembly and parts list .....	3- 5
CD changer mechanism assembly and parts list .....	3- 6
Cassette mechanism assembly and parts list .....	3- 8
Electrical parts list .....	3- 9
Packing materials and accessories parts list .....	3-20

**< MEMO >**

# Exploded view of general assembly and parts list

Block No. **M 1 M M**



## ■ Parts list(General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	a	6002-000126	SCREW	2	FH M3*10 BLK	
	b	6003-000276	SCREW	78	BH M3*10 YEL	
	c	AH60-10107A	SCREW	4	M4*6 YEL	
	d	6003-000277	SCREW	2	BH M3*12 YEL	
	e	6002-000398	SCREW	3	BH M3*6 YEL	
	f	6003-000278	SCREW	4		
	1	AH64-01141A	DOOR WINDOW A	1	DECK A	
	2	AH64-01142A	DOOR WINDOW B	1	DECK B	
	3	AH64-01128B	CASSETTE DOOR A	1	DECK A	
	4	AH64-01129B	CASSETTE DOOR B	1	DECK B	
	5	AH61-00552A	DOOR SPRING A	1	DECK A	
	6	AH61-00553A	DOOR SPRING B	1	DECK B	
	7	AH64-01140F	WINDOW-VFD	1		
	8	AH63-00252A	SHEET-VFD	1		
	9	AH64-01126B	DOOR-TRAY	1		
	10	AH64-00462B	JVC MARK	1		
	12	AH64-01135B	VOLUME KNOB	1		
	13	AH61-00659B	VOLUME CAP	1		
	14	AH61-00658B	DUMMY CAP	1		UY
	15	AH61-00657B	MIC CAP	1		US UW
	16	AJ64-01136B	MIC VOL KNOB	1		US UW
	17	AH64-01134B	WOOFER KNOB	1		
	18	AH67-00105A	WOOFER LENS	1		
	19	AH64-01133B	S/MODE KNOB	1		
	20	AH67-00104A	S/MODE LENS	1		
	21	AH64-01123E	CABINET-FRONT	1		US UW
		AH64-01123F	CABINET-FRONT	1		UY
	22	AH61-80030A	DAMPER	2		
	23	AH95-50001A	LATCH	2		
	24	AH64-01130B	POWER KNOB	1		
	26	AH67-00106A	POWER LENS	1		
	27	AH67-00103B	FUNCTION LENS	1		
	28	AH61-00661A	FUNCTION HOLDER	1		
	30	AH64-01138B	MAIN KNOB	1		
	31	AH67-00102B	CD LENS	1		
	32	AH64-01132B	DISC KNOB	1		
	35	AH64-01137B	STOP KNOB	1		
	36	AH61-00662A	VFD HOLDER	1		
	37	AH61-40014A	RIVET SUPPORT	1		
	38	AH61-00021B	PCB SUPPORT	1		
	39	AH64-30416C	BOTTOM CABINET	1		
	40	AH62-00043B	HEAT-SINK	1		
	41	AH61-00655A	H/SINK BRKT L	1		
	42	AH61-00656A	H/SINK BRKT R	1		
	43	AH64-01125G	CABINET-REAR	1		
	46	AH63-00250A	REAR COVER	1		
	47	AH39-00258C	POWER CORD	1		UY
△		AH39-00257G	POWER CORD	1		US UW

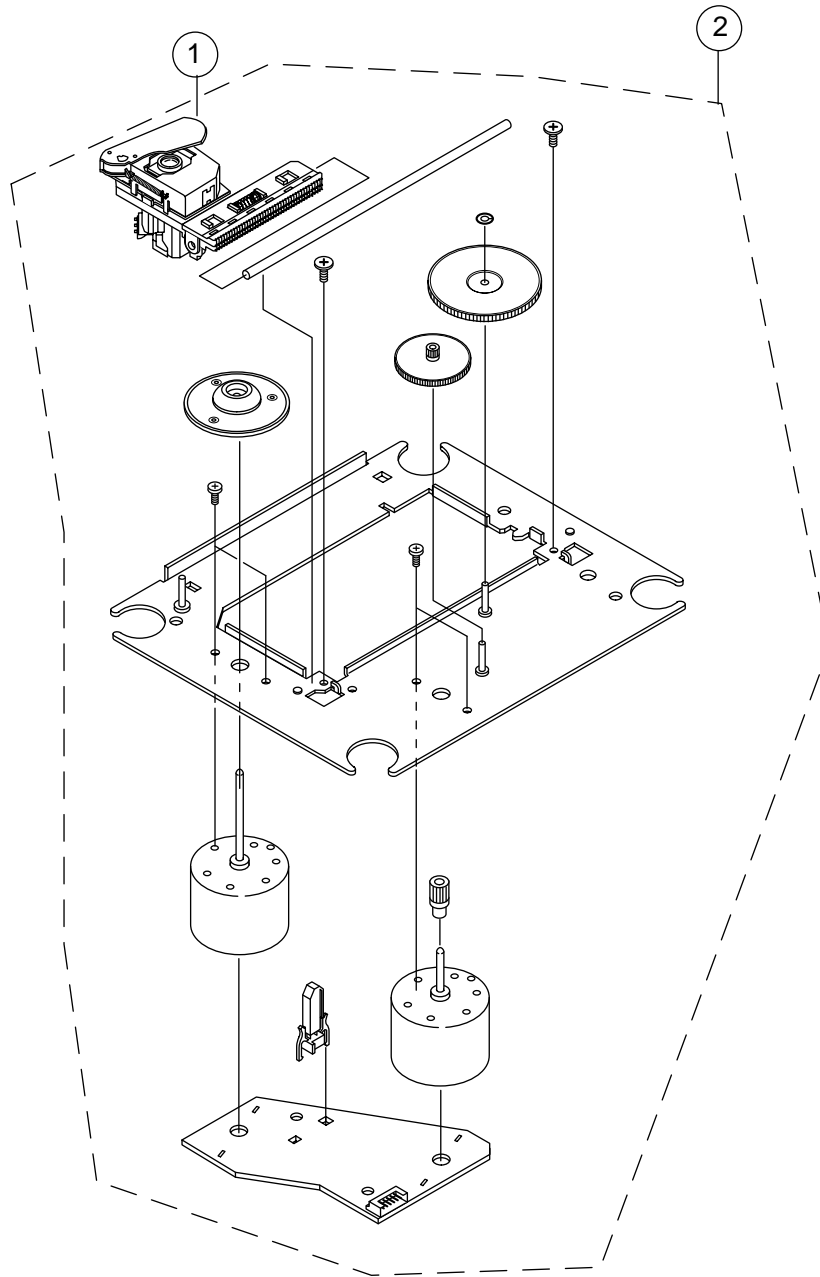
## ■ Parts list(General assembly)

Block No. M1MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	48	AH64-30390F	TOP CABINET	1		
	49	AH62-00042A	HEAT-SINK	1		
	50	AH68-50275D	STICKER-CD	1		
	51	AH68-00687R	RATING LABEL	1		
△	57	AH26-00104A	POWER TRANS	1		
	59	AH61-00721A	HOLDER	1		
	60	AH40-00011A	TUNER PACK	1		
△	61	3601-000263	FUSE	1		
△	62	3601-000263	FUSE	1		
△	63	3601-000297	FUSE	1		
△	64	3601-000282	FUSE	1		
△	65	3601-000282	FUSE	1		
△	66	3601-000282	FUSE	1		
△	67	3601-000282	FUSE	1		

# CD mechanism assembly and parts list

Block No. M 2 M M



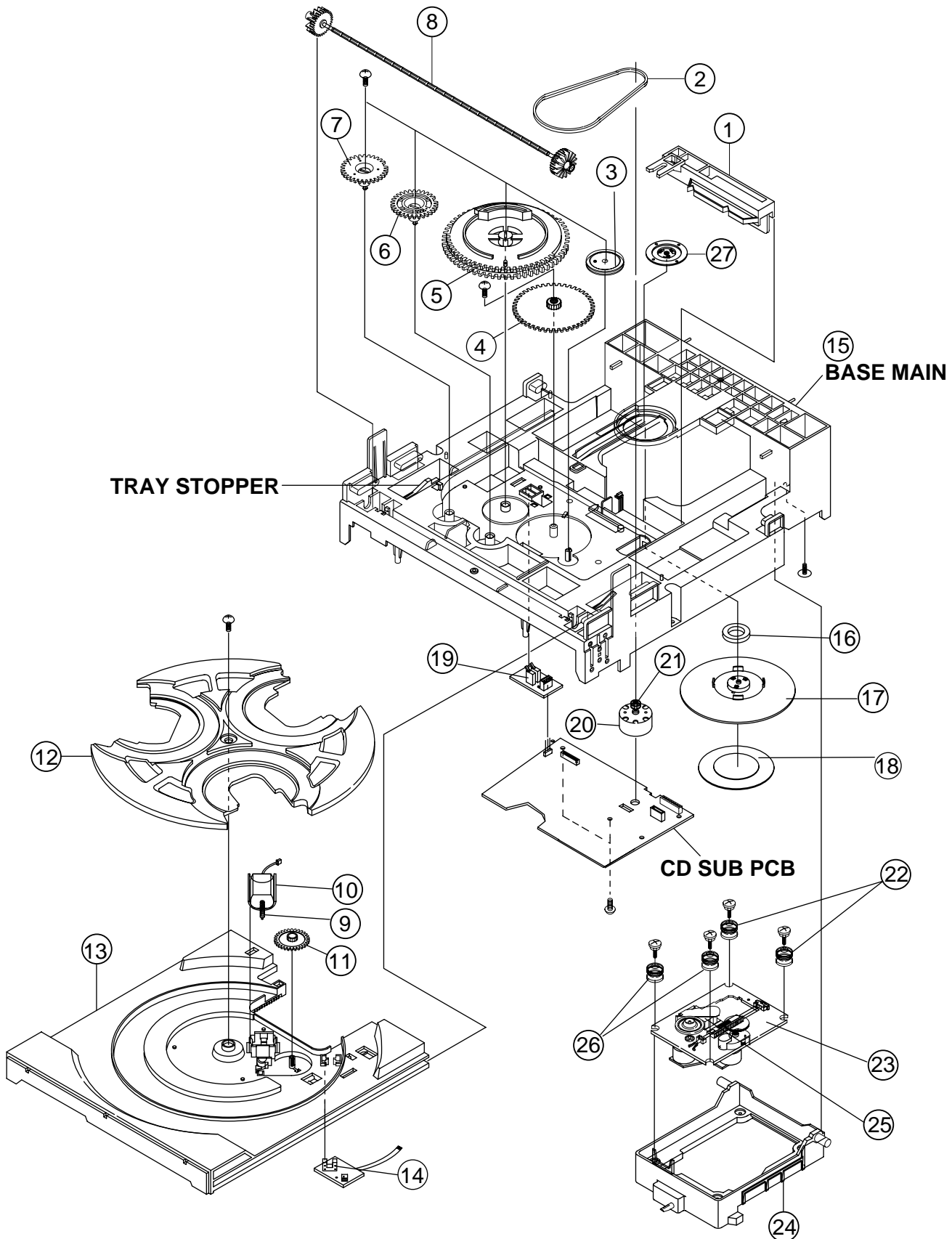
**Parts list(CD mechanism)**

Block No. M2MM

▲	Item	Parts number	Parts name	Q'ty	Description	Area
	1	AH30-00007A	OPTICAL PICK-UP	1	SOH-AD3	
	2	AH91-60150C	CDP-DECK ASS'Y	1	CMS-D73SG6U	

# CD changer mechanism assembly and parts list

Block No. M 3 M M



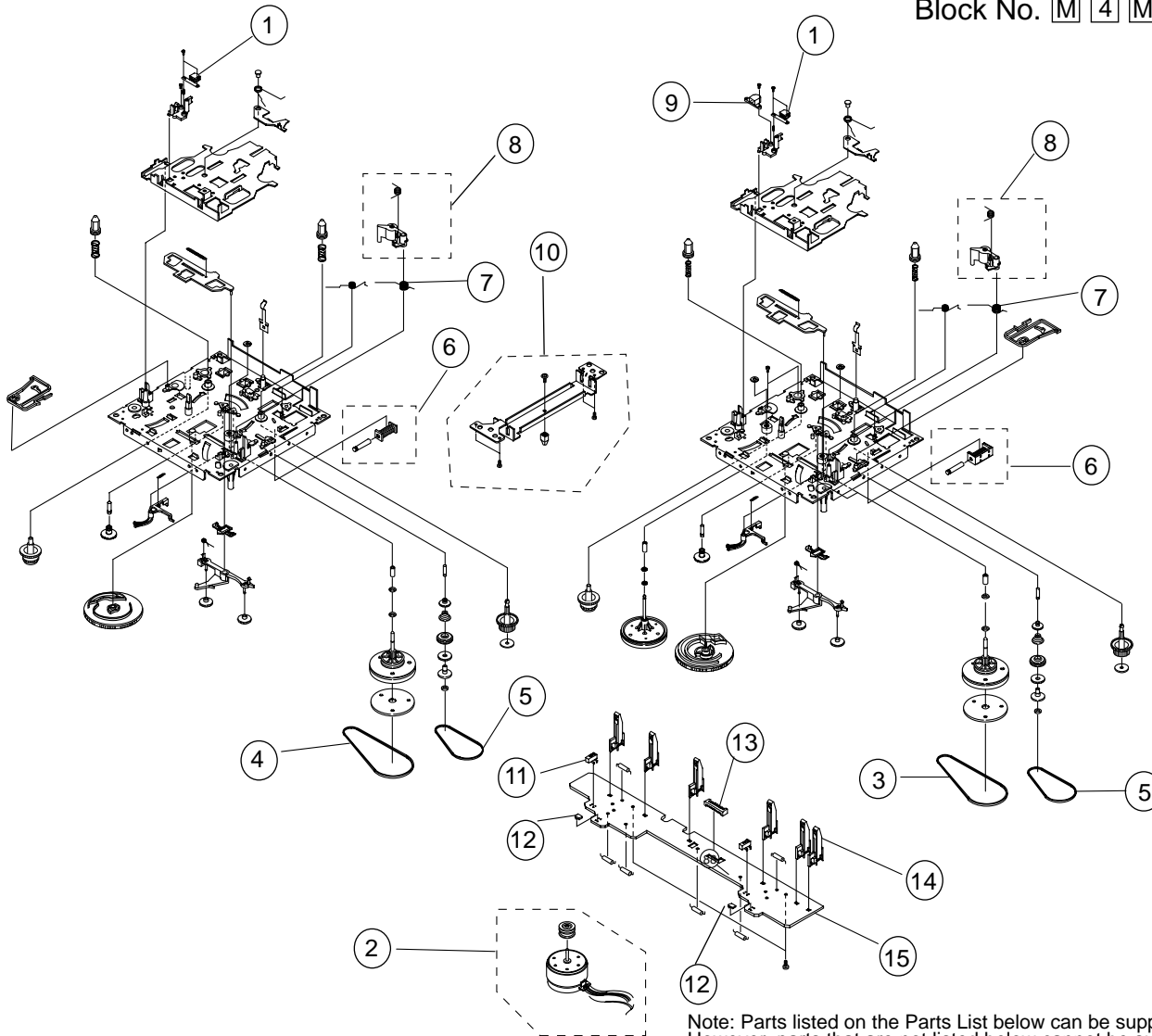
**Parts list(CD changer mechanism)**

Block No. M3MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	1	AH66-80022A	SLIDE CAM	1	ABS HF-380 NTR	
	2	AH66-60034A	BELT LOAD	1	CR	
	3	AH66-20186A	GEAR PULLEY	1	POM (M90-44)WHT	
	4	AH66-20187A	GEAR-LOAD	1	POM (M90-44)BLK	
	5	AH66-20188A	GEAR-CAM	1	POM(M90-44)WHT	
	6	AH66-20189A	GEAR-TRAY	1	POM(M90-44)BLK	
	7	AH66-20190A	GEAR-CONVERTOR	1	POM (M90-44) WH	
	8	AH66-20191A	GEAR-SYNCRO	1	ABS HF-380 NTR	
	9	AH66-20192A	GEAR-WORM	1	POM (M90-44)WHT	
	10	AH31-12001A	LOADING MOTOR	1	FF-030PN-09120	
	11	AH66-20193A	GEAR-ROULETTE	1	POM(M90-44)BLK	
	12	AH66-90056A	TRAY-ROULETTE	1	ABS XR-401 BLK	
	13	AH66-90055A	TRAY DISC	1	ABS XR-401 BLK	
	14	AH32-10001F	SENSOR	1	KPI-L06	
	15	AH61-20428A-1	BASE MAIN	1		
	16	3302-000159	MAGNET-FERRITE	1		
	17	AH66-90053A	TABTE-CHUCK UNI	1		
	18	AH63-00068B	SHEET CHUCK	1		
	19	3404-000101	SWICH MICRO	1	MLS-24	
	20	AH31-10021A	DC MORTOR	1		
	21	AH66-10008A	PULLEY-MOTOR	1		
	22	AH73-10031A	RUBBER-CD	1		
	23	AH91-60150C	SP MOTOR ASS'Y	1	CMS-D73SG6U	
	24	AH66-30098A	LEVER-LIFTER	1		
	25	AH30-00007A	CD PICKUP	1	SOH-AD3	
	26	AH73-10034A	RUBBER-CD(G)	1		
	27	AH61-00255A	BRKT CHUCK	1	SECL 0.8T	

# Cassette mechanism assembly and parts list

Block No. M 4 M M



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. AH59-00102A for Cassette Mechanism Assembly Unit.)

## ■ Parts list(Cassette mechanism)

Block No. M4MM

Item	Parts number	Parts name	Q'ty	Description	Area
1	AH81-00141A	REC/PB HEAD	1	TC881CB	
2	AH81-00422A	MOTOR ASS'Y	1	ADR2400-SHU2L	
3	AH81-00364A	MAIN BELT 1	1	ADR2400-MAIN0.5	
4	AH81-00365A	MAIN BELT 2	1	ADR2400-MAIN1.3	
5	AH81-00101A	FR BELT	1	ADR2400-FR34.7	
6	AH81-00102A	SOLENOID	1	ADR2400-1	
7	AH81-00282A	SPRING	1	S/PP/R(F)	
8	AH81-00366A	PINCH R.ASS'Y	1	ADR2400-PINCH(F)	
9	AH81-00284A	E-HEAD	1	TC2131F	
10	AH81-00367A	MOTOR BRACKET	1	ADR241SWBRKT 110	
11	AH81-00286A	SWICH	1	ADR2400-MODE	
12	AH81-00287A	PHOT SENSER	1	ADR2400-SENSOR	
13	AH81-00288A	CONNECTOR	1	ADR2400-16P	
14	AH81-00289A	LEEF SW	1	ADR2400-MXS00220	
15	AH81-00375A	PCB	1	ADR2400-1PCB	



■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
△	#RBD1	0402-000450	BRIDGE DIODE				FC 57	2401-001975	E.CAPACITOR		
△	#RBD2	0402-001258	BRIDGE-DIODE				FCW 1	3708-000122	CONNECTOR		
△	#RC 1	2401-001928	E. CAPACITOR				FCW 2	3708-001094	CONNECTOR		
△	#RC 2	2401-001928	E. CAPACITOR				FCW 3	3708-000258	CONNECTOR	1.25MM 52045-30	
△	#RC 3	2401-002592	E. CAPACITOR		US,UW		FC1L	2201-000368	C.CAPACITOR		
△	#RC 3	2401-003381	E. CAPACITOR		UY		FC1R	2201-000368	C.CAPACITOR		
△	#RC 4	2401-002592	E. CAPACITOR		US,UW		FC10L	2301-000216	M.CAPACITOR		
△	#RC 4	2401-003381	E. CAPACITOR		UY		FC10R	2301-000216	M.CAPACITOR		
△	#RC11	2201-000161	C.CAPACITOR				FC12L	2202-000781	C.CAPACITOR		US,UW
△	#RC81	2201-000161	C.CAPACITOR				FC12R	2202-000781	C.CAPACITOR		US,UW
△	#RF23	2008-000135	FUSE.RESISTOR				FC13L	2202-000806	C.CAPACITOR		
	AUX	3722-000377	RCA JACK				FC13R	2201-000368	C.CAPACITOR		US,UW
	EC 1	2202-000148	C.CAPACITOR		US,UW		FC2L	2401-001912	E.CAPACITOR		
	EC 2	2202-000817	C.CAPACITOR		US,UW		FC2R	2401-001912	E.CAPACITOR		
	EC 3	2401-002180	E.CAPACITOR		US,UW		FC251	2401-001912	E.CAPACITOR		
	EC 4	2401-002180	E.CAPACITOR		US,UW		FC252	2401-001912	E.CAPACITOR		
	EC 5	2202-000797	C.CAPACITOR		US,UW		FC253	2401-001912	E.CAPACITOR		
	EC 6	2202-000809	C.CAPACITOR		US,UW		FC3L	2401-001912	E.CAPACITOR		
	EC 7	2202-000797	C.CAPACITOR		US,UW		FC3R	2401-001912	E.CAPACITOR		
	EC 8	2401-001889	E.CAPACITOR		US,UW		FC4L	2401-001912	E.CAPACITOR		
	EC 9	2401-000907	E.CAPACITOR		US,UW		FC4R	2401-001912	E.CAPACITOR		
	EC 10	2401-001465	E.CAPACITOR		US,UW		FC5L	2401-001912	E.CAPACITOR		
	EC 11	2202-000854	C.CAPACITOR		US,UW		FC6L	2401-002180	E.CAPACITOR		
	EC 12	2202-000797	C.CAPACITOR		US,UW		FC6R	2401-002180	E.CAPACITOR		
	EC 15	2202-000797	C.CAPACITOR		US,UW		FC7L	2401-001912	E.CAPACITOR		
	ECW 1	3711-001062	CONNECTOR		US,UW		FC7R	2401-001912	E.CAPACITOR		
	ECW 1	AH39-00249B	LEAD CONNECTOR				FC8L	2301-000454	M.CAPACITOR		
	ED 1	0401-000101	DIODE		US,UW		FC8R	2301-000454	M.CAPACITOR		
	ED 2	0401-000101	DIODE		US,UW		FC9L	2301-000216	M.CAPACITOR		
	EIC 1	1204-001730	IC		US,UW		FC9R	2301-000216	M.CAPACITOR		
	EQ 1	0501-000398	TRANSISTOR		US,UW		FD 2	0401-000101	DIODE		
	EQ 2	0504-000118	DIGITAL TR		US,UW		FD 3	0401-000101	DIODE		
	EQ 3	0504-000118	DIGITAL TR		US,UW		FIC 1	1204-001776	IC		UY
	ER 2	2001-000522	CARBON RESISTOR				FIC 2	1201-000163	IC		
	ER 3	2001-000290	CARBON RESISTOR		US,UW		FIC 4	1201-000163	IC		
	ER 4	2001-000977	CARBON RESISTOR		US,UW		FQ 2	0504-001003	DIGITAL TR		
	ER 5	2001-000522	CARBON RESISTOR		US,UW		FQ 4	0501-000398	TRANSISTOR		
	ER 6	2001-000563	CARBON RESISTOR		US,UW		FQ1L	0504-000122	DIGITAL TR		
	ER 7	2001-000429	CARBON RESISTOR		US,UW		FQ1R	0504-000122	DIGITAL TR		
	ER 8	2001-000734	CARBON RESISTOR		US,UW		FQ151	0504-000144	DIGITAL TR		
	ER 9	2001-000008	CARBON RESISTOR		US,UW		FQ152	0504-000118	DIGITAL TR		
	ER 10	2001-000290	CARBON RESISTOR		US,UW		FR 9	2001-000027	CARBON RESISTOR		
	ER 11	2001-000734	CARBON RESISTOR		US,UW		FR 18	2001-000515	CARBON RESISTOR		
	ER 12	2001-000563	CARBON RESISTOR		US,UW		FR 20	2001-000515	CARBON RESISTOR		
	ER 13	2001-000290	CARBON RESISTOR		US,UW		FR 21	2001-000864	CARBON RESISTOR		
	ER 14	2001-000319	CARBON RESISTOR		US,UW		FR 22	2001-000864	CARBON RESISTOR		
	ER 15	2001-000563	CARBON RESISTOR		US,UW		FR 23	2001-000773	CARBON RESISTOR		
	ER 16	2001-000034	CARBON RESISTOR				FR 24	2001-000290	CARBON RESISTOR		
	ER 25	2001-000786	CARBON RESISTOR		US,UW		FR 25	2001-000429	CARBON RESISTOR		
	EZD 1	0403-000354	ZENER DIODE		US,UW		FR 26	2001-000850	CARBON RESISTOR		
	FC 9	2401-000419	E.CAPACITOR				FR 28	2001-000645	CARBON RESISTOR		
	FC 11	2401-001975	E.CAPACITOR				FR 51	2001-000515	CARBON RESISTOR		
	FC 17	2401-001954	E.CAPACITOR				FR 52	2001-000786	CARBON RESISTOR		
	FC 23	2401-000419	E.CAPACITOR				FR 53	2001-000515	CARBON RESISTOR		
	FC 31	2401-000759	E.CAPACITOR				FR 54	2001-000786	CARBON RESISTOR		
	FC 32	2401-001954	E.CAPACITOR				FR 55	2001-000890	CARBON RESISTOR		
	FC 35	2301-000361	M.CAPACITOR				FR 56	2001-000411	CARBON RESISTOR		
	FC 36	2301-000375	M.CAPACITOR				FR 57	2001-000273	CARBON RESISTOR		
	FC 50	2401-000419	E.CAPACITOR				FR 58	2001-000273	CARBON RESISTOR		
	FC 51	2202-000806	C.CAPACITOR				FR 59	2001-000411	CARBON RESISTOR		
	FC 52	2202-000806	C.CAPACITOR				FR 61	2001-000429	CARBON RESISTOR		US,UW
	FC 53	2401-001912	E.CAPACITOR				FR 62	2001-000429	CARBON RESISTOR		
	FC 54	2401-001912	E.CAPACITOR				FR 81	2001-000786	CARBON RESISTOR		

## ■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	FR 82	2001-000591	CARBON RESISTOR				JC 10	2401-001954	E.CAPACITOR		
	FR1L	2001-000411	CARBON RESISTOR				JC 11	2401-000795	E.CAPACITOR		
	FR1R	2001-000411	CARBON RESISTOR				JC 26	2301-000404	M.CAPACITOR		
	FR10L	2001-000429	CARBON RESISTOR		US,UW		JC 27	2301-000404	M.CAPACITOR		
	FR10R	2001-000429	CARBON RESISTOR		US,UW		JC 28	2401-001975	E.CAPACITOR		
	FR11L	2001-000429	CARBON RESISTOR		US,UW		JC 29	2301-000407	M.CAPACITOR		
	FR11R	2001-000429	CARBON RESISTOR		US,UW		JC 31	2401-002180	E.CAPACITOR		
	FR12L	2001-000591	CARBON RESISTOR				JC 35	2201-000601	C.CAPACITOR		
	FR12R	2001-000591	CARBON RESISTOR				JC 37	2201-000601	C.CAPACITOR		
	FR13L	2001-000734	CARBON RESISTOR		US,UW		JC 51	2401-001938	E.CAPACITOR		
	FR13R	2001-000734	CARBON RESISTOR		US,UW		JCW 1	3711-003107	CONNECTOR		
	FR15L	2001-000591	CARBON RESISTOR		US,UW		JCW 2	3711-003111	CONNECTOR		
	FR15R	2001-000591	CARBON RESISTOR		US,UW		JCW 3	3711-003107	CONNECTOR		
	FR2L	2001-000411	CARBON RESISTOR				JC1L	2301-000370	M.CAPACITOR		
	FR2R	2001-000411	CARBON RESISTOR				JC1R	2301-000370	M.CAPACITOR		
	FR251	2001-000591	CARBON RESISTOR				JC10L	2201-000368	C.CAPACITOR		
	FR252	2001-000786	CARBON RESISTOR				JC10R	2201-000368	C.CAPACITOR		
	FR253	2001-000290	CARBON RESISTOR				JC12R	2401-000419	E.CAPACITOR		
	FR27L	2001-000786	CARBON RESISTOR		US,UW		JC13L	2401-002180	E.CAPACITOR		
	FR27R	2001-000786	CARBON RESISTOR				JC13R	2401-002180	E.CAPACITOR		
	FR4L	2001-000924	CARBON RESISTOR				JC14L	2401-001465	E.CAPACITOR		
	FR4R	2001-000924	CARBON RESISTOR				JC14R	2401-001465	E.CAPACITOR		
	FR5L	2001-000864	CARBON RESISTOR				JC15L	2401-002180	E.CAPACITOR		
	FR5R	2001-000864	CARBON RESISTOR				JC15R	2401-002180	E.CAPACITOR		
	FR6L	2001-000411	CARBON RESISTOR				JC151	2401-001912	E.CAPACITOR		
	FR6R	2001-000411	CARBON RESISTOR				JC16L	2201-000368	C.CAPACITOR		
	FR8L	2001-000802	CARBON RESISTOR				JC16R	2201-000368	C.CAPACITOR		
	FR8R	2001-000802	CARBON RESISTOR				JC17L	2301-000413	M.CAPACITOR		
	FZD 1	0403-000372	ZENER DIODE				JC17R	2301-000413	M.CAPACITOR		
	HC 1	2401-000795	E.CAPACITOR				JC19L	2301-000462	M.CAPACITOR		
	HC 2	2401-000795	E.CAPACITOR				JC19R	2301-000462	M.CAPACITOR		
	HCW 2	AH39-00247A	LEAD CONNECTOR				JC20L	2401-000419	E.CAPACITOR		
	HCW 3	3711-001062	CONNECTOR				JC21L	2401-000419	E.CAPACITOR		
	HC1L	2401-001912	E.CAPACITOR				JC21R	2401-000419	E.CAPACITOR		
	HC1R	2401-001912	E.CAPACITOR				JC22L	2301-000407	M.CAPACITOR		
	HC2L	2401-001465	E.CAPACITOR				JC22R	2301-000407	M.CAPACITOR		
	HC2R	2401-001465	E.CAPACITOR				JC23L	2201-000674	C.CAPACITOR		
	HC3L	2201-000642	C.CAPACITOR				JC23R	2201-000674	C.CAPACITOR		
	HC3R	2201-000642	C.CAPACITOR				JC24L	2301-000370	M.CAPACITOR		
	HD 1	0401-000101	DIODE				JC24R	2301-000370	M.CAPACITOR		
	HIC 1	1201-000163	IC				JC3L	2401-001465	E.CAPACITOR		
	HJK 1	3722-000351	PHONE JACK				JC3R	2401-001465	E.CAPACITOR		
	HQ1L	0501-000407	TRANSISTOR				JC30L	2201-000368	C.CAPACITOR		
	HQ1R	0501-000407	TRANSISTOR				JC30R	2201-000368	C.CAPACITOR		
	HR 1	2001-000028	CARBON RESISTOR				JC300	2201-000499	C.CAPACITOR		
	HR 2	2001-000028	CARBON RESISTOR				JC4L	2301-000413	M.CAPACITOR		
	HRFS2	3602-000147	FUSE CLIP				JC4R	2301-000413	M.CAPACITOR		
	HRFS5	3602-000147	FUSE CLIP				JC5L	2401-001954	E.CAPACITOR		
	HRFS6	3602-000147	FUSE CLIP				JC5R	2401-001954	E.CAPACITOR		
	HRFS7	3602-000147	FUSE CLIP				JC8L	2301-000413	M.CAPACITOR		
	HRFS8	3602-000147	FUSE CLIP				JC8R	2301-000413	M.CAPACITOR		
	HR1L	2001-000449	CARBON RESISTOR				JD 1	0401-000101	DIODE		
	HR1R	2001-000449	CARBON RESISTOR				JD 2	0401-000101	DIODE		
	HR2L	2001-000449	CARBON RESISTOR				JD 3	0401-000101	DIODE		
	HR2R	2001-000591	CARBON RESISTOR				JIC 1	1201-000358	IC	24 PREAMP	
	HR3L	2001-000734	CARBON RESISTOR				JIC 2	1201-000163	IC		
	HR3R	2001-000734	CARBON RESISTOR				JL 1	2701-000298	INDUCTOR	AX470UH 04	
	HR4L	2001-000290	CARBON RESISTOR				JL 2	AH26-10003C	TRAP COIL	PCHNS-5371EQJ	
	HR4R	2001-000290	CARBON RESISTOR				JLP1L	AH26-10002W	TRAP COIL		
	HR5L	2001-000019	CARBON RESISTOR				JLP1R	AH26-10002W	TRAP COIL		
	HR5R	2001-000019	CARBON RESISTOR				JL1L	AH27-10001D	CHOKE COIL		
	JC 7	2401-000419	E.CAPACITOR				JL1R	AH27-10001D	CHOKE COIL		
	JC 9	2401-000240	E.CAPACITOR				JQ 6	0504-001003	DIGITAL TR		

■ Electrical parts list(Main board)

Block No. 01

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	JQ 8	0504-001003	DIGITAL TR				JR24R	2001-000613	CARBON RESISTOR		
	JQ 10	0501-000398	TRANSISTOR				JR251	2001-000008	CARBON RESISTOR		
	JQ 14	0501-000610	TRANSISTOR				JR252	2001-000449	CARBON RESISTOR		
	JQ 15	0501-000369	TRANSISTOR				JR253	2001-000449	CARBON RESISTOR		
	JQ 16	0501-000398	TRANSISTOR				JR254	2001-000008	CARBON RESISTOR		
	JQ 51	0504-001003	DIGITAL TR				JR28L	2001-000734	CARBON RESISTOR		
	JQ11L	0501-000407	TRANSISTOR				JR28R	2001-000734	CARBON RESISTOR		
	JQ11R	0501-000407	TRANSISTOR				JR3L	2001-000591	CARBON RESISTOR		
	JQ2L	0501-000010	TRANSISTOR				JR3R	2001-000591	CARBON RESISTOR		
	JQ2R	0501-000010	TRANSISTOR				JR37L	2001-000786	CARBON RESISTOR		
	JQ3L	0501-000010	TRANSISTOR				JR37R	2001-000786	CARBON RESISTOR		
	JQ3R	0501-000010	TRANSISTOR				JR40L	2001-000302	CARBON RESISTOR		
	JQ4L	0501-000398	TRANSISTOR				JR40R	2001-000302	CARBON RESISTOR		
	JQ4R	0501-000398	TRANSISTOR				JR41L	2001-000008	CARBON RESISTOR		
	JQ5L	0501-000407	TRANSISTOR				JR41R	2001-000008	CARBON RESISTOR		
	JQ5R	0501-000407	TRANSISTOR				JR42L	2001-000429	CARBON RESISTOR		
	JR 4	2001-000522	CARBON RESISTOR				JR42R	2001-000429	CARBON RESISTOR		
	JR 13	2001-000773	CARBON RESISTOR				JR5L	2001-000449	CARBON RESISTOR		
	JR 14	2001-000802	CARBON RESISTOR				JR5R	2001-000449	CARBON RESISTOR		
	JR 15	2001-000708	CARBON RESISTOR				JR6L	2001-000449	CARBON RESISTOR		
	JR 21	2001-000027	CARBON RESISTOR				JR6R	2001-000449	CARBON RESISTOR		
	JR 22	2001-000660	CARBON RESISTOR				JR7L	2001-000890	CARBON RESISTOR		
	JR 23	2001-000591	CARBON RESISTOR				JR7R	2001-000890	CARBON RESISTOR		
	JR 25	2001-000429	CARBON RESISTOR				JR9L	2001-000281	CARBON RESISTOR		
	JR 26	2001-000734	CARBON RESISTOR				JR9R	2001-000281	CARBON RESISTOR		
	JR 27	2001-000023	CARBON RESISTOR				JSR1L	2103-000492	SEMI V.RESISTOR		
	JR 29	2001-000786	CARBON RESISTOR				JSR1R	2001-000591	CARBON RESISTOR		
	JR 30	2001-000591	CARBON RESISTOR				JSR2L	2103-000248	SEMI V.RESISTOR		
	JR 31	2001-000734	CARBON RESISTOR				JSR2R	2103-000248	SEMI V.RESISTOR		
	JR 32	2001-000456	CARBON RESISTOR				JW 64	2001-000003	CARBON RESISTOR		
	JR 33	2001-000290	CARBON RESISTOR				JW 66	2001-000003	CARBON RESISTOR		
	JR 38	2001-000890	CARBON RESISTOR				KCW 1	3711-001557	CONNECTOR		US,UW
	JR 39	2001-000290	CARBON RESISTOR				KCW 2	3711-001557	CONNECTOR		US,UW
	JR 40	2001-000290	CARBON RESISTOR				OC 1	2202-000807	C.CAPACITOR		
	JR 43	2001-000591	CARBON RESISTOR				OC 2	2201-000483	C.CAPACITOR		
	JR 44	2001-000522	CARBON RESISTOR				OC 3	2401-000240	E.CAPACITOR		
	JR 45	2001-000522	CARBON RESISTOR				OCW	3711-001137	CONNECTOR		
	JR 46	2001-000591	CARBON RESISTOR				OIC 1	AH14-10004R	IC		
	JR 51	2001-000660	CARBON RESISTOR				OJACK	0603-001069	OPT.TRANSMITTER		
	JR 52	2001-000591	CARBON RESISTOR				OLPF	AH29-00004A	L.NOISE FILTER		
	JR 53	2001-000319	CARBON RESISTOR				PCW 1	3711-003112	CONNECTOR	5267-08P 2.5MM	
	JR 61	2001-000734	CARBON RESISTOR				RC 5	2401-001954	E.CAPACITOR		
	JR1L	2001-000890	CARBON RESISTOR				RC 6	2401-000907	E.CAPACITOR		
	JR1R	2001-000890	CARBON RESISTOR				RC 7	2401-001912	E.CAPACITOR		
	JR10L	2001-000449	CARBON RESISTOR				RC 8	2401-001954	E.CAPACITOR		
	JR10R	2001-000449	CARBON RESISTOR				RC 13	2401-000230	E.CAPACITOR		
	JR11L	2001-000802	CARBON RESISTOR				RC 14	2401-000795	E.CAPACITOR		
	JR11R	2001-000802	CARBON RESISTOR				RC 19	2401-001893	E.CAPACITOR		
	JR12L	2001-000734	CARBON RESISTOR				RC 20	2401-001893	E.CAPACITOR		
	JR12R	2001-000734	CARBON RESISTOR				RC 37	2401-000438	E.CAPACITOR		
	JR16L	2001-000613	CARBON RESISTOR				RCW 1	AH37-22001N	CONNECTOR JACK		
	JR16R	2001-000613	CARBON RESISTOR				RCW 2	3711-000190	CONNECTOR		
	JR17L	2001-000003	CARBON RESISTOR				RCW 6	3711-001137	CONNECTOR		
	JR17R	2001-000003	CARBON RESISTOR				RD 1	0402-000127	DIODE		
	JR18L	2001-000734	CARBON RESISTOR				RD 2	0402-000127	DIODE		
	JR18R	2001-000734	CARBON RESISTOR				RD 3	0402-000127	DIODE		
	JR19L	2001-000522	CARBON RESISTOR		US,UW		RD 5	0402-000127	DIODE		
	JR19R	2001-000522	CARBON RESISTOR				RD 7	0401-000101	DIODE		
	JR2L	2001-000890	CARBON RESISTOR				RD 8	0402-000151	DIODE		
	JR2R	2001-000890	CARBON RESISTOR				RD 9	0402-000127	DIODE		
	JR20L	2001-000977	CARBON RESISTOR				RD 10	0402-000127	DIODE		
	JR20R	2001-000977	CARBON RESISTOR				RD 30	0402-000151	DIODE		
	JR24L	2001-000613	CARBON RESISTOR				RD 31	0402-000151	DIODE		

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△	Item	Parts number	Parts name	Remarks	Area
	RD 32	0402-000151	DIODE		
	RIC 1	1203-001653	IC		
	RJW 1	AH39-50001L	LEAD FASTEN		
	RL 1	2701-000298	INDUCTOR	AX470UH 04	
	RQ 1	0501-000610	TRANSISTOR		
	RQ 3	0501-000331	TRANSISTOR		
	RQ 4	0501-000294	TRANSISTOR		
	RR 1	2003-000701	OMF RESISTOR		
	RR 3	2001-000023	CARBON RESISTOR		
	RR 4	2001-000023	CARBON RESISTOR		
	RR 5	2001-000613	CARBON RESISTOR		
	RR 6	2001-000734	CARBON RESISTOR		
	RR 8	2003-000455	OMF RESISTOR		
	RR 9	2001-000563	CARBON RESISTOR		
	RR 10	2001-000055	CARBON RESISTOR		
	RR 11	2001-000591	CARBON RESISTOR		
	RR 12	2001-000734	CARBON RESISTOR		
	RR 13	2001-000111	CARBON RESISTOR		
	RR 15	2001-000734	CARBON RESISTOR		
	RR 16	2001-000038	CARBON RESISTOR		US,UW
	RR 17	2001-000429	CARBON RESISTOR		
	RR 20	2001-000786	CARBON RESISTOR		
	RW 1	AH39-00245A	LEAD CONNECTOR		
	RW 2	AH39-00244A	LEAD CONNECTOR		
	RZD 1	0403-000379	ZENER DIODE		
	RZD 2	0403-000570	ZENER DIODE		
	RZD 3	0403-000570	ZENER DIODE		
	RZD 4	0403-000354	ZENER DIODE		
	RZD 5	0403-001010	ZENER DIODE		
	TC101	2201-000783	C.CAPACITOR		
	TC102	2201-000783	C.CAPACITOR		

■ Electrical parts list(Front board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area
	MC 1	2401-001975	E.CAPACITOR		
	MC 2	2201-000231	C.CAPACITOR		
	MC 3	2401-001954	E.CAPACITOR		
	MC 4	2401-001954	E.CAPACITOR		
	MC 5	2401-001954	E.CAPACITOR		
	MC 6	2401-001975	E.CAPACITOR		
	MC 7	2401-001954	E.CAPACITOR		
	MC 8	2401-001912	E.CAPACITOR		
	MC 9	2201-000653	C.CAPACITOR		
	MC 10	2401-001954	E.CAPACITOR		
	MC 11	2201-000783	C.CAPACITOR		
	MC 12	2401-001912	E.CAPACITOR		
	MCW 1	AH39-00246A	LEAD CONNECTOR		
	MCW 2	AH39-00248A	LEAD CONNECTOR		
	MCW 3	AH39-00248A	LEAD CONNECTOR		
	MD 1	0401-000101	DIODE		
	MD 2	0401-000101	DIODE		
	MIC	3722-000351	PHONE JACK		
	MIC 1	1201-000163	IC		
	MQ 1	0501-000398	TRANSISTOR		
	MQ 2	0501-000398	TRANSISTOR		
	MR 1	2001-000356	CARBON RESISTOR		
	MR 2	2001-000290	CARBON RESISTOR		
	MR 3	2001-000290	CARBON RESISTOR		
	MR 4	2001-000449	CARBON RESISTOR		
	MR 5	2001-000472	CARBON RESISTOR		
	MR 6	2001-000290	CARBON RESISTOR		
	MR 7	2001-000429	CARBON RESISTOR		
	MR 8	2001-000734	CARBON RESISTOR		
	MR 9	2001-000273	CARBON RESISTOR		
	MR 10	2001-000472	CARBON RESISTOR		
	MR 11	2001-000522	CARBON RESISTOR		
	MR 12	2001-000734	CARBON RESISTOR		
	MR 13	2001-000734	CARBON RESISTOR		
	MR 14	2001-000734	CARBON RESISTOR		
	MR 15	2001-000515	CARBON RESISTOR		
	MVR 1	2101-001068	ROTARY V.RESIST	XV092PHPN20F-1B	
	PCB	AH41-00261A	PCB FRONT		
	R-EYE	AC59-60060A	MODULE-REMOCON		
	UC 1	2401-000475	E.CAPACITOR		
	UC 2	2201-000565	C.CAPASITOR		
	UC 3	2401-000475	E.CAPACITOR		
	UC 4	2201-000565	C.CAPASITOR		
	UC 5	2201-000565	C.CAPASITOR		
	UC 6	2201-000825	C.CAPASITOR		
	UC 7	2201-000825	C.CAPASITOR		
	UC 8	2201-000247	C.CAPASITOR		
	UC 9	2201-000247	C.CAPASITOR		
	UC 10	2401-000240	E.CAPACITOR		
	UC 11	2401-000759	E.CAPACITOR		
	UC 12	2401-001355	E.CAPACITOR		
	UC 15	2201-000565	C.CAPASITOR		
	UC 17	2401-001954	E.CAPACITOR		
	UC 19	2201-000565	C.CAPASITOR		
	UC 20	2201-000163	C.CAPASITOR		
	UC 21	2201-000163	C.CAPASITOR		
	UC 30	2201-000146	C.CAPACITOR		
	UC 32	2401-001364	E.CAPACITOR		
	UCW 1	3708-000492	CONNECTOR		
	UCW 2	3708-000178	CONNECTOR		
	UCW 3	3708-000454	CONNECTOR		
	UCW 4	3708-000451	CONNECTOR		
	UCW 5	3708-000492	CONNECTOR		

## ■ Electrical parts list(Front board)

Block No. 02

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	UCW 6	3708-001488	CONNECTOR				UR 21	2001-000734	CARBON RESISTOR		
	UCW 7	3708-000181	CONNECTOR				UR 22	2001-000734	CARBON RESISTOR		
	UD 1	0401-000101	DIODE				UR 23	2001-000734	CARBON RESISTOR		
	UD 2	0401-000101	DIODE				UR 24	2001-000734	CARBON RESISTOR		
	UD 3	0401-000101	DIODE				UR 25	2001-000734	CARBON RESISTOR		
	UD 11	0402-000127	DIODE				UR 26	2001-000734	CARBON RESISTOR		
	UD 12	0402-000127	DIODE				UR 27	2001-000734	CARBON RESISTOR		
	UD 13	0402-000127	DIODE				UR 28	2001-000786	CARBON RESISTOR		
	UD 14	0401-000101	DIODE				UR 29	2001-000786	CARBON RESISTOR		
	UD 15	0401-000101	DIODE				UR 30	2001-000786	CARBON RESISTOR		
	UD 16	0401-000101	DIODE				UR 31	2001-000786	CARBON RESISTOR		
	UD 17	0401-000101	DIODE				UR 32	2001-000786	CARBON RESISTOR		
	UD 18	0402-000127	DIODE				UR 33	2001-000786	CARBON RESISTOR		
	UD 19	0402-000127	DIODE				UR 34	2001-000290	CARBON RESISTOR		
	UIC 2	0904-001316	IC				UR 35	2001-000290	CARBON RESISTOR		
	ULD 1	0601-001238	LED				UR 36	2001-000290	CARBON RESISTOR		
	ULD 2	0601-001238	LED				UR 37	2001-000290	CARBON RESISTOR		
	ULD 3	0601-001238	LED				UR 38	2001-000290	CARBON RESISTOR		
	ULD 4	0601-001238	LED				UR 39	2001-000290	CARBON RESISTOR		
	ULD 5	0601-001238	LED				UR 40	2001-000591	CARBON RESISTOR		
	ULD 6	0601-001238	LED				UR 41	2001-000429	CARBON RESISTOR		
	ULD 7	0601-001238	LED				UR 42	2001-000429	CARBON RESISTOR		
	ULD 8	0601-001238	LED				UR 43	2001-000435	CARBON RESISTOR		
	ULD 9	0601-001238	LED				UR 44	2001-000734	CARBON RESISTOR		
	ULD10	0601-001238	LED				UR 45	2001-000508	CARBON RESISTOR		
	ULD11	0601-001238	LED				UR 46	2001-000793	CARBON RESISTOR		
	ULD12	0601-001238	LED				UR 47	2001-000850	CARBON RESISTOR		
	UQ 1	0504-000117	DIGI TRNSISTOR	KSR1002TA/KRC10			UR 48	2001-000295	CARBON RESISTOR		
	UQ 2	0504-000117	DIGI TRNSISTOR	KSR1002TA/KRC10			UR 49	2001-001178	CARBON RESISTOR		
	UQ 3	0504-000117	DIGI TRNSISTOR	KSR1002TA/KRC10			UR 50	2001-001178	CARBON RESISTOR		
	UQ 4	0504-000117	DIGI TRNSISTOR	KSR1002TA/KRC10			UR 51	2001-001178	CARBON RESISTOR		
	UQ 5	0504-000118	DIGI TRNSISTOR				UR 52	2001-000449	CARBON RESISTOR		
	UQ 6	0501-000398	TRANSISTOR				UR 54	2001-000995	CARBON RESISTOR		
	UQ 7	0504-000118	DIGI TRNSISTOR				UR 55	2001-000290	CARBON RESISTOR		
	UQ 8	0501-000610	TRANSISTOR				UR 56	2001-000429	CARBON RESISTOR		
	UQ 9	0504-000118	DIGI TRNSISTOR				UR 57	2001-000429	CARBON RESISTOR		
	UQ 10	0501-000610	TRANSISTOR				UR 58	2001-000429	CARBON RESISTOR		
	UQ 11	0501-000610	TRANSISTOR				UR 59	2001-000429	CARBON RESISTOR		
	UQ 12	0504-000117	DIGI TRNSISTOR	KSR1002TA/KRC10			UR 60	2001-000429	CARBON RESISTOR		
	UQ 13	0504-000117	DIGI TRNSISTOR	KSR1002TA/KRC10			UR 61	2001-000429	CARBON RESISTOR		
	UQ 14	0504-000117	DIGI TRNSISTOR	KSR1002TA/KRC10			UR 62	2001-000429	CARBON RESISTOR		
	UQ 15	0504-000117	DIGI TRNSISTOR	KSR1002TA/KRC10			UR 63	2001-000290	CARBON RESISTOR		
	UQ 17	0504-000118	DIGI TRNSISTOR				UR 64	2001-000290	CARBON RESISTOR		
	UQ 18	0501-000398	TRANSISTOR				UR 65	2001-000290	CARBON RESISTOR		
	UR 1	2001-000003	CARBON RESISTOR				UR 66	2001-000290	CARBON RESISTOR		
	UR 2	2001-000995	CARBON RESISTOR				UR 67	2001-000290	CARBON RESISTOR		
	UR 4	2001-000855	CARBON RESISTOR				UR 68	2001-000290	CARBON RESISTOR		
	UR 5	2001-000855	CARBON RESISTOR				UR 69	2001-000290	CARBON RESISTOR		
	UR 6	2001-000855	CARBON RESISTOR				UR 70	2001-000290	CARBON RESISTOR		
	UR 7	2001-000429	CARBON RESISTOR				UR 71	2001-000290	CARBON RESISTOR		
	UR 8	2001-000221	CARBON RESISTOR				UR 72	2001-000290	CARBON RESISTOR		
	UR 9	2001-000241	CARBON RESISTOR				UR 73	2001-000429	CARBON RESISTOR		
	UR 10	2001-000258	CARBON RESISTOR				UR 74	2001-000290	CARBON RESISTOR		
	UR 11	2001-000522	CARBON RESISTOR				UR 75	2001-000290	CARBON RESISTOR		
	UR 12	2001-000734	CARBON RESISTOR				UR 76	2001-000290	CARBON RESISTOR		
	UR 13	2001-000734	CARBON RESISTOR				UR 77	2001-000005	CARBON RESISTOR		
	UR 14	2001-000734	CARBON RESISTOR				UR 79	2001-000290	CARBON RESISTOR		
	UR 15	2001-000734	CARBON RESISTOR				UR 80	2001-000290	CARBON RESISTOR		
	UR 16	2001-000734	CARBON RESISTOR				UR 81	2001-000290	CARBON RESISTOR		
	UR 17	2001-000734	CARBON RESISTOR				UR 82	2001-000290	CARBON RESISTOR		
	UR 18	2001-000734	CARBON RESISTOR				UR 83	2001-000290	CARBON RESISTOR		
	UR 19	2001-000734	CARBON RESISTOR				UR 84	2001-000290	CARBON RESISTOR		
	UR 20	2001-000734	CARBON RESISTOR				UR 85	2001-000290	CARBON RESISTOR		

■ Electrical parts list(Front board)

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△	Item	Parts number	Parts name	Remarks	Area
	UR 86	2001-000290	CARBON RESISTOR		
	UR 87	2001-000290	CARBON RESISTOR		
	UR 88	2001-000290	CARBON RESISTOR		
	UR 89	2001-000290	CARBON RESISTOR		
	UR 90	2001-000290	CARBON RESISTOR		
	UR 91	2001-000290	CARBON RESISTOR		
	UR 92	2001-000429	CARBON RESISTOR		
	UR 93	2001-000995	CARBON RESISTOR		
	UR 94	2001-000221	CARBON RESISTOR		
	UR110	2001-000995	CARBON RESISTOR		
	UR111	2001-000855	CARBON RESISTOR		
	UR112	2001-000241	CARBON RESISTOR		
	UR113	2001-000855	CARBON RESISTOR		
	UR114	2001-000258	CARBON RESISTOR		
	UR115	2001-000855	CARBON RESISTOR		
	UR116	2001-000591	CARBON RESISTOR		
	UR117	2001-000449	CARBON RESISTOR		
	UR118	2001-000890	CARBON RESISTOR		
	UR119	2001-000290	CARBON RESISTOR		
	UR120	2001-000890	CARBON RESISTOR		
	UR121	2001-000290	CARBON RESISTOR		
	UR123	2001-000010	CARBON RESISTOR		
	UR124	2001-000734	CARBON RESISTOR		
	UR125	2001-000734	CARBON RESISTOR		
	UR126	2001-000591	CARBON RESISTOR		
	UR127	2001-000449	CARBON RESISTOR		
	UR128	2001-000258	CARBON RESISTOR		
	UR129	2001-000241	CARBON RESISTOR		
	UR130	2001-000221	CARBON RESISTOR		
	UR131	2001-000429	CARBON RESISTOR		
	UR150	2001-000786	CARBON RESISTOR		
	UR151	2001-000786	CARBON RESISTOR		
	UR152	2001-000786	CARBON RESISTOR		
	UR153	2001-000786	CARBON RESISTOR		
	UR154	2001-000290	CARBON RESISTOR		
	UR162	2001-000290	CARBON RESISTOR		
	UR164	2001-000515	CARBON RESISTOR		
	UR196	2001-000855	CARBON RESISTOR		
	UR201	2001-000290	CARBON RESISTOR		
	UR202	2001-000290	CARBON RESISTOR		
	UR203	2001-000290	CARBON RESISTOR		
	UR204	2001-000290	CARBON RESISTOR		
	UR205	2001-000290	CARBON RESISTOR		
	UR206	2001-000290	CARBON RESISTOR		
	UR207	2001-000290	CARBON RESISTOR		
	UR208	2001-000429	CARBON RESISTOR		
	UR209	2001-000857	CARBON RESISTOR		
	USR 1	2103-000341	SEMI V.RESISTOR		
	USW 1	3404-000165	TACT SWITCH		
	USW 2	3404-000165	TACT SWITCH		
	USW 3	3404-000165	TACT SWITCH		
	USW 4	3404-000165	TACT SWITCH		
	USW 5	3404-000165	TACT SWITCH		
	USW 6	3404-000165	TACT SWITCH		
	USW 7	3404-000165	TACT SWITCH		
	USW 8	3404-000165	TACT SWITCH		
	USW 9	3404-000165	TACT SWITCH		
	USW10	3404-000165	TACT SWITCH		
	USW11	3404-000165	TACT SWITCH		
	USW12	3404-000165	TACT SWITCH		
	USW13	3404-000165	TACT SWITCH		
	USW14	3404-000165	TACT SWITCH		
	USW15	3404-000165	TACT SWITCH		

△	Item	Parts number	Parts name	Remarks	Area
	JSW16	3404-000165	TACT SWITCH		
	USW17	3404-000165	TACT SWITCH		
	USW18	3404-000165	TACT SWITCH		
	USW19	3404-000165	TACT SWITCH		
	USW20	3404-000165	TACT SWITCH		
	USW21	3404-000165	TACT SWITCH		
	USW22	3404-000165	TACT SWITCH		
	USW23	3404-000165	TACT SWITCH		
	USW24	3404-000165	TACT SWITCH		
	USW25	3404-000165	TACT SWITCH		
	USW26	3404-000165	TACT SWITCH		
	USW27	3404-000165	TACT SWITCH		
	USW28	3404-000165	TACT SWITCH		
	USW29	3404-000165	TACT SWITCH		
	USW30	3404-000165	TACT SWITCH		
	USW31	3404-000165	TACT SWITCH		
	USW32	3404-000165	TACT SWITCH		
	UVR 1	3406-001071	ROTARY SWITCH		
	UVR 2	3406-001047	ROTARY SWITCH		
	UVR 3	3406-001047	ROTARY SWITCH		
	UX 1	2802-000181	RESONATOR		
	UX 2	2801-001394	CRYSTAL		
	VFD	AH07-00040A	VF DISPLAY		

■ Electrical parts list(Amp board)

Block No. 03

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
△	#AIC1	1201-001544	IC ,POWER AMP				AC6L	2401-002180	E.CAPACITOR		
△	#AIC2	1201-001599	IC				AC7L	2401-000240	E.CAPACITOR		
	AC 3	2301-000375	M.CAPACITOR				AC7R	2401-000240	E.CAPACITOR		
	AC 4	2301-000375	M.CAPACITOR				AC8L	2401-000459	E.CAPACITOR		
	AC 8	2201-000368	C.CAPACITOR				AC8R	2401-000459	E.CAPACITOR		
	AC 9	2401-000357	E.CAPACITOR				AC9L	2201-000381	C.CAPACITOR		
	AC 10	2401-000357	E.CAPACITOR				AC9R	2201-000381	C.CAPACITOR		
	AC 11	2201-000368	C.CAPACITOR				AD 5	0402-000127	DIODE		
	AC 12	2401-002180	E.CAPACITOR				AD 6	0401-000101	DIODE		
	AC 13	2401-001154	E.CAPACITOR				AD 7	0401-000101	DIODE		
	AC 14	2201-000658	C.CAPACITOR				AD 8	0401-000101	DIODE		
	AC 15	2201-000658	C.CAPACITOR				AD 9	0401-000101	DIODE		
	AC 16	2401-001154	E.CAPACITOR				AIC 3	1201-000163	IC		
	AC 17	2401-002180	E.CAPACITOR				AIC 4	1201-000163	IC		
	AC 20	2401-000230	E.CAPACITOR				AIC 5	1201-000163	IC		
	AC 22	2301-000390	M.CAPACITOR				AIC 6	1201-000163	IC		
	AC 23	2401-000240	E.CAPACITOR				AIC 7	1201-000163	IC		
	AC 24	2301-000411	M.CAPACITOR				AL 1	AH27-90001A	SPRING COIL	2.2UH	
	AC 25	2301-000419	M.CAPACITOR				AL 2	AH27-90001A	SPRING COIL	2.2UH	
	AC 26	2401-000240	E.CAPACITOR				AL1L	AH27-90001A	SPRING COIL	2.2UH	
	AC 27	2201-000783	C.CAPACITOR				AL1R	AH27-90001A	SPRING COIL	2.2UH	
	AC 28	2201-000783	C.CAPACITOR				AQ 1	0501-000407	TRANSISTOR		
	AC 29	2401-000240	E.CAPACITOR				AQ 2	0501-000407	TRANSISTOR		
	AC 30	2401-001975	E.CAPACITOR				AQ 3	0501-000407	TRANSISTOR		
	AC 31	2201-000146	C.CAPACITOR				AQ 6	0501-000010	TRANSISTOR		
	AC 32	2401-000240	E.CAPACITOR				AQ 8	0501-000610	TRANSISTOR		
	AC 33	2401-003621	E.CAPACITOR				AQ 11	0501-000398	TRANSISTOR		
	AC 34	2401-001954	E.CAPACITOR				AQ 12	0501-000398	TRANSISTOR		
	AC 35	2301-000475	M.CAPACITOR				AQ 13	0501-000398	TRANSISTOR		
	AC 36	2201-000547	C.CAPACITOR				AQ 14	0501-000610	TRANSISTOR		
	AC 37	2401-001975	E.CAPACITOR				AQ2L	0501-000407	TRANSISTOR		
	AC 38	2401-001975	E.CAPACITOR				AQ2R	0501-000407	TRANSISTOR		
	AC 39	2401-001912	E.CAPACITOR				AR 1	2003-000689	OMF RESISTOR		
	AC 40	2401-001954	E.CAPACITOR				AR 2	2003-000689	OMF RESISTOR		
	AC 41	2401-000240	E.CAPACITOR				AR 3	2001-000065	CARBON RESISTOR		
	AC 42	2301-000411	M.CAPACITOR				AR 4	2001-000290	CARBON RESISTOR		
	AC 43	2401-000240	E.CAPACITOR				AR 5	2003-000008	OMF RESISTOR		
	AC 44	2401-000240	E.CAPACITOR				AR 6	2001-000290	CARBON RESISTOR		
	AC 45	2301-000411	M.CAPACITOR				AR 7	2001-000258	CARBON RESISTOR		
	AC 46	2301-000419	M.CAPACITOR				AR 8	2001-000864	CARBON RESISTOR		
	AC 47	2201-000381	C.CAPACITOR				AR 9	2003-000390	OMF RESISTOR		
	AC 49	2401-001975	E.CAPACITOR				AR 10	2003-000390	OMF RESISTOR		
	AC 50	2401-000240	E.CAPACITOR				AR 11	2003-000390	OMF RESISTOR		
	AC 51	2401-002180	E.CAPACITOR				AR 12	2003-000390	OMF RESISTOR		
	AC 52	2401-000871	E.CAPACITOR				AR 13	2003-000008	OMF RESISTOR		
	AC 54	2201-000783	C.CAPACITOR				AR 14	2001-000864	CARBON RESISTOR		
	AC 55	2201-000783	C.CAPACITOR				AR 15	2001-000258	CARBON RESISTOR		
	AC 56	2301-000375	M.CAPACITOR				AR 20	2001-000660	CARBON RESISTOR		
	ACW 1	3708-001094	CONNECTOR				AR 21	2001-000429	CARBON RESISTOR		
	ACW 2	3711-001167	CONNECTOR	9P 1R 2.5MM STR			AR 22	2001-000017	CARBON RESISTOR		
	AC1L	2201-000368	C.CAPACITOR				AR 24	2001-000017	CARBON RESISTOR		
	AC1R	2201-000368	C.CAPACITOR				AR 25	2001-000515	CARBON RESISTOR		
	AC10L	2301-000375	M.CAPACITOR				AR 26	2001-000273	CARBON RESISTOR		
	AC2L	2401-000357	E.CAPACITOR				AR 32	2001-000273	CARBON RESISTOR		
	AC2R	2401-000357	E.CAPACITOR				AR 33	2001-000281	CARBON RESISTOR		
	AC3R	2401-002180	E.CAPACITOR				AR 34	2001-000522	CARBON RESISTOR		
	AC301	2401-000475	E.CAPACITOR				AR 35	2001-000522	CARBON RESISTOR		
	AC302	2401-000475	E.CAPACITOR				AR 36	2001-000281	CARBON RESISTOR		
	AC303	2401-000475	E.CAPACITOR				AR 37	2001-000258	CARBON RESISTOR		
	AC304	2401-000475	E.CAPACITOR				AR 38	2001-000802	CARBON RESISTOR		
	AC4L	2401-001154	E.CAPACITOR				AR 39	2001-000522	CARBON RESISTOR		
	AC4R	2401-001154	E.CAPACITOR				AR 40	2001-000508	CARBON RESISTOR		
	AC5L	2201-000658	C.CAPACITOR				AR 41	2001-000281	CARBON RESISTOR		

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△	Item	Parts number	Parts name	Remarks	Area
	AR 42	2001-000008	CARBON RESISTOR		
	AR 43	2001-000331	CARBON RESISTOR		
	AR 44	2001-000273	CARBON RESISTOR		
	AR 45	2001-000786	CARBON RESISTOR		
	AR 46	2001-000281	CARBON RESISTOR		
	AR 47	2001-000273	CARBON RESISTOR		
	AR 48	2001-000273	CARBON RESISTOR		
	AR 49	2001-000548	CARBON RESISTOR		
	AR 50	2001-000563	CARBON RESISTOR		
	AR 51	2001-000273	CARBON RESISTOR		
	AR 52	2001-000977	CARBON RESISTOR		
	AR 53	2001-000508	CARBON RESISTOR		
	AR 54	2001-000449	CARBON RESISTOR		
	AR 55	2001-000786	CARBON RESISTOR		
	AR 56	2001-000554	CARBON RESISTOR		
	AR 57	2001-000802	CARBON RESISTOR		
	AR 58	2001-000273	CARBON RESISTOR		
	AR 59	2001-000281	CARBON RESISTOR		
	AR 60	2001-000522	CARBON RESISTOR		
	AR 61	2001-000522	CARBON RESISTOR		
	AR 62	2001-000563	CARBON RESISTOR		
	AR 63	2001-000281	CARBON RESISTOR		
	AR 64	2001-000258	CARBON RESISTOR		
	AR 65	2001-000864	CARBON RESISTOR		
	AR 66	2001-000508	CARBON RESISTOR		
	AR 67	2001-000508	CARBON RESISTOR		
	AR 68	2001-000281	CARBON RESISTOR		
	AR 69	2001-000522	CARBON RESISTOR		
	AR 70	2001-000522	CARBON RESISTOR		
	AR 71	2001-000281	CARBON RESISTOR		
	AR 72	2001-000281	CARBON RESISTOR		
	AR 73	2001-001000	CARBON RESISTOR		
	AR 74	2001-000273	CARBON RESISTOR		
	AR 75	2001-000281	CARBON RESISTOR		
	AR 77	2001-000065	CARBON RESISTOR		
	AR 78	2003-000008	OMF RESISTOR		
	AR 79	2003-000008	OMF RESISTOR		
	AR 80	2001-000660	CARBON RESISTOR		
	AR 81	2001-000660	CARBON RESISTOR		
	AR 82	2001-000660	CARBON RESISTOR		
	AR 83	2001-000786	CARBON RESISTOR		
	AR 84	2001-000591	CARBON RESISTOR		
	AR 86	2001-000591	CARBON RESISTOR		
	AR 87	2001-000591	CARBON RESISTOR		
	AR 88	2001-000290	CARBON RESISTOR		
	AR 89	2001-000786	CARBON RESISTOR		
	ARL 1	3501-001197	RELAY	OSA-SS-212DM3	
	AR1L	2001-000290	CARBON RESISTOR		
	AR1R	2001-000290	CARBON RESISTOR		
	AR11L	2001-000522	CARBON RESISTOR		
	AR11R	2001-000522	CARBON RESISTOR		
	AR12L	2001-000281	CARBON RESISTOR		
	AR12R	2001-001000	CARBON RESISTOR		
	AR13L	2001-000864	CARBON RESISTOR		
	AR13R	2001-000281	CARBON RESISTOR		
	AR14L	2001-001000	CARBON RESISTOR		
	AR14R	2001-000864	CARBON RESISTOR		
	AR15L	2003-000689	OMF RESISTOR		
	AR15R	2003-000689	OMF RESISTOR		
	AR2L	2001-000258	CARBON RESISTOR		
	AR2R	2001-000258	CARBON RESISTOR		
	AR3L	2001-000864	CARBON RESISTOR		
	AR3R	2001-000864	CARBON RESISTOR		

△	Item	Parts number	Parts name	Remarks	Area
	AR300	2001-000429	CARBON RESISTOR		
	AR310	2001-000786	CARBON RESISTOR		
	AR311	2001-000786	CARBON RESISTOR		
	AR312	2001-000786	CARBON RESISTOR		
	AR4L	2001-000864	CARBON RESISTOR		
	AR4R	2001-000864	CARBON RESISTOR		
	AR6L	2001-000017	CARBON RESISTOR		
	AR6R	2001-000017	CARBON RESISTOR		
	AR7L	2001-000429	CARBON RESISTOR		
	AR7R	2001-000429	CARBON RESISTOR		
	AR8L	2001-000591	CARBON RESISTOR		
	AR8R	2001-000591	CARBON RESISTOR		
	SPK	3716-001164	TERMINAL-BLOCK		

■ Electrical parts list(Voice cancel board)

Block No. 04

△	Item	Parts number	Parts name	Remarks	Area
	C 301	2401-000907	E.CAPACITOR		
	C 302	2401-000438	E.CAPACITOR		
	C 303	2301-000216	M.CAPACITOR		
	C 304	2301-000470	M.CAPACITOR		
	C 305	2401-000438	E.CAPACITOR		
	C 306	2301-000462	M.CAPACITOR		
	C 307	2401-000656	E.CAPACITOR		
	C 308	2401-000438	E.CAPACITOR		
	C 309	2401-000438	E.CAPACITOR		
	C 310	2401-001954	E.CAPACITOR		
	C 311	2401-001912	E.CAPACITOR		
	CW301	3710-000209	CONNECTOR		
	CW302	3710-000209	CONNECTOR		
	IC301	1204-000393	IC		
	R 301	2001-000027	CARBON RESISTOR		
	R 302	2001-000522	CARBON RESISTOR		
	R 303	2001-000522	CARBON RESISTOR		
	R 304	2001-000802	CARBON RESISTOR		
	R 305	2001-000894	CARBON RESISTOR		
	R 306	2001-000786	CARBON RESISTOR		
	R 307	2001-000281	CARBON RESISTOR		
	R 308	2001-000522	CARBON RESISTOR		
	R 309	2001-000802	CARBON RESISTOR		
	RCW 2	3711-000190	CONNECTOR		
	RFS 2	3602-000147	FUSE CLIP		
	RFS 3	3602-000147	FUSE CLIP		
	RFS 4	3602-000147	FUSE CLIP		
	RSW 1	AH34-00013A	AUTO P. SWITCH	Voltage selector	
	ZD301	0403-000317	ZENER DIODE		



## ■ Electrical parts list(CD board)

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area	△	Item	Parts number	Parts name	Remarks	Area
	C 101	2401-000240	E.CAPACITOR				CW104	3711-003379	CONNECTOR	35366-0310	
	C 102	2203-000440	CHIP C.CAPACITO				CW105	3708-001438	CONNECTOR		
	C 103	2203-000257	CHIP C.CAPACITO				CW106	AH39-20025S	LEAD-CONNECTOR		
	C 104	2203-000257	CHIP C.CAPACITO				CW107	3711-000906	CONNECTOR		
	C 105	2203-000257	CHIP C.CAPACITO				C124A	2203-001063	CHIP C.CAPACITO		
	C 106	2203-001140	CHIP C.CAPACITO				C501L	2401-001954	E.CAPACITOR		
	C 107	2401-000240	E.CAPACITOR				C501R	2401-001954	E.CAPACITOR		
	C 108	2401-000240	E.CAPACITOR				C502L	2203-000440	CHIP C.CAPACITO		
	C 111	2203-000888	CHIP C.CAPACITO				C502R	2203-000440	CHIP C.CAPACITO		
	C 112	2203-000888	CHIP C.CAPACITO				D 301	0402-000151	DIODE		
	C 113	2202-000780	C.CAPACITOR				IC101	1204-001799	IC		
	C 114	2401-001954	E.CAPACITOR				IC201	0904-001524	IC		
	C 115	2203-000206	CHIP C.CAPACITO				IC301	1003-000179	IC		
	C 116	2203-000206	CHIP C.CAPACITO				IC401	1003-001162	IC		
	C 117	2203-000440	CHIP C.CAPACITO				IC402	1003-001162	IC		
	C 118	2203-000206	CHIP C.CAPACITO				IC801	AC14-12001G	IC		
	C 119	2203-000800	CHIP C.CAPACITO				J 1	2007-000070	CHIP C.RESISTOR		
	C 120	2401-001968	E.CAPACITOR				J 2	2007-000070	CHIP C.RESISTOR		
	C 121	2203-000257	CHIP C.CAPACITO				J 3	2007-000070	CHIP C.RESISTOR		
	C 122	2203-001140	CHIP C.CAPACITO				J 4	2007-000029	CHIP C.RESISTOR		
	C 123	2401-000419	E.CAPACITOR				J 5	2007-000070	CHIP C.RESISTOR		
	C 124	2203-000206	CHIP C.CAPACITO				J 7	2007-000029	CHIP C.RESISTOR		
	C 126	2203-000491	CHIP C.CAPACITO				J 8	2007-000029	CHIP C.RESISTOR		
	C 127	2203-000592	CHIP C.CAPACITO				J 9	2007-000029	CHIP C.RESISTOR		
	C 128	2203-000800	CHIP C.CAPACITO				J 10	2007-000070	CHIP C.RESISTOR		
	C 129	2203-000206	CHIP C.CAPACITO				J 12	2007-000029	CHIP C.RESISTOR		
	C 130	2203-000206	CHIP C.CAPACITO				J 13	2007-000070	CHIP C.RESISTOR		
	C 131	2203-000178	CHIP C.CAPACITO				MJ 1	2007-000070	CHIP C.RESISTOR		
	C 132	2203-000178	CHIP C.CAPACITO				MR 1	2007-000090	CHIP C.RESISTOR		
	C 133	2401-000240	E.CAPACITOR				MR 2	2007-000090	CHIP C.RESISTOR		
	C 134	2203-000257	CHIP C.CAPACITO				MR 3	2007-000090	CHIP C.RESISTOR		
	C 135	2401-001968	E.CAPACITOR				Q 101	0501-000314	TRANSISTOR		
	C 201	2203-000681	CHIP C.CAPACITO				Q 301	0501-000610	TRANSISTOR		
	C 202	2203-000681	CHIP C.CAPACITO				Q 302	0501-000010	TRANSISTOR		
	C 203	2203-001222	CHIP C.CAPACITO				R 101	2007-000098	CHIP C.RESISTOR		
	C 204	2203-000178	CHIP C.CAPACITO				R 102	2007-000098	CHIP C.RESISTOR		
	C 205	2203-000178	CHIP C.CAPACITO				R 103	2007-000098	CHIP C.RESISTOR		
	C 207	2203-000257	CHIP C.CAPACITO				R 104	2007-000098	CHIP C.RESISTOR		
	C 208	2203-000851	CHIP C.CAPACITO				R 105	2007-000100	CHIP C.RESISTOR	68KOHM 5% 1/16W	
	C 209	2203-000257	CHIP C.CAPACITO				R 106	2007-000100	CHIP C.RESISTOR	68KOHM 5% 1/16W	
	C 211	2203-000178	CHIP C.CAPACITO				R 107	2007-000115	CHIP C.RESISTOR		
	C 212	2401-000240	E.CAPACITOR				R 108	2007-000308	CHIP C.RESISTOR		
	C 213	2203-000257	CHIP C.CAPACITO				R 110	2007-000455	CHIP C.RESISTOR		
	C 214	2203-000257	CHIP C.CAPACITO				R 112	2007-001196	CHIP C.RESISTOR		
	C 215	2401-000240	E.CAPACITOR				R 113	2007-000132	CHIP C.RESISTOR		
	C 216	2203-000257	CHIP C.CAPACITO				R 114	2007-000100	CHIP C.RESISTOR	68KOHM 5% 1/16W	
	C 217	2401-000240	E.CAPACITOR				R 115	2007-001179	CHIP C.RESISTOR		
	C 218	2203-000257	CHIP C.CAPACITO				R 116	2007-000093	CHIP C.RESISTOR		
	C 301	2401-001102	E.CAPACITOR				R 117	2001-000331	CARBON RESISTOR		
	C 302	2401-000240	E.CAPACITOR				R 118	2007-000109	CHIP C.RESISTOR		
	C 303	2401-000240	E.CAPACITOR				R 119	2007-000101	CHIP C.RESISTOR		
	C 304	2203-000257	CHIP C.CAPACITO				R 120	2007-000100	CHIP C.RESISTOR	68KOHM 5% 1/16W	
	C 305	2203-000257	CHIP C.CAPACITO				R 121	2007-000092	CHIP C.RESISTOR		
	C 401	2203-000257	CHIP C.CAPACITO				R 123	2007-000097	CHIP C.RESISTOR		
	C 402	2203-000257	CHIP C.CAPACITO				R 124	2007-000103	CHIP C.RESISTOR		
	C 403	2203-000178	CHIP C.CAPACITO				R 125	2007-000103	CHIP C.RESISTOR		
	C 801	2401-000795	E.CAPACITOR				R 126	2007-000098	CHIP C.RESISTOR		
	C 804	2202-000243	C.CAPACITOR				R 127	2007-000100	CHIP C.RESISTOR	68KOHM 5% 1/16W	
	C 805	2202-000243	C.CAPACITOR				R 128	2007-000129	CHIP C.RESISTOR		
	C 806	2202-000243	C.CAPACITOR				R 132	2007-000090	CHIP C.RESISTOR		
	CW101	3708-001252	CONNECTOR				R 133	2007-000090	CHIP C.RESISTOR		
	CW102	AH39-20561P	LEAD CONNECTOR				R 201	2007-000074	CHIP C.RESISTOR		
	CW103	3708-001131	CONNECTOR				R 202	2007-000109	CHIP C.RESISTOR		

## ■ Electrical parts list(CD board)

Block No. 05

△	Item	Parts number	Parts name	Remarks	Area
	R 204	2007-000078	CHIP C.RESISTOR		
	R 205	2007-000078	CHIP C.RESISTOR		
	R 206	2007-000078	CHIP C.RESISTOR		
	R 207	2007-000078	CHIP C.RESISTOR		
	R 208	2007-000078	CHIP C.RESISTOR		
	R 209	2007-000078	CHIP C.RESISTOR		
	R 210	2007-000075	CHIP C.RESISTOR		
△	R 301	2008-000140	FUSI RESISTOR		
	R 302	2001-001006	CARBON RESISTOR		
	R 803	2001-000429	CARBON RESISTOR		
	R 804	2007-000078	CHIP C.RESISTOR		
	R 805	2007-000078	CHIP C.RESISTOR		
	R 806	2007-000078	CHIP C.RESISTOR		
	R 807	2007-000084	CHIP C.RESISTOR		
	R 808	2007-000084	CHIP C.RESISTOR		
	R 809	2007-000084	CHIP C.RESISTOR		
	R 810	2001-000515	CARBON RESISTOR		
	R 811	2007-000078	CHIP C.RESISTOR		
	R 813	2007-000097	CHIP C.RESISTOR		
	R501L	2007-000102	CHIP C.RESISTOR		
	R501R	2007-000102	CHIP C.RESISTOR		
	R502L	2007-000074	CHIP C.RESISTOR		
	R502R	2007-000074	CHIP C.RESISTOR		
	X 201	2802-000211	RESONATOR		
	ZD301	0403-000344	ZENER DIODE		
	ZD401	0403-000361	ZENER DIODE		
	ZD402	0403-000352	ZENER DIODE		

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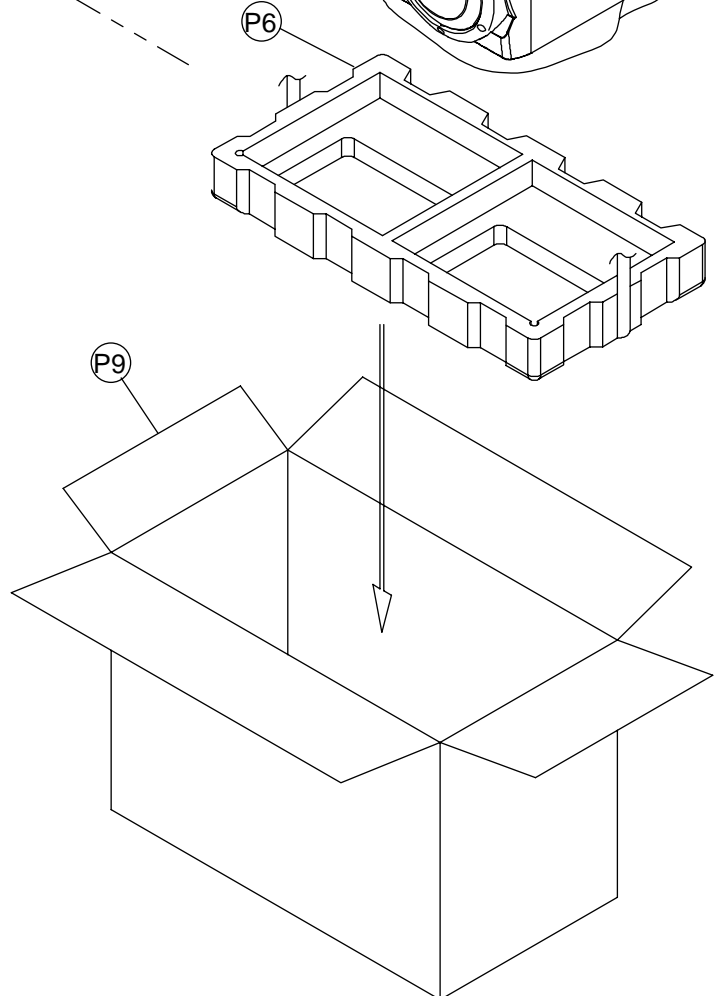
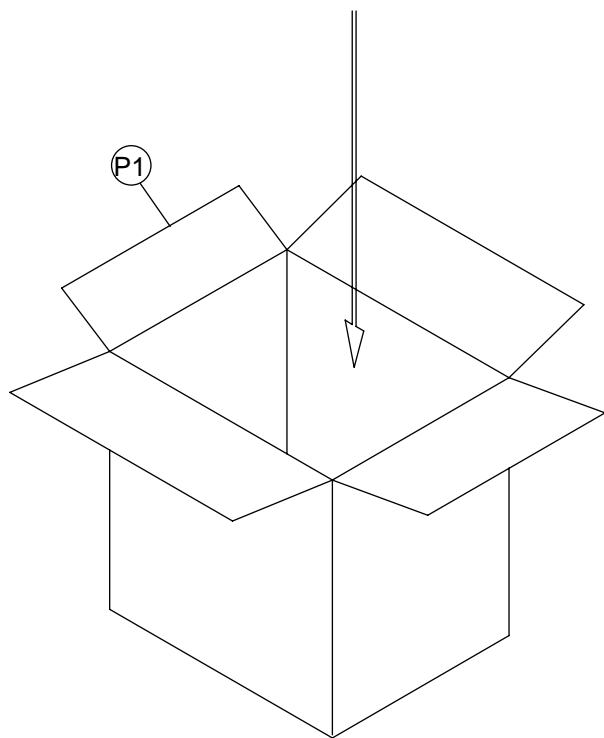
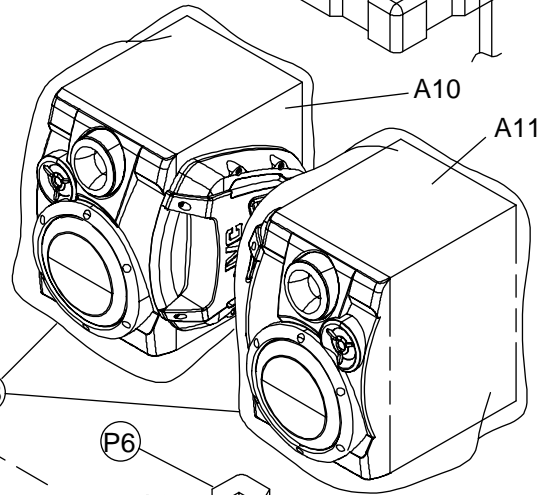
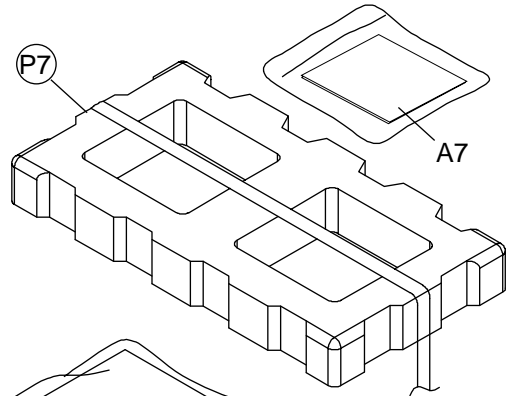
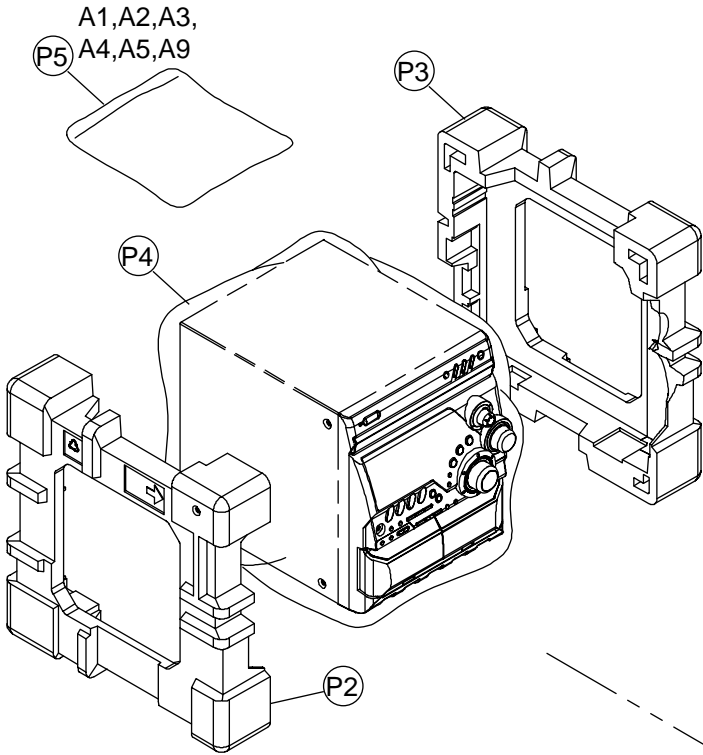
# Packing materials and accessories parts list

Block No. 

M	5	M	M
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Block No. 

M	6	M	M
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**Parts list(Packing)**

Block No. M5MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	P 1	AH69-00351C	PACKING-CASE	1		UY
		AH69-00351D	PACKING-CASE	1		US UW
	P 2	AH69-00343A	CUSHION-L	1	FOR SET	
	P 3	AH69-00344A	CUSHION-R	1	FOR SET	
	P 4	AH69-30012T	POLY BAG	1	FOR SET	
	P 5	18654-101-00	POLY BAG	1	FOR ACCESSORIES	
	P 6	AH81-00374U	BOTTOM CUSHION	1	FOR SPEAKER	
	P 7	AH81-00374T	TOP CUSHION	1	FOR SPEAKER	
	P 8	AH81-00373P	POLY BAG	2	FOR SPEAKER	
	P 9	AH81-00374W	PACKING-CASE	1	FOR SPEAKER	

**Parts list(Accessories)**

Block No. M6MM

△	Item	Parts number	Parts name	Q'ty	Description	Area
	A 1	AH68-00744B	INSTRUCTION	1	ENG CHI	US
		AH68-00744M	INSTRUCTION	1	SPA	UY
		AH68-00744P	INSTRUCTION	1	ENG SPA POR	UW
	A 2	AH59-00095D	REMOCON	1	RM-SMXG50A (MX-	UY
		AH59-00095E	REMOCON	1	RM-SMXG50U (MX-	US UW
	A 3	AH38-10001A	FM-WIRE	1		
	A 4	AH42-20001S	ANT LOOP	1		
	A 5	-----	BATTERY	2		
	A 7	AH81-00374V	I/B FOR SPEAKER	1	CHI(PEKIN)KOR	
		AH81-00374V	I/B FOR SPEAKER	1	CHI(TAIWAN)	
		AH81-00374V	I/B FOR SPEAKER	1	ENG SPA POR ARA	
△	A 9	3721-000117	AC PLUG	1		US UW
	A 10	MXG50K-SPBOX-L	SPEAKER BOX	1		
	A 11	MXG50K-SPBOX-R	SPEAKER BOX	1		