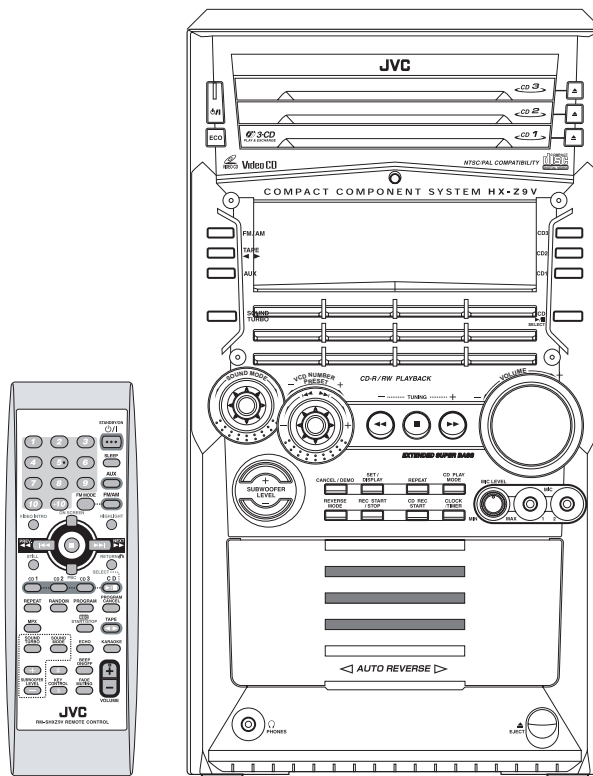


# JVC

## SERVICE MANUAL

### COMPACT COMPONENT SYSTEM

## HX-Z9V



CA-HXZ9V



#### Area Suffix

US ----- Singapore

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## SPECIFICATION

Amplifier section	Output Power (IEC 268-3)	SUBWOOFERS	75 W per channel, min. RMS, both channels driven into 6 $\Omega$ at 63 Hz with no more than 0.9% total harmonic distortion.	
	MAIN SPEAKERS	30 W per channel, min. RMS, both channels driven into 6 $\Omega$ at 1 kHz with no more than 0.9% total harmonic distortion.		
	Audio input sensitivity/Impedance	(Measured at 1 kHz, with tape recording signal 300 mV)		
		AUX	390 mV/50 k $\Omega$	
	Speakers/Impedance	MIX 1/2	1.5 mV/5 k $\Omega$	
		SUBWOOFERS	6 $\Omega$ - 16 $\Omega$	
MAIN SPEAKERS		6 $\Omega$ - 16 $\Omega$		
Tuner	FM tuning range	87.50 MHz - 108.00 MHz		
	AM tuning range	At 9 kHz intervals	531 kHz - 1 710 kHz	
		At 10 kHz intervals	530 kHz - 1 710 kHz	
CD player	CD capacity	3 CDs		
	Dynamic range	85 dB		
	Signal-to-noise ratio	90 dB		
	Wow and flutter	Immeasurable		
	MP3 recording format	MPEG 1/2 Audio Layer 3		
	Max. Bit rate	320 kbps		
Cassette deck	Frequency response	Normal (type I)	50 Hz - 14 000 Hz	
		Wow and flutter	0.15% (WRMS)	
General	Power requirement	AC 110 V / AC 127 V / AC 220 V / AC 230 V - AC 240 V (adjustable with the voltage selector), 50 Hz / 60 Hz		
	Power consumption	205 W (in operation) 23 W (on standby with Ecology Mode off)		
		Less than 3.5 W (on standby with Ecology Mode on)		
	Dimensions (approx.)	205 mm $\times$ 370 mm $\times$ 370 mm (W/H/D)		
	Mass (approx.)	10.0 kg		

Design and specifications are subject to change without notice.

# SECTION 1

## Precautions

### 1.1 Safety Precautions

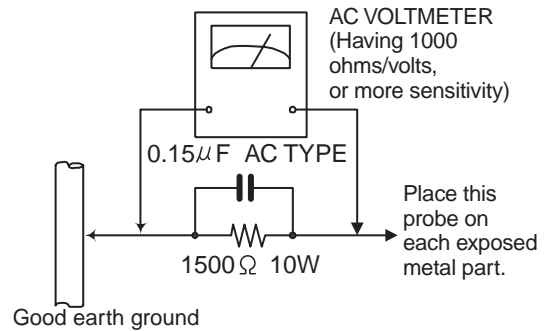
- (1) This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in 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 manufacturer 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 ( $\Delta$ ) 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 reassembling.
- (5) Leakage shock hazard testing

After reassembling 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 part 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 $\Omega$  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 $\mu$  mA AC (r.m.s.).



### 1.2 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.

### 1.3 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 pre-forming repair of this system.**

### 1.4 Critical parts for safety

In regard with component parts appearing on the silk-screen printed side (parts side) of the PWB diagrams, the parts that are printed over with black such as the resistor (■), diode (■) and ICP (●) or identified by the " $\Delta$ " 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. (This regulation does not Except the J and C version)

## 1.5 Preventing 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.

### 1.5.1 Grounding to prevent damage by static electricity

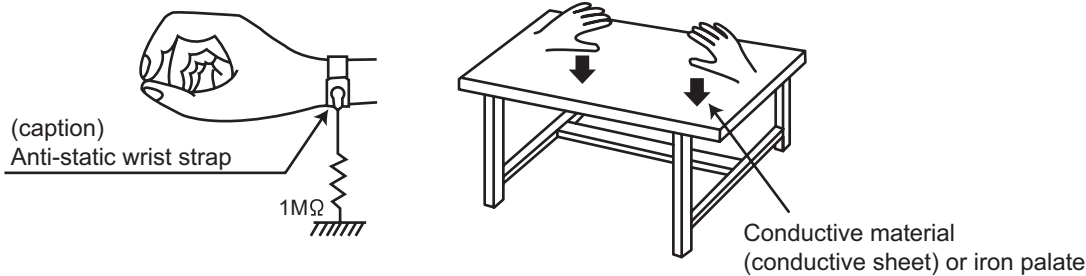
Static electricity in the work area can destroy the optical pickup (laser diode) in devices such as CD players. Be careful to use proper grounding in the area where repairs are being performed.

(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) Ground yourself

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



(3) Handling the optical pickup

- 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.)
- 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.

## 1.6 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.

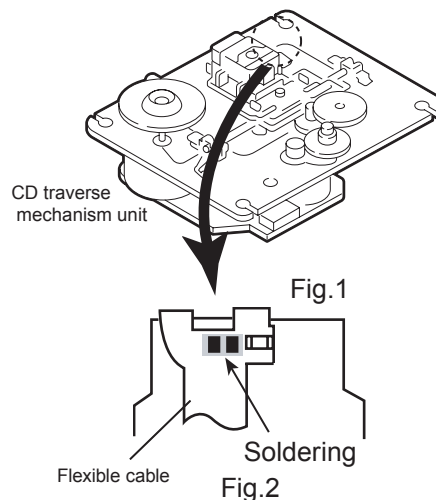
(3) Handle the flexible cable carefully as it may break when subjected to strong force.

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

## 1.7 Attention when traverse unit is decomposed

**\*Please refer to "Disassembly method" in the text for the CD pickup unit.**

- Apply solder to the short land sections before the flexible wire is disconnected from the connector CN101 on the CD servo board. (If the flexible wire is disconnected without applying solder, the CD pickup may be destroyed by static electricity.)
- In the assembly, be sure to remove solder from the short land sections after connecting the flexible wire.



## SECTION 2

### Disassembly method

#### 2.1 Main body

##### 2.1.1 Removing the metal cover

(See Fig.1~3)

- (1) Remove the six screws **A** on the back of the body.
- (2) Remove the screw **B** on each side of the body.
- (3) Remove the metal cover from the body by lifting the rear part of the cover.

#### CAUTION:

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

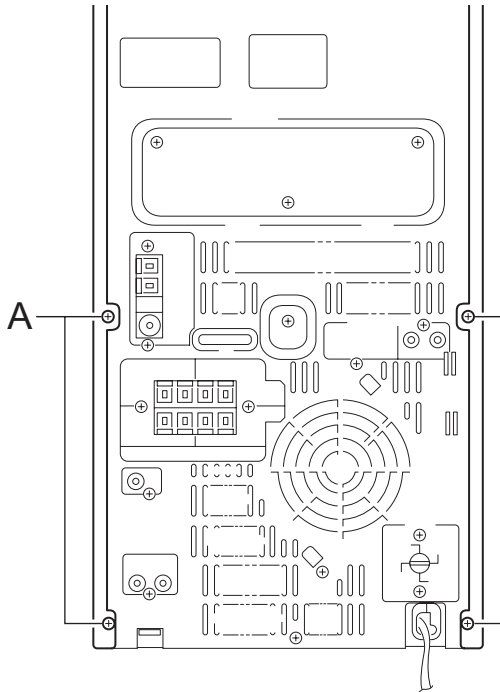


Fig.1

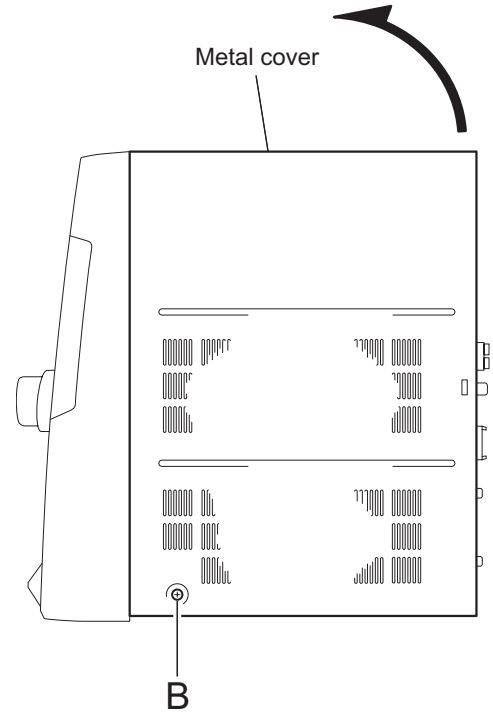


Fig.2

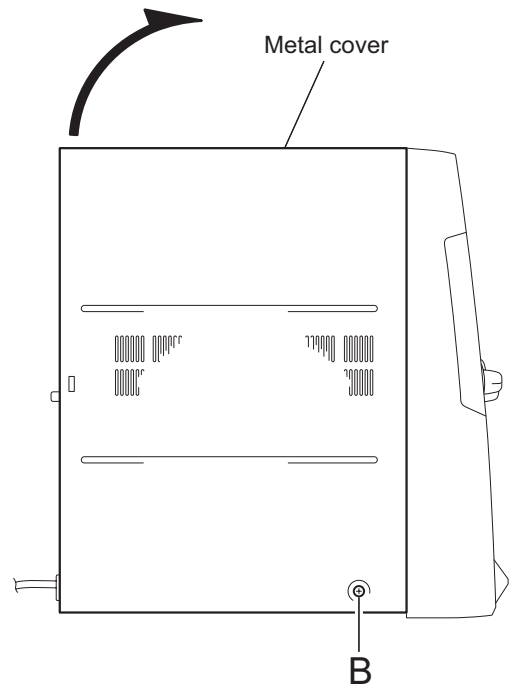


Fig.3

### 2.1.2 Removing the CD changer mechanism assembly (See Fig.4, 5)

- Prior to performing the following procedure, remove the metal cover.
  - (1) Disconnect the card wires from connector CN151 and CN651 on the CD servo control board on the right bottom of the CD changer mechanism assembly.
  - (2) Remove the four screws **C** attaching the CD changer mechanism assembly on top of the body.
  - (3) Remove the CD changer mechanism assembly while lifting the rear part.

**CAUTION:**

Do not damage the CD fitting when removing the CD changer mechanism assembly.

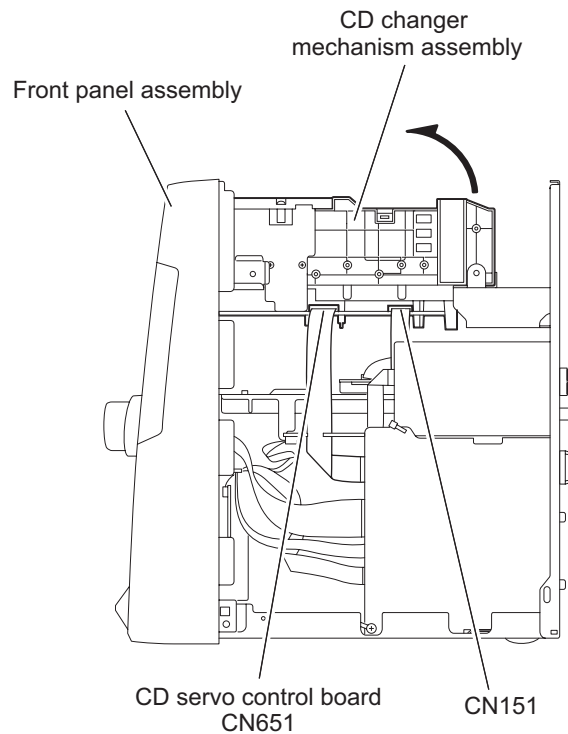
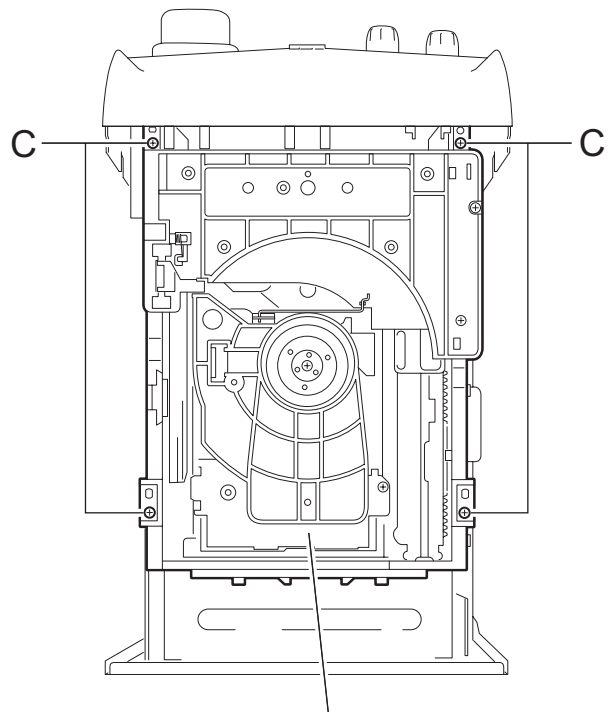


Fig.4



CD changer mechanism assembly  
Fig.5

### 2.1.3 Removing the front panel assembly (See Fig.6~9)

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

- (1) Disconnect the card wires from connector CN44 and CN870, disconnect the flat wire from connector CN922 on the main board on the right side of the body. Remove the screw **D** attaching the wire from extending from the underside of the front panel assembly.
- (2) Disconnect the wire from connector CN701 on the bridge board.
- (3) Cut the band.
- (4) Disconnect the wires from connector CN231 and CN232 on the primary board on the left side of the body.
- (5) Remove the plastic rivet attaching the inner bar in the center of the front panel assembly.

**REFERENCE:**

Keep the plastic rivet for reuse.

- (6) Remove the three screws **E** attaching the front panel assembly at the bottom of the body.
- (7) Disconnect the ground wire extending from the phone board from bottom chassis.
- (8) Release the two joints **a** on the lower left and right sides of the front panel assembly using a screwdriver, and remove the front panel assembly toward the front.

**REFERENCE:**

Front panel need to be tilt little bit as release from bottom chassis.

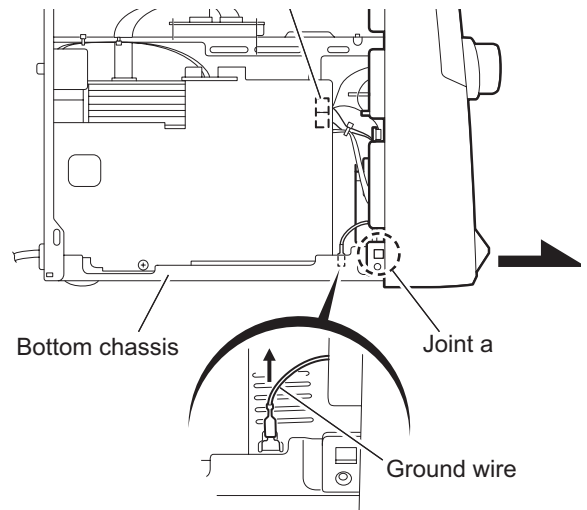


Fig.7

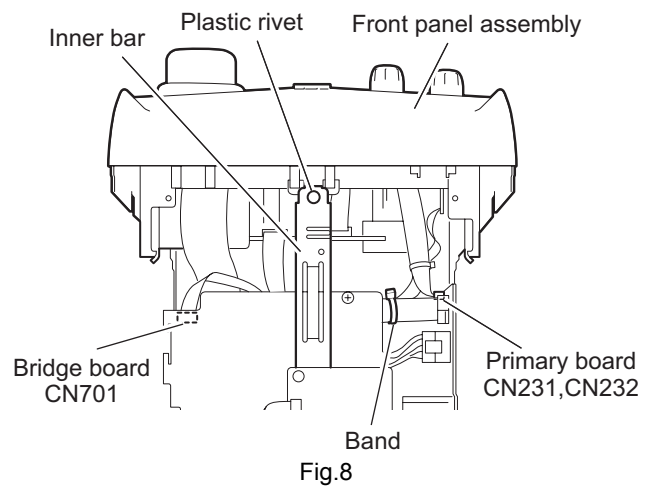


Fig.8

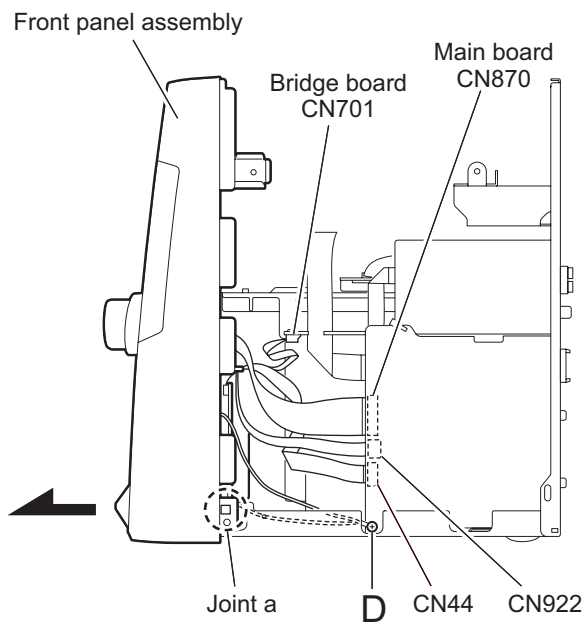


Fig.6

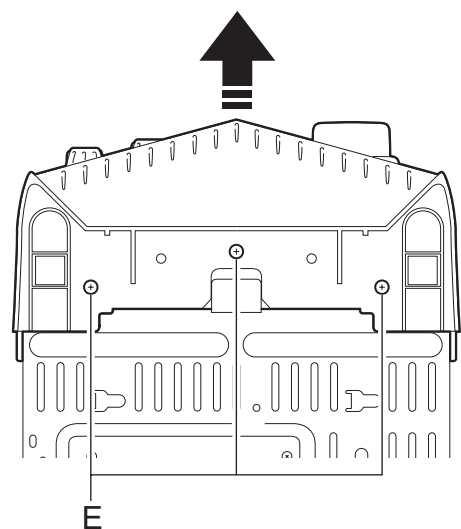


Fig.9

### 2.1.4 Removing the antenna board (See Fig.10, 11)

- Prior to performing the following procedure, remove the metal cover.
  - (1) Disconnect the card wire from connector CN1 on the antenna board on the right side of the body.
  - (2) Remove the band attaching the antenna board.
  - (3) Remove the two screws **F** on the rear panel on the back of the body.

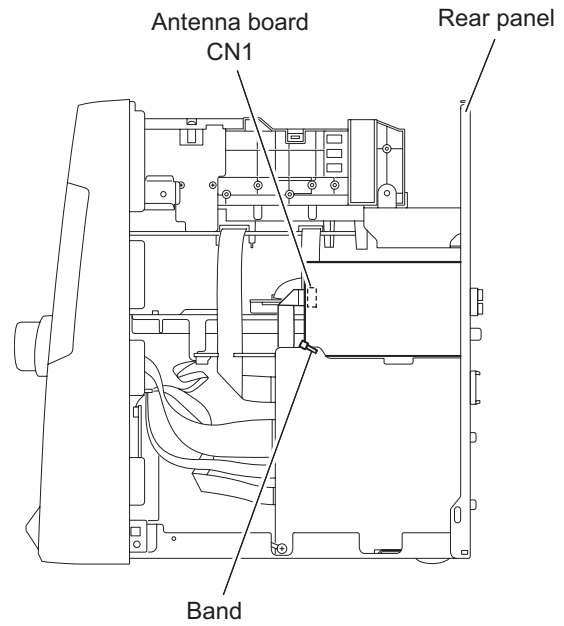


Fig.10

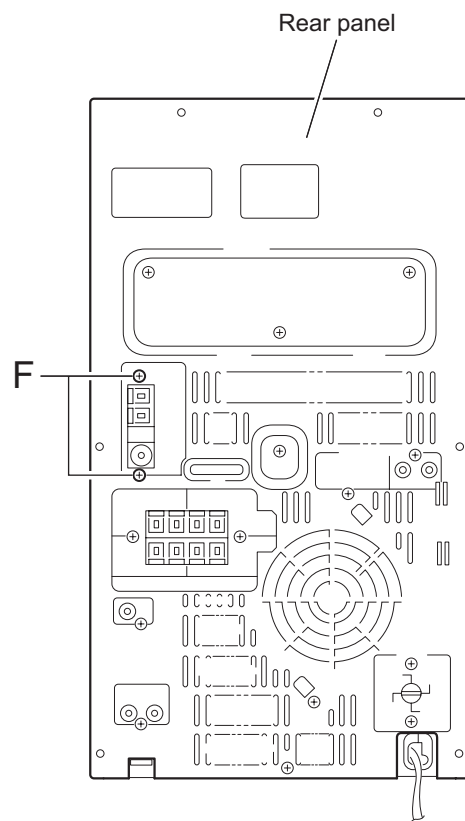


Fig.11

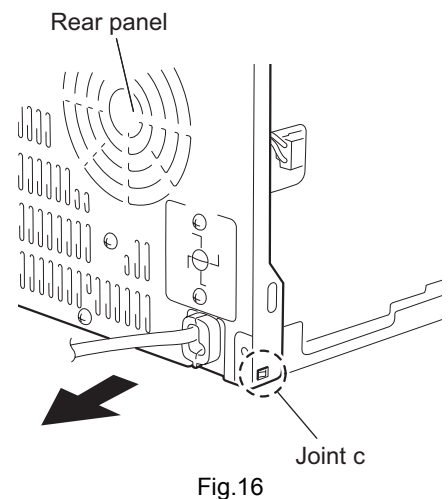
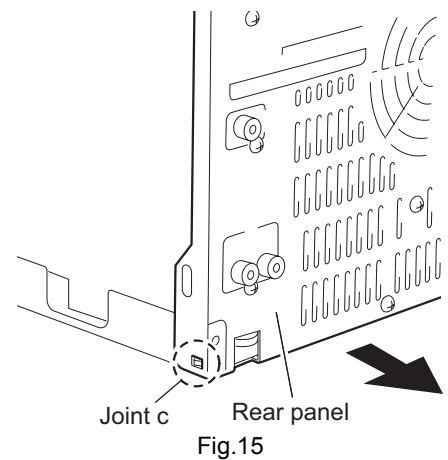
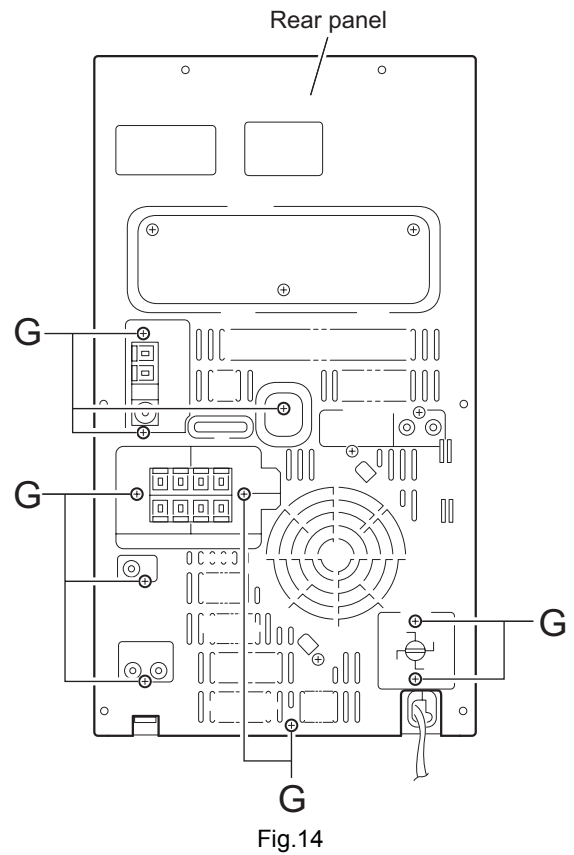
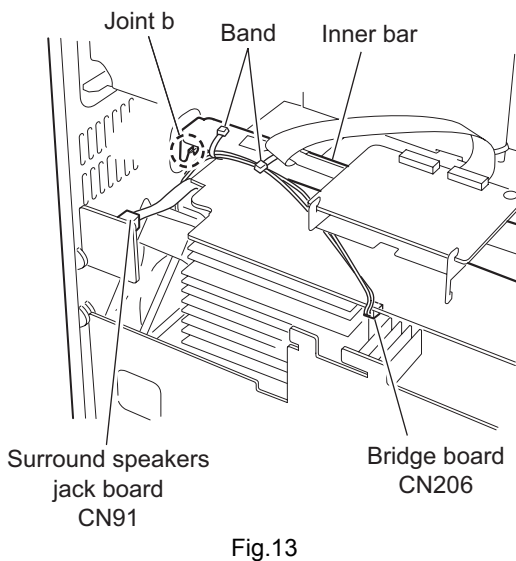
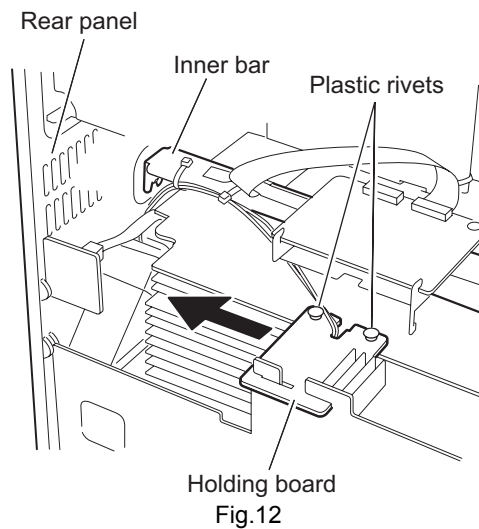


### 2.1.5 Removing the rear panel (See Fig.12~16)

- Prior to performing the following procedure, remove the metal cover and the CD changer mechanism assembly.
  - (1) Remove holding board by remove two plastic rivets and then slide out the holding board as shown in fig.12.
  - (2) Disconnect fan wire from connector CN206 on the bridge board.
  - (3) Disconnect the flat wire from connector CN91 on the surround speakers jack board.
  - (4) Cut off the band that fixing fan wire on inner bar.
  - (5) Remove ten screws **G** from rear panel.
  - (6) Detach joint **b** to release rear panel from inner bar.
  - (7) Release joints **c** which on right bottom and left bottom of rear panel. The joint can be release by pull outward the side of rear panel.

#### REFERENCE:

Fan assembly and surround speaker jack board will come off with rear panel.



### 2.1.6 Removing the T.flux board (See Fig.17, 18)

- Prior to performing the following procedure, remove the metal cover and the CD changer mechanism assembly .
  - (1) Disconnect the card wire from connector CN102 on the T.flux board.
  - (2) Remove the two plastic rivets attaching the T.flux board.
  - (3) Remove the T.flux board from the bracket which is located on the inner bar. (two joints **d**)

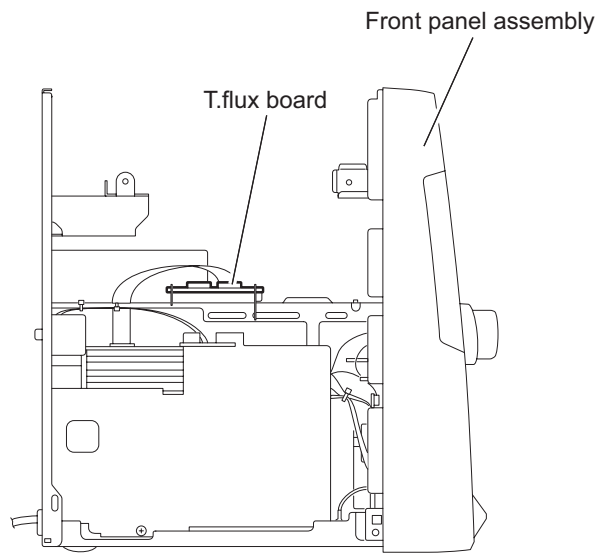


Fig.17

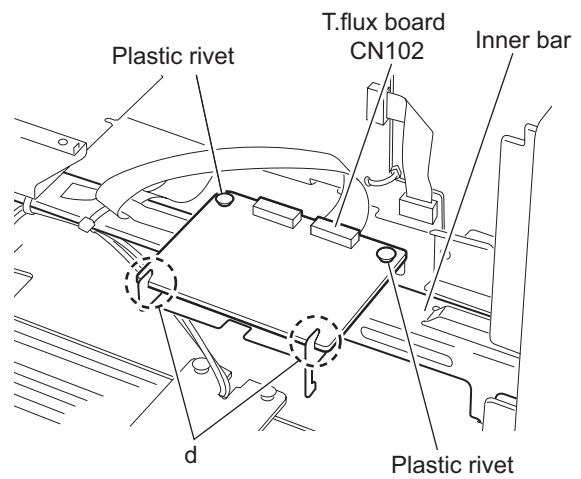


Fig.18

**2.1.7 Removing the fan assembly  
(See Fig.19, 20)**

- Prior to performing the following procedure, remove the metal cover, the CD changer mechanism assembly and the rear panel.
  - (1) Remove two screws **H** on the rear panel.
  - (2) Rotate fan assembly in clockwise direction to release fan assembly from rear panel (joints **e**).

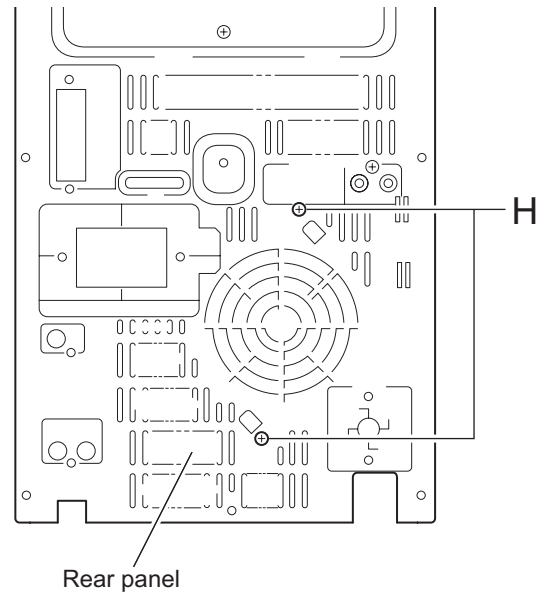


Fig.19

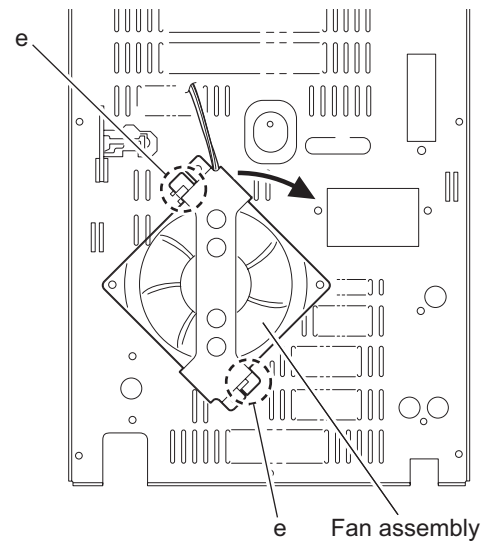


Fig.20

**2.1.8 Removing the main board  
(See Fig.21)**

- Prior to performing the following procedure, remove the metal cover, the CD changer mechanism assembly, the antenna board and the rear panel.
  - (1) Disconnect the card wires from connector CN44, CN504 and CN870 on the main board.
  - (2) Disconnect the flat wire from connector CN922 on the main board.
  - (3) Remove the screw **D** attaching the main board.
  - (4) Disconnect connector CN217 and CN311 on the main board outward and release from the base chassis (joint **f**) upward.

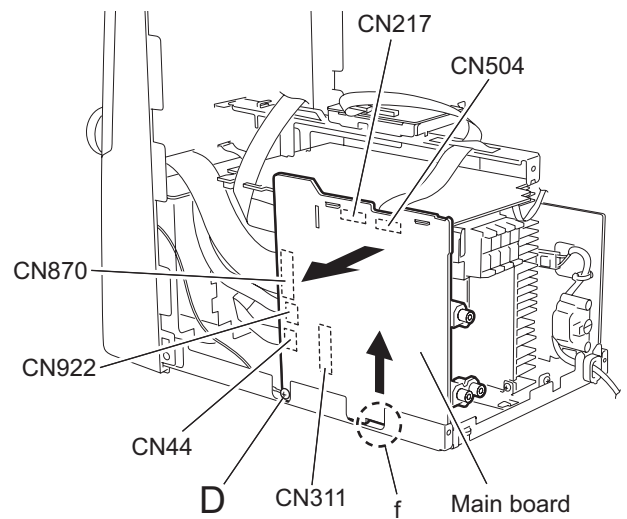


Fig.21

### 2.1.9 Removing the bridge board / regulator board / heat sink (See Fig.22~27)

- Prior to performing the following procedure, remove the metal cover, the CD changer mechanism assembly, the rear panel, the antenna board and main board.
  - (1) Remove the plastic rivet attaching the stay inner bar and remove the screw **I** on the bridge board.
  - (2) Move the inner bar forward and upward to release from the front section (joint **g**) and from the bridge board (two joints **h**) respectively.
  - (3) Disconnect the wires from connector CN212, CN213 and CN214 on the primary board respectively and remove the band fixing the wires.
  - (4) Disconnect the wire from connector CN701 on the bridge board.
  - (5) Remove the two screws **J** attaching the heat sink bracket and move the heat sink in the direction of the arrow to release from the base chassis. The bridge board and the regulator board come off with the heat sink.
  - (6) Remove the two screws **K** attaching the heat sink bracket.
  - (7) Remove the two screws **L**, detach bridge board from regulator board by disconnect connector CN205.
  - (8) Remove the two screws **M** and two screws **N** to detach regulator board from heat sink.

#### CAUTION:

As assembly back the regulator board and bridge board to heat sink.

Regulator board must be assembling to heat sink first and screws **M** and **N** must be screwed before bridge board attach to regulator board.

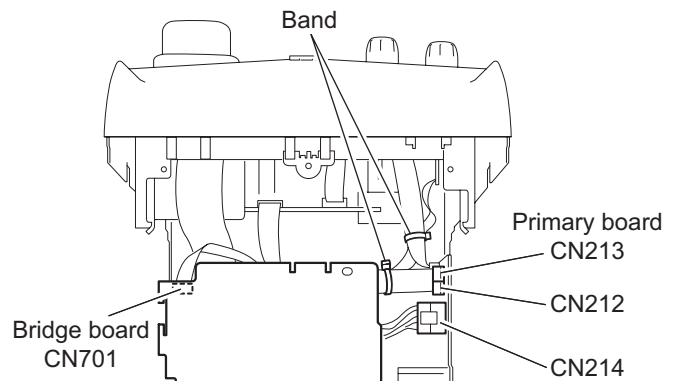


Fig.24

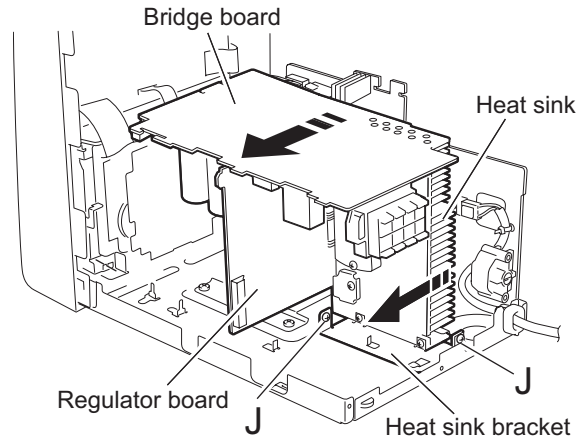


Fig.25

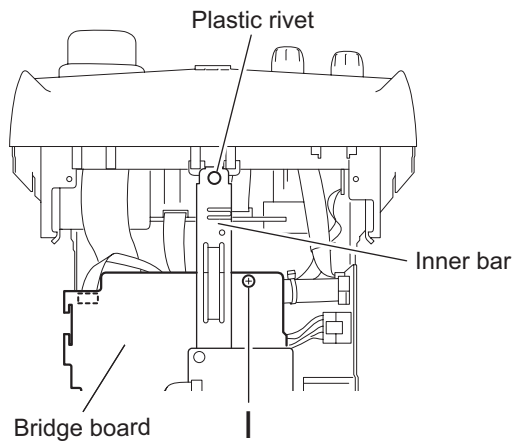


Fig.22

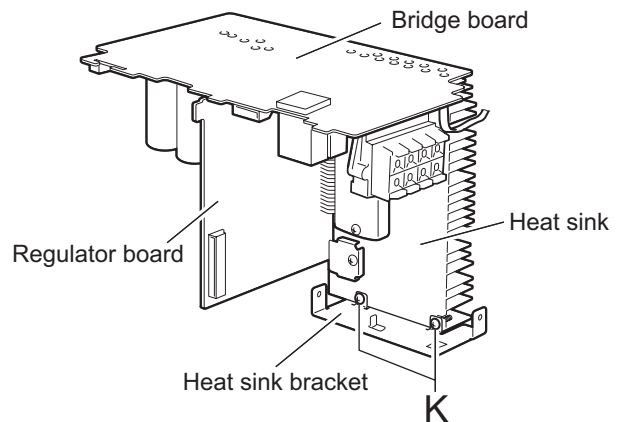


Fig.26

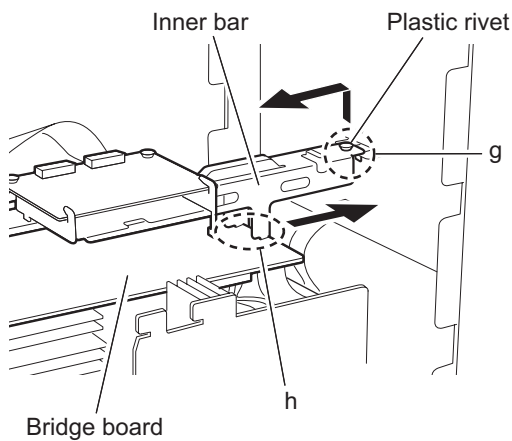


Fig.23

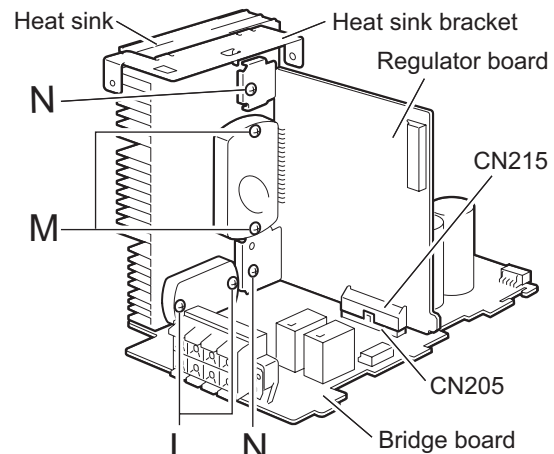


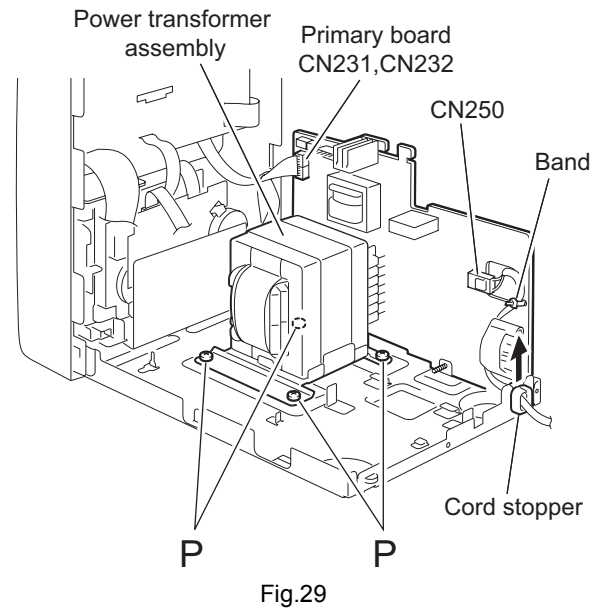
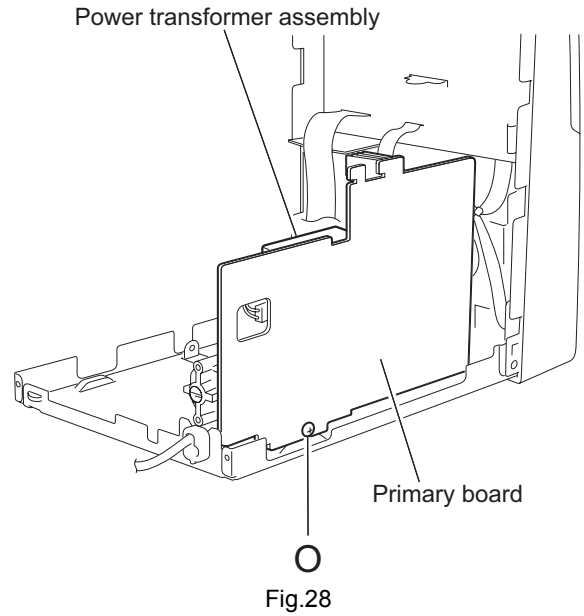
Fig.27

### 2.1.10 Removing the power transformer assembly (See Fig.28,29)

- Prior to performing the following procedure, remove the metal cover, the CD changer mechanism assembly, the rear panel, the main board and the bridge board / regulator board.
  - (1) Remove the screw **O** attaching the primary board.
  - (2) Disconnect the wire from connector CN231 and CN232 on the primary board.
  - (3) Remove the four screws **P** attaching the power transformer assembly.
  - (4) Detach the cord stopper from the base chassis upward.

#### REFERENCE:

When disconnecting the power cord from connector CN250 on the primary board, remove the fixing band.



## 2.2 Front panel assembly

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

### 2.2.1 Removing the cassette mechanism assembly (See Fig.30)

- (1) Disconnect the card wire from connector CN33 on the head amplifier & mechanism control board.
- (2) Remove the two screws **Q**, and the two screws **R** attaching the cassette mechanism assembly.

### 2.2.2 Removing the headphone board (See Fig.30)

- (1) Remove the screw **S** and pull out the headphone board backward.
- (2) Cut off the band.

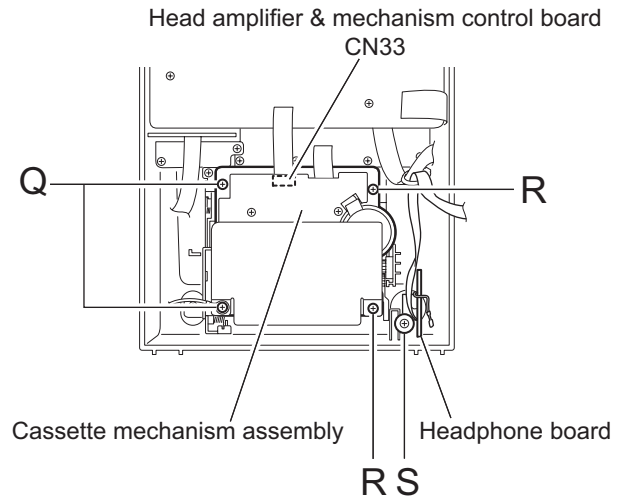


Fig.30

### 2.2.3 Removing the mic volume board (See Fig.31, 32)

- (1) Pull the mic volume knob toward the front.
- (2) Remove the three screws **T** attaching the holding board.
- (3) Remove the holding board from mic volume board.

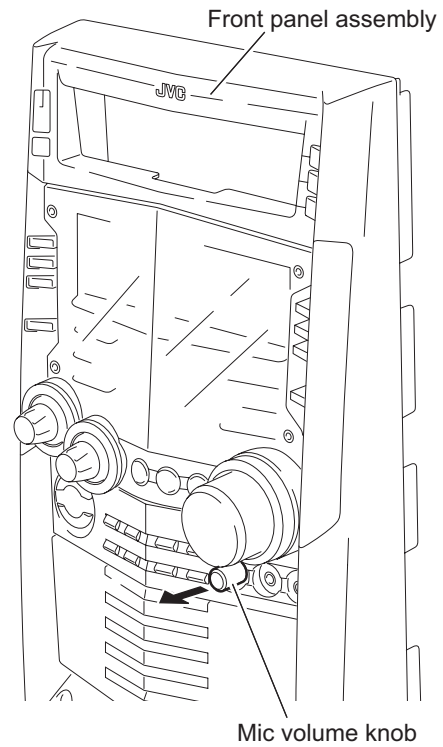


Fig.31

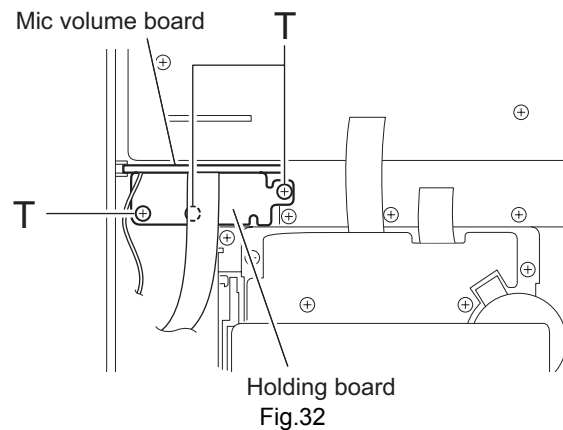
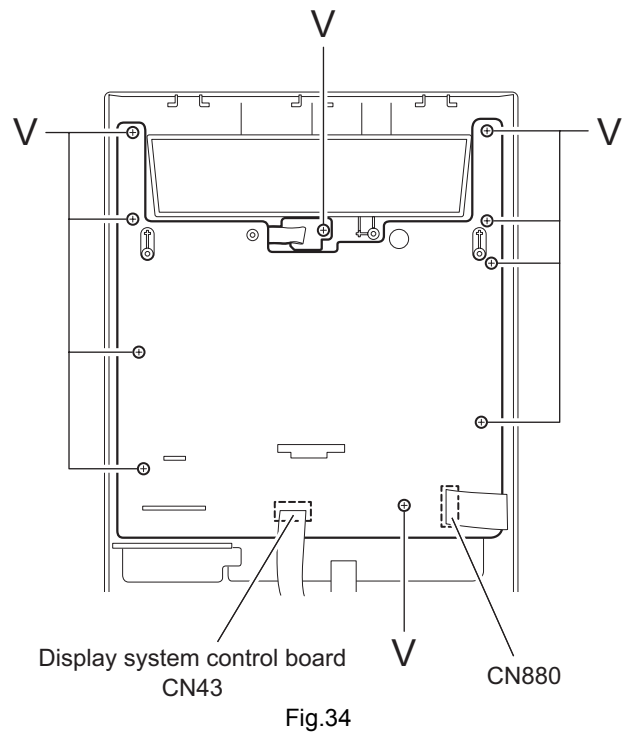
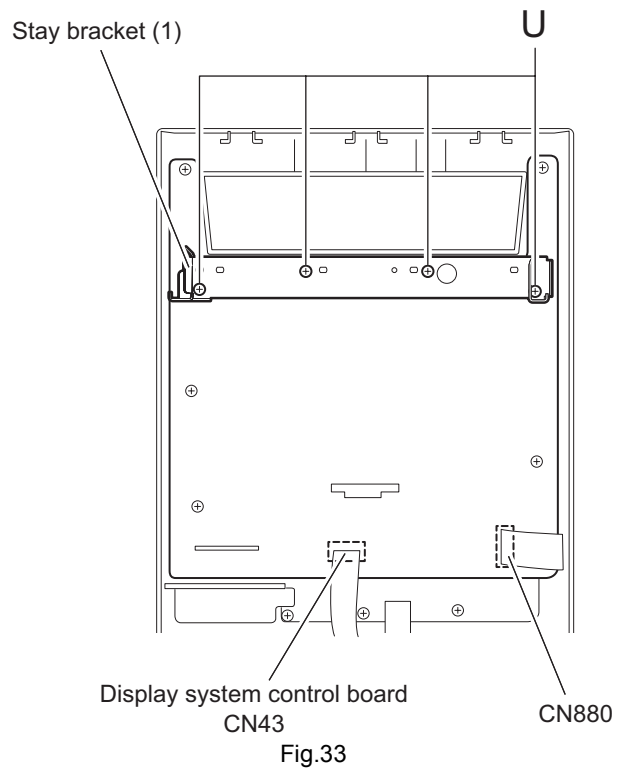


Fig.32

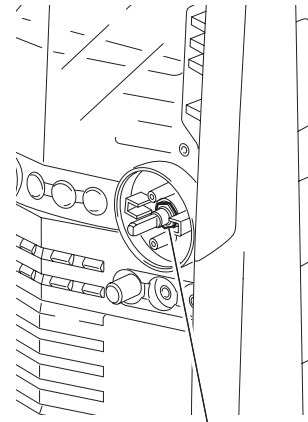
### 2.2.4 Removing the display system control board (See Fig.33, 34)

- (1) Remove the four screws **U** attaching the stay bracket (1).
- (2) Disconnect the card wires from connector CN43 and CN880 on the display system control board.
- (3) Remove the ten screws **V** attaching the display system control board.

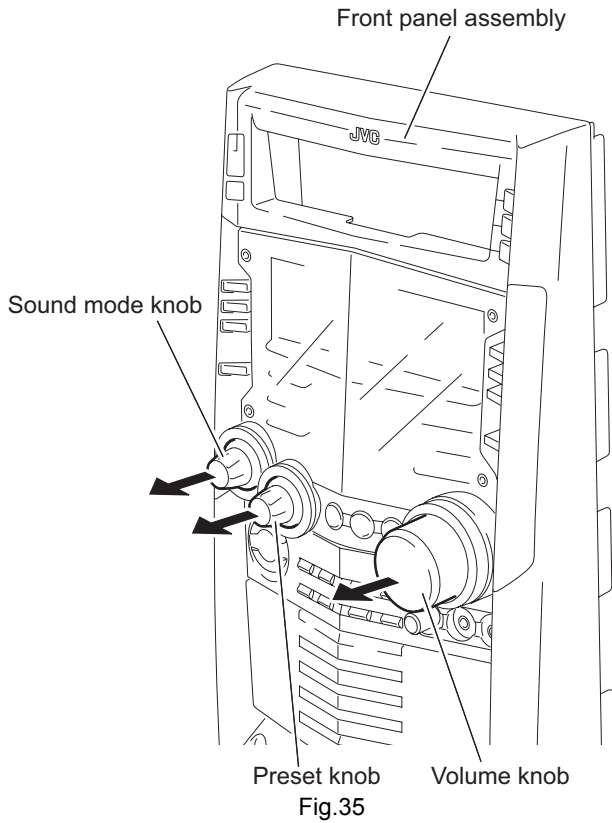


**2.2.5 Removing the button board  
(See Fig.35~39)**

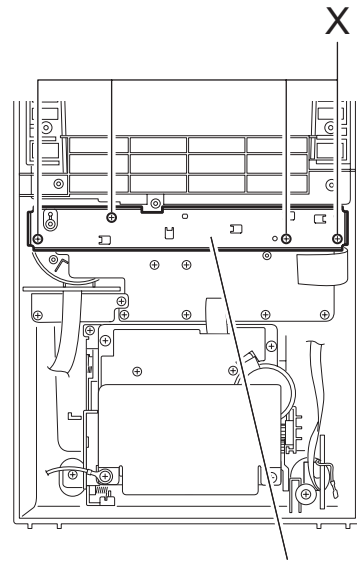
- Prior to performing the following procedure, remove the display system control board.
  - (1) Pull out preset knob, sound mode knob on the front panel toward the front.
  - (2) Pull out the volume knob and remove the two screws **W** attaching the knob holder. Remove the nut from the front panel.
  - (3) Remove the four screws **X** attaching the stay bracket (2).
  - (4) Remove the eight screws **Y** attaching the button board.



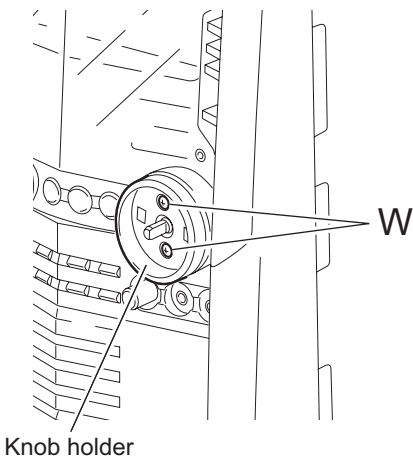
Nut  
Fig.37



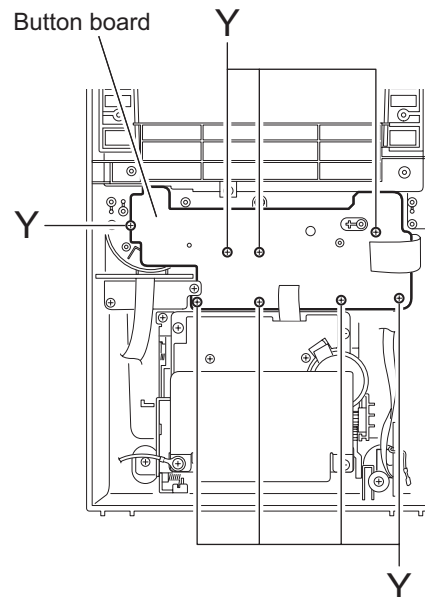
Front panel assembly  
Sound mode knob  
Preset knob  
Volume knob  
Fig.35



Stay bracket (2)  
Fig.38



Knob holder  
Fig.36



Button board  
Fig.39



## 2.3 CD Changer Mechanism

- Remove the CD changer mechanism assembly.

### 2.3.1 Removing the CD Servo control board (See Fig.1)

- (1) From bottom side the CD changer mechanism assembly, remove the four screws **A** retaining the CD servo control board.
- (2) Absorb the four soldered positions **a** of the right and left motors with a soldering absorber.
- (3) Pull out the earth wire on the CD changer mechanism assembly.
- (4) Disconnect the connector CN854 on the CD servo control board.
- (5) Disconnect the card wire CN601 and the connector CN801 on the CD servo control board.

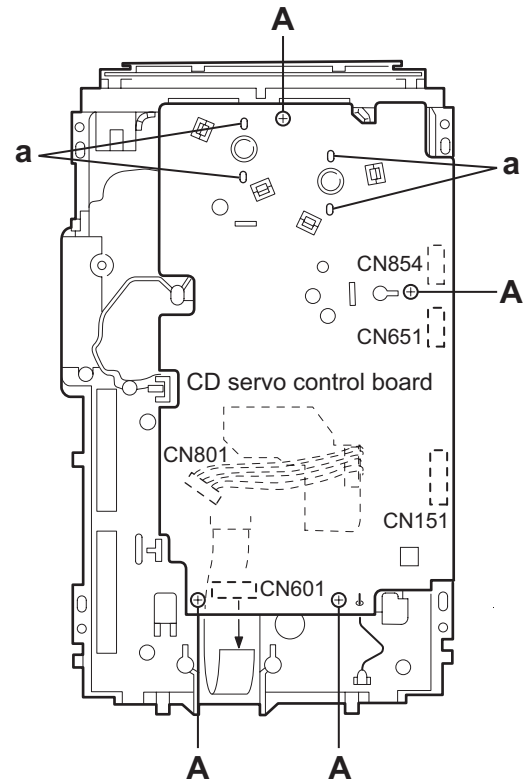


Fig.1

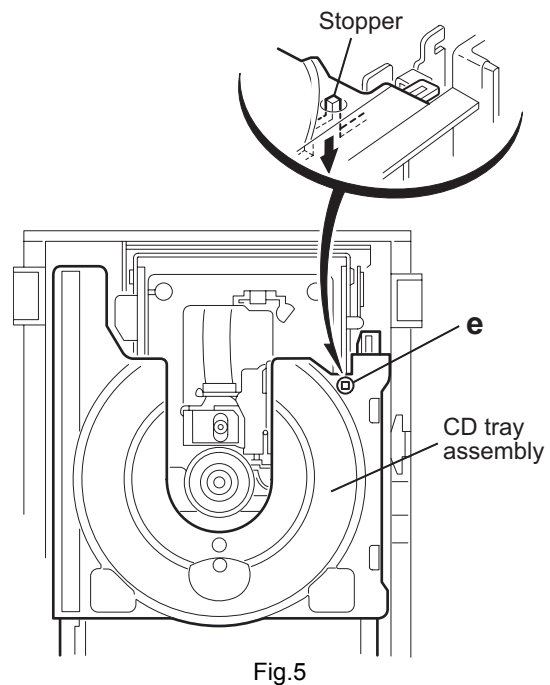
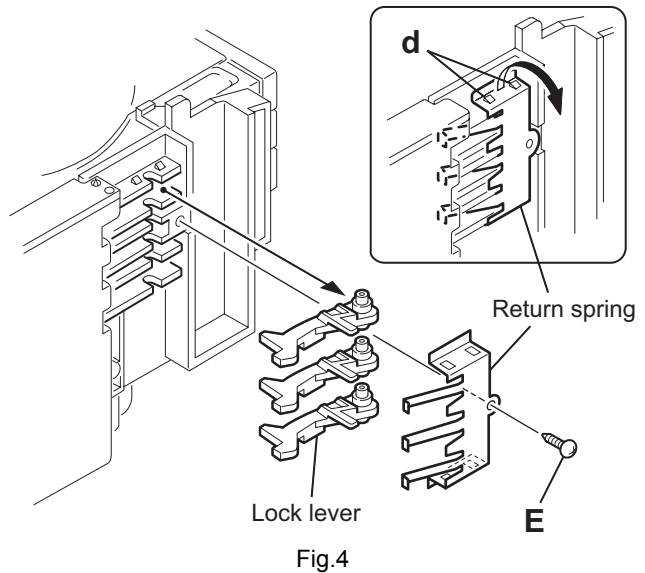
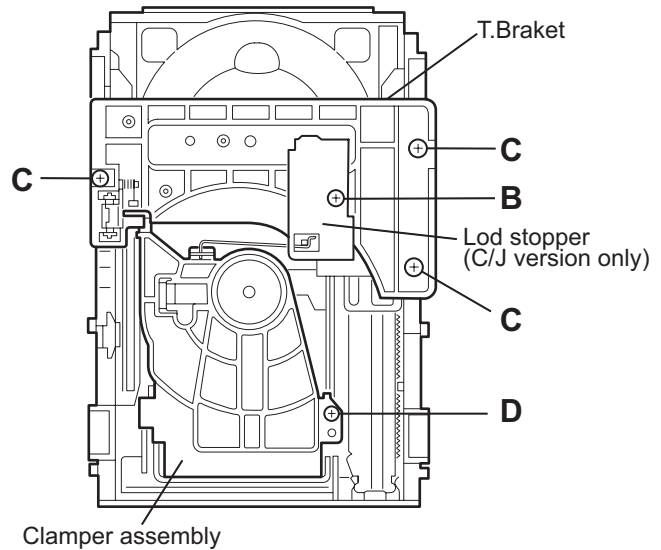
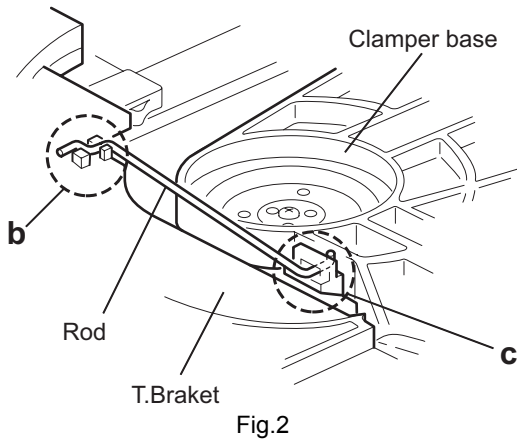
### 2.3.2 Removing the CD tray assembly (See Fig.2~9)

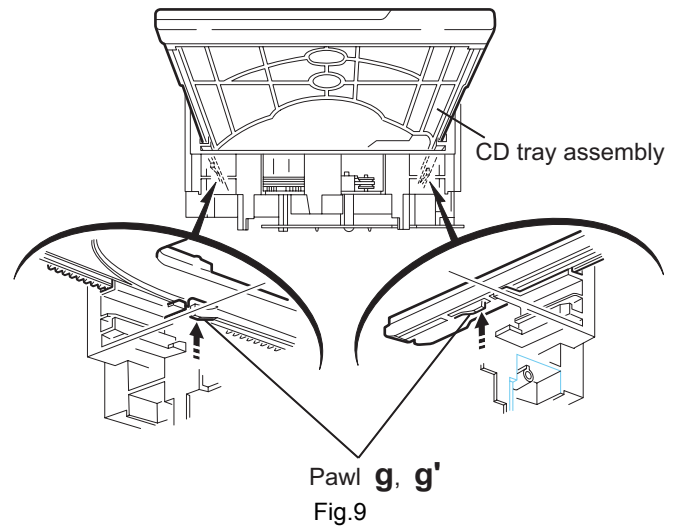
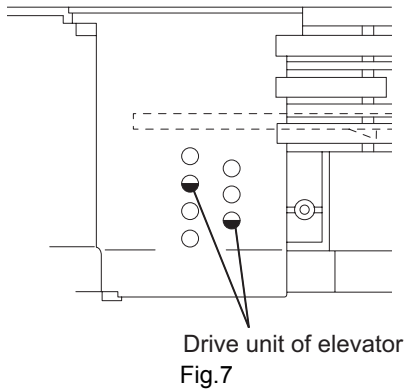
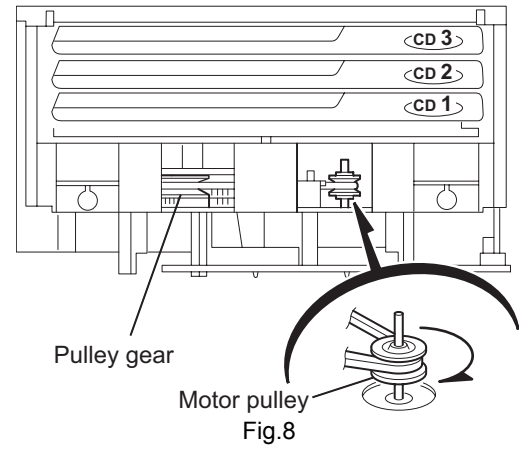
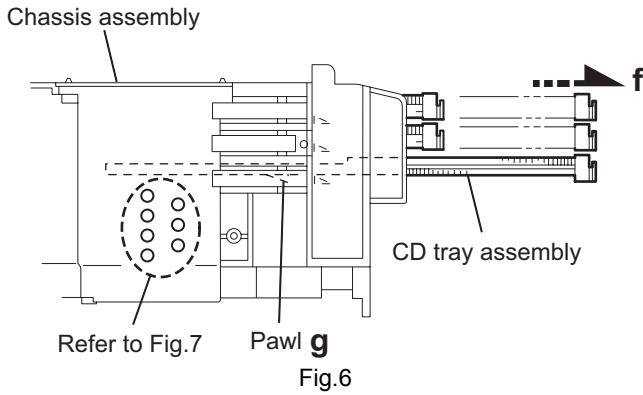
- (1) Remove the CD servo control board.
- (2) Remove the screw **B** retaining the lod stopper.
- (3) From the T.bracket section **b** and clamper base section **c**, remove both of the edges fixing the rod.
- (4) Remove the three screws **C** retaining the T.bracket.
- (5) Remove the screw **D** retaining the clamper assembly.
- (6) From the left side face of the chassis assembly, remove the one screw **E** retaining both of the return spring and lock lever.
- (7) By removing the pawl at the section **d** fixing the return spring, dismantle the return spring.
- (8) Remove the three lock levers.
- (9) Check whether the lifter unit stopper has been caught into the hole at the section **e** of CD tray assembly as shown in Fig.5.
- (10) Make sure that the driver unit elevator is positioned as shown in Fig.6 from to the second or fifth hole on the left side face of the CD changer mechanism assembly.

#### CAUTION:

In case the driver unit elevator is not at above position, set the elevator to the position as shown in Fig.7 by manually turning the pulley gear as shown in Fig.8.

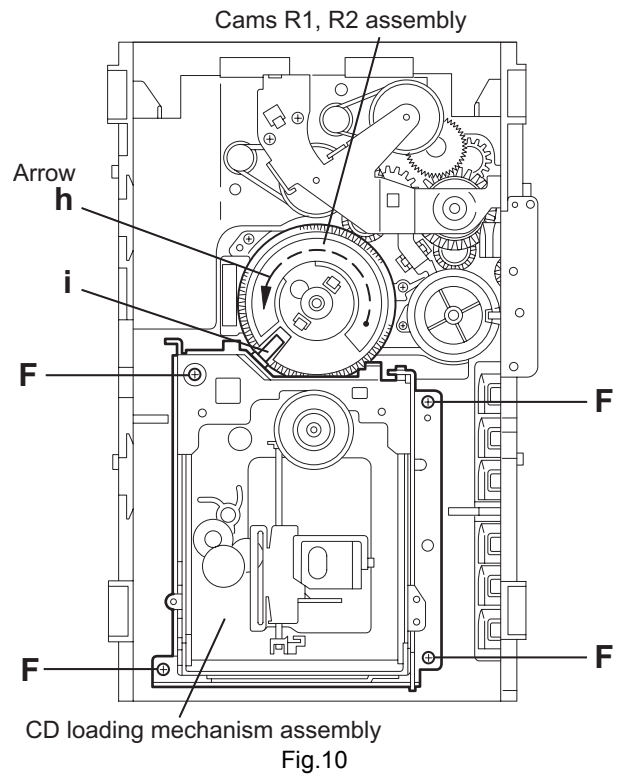
- (11) Manually turn the motor pulley in the clockwise direction until the lifter unit stopper is lowered from the section **e** of CD tray assembly.
- (12) Pull out all of the three stages of CD tray assembly in the arrow direction **f** until these stages stop.
- (13) At the position where the CD tray assembly has stopped, pull out the CD tray assembly while pressing the two pawls **g** and **g'** on the back side of CD tray assembly. In this case, it is easy to pull out the assembly when it is pulled out first from the stage CD tray assembly.





### 2.3.3 Removing the CD loading mechanism assembly (See Fig.10)

- (1) While turning the cams R1 and R2 assembly in the arrow direction **h**, align the shaft **i** of the CD loading mechanism assembly to the position shown in Fig.10.
- (2) Remove the four screws **F** retaining the CD loading mechanism assembly.



### 2.3.4 Removing the CD traverse mechanism (See Fig.11 and 12)

- (1) For dismantling only the CD traverse mechanism without removing the CD loading mechanism assembly, align the shaft **j** of the CD loading mechanism assembly to the position shown Fig.11 while turning the cam R1 and R2 assembly in the arrow direction **k**.
- (2) By raising the CD loading mechanism assembly in the arrow direction **l**, remove the assembly from the lifter unit.

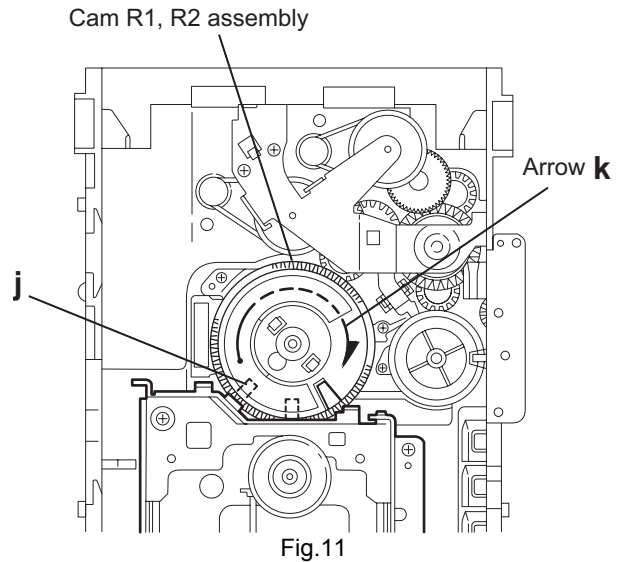


Fig.11

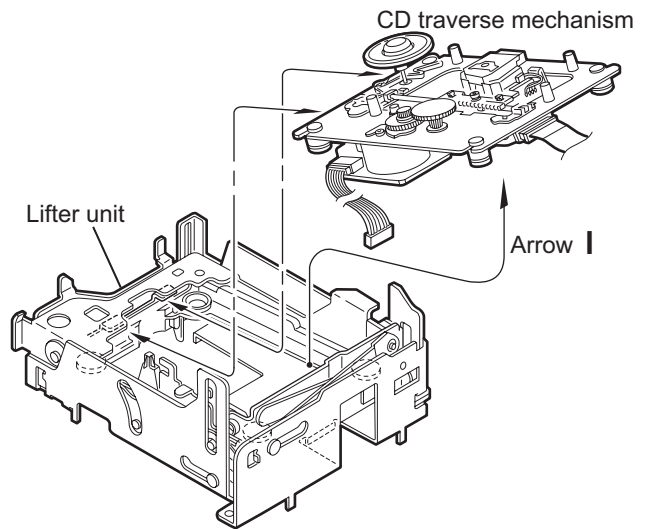


Fig.12

### 2.3.5 Removing the CD pickup unit (See Fig.13)

- (1) Move the cam gear in the arrow direction **m**. Then, the CD pickup unit will be moved in the arrow direction **n**.
- (2) According to the above step, shift the CD pickup unit to the center position.
- (3) While pressing the stopper retaining the shaft in the arrow direction **o**, pull out the shaft in the arrow direction **p**.
- (4) After dismantling the shaft from the CD pickup unit, remove the CD pickup unit.

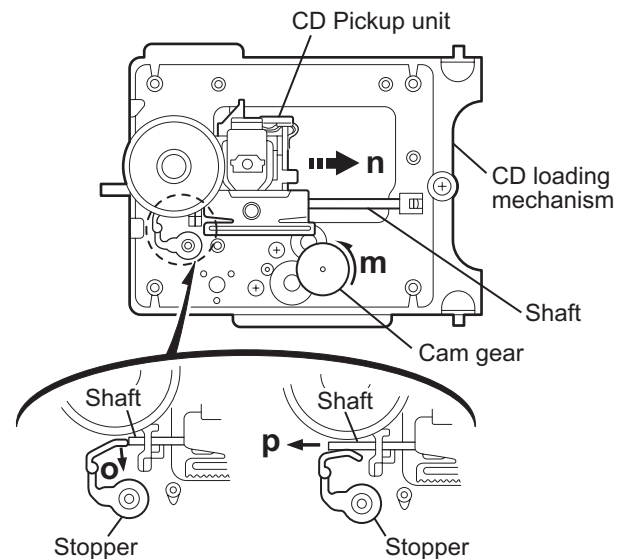


Fig.13

### 2.3.6 Removing the tray select switch board (See Fig.14)

- (1) Remove the two screws **G** retaining the tray select switch board.
- (2) Disconnect the tray select switch board from connector CN854 on the CD servo control board.

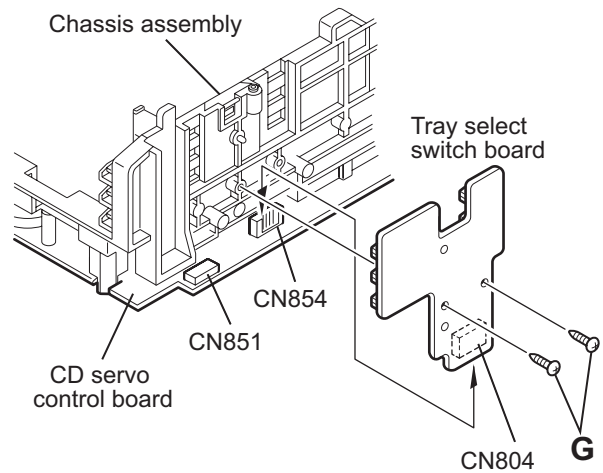


Fig.14

### 2.3.7 Removing the cam unit (See Fig.15 ~17)

- Remove the CD loading mechanism assembly.
  - (1) While turning the cam gear **q**, align the Paul **r** position of the drive unit to the notch position on the cam gear **q**.
  - (2) Pull out the drive unit and cylinder gear.
  - (3) While turning the cam gear **q**, align the Paul **s** position of the select lever to the notch position on the cam gear **q**.
  - (4) Remove the four screws **H** retaining the cam unit(cam gear **q** and cams R1/R2 assembly).

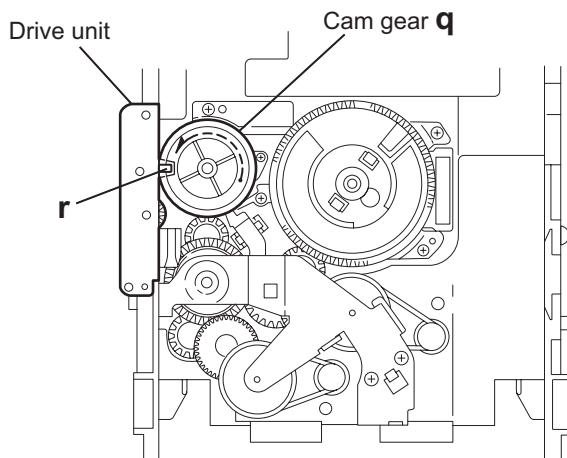


Fig.15

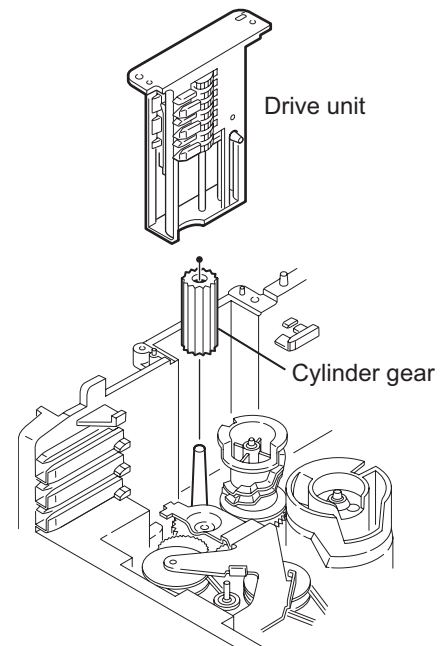
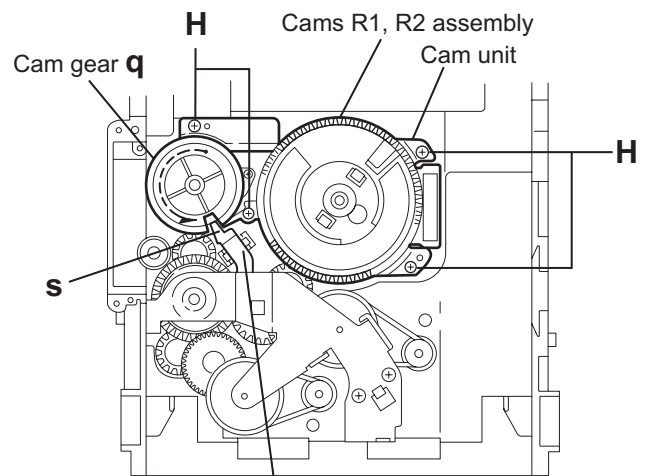


Fig.16



Select lever  
Fig.17

### 2.3.8 Removing the actuator motor and belt (See Fig.18~21)

- (1) Remove the two screws **I** retaining the gear bracket.
- (2) While pressing the pawl **t** fixing the gear bracket in the arrow direction, remove the gear bracket.
- (3) From the notch **u** section on the chassis assembly fixing the edge of gear bracket, remove and take out the gear bracket.
- (4) Remove the belts respectively from the right and left actuator motor pulleys and pulley gears.
- (5) After turning over the chassis assembly, remove the actuator motor while spreading the four pawls **v** fixing the right and left actuator motors in the arrow direction.

#### ATTENTION:

When the chassis assembly is turned over under the conditions wherein the gear bracket and belt have been removed, then the pulley gear as well as the gear, etc. constituting the gear unit can possibly be separated to pieces. In such a case, assemble these parts by referring to the assembly and configuration diagram in Fig. 21.

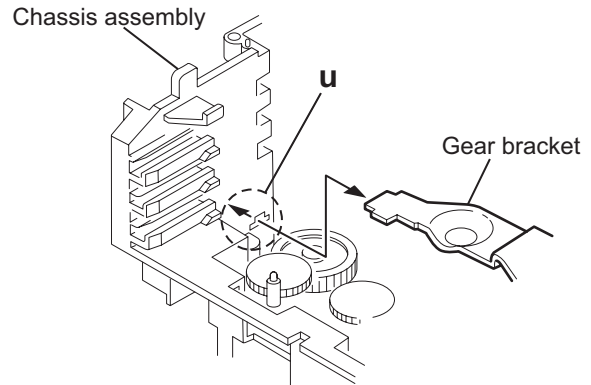


Fig.19

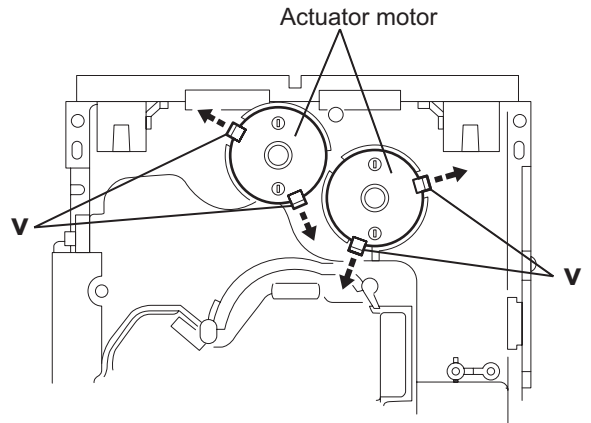


Fig.20

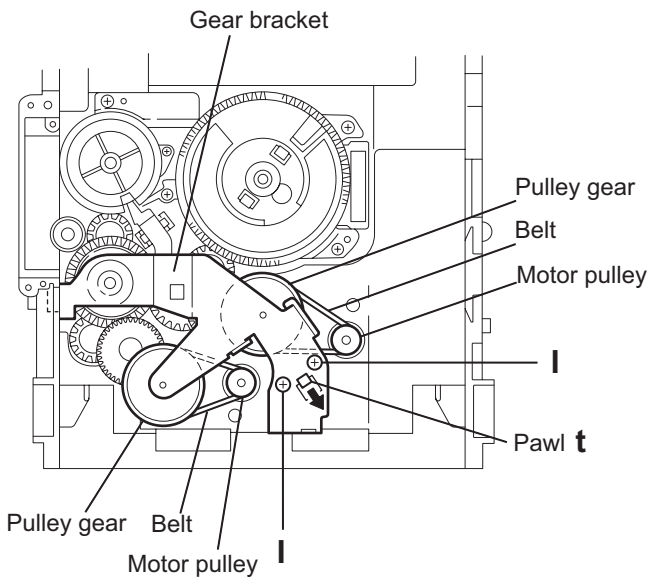


Fig.18

### Assembly and Configuration Diagram

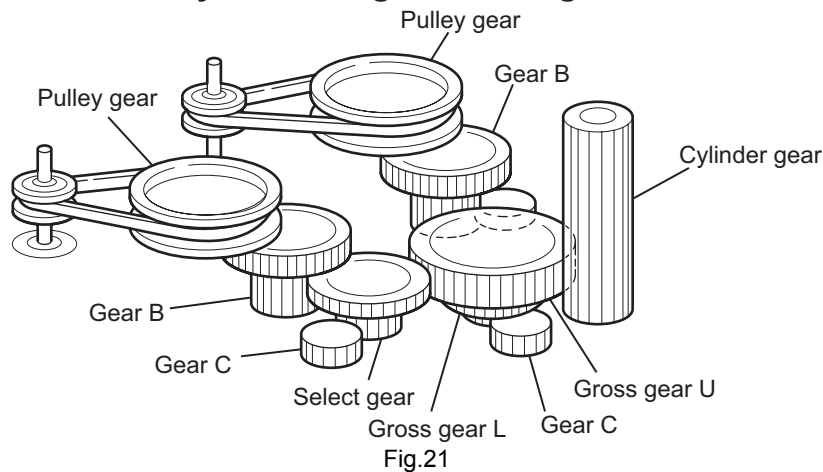


Fig.21

### 2.3.9 Removing the cams R1/R2 assembly and cam gear q (See Fig.22)

- (1) Remove the slit washer fixing the cams R1 and R2 assembly.
- (2) By removing the two pawls **w** fixing the cam R1, separate R2 from R1.
- (3) Remove the slit washer fixing the cam gear **q**.
- (4) Pull out the cam gear **q** from the C.G. base assembly.

### 2.3.10 Removing the C.G. base assembly (See Fig.22 and 23)

- (1) Remove the three screws **J** retaining the C.G. base assembly.

#### CAUTION:

To reassemble the cylinder gear, etc.with the cam unit (cam gear and cans R1/R2 assembly), gear unit and drive unit, align the position of the pawl **x** on the drive unit to that of the notch on the cam gear **q**. Then, make sure that the gear unit is engaged by turning the cam gear **q**.

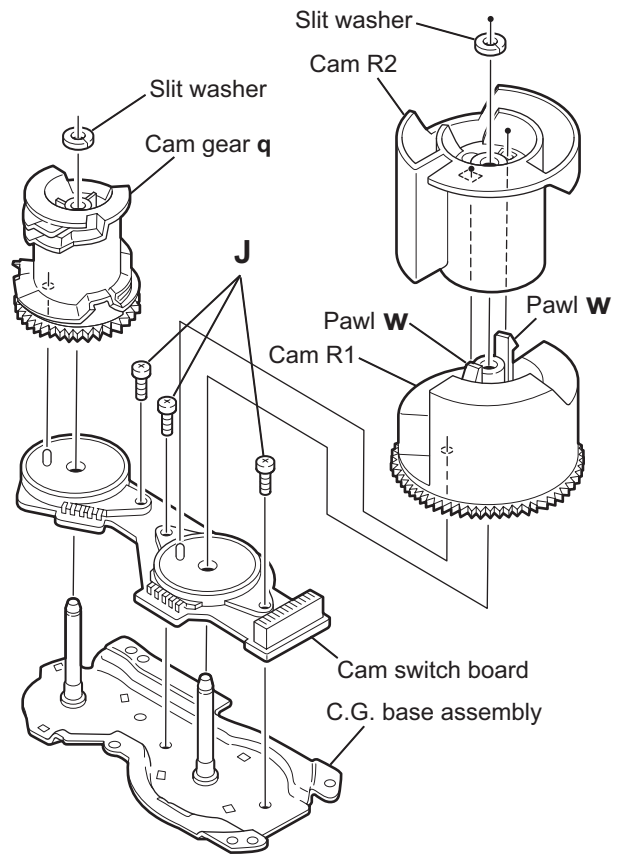


Fig.22

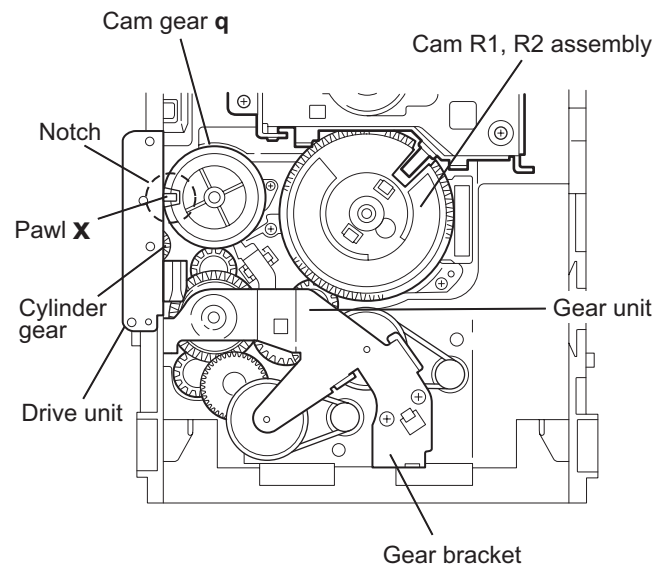


Fig.23

### 2.3.11 Removing the Pickup unit (See Fig.24 and 25)

- (1) Turn the cam gear in the direction of the arrow to move the pickup unit toward the center.
- (2) Extend the guide shaft stopper in the direction of the arrow, move the guide shaft and pull out as shown in the figure.
- (3) Pull out the pickup unit from the joint **a**.

**CAUTION:**

When reassembling, attach the pickup unit to the chassis base firmly at the joint **a**.

- (4) Release the four joint **b** on the back on the pickup unit to remove the CD rack.

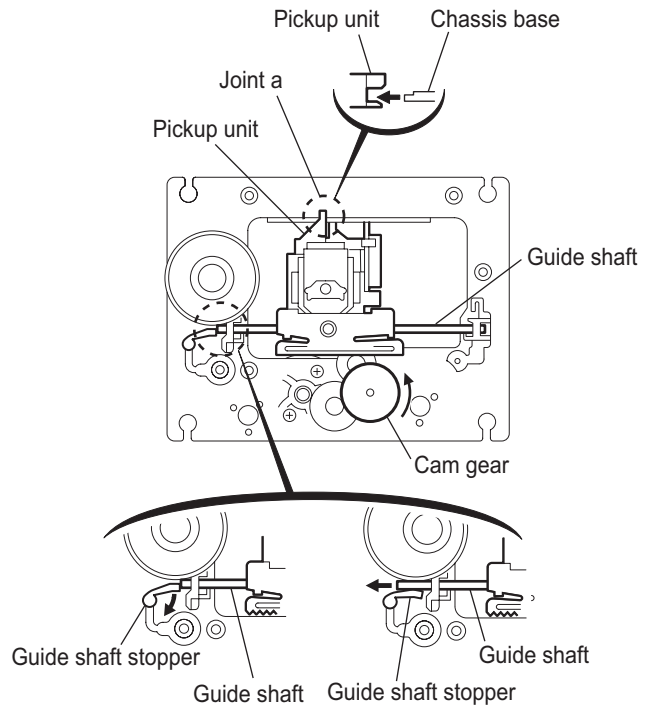


Fig.24

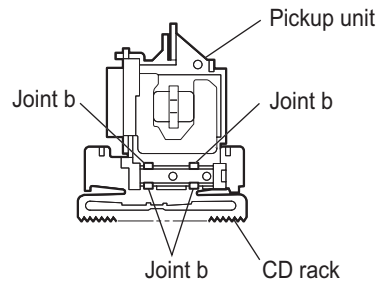
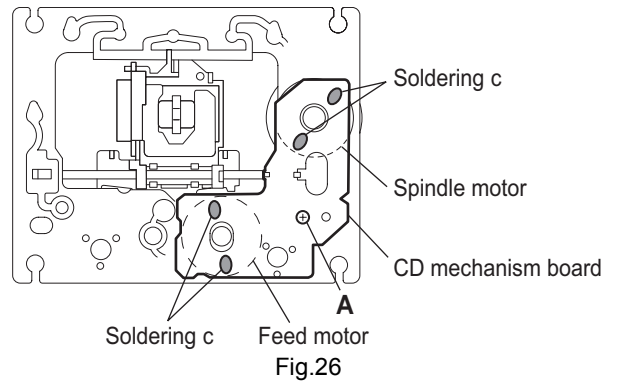


Fig.25



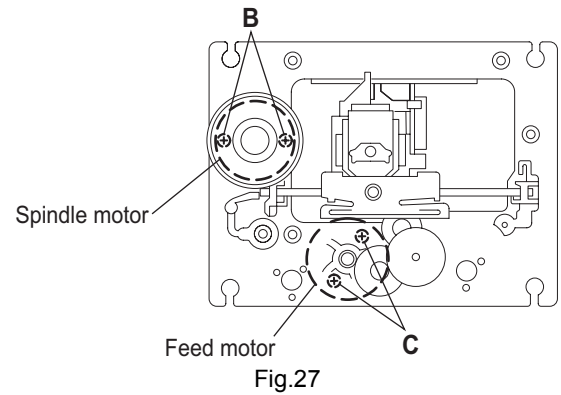
### 2.3.12 Removing the CD mechanism board (See Fig.26)

- (1) On the back of the CD mechanism assembly, unsolder the four soldering **c** attaching the CD mechanism board, the spindle motor and the feed motor.
- (2) Removing the screw **A**.



### 2.3.13 Removing the Spindle motor/Feed motor (See Fig.27)

- Prior to performing the following procedure, remove the CD mechanism board.
- (1) From the top side of the CD mechanism assembly, remove the two screws **B** and two screws **C** attaching the spindle motor and the feed motor respectively.



## 2.4 Cassette mechanism assembly

### 2.4.1 Removing the Play/Record & Clear head (See Fig.1~3)

- (1) While moving the trigger arm on the right side of the head mount in the direction of the arrow, turn the flywheel R counterclockwise until the head mount comes ahead and clicks.
- (2) The head turns counterclockwise as you turn the flywheel R counterclockwise (See Fig.2 and 3).
- (3) Disconnect the flexible wire from connector CN31 on the head amplifier & mechanism control board.
- (4) Remove the spring from the back of the head.
- (5) Loosen the azimuth screw for reversing attaching the head.
- (6) Remove the head on the front side of the head mount.

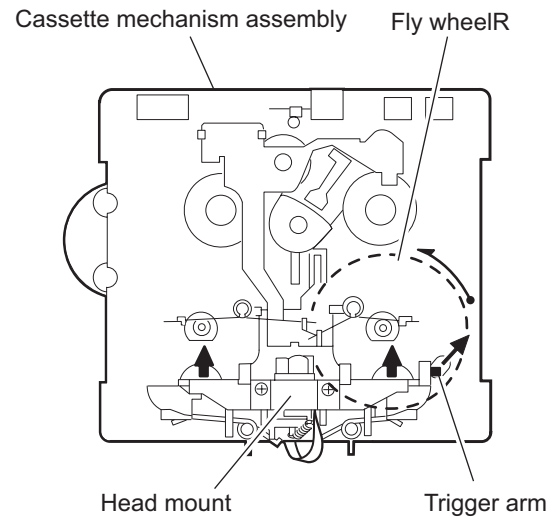


Fig.1

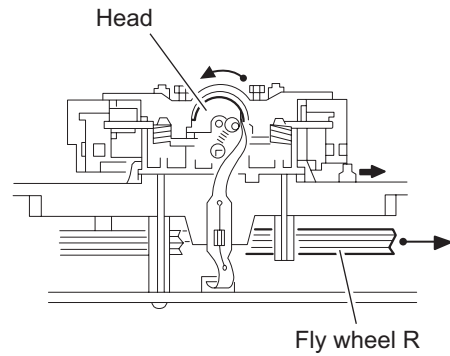


Fig.2

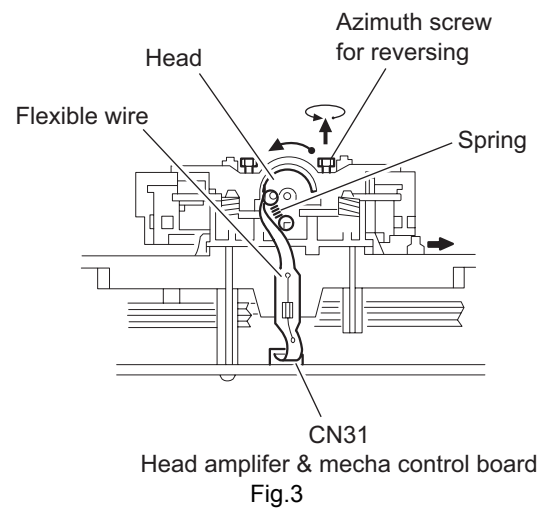


Fig.3

### 2.4.2 Removing the head amplifier & mechanism control board (See Fig.4)

- (1) Turn over the cassette mechanism assembly and remove the three screws **A** attaching the head amplifier & mechanism control board.
- (2) Disconnect the flexible wire from connector CN31 on the head amplifier & mechanism control board.
- (3) Disconnect connector CN32 of the head amplifier & mechanism control board from connector CN1 on the reel pulse board. REFERENCE: If necessary, unsolder the 4-pin wire soldered to the main motor.

### 2.4.3 Removing the main motor (See Fig.4~7)

- (1) Remove the two screws **B**.
- (2) Half raise the motor and remove the capstan belt from the motor pulley.

#### ATTENTION:

Be careful to keep the capstan belt from grease. When reassembling, refer to Fig.6 and 7 for attaching the capstan belt.

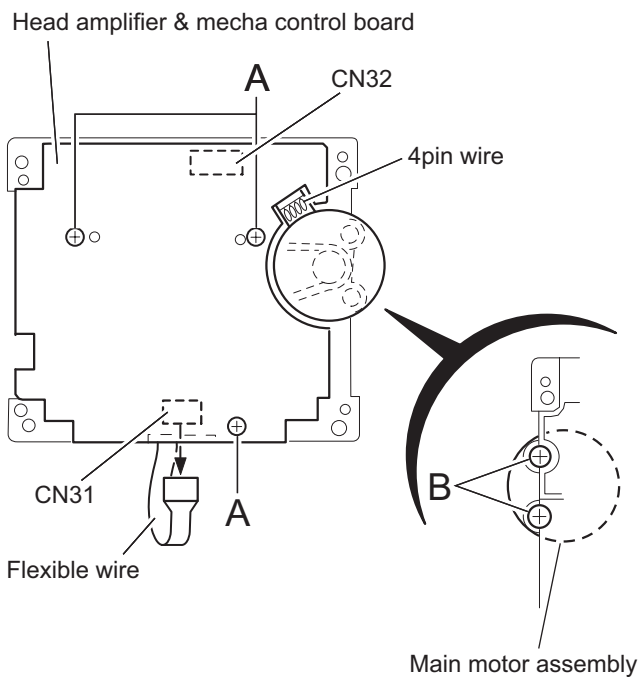


Fig.4

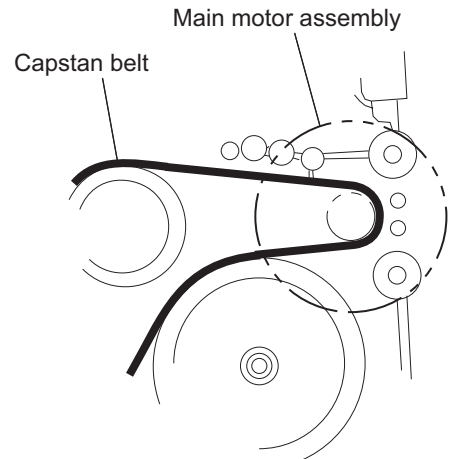


Fig.5

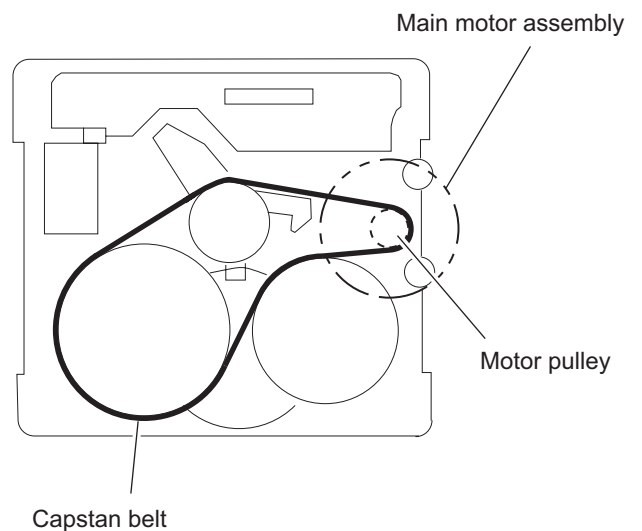


Fig.6

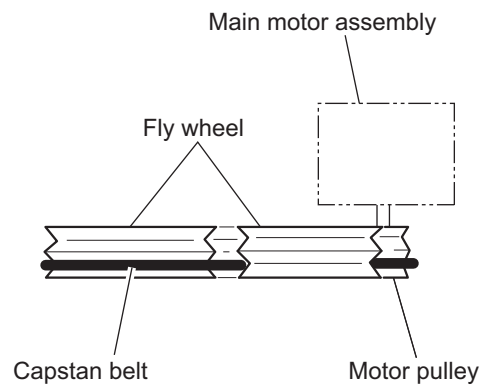
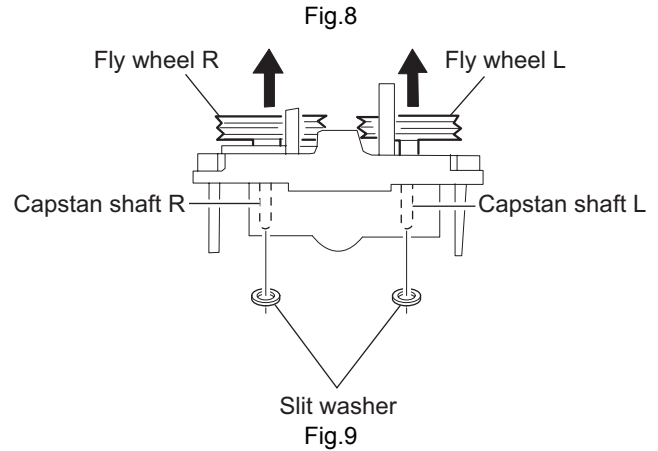
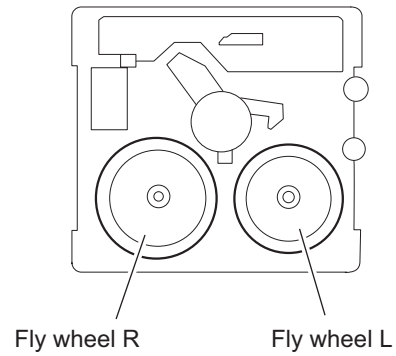


Fig.7

#### 2.4.4 Removing the flywheel (See Fig.8, 9)

- Prior to performing the following procedure, remove the head amplifier & mechanism control board and the main motor assembly.
  - (1) From the front side of the cassette mechanism, remove the slit washers attaching the capstan shaft **L** and **R**. Pull out the flywheels backward.



#### 2.4.5 Removing the reel pulse board and solenoid (See Fig.10)

- Prior to performing the following procedure, remove the head amplifier & mechanism control board.
  - (1) Remove the screw **C**.
  - (2) Release the tab **a**, **b**, **c**, **d** and **e** retaining the reel pulse board.
  - (3) Release the tab **f** and **g** attaching the solenoid on the reel pulse board.
  - (4) The reel pulse board and the solenoid come off.

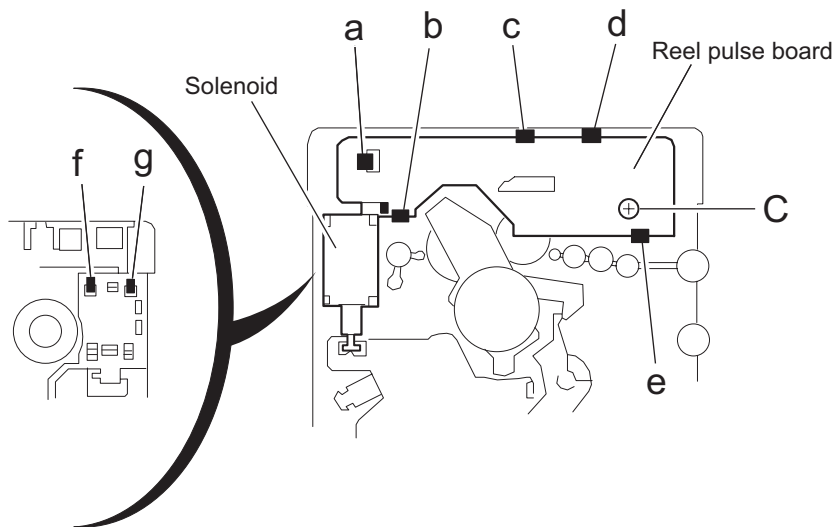


Fig.10

**2.4.6 Reattaching the Play/ Record & Clear head**  
**(See Fig.11~13)**

- (1) Reattaching the head mount assembly.
  - a) Change front of the direction cover of the head mount assembly to the left (Turn the head forward).
  - b) Fit the bosses **O'**, **P'**, **Q'**, **U'** and **V'** on the head mount assembly to the holes **P** and **V**, the slots **O**, **U** and **Q** of the mechanism sub assembly (See Fig.11 to 13).

**CAUTION:**

To remove the head mount assembly, turn the direction cover to the left to disengage the gear. If the gear can not be disengaged easily, push up the boss **Q'** slightly and raise the rear side of the head mounts slightly to return the direction lever to the reversing side.

- (2) Tighten the azimuth screw for reversing.
- (3) Reattach the spring from the back of the Play/ Record & Clear head.
- (4) Connect the flexible wire to connector CN31 on the head amplifier & mechanism control board.

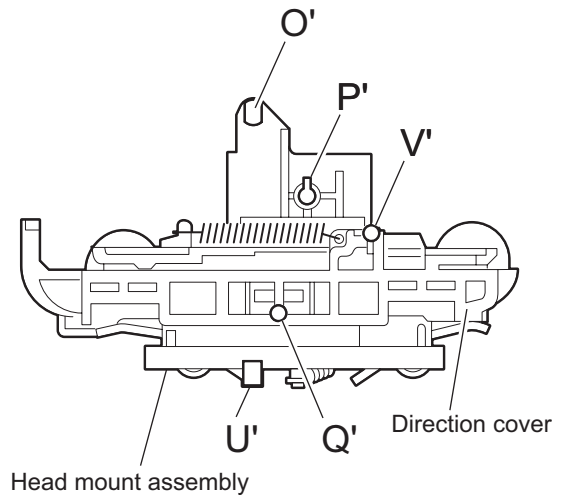


Fig.11

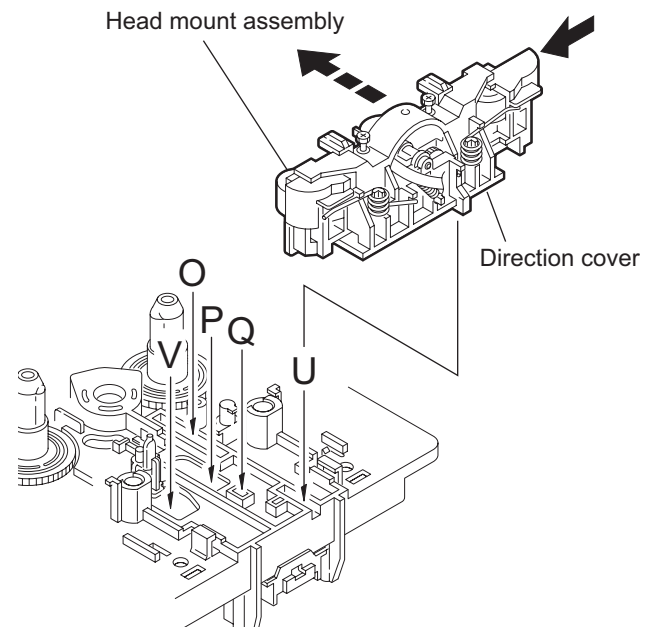


Fig.12

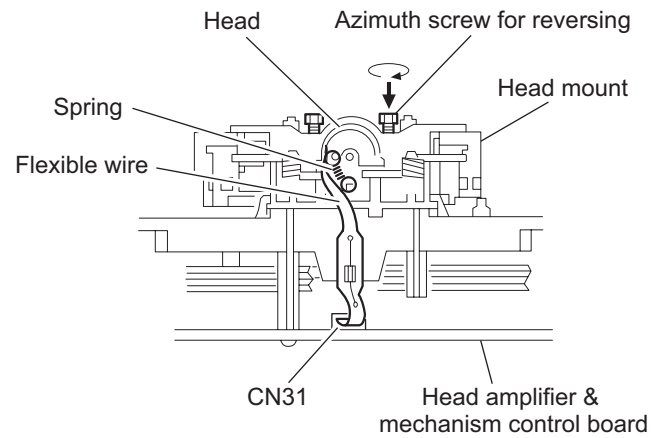


Fig.13

## 2.5 Speaker section

### 2.5.1 Main speaker

#### 2.5.1.1 Removing the front cover (See Fig.1, 2)

**CAUTION:**

Do not break or damage the front panel and body that are glued at the joints **a**. (See Fig.1)

- (1) Remove the four screws **A** on the front of the body respectively.
- (2) Remove the front cover toward the front and disconnect the yellow and black wires from the two tweeter speaker terminals.

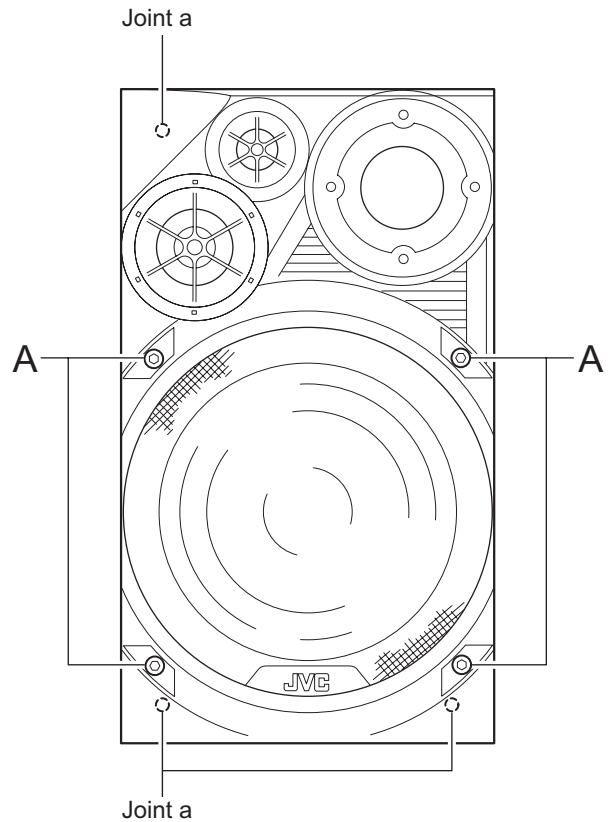


Fig.1

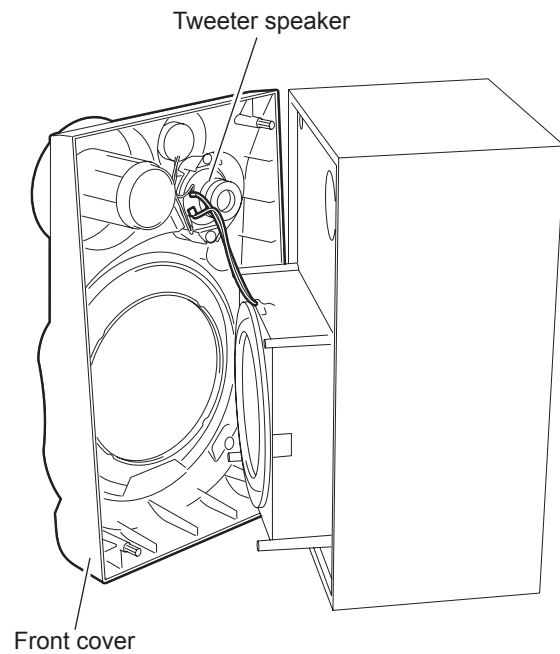
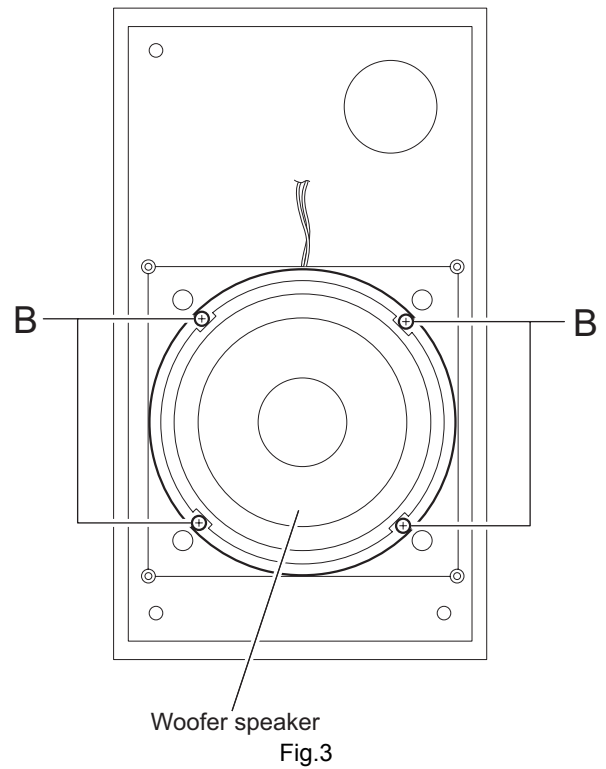


Fig.2

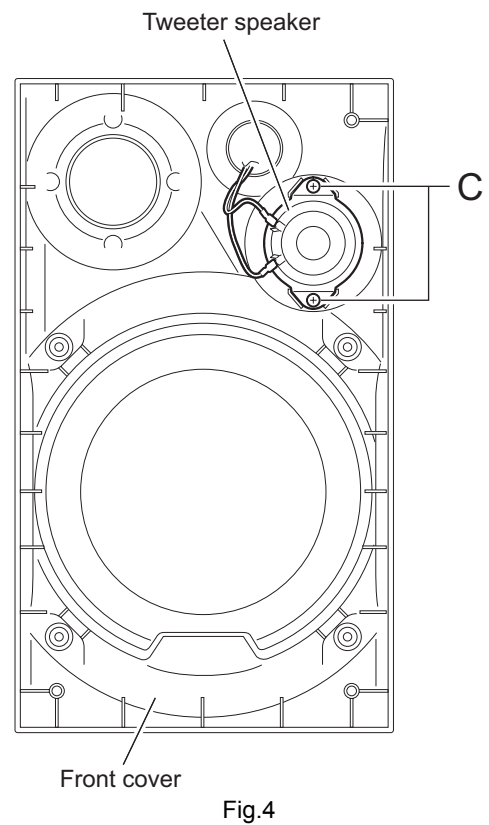
### 2.5.1.2 Removing the woofer speaker (See Fig.3)

- Prior to performing the following procedure, remove the front cover.
  - (1) Remove the four screws **B** on the front of the body.
  - (2) Pull out the woofer speaker toward the front and disconnect the wire (yellow and black, red and black) from the two speaker terminals.



### 2.5.1.3 Removing the tweeter speaker (See Fig.4)

- Prior to performing the following procedure, remove the front cover.
  - (1) Disconnect the blue and white wires from the two tweeter speaker terminals.
  - (2) Remove the two screws **C** attaching the tweeter speaker on the back of the front cover.



## 2.5.2 Sub woofer

### 2.5.2.1 Removing the front cover (See Fig.5)

**CAUTION:**

Do not break or damage the front panel and body that are glued at the joints **b**. (See Fig.5)

- (1) Remove the front cover toward the front.

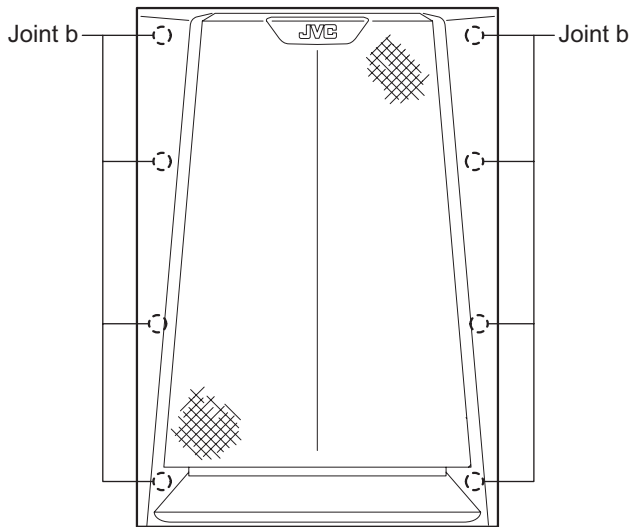


Fig.5

### 2.5.2.2 Removing the sub woofer speaker (See Fig.6)

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

- (1) Remove the six screws **E** on the front of the body.
- (2) Pull out the woofer speaker toward the front and disconnect the red and black wires from the four speaker terminals.

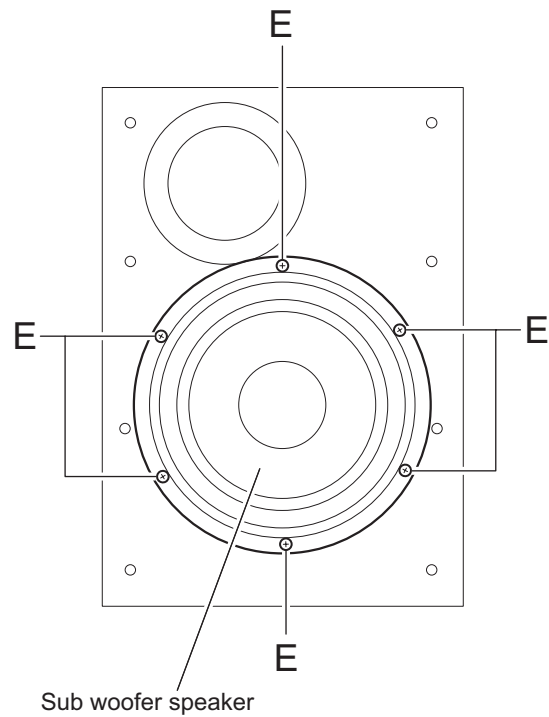


Fig.6

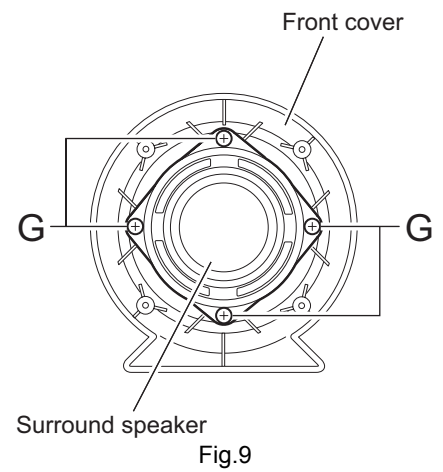
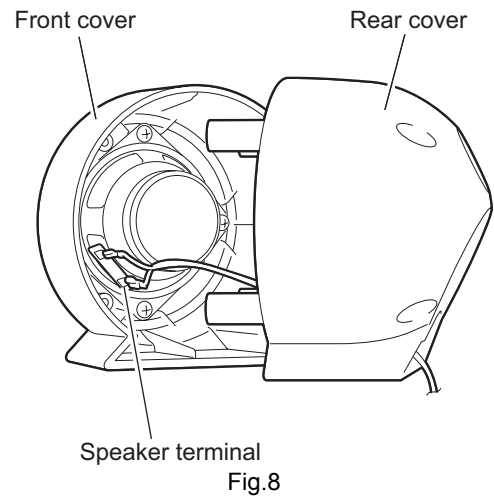
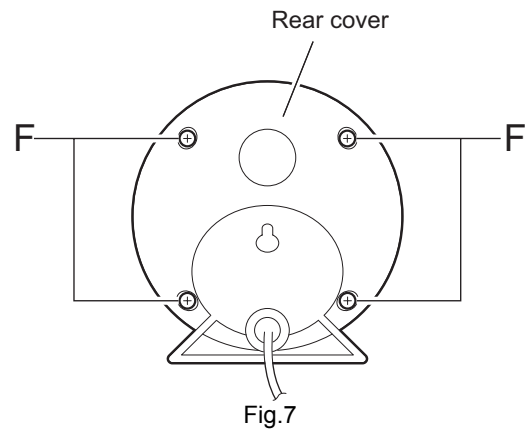


### 2.5.3 Surround speaker

#### 2.5.3.1 Removing the rear cover

(See Fig.7~9)

- (1) Remove the four screws **F** on the back of the body.
- (2) Disconnect the wires from the two terminals on the rear of the surround speaker.
- (3) Remove the four screws **G** on the back of the front cover.



## SECTION 3 Adjustment

### 3.1 Measurement Instruments Required for Adjustment

- (1) Low frequency oscillator  
This oscillator should have a capacity to output 0dBs to 600Ω at an oscillation frequency of 50Hz-20kHz.
- (2) Attenuator impedance : 600Ω
- (3) Electronic voltmeter
- (4) Distortion meter
- (5) Frequency counter
- (6) Wow & flutter meter
- (7) Test tape  
VT703L : Head azimuth  
VT712 : Tape speed and running unevenness (3kHz)  
VT724 : Reference level (1kHz)
- (8) Blank tape  
TYPE I : AC-225  
TYPE II : AC-514
- (9) Torque gauge : For play and back tension  
FWD(TW2111A), REV(TW2121a) and FF/REW(TW2231A)
- (10) Test disc: CTS-1000

### 3.2 Measurement conditions

Power supply voltage	AC 110V/AC127V/AC220V AC 230V·AC240V (adjustable with the voltage selector), ~50Hz/60Hz
Reference output	Speaker : 0.775V/6Ω Headphone : 0.077V/32Ω

Reference frequency and input level	1kHz, AUX : -8dBs
Measurement output terminal	at Speaker J3002
Load resistance	6Ω

#### 3.2.1 Radio Input signal

AM frequency	400Hz
AM modulation	30%
FM frequency	400Hz
FM frequency deviation	22.5kHz

#### 3.2.2 Tuner section

Voltage applied to tuner	+B : DC5.7V VT : DC 12V
Reference measurement output	26.1mV(0.28V)/3Ω
Input positions	AM : Standard loop antenna FM : TP1 (hot) and TP2 (GND)

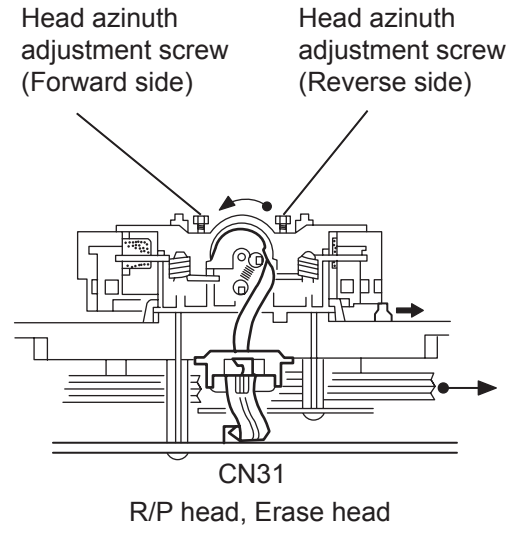
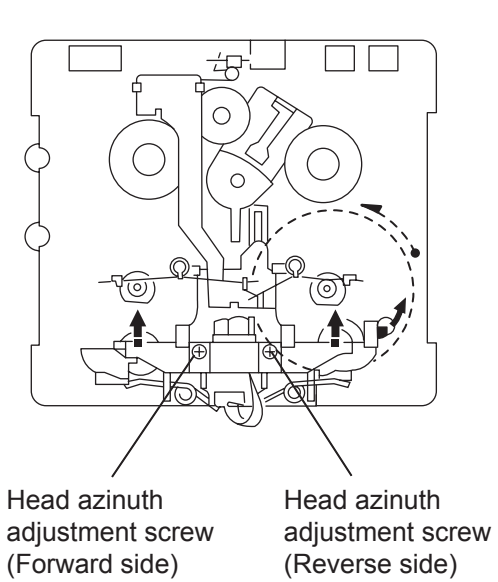
#### 3.2.3 Standard measurement position of volume

Function switch	to Tape
Beat cut switch	to Cut
Super Bass/Active hyper Bass	to OFF
Bass Treble	to Center
Adjustment of main volume to reference output	VOL : 0.775V

#### Precautions for measurement

- (1) Apply 30pF and 33kΩ to the IF sweeper output side and 0.082μ F and 100kΩ in series to the sweeper input side.
- (2) The IF sweeper output level should be made as low as possible within the adjustable range.
- (3) Since the IF sweeper is a fixed device, there is no need to adjust this sweeper.
- (4) Since a ceramic oscillator is used, there is no need to perform any MIX adjustment.
- (5) Since a fixed coil is used, there is no need to adjust the FM tracking.
- (6) The input and output earth systems are separated. In case of simultaneously measuring the voltage in both of the input and output systems with an electronic voltmeter for two channels, therefore, the earth should be connected particularly carefully.
- (7) In the case of BTL connection amp., the minus terminal of speaker is not for earthing. Therefore, be sure not to connect any other earth terminal to this terminal. This system is of an BTL system.
- (8) For connecting a dummy resistor when measuring the output, use the wire with a greater code size.
- (9) Whenever any mixed tape is used, use the band pass filter (DV-12).

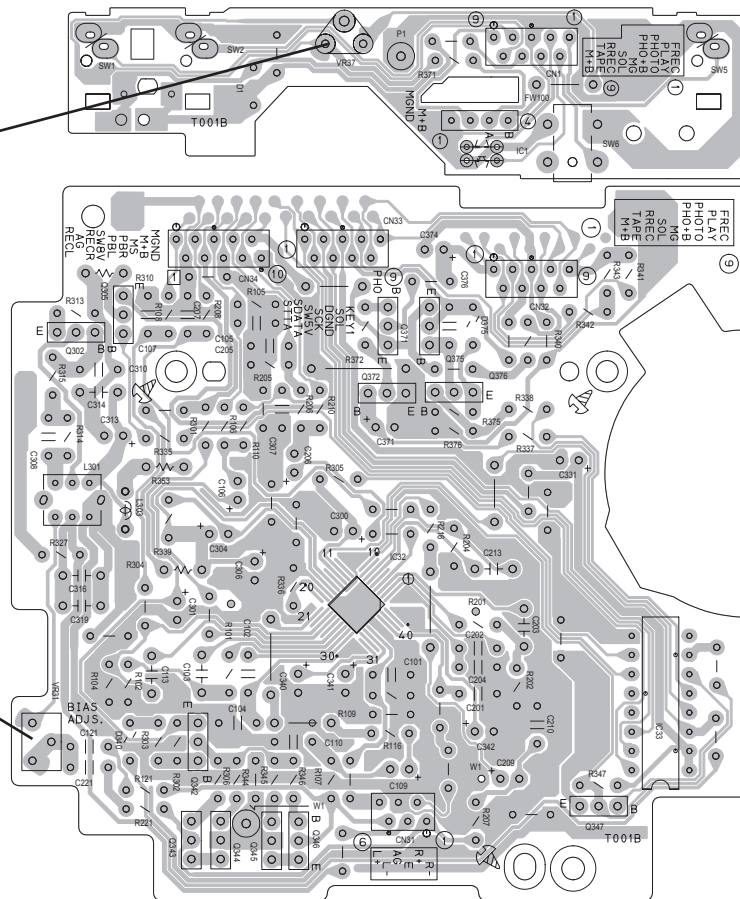
### 3.3 Cassette mechanism adjustment



Mecha control board

Motor speed VR37

BIAS adjust VR31



### 3.4 Mechanism section

Item	Condition	Measurement method	Ref. value	Adjustment position
Head azimuth	Test tape :VT703L (8kHz) Output terminal :Speaker out	(1) Playback the test tape VT703L (8kHz). (2) Adjust to maximum output level by azimuth adjustment screw for forward side and reverse side. (3) This adjustment is adjust by adjustment screw of forward side and adjustment screw of reverse side.	Maximum output	Only adjust at changed head
Tape speed	Test tap :VT712 (3kHz) Output terminal :Speaker out or Headphone out	Playback the test tape VT712 (3kHz) at end of forward side,adjust to 2,940~3,90Hz indication of frequency counter by VR37.	2,940 ~ 3,090Hz	VR37

Item	Condition	Measurement method	Ref. value	Adjustment position
Tape speed deviation at FWD/REV	Test tape : VT712 (3kHz) Output terminal :Speaker out or Headphone out	Playback the test tape VT712 (3kHz) at end of forward and reverse, tape speed deviation should be less than 6.0Hz.	Leass than 6.0Hz	VR31
Wow & Flutter	Test tape : VT712 (3kHz) Output terminal :Speaker out or Headphone out	Playback the test tape VT712 (3kHz) at start of forward and reverse, Wow & Flutter are should be less than 0.25%(WRMS).	Less than 0.25% (WRMS)	

### 3.4.1 Electrical adjustment

Item	Condition	Measurement method	Ref. value	Adjustment position
Recording BIAS adjustment	<ul style="list-style-type: none"> <li>Forward or Reverse</li> <li>Test tape : AC-514 TYPE II : AC-225 TYPE I</li> <li>Output terminal Recording head</li> </ul>	<ol style="list-style-type: none"> <li>Set the test tape(AC-514 TYPE II and AC-225 TYPE I), then make REC/PAUSE condition.</li> <li>Connect 100Ω to recording head by series, then connect to VTVM for measurement the current.</li> <li>After setting, start the recording by release the PAUSE, in this time bias current adjust to next fig. by VR31 for Lch and VR32 for Rch. 4.0 μA (TYPE II) and 4.20 μA (TYPE I).</li> </ol>	AC-225 : 4.20μA AC-514 : 4.0μA	VR31
R/P playback frequency response	<ul style="list-style-type: none"> <li>Reference frequency : 1kHz / 10kHz (Reference: -20dB)</li> <li>Test tape : AC-514 TYPE II</li> <li>Input terminal : OSC IN</li> </ul>	<ol style="list-style-type: none"> <li>Set the test tape (AC-514 TYPE ), then make REC/PAUSE condition.</li> <li>Release the PAUSE, then start recording the 1kHz and 10kHz of reference frequency from oscillator.</li> <li>Playback the recorded position, 1kHz and 10kHz output deviation should -1dB 2dB to readjust by VR31 for Lch and VR32 for Rch.</li> </ol>	Output deviation 1kHz/10kHz : -1dB ± 2dB	VR31

### 3.4.2 Electrical response confirmation

Item	Condition	Measurement method	Ref. value	Adjustment position
Recording bias current	<ul style="list-style-type: none"> <li>Forward or Reverse</li> <li>Test tape : TYPE II (AC-514)</li> <li>Measurement terminal : BIAS test point on printed circuit board</li> </ul>	<ol style="list-style-type: none"> <li>Change BIAS1 and 2, confirm the frequency should be change.</li> <li>Set the test tape (AC-514 TYPE II), then make REC/PAUSE condition.</li> <li>Confirm the frequency should 100Hz ± 6kHz at BIAS test point on printed circuit board.</li> </ol>	100 kHz ± 6 kHz	
Erase current (reference value)	<ul style="list-style-type: none"> <li>Forward or Reverse</li> <li>Rec condition</li> <li>Test tape : AC-514 TYPE II : AC-225 TYPE I</li> <li>Measurement terminal Both side of Erase head</li> </ul>	<ol style="list-style-type: none"> <li>Set the test tape (AC-514 TYPE II and AC-225 TYPE I), then make REC/PAUSE condition.</li> <li>Release the PAUSE to REC condition, connect 1W to ERASE head by series, then confirm the erase current at both side of erase head.</li> </ol>	TYPE II : 120 mA TYPE I : 75 mA	

If change the CD mechanism or printed circuit board, should done the initialize operation for write the mechanism position to E2PROM.

Initialize operation is done to next operation.

Set to standby condition

Press together the cassette Reverse key and clock key of main body.

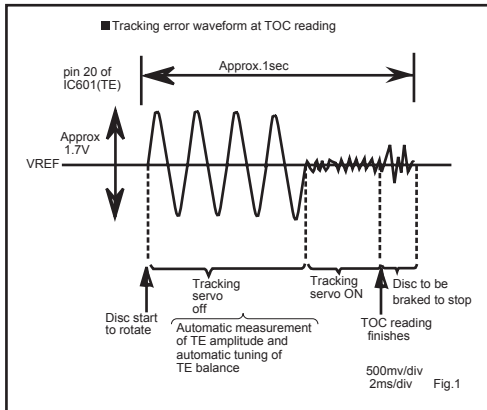
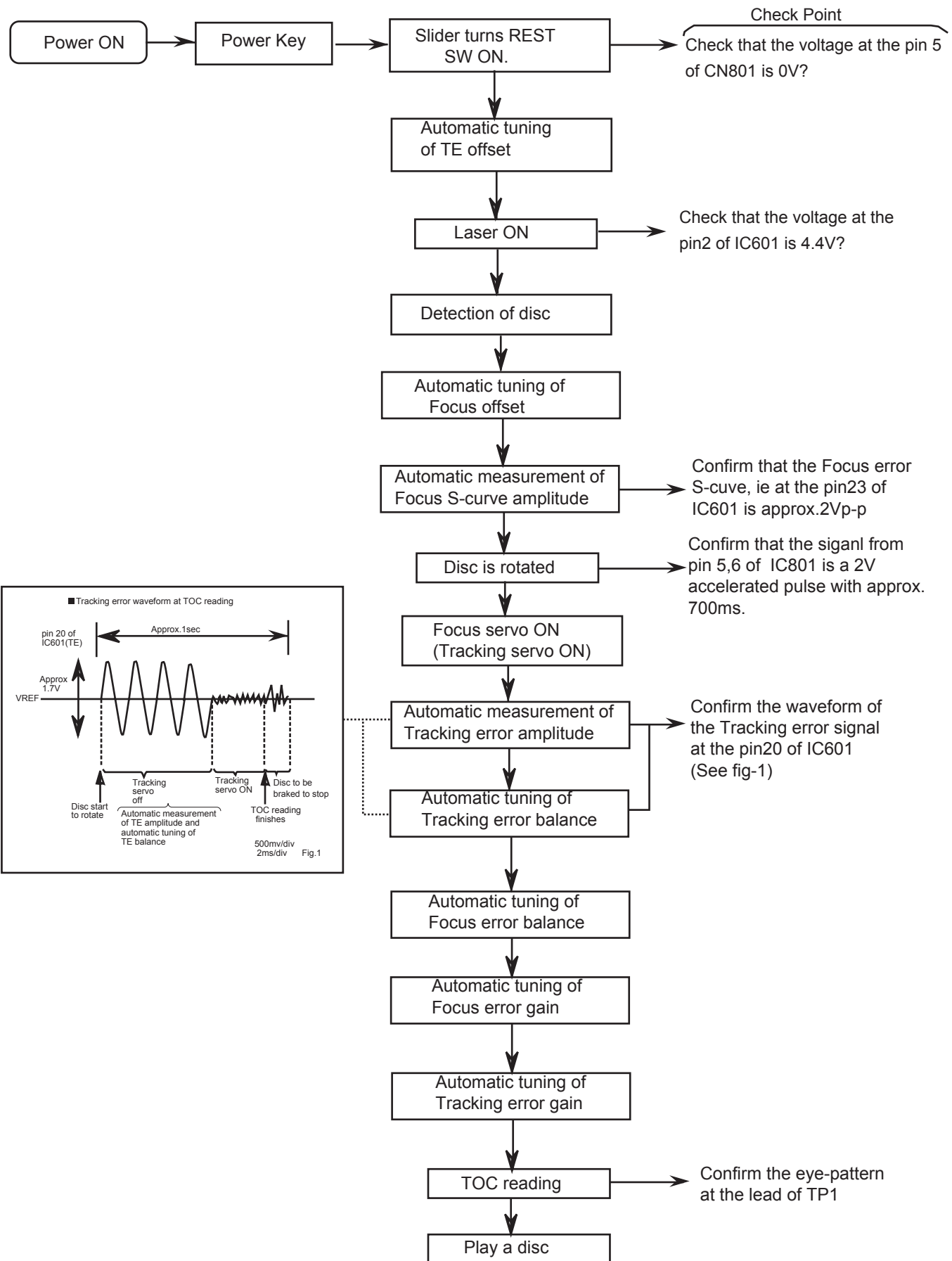
Keep this condition, then power switch to ON.

Initialize operation is automatically to start and stop.

Complete the initialize operation.

Initialize operation is release by power switch to OFF.

### 3.5 Flow of functional operation until TOC read (CD)



### 3.6 Maintenance of laser pickup (CD)

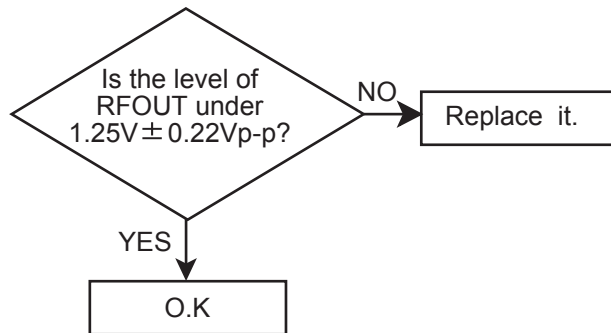
(1) Cleaning the pick up lens

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.

- The level of RF output (EFM output : amplitude of eye pattern) will below.



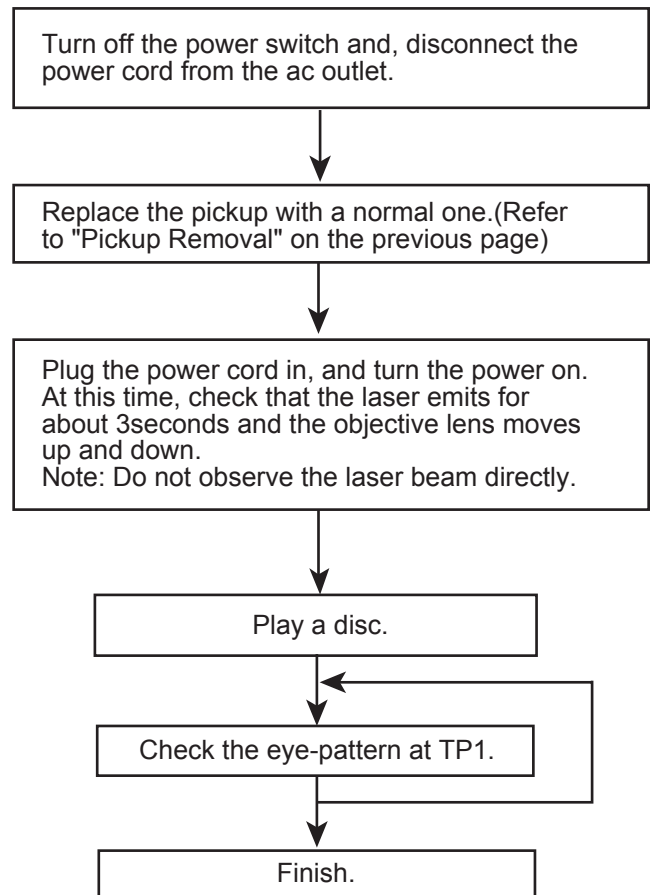
(3) Semi-fixed resistor on the APC PC board

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.

### 3.7 Replacement of laser pickup (CD)

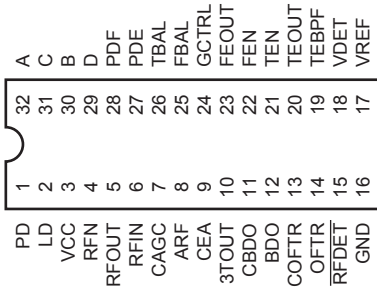


# SECTION 4

## Description of major ICs

### 4.1 AN22000A-W (IC601) : RF head amp.

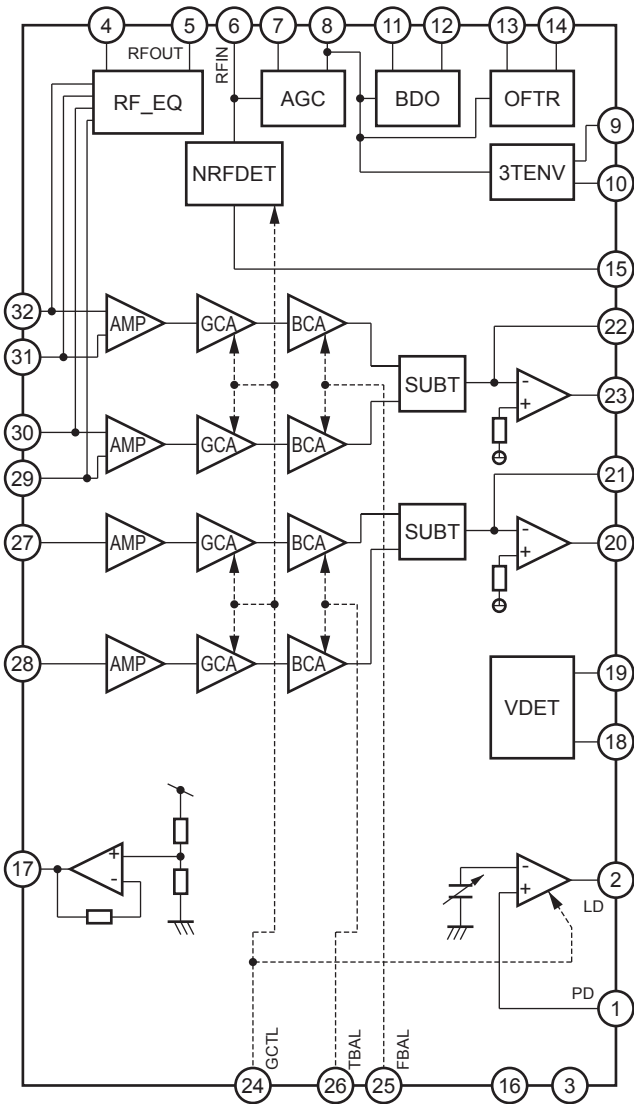
• Terminal layout



• Pin function

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

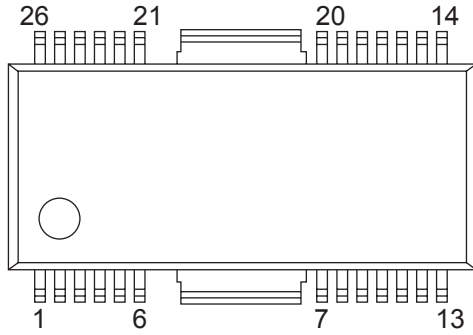
• Block diagram





## 4.2 AN4801SB-W (IC801) : MD/CD driver

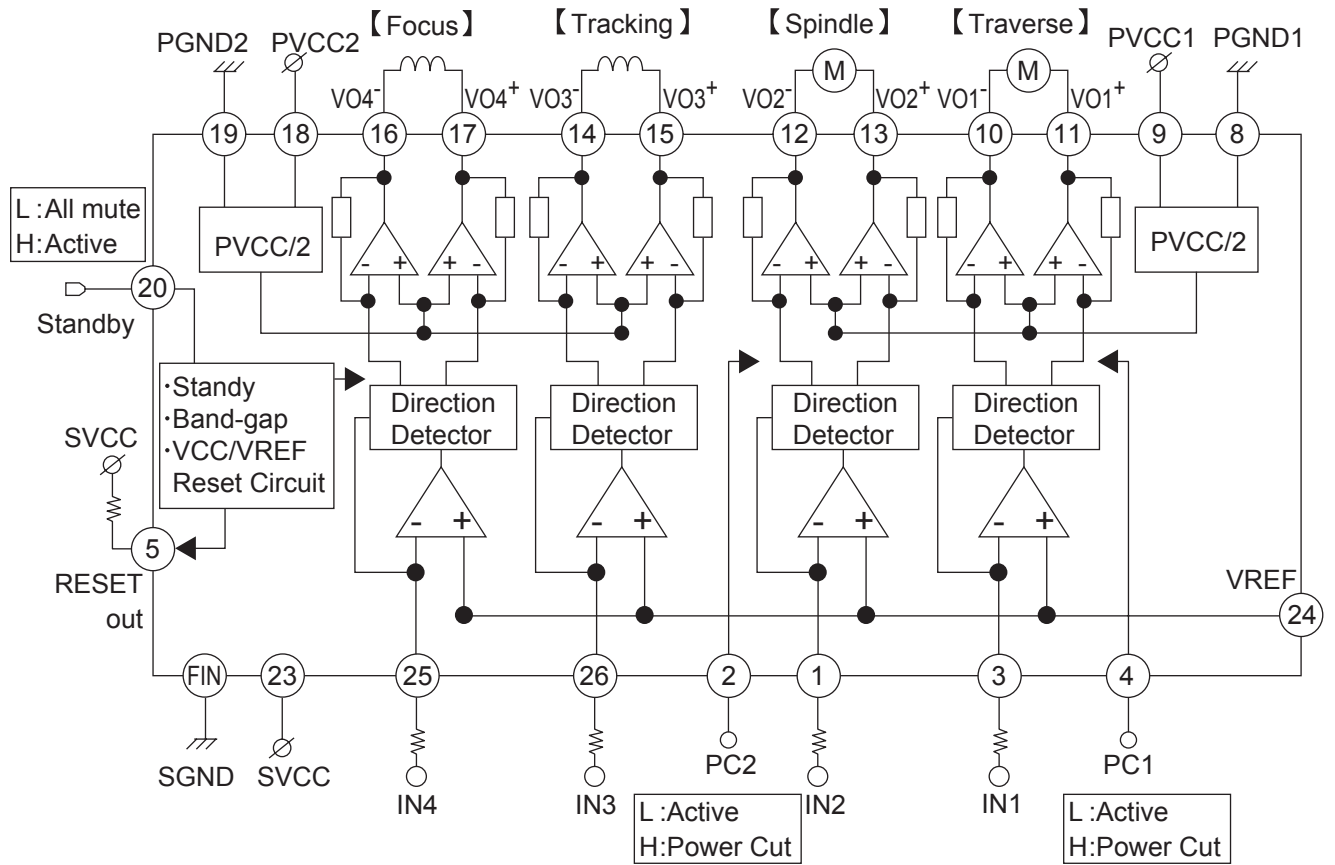
### • Pin Layout



### • Pin function

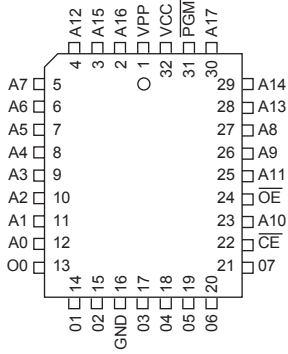
Pin No.	Function	Pin No.	Function
1	Driver 2 input	15	Driver 3 forward output
2	Power Cut input (channel 2 mute)	16	Driver 4 inverted output
3	Driver 1 input	17	Driver 4 forward output
4	Power Cut input (channel 1 mute)	18	Power supply 2 for driver
5	Reset output	19	Ground 2 for driver
6	N. C.	20	Standby input
7	N. C.	21	N. C.
8	Ground 1 for driver	22	N. C.
9	Power supply 1 for driver	23	Power supply
10	Driver 1 inverted output	24	VREF input
11	Driver 1 forward output	25	Driver 4 input
12	Driver 2 inverted output	26	Driver 3 input
13	Driver 2 forward output	fin	Ground
14	Driver 3 inverted output		

### • Block Diagram



### 4.3 AT27C020-70JC6 (IC102) : OTP EPROM 2M bit

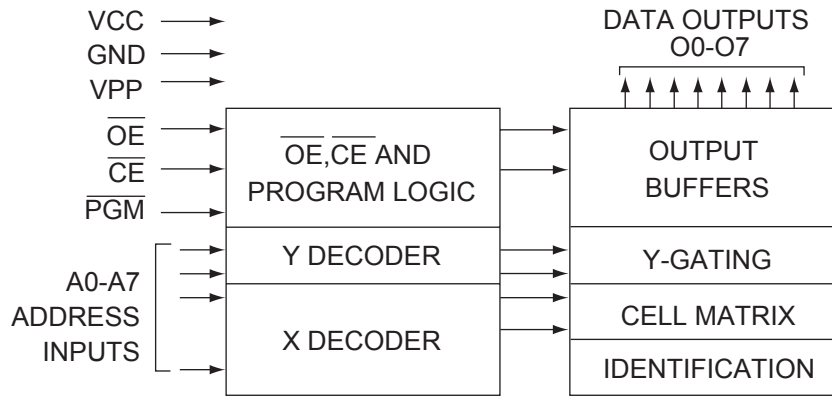
- Pin Layout



- Pin function

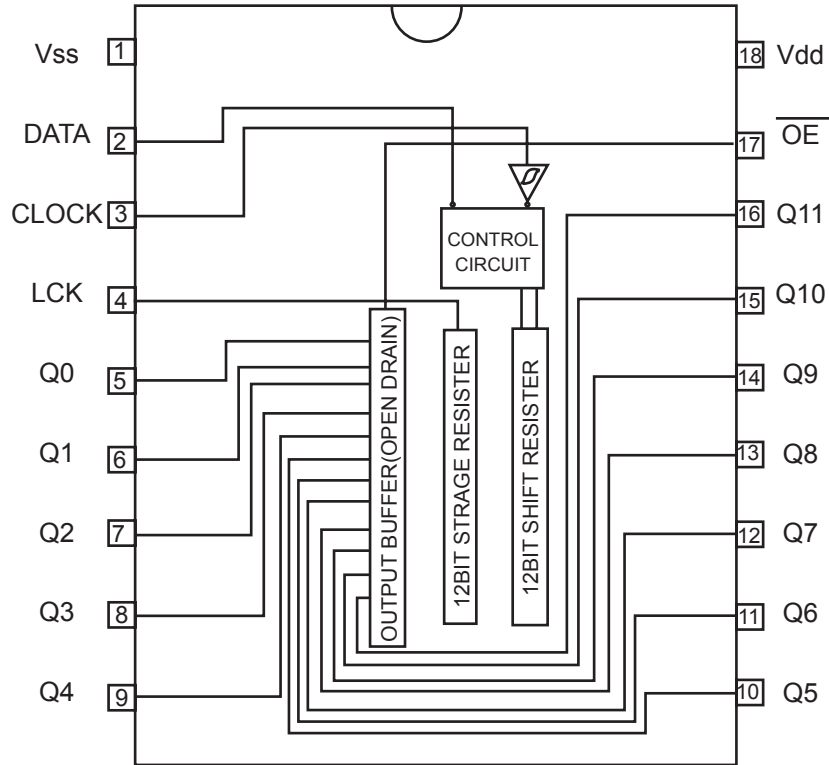
Pin No.	Function
A0-A17	Addresses
O0-O7	Outputs
CE	Chip Enable
OE	Output Enable
PGM	Program Strobe

- Block Diagram



#### 4.4 BU2092 (IC811) : Port expander

- Terminal layout

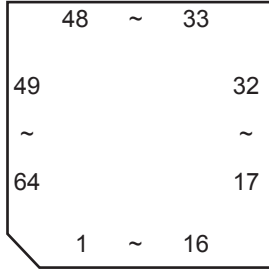


- Pin Function

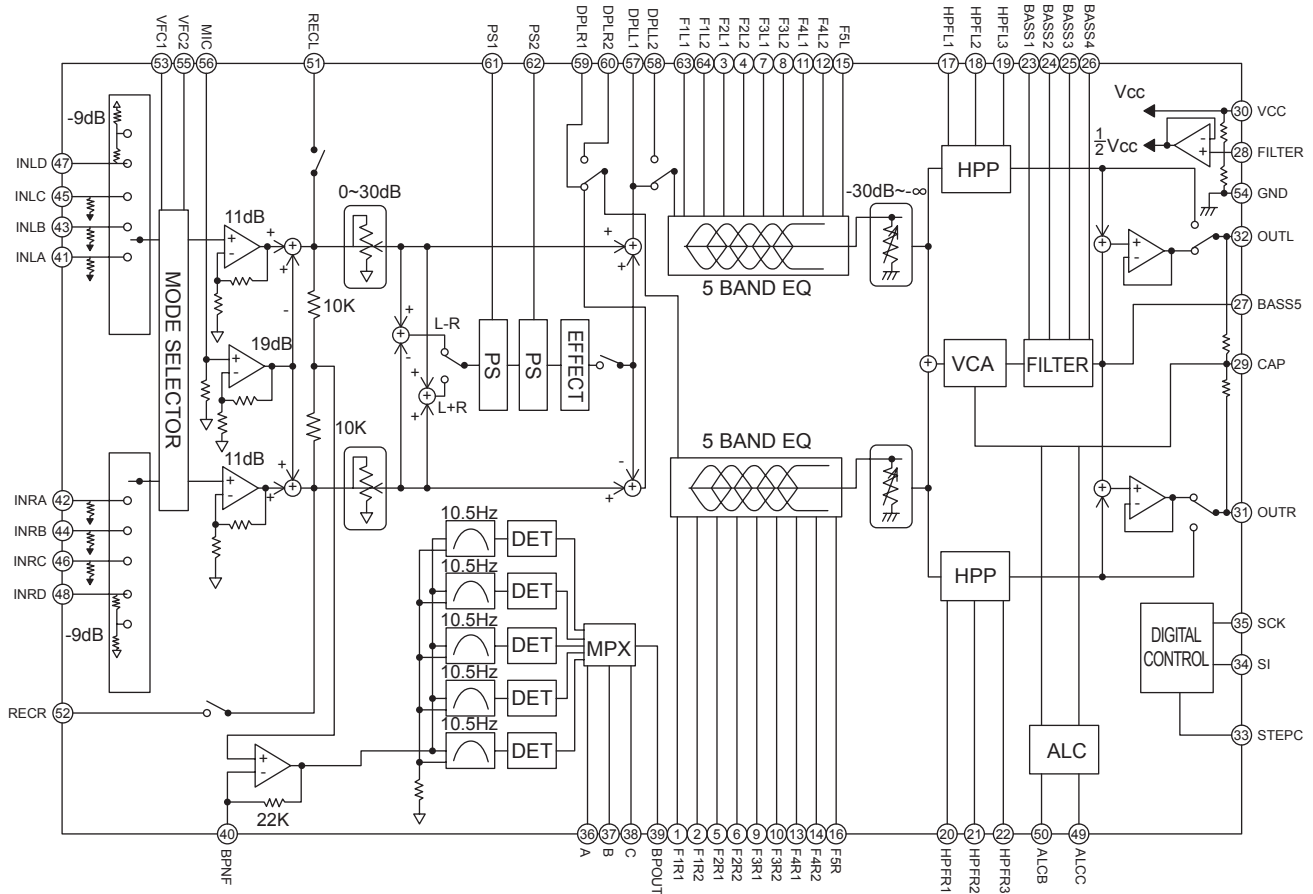
Pin No.	Symbol	I/O	Function						
1	Vss	-	Connect to GND						
2	DATE	I	Serial Date input						
3	CLOCK	I	Shift Clock of Date						
4	LCK	I	Latch Clock of Date						
5~16	Q0~Q11	O	Parallel Date Output <table border="1" style="margin-left: 20px;"> <tr> <td>Latch Data</td> <td>L</td> <td>H</td> </tr> <tr> <td>OUTPUT</td> <td>ON</td> <td>OFF</td> </tr> </table>	Latch Data	L	H	OUTPUT	ON	OFF
Latch Data	L	H							
OUTPUT	ON	OFF							
17	$\overline{OE}$	I	Output Enable						
18	Vdd	-	Power Supply						

## 4.5 BH3874AKS2 (IC434) : Audio sound processor

- Pin Layout



- Block Diagram



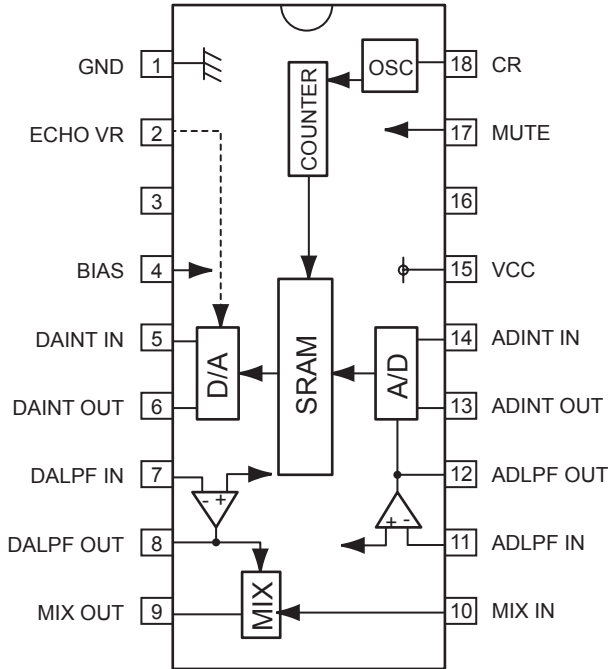
• Pin function

Pin No.	Name	Function
1	F1R1	Rch GREQ f1 filter setting pin
2	F1R2	Rch GREQ f1 filter setting pin
3	F2L1	Lch GREQ f2 filter setting pin
4	F2L2	Lch GREQ f2 filter setting pin
5	F2R1	Rch GREQ f2 filter setting pin
6	F2R2	Rch GREQ f2 filter setting pin
7	F3L1	Lch GREQ f3 filter setting pin
8	FAL2	Lch GREQ f3 filter setting pin
9	F3R1	Rch GREQ f3 filter setting pin
10	F3R2	Rch GREQ f3 filter setting pin
11	F4L1	Lch GREQ f4 filter setting pin
12	F4L2	Lch GREQ f4 filter setting pin
13	F4R1	Rch GREQ f4 filter setting pin
14	F4R2	Rch GREQ f4 filter setting pin
15	F5L	Lch GREQ f5 filter setting pin
16	F5R	Rch GREQ f5 filter setting pin
17	HPFL1	Lch high-pass filter setting pin
18	HPFL2	Lch high-pass filter setting pin
19	HPFL3	Lch high-pass filter setting pin
20	HPFR1	Rch high-pass filter setting pin
21	HPFR2	Rch high-pass filter setting pin
22	HPFR3	Rch high-pass filter setting pin
23	BASS1	Dynamic bass filter setting pin
24	BASS2	Dynamic bass filter setting pin
25	BASS3	Dynamic bass filter setting pin
26	BASS4	Dynamic bass filter setting pin
27	BASS5	Biamp output pin
28	FILTER	VCC/2 pin
29	CAP	ALC trap frequency setting pin
30	VCC	Power supply pin
31	OUTR	Rch output pin
32	OUTL	Lch output pin
33	STEPC	Time constant attachment for switching shock protection

Pin No.	Name	Function
34	SI	Serial data larch receiving pin
35	SCK	Serial clock receiving pin
36	A	Parallel data receiving pin
37	B	Parallel data receiving pin
38	C	Parallel data receiving pin
39	BPOUT	Output pin for spectrum analyzer
40	BPNF	Spectrum analyzer level setting pin
41	INLA	Lch input pin A
42	INRA	Rch input pin A
43	INLB	Lch input pin B
44	INRB	Rch input pin B
45	INLC	Lch input pin C
46	INRC	Rch input pin C
47	INLD	Lch input pin D
48	INRD	Rch input pin D
49	ALCC	Time constant of ALC setting pin
50	ALCR	ALC level setting pin
51	RECL	Lch RECOU output pin
52	REOR	Rch RECOU output pin
53	VFC1	Vocal fade filter setting pin
54	GND	Ground pin
55	VFC2	Vocal fade filter setting pin
56	MIC	Input pin for microphone
57	DPLL1	Lch output pin for DPL
58	DPLL2	Lch input pin for DPL
59	DPLR1	Rch output pin for DPL
60	DPLR2	Rch input pin for DPL
61	PS1	Surround setting pin
62	PS2	Surround setting pin
63	F1L1	Lch GREQ f1 filter setting pin
64	F1L2	Lch GREQ f1 filter setting pin

#### 4.6 BU9253AS (IC901) : LPF & Echo mix.

- Pin layout & block diagram

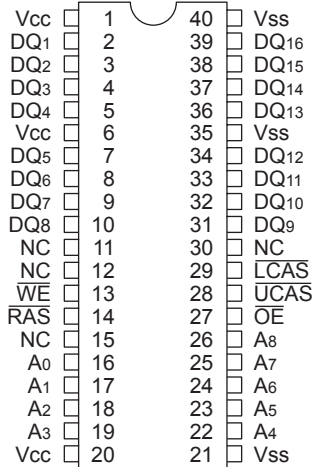


- Pin function

Pin No.	Symbol	I/O	Description
1	GND	-	Connect GND
2	ECHO VR	I	Echo level control
3		-	Non connect
4	BIAS	-	Analog part DC bias
5	DAINT IN	I	DA side integrator input
6	DAINT OUT	O	DA side integrator output
7	DALPF IN	I	DA side LPF input
8	DALPF OUT	O	DA side LPF output
9	MIX OUT	O	Mix AMP output for original tone & echo tone
10	MIX IN	I	Mix AMP input pin for original tone
11	ADLPF IN	I	AD side LPF input
12	ADLPF OUT	O	AD side LPF output
13	ADINT OUT	O	AD side integrator output
14	ADINT IN	I	AD side integrator input
15	VCC	-	Power supply
16	NC2	-	Non connect
17	MUTE	I	Mute control signal input
18	CR	-	CR pin for oscillator

### 4.7 GLT44016-35J4-X (IC103) : Dram

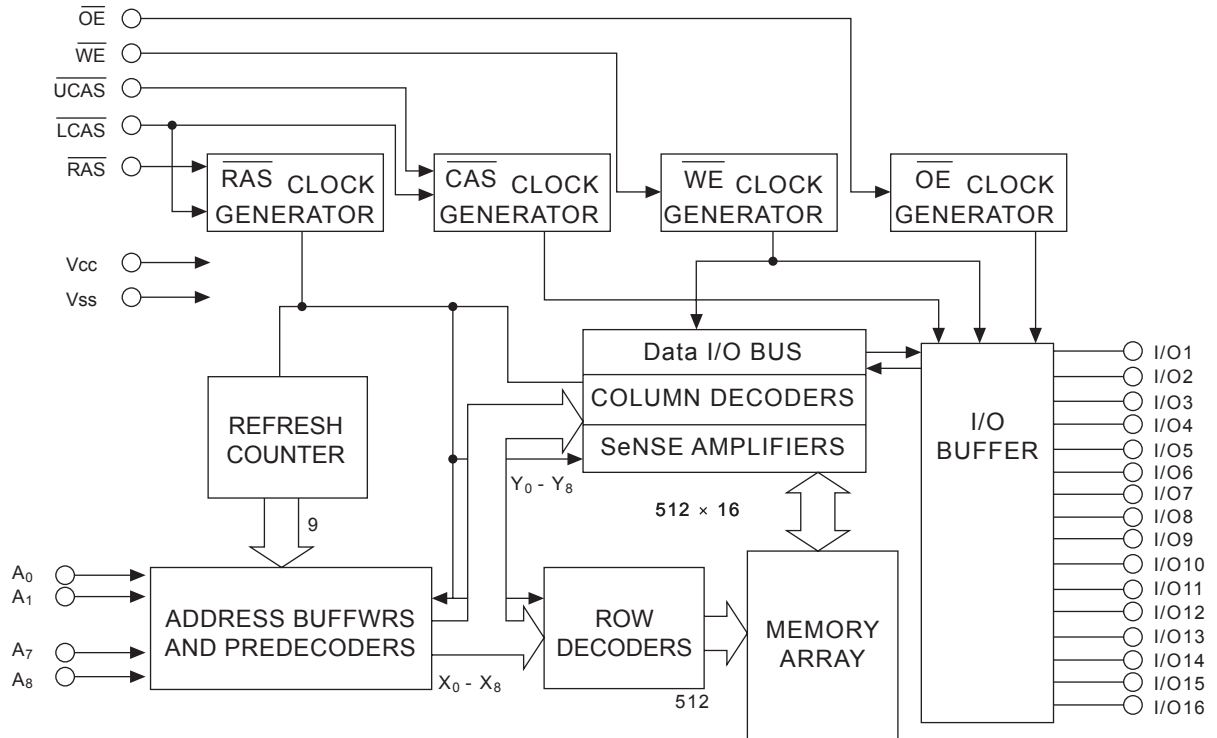
• Pin layout



• Pin function

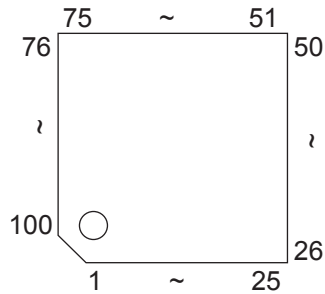
Pin Name	Function
A <sub>0</sub> ~A <sub>8</sub>	Address inputs
RAS	Row address strobe
UCAS	Column address strobe / upperbyte control
LCAS	Column address strobe / lower byte control
WE	Write enable
OE	Output enable
DQ <sub>1</sub> ~DQ <sub>16</sub>	Data inputs / outputs
Vcc	+5V power supply
Vss	Ground
NC	No connection

• Block diagram

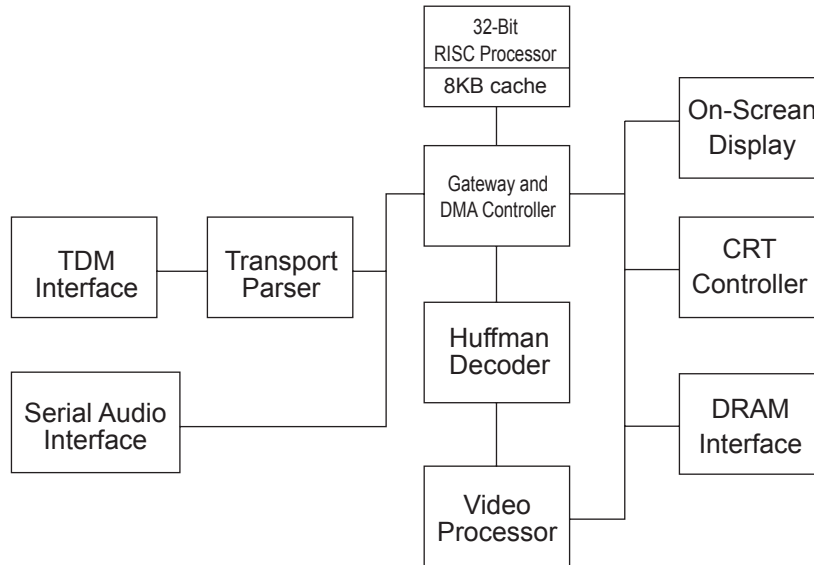


#### 4.8 ES3880F (IC104) : Video CD processor

- Pin Layout



- Block Diagram



- Pin function

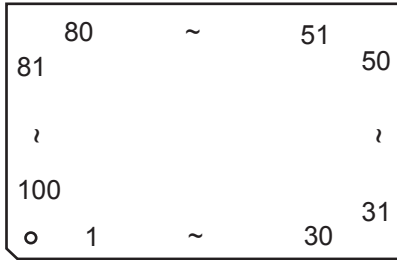
Pin No.	Symbol	I/O	Descriptions
1	VDD	I	2.85V power supply.
2	RAS#	O	Memory row address strobe (active-low).
3	DWE#	O	Memory write enable (active-low).
4~12	MA[8:0]	O	Multiplexed memory row and column address.
13~28	DBUS[0:15]	I/O	Memory data.
29	RESET#	I	System reset (active-low)
30	VSS	I	Ground.
31	VDD	I	2.85V power supply.
32~39	YUV[0:7]	O	B-bit YUV output.
40	VSYNC	I/O	Vertical sync; programmable for rising or falling edge.
41	HSYNC	I/O	Horizontal sync; programmable for rising or falling edge.
42	CPUCLK	I	RISC and system clock input.
43	PCLK2X	I/O	Doubled pixel clock I/O for screen video interface.
44	PCLK	I/O	27-MHz pixel clock qualifier I/O for screen video interface.
45~49	AUX[0:7]	I/O	Auxillary control (AUX0 and AUX1 are open collectors).
50	VSS	I	Ground.
51	VDD	I	2.85V power supply.
52~54	AUX[0:7]	I/O	Auxillary control (AUX0 and AUX1 are open collectors).
55~62	LD[0:7]	I/O	RISC interface data.



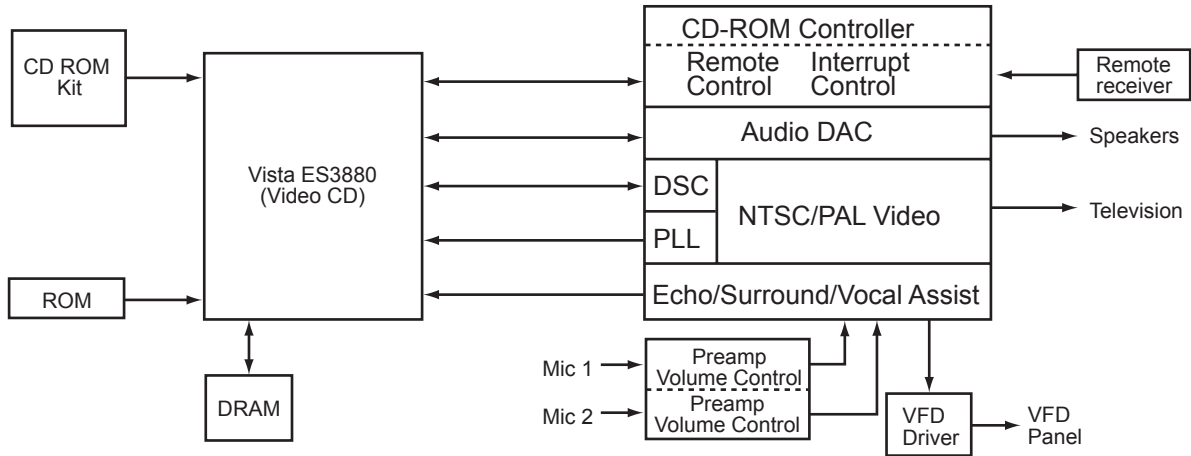
Pin No.	Symbol	I/O	Descriptions
63	LWR#	O	RISC interface write enable (active-low).
64	LOE#	O	RISC interface output enable (active-low).
65~67	LCS[3,1,0]#	O	RISC interface chip select (active-low).
68~79	LA[0:17]	O	RISC interface address.
80	VSS	I	Ground.
81	VPP	I	5.0V power supply.
82~87	LA[0:17]	O	RISC interface address.
88	ACLK	I/O	Master clock for external audio DAC (8.192MHz, 11.2896MHz, 12.288MHz, 16.9344MHz, and 18.432MHz).
89	AOUT	O	Audio interface serial data.
	SEL_PLL0	I	Used with SEL_PLL1 pin 91 to select phase-lock loop (PLL) clock frequency of CPUCLK pin 42: 00 = bypass PLL. 01 = 54MHz PLL. 10 = 67.5MHz PLL. 11 = 81MHz PLL.
90	ATCLK	I/O	Audio transmit bit clock.
91	ATFS	O	Audio interface transmit frame sync.
	SEL_PLL1	I	Used with SEL_PLL0 pin 89 to select phase-lock loop (PLL) clock frequency of CPUCLK pin 42,
92	MA9	O	Multiplexed memory row and column address.
	DOE#	O	Memory output enable (active-low).
93	AIN	I	Audio interface serial data.
94	ARFS	I	Audio receive bit clock.
95	ARCLK	I	Audio interface receive frame sync.
96	TDMCLK	I	TDM serial clock.
97	TDMDR	I	TDM serial data receive.
98	TDMFS	I	TDM frame sync.
99	CAS#	O	Memory column address strobe (active-low).
100	VSS	I	Ground.

#### 4.9 ES3883F(IC104):VCD Companion chip

- Pin function



- Blockdiagram

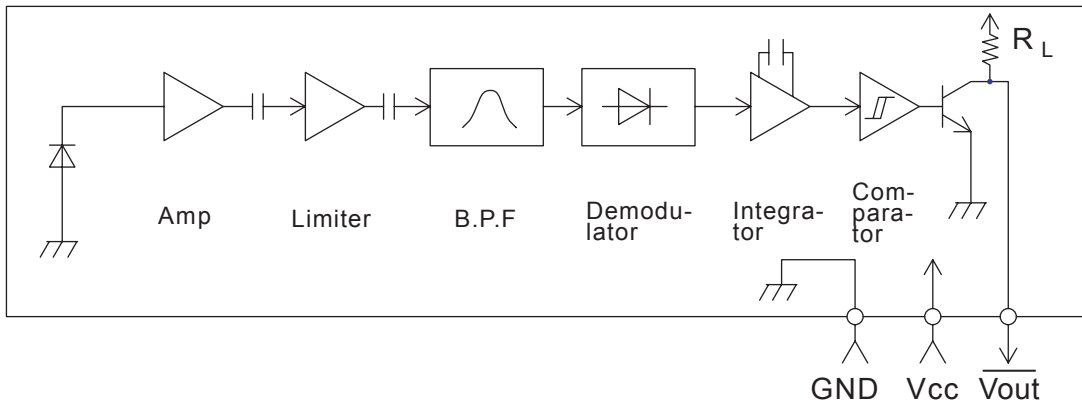


- Pin function

Pin No.	Symbol	I/O	Function
1,25;26,31,72,75,77,91,100	VSS	I	Ground.
5,16,32,66,73,78,90	VCC	I	Voltage supply 5v.
6	DSC_C	I	Clock programming to access internal registers.
7	AUX0	I/O	Servo Foward or Control Pin.
9	AUX1	I/O	Servo Reverse or Control Pin.
11	AUX2	I/O	Servo LDON or Control Pin.
70	AUX3	I/O	Servo CW/Limit or Control Pin.
69	AUX4	I/O	Servo CCW/Close or Control Pin.
68	AUX5	I/O	Servo Data or Control Pin.
67	AUX6	I/O	Servo XLAT or Control Pin/VFD_DO.
14	AUX7	I/O	Servo BRKM/Sense or Control Pin/VFD_DI.
18	AUX8	I/O	Servo Mute/Open or Control Pin/VFD_CLK.
20	AUX9	I/O	Servo SQS0 or Control Pin.
34	AUX10	I/O	Servo SQCK or Control Pin.
35	AUX11	I/O	3880 IRQ or Interrupt Output or Control Pin.
36	AUX12	I/O	CD C2PO or Interrupt input or Control Pin.
38	AUX13	I/O	Serial Interrupt/CD-Mute or Control Pin.
39	AUX14	I/O	Servo SCOR(S0S1) or Interrupt Input or Control Pin.
40	AUX15	I/O	Interrupt Input or Control Pin.
81,83,85,93,95,97,99,8	DSC_D[7:0]	I/O	Data for programming to access Internal registers.
10	DSC_S	I	Strobe for programming to access Internal registers.
12	DCLK	O	Dual-purpose pin DCLK is the MPEG decoder clock.
	EXT_CLK	I	EXT_CLK is the external clock EXT_CLK is an input during bypass PLL mode.
13	RESET_B	I	Video reset(active-low).
15	MUTE	O	Audio mute.
17	MCLK	I	Audio master clock.
19	TWS	I	Dual-purpose pin TWS is the transmit audio frame sync.
	SPLL_OUT	O	SPLL_OUT is the select PLL output.
21	TSD	I	Transmit audio data input.

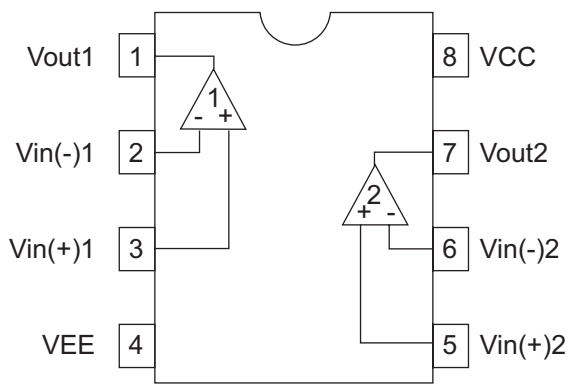
Pin No.	Symbol	I/O	Function														
22	TBCK	I	Transmit audio bit clock.														
23	RWS	O	Dual-purpose pin RWS is the audio frame sync.														
	SEL_PLL1	I	Pins SEL_PLL[1.0] select the PLL clock frequency for the DCLK output.  <table border="0"> <tr> <td><b>SEL_PLL1</b></td> <td><b>SEL_PLL0</b></td> <td><b>DCLK</b></td> </tr> <tr> <td>0</td> <td>0</td> <td>Bypass PLL(input mode)</td> </tr> <tr> <td>0</td> <td>0</td> <td>27 MHz(output mode)</td> </tr> <tr> <td>1</td> <td>0</td> <td>32.4 MHz(output mode)</td> </tr> <tr> <td>1</td> <td>1</td> <td>40.5 MHz(output mode)</td> </tr> </table>	<b>SEL_PLL1</b>	<b>SEL_PLL0</b>	<b>DCLK</b>	0	0	Bypass PLL(input mode)	0	0	27 MHz(output mode)	1	0	32.4 MHz(output mode)	1	1
<b>SEL_PLL1</b>	<b>SEL_PLL0</b>	<b>DCLK</b>															
0	0	Bypass PLL(input mode)															
0	0	27 MHz(output mode)															
1	0	32.4 MHz(output mode)															
1	1	40.5 MHz(output mode)															
24	RSTOUT_B	O	Reset output(active-low).														
2:4,27:30,76	NC		No connect.Do not connect to these pins.														
33	RSD	O	Dual-purpose pin. RSD is the receive audio data input.														
	SEL_PLL0	I	SEL_PLL0 along with SEL_PLL1 select the PLL clock frequency for the DCLK output.See the table for pin number 23.														
37	RBCK	O	Dual-purpose pin.RBCK is the receive audio bit clock.														
	SER_IN	I	SER_IN is the serial input DSC mode. 0-Parallel DSC mode. 1-Serial DSC mode.														
41,51	VSSAA	I	Audio Analog Ground.														
42	VCM	I	ADC Common Mode Reference(CMR) buffer output.CMR is approximately 2.25V.Bypass to analog ground with 47µF electrolytic in parallel with 0.1µF.														
43	VREFP	I	DAC and ADC maximum reference. Bypass to VCMR with 10µF in parallel with 0.1µF.														
44	VCCAA	I	Analog VCC, 5V.														
45:46	AOR+,AOR-	O	Right channel output.														
47:48	AOL-,AOL+	O	Left channel input.														
49	MIC1	I	Microphone input 1.														
50	MIC2	I	Microphone 2.														
52	VREF	I	Internal resistor divider generates Common Mode Reference(CMR) voltage. Bypass to analog ground with 0.1µF.														
53	VREFM	I	DAC and ADC minimum reference. Bypass to VCMR with 10µF in parallel with 0.1µF.														
54	RSET	I	Full scale DAC current adjustment.														
55	COMP	I	Compensation pin.														
56:57,62:63	VSSAV	I	Video Analog Ground														
58	CDAC	O	Modulates chrominance output.														
59,60	VCCAV	I	Video VCC, 5V														
61	YDAC	O	Y luminance data bus for screen video port.														
64	VDAC	O	Composite video output.														
65	ACAP	I	Audio CAP.														
71	XOUT	O	Crystal output.														
74	XIN	I	27 MHz crystal input.														
79	PCLK	I/O	13.5 MHz pixel clock.														
80	2XPCLK	I/O	27 MHz(2 times pixel clock).														
82	HSYN_B	O	Horizontal sync(active-low).														
84	VSYN_B	O	Vertical sunc(active-low).														
86:89,92,94,96,98	YUV[7:0]	I	YUV data bus for screen video port.														

**4.10 GP1UM271XK (IC901) : Dual operation amplifier**



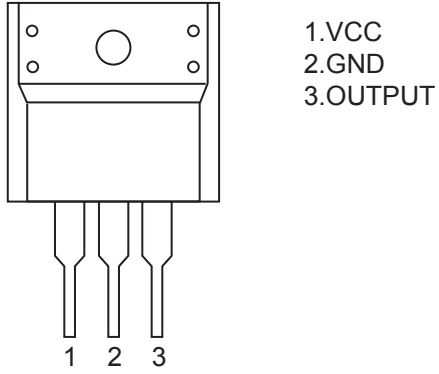
**4.11 HA17758A (IC501,IC502,IC571) : Dual operational amp**

• Pin layout

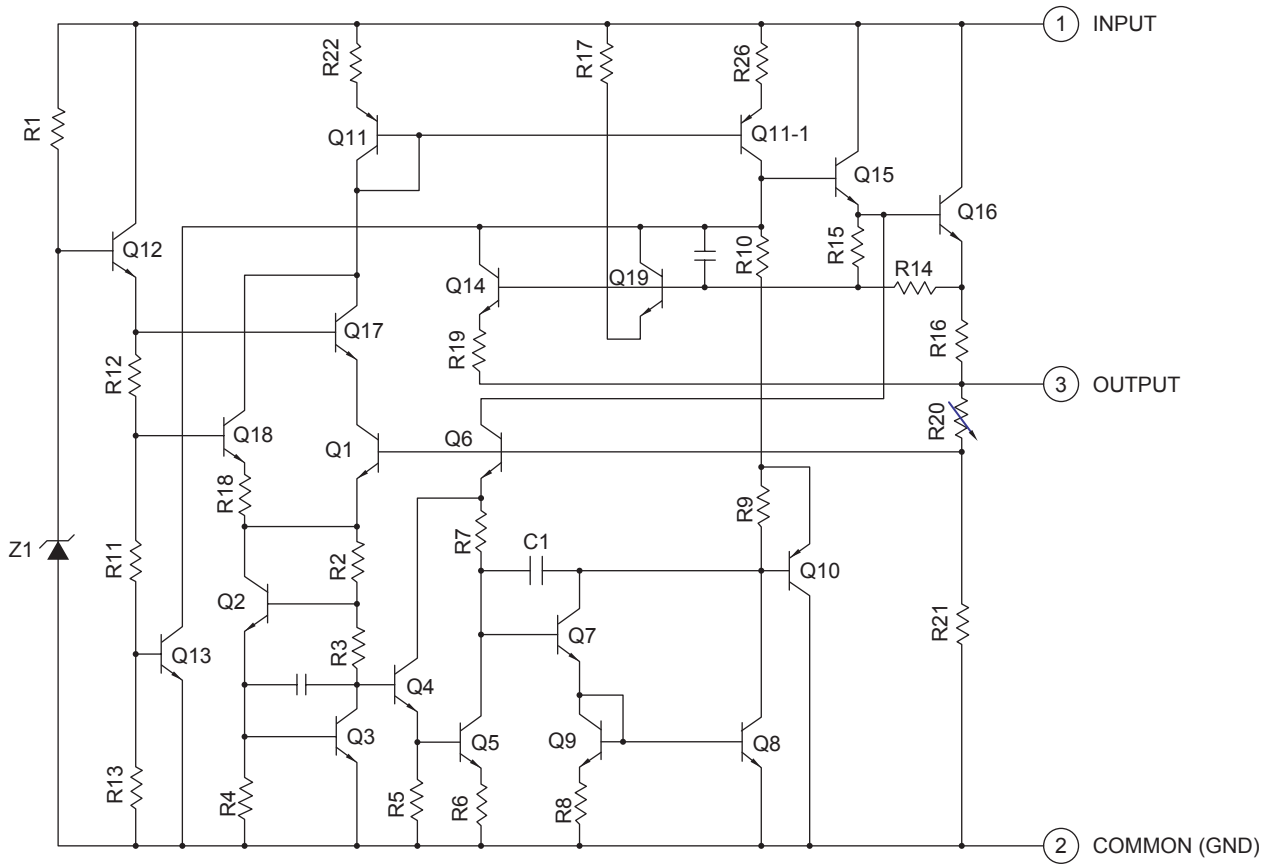


#### 4.12 KIA7805API (IC303, IC360) : Regulator

- Pin layout

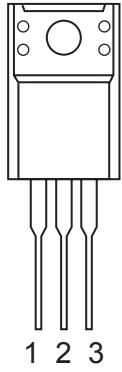


- Block diagram



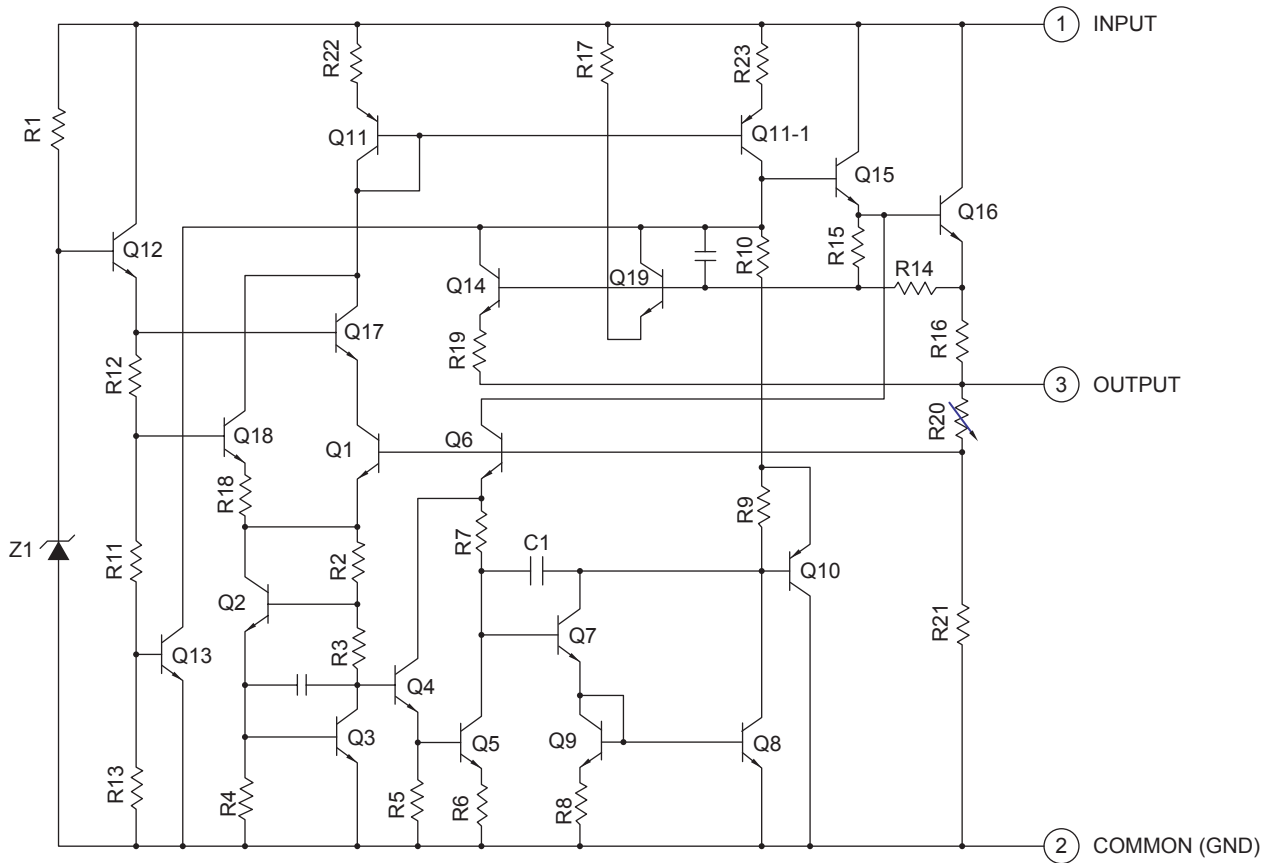
### 4.13 KIA7809API (IC305) : Regulator

- Pin layout



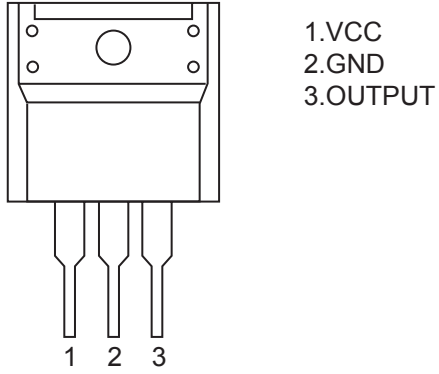
1.INPUT  
2.COMMON  
3.OUTPUT

- Block diagram

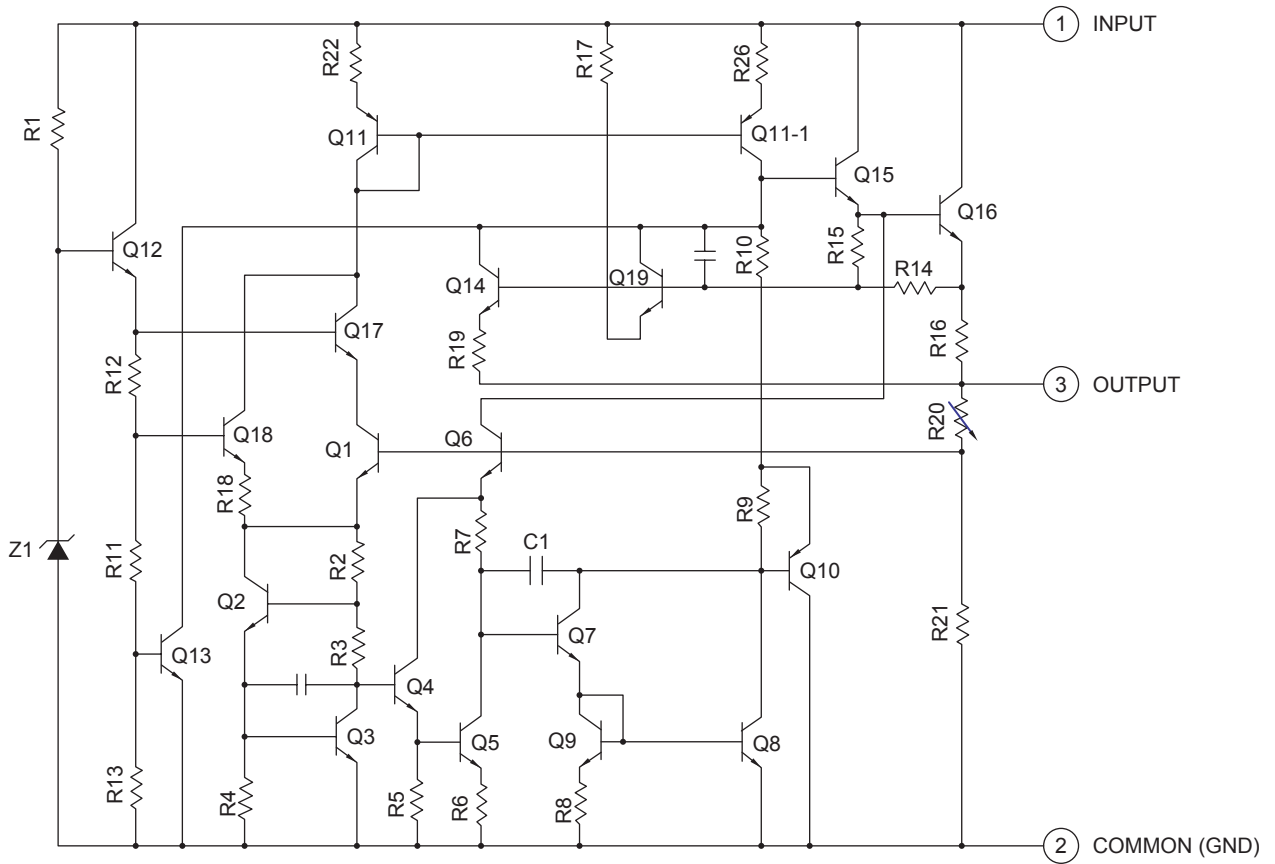


#### 4.14 KIA7812API (IC240) : Regulator

- Pin layout

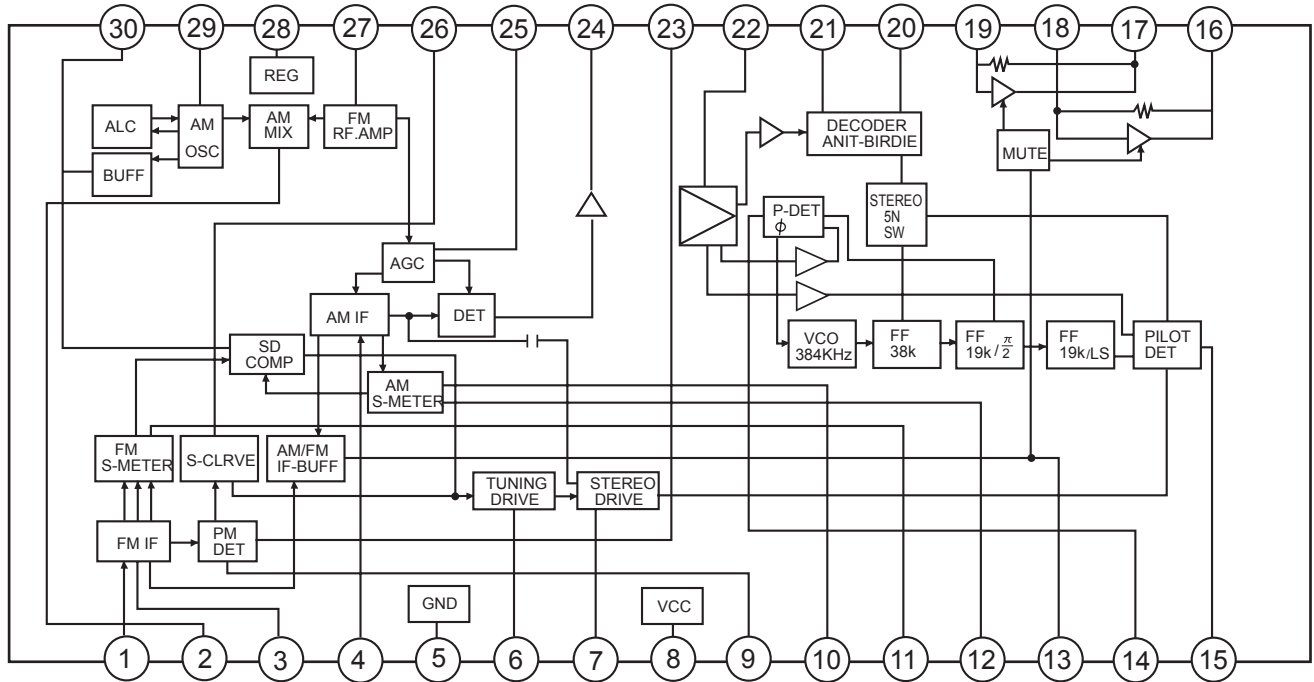


- Block diagram



#### 4.15 LA1838 (IC1): FM AM IF AMP&detector, FM MPX Decoder

• Block Diagram



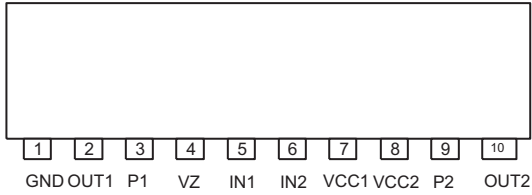
• Pin Function

Pin No.	Symbol	I/O	Function
1	FM IN	I	This is an input terminal of FM IF signal.
2	AM MIX	O	This is an out put terminal for AM mixer.
3	FM IF	I	Bypass of FM IF
4	AM IF	I	Input of AM IF Signal.
5	GND	-	This is the device ground terminal.
6	TUNED	O	When the set is tuning,this terminal becomes "L".
7	STEREO	O	Stereo indicator output. Stereo "L", Mono: "H"
8	VCC	-	This is the power supply terminal.
9	FM DET	-	FM detect transformer.
10	AM SD	-	This is a terminal of AM ceramic filter.
11	FM VSM	O	Adjust FM SD sensitivity.
12	AM VSM	O	Adjust AM SD sensitivity.
13	MUTE	I/O	When the signal of IF REQ of IC121(LC72131) appear, the signal of FM/AM IF output. //Muting control input.
14	FM/AM	I	Change over the FM/AM input. "H" :FM, "L" : AM
15	MONO/ST	O	Stereo : "H", Mono: "L"
16	L OUT	O	Left channel signal output.
17	R OUT	O	Right channel signal output.
18	L IN	I	Input terminal of the Left channel post AMP.
19	R IN	I	Input terminal of the Right channel post AMP.
20	RO	O	Mpx Right channel signal output.
21	LO	O	Mpx Left channel signal output.
22	MPX IN	I	Mpx input terminal
23	FM OUT	O	FM detection output.
24	AM DET	O	AM detection output.
25	AM AGC	I	This is an AGC voltage input terminal for AM
26	AFC	-	This is an output terminal of voltage for FM-AFC.
27	AM RF	I	AM RF signal input.
28	REG	O	Register value between pin 26 and pin28 besides the frequency width of the input signal.
29	AM OSC	-	This is a terminal of AM Local oscillation circuit.
30	OSC BUFFER	O	AM Local oscillation Signal output.



#### 4.16 LB1641 (IC851,IC852) : DC Motor driver

- Pin layout

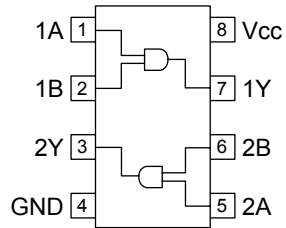


- Truth table

Input		Output		Mode
IN1	IN2	OUT1	OUT2	
0	0	0	0	Brake
1	0	1	0	CLOCKWISE
0	1	0	1	COUNTER-CLOCKWISE
1	1	0	0	Brake

#### 4.17 TC7W08FU-X (IC107) : Nand gate

- Pin layout & Block diagram



- Truth table

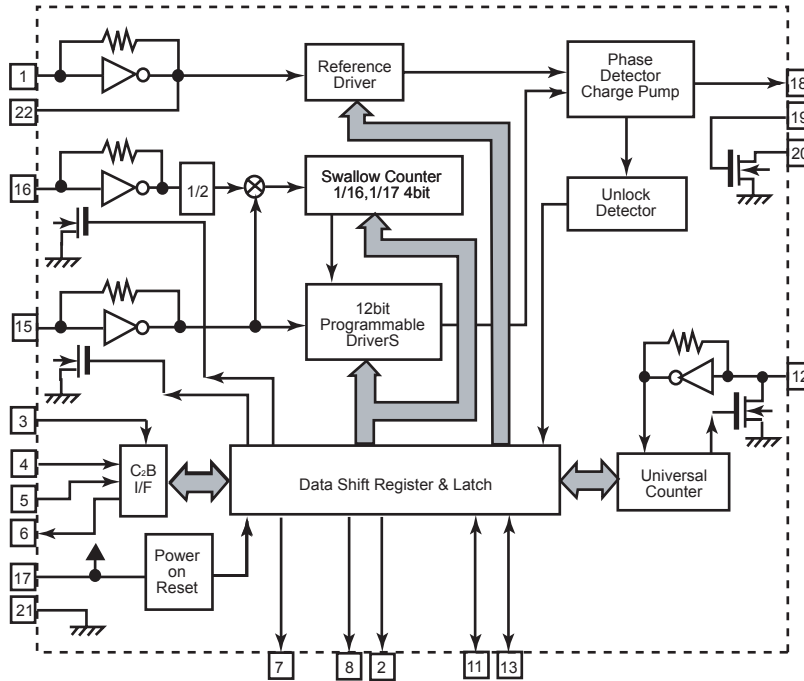
A	B	Y
L	L	L
L	H	L
H	L	L
H	H	H

#### 4.18 LC72136N (IC2) : PLL frequency synthesizer

- Pin layout

XT	1	22	XT
FM/AM	2	21	GND
CE	3	20	LPFOUT
DI	4	19	LPFIN
CLOCK	5	18	PD
DO	6	17	VCC
FM/ST/VCO	7	16	FMIN
AM/FM	8	15	AMIN
	9	14	
SDIN	10	13	IFCONT
	11	12	IFIN

- Block diagram



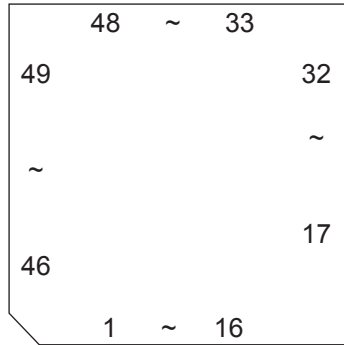
- Pin function

Pin No.	Symbol	I/O	Function
1	XT	I	X'tal oscillator connect (75kHz)
2	FM/AM	O	LOW:FM mode
3	CE	I	When data output/input for 4pin(input) and 6pin(output): H
4	DI	I	Input for receive the serial data from controller
5	CLOCK	I	Sync signal input use
6	DO	O	Data output for Controller Output port
7	FM/ST/VCO	O	Low: MW mode
8	AM/FM	O	Open state after the power on reset
9	LW	I/O	Input/output port
10	MW	I/O	Input/output port
11	SDIN	I/O	Data input/output
12	IFIN	I	IF counter signal input

Pin No.	Symbol	I/O	Function
13	IFCONT	O	IF signal output
14		-	Not use
15	AMIN	I	AM Local OSC signal output
16	FMIN	I	FM Local OSC signal input
17	VCC	-	Power supply(VDD=4.5-5.5V) When power ON:Reset circuit move
18	PD	O	PLL charge pump output (H: Local OSC frequency Height than Reference frequency.L: Low Agreement: Height impedance)
19	LPFIN	I	Input for active lowpassfilter of PLL
20	LPFOUT	O	Output for active lowpassfilter of PLL
21	GND	-	Connected to GND
22	XT	I	X'tal oscillator(75KHz)

#### 4.19 MN101C30AET1 (IC251) : CD micon

- Pin Layout



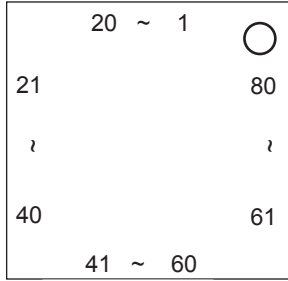
- Pin function

Pin No.	Symbol	I/O	Function
1	MX/UX	I	Connect to GND
2~5	NC	-	Connect to GND
6	VREF+	-	Reference voltage
7	VDD	-	Power supply
8	OSC2	-	X'tal oscillator
9	OSC1	-	X'tal oscillator
10	VSS	-	GND
11	XI	-	GND
12	XO	I	Not use
13	NC	-	Connect to GND
14	MSTAT	O	Output Status to Sys-con in UART format
15	KCMND	I	Receive command from Sys-con in UART format
16,17	NC	-	Connect to GND
18	SUBQ	I	Subcode Q Data Input
19	SQCK	O	Clock input for Sub Q register
20	/VCDRST	O	VCD Board RESET
21	/CDMRST	I	CD micon RESET
22	/P.ON	O	CD LSI Supply Enable
23	UDSASTB	I/O	VCD strobe
24	UDSADAT	I/O	VCD data
25	UDSAACK	I/O	VCD clock
26	MCS	I/O	Mode Check Pin
27	BLKCK	I	Subcode Block Clock Signal
28	PON	I	Detection of /P.ON status
29	FLAG	I	CD LSI flag status
30,31	NC	-	Connect to GND
32	DSASTB	I/O	VCD strobe
33	DSADAT	I/O	VCD data
34	DSAACK	I/O	VCD clock

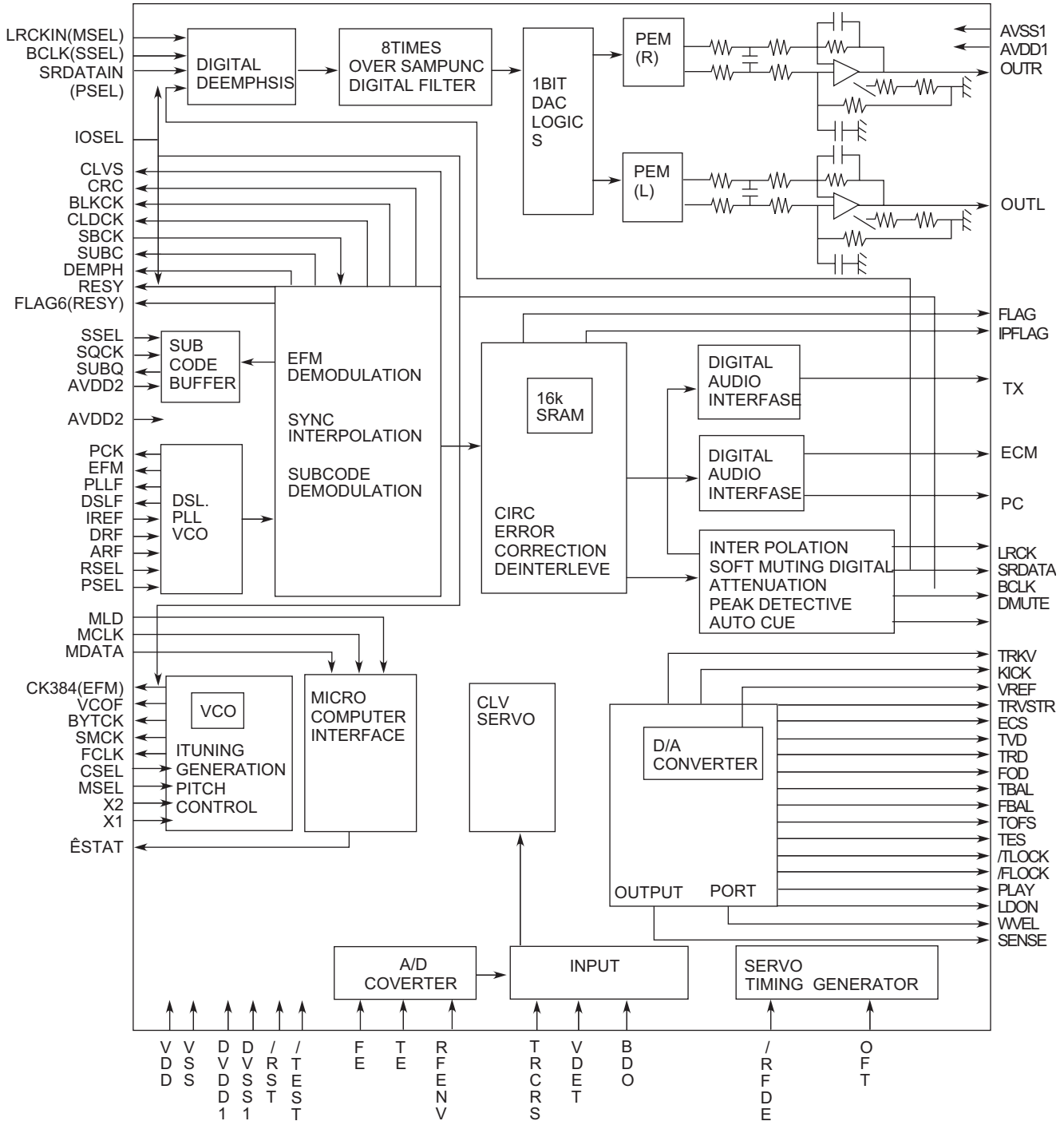
Pin No.	Symbol	I/O	Function
35	CAM0	I/O	LCAM control signal
36	CAM1	I/O	LCAM control signal
37	CAM2	I/O	LCAM control signal
38	CAM3	I/O	LCAM control signal
39	CAM4	I/O	RCAM control signal
40	CAM5	I/O	RCAM control signal
41	CAM6	I/O	RCAM control signal
42	CAM7	I/O	RCAM control signal
43	1SSW	I/O	SW1 ON signal
44	2SSW	I/O	SW2 ON signal
45	3SSW	I/O	SW3 ON signal
46	3MSW	I/O	SW4 ON signal
47	2MSW	I/O	SW5 ON signal
48	1MSW	I/O	SW6 ON signal
49	/REST	I	Rest Switch input
50	DRMUTE	O	Mute for BTL Driver IC
51	LMUP	O	L motor up signal output
52	LMDOWN	O	L motor down signal output
53	RMUP	O	R motor up signal output
54	RMDOWN	O	R motor down signal output
55	DISC	O	Disc select
56	/LSI RST	I	CD LSI reset
57	STAT	I	Status input from CD LSI
58	MDATA	O	CD LSI MDATA (Serial Data)
59	MCLK	O	CD LSI MCLK (Serial Clock)
60	MLD	O	Command Load Signal Output
61	VREF-	-	Reference voltage
62	/TLOCK	I	Tracking Servo Lock
63	/FLOCK	I	Focus Servo Lock
64	SENSE	I	Sense Signal Input

#### 4.20MN6627482WA (IC651) : DSP & DAC

- Pin layout



- Block diagram



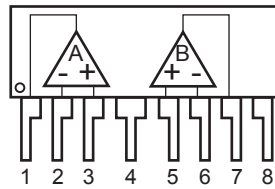
• Pin function

Pin No.	Symbol	I/O	Function
1	BCLK	O	Not used
2	LRCK	O	Not used
3	SRDATA	O	Not used
4	DVDD1	-	Power supply (Digital)
5	DVSS1	-	Connected to GND
6	TX	O	Not used
7	MCLK	I	CPU command clock signal input(Data is latched at signal's rising point)
8	MDATA	I	CPU command data input
9	MLD	I	CPU command load signal input
10	SENSE	O	Sense signal output
11	FLOCK	O	Focus lock signal output Active: Low
12	TLOCK	O	Tracking lock signal output Active: Low
13	BLKCK	O	sub-code/block/clock signal output
14	SQCK	I	Outside clock for sub-code Q register input
15	SUBQ	O	Sub-code Q -code output
16	DMUTE		Connected to GND
17	STAT	O	Status signal(CRC,CUE,CLVS, TTSTOP,ECLV,SQOK)
18	RST	I	Reset signal input (L:Reset)
19	SMCK	-	Not used
20	PMCK	-	Not used
21	TRV	O	Traverse enforced output
22	TVD	O	Traverse drive output
23	PC	-	Not used
24	ECM	O	Spindle motor drive signal (Enforced mode output) 3-State
25	ECS	O	Spindle motor drive signal (Servo error signal output)
26	KICK	O	Kick pulse output
27	TRD	O	Tracking drive output
28	FOD	O	Focus drive output
29	VREF	-	Reference voltage input pin for D/A output block (TVD,FOD,FBA,TBAL)
30	FBAL	O	Focus Balance adjust signal output
31	TBAL	O	Tracking Balance adjust signal output
32	FE	I	Focus error signal input (Analog input)
33	TE	I	Tracking error signal input (Analog input)
34	RF ENV	I	RF envelope signal input (Analog input)
35	VDET	I	Vibration detect signal input (H:detect)
36	OFT	I	Off track signal input (H:off track)
37	TRCRS	I	Track cross signal input
38	RFDET	I	RF detect signal input (L:detect)
39	BDO	I	BDO input pin (L:detect)

Pin No.	Symbol	I/O	Function
40	LDON	O	Laser ON signal output (H:on)
41	PLL2	-	Not used
42	TOFS	O	Tracking error shunt signal output (H:shunt)
43	WVEL	-	Not used
44	ARF	I	RF signal input
45	IREF	I	Reference current input pin
46	DRF	I	Bias pin for DSL
47	DSLIF	I/O	Loop filter pin for DSL
48	PLLF	I/O	Loop filter pin for PLL
49	VCOF	-	Not used
50	AVDD2	-	Power supply (Analog)
51	AVSS2	-	Connected to GND (Analog)
52	EFM	-	Not used
53	PCK	-	Not used
54	VCOF2	-	PLL data slice output
55	SUBC	-	Not used
56	SBCK	-	Not used
57	VSS	-	Connected to GND (for X'tal oscillation circuit)
58	X1	I	Input of 16.9344MHz X'tal oscillation circuit
59	X2	O	Output of X'tal oscillation circuit
60	VDD	-	Power supply (for X'tal oscillation circuit)
61	BYTCK	-	Not used
62	CLDCK	-	Not used
63	FCLK	-	Not used
64	IPFLAG	-	Not used
65	FLAG	-	Not used
66	CLVS	-	Not used
67	CRC	-	Not used
68	DEMPH	-	Not used
69	RESY	-	Not used
70	IOSEL	-	pull up
71	TEST	-	pull up
72	AVDD1	-	Power supply (Digital)
73	OUT L	O	Lch audio output
74	AVSS1	-	Connected to GND
75	OUT R	O	Rch audio output
76	RSEL	-	pull up
77	CSEL	-	Connected to GND
78	PSEL	-	Connected to GND
79	MSEL	-	Connected to GND
80	SSEL	-	Pull up

#### 4.21 NJM4580L (IC902) : Dual Operational Amplifier

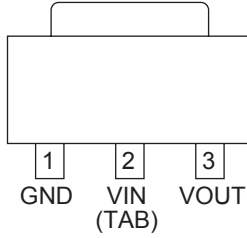
- Terminal layout



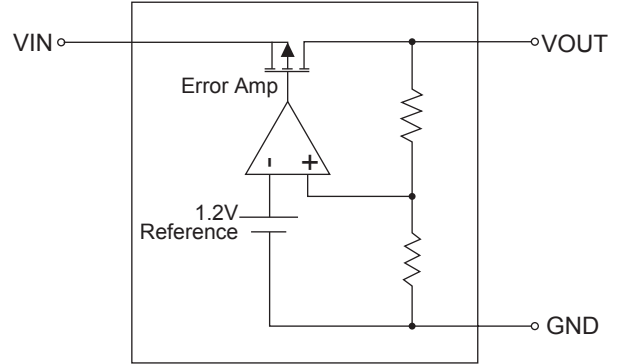
1. A OUTPUT
2. A -INPUT
3. A +INPUT
4. V<sup>-</sup>
5. B +INPUT
6. B -INPUT
7. B OUTPUT
8. V<sup>+</sup>

#### 4.22 RT9161 / A-27CG-X (IC105) : Regulator

- Pin layout



- Block diagram

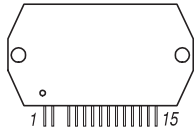


- Pin function

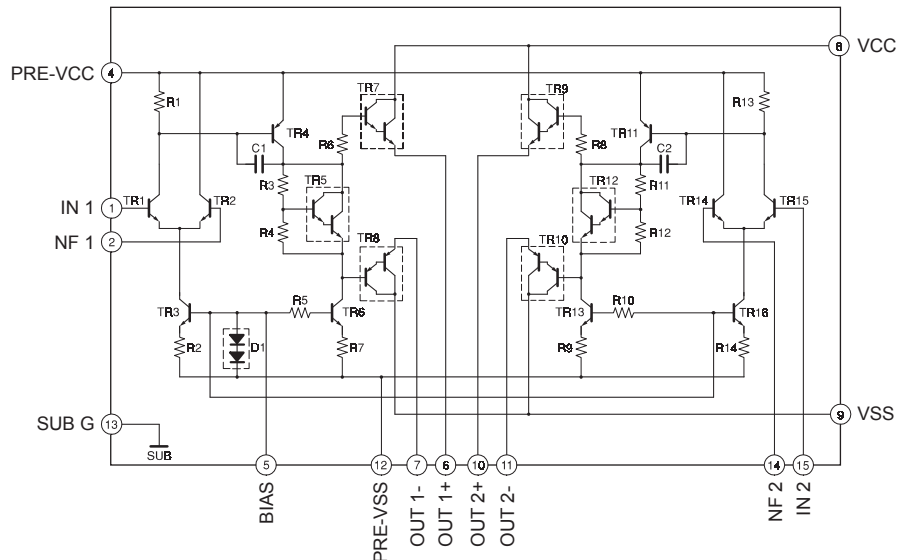
Pin Name	Function
VOUT	Output Voltage
GND	Ground
VIN	Power Input

#### 4.23 STK402-070 (IC602) : 2-ch audio power amplifier

- Terminal layout

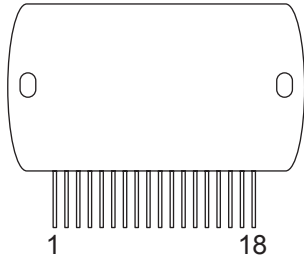


- Block diagram

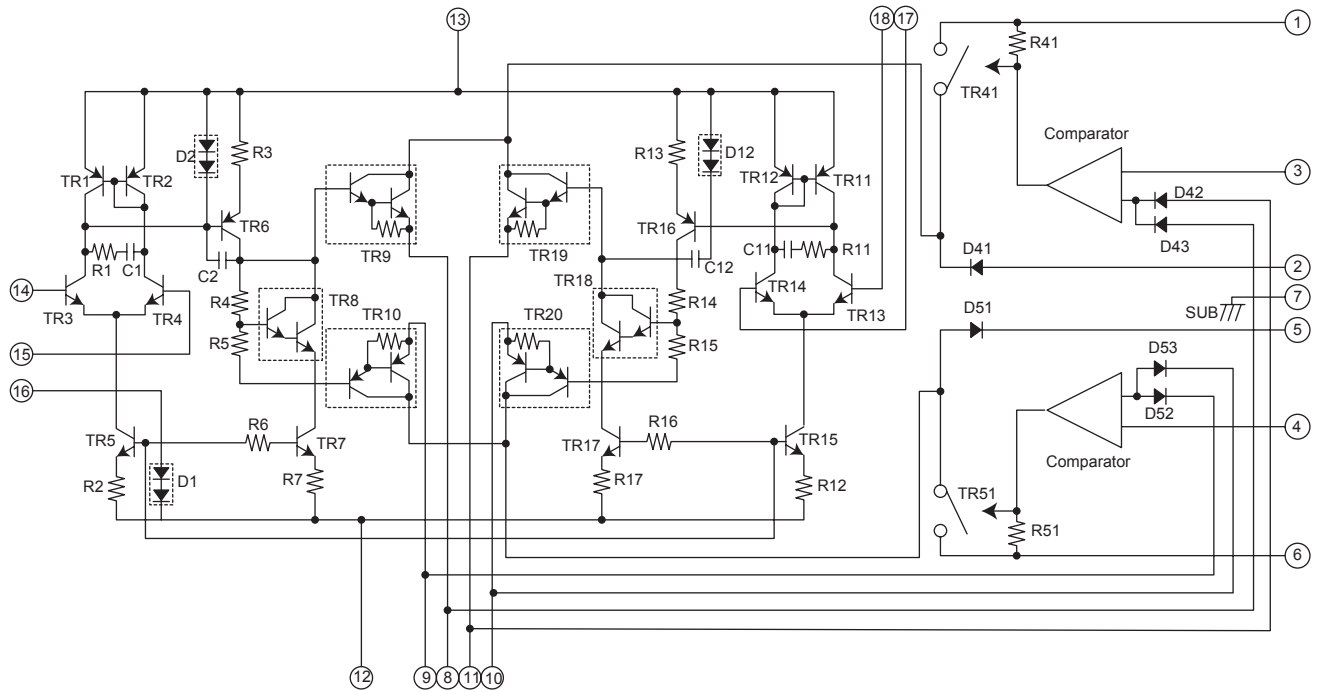


#### 4.24 STK412-410 (IC701) : Power amp

- Pin Layout

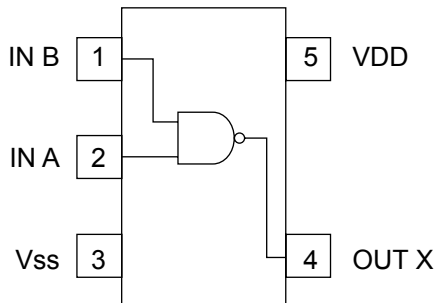


- Block Diagram

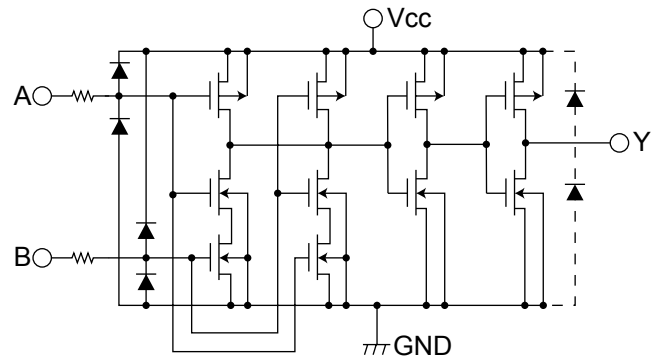


#### 4.25 TC7S08F-W (IC106) : Input nand gate

- Pin layout

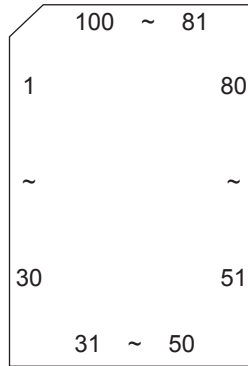


- Block diagram



#### 4.26 UPD784975AGF312 (IC810) : Main micon

- Pin Layout



- Pin function

Pin No.	Name	I/O	Function
1	AVDD	-	AD VDD, same as VDD1
2	SPIDTI	I	SPI analog input
3	MSI	I	Music scan input
4	MPX	I	Tuner stereo indicator
5	H/P	I	SW vol IC btw bi-amp & dyn & off relay
6	KEY1	I	Key 1 input
7	KEY2	I	Key 2 input
8	KEY3	I	Key 3 input
9	VOL-	I	Volume decrease
10	VOL+	I	Volume increase
11	SLCPLAY	I	SLC detect play
12	SLCKEY	I	SLC key input
13	PHOTO	I	SLC photo
14	AVSS	-	AD VDD, same as VSS1
15	VSS1	-	GND
16	X1	I	Oscillation
17	X2	-	Oscillation
18	VDD1	-	Powersupply
19	ICVPP	-	Connect to VSS1
20	VC3RESET	I/O	VC3 reset
21	MSTAT	I/O	VC3 status input
22	KCMND	I/O	VC3 KCMND(serial data)
23	SCKO	O	Serial clock output
24	NC	-	Not used
25	BUZZER	I/O	Buzzer on
26	REMIN	INT	Remocon input
27	SMUTE	I/O	System mute
28	SLCCE	I/O	SLC chip enable
29	CK	I/O	SLC / tuner clock
30	DATAOUT	I/O	SLC / tuner data out
31	DATAIN	I/O	Tuner data in
32	SM-	I/O	Soundmode reverse
33	SM+	I/O	Soundmode forward

Pin No.	Name	I/O	Function
34	ECHO1	I/O	Echo 1 data
35	ECHO2	I/O	Echo 2 data
36	SPI A	I/O	SPI A data
37	SPI B	I/O	SPI B data
38	SPI C	I/O	SPI C data
39	PBMUTE	I/O	Playback mute
40	VSS0	-	GND
41	VDD0	-	Power supply
42	RESET	I	Micom reset
43	INH	I/O	Back-up mode detect
44	LATCH	I/O	Latch for vol IC
45	VOLDA	I/O	Volume data
46	VOLCK	I/O	Volume clock
47	RELAY	I/O	Relay out
48	POUT	I/O	Power on
49	ECON	I/O	Ecology mode
50	PRT	I/O	Protector in
51	NC	-	Not used
52	TUCE	O	Tuner chip enable
53	NC	O	Available pin
54	NC	O	Available pin
55	EXTDA	O	External IC data
56	EXTCK	O	External IC clock
57	EXTCE	O	External IC strobe
58	OEEXT	O	Output enable for external IC
59	VOLLED	I/O	Volume led
60	FSEARCH	I/O	Forward skip
61	RSEARCH	I/O	Reverse skip
62~78	S21~S5	I/O	FL segment
79	VDD2	-	Power supply
80	VLOAD	I/O	Negative power supply(-30V)
81~84	S4~S1	I/O	FL segment
85~100	G16~G1	I/O	FL display grid







**JVC**

VICTOR COMPANY OF JAPAN, LIMITED

AV & MULTIMEDIA COMPANY AUDIO/VIDEO SYSTEMS CATEGORY 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

(No.22041)



Printed in Japan  
WPC

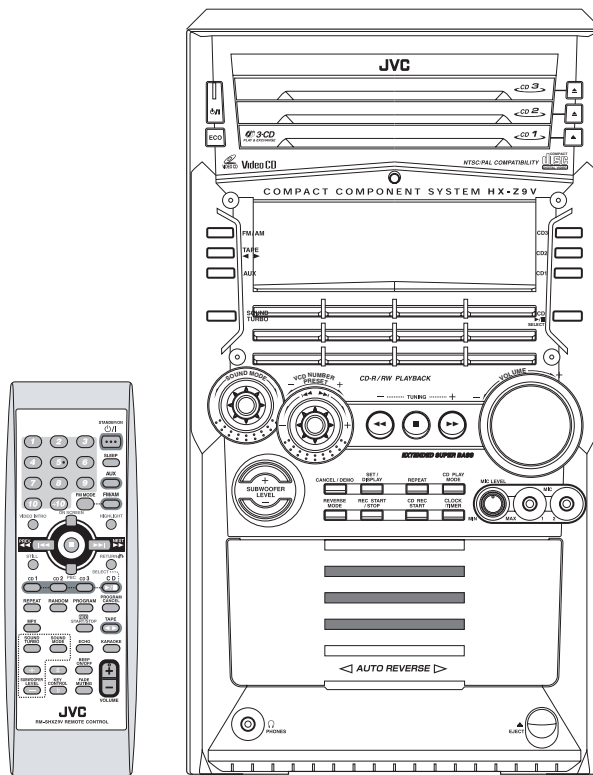
# JVC

# SCHEMATIC DIAGRAMS

## COMPACT COMPONENT SYSTEM

### HX-Z9V

CD-ROM No.SML200305



CA-HXZ9V



COMPACT  
disc  
DIGITAL VIDEO

COMPACT  
disc  
DIGITAL AUDIO

Area Suffix

US ----- Singapore

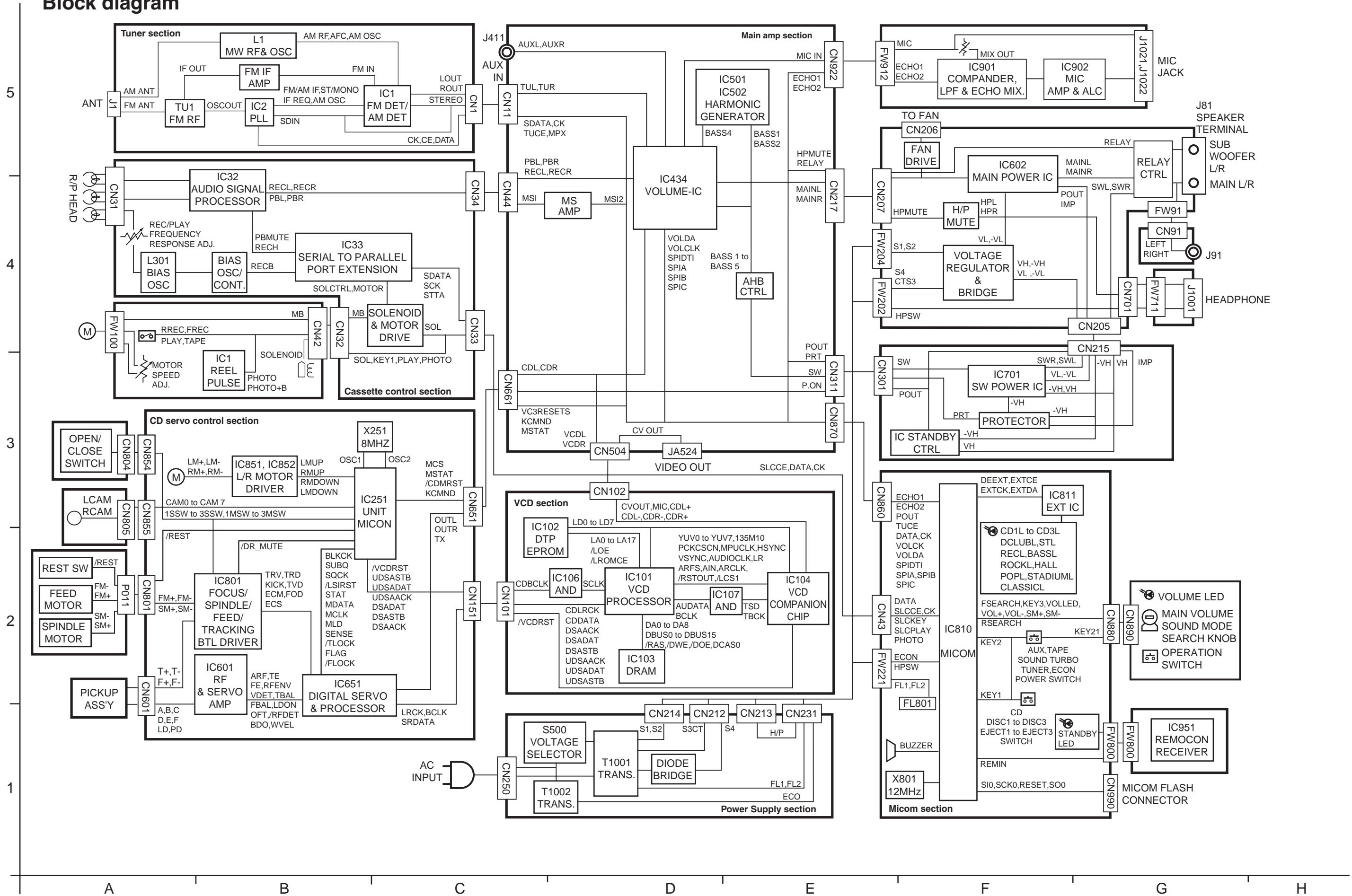
### Contents

- 1. Block diagram ----- 2-1
- 2. Standard schematic diagrams ----- 2-2
- 3. Printed circuit boards ----- 2-11 to 14

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

(This regulation does not correspond to J and C version.)

### Block diagram

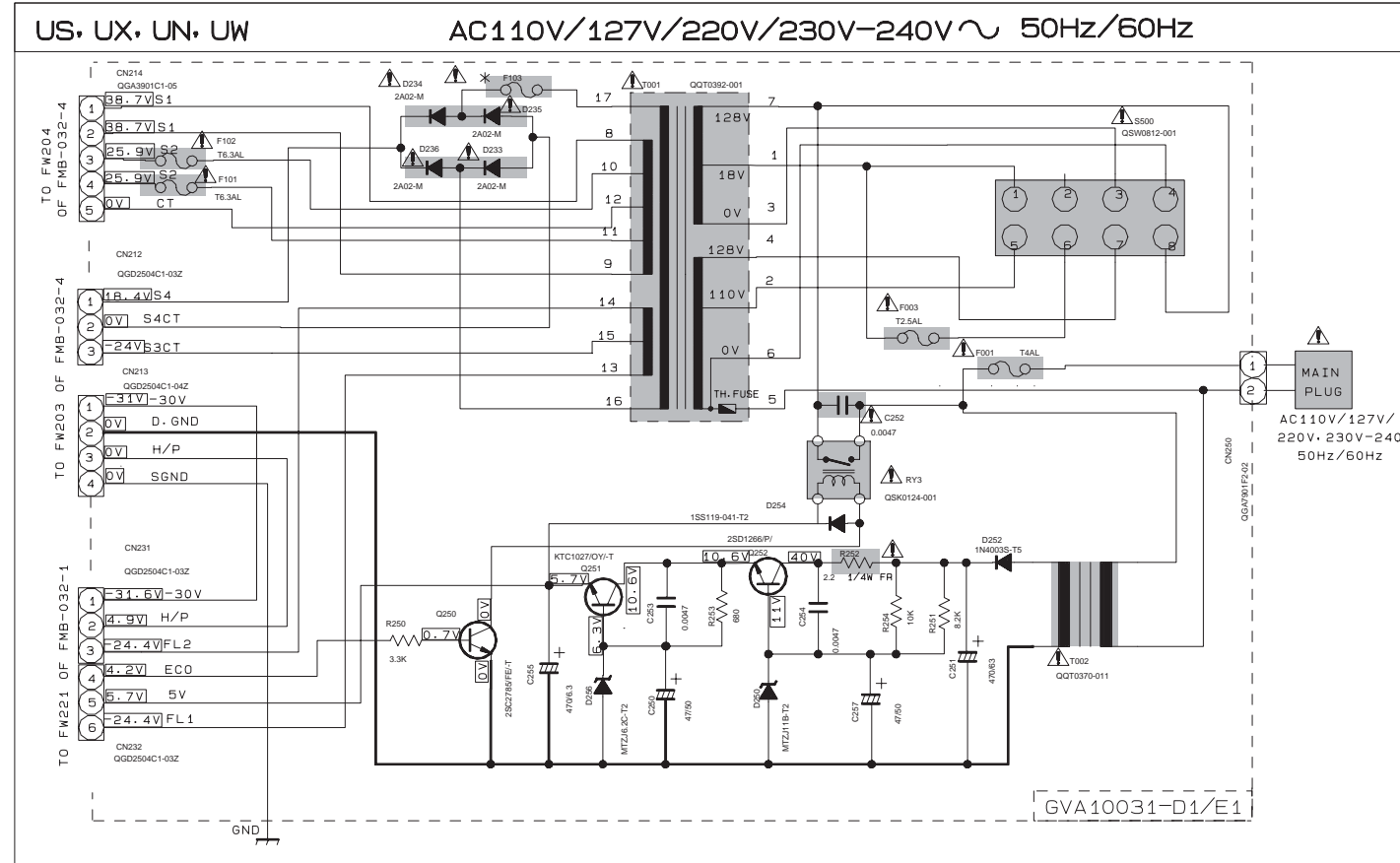


# Standard schematic diagrams

## Primary section

5

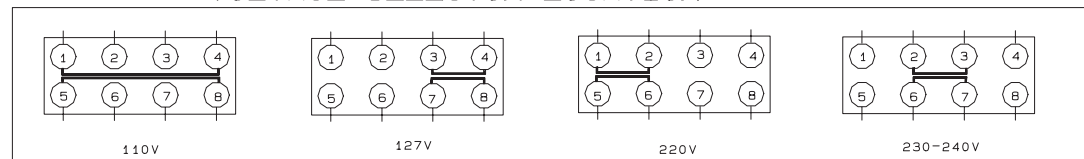
### POWER SUPPLY BLOCK



4

3

### VOLTAGE SELECTOR LOCATION



\* MARK

REF. NO	MODEL	
		HX-Z9V
F103	T3. 15AL	T2. 5AL

### EXPLANATION OF OVERALL SCHEMATIC

MODEL HX-Z9V & HX-Z9

SHEET NUMBER	CIRCUITS DESCRIPTION
1/10	. PRIMARY WITH MAINS TRANSFORMER
2/10	. DC REGULATORS/AUDIO OUTPUT
3/10	. EXTERNAL INPUT. SOURCE SELECTOR SWITCH
4/10	. FL DISPLAY. SYSTEM CONTROL LSI. USER CONTROL KEYS
5/10	. MIC AMP. ECHO CIRCUIT ( ONLY FOR US-UN-UX )
6/10	. CD SERVO AND CD SYSTEM CONTROL . CD CHANGER MECHANISM CONTROL VC3-MP3B FOR HX-Z9V
7/10	. CD SERVO AND CD SYSTEM CONTROL . CD CHANGER MECHANISM CONTROL VC3-T201M FOR HX-Z9
8/10	. TAPE DECK MECHANISM CONTROL . TAPE CIRCUITS SUCH AS PRE-AMP AND BIAS
9/10	. TUNER RF/IF/FM MULTIPLEX (ONLY FOR US-UN-UX-UK)
10/10	. VIDEO CD BOARD (ONLY FOR US-UN-UX-UK)

### VERSION CODE

UN	: ASEAN
UX	: SAUDI ARABIA
US	: SINGAPORE AND UNIVERSAL EXCEPT ALL OF ABOVE
UW	: SOUTH AMERICA EXCEPT ARGENTINA

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

1

■ Bridge section

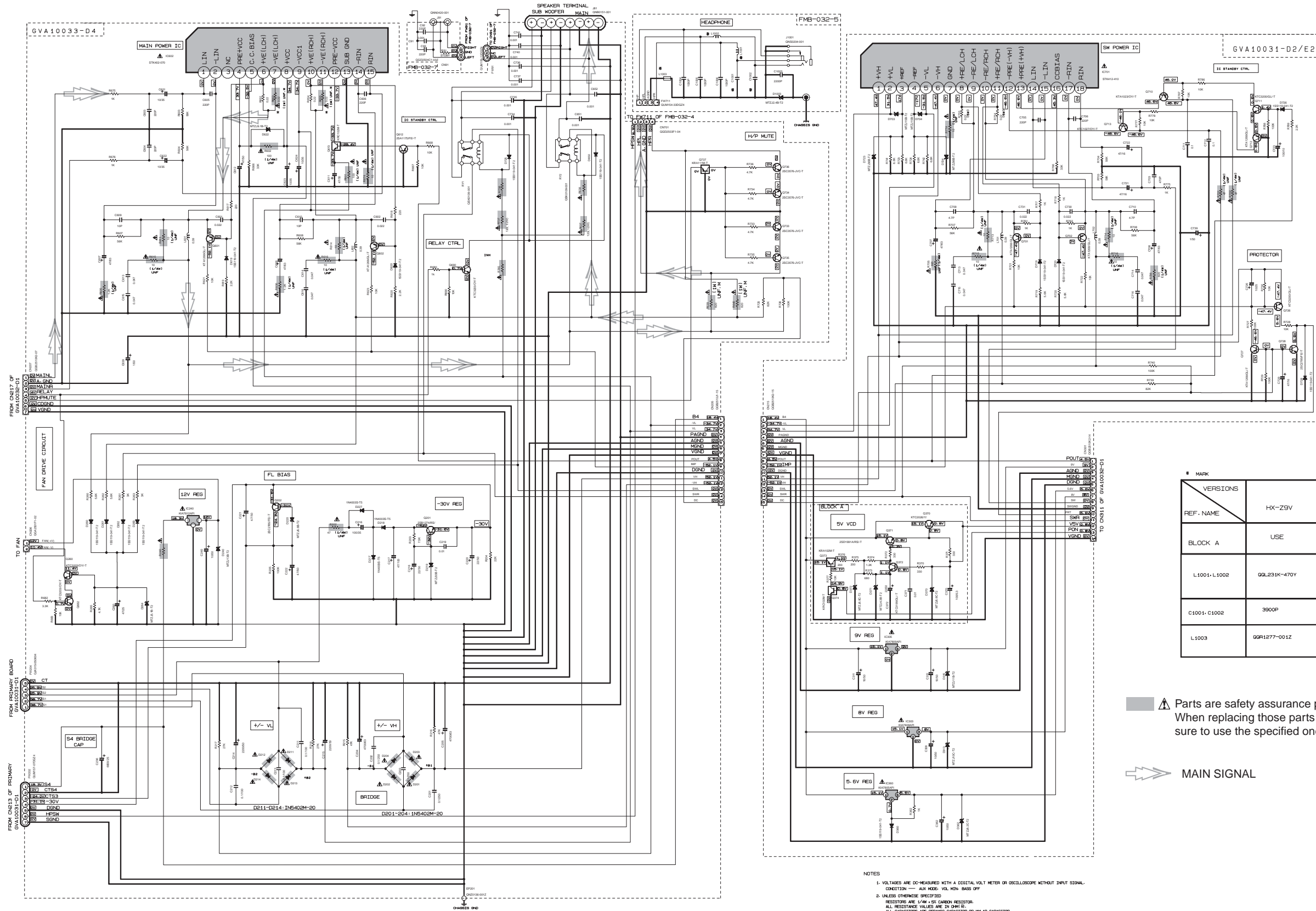
5

4

3

2

1



MARK

VERSIONS	HX-Z9V	HX-Z9
REF. NAME	USE	NONE
BLOCK A	USE	NONE
L1001-L1002	QL231K-470Y	NONE
C1001-C1002	3900P	NONE
L1003	GGR1277-001Z	QL231K-2R2Y

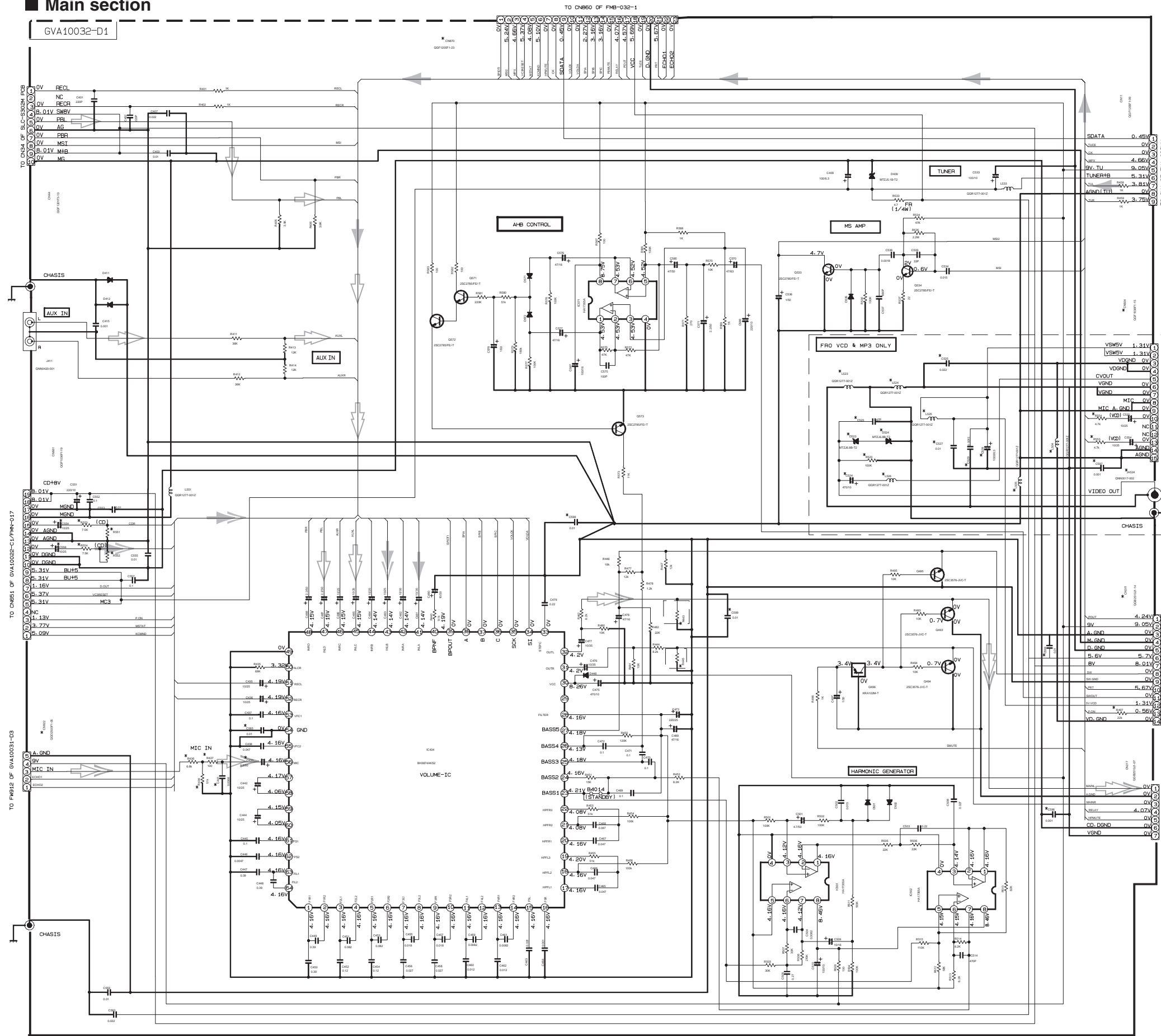
▲ Parts are safety assurance parts. When replacing those parts make sure to use the specified one.

➤ MAIN SIGNAL

- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION --- A/D MODE, VOL. MEN. BASS OFF
  2. UNLESS OTHERWISE SPECIFIED: RESISTORS ARE 1/4W ±5% CARBON RESISTOR. ALL CAPACITORS ARE CERAMIC CAPACITOR OR POLAR CAPACITOR. ALL CAPACITANCE VALUES ARE IN #F#P#F. ALL INDUCTANCE VALUES ARE IN #H#M#H. ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (P/RATED VOLTAGE (V)). ALL DIMENSIONS ARE 198109-041-12

A B C D E F G H

Main section



MARK #	MODEL	HX-Z9V/HX-Z98V	HX-Z9
	VERSION	US/UK/UN	UM
	D523	MTZJ6-8B-T2	NONE
	D524	MTZJ6-8B-T2	NONE
	L523	GGR1277-001Z	NONE
	L524	GGR1277-001Z	NONE
	L525	GGR1277-001Z	NONE
	L526	GGR1277-001Z	NONE
	R523	100K	NONE
	R528	1.6K	NONE
	R529	1.6K	NONE
	C523	47P	NONE
	C524	470/10	NONE
	C525	0.022	NONE
	C527	0.01	NONE
	C528	1000/6.3	NONE
	C529	0.0015	NONE
	JAS24	GNH0017-002	NONE
	CH504	GSF 1036F1-15	NONE
	CH922	GS02503F1-05	NONE
	CH911	GSB2510J1-14	GSB2510J1-11
	CH870	GSF 1205F1-23	GSF 1205F1-21
	R436	6.8K	NONE
	R437	100	NONE
	R438	51K	NONE
	C439	2.2/50	NONE
	C441	0.0068	NONE
	R553	4.7K	7.5K
	R554	4.7K	7.5K
	R551	4.7K	2.7K
	R552	4.7K	2.7K
	C520	10/25	NONE
	C556	NONE	10/25
	R497	22K	NONE
	C596	GDGB1HK-102Y	NONE
	C597	GDGB1HK-102Y	NONE
	C598	GDYB1CM-103Y	NONE
	C599	GDYB1CM-103Y	NONE
	C565	GDYB1CM-103Y	NONE
	C594	GDYB1CM-103Y	NONE
	L504	GGR1277-001Z	NONE
	L505	GGR1277-001Z	NONE

MARK #	MODEL	HX-Z9V	HX-Z98V	HX-Z9
	VERSION	US/UK/UN	US/UK/UN	UM
	R443	10K	13K	10K
	R445	10K	13K	10K

- TUNER SIGNAL
- CD SIGNAL
- CASSETTE SIGNAL
- AUX IN SIGNAL
- MIC SIGNAL
- MAIN SIGNAL

NOTES

- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION — AUX MODE- VOL HD+ SLEWFOOPER VOL 1.
- UNLESS OTHERWISE SPECIFIED:  
RESISTORS ARE 1/4W 1% CARBON RESISTOR.  
ALL RESISTANCE VALUES ARE IN OHM(S).  
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.  
ALL CAPACITANCE VALUES ARE IN nF(pF).  
ALL INDUCTANCE VALUES ARE IN mH(mH).  
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (uF)/RATED VOLTAGE (V).  
ALL DIODES ARE 1SS119-041-T2

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D

E

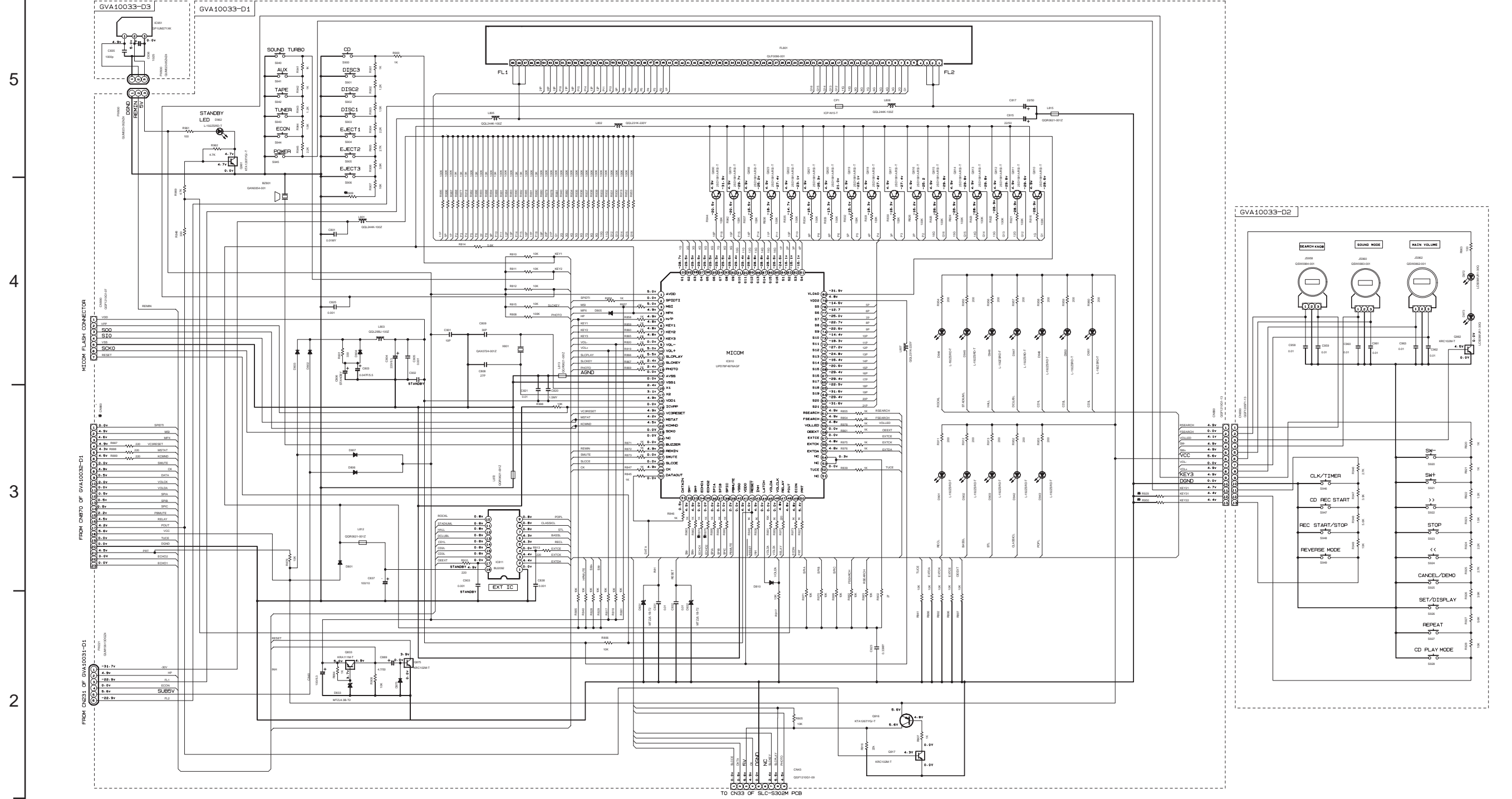
F

G

H



Micon section



MARK	HX-Z9V			REMARK
	UN-US	UX	UW	
R909	18K	18K	18K	VER. SETTING FOR KEY1
R950	75K	75K	18K	VER. SETTING FOR KEY2
R909	330K	75K	330K	VER. SETTING FOR KEY3
R874-R875	USE	USE	NONE	FOR ECHD1 & ECHD2
CN860	QGF1210G1-23	QGF1210G1-23	QGF1210G1-21	2P EXTRA FOR ECHD1 & ECHD2

NOTE: 1. CN890 ONLY USE FOR FLASH MICON  
 2. R998(10K) USE FOR FLASH MICON AND FOR MASK ROM REPLACE BY BUS WIRE

NOTES  
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.  
 CONDITION: — AUX MODE: VOL. MIN. BASS OFF  
 2. VALUES OTHERWISE SPECIFIED  
 RESISTORS ARE 1/4W ± 5% CARBON RESISTOR.  
 ALL RESISTANCE VALUES ARE IN OHM (Ω).  
 ALL CAPACITORS ARE CERAMIC CAPACITOR OR M-LAR CAPACITOR.  
 ALL CAPACITANCE VALUES ARE IN PICO(FP).  
 ALL INDUCTANCE VALUES ARE IN MICRO(MH).  
 ALL ELECTROLYTIC CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).  
 ALL DIODES ARE 1SS18P-04172  
 ALL TACT SWITCHES ARE G60274-0012

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3  
2

A B C D E F G H

Mic section

5

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C

2-6

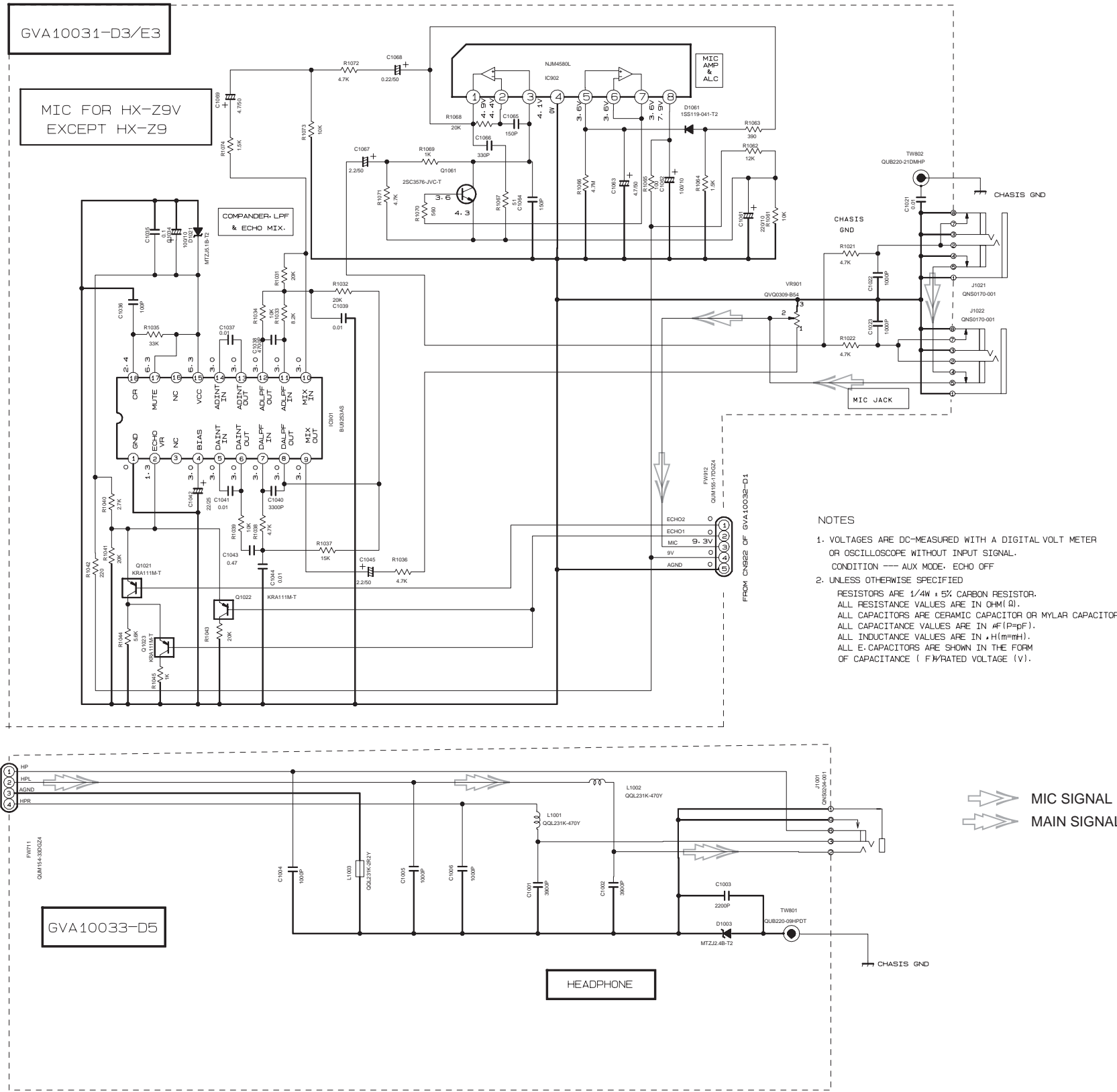
D

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CD servo control section

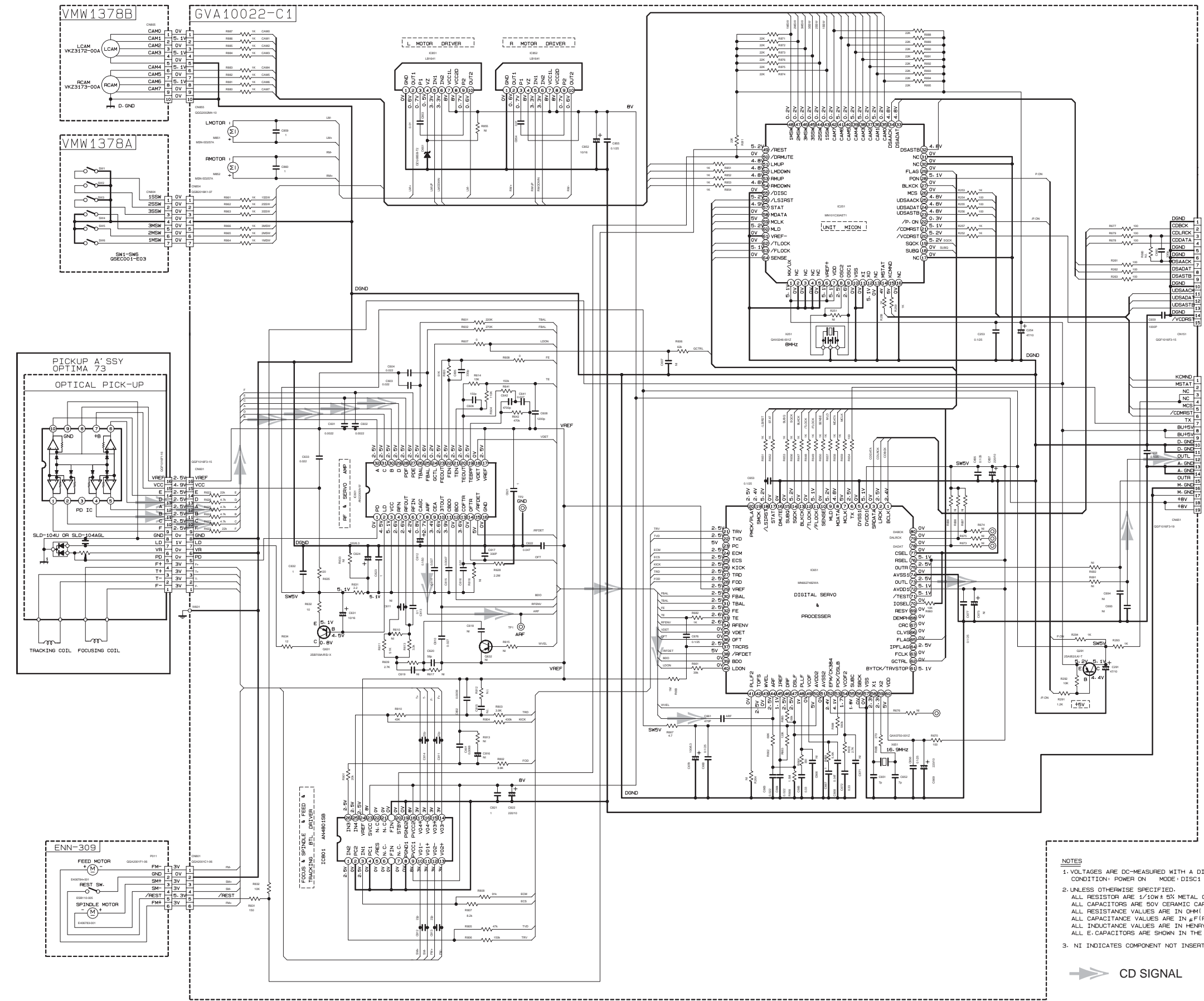
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TO CN101 OF FMV-0100M

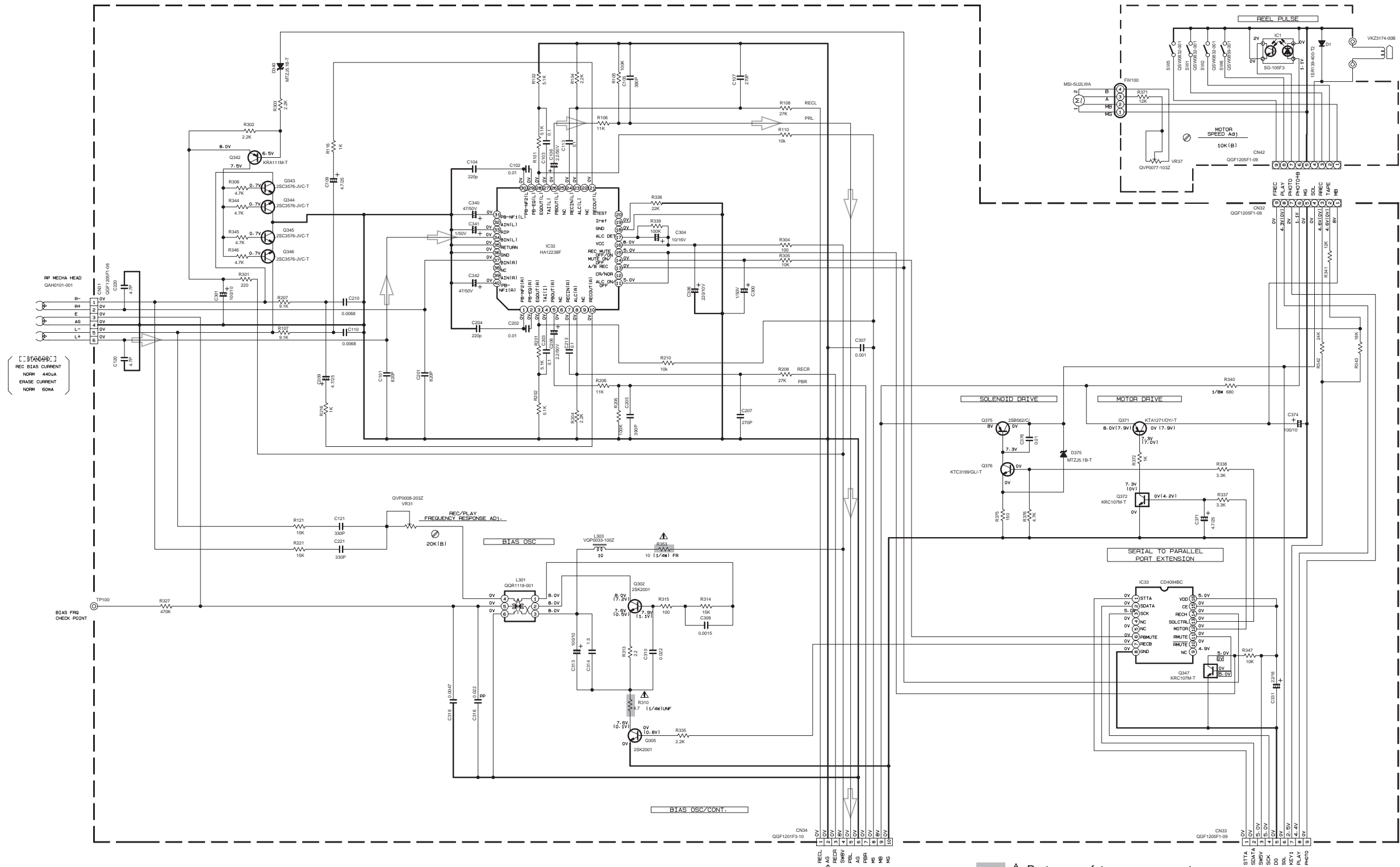
TO CN61 OF GVA10032-D1

- NOTES**
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER CONDITION: POWER ON MODE: DISC1 STOP
  2. UNLESS OTHERWISE SPECIFIED, ALL RESISTOR ARE 1/10W±5% METAL GLAZE RESISTOR. ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR. ALL RESISTANCE VALUES ARE IN OHM(Ω). ALL CAPACITANCE VALUES ARE IN μF(PpF). ALL INDUCTANCE VALUES ARE IN HENRY(H). ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE (V).
  3. NI INDICATES COMPONENT NOT INSERTED

➔ CD SIGNAL

A B C D E F G H

Cassette section



NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL. CONDITION: MEDIA STOP MODE

2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/10W ±5% METAL GLAZE RESISTOR. ALL RESISTANCE VALUES ARE IN OHM(Ω). ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR. ALL CAPACITANCE VALUES ARE IN #F(FEMTO). ALL INDUCTANCE VALUES ARE IN #H(HENRY). ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (#F)/RATED VOLTAGE (V). POLYPROPYLENE CAPACITOR

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

➡ CASSETTE SIGNAL

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2-8

D

E

F

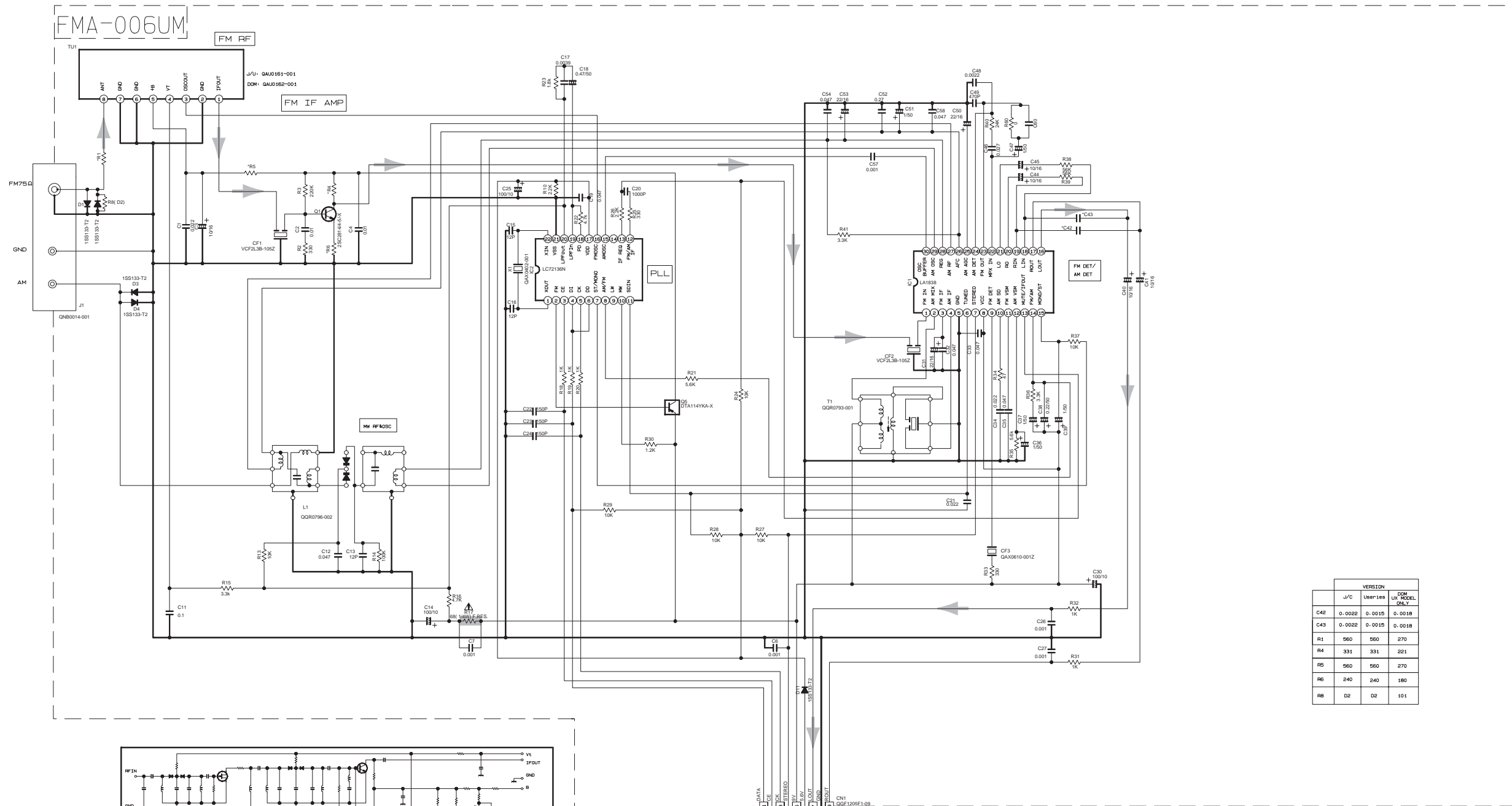
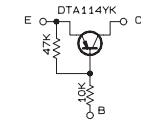
G

H

■ Tuner section

- NOTES
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
  - ALL RESISTORS ARE 1/8W ±5% METAL GLAZE RESISTOR.
  - ALL RESISTANCE VALUES ARE IN OHM(Ω).
  - ALL CAPACITANCE VALUES ARE IN \*F(PpF).
  - ALL E. CAPASITORS ARE SHOWN IN THE FORM OF CAPASITANCE (\*F)/RATED VOLTAGE (V).
  - SI DIODES (D) ARE ALL 1SS133-T THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS MA165 OR HSS104J.
  - PARTS NO. OF TRANSISTORS ARE AS FOLLOWS.  
Q1 2SC2814/4-5/-X Q2-Q3 2SC2412K/R/-X  
Q4-Q5 DTA114YKA-X

B. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS:



	VERSION		
	J/C	User's use	DCM MODEL ONLY
C42	0.0022	0.0015	0.0018
C43	0.0022	0.0015	0.0018
R1	560	560	270
R4	331	331	221
R5	560	560	270
R6	240	240	180
R8	D2	D2	101

CONDITION	PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
IC1	FM NO SIGNAL	3.6	8.9	3.6	3.6	0	5.0	5.0	8.9	8.9	1.3	0.1	0	0.9	7.8	7.8	4.3	4.3	4.3	4.3	3.4	3.4	2.8	3.4	0	0	3.5	3.5	3.6	3.6	2.7
	FM 60QB STEREO	3.6	8.9	3.6	3.6	0	0	5.0	8.9	8.9	1.3	4.3	0	0.9	7.8	7.8	4.3	4.3	4.3	4.3	3.4	3.4	2.8	3.4	0	0	3.6	3.6	3.6	3.6	2.7
	AM NO SIGNAL	3.5	9.0	3.5	3.5	0	5.0	5.1	9.0	2.6	1.3	0	0	0.9	4.7	5.5	4.3	4.3	4.3	3.3	3.2	2.8	ust	0.7	0.7	3.6	3.6	3.6	3.6	2.1	
IC2	FM NO SIGNAL	2.5	0	0	5.0	4.9	5.0	7.9	7.8	3.6	6.1	5.1	0	0	0	0	2.5	5.1	0.9	0.9	3.8	0	2.3								

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

➔ TUNER SIGNAL

Tr NO.	Q1	Q5						
PIN NO.	E	C	B	E	C	B		
FM 87.5MHz NO SIGNAL	0	7.1	0.85	8.9	8.8	0		
AM 52KHz NO SIGNAL	0	0	0	9.0	0	8.9		

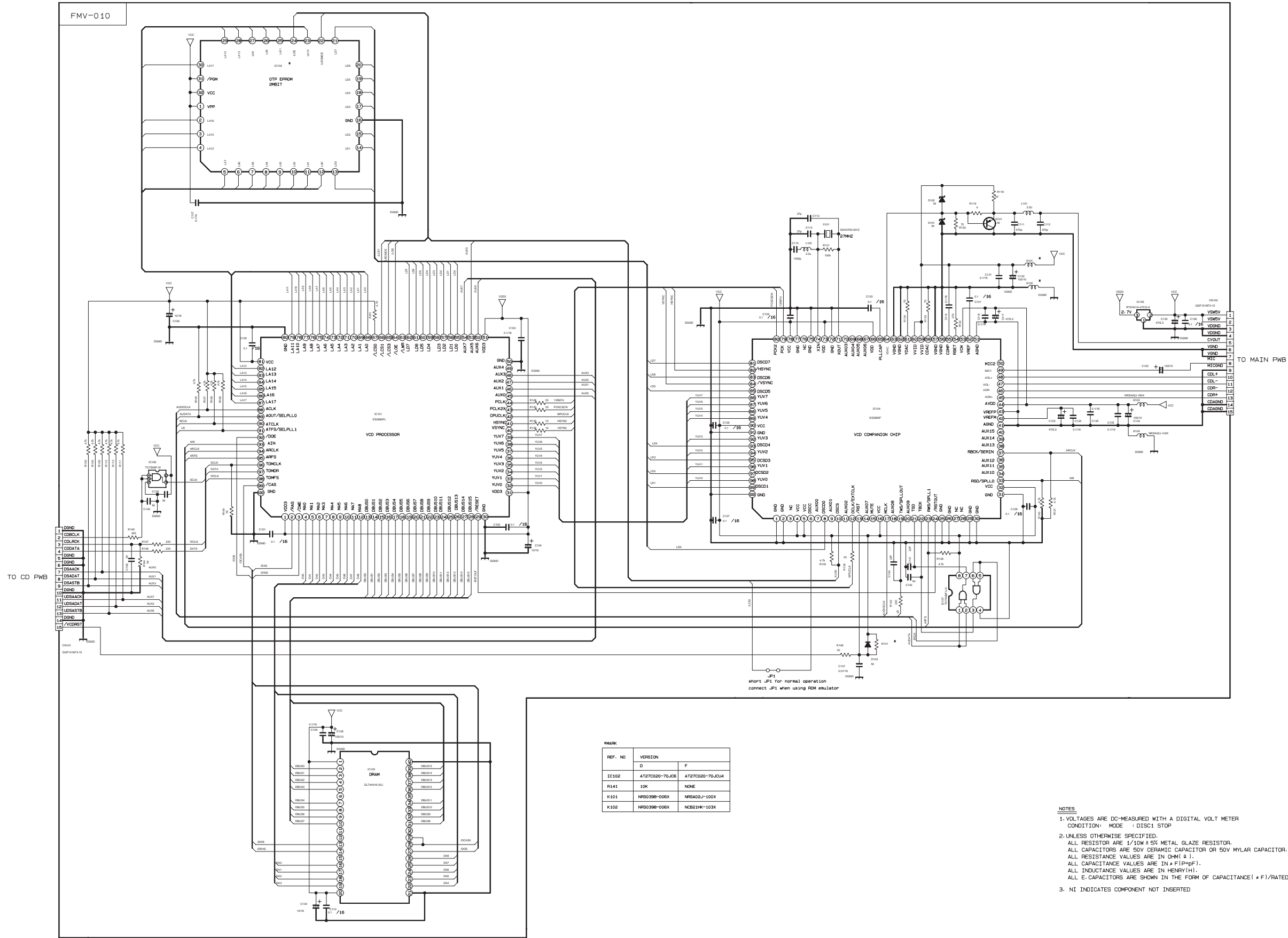
  

Tr NO.	Q2	Q3	Q4						
PIN NO.	E	C	B	E	C	B	E	C	B
AM 52KHz NO SIGNAL	0	0	0.7	0	0	0.7	0	3.6	0.7
AM 144KHz NO SIGNAL	0	0	0.3	0	0.3	0.3	3.6	3.6	3.6

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1

A B C D E F G H

VCD section



MARK

REF. NO	VERSION	F
IC102	AT270200-70J06	AT270200-70J04
R141	10K	NONE
K101	NR50398-006X	NR5A05J-100X
K102	NR50398-006X	NCB214K-103X

- NOTES
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER  
CONDITION: MODE 1, DISC1 STOP
  2. UNLESS OTHERWISE SPECIFIED:  
ALL RESISTORS ARE 1/10W ± 5% METAL GLAZE RESISTOR.  
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.  
ALL RESISTANCE VALUES ARE IN OHM (Ω).  
ALL CAPACITANCE VALUES ARE IN PICO (pF).  
ALL INDUCTANCE VALUES ARE IN HENRY (H).  
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
  3. NI INDICATES COMPONENT NOT INSERTED

5

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2

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A

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2-10 D

E

F

G

H







Micon board

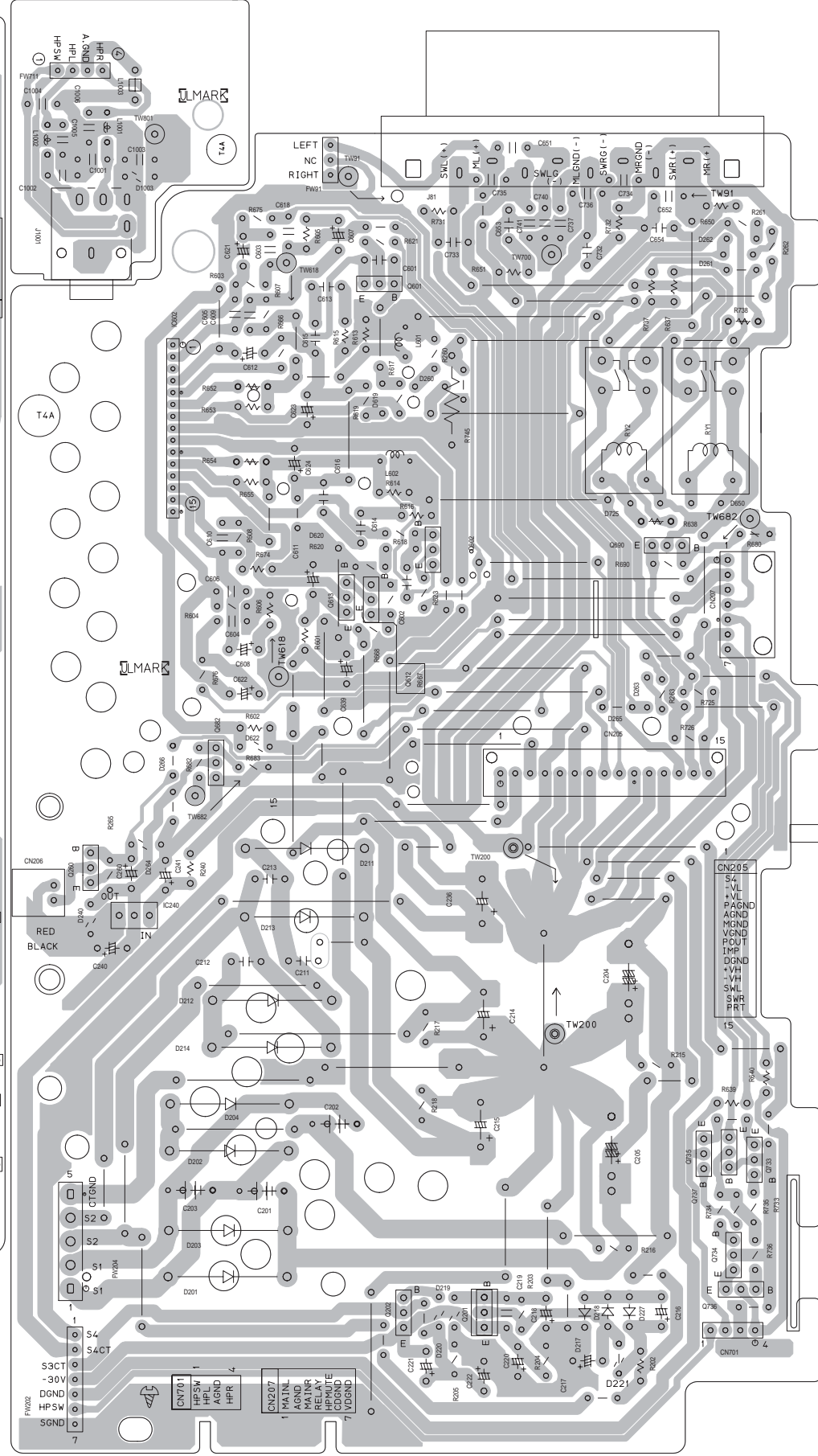
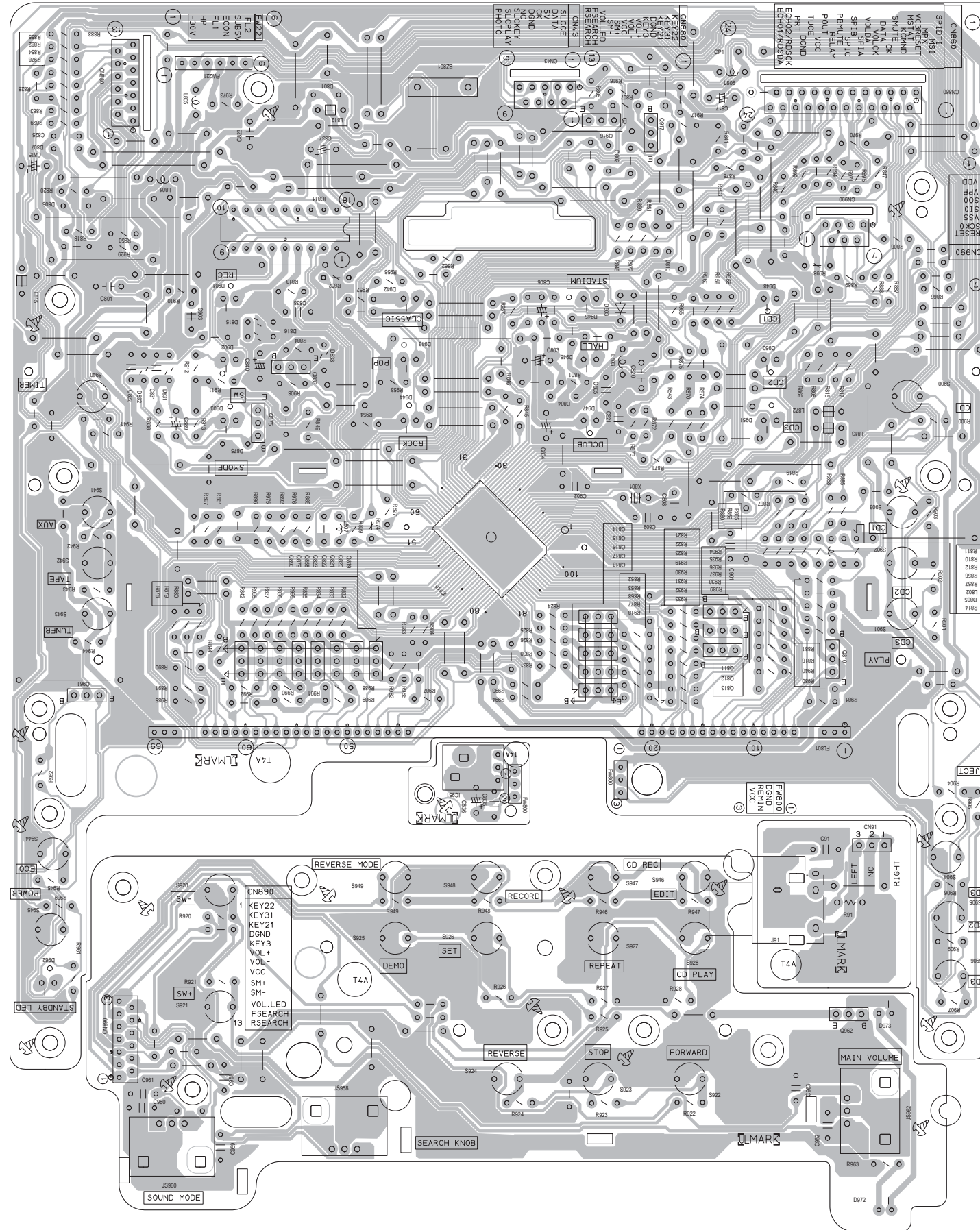
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A

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C

2-12 D

E

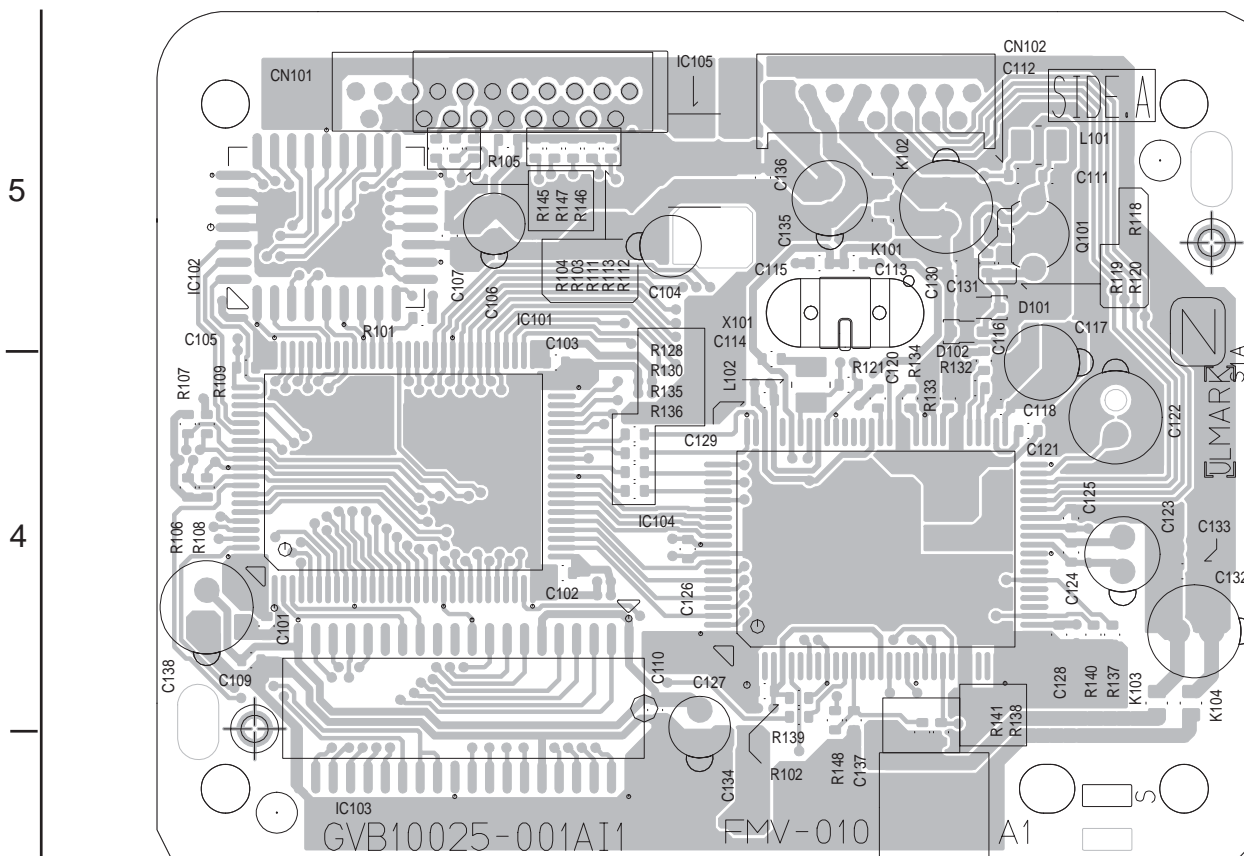
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G

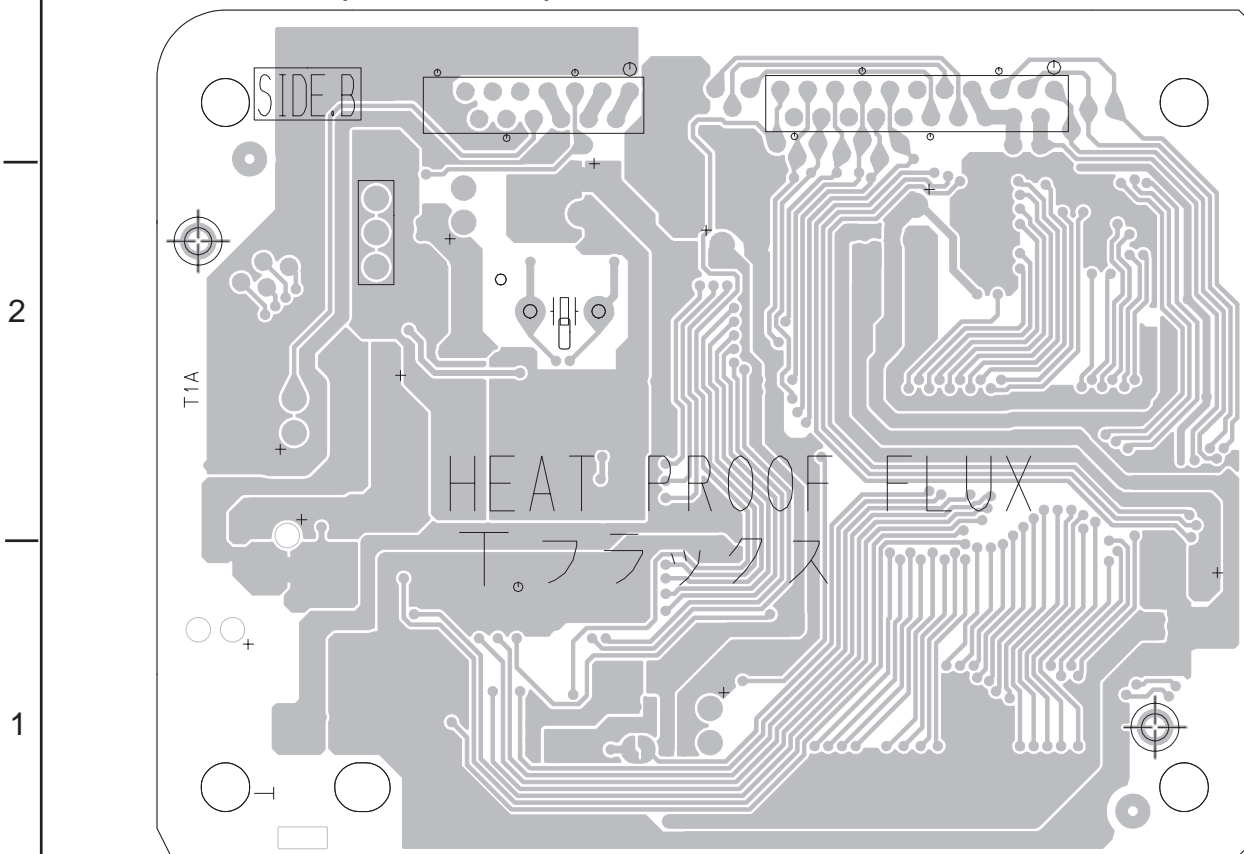
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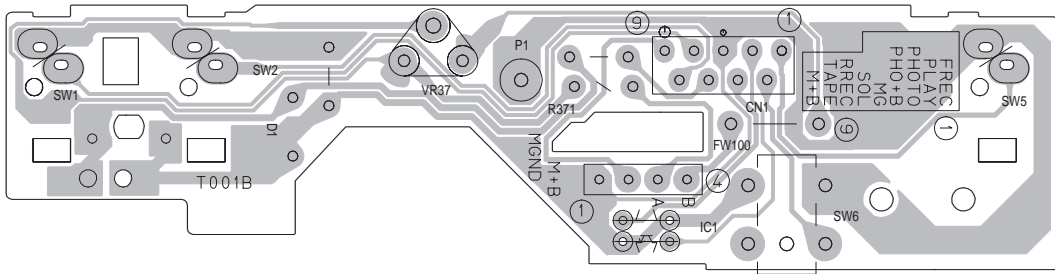
■ VCD board (Forward side)



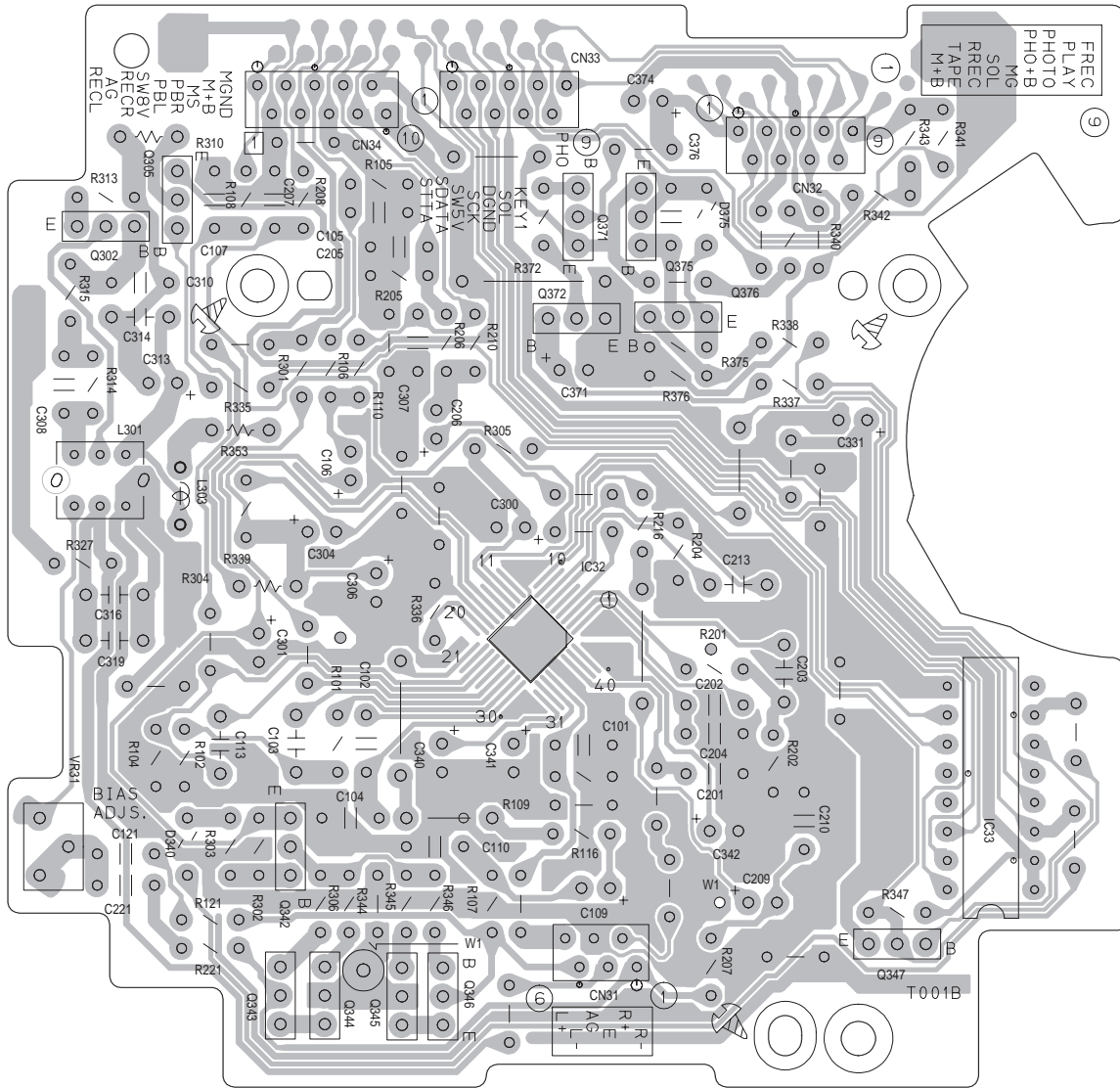
■ VCD board (Reverse side)



■ Cassette mecha (switch) board



■ Cassette mecha board



< MEMO >




# JVC

VICTOR COMPANY OF JAPAN, LIMITED

AV & MULTIMEDIA COMPANY AUDIO/VIDEO SYSTEMS CATEGORY 10-1,1chome,Ohwatari-machi,Maebashi-city,371-8543,Japan

(No.22041SCH)

 Printed in Japan  
WPC

# PARTS LIST

[ HX-Z9V ]

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

Area suffix

US ----- Singapore

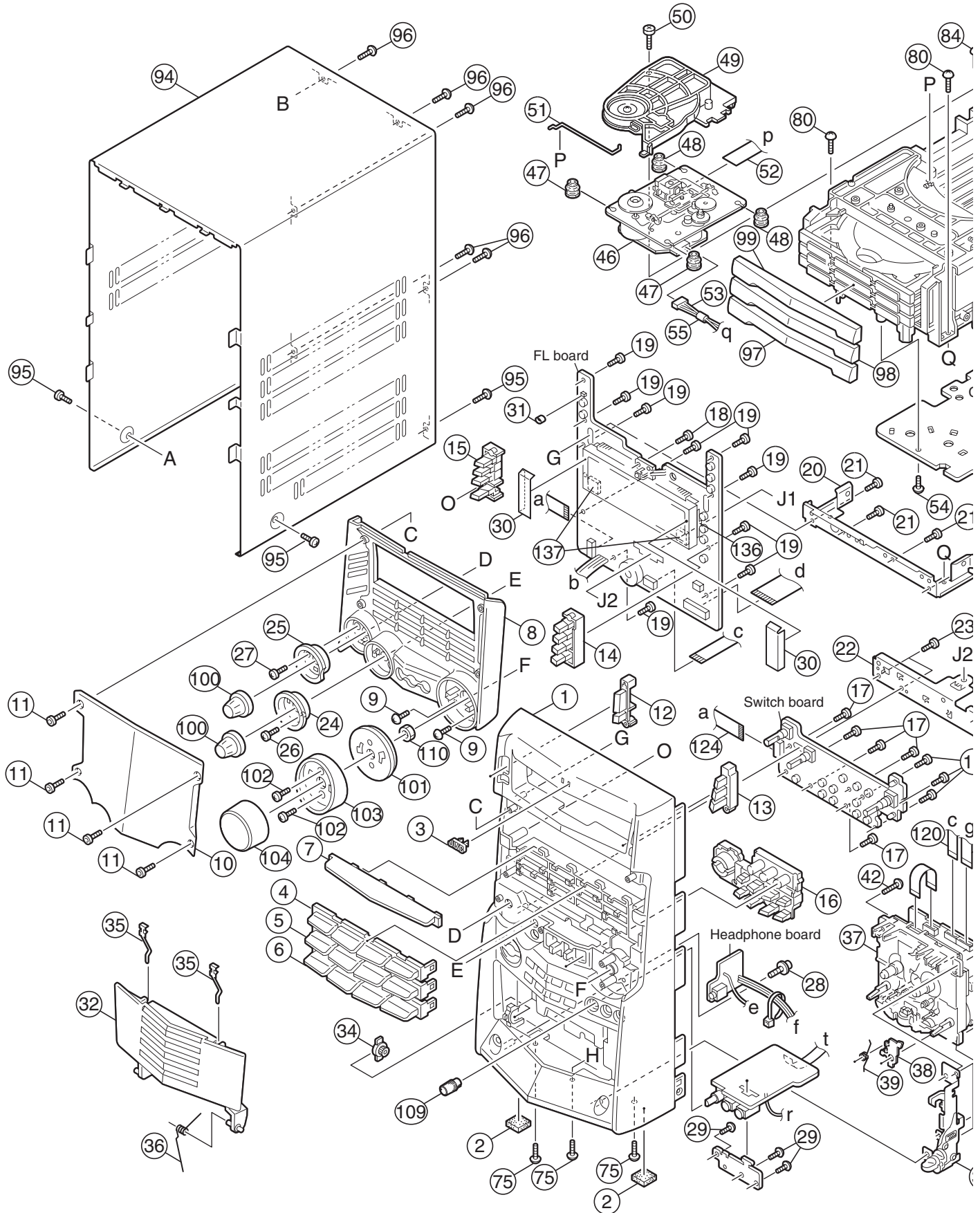
## - Contents -

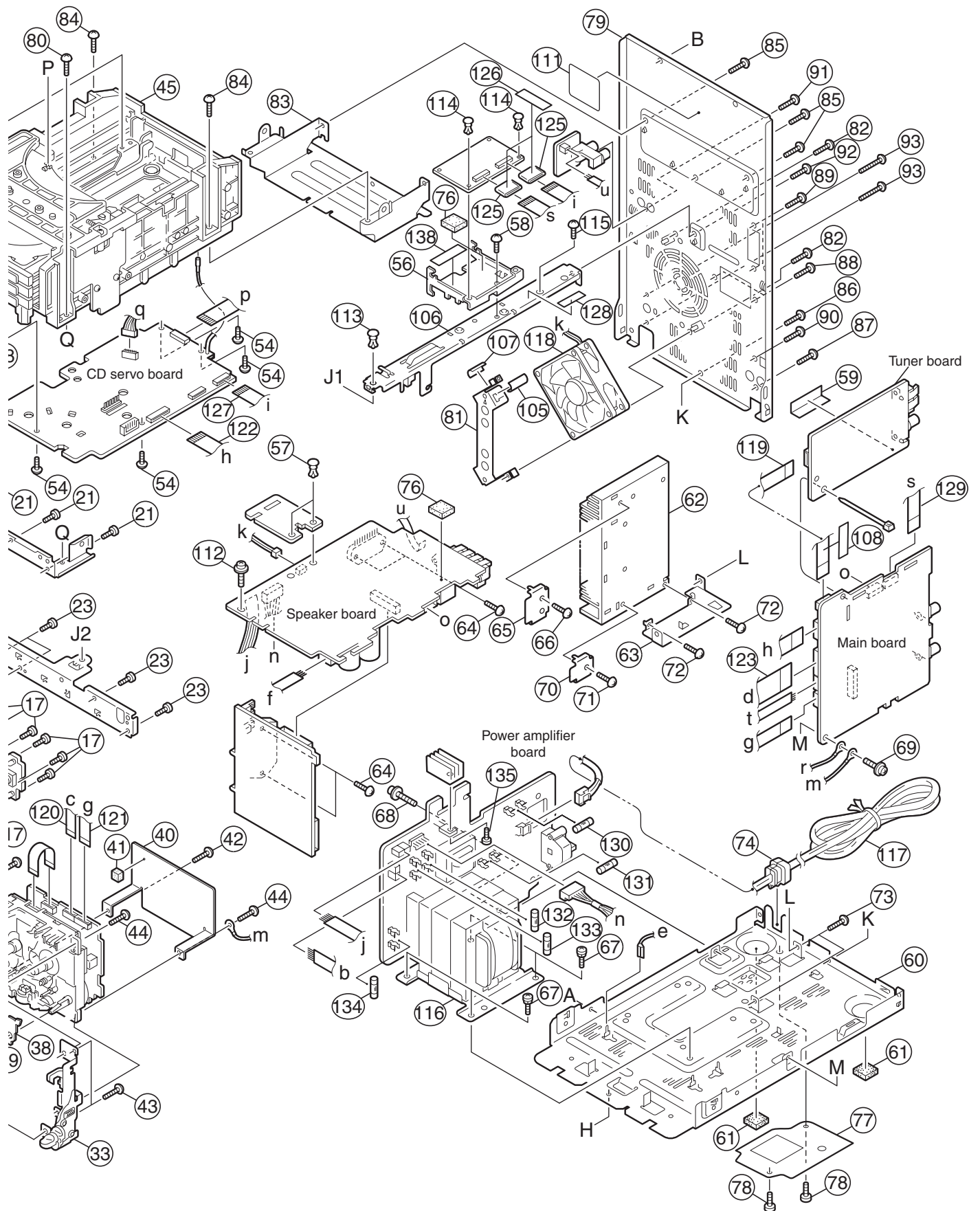
Exploded view of general assembly and parts list (Block No.M1) .....	3- 2
Speaker assembly and parts list (Main) (Block No.M2) .....	3- 5
Speaker assembly and parts list (Surround) (Block No.M6) .....	3- 6
Speaker assembly and parts list (Subwoofer) (Block No.M7) .....	3- 7
CD changer mechanism assembly and parts list (Block No.MA) .....	3- 8
CD mechanism assembly and parts list (Block No.MB) .....	3-10
Cassette mechanism assembly and parts list (Block No.MP) .....	3-11
Electrical parts list (Block No.01~09) .....	3-13
Packing materials and accessories parts list (Block No.M3) .....	3-24

# Exploded view of general assembly and parts list

Block No. 

M	1	M	M
---	---	---	---







## General assembly

## Block No. [M][1][M][M]

△ Symbol No.	Part No.	Part Name	Description	Local
1	GV10115-007A	FRONT PANEL		
2	GV40313-001A	FELT SPACER	(x2)	
3	GV40077-002A	JVC BADGE		
4	GV30293-003A	FUNCTION LENS A		
5	GV30294-002A	FUNCTION LENS B		
6	GV30295-002A	FUNCTION LENS C		
7	GV30296-001A	FL LENS		
8	GV10114-004A	WINDOW FRAME		
9	QYSDSF2608Z	SCREW	2.6mm x 8mm(x2)	
10	GV20171-006A	WINDOW SCREEN		
11	LV40744-001A	SOCKET BOLT	(x4)	
12	GV30309-004A	POWER BTTN.ASSY		
13	GV30288-001A	CD EJECT BTTN.		
14	GV30290-002A	CD BUTTON		
15	GV30289-002A	FUNCTION BUTTON		
16	GV20169-001A	CONTROL BUTTON		
17	QYSDSF2608Z	SCREW	2.6mm x 8mm(x8)	
18	QYSDSF2608Z	SCREW	2.6mm x 8mm	
19	QYSDSF2608Z	SCREW	2.6mm x 8mm(x9)	
20	GV30082-002A	STAY BRACKET		
21	QYSDSF2608Z	SCREW	2.6mm x 8mm(x4)	
22	GV30301-001A	SUPPORT BRACKET		
23	QYSDSF2608Z	SCREW	2.6mm x 8mm(x4)	
24	GV30303-001A	PRESET RING		
25	GV30302-001A	SOUND MODE RING		
26	QYSDSF2608Z	SCREW	2.6mm x 8mm	
27	QYSDSF2608Z	SCREW	2.6mm x 8mm	
28	E65923-003	TAPPING SCREW		
29	QYSDSF2608Z	SCREW	2.6mm x 8mm(x3)	
30	GV40342-001A	FL SHEET	(x2)	
31	GV40343-001A	VINYL TUBE		
32	GV30315-001A	CASS.HOLD.ASSY.		
33	GV30311-002A	EJECT SYS.ASSY.		
34	GV40034-001A	DAMPER ASSY.		
35	VKY4180-401	CASSETTE SPRING	(x2)	
36	GV40317-001A	HOLDER SPRING		
37	-----	C.MECHA ASSY		
38	VKL7850-002	EJECT SAFETY(R)		
39	VKW5258-003	TORSION SPRING		
40	GV30124-001A	TRANS SHIELD		
41	GV40170-003A	SPACER		
42	QYSBSF3012Z	TAP SCREW	3mm x 12mm(x2)	
43	QYSBSF3010Z	TAP SCREW	3mm x 10mm(x2)	
44	QYSBSG3010Z	TAPPING SCREW	3mm x 10mm(x2)	
45	-----	CD MECHA ASSY		
46	-----	TRAVERSE MECHA		
47	LV40761-003A	INSULATOR	(x2)	
48	LV40761-003A	INSULATOR	(x2)	
49	VKS3703-00Q	CLAMPER ASSY		
50	QYSPST2606Z	SCREW	2.6mm x 6mm	
51	VKW5187-001	ROD		
52	QUQ610-1609AJ	FLAT WIRE		
53	VDM1001-M002AV	WIRE&TUBE		
54	QYSBSF2608Z	TAP SCREW	2.6mm x 8mm(x4)	
55	VYSA1R2-033	SPACER		
56	GV30223-001A	BRACKET		
57	E310243-002	PLASTIC RIVET	(x2)	
58	QYSBSG3008Z	TAPPING SCREW	3mm x 8mm	
59	VYSA1R3-003	SPACER		
60	GV10111-002A	CHASSIS BASE		
61	GV40313-002A	FELT SPACER	(x2)	
62	GV30279-002A	HEAT SINK		
63	GV30281-001A	BASE BRACKET		
64	QYSBSG3014E	TAPPING SCREW	3mm x 14mm(x4)	
65	GV40297-002A	LEAF SPRING		
66	QYSBSG3014E	TAPPING SCREW	3mm x 14mm	
67	QYSDSTL4008Z	ASSY SCREW	4mm x 8mm(x4)	
68	QYSBSFG3016Z	SCREW	3mm x 16mm	
69	QYSBSGG3008E	TAPPING SCREW	3mm x 8mm	
70	GV40300-002A	BRACKET		
71	QYSBSG3014E	TAPPING SCREW	3mm x 14mm	
72	QYSBSG3014E	TAPPING SCREW	3mm x 14mm(x2)	
73	QYSBSG3008E	TAP SCREW	3mm x 8mm(x2)	
74	QZW0033-001	STRAIN RELIEF		

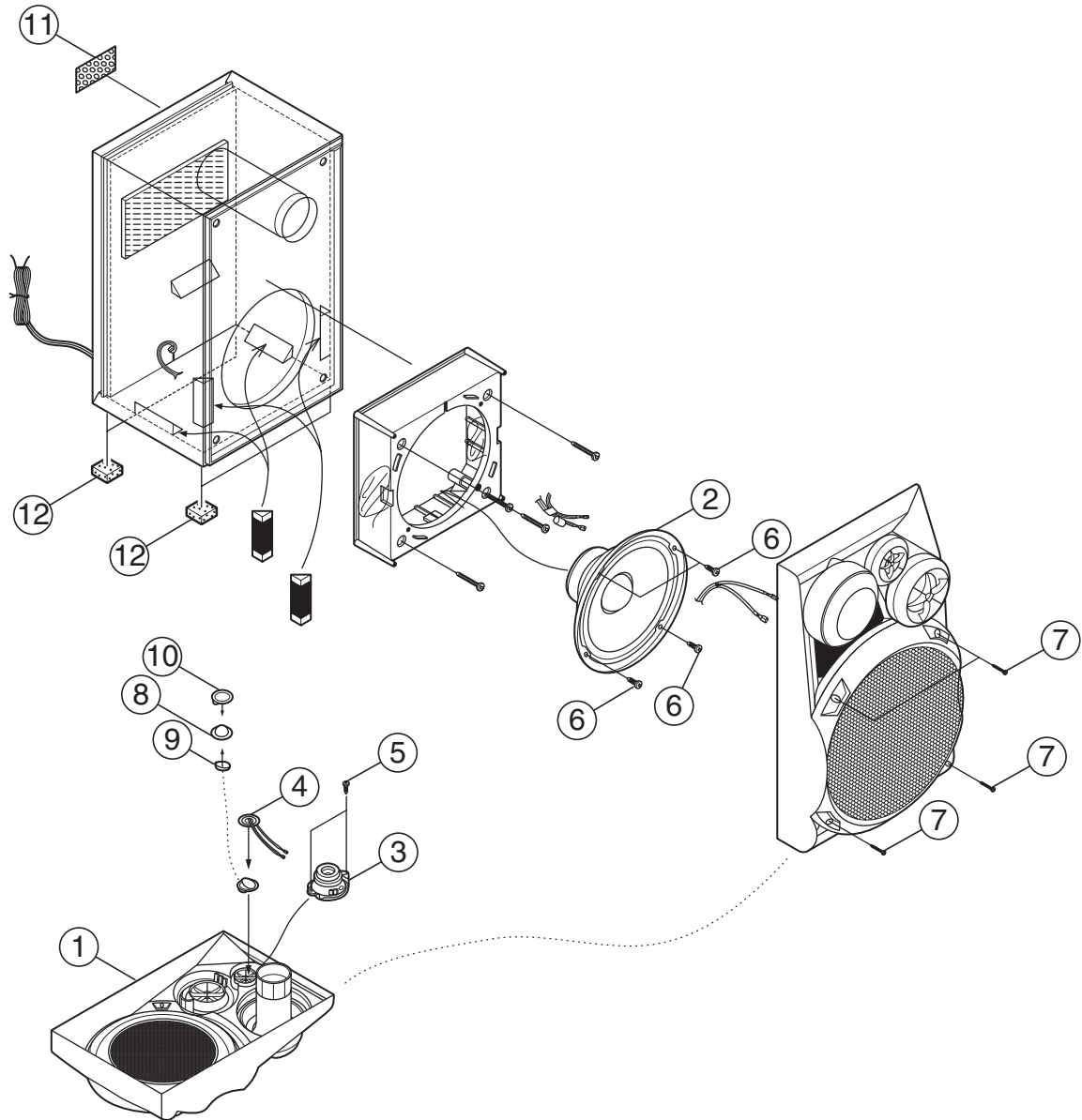
△ Symbol No.	Part No.	Part Name	Description	Local
75	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm(x3)	
76	GV40248-002A	PANEL SPACER	(x2)	
77	GV40222-001A	BOTTOM SHEET		
78	QYSBSG3008E	TAP SCREW	3mm x 8mm(x2)	
79	GV10112-014A	REAR PANEL		
80	QYSBSG3010Z	TAPPING SCREW	3mm x 10mm(x2)	
81	GV30278-001A	FAN BRACKET		
82	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm(x2)	
83	GV30277-001A	REAR BRACKET		
84	QYSBSG3010Z	TAPPING SCREW	3mm x 10mm(x2)	
85	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm(x3)	
86	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm	
87	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm	
88	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm(x2)	
89	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm(x2)	
90	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm	
91	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm	
92	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm	
93	QYSBSF3012E	SPECIAL SCREW	3mm x 12mm(x2)	
94	GV10110-001A/S/	METAL COVER		
95	QYSDSG3006M	T. SCREW	3mm x 6mm(x3)	
96	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm(x5)	
97	GV20166-001A	CD FITTING (1)		
98	GV20167-001A	CD FITTING (2)		
99	GV20168-001A	CD FITTING (3)		
100	GV30299-001A	SOUND MODE KNOB	(x2)	
101	GV30297-002A	VOLUME LENS		
102	QYSDSF2608Z	SCREW	2.6mm x 8mm(x2)	
103	GV30262-003A	VOLUME ORNAMENT		
104	GV30260-003A	VOLUME KNOB		
105	GV40121-006A	SPACER		
106	GV30286-001A	INNER BAR		
107	GV40121-004A	SPACER		
108	LV30225-079A	SPACER		
109	GV40321-001A	MIC VOL.KNOB		
110	GV40186-001A	NUT		
111	E406507-001	MECHA C. LABEL		
112	QYSBSGG3008E	TAPPING SCREW	3mm x 8mm	
113	E310243-002	PLASTIC RIVET		
114	E310243-002	PLASTIC RIVET	(x2)	
115	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm	
△ 116	QQT0392-001	POWER TRANSF	T 001	
△ 117	QMPK200-200-JD	POWER CORD(EU)	2m BLACK	
118	QAR0246-001	FAN		
119	QUQH12-0907BJ	CARD WIRE		
120	QUQH12-0908BJ	CARD WIRE		
121	QUQH12-1020BJ	CARD WIRE		
122	QUQH10-1918AJ	CARD WIRE		
123	QUQH12-2320BJ	CARD WIRE		
124	QUQH12-1309BJ	CARD WIRE		
125	QQR1259-002	FERRITE CORE	(x2)	
126	VYSA1R3-003	SPACER	(x2)	
127	QUQH10-1514BJ	WIRE		
128	LV30225-079A	SPACER		
129	QUQH10-1525BJ	WIRE		
△ 130	QMF51W2-4R0-J8	FUSE	F 001 4A AC250V	
△ 131	QMF51W2-2R5-J8	FUSE	F 003 2.5A AC250V	
△ 132	QMF51W2-6R3-J8	FUSE	F 101 6.3A AC250V	
△ 133	QMF51W2-6R3-J8	FUSE	F 102 6.3A AC250V	
△ 134	QMF51W2-3R15-J8	FUSE	F 103 3.15A AC250V	
135	QYSBSGY3008E	SPECIAL SCREW	3mm x 8mm	
136	GV30280-001A	FL HOLDER		
137	E3400-439	SPACER	(x2)	
138	LV30225-071A	FELT SPACER		



# Speaker assembly and parts list

Block No. M 2 M M

(Main)



## Main speaker

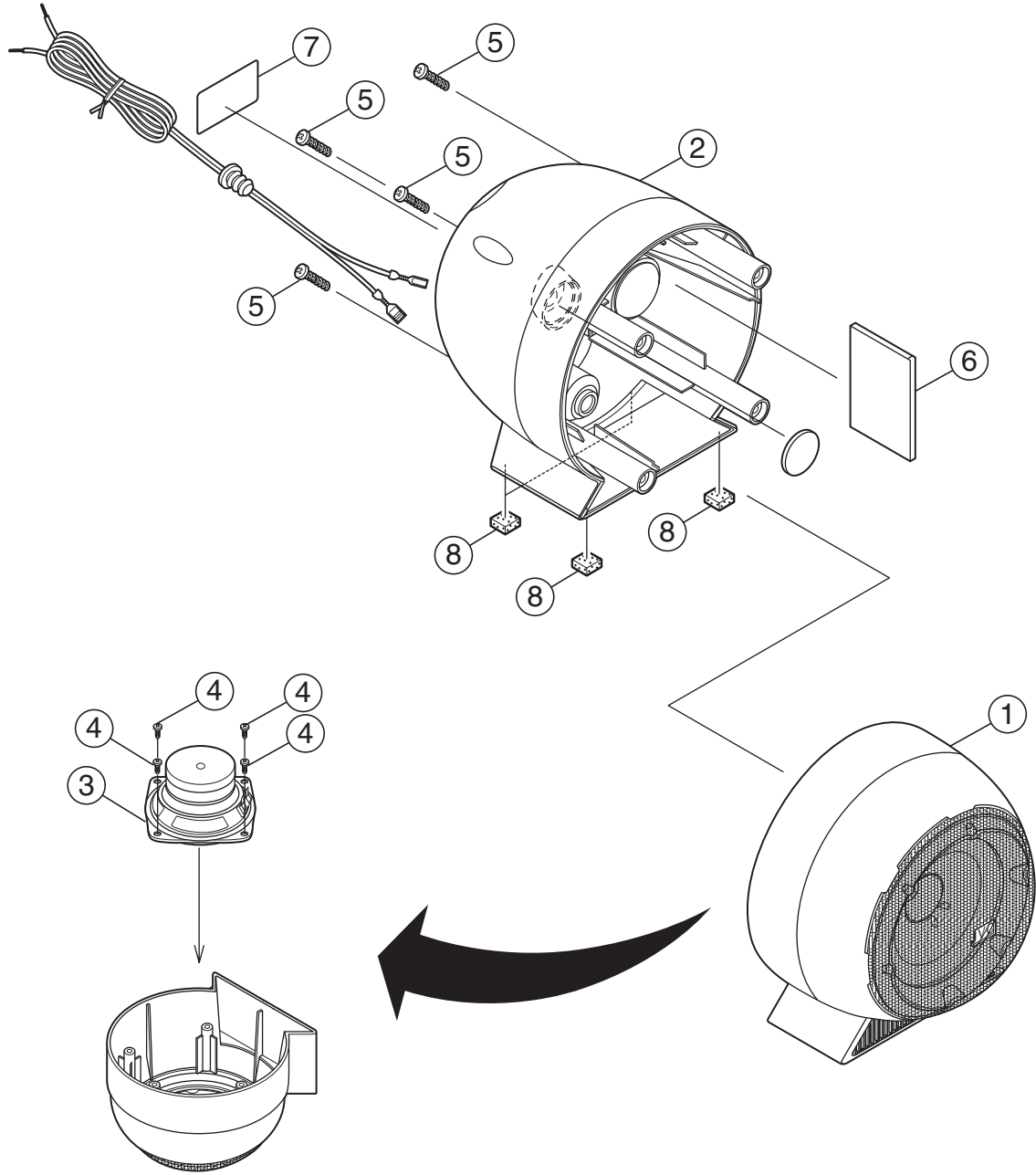
Block No. M2MM

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
1	J200-XZ7VL0G-40	FRONT PANEL ASSY(L)			6	411-B840120P1	SCREW		(x8)
1	J200-XZ7VR0G-40	FRONT PANEL ASSY(R)			7	411-N54020AB1	SCREW		(x8)
2	300-J0XZ9V1600	WOOFER	(x2)		8	435-120304-00	PIEZO CAP		(x2)
3	302-J0G7500500	TWEETER	(x2)		9	436-T00270-00	D.SIDE TAPE		(x2)
4	348-201007-10	PIEZO ASSY	(x2)		10	436-T25300-00	DOUBLE SIDE TAP		(x2)
5	411-B140080P1	SCREW	(x4)		11	600-L0Z9VU-00	SPEC LABEL(L)		
					11	600-R0Z9VU-00	SPEC LABEL(R)		
					12	441-802104-00	LEG CUSHION		(x8)

# Speaker assembly and parts list

Block No. M 6 M M

(Surround)



## Surround speaker

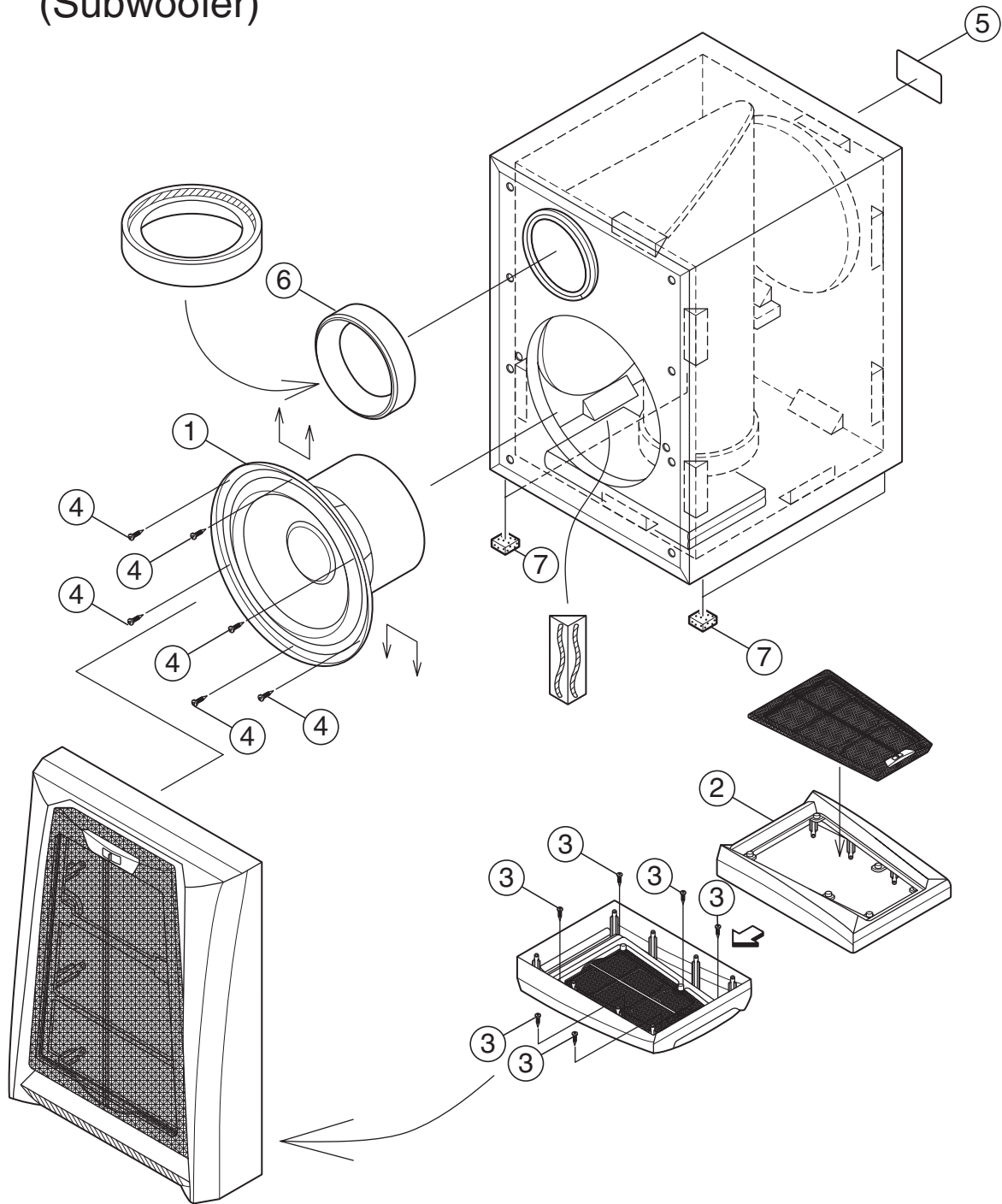
Block No. M6MM

△ Symbol No.	Part No.	Part Name	Description	Local
1	J227HXZ9V00G40	FRONT CASE ASSY	(x2)	
2	J227HXZ9V01G10	BACK CASE ASSY	(x2)	
3	305-080006-00	FULLRANGE-REAR	(x2)	
4	411-B140080P1	SCREW	(x8)	
5	411-B840140B1	SCREW	(x8)	
6	443-910503-00	SOUND ABSORBER	(x2)	
7	600-00XSZ9-00	SPEC LABEL	(x2)	
8	441-915102-00	LEG CUSHION	(x8)	

# Speaker assembly and parts list

(Subwoofer)

Block No. M 7 M M



## Subwoofer

Block No. M7MM

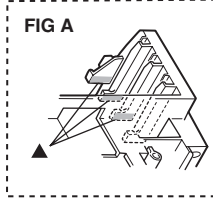
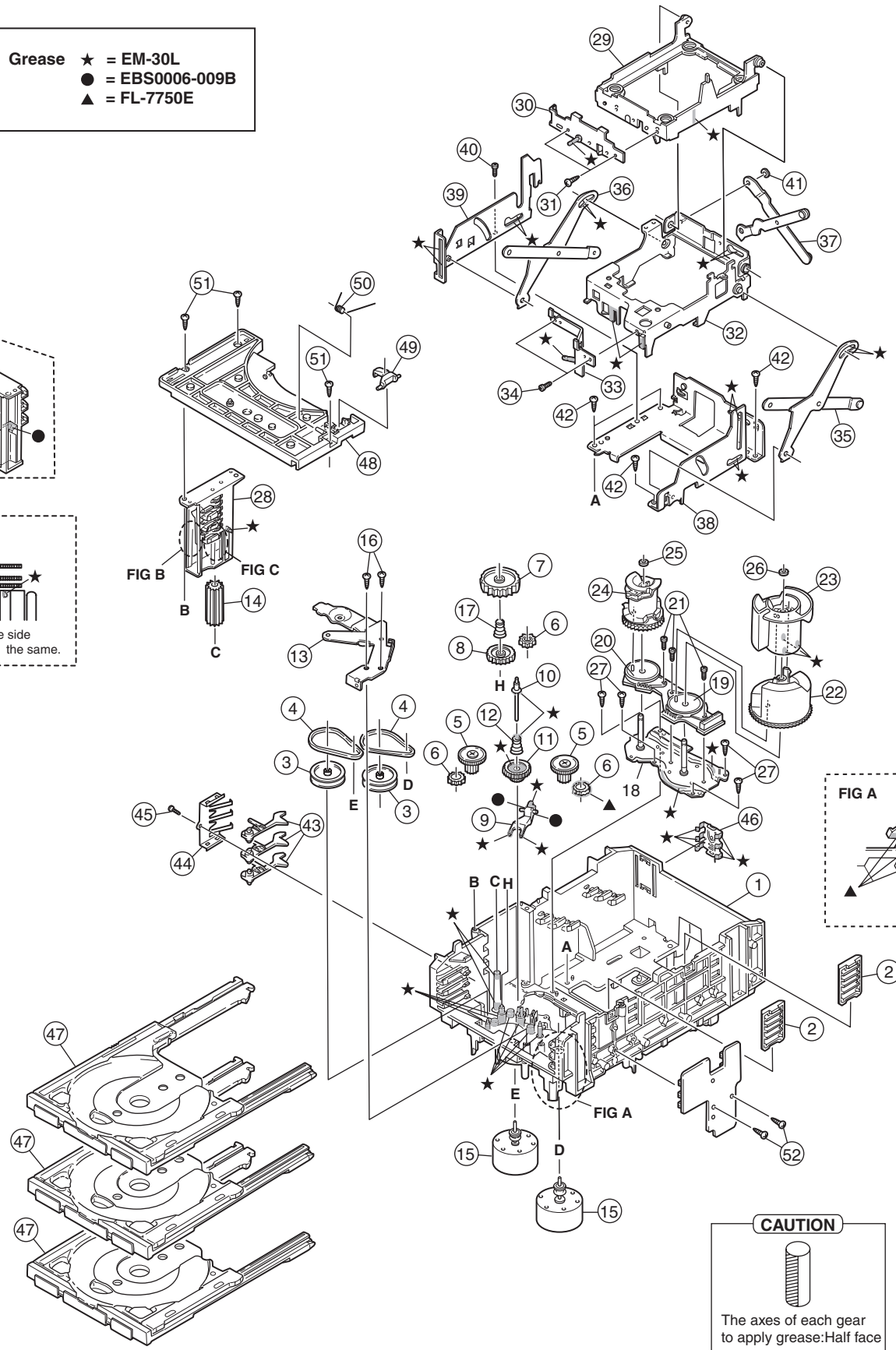
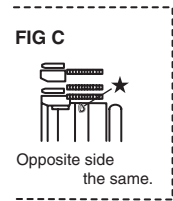
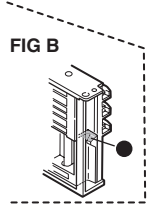
△ Symbol No.	Part No.	Part Name	Description	Local
1	304-J0XZ9V2000	SUBWOOFER		
2	J200-XZ9V00G-10	FRONT PANEL ASSY		
3	411-B140100P1	SCREW	(x6)	
4	411-B84020AB1	SCREW	(x6)	
5	600-00Z9VU-00	SPEC LABEL		
6	720-00Z9VU-00	DUCT RING		
7	441-803102-00	LEG CUSHION	(x4)	

# CD changer mechanism assembly and parts list

C3BASE-2M

Block No. M A M M

**Grease** ★ = EM-30L  
 ● = EBS0006-009B  
 ▲ = FL-7750E



**CAUTION**

The axes of each gear to apply grease: Half face

# CD changer mechanism

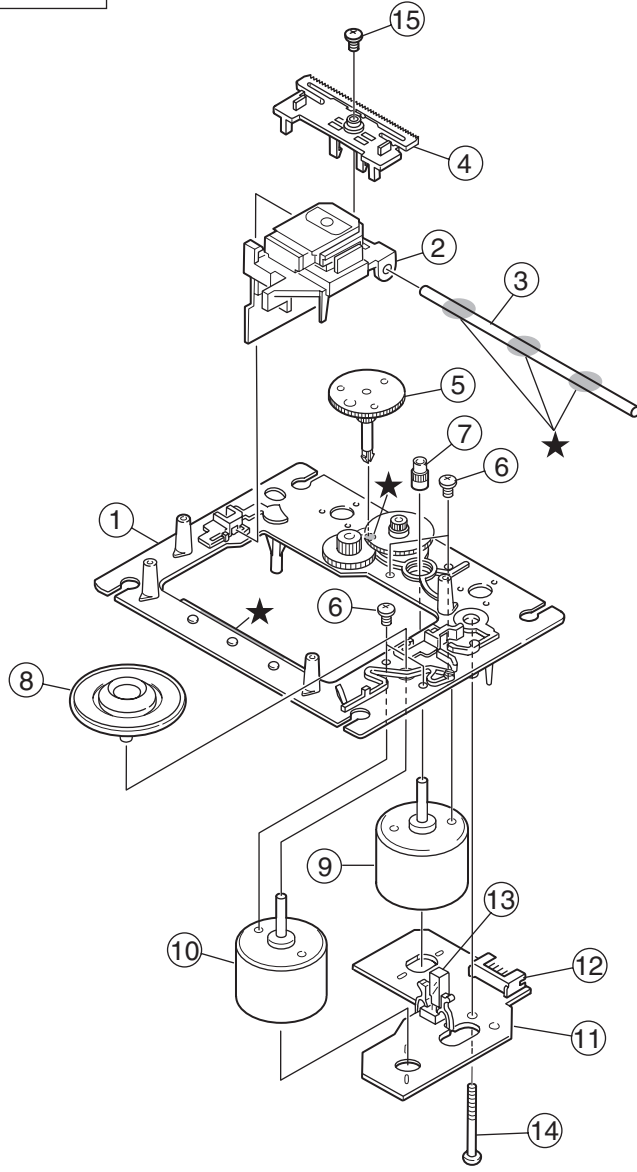
Block No. [M][A][M][M]

△ Symbol No.	Part No.	Part Name	Description	Local
1	VKS1144-004	CHASSIS		
2	VKS3698-003	TRAY GUIDE	(x2)	
3	VKS5532-003	PULLEY GEAR	(x2)	
4	VKB3000-164	BELT	(x2)	
5	VKS5505-003	GEAR B	(x2)	
6	VKS5506-002	GEAR C	(x3)	
7	VKS5507-002	CROSS GEAR U		
8	VKS5508-002	CROSS GEAR L		
9	VKS5510-003	SELECT LEVER		
10	VKH5769-001	S.G.SHAFT		
11	VKS5511-002	SELECT GEAR		
12	VKW5155-003	COMP.SPRING		
13	VKM3846-003	GEAR BRACKET		
14	VKS5509-002MM	CYLINDER GEAR		
15	MSN-5D257A	D. C MOTOR	(x2)	
16	QYSPSPD2616Z	SCREW	2.6mm x 16mm(x2)	
17	LV40612-001A	COMP.SPRING		
18	VKM3825-00B	C.G.BASE ASSY		
19	VKZ3172-00ASS	CAM SW. R ASSY		
20	VKZ3173-00ASS	CAM SW. R ASSY		
21	QYSPST2606Z	TAP SCREW	2.6mm x 6mm(x3)	
22	VKS2263-002MM	CAM R1		
23	VKS2264-002MM	CAM R2		
24	VKS2265-002MM	CAM GEAR L		
25	WDL316050MM	SLIT WASHER		
26	WDL316050MM	SLIT WASHER		
27	QYSBSF2608Z	TAP SCREW	2.6mm x 8mm(x4)	
28	VKS3702-00FMMVT	DRIVE UNIT		
29	VKS2247-005	MECHA HOLDER A		
30	VKL7767-00D	BRACKET ASSY		
31	QYSBSF2606Z	SCREW	2.6mm x 6mm(x2)	
32	VKM3860-00E	M.HOLDER B AS'Y		
33	VKL7802-00D	M.HOLDER C AS'Y		
34	QYSDST2604Z	SCREW	2.6mm x 4mm(x2)	
35	VKL7810-00B	LIFTER ASSY R		
36	VKL7811-00B	LIFTER ASSY L		
37	VKL7812-00B	LIFTER ASSY H		
38	VKL2745-003	LIFTER BASE		
39	VKM3857-002	LIFTER BRACKET		
40	QYSDST2604Z	SCREW	2.6mm x 4mm	
41	WDL266035-2	SLIT WASHER		
42	QYSBSF2608Z	TAP SCREW	2.6mm x 8mm(x4)	
43	VKS5514-002MM	LOCK LEVER	(x3)	
44	VKY3133-002MM	RETURN SPRING		
45	QYSBSF2608Z	TAP SCREW	2.6mm x 8mm	
46	VKY3134-003MM	CLICK SPRING		
47	VKS2252-00N	TRAY ASSY	(x3)	
48	VKS2250-004	TOP BRACKET		
49	VKS5515-002	S.TRAY STOPPER		
50	VKW5156-004	TORSION SPRING		
51	QYSBSF2608Z	TAP SCREW	2.6mm x 8mm(x3)	
52	QYSBSF2608Z	TAP SCREW	2.6mm x 8mm(x2)	

# CD mechanism assembly and parts list

Block No. M B M M

**Grease & Bond**  
★ = JVG-31N



FXL-M73T-1M

## CD mechanism

Block No. MBMM

△ Symbol No.	Part No.	Part Name	Description	Local
1	LV10723-001A	CD MECHA BASE A		
2	OPTIMA-73B1	C.D PICK		
3	E406777-002SM	C.D SHAFT		
4	LV31002-001A	CD RACK		
5	E307745-441SM	C.D GEAR 3		
6	QYSDSP2003N	SCREW	2mm x 3mm(x4)	
7	E406750-442SM	PINION		
8	EPB309173PKA	T.T PACKING		
9	QAR0253-001	FEED MOTOR		
10	QAR0130-001	SP MOTOR		
11	EMW10190-441	CIR BOARD		
12	QGA2001F1-06	CONNECTOR		W-B (1-6)
13	QSW0506-001	LEAF SW		
14	E75832-221SS	SPECIAL SCREW		
15	QYSDSF2006Z	SCREW		2mm x 6mm

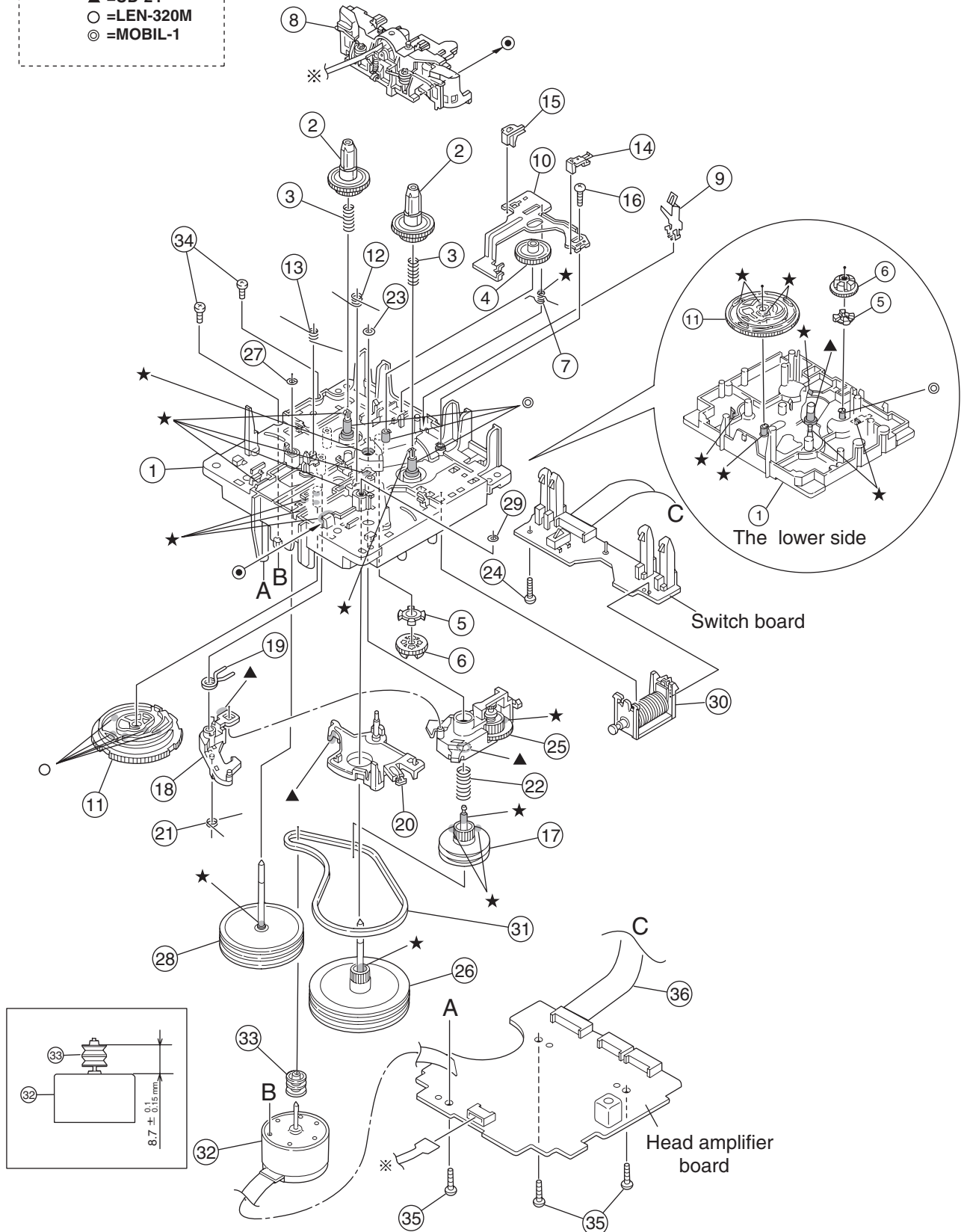
# Cassette mechanism assembly and parts list

Block No. M P M M

SLC-S302M

**Grease**

- ★ =EM-30L
- ▲ =UD-24
- =LEN-320M
- ◎ =MOBIL-1



## Cassette mechanism

Block No. [M][P][M][M]

Symbol No.	Part No.	Part Name	Description	Local
1	VKS1165-00L	CHASSIS B. ASSY		
2	VKS2274-002	REEL GEAR	(x2)	
3	VKW5286-002	B.T. SPRING	(x2)	
4	VKS5559-001	PLAY IDLE GEAR		
5	VKS5595-002	BLIND		
6	VKS5560-003	FR IDLE GEAR		
7	LV42013-001A	EARTH SPRING		
8	SLC-RP3SVM	HEAD MOUNT ASSY		
9	VKY3149-002	CASSETTE SP.		
10	LV31786-001A	PLAY LEVER		
11	VKS1166-004	CONTROL CAM		
12	VKW5279-002	HEAD BASE SP(R)		
13	VKW5280-001	HEAD BASE SP(L)		
14	LV41584-001A	BRAKE(R)		
15	LV41585-003A	BRAKE(L)		
16	QYSBSF2005Z	SCREW	2mm x 5mm	
17	VKS5603-00G	MAIN PULLEY ASS		
18	VKS3785-001MM	FR ARM		
19	VKW5284-002	SWING SPRING		
20	VKS2278-003	TRIGGER ARM		
21	VKW5301-001	FR SPRING		
22	VKW5266-001	ELEVATOR SPRING		
23	WDL214025	WASHER		
24	QYSBSF2005Z	SCREW	2mm x 5mm	
25	VKS3786-00G	CLUTCH ASSY		
26	VKF3205-00B	F.WHEEL ASSY(R)		
27	WDL183425	SLIT WASHER		
28	VKF3207-00C	F.WHEEL ASSY(L)		
29	WDL173525-6	SLIT WASHER		
30	VKZ3174-00B	DC SOLENOID		
31	LV42836-001A	CAPSTAN BELT		
32	MSI-5U2LWA	D.C.MOTOR		
33	VKR4761-003	MOTOR PULLEY		
34	QYSPSP2604Z	SCREW	2.6mm x 4mm(x2)	
35	QYSBSF2608Z	TAPPING SCREW	2.6mm x 8mm(x3)	
36	QUQH12-0906BF	WIRE		



# Electrical parts list

## Power board

Block No. [0][1][0][0]

△ Symbol No.	Part No.	Part Name	Description	Local
△ IC303	KIA7808API	IC		
△ IC305	KIA7809API	IC		
△ IC360	KIA7805API	IC		
△ IC701	STK412-410	POWER I.C		
IC901	BU9253AS	IC		
IC902	NJM4580L	IC		
Q250	2SC2785/FE/-T	TRANSISTOR		
Q251	KTC1027/OY/-T	TRANSISTOR		
Q252	2SD1266/P/	TRANSISTOR		
Q370	KTC2026/Y/	TRANSISTOR		
Q371	2SD1991A/RS/-T	TRANSISTOR		
Q372	KTC3199/GL/-T	TRANSISTOR		
Q373	KRA102M-T	DIGI TRANSISTOR		
Q374	KRC102M-T	DIGI TRANSISTOR		
Q701	KTA1268/GL/-T	TRANSISTOR		
Q702	KTA1268/GL/-T	TRANSISTOR		
Q710	KTA1023/OY/-T	TRANSISTOR		
Q711	KTC3200/GL/-T	TRANSISTOR		
Q712	KTA1268/GL/-T	TRANSISTOR		
Q713	KTC1027/OY/-T	TRANSISTOR		
Q726	KTC3200/GL/-T	TRANSISTOR		
Q727	KTA1268/GL/-T	TRANSISTOR		
Q728	2SC2785/FE/-T	TRANSISTOR		
Q1021	KRA111M-T	DIGI TRANSISTOR		
Q1022	KRA111M-T	DIGI TRANSISTOR		
Q1023	KRA111M-T	DIGI TRANSISTOR		
Q1061	2SC3576-JVC-T	TRANSISTOR		
△ D233	2A02-M	DIODE		
△ D234	2A02-M	DIODE		
△ D235	2A02-M	DIODE		
△ D236	2A02-M	DIODE		
D250	MTZJ11B-T2	Z DIODE		
D252	1N4003S-T5	SI DIODE		
D254	1SS119-041-T2	DIODE		
D256	MTZJ6.2C-T2	Z DIODE		
D313	MTZJ10C-T2	Z DIODE		
D315	MTZJ11B-T2	Z DIODE		
D360	1SS119-041-T2	DIODE		
D362	MTZJ8.2C-T2	Z DIODE		
D370	MTZJ6.8C-T2	Z DIODE		
D371	MTZJ4.3B-T2	Z DIODE		
D372	MTZJ6.8C-T2	Z DIODE		
D703	MTZJ15B-T2	Z DIODE		
D704	MTZJ15B-T2	Z DIODE		
D719	1SS119-041-T2	DIODE		
D720	1SS119-041-T2	DIODE		
D723	MTZJ36B-T2	Z DIODE		
D724	MTZJ36B-T2	Z DIODE		
D726	1SS119-041-T2	DIODE		
D728	1SS119-041-T2	DIODE		
D1021	MTZJ5.1B-T2	Z DIODE		
D1061	1SS119-041-T2	DIODE		
C250	QETN1HM-476Z	E CAPACITOR	47uF 50V M	
C251	QETM1JM-477	E CAPACITOR	470uF 63V M	
△ C252	QCZ9105-472	C CAPACITOR	4700pF 250V M	
C253	QFLC1HJ-472Z	M CAPACITOR	4700pF 50V J	
C254	QFLC1HJ-472Z	M CAPACITOR	4700pF 50V J	
C255	QETN0JM-477Z	E CAPACITOR	470uF 6.3V M	
C257	QETN1HM-476Z	E CAPACITOR	47uF 50V M	
C308	QEKC1HM-106Z	E CAPACITOR	10uF 50V M	
C311	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C312	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C362	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
C370	QETN0JM-107Z	E CAPACITOR	100uF 6.3V M	
C371	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	
C372	QETN1HM-226Z	E CAPACITOR	22uF 50V M	
C703	QCBB1HK-471Y	C CAPACITOR	470pF 50V K	
C705	QCBB1HK-221Y	C CAPACITOR	220pF 50V K	
C706	QCBB1HK-221Y	C CAPACITOR	220pF 50V K	

△ Symbol No.	Part No.	Part Name	Description	Local
C707	QETN1JM-476Z	E CAPACITOR	47uF 63V M	
C708	QETN1JM-476Z	E CAPACITOR	47uF 63V M	
C709	QCSB1HK-4R7Y	C CAPACITOR	4.7pF 50V K	
C710	QCSB1HK-4R7Y	C CAPACITOR	4.7pF 50V K	
C711	QFZ0212-104Z	M CAPACITOR	0.1uF	
C712	QFZ0212-104Z	M CAPACITOR	0.1uF	
C713	QFLC1HJ-473Z	M CAPACITOR	0.047uF 50V J	
C714	QFLC1HJ-473Z	M CAPACITOR	0.047uF 50V J	
C715	QFLC1HJ-473Z	M CAPACITOR	0.047uF 50V J	
C716	QFLC1HJ-473Z	M CAPACITOR	0.047uF 50V J	
C721	QTE1C06-476Z	E CAPACITOR	47uF 16V	
C722	QTE1C06-476Z	E CAPACITOR	47uF 16V	
C723	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C726	QETN1EM-106Z	E CAPACITOR	10uF 25V M	
C729	QETN1CM-476Z	E CAPACITOR	47uF 16V M	
C730	FQCF31HZ-223Z	D.CAPACITOR		
C731	FQCF31HZ-223Z	D.CAPACITOR		
C739	QETN1HM-105Z	E CAPACITOR	1uF 50V M	
C1021	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K	
C1022	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K	
C1023	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K	
C1034	QFLC1HJ-104Z	M CAPACITOR	0.1uF 50V J	
C1035	QETN1AM-107Z	E CAPACITOR	100uF 10V M	
C1036	QCBB1HK-101Y	C CAPACITOR	100pF 50V K	
C1037	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	
C1038	QDXB1CM-472Y	C CAPACITOR	4700pF 16V M	
C1039	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	
C1040	QDXB1CM-332Y	C CAPACITOR	3300pF 16V M	
C1041	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	
C1042	QETN1EM-226Z	E CAPACITOR	22uF 25V M	
C1043	QFVJ1HJ-474Z	MF CAPACITOR	0.47uF 50V J	
C1044	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	
C1045	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M	
C1061	QER61AM-227Z	E CAPACITOR	220uF 10V M	
C1062	QEKC1AM-107Z	E CAPACITOR	100uF 10V M	
C1063	QETC1HM-475Z	E CAPACITOR	4.7uF 50V M	
C1064	QCBB1HK-151Y	C CAPACITOR	150pF 50V K	
C1065	QCBB1HK-151Y	C CAPACITOR	150pF 50V K	
C1066	QCBB1HK-331Y	C CAPACITOR	330pF 50V K	
C1067	QEKC1HM-225Z	E CAPACITOR	2.2uF 50V M	
C1068	QEKC1HM-224Z	E CAPACITOR	0.22uF 50V M	
C1069	QEKC1HM-475Z	E CAPACITOR	4.7uF 50V M	
R250	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J	
R251	QRE141J-822Y	C RESISTOR	8.2kΩ 1/4W J	
△ R252	QRZ9042-2R2X	F RESISTOR	2.2Ω	
R253	QRE141J-681Y	C RESISTOR	680Ω 1/4W J	
R254	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R362	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R370	QRE141J-331Y	C RESISTOR	330Ω 1/4W J	
R371	QRE141J-331Y	C RESISTOR	330Ω 1/4W J	
R372	QRE141J-331Y	C RESISTOR	330Ω 1/4W J	
R373	QRE141J-681Y	C RESISTOR	680Ω 1/4W J	
R374	QRE141J-122Y	C RESISTOR	1.2kΩ 1/4W J	
R375	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
R376	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
R377	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
△ R701	QRJ146J-470X	UNF C RESISTOR	47Ω 1/4W J	
△ R702	QRJ146J-470X	UNF C RESISTOR	47Ω 1/4W J	
R703	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J	
R704	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J	
△ R705	FQRJ143J-821X	UNF C RESISTOR		
△ R706	FQRJ143J-821X	UNF C RESISTOR		
R707	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J	
R708	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J	
△ R713	QRJ146J-100X	UNF C RESISTOR	10Ω 1/4W J	
△ R714	QRJ146J-100X	UNF C RESISTOR	10Ω 1/4W J	
△ R715	FQRJ143J-100X	UNF C RESISTOR		
△ R716	FQRJ143J-100X	UNF C RESISTOR		
R717	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R718	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R719	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J	
R720	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J	
R721	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	



△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C464	QFLC1HJ-102Z	M CAPACITOR	1000pF 50V J		R413	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J	
C465	QFLC1HJ-473Z	M CAPACITOR	0.047uF 50V J		R414	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J	
C466	QFLC1HJ-473Z	M CAPACITOR	0.047uF 50V J		R435	QRE141J-683Y	C RESISTOR	68kΩ 1/4W J	
C467	QFLC1HJ-473Z	M CAPACITOR	0.047uF 50V J		R436	QRE141J-682Y	C RESISTOR	6.8kΩ 1/4W J	
C468	QFLC1HJ-473Z	M CAPACITOR	0.047uF 50V J		R437	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
C469	QFLC1HJ-104Z	M CAPACITOR	0.1uF 50V J		R438	QRE141J-513Y	C RESISTOR	51kΩ 1/4W J	
C470	QFLC1HJ-104Z	M CAPACITOR	0.1uF 50V J		R440	QRE141J-912Y	C RESISTOR	9.1kΩ 1/4W J	
C471	QFLC1HJ-104Z	M CAPACITOR	0.1uF 50V J		R442	QRE141J-822Y	C RESISTOR	8.2kΩ 1/4W J	
C472	QFLC1HJ-104Z	M CAPACITOR	0.1uF 50V J		R443	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C473	QETN1EM-227Z	E CAPACITOR	220uF 25V M		R444	QRE141J-822Y	C RESISTOR	8.2kΩ 1/4W J	
C475	QETN1AM-477Z	E CAPACITOR	470uF 10V M		R445	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C476	QTE1V06-106Z	E CAPACITOR	10uF 35V		R446	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J	
C477	QTE1V06-106Z	E CAPACITOR	10uF 35V		R447	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J	
C478	QTE1C06-476Z	E CAPACITOR	47uF 16V		R450	QRE141J-124Y	C RESISTOR	120kΩ 1/4W J	
C479	QFVJ1HJ-224Z	MF CAPACITOR	0.22uF 50V J		R451	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J	
C480	QETN1HM-106Z	E CAPACITOR	10uF 50V M		R452	QRE141J-822Y	C RESISTOR	8.2kΩ 1/4W J	
C481	QTE1V06-106Z	E CAPACITOR	10uF 35V		R453	QRE141J-513Y	C RESISTOR	51kΩ 1/4W J	
C482	QTE1V06-106Z	E CAPACITOR	10uF 35V		R454	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C483	QETN1EM-106Z	E CAPACITOR	10uF 25V M		R455	QRE141J-513Y	C RESISTOR	51kΩ 1/4W J	
C484	QETN1EM-106Z	E CAPACITOR	10uF 25V M		R456	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C485	QETN1EM-106Z	E CAPACITOR	10uF 25V M		R458	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
C486	QETN1EM-106Z	E CAPACITOR	10uF 25V M		R459	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
C487	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M		R477	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J	
C488	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M		R478	QRE141J-122Y	C RESISTOR	1.2kΩ 1/4W J	
C489	QTE1C06-476Z	E CAPACITOR	47uF 16V		R480	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C497	QETN1HM-105Z	E CAPACITOR	1uF 50V M		R481	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C501	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M		R482	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C502	QFLC1HJ-153Z	M CAPACITOR	0.015uF 50V J		R493	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C503	QFVJ1HJ-224Z	MF CAPACITOR	0.22uF 50V J		R494	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C504	QFLC1HJ-822Z	M CAPACITOR	8200pF 50V J		R495	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C505	QFVJ1HJ-274Z	MF CAPACITOR	0.27uF 50V J		R496	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
C508	QFLC1HJ-273Z	M CAPACITOR	0.027uF 50V J		R497	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
C509	QEKC1CM-106Z	E CAPACITOR	10uF 16V M		R501	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C510	QEKC1AM-107Z	E CAPACITOR	100uF 10V M		R502	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C514	QFLC1HJ-471Z	M CAPACITOR	470pF 50V J		R503	QRE141J-303Y	C RESISTOR	30kΩ 1/4W J	
C520	QETN1EM-106Z	E CAPACITOR	10uF 25V M		R504	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C523	FQCS31HJ-470Z	D.CAPACITOR			R505	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
C524	QETN1AM-477Z	E CAPACITOR	470uF 10V M		R506	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	
C525	QDVB1EZ-223Y	C CAPACITOR	0.022uF 25V Z		R507	QRE141J-303Y	C RESISTOR	30kΩ 1/4W J	
C527	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		R508	QRE141J-274Y	C RESISTOR	270kΩ 1/4W J	
C528	QETN0JM-108Z	E CAPACITOR	1000uF 6.3V M		R509	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
C529	QDXB1CM-152Y	C CAPACITOR	1500pF 16V M		R510	QRE141J-823Y	C RESISTOR	82kΩ 1/4W J	
C533	QETN1AM-107Z	E CAPACITOR	100uF 10V M		R511	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C534	QFLC1HJ-153Z	M CAPACITOR	0.015uF 50V J		R512	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J	
C536	QETN1HM-105Z	E CAPACITOR	1uF 50V M		R513	QRE141J-822Y	C RESISTOR	8.2kΩ 1/4W J	
C537	QDGB1HK-681Y	C CAPACITOR	680pF 50V K		R514	QRE141J-822Y	C RESISTOR	8.2kΩ 1/4W J	
C538	QDXB1CM-182Y	C CAPACITOR	1800pF 16V M		R515	QRE141J-114Y	C RESISTOR	110kΩ 1/4W J	
C539	QCSB1HJ-330Y	C CAPACITOR	33pF 50V J		R523	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C551	QETN1AM-227Z	E CAPACITOR	220uF 10V M		R533	QRZ9006-4R7X	F.RESISTOR	4.7Ω 1/4W J	
C552	QFLC1HJ-104Z	M CAPACITOR	0.1uF 50V J		R534	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
C553	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J		R535	QRE141J-225Y	C RESISTOR	2.2MΩ 1/4W J	
C554	QETN1EM-106Z	E CAPACITOR	10uF 25V M		R536	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C555	QFLC1HJ-103Z	M CAPACITOR	0.01uF 50V J		R537	QRE141J-220Y	C RESISTOR	22Ω 1/4W J	
C557	QFLC1HJ-104Z	M CAPACITOR	0.1uF 50V J		R551	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C559	FQCF31HP-103Z	D.CAPACITOR			R552	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C560	QFLC1HJ-223Z	M CAPACITOR	0.022uF 50V J		R553	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C565	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		R554	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C570	QETN1JM-476Z	E CAPACITOR	47uF 63V M		R570	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C571	QETN1HM-225Z	E CAPACITOR	2.2uF 50V M		R571	QRE141J-271Y	C RESISTOR	270Ω 1/4W J	
C575	QCBB1HK-101Y	C CAPACITOR	100pF 50V K		R572	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
C576	QETN1CM-476Z	E CAPACITOR	47uF 16V M		R573	QRE141J-113Y	C RESISTOR	11kΩ 1/4W J	
C577	QETN1CM-476Z	E CAPACITOR	47uF 16V M		R575	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J	
C578	QETN1HM-105Z	E CAPACITOR	1uF 50V M		R576	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C585	QETN1HM-476Z	E CAPACITOR	47uF 50V M		R577	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C587	QETN1CM-107Z	E CAPACITOR	100uF 16V M		R579	QRE141J-184Y	C RESISTOR	180kΩ 1/4W J	
C588	QETN1AM-227Z	E CAPACITOR	220uF 10V M		R580	QRE141J-513Y	C RESISTOR	51kΩ 1/4W J	
C594	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		R581	QRE141J-224Y	C RESISTOR	220kΩ 1/4W J	
C596	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R582	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
C597	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R583	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
C598	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		R585	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C599	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		R587	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
					R588	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R401	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R589	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R402	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J						
R405	QRE141J-392Y	C RESISTOR	3.9kΩ 1/4W J		L504	QQR1277-001Z	COIL		
R406	QRE141J-392Y	C RESISTOR	3.9kΩ 1/4W J		L505	QQR1277-001Z	COIL		
R411	QRE141J-363Y	C RESISTOR	36kΩ 1/4W J		L523	QQR1277-001Z	COIL		
R412	QRE141J-363Y	C RESISTOR	36kΩ 1/4W J		L524	QQR1277-001Z	COIL		

Symbol No.	Part No.	Part Name	Description	Local	Symbol No.	Part No.	Part Name	Description	Local
L525	QQR1277-001Z	COIL			△D214	1N5402M-20	DIODE		
L526	QQR1277-001Z	COIL			D217	1N4003S-T5	SI DIODE		
L533	QQR1277-001Z	COIL			D218	1N4003S-T5	SI DIODE		
L551	QQR1277-001Z	COIL			D219	MTZJ33B-T2	Z DIODE		
CN11	QGF1205F1-09	CONNECTOR	FFC/FPC (1-9)		D220	MTZJ6.8B-T2	Z DIODE		
CN44	QGF1201F3-10	CONNECTOR	FFC/FPC (1-10)		D227	1N4003S-T5	SI DIODE		
CN217	QGB2510J1-07	CONNECTOR	B-B (1-7)		D240	MTZJ13B-T2	Z DIODE		
CN311	QGB2510J1-14	CONNECTOR	B-B (1-14)		D260	1SS119-041-T2	DIODE		
CN504	QGF1036F1-15	CONNECTOR	FFC/FPC (1-15)		D261	1SS119-041-T2	DIODE		
CN661	QGF1036F1-19	CONNECTOR	FFC/FPC (1-19)		D262	1SS119-041-T2	DIODE		
CN870	QGF1205F1-23	CONNECTOR	FFC/FPC (1-23)		D263	1SS119-041-T2	DIODE		
CN922	QGD2503F1-05	CONNECTOR	(1-5)		D264	MTZJ5.1B-T2	Z DIODE		
J411	QNN0420-001	SURROUND JACK			D619	1SS119-041-T2	DIODE		
JA524	QNN0017-002	SURROUND JACK			D620	1SS119-041-T2	DIODE		
SP434	GV40205-001A	IC HOLDER			D622	MTZJ9.1B-T2	Z DIODE		
TW3	QUB230-13HPHP	WIRE			D650	1SS119-041-T2	DIODE		

## Front board

Block No. [0][3][0][0]

Symbol No.	Part No.	Part Name	Description	Local	Symbol No.	Part No.	Part Name	Description	Local
△IC240	KIA7812API	IC			D810	1SS119-041-T2	DIODE		
△IC602	STK402-070	IC			D831	MTZJ5.1B-T2	Z DIODE		
IC810	UPD784975AGF312	IC			D832	MTZJ5.1B-T2	Z DIODE		
IC811	BU2092	IC			D833	MTZJ4.3B-T2	Z DIODE		
IC951	GP1UM271XK	RM RECEIVER	38kHz		D875	1SS119-041-T2	DIODE		
Q201	2SB1274/RS/	TRANSISTOR			D901	L-192ZSRD-T	LED		
Q202	2SC2785/FE/-T	TRANSISTOR			D902	L-192ZSRD-T	LED		
Q260	KTC3203/OY/-T	TRANSISTOR			D903	L-192ZSRD-T	LED		
Q601	KTA1268/GL/-T	TRANSISTOR			D942	L-192ZSRD-T	LED		
Q602	KTA1268/GL/-T	TRANSISTOR			D943	L-192ZSRD-T	LED		
Q612	2SA1175/FE/-T	TRANSISTOR			D944	L-192ZSRD-T	LED		
Q613	KRC102M-T	DIGI TRANSISTOR			D945	L-192ZSRD-T	LED		
Q682	KTC3203/OY/-T	TRANSISTOR			D946	L-192ZSRD-T	LED		
Q690	KTC3203/OY/-T	TRANSISTOR			D947	L-192ZSRD-T	LED		
Q733	2SC3576-JVC-T	TRANSISTOR			D948	L-192ZSRD-T	LED		
Q734	2SC3576-JVC-T	TRANSISTOR			D950	L-192ZSRD-T	LED		
Q735	2SC3576-JVC-T	TRANSISTOR			D951	L-192ZSRD-T	LED		
Q736	2SC3576-JVC-T	TRANSISTOR			D962	L-192ZSRD-T	LED		
Q737	KRA111M-T	DIGI TRANSISTOR			D972	LC503MUR1-30Q	LED		
Q810	2SD1991A/RS/-T	TRANSISTOR			D973	LC503MUR1-30Q	LED		
Q811	2SD1991A/RS/-T	TRANSISTOR			D1003	MTZJ2.4B-T2	Z DIODE		
Q812	2SD1991A/RS/-T	TRANSISTOR			C91	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K	
Q813	2SD1991A/RS/-T	TRANSISTOR			C201	QFKC2EK-104	MM CAPACITOR	0.1uF 250V K	
Q814	2SD1991A/RS/-T	TRANSISTOR			C202	QFKC2EK-104	MM CAPACITOR	0.1uF 250V K	
Q815	2SD1991A/RS/-T	TRANSISTOR			C203	QFKC2EK-104	MM CAPACITOR	0.1uF 250V K	
Q816	2SD1991A/RS/-T	TRANSISTOR			C204	QEZ0581-478	E CAPACITOR	4700uF	
Q817	2SD1991A/RS/-T	TRANSISTOR			C205	QEZ0581-478	E CAPACITOR	4700uF	
Q818	2SD1991A/RS/-T	TRANSISTOR			C211	QFKC2EK-104Z	MM CAPACITOR	0.1uF 250V K	
Q819	2SD1991A/RS/-T	TRANSISTOR			C212	QFKC2EK-104Z	MM CAPACITOR	0.1uF 250V K	
Q820	2SD1991A/RS/-T	TRANSISTOR			C213	QFKC2EK-104Z	MM CAPACITOR	0.1uF 250V K	
Q821	2SD1991A/RS/-T	TRANSISTOR			C214	QETM1HM-228	E CAPACITOR	2200uF 50V M	
Q822	2SD1991A/RS/-T	TRANSISTOR			C215	QETM1HM-228	E CAPACITOR	2200uF 50V M	
Q823	2SD1991A/RS/-T	TRANSISTOR			C216	QETN1VM-107Z	E CAPACITOR	100uF 35V M	
Q833	KRA111M-T	DIGI TRANSISTOR			C217	QETN2AM-476Z	E CAPACITOR	47uF 100V M	
Q858	2SD1991A/RS/-T	TRANSISTOR			C218	QETN1HM-226Z	E CAPACITOR	22uF 50V M	
Q875	KRC102M-T	DIGI TRANSISTOR			C219	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	
Q879	2SD1991A/RS/-T	TRANSISTOR			C220	QETN1HM-226Z	E CAPACITOR	22uF 50V M	
Q890	2SD1991A/RS/-T	TRANSISTOR			C221	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
Q916	KTA1267/YG/-T	TRANSISTOR			C222	QETN1HM-475Z	E CAPACITOR	4.7uF 50V M	
Q917	KRC102M-T	DIGI TRANSISTOR			C236	QETM1EM-688	E CAPACITOR	6800uF 25V M	
Q961	KTA1267/YG/-T	TRANSISTOR			C240	QETN1HM-106Z	E CAPACITOR	10uF 50V M	
Q962	KRC102M-T	DIGI TRANSISTOR			C260	QETN1EM-476Z	E CAPACITOR	47uF 25V M	
△D201	1N5402M-20	DIODE			C601	FQCF31HZ-223Z	D.CAPACITOR		
△D202	1N5402M-20	DIODE			C602	FQCF31HZ-223Z	D.CAPACITOR		
△D203	1N5402M-20	DIODE			C603	QCBB1HK-221Y	C CAPACITOR	220pF 50V K	
△D204	1N5402M-20	DIODE			C604	QCBB1HK-221Y	C CAPACITOR	220pF 50V K	
△D211	1N5402M-20	DIODE			C605	QCBB1HK-221Y	C CAPACITOR	220pF 50V K	
△D212	1N5402M-20	DIODE			C606	QCBB1HK-221Y	C CAPACITOR	220pF 50V K	
△D213	1N5402M-20	DIODE			C607	QETN1JM-476Z	E CAPACITOR	47uF 63V M	
					C608	QETN1JM-476Z	E CAPACITOR	47uF 63V M	
					C609	QCSB1HJ-100Y	C CAPACITOR	10pF 50V J	
					C610	QCSB1HJ-100Y	C CAPACITOR	10pF 50V J	
					C611	QETN1HM-476Z	E CAPACITOR	47uF 50V M	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C612	QETN1HM-476Z	E CAPACITOR	47uF 50V M		R617	QRE141J-221Y	C RESISTOR	220Ω 1/4W J	
C613	QFLC1HJ-473Z	M CAPACITOR	0.047uF 50V J		R618	QRE141J-221Y	C RESISTOR	220Ω 1/4W J	
C614	QFLC1HJ-473Z	M CAPACITOR	0.047uF 50V J		R619	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
C615	QFLC1HJ-473Z	M CAPACITOR	0.047uF 50V J		R620	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
C616	QFLC1HJ-473Z	M CAPACITOR	0.047uF 50V J		R621	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C621	QTE1V06-106Z	E CAPACITOR	10uF 35V		R623	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C622	QTE1V06-106Z	E CAPACITOR	10uF 35V		△ R637	QRK126J-121X	UNF C RESISTOR	120Ω 1/2W J	
C623	QTE1V06-106Z	E CAPACITOR	10uF 35V		△ R638	QRK126J-470X	UNF C RESISTOR	47Ω 1/2W J	
C624	QTE1V06-106Z	E CAPACITOR	10uF 35V		△ R639	QRL01DJ-821X	OMF RESISTOR	820Ω 1W J	
C639	QETN1HM-105Z	E CAPACITOR	1uF 50V M		△ R640	QRL01DJ-821X	OMF RESISTOR	820Ω 1W J	
C651	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R652	QRT01DJ-R22X	MF RESISTOR	0.22Ω 1W J	
C652	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		△ R653	QRT01DJ-R22X	MF RESISTOR	0.22Ω 1W J	
C734	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R654	QRT01DJ-R22X	MF RESISTOR	0.22Ω 1W J	
C735	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		△ R655	QRT01DJ-R22X	MF RESISTOR	0.22Ω 1W J	
C736	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R666	QRE141J-333Y	C RESISTOR	33kΩ 1/4W J	
C737	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R667	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C740	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R668	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C741	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		△ R674	QRJ146J-100X	UNF C RESISTOR	10Ω 1/4W J	
C801	FQCF31HP-103Z	D.CAPACITOR			R675	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
C803	QEZO507-479Z	EDL.CAPACITOR	0.047F		R676	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
C804	QEKCOJM-227Z	E CAPACITOR	220uF 6.3V M		R680	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
C805	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R682	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J	
C808	QCSB1HJ-270Y	C CAPACITOR	27pF 50V J		R683	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C809	QCSB1HJ-300Y	C CAPACITOR	30pF 50V J		R690	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C815	QEK1HM-226Z	E CAPACITOR	22uF 50V M		R725	QRE141J-823Y	C RESISTOR	82kΩ 1/4W J	
C817	QEK1HM-226Z	E CAPACITOR	22uF 50V M		R726	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C820	QCZO202-155Z	C CAPACITOR	1.5uF 25V Z		R733	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C821	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		R734	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C823	QFVJ1HJ-334Z	MF CAPACITOR	0.33uF 50V J		R735	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C825	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R736	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
C831	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		△ R737	QRK126J-121X	UNF C RESISTOR	120Ω 1/2W J	
C832	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		△ R738	QRK126J-470X	UNF C RESISTOR	47Ω 1/2W J	
C835	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		△ R745	QRL027J-221	OMF RESISTOR	220Ω 2W J	
C836	QEK1EM-106Z	E CAPACITOR	10uF 25V M		R801	QRE141J-331Y	C RESISTOR	330Ω 1/4W J	
C837	QETN1AM-107Z	E CAPACITOR	100uF 10V M		R802	QRE141J-270Y	C RESISTOR	27Ω 1/4W J	
C838	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R805	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C840	QEKCOJM-107Z	E CAPACITOR	100uF 6.3V M		R806	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C889	QEK1HM-475Z	E CAPACITOR	4.7uF 50V M		R807	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
C901	QCSB1HJ-100Y	C CAPACITOR	10pF 50V J		R808	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C958	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		R810	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C959	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		R811	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C960	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		R812	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C961	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		R813	QRE141J-221Y	C RESISTOR	220Ω 1/4W J	
C962	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		R814	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J	
C963	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M		R815	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C1001	QDXB1CM-392Y	C CAPACITOR	3900pF 16V M		R816	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
C1002	QDXB1CM-392Y	C CAPACITOR	3900pF 16V M		R817	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C1003	QDXB1CM-222Y	C CAPACITOR	2200pF 16V M		R818	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
C1004	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R819	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
C1005	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R820	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
C1006	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K		R821	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
△ R202	QRJ146J-470X	UNF C RESISTOR	47Ω 1/4W J		R822	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R203	QRE141J-752Y	C RESISTOR	7.5kΩ 1/4W J		R823	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R204	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J		R824	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R205	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		R825	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R215	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J		R826	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R216	QRE141J-473Y	C RESISTOR	47kΩ 1/4W J		R827	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R217	QRE141J-273Y	C RESISTOR	27kΩ 1/4W J		R828	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R218	QRE141J-273Y	C RESISTOR	27kΩ 1/4W J		R829	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
△ R240	QRZ9005-100X	F RESISTOR	10Ω		R830	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R260	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J		R831	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R261	QRE141J-302Y	C RESISTOR	3kΩ 1/4W J		R832	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R262	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J		R833	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R263	QRE141J-302Y	C RESISTOR	3kΩ 1/4W J		R834	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R265	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J		R835	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
△ R601	QRJ146J-101X	UNF C RESISTOR	100Ω 1/4W J		R836	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
△ R602	QRJ146J-101X	UNF C RESISTOR	100Ω 1/4W J		R837	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R603	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J		R838	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R604	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J		R839	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
△ R605	FQRJ143J-122X	UNF C RESISTOR			R840	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
△ R606	FQRJ143J-122X	UNF C RESISTOR			R841	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R607	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J		R842	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R608	QRE141J-563Y	C RESISTOR	56kΩ 1/4W J		R844	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
△ R613	QRJ146J-100X	UNF C RESISTOR	10Ω 1/4W J		R845	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
△ R614	QRJ146J-100X	UNF C RESISTOR	10Ω 1/4W J		R846	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
△ R615	FQRJ143J-100X	UNF C RESISTOR			R847	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
△ R616	FQRJ143J-100X	UNF C RESISTOR			R848	QRE141J-331Y	C RESISTOR	330Ω 1/4W J	
					R849	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R850	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R934	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R851	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J		R935	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R852	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		R936	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R853	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		R937	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R854	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R938	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R855	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R939	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R856	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R940	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R857	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R941	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R858	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R942	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R859	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R943	QRE141J-122Y	C RESISTOR	1.2kΩ 1/4W J	
R860	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R944	QRE141J-152Y	C RESISTOR	1.5kΩ 1/4W J	
R861	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R945	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R862	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R946	QRE141J-272Y	C RESISTOR	2.7kΩ 1/4W J	
R863	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R947	QRE141J-392Y	C RESISTOR	3.9kΩ 1/4W J	
R865	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R948	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J	
R866	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R949	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R867	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R950	QRE141J-753Y	C RESISTOR	75kΩ 1/4W J	
R868	QRE141J-133Y	C RESISTOR	13kΩ 1/4W J		R952	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
R869	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R953	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
R871	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R954	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
R872	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R955	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
R873	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R956	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
R874	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R957	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
R875	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R958	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
R876	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		R959	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
R877	QRE141J-133Y	C RESISTOR	13kΩ 1/4W J		R960	QRE141J-201Y	C RESISTOR	200Ω 1/4W J	
R878	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		R961	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R879	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		R962	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R880	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		R963	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R881	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		R969	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R882	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		R970	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R883	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		R971	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R884	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R972	QRE141J-221Y	C RESISTOR	220Ω 1/4W J	
R885	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		R973	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R886	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		R975	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R887	QRE141J-221Y	C RESISTOR	220Ω 1/4W J		R976	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R888	QRE141J-221Y	C RESISTOR	220Ω 1/4W J		R978	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R889	QRE141J-221Y	C RESISTOR	220Ω 1/4W J		R980	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R890	QRE141J-133Y	C RESISTOR	13kΩ 1/4W J		R981	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R891	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		R982	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R892	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		R983	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R893	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R984	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R894	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R985	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R895	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R986	QRE141J-133Y	C RESISTOR	13kΩ 1/4W J	
R896	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		R987	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R897	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		R988	QRE141J-133Y	C RESISTOR	13kΩ 1/4W J	
R899	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		R989	QRE141J-133Y	C RESISTOR	13kΩ 1/4W J	
R900	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R990	QRE141J-133Y	C RESISTOR	13kΩ 1/4W J	
R901	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		R991	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R902	QRE141J-122Y	C RESISTOR	1.2kΩ 1/4W J		R992	QRE141J-133Y	C RESISTOR	13kΩ 1/4W J	
R903	QRE141J-152Y	C RESISTOR	1.5kΩ 1/4W J		R993	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R904	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J		R994	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R905	QRE141J-272Y	C RESISTOR	2.7kΩ 1/4W J		R995	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R906	QRE141J-392Y	C RESISTOR	3.9kΩ 1/4W J		R996	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R907	QRE141J-163Y	C RESISTOR	16kΩ 1/4W J						
R908	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		L601	QQLZ035-R39	COIL	0.39uH	
R909	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J		L602	QQLZ035-R39	COIL	0.39uH	
R911	QRE141J-201Y	C RESISTOR	200Ω 1/4W J		L801	QQL244K-100Z	COIL	10uH K	
R912	QRE141J-201Y	C RESISTOR	200Ω 1/4W J		L802	QQL231K-220Y	INDUCTOR	22uH K	
R913	QRE141J-201Y	C RESISTOR	200Ω 1/4W J		L803	QQL29BJ-100Z	COIL	10uH J	
R916	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J		L805	QQL244K-100Z	COIL	10uH K	
R917	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		L806	QQL244K-100Z	COIL	10uH K	
R918	QRE141J-133Y	C RESISTOR	13kΩ 1/4W J		L807	QQL231K-220Y	INDUCTOR	22uH K	
R919	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		L815	QQR0621-001Z	COIL		
R920	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		L872	QQR0621-001Z	COIL		
R921	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J		L1001	QQL231K-470Y	COIL	47uH K	
R922	QRE141J-122Y	C RESISTOR	1.2kΩ 1/4W J		L1002	QQL231K-470Y	COIL	47uH K	
R923	QRE141J-152Y	C RESISTOR	1.5kΩ 1/4W J		L1003	QQR1277-001Z	COIL		
R924	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J						
R925	QRE141J-272Y	C RESISTOR	2.7kΩ 1/4W J		BZ801	QAN0055-001	BUZZER		
R926	QRE141J-392Y	C RESISTOR	3.9kΩ 1/4W J		CN43	QGF1210G1-09	CONNECTOR	FFC/FPC (1-9)	
R927	QRE141J-562Y	C RESISTOR	5.6kΩ 1/4W J		CN91	QGD2504C1-03Z	CONNECTOR	(1-3)	
R928	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J		CN205	QGB2510J1-15	CONNECTOR	B-B (1-15)	
R929	QRE141J-334Y	C RESISTOR	330kΩ 1/4W J		CN206	QGA2501F1-02	CONNECTOR	W-B (1-2)	
R930	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		CN207	QGB2510K2-07	CONNECTOR	B-B (1-7)	
R931	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		CN701	QGD2503F1-04	CONNECTOR	(1-4)	
R932	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		CN860	QGF1210G1-23	CONNECTOR	FFC/FPC (1-23)	
R933	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J		CN880	QGF1210G1-13	CONNECTOR	FFC/FPC (1-13)	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
CN890	QGF1205F1-13	CONNECTOR	FFC/FPC (1-13)		C603	NCB31EK-223X	C CAPACITOR	0.022uF 25V K	
CP1	ICP-N15-T	IC PROTECTOR	600mA		C604	NCB31EK-223X	C CAPACITOR	0.022uF 25V K	
FL801	QLF0096-001	FL TUBE			C605	NCS31HJ-331X	C CAPACITOR	330pF 50V J	
FW91	QUM153-12DGZ4	FLAT WIRE			C606	NCS31HJ-151X	C CAPACITOR	150pF 50V J	
FW202	QUM157-07DGZ4	FW CABLE			C608	NCB31HK-122X	C CAPACITOR	1200pF 50V K	
FW204	QJK015-050604	WIRE SOCKET			C610	NCB31CK-273X	C CAPACITOR	0.027uF 16V K	
FW221	QUM156-13DGZ4	FLAT WIRE			C612	QERF1HM-104Z	E CAPACITOR	0.1uF 50V M	
FW711	QUM154-33DGZ4	FLAT WIRE			C613	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
FW800	QUM023-05Z4Z4	TM FLAT			C614	NCB31CK-273X	C CAPACITOR	0.027uF 16V K	
J81	QNB0151-001	SPK.TERMINAL			C615	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
J91	QNN0215-001	SURROUND JACK			C616	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
J1001	QNS0204-001	PHONE JACK			C617	NCS31HJ-331X	C CAPACITOR	330pF 50V J	
JS958	QSW0984-001	ROTARY SW			C620	NCS31HJ-560X	C CAPACITOR	56pF 50V J	
JS960	QSW0983-001	ROTARY SW			C621	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
JS962	QSW0862-001	ROTARY VR			C622	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
RY1	QSK0109-001	RELAY			C623	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
RY2	QSK0109-001	RELAY			C624	QERF0JM-107Z	E CAPACITOR	100uF 6.3V M	
S900	QSW0674-001Z	TACT SW			C631	QERF1CM-106Z	E CAPACITOR	10uF 16V M	
S901	QSW0674-001Z	TACT SW			C632	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
S902	QSW0674-001Z	TACT SW			C633	NCB31EK-223X	C CAPACITOR	0.022uF 25V K	
S903	QSW0674-001Z	TACT SW			C641	NCB31EK-273X	C CAPACITOR	0.027uF 25V K	
S904	QSW0674-001Z	TACT SW			C642	NCB31HK-472X	C CAPACITOR	4700pF 50V K	
S905	QSW0674-001Z	TACT SW			C651	NCS31HJ-7R0X	C CAPACITOR	7pF 50V J	
S906	QSW0674-001Z	TACT SW			C652	NCS31HJ-7R0X	C CAPACITOR	7pF 50V J	
S920	QSW0674-001Z	TACT SW			C653	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
S921	QSW0674-001Z	TACT SW			C655	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
S922	QSW0674-001Z	TACT SW			C656	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
S923	QSW0674-001Z	TACT SW			C657	QERF1AM-227Z	E CAPACITOR	220uF 10V M	
S924	QSW0674-001Z	TACT SW			C658	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
S925	QSW0674-001Z	TACT SW			C659	NCB31HK-102X	C CAPACITOR	100pF 50V K	
S926	QSW0674-001Z	TACT SW			C660	NCS31HJ-331X	C CAPACITOR	330pF 50V J	
S927	QSW0674-001Z	TACT SW			C661	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
S928	QSW0674-001Z	TACT SW			C663	NCB31EK-223X	C CAPACITOR	0.022uF 25V K	
S940	QSW0674-001Z	TACT SW			C664	NCB31EK-223X	C CAPACITOR	0.022uF 25V K	
S941	QSW0674-001Z	TACT SW			C665	NCB31AK-334X	C CAPACITOR	0.33uF 10V K	
S942	QSW0674-001Z	TACT SW			C667	NCB30JK-105X	C CAPACITOR	1uF 6.3V K	
S943	QSW0674-001Z	TACT SW			C668	NCB31CK-473X	C CAPACITOR	0.047uF 16V K	
S944	QSW0674-001Z	TACT SW			C669	QERF1AM-227Z	E CAPACITOR	220uF 10V M	
S945	QSW0674-001Z	TACT SW			C672	NCB31AK-334X	C CAPACITOR	0.33uF 10V K	
S946	QSW0674-001Z	TACT SW			C676	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
S947	QSW0674-001Z	TACT SW			C677	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
S948	QSW0674-001Z	TACT SW			C679	QERF0JM-107Z	E CAPACITOR	100uF 6.3V M	
S949	QSW0674-001Z	TACT SW			C680	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
SP682	GV40121-005A	SPACER			C801	NCB31HK-682X	C CAPACITOR	6800pF 50V K	
SP801	VYH7653-001	IC HOLDER			C802	NCB31HK-392X	C CAPACITOR	3900pF 50V K	
TW91	QUB350-09HPHP	FLAT WIRE			C811	NCS31HJ-220X	C CAPACITOR	22pF 50V J	
TW200	QUB140-07PPPP	SINGLE WIRE			C812	NCS31HJ-220X	C CAPACITOR	22pF 50V J	
TW682	QUB230-13HPHP	WIRE			C813	NCS31HJ-220X	C CAPACITOR	22pF 50V J	
TW700	QUB230-16HPDM	WIRE			C814	NCS31HJ-220X	C CAPACITOR	22pF 50V J	
TW801	QUB220-09HPDT	SINGLE WIRE			C821	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
X801	QAX0724-001Z	CRYSTAL	12.000000MHz		C822	QERF1AM-227Z	E CAPACITOR	220uF 10V M	
					C852	QERF1CM-106Z	E CAPACITOR	10uF 16V M	
					C853	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
					C854	NCB31EK-103X	C CAPACITOR	0.01uF 25V K	
					C855	NCB31CK-104X	C CAPACITOR	0.1uF 16V K	
					C859	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	
					C860	NCF31AZ-105X	C CAPACITOR	1uF 10V Z	

## MP3 board

Block No. [0][4][0][0]

△ Symbol No.	Part No.	Part Name	Description	Local	R252	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
IC251	MN101C30AET1	IC			R254	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
IC601	AN22000A-W	IC			R255	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
IC651	MN6627482WA	IC			R256	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
IC801	AN4801SB-W	IC			R257	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
IC851	LB1641	IC			R258	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
IC852	LB1641	IC			R259	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
Q291	2SA952/LK/-T	TRANSISTOR			R261	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
Q631	2SB709A/RS/-X	TRANSISTOR			R262	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
D851	DZ5.6BSB-T2	Z DIODE			R263	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J
C253	NCB31CK-104X	C CAPACITOR	0.1uF 16V K		R291	NRSA63J-122X	MG RESISTOR	1.2kΩ 1/16W J
C254	QERF1AM-476Z	E CAPACITOR	47uF 10V M		R292	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J
C291	QERF1AM-476Z	E CAPACITOR	47uF 10V M		R293	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
C601	NCB31HK-222X	C CAPACITOR	2200pF 50V K		R294	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J
C602	NCB31HK-222X	C CAPACITOR	2200pF 50V K		R601	NRSA63J-224X	MG RESISTOR	220kΩ 1/16W J
					R602	NRSA63J-274X	MG RESISTOR	270kΩ 1/16W J
					R603	NRSA63J-513X	MG RESISTOR	51kΩ 1/16W J
					R604	NRSA63J-114X	MG RESISTOR	110kΩ 1/16W J
					R606	NRSA63J-623X	MG RESISTOR	62kΩ 1/16W J
					R607	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R608	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		R882	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R609	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J		R883	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R611	NRSA63J-512X	MG RESISTOR	5.1kΩ 1/16W J		R884	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R613	NRSA63J-332X	MG RESISTOR	3.3kΩ 1/16W J		R885	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R614	NRSA63J-153X	MG RESISTOR	15kΩ 1/16W J		R886	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R622	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R887	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J	
R623	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J		R888	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R624	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R889	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R625	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R890	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R626	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R891	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R627	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		R892	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R628	NRSA63J-225X	MG RESISTOR	2.2MΩ 1/16W J		R893	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R631	NRSA63J-2R2X	MG RESISTOR	2.2Ω 1/16W J		R894	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R632	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J		R895	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J	
R634	NRSA63J-120X	MG RESISTOR	12Ω 1/16W J		CN151	QGF1036F1-15	CONNECTOR	FFC/FPC (1-15)	
R635	NRSA63J-121X	MG RESISTOR	120Ω 1/16W J		CN601	QGF1016F3-16	CONNECTOR	FFC/FPC (1-16)	
R641	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J		CN651	QGF1036F1-19	CONNECTOR	FFC/FPC (1-19)	
R642	NRSA63J-474X	MG RESISTOR	470kΩ 1/16W J		CN801	QGA2001C1-06	CONNECTOR	W-B (1-6)	
R647	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		CN854	QGB2016K1-07	CONNECTOR	B-B (1-7)	
R648	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		CN855	QGG2002M4-10	CONNECTOR	(1-10)	
R649	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		X251	QAX0246-001Z	RESONATOR	8.00MHz	
R650	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		X651	QAX0750-001Z	CRYSTAL	16.9344MHz	
R651	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R652	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R653	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R654	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J						
R656	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R657	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R658	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R659	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R660	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J						
R661	NRSA63J-393X	MG RESISTOR	39kΩ 1/16W J						
R662	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J						
R663	NRSA63J-124X	MG RESISTOR	120kΩ 1/16W J						
R664	NRSA63J-331X	MG RESISTOR	330Ω 1/16W J						
R665	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J						
R667	NRSA63J-4R7X	MG RESISTOR	4.7Ω 1/16W J						
R668	NRSA63J-155X	MG RESISTOR	1.5MΩ 1/16W J						
R669	NRSA63J-562X	MG RESISTOR	5.6kΩ 1/16W J						
R670	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J						
R672	NRSA63J-272X	MG RESISTOR	2.7kΩ 1/16W J						
R677	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J						
R678	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J						
R679	NRSA63J-101X	MG RESISTOR	100Ω 1/16W J						
R682	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R683	NRSA63J-105X	MG RESISTOR	1MΩ 1/16W J						
R684	NRSA63J-564X	MG RESISTOR	560kΩ 1/16W J						
R685	NRSA63J-683X	MG RESISTOR	68kΩ 1/16W J						
R801	NRSA63J-203X	MG RESISTOR	20kΩ 1/16W J						
R802	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J						
R803	NRSA63J-392X	MG RESISTOR	3.9kΩ 1/16W J						
R804	NRSA63J-434X	MG RESISTOR	430kΩ 1/16W J						
R805	NRSA63J-473X	MG RESISTOR	47kΩ 1/16W J						
R806	NRSA63J-154X	MG RESISTOR	150kΩ 1/16W J						
R807	NRSA63J-822X	MG RESISTOR	8.2kΩ 1/16W J						
R808	NRSA63J-913X	MG RESISTOR	91kΩ 1/16W J						
R810	NRSA63J-433X	MG RESISTOR	43kΩ 1/16W J						
R811	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J						
R831	NRSA63J-151X	MG RESISTOR	150Ω 1/16W J						
R832	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J						
R851	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R852	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R853	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R854	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R861	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R862	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R863	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R864	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R865	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R866	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R871	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J						
R872	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J						
R873	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J						
R874	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J						
R875	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J						
R876	NRSA63J-223X	MG RESISTOR	22kΩ 1/16W J						
R880	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						
R881	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J						

## VCD board

Block No. [0][5][0][0]

△ Symbol No.	Part No.	Part Name	Description	Local
IC101	ES3880FM	IC		
IC102	AT27C020-70JC6	IC		
IC103	GLT44016-35J4-X	IC (4M DRAM)	4M DRAM	
IC104	ES3883F	IC		
IC105	RT9161/A-27CG-X	IC		
IC106	TC7S08F-W	IC		
IC107	TC7W08FU-X	IC		
C101	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C102	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C103	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C104	QERF1CM-106Z	E CAPACITOR	10uF 16V M	
C105	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C106	QERF1CM-106Z	E CAPACITOR	10uF 16V M	
C107	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C109	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C110	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C111	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C112	NCS31HJ-471X	C CAPACITOR	470pF 50V J	
C113	NCS31HJ-220X	C CAPACITOR	22pF 50V J	
C114	NCB31HK-102X	C CAPACITOR	1000pF 50V K	
C115	NCS31HJ-220X	C CAPACITOR	22pF 50V J	
C116	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C117	QERF0JM-476Z	E CAPACITOR	47uF 6.3V M	
C118	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C120	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C121	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C122	QERF1AM-107Z	E CAPACITOR	100uF 10V M	
C123	QERF0JM-476Z	E CAPACITOR	47uF 6.3V M	
C124	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C125	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C126	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C127	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C128	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C129	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C130	QERF1AM-107Z	E CAPACITOR	100uF 10V M	
C131	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C132	QERF1AM-107Z	E CAPACITOR	100uF 10V M	
C133	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C134	QERF1CM-106Z	E CAPACITOR	10uF 16V M	
C135	QERF0JM-476Z	E CAPACITOR	47uF 6.3V M	
C136	NCF31CZ-104X	C CAPACITOR	0.1uF 16V Z	
C137	NCB31CK-103X	C CAPACITOR	0.01uF 16V K	
C138	QERF1AM-107Z	E CAPACITOR	100uF 10V M	
C140	NCS31HJ-220X	C CAPACITOR	22pF 50V J	



△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C141	NCS31HJ-220X	C CAPACITOR	22pF 50V J		C14	QEKC1AM-107Z	E CAPACITOR	100uF 10V M	
R101	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C15	NCS21HJ-120X	C CAPACITOR	12pF 50V J	
R102	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C16	NCS21HJ-120X	C CAPACITOR	12pF 50V J	
R103	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C17	NCB21HK-392X	C CAPACITOR	3900pF 50V K	
R104	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C18	QE061HM-474Z	E CAPACITOR	0.47uF 50V M	
R105	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C19	NCB21HK-473X	C CAPACITOR	0.047uF 50V K	
R106	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C20	NCB21HK-102X	C CAPACITOR	1000pF 50V K	
R107	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C21	NCB21HK-223X	C CAPACITOR	0.022uF 50V K	
R108	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C22	NCS21HJ-151X	C CAPACITOR	150pF 50V J	
R109	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C23	NCS21HJ-151X	C CAPACITOR	150pF 50V J	
R111	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C24	NCS21HJ-151X	C CAPACITOR	150pF 50V J	
R112	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C25	QEKC1AM-107Z	E CAPACITOR	100uF 10V M	
R113	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C26	NCB21HK-102X	C CAPACITOR	1000pF 50V K	
R119	NRSA63J-0R0X	MG RESISTOR	0Ω 1/16W J		C27	NCB21HK-102X	C CAPACITOR	1000pF 50V K	
R120	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J		C30	EEKC1CM-107ZJC	E CAPACITOR		
R121	NRSA63J-104X	MG RESISTOR	100kΩ 1/16W J		C31	EEKC1CM-226ZJC	E CAPACITOR		
R128	NRSA63J-330X	MG RESISTOR	33Ω 1/16W J		C32	NCB21HK-473X	C CAPACITOR	0.047uF 50V K	
R130	NQR0022-002X	FERRITE BEADS			C33	NCB21HK-473X	C CAPACITOR	0.047uF 50V K	
R132	NRSA63J-271X	MG RESISTOR	270Ω 1/16W J		C34	NCB21HK-223X	C CAPACITOR	0.022uF 50V K	
R133	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J		C35	NCB21HK-473X	C CAPACITOR	0.047uF 50V K	
R134	NRSA63J-750X	MG RESISTOR	75Ω 1/16W J		C36	EEKC1HM-105ZJC	E CAPACITOR		
R135	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J		C37	EEKC1HM-105ZJC	E CAPACITOR		
R136	NRSA63J-100X	MG RESISTOR	10Ω 1/16W J		C38	EETC1HM-224ZJC	E CAPACITOR		
R137	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C39	EETC1HM-105ZJC	E CAPACITOR		
R138	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C40	QETN1CM-106Z	E CAPACITOR	10uF 16V M	
R139	NRSA63J-330X	MG RESISTOR	33Ω 1/16W J		C41	QETN1CM-106Z	E CAPACITOR	10uF 16V M	
R140	NRSA63J-472X	MG RESISTOR	4.7kΩ 1/16W J		C42	NCB21HK-152X	C CAPACITOR	1500pF 50V K	
R141	NRSA63J-103X	MG RESISTOR	10kΩ 1/16W J		C43	NCB21HK-152X	C CAPACITOR	1500pF 50V K	
R142	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J		C44	QETN1CM-106Z	E CAPACITOR	10uF 16V M	
R145	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J		C45	QETN1CM-106Z	E CAPACITOR	10uF 16V M	
R146	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J		C46	NCB21HK-273X	C CAPACITOR	0.027uF 50V K	
R147	NRSA63J-221X	MG RESISTOR	220Ω 1/16W J		C47	EETC1HM-105ZJC	E CAPACITOR		
R148	NRSA63J-102X	MG RESISTOR	1kΩ 1/16W J		C48	NCB21HK-222X	C CAPACITOR	2200pF 50V K	
L101	NQL591K-3R3X	INDUCTOR	3.3uH K		C49	NCS21HJ-471X	C CAPACITOR	470pF 50V J	
L102	NQL591K-3R3X	INDUCTOR	3.3uH K		C50	EEKC1CM-226ZJC	E CAPACITOR		
CN101	QGF1036F1-15	CONNECTOR	FFC/FPC (1-15)		C51	EEKC1HM-105ZJC	E CAPACITOR		
CN102	QGF1036F1-15	CONNECTOR	FFC/FPC (1-15)		C52	QFVJ1HJ-274Z	MF CAPACITOR	0.27uF 50V J	
K101	NQR0398-006X	FERRITE BEADS			C53	EETC1CM-226ZJC	E CAPACITOR		
K102	NQR0398-006X	FERRITE BEADS			C54	NCB21HK-473X	C CAPACITOR	0.047uF 50V K	
K103	NRSA02J-180X	MG RESISTOR	18Ω 1/10W J		C57	NCB21HK-102X	C CAPACITOR	1000pF 50V K	
K104	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J		C58	NCB21HK-473X	C CAPACITOR	0.047uF 50V K	
X101	QAX0700-001Z	CRYSTAL	27.000000MHz		C59	NCB21HK-102X	C CAPACITOR	1000pF 50V K	

## Tuner board

Block No. [0][6][0][0]

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
IC1	LA1838	IC			R1	QRE141J-560Y	C RESISTOR	56Ω 1/4W J	
IC2	LC72136N	IC			R2	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
Q1	2SC2814/4-5/-X	TRANSISTOR			R3	NRSA02J-224X	MG RESISTOR	220kΩ 1/10W J	
Q5	KRA107S-X	DIGI TRANSISTOR			R4	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
D1	1SS133-T2	DIODE			R5	NRSA02J-560X	MG RESISTOR	56Ω 1/10W J	
D2	1SS133-T2	DIODE			R6	NRSA02J-240X	MG RESISTOR	24Ω 1/10W J	
D3	1SS133-T2	DIODE			R10	NRSA02J-222X	MG RESISTOR	2.2kΩ 1/10W J	
D4	1SS133-T2	DIODE			R13	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
D11	1SS133-T2	DIODE			R14	NRSA02J-104X	MG RESISTOR	100kΩ 1/10W J	
C1	NCB21HK-223X	C CAPACITOR	0.022uF 50V K		R15	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	
C2	NCB21HK-103X	C CAPACITOR	0.01uF 50V K		R16	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
C3	EETC1CM-106ZJC	E CAPACITOR			△ R17	QRZ9005-680X	F RESISTOR	68Ω	
C4	NCB21HK-103X	C CAPACITOR	0.01uF 50V K		R18	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
C6	NCB21HK-102X	C CAPACITOR	1000pF 50V K		R19	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
C7	NCB21HK-102X	C CAPACITOR	1000pF 50V K		R20	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
C8	NCB21HK-102X	C CAPACITOR	1000pF 50V K		R21	NRSA02J-562X	MG RESISTOR	5.6kΩ 1/10W J	
C10	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J		R22	NRSA02J-472X	MG RESISTOR	4.7kΩ 1/10W J	
C11	NCB21HK-104X	C CAPACITOR	0.1uF 50V K		R23	NRSA02J-182X	MG RESISTOR	1.8kΩ 1/10W J	
C12	NCB21HK-473X	C CAPACITOR	0.047uF 50V K		R24	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
C13	NCS21HJ-100X	C CAPACITOR	10pF 50V J		R25	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
					R26	NRSA02J-222X	MG RESISTOR	2.2kΩ 1/10W J	
					R27	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
					R28	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
					R29	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
					R30	NRSA02J-122X	MG RESISTOR	1.2kΩ 1/10W J	
					R31	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
					R32	NRSA02J-102X	MG RESISTOR	1kΩ 1/10W J	
					R33	NRSA02J-331X	MG RESISTOR	330Ω 1/10W J	
					R34	NRSA02J-470X	MG RESISTOR	47Ω 1/10W J	
					R35	NRSA02J-562X	MG RESISTOR	5.6kΩ 1/10W J	
					R36	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	
					R37	NRSA02J-103X	MG RESISTOR	10kΩ 1/10W J	
					R38	NRSA02J-563X	MG RESISTOR	56kΩ 1/10W J	
					R39	NRSA02J-563X	MG RESISTOR	56kΩ 1/10W J	
					R40	NRSA02J-243X	MG RESISTOR	24kΩ 1/10W J	

△ Symbol No.	Part No.	Part Name	Description	Local
R41	NRSA02J-332X	MG RESISTOR	3.3kΩ 1/10W J	
R60	NRSA02J-0R0X	MG RESISTOR	0Ω 1/10W J	
L1	QQR0796-003	COIL BLOCK		
T1	QQR0793-001	IFT		
CF1	QAX0677-001Z	C FILTER	10.700MHz	
CF2	QAX0677-001Z	C FILTER	10.700MHz	
CF3	QAX0610-001Z	C FILTER	10.700MHz	
CN1	QGF1205F1-09	CONNECTOR	FFC/FPC (1-9)	
J1	QNB0014-001	ANT.TERMINAL		
TU1	QAU0161-001	FRONT END		
X1	QAX0402-001	CRYSTAL	75.0kHz	

## Switch board

Block No. [0][7][0][0]

△ Symbol No.	Part No.	Part Name	Description	Local
CN804	QGB2016J1-07	CONNECTOR	B-B (1-7)	
CN805	QGB2021L1-10	CONNECTOR	B-B (1-10)	
SW1	QSW0859-001	LEVER SWITCH		
SW2	QSW0859-001	LEVER SWITCH		
SW3	QSW0859-001	LEVER SWITCH		
SW4	QSW0859-001	LEVER SWITCH		
SW5	QSW0859-001	LEVER SWITCH		
SW6	QSW0859-001	LEVER SWITCH		

## Head amplifier board

Block No. [0][8][0][0]

△ Symbol No.	Part No.	Part Name	Description	Local
IC1	SG-105F3-BB,C	PHOTO SENSOR		
D1	1SR139-400-T2	SI DIODE		
CN1	QGF1205F1-09	CONNECTOR	FFC/FPC (1-9)	
P1	QNZ0104-001	POST PIN		
SW1	QSW0832-001	CASS.SWITCH		
SW2	QSW0832-001	CASS.SWITCH		
SW5	QSW0832-001	CASS.SWITCH		
SW6	QSW0859-001	DETECT SWITCH		

## Cassette switch board

Block No. [0][9][0][0]

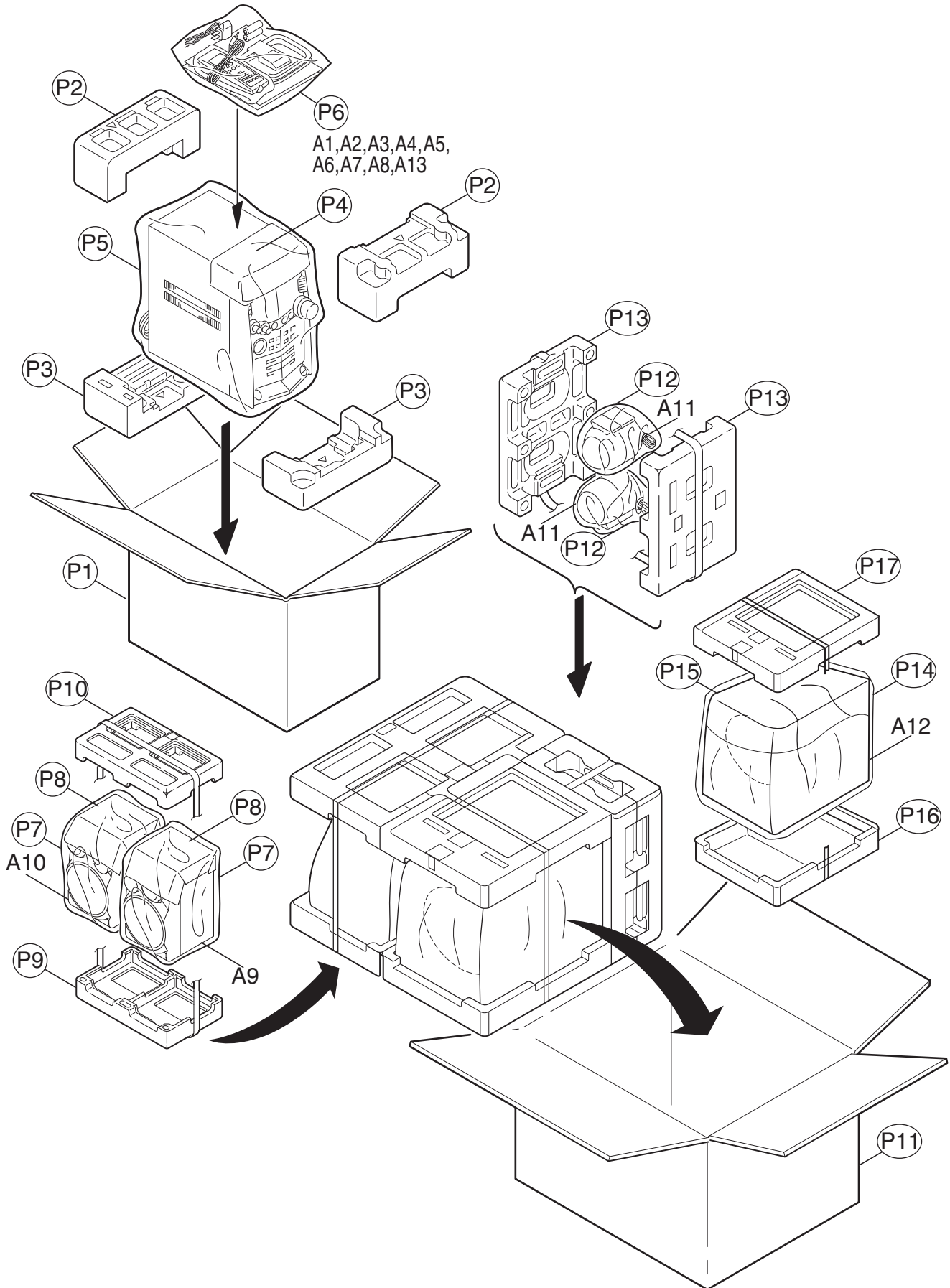
△ Symbol No.	Part No.	Part Name	Description	Local
IC32	HA12238F	IC		
IC33	CD4094BC	IC		
Q302	2SC2001/K-T	TRANSISTOR		
Q305	2SC2001/K-T	TRANSISTOR		
Q342	KRA111M-T	DIGI TRANSISTOR		
Q343	2SC3576-JVC-T	TRANSISTOR		
Q344	2SC3576-JVC-T	TRANSISTOR		
Q345	2SC3576-JVC-T	TRANSISTOR		
Q346	2SC3576-JVC-T	TRANSISTOR		
Q347	KRC107M-T	TRANSISTOR		
Q371	KTA1271/OY-T	TRANSISTOR		
Q372	KRC107M-T	TRANSISTOR		
Q375	2SB562/C-T	TRANSISTOR		
Q376	KTC3199/GLJ-T	TRANSISTOR		
D340	MTZJ5.1B-T2	Z DIODE		

△ Symbol No.	Part No.	Part Name	Description	Local
D375	MTZJ5.1B-T2	Z DIODE		
C101	QDGB1HK-821Y	C CAPACITOR	820pF 50V K	
C102	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	
C103	QFLA1HJ-104Z	M CAPACITOR	0.1uF 50V J	
C104	QCBB1HK-221Y	C CAPACITOR	220pF 50V K	
C105	QCBB1HK-391Y	C CAPACITOR	390pF 50V K	
C106	QERF1HM-225Z	E CAPACITOR	2.2uF 50V M	
C107	QCBB1HK-271Y	C CAPACITOR	270pF 50V K	
C109	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M	
C110	QDYB1CM-682Y	C CAPACITOR	6800pF 16V M	
C113	QFLA1HJ-104Z	M CAPACITOR	0.1uF 50V J	
C120	QCSB1HK-4R7Y	C CAPACITOR	4.7pF 50V K	
C121	QCBB1HK-331Y	C CAPACITOR	330pF 50V K	
C201	QDGB1HK-821Y	C CAPACITOR	820pF 50V K	
C202	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	
C203	QFLA1HJ-104Z	M CAPACITOR	0.1uF 50V J	
C204	QCBB1HK-221Y	C CAPACITOR	220pF 50V K	
C205	QCBB1HK-391Y	C CAPACITOR	390pF 50V K	
C206	QERF1HM-225Z	E CAPACITOR	2.2uF 50V M	
C207	QCBB1HK-271Y	C CAPACITOR	270pF 50V K	
C209	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M	
C210	QDYB1CM-682Y	C CAPACITOR	6800pF 16V M	
C213	QFLA1HJ-104Z	M CAPACITOR	0.1uF 50V J	
C220	QCSB1HK-4R7Y	C CAPACITOR	4.7pF 50V K	
C221	QCBB1HK-331Y	C CAPACITOR	330pF 50V K	
C300	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	
C301	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M	
C304	QEKJ1CM-106Z	E CAPACITOR	10uF 16V M	
C306	QETJ1AM-227Z	E CAPACITOR		
C307	QDGB1HK-102Y	C CAPACITOR	1000pF 50V K	
C308	QDXB1CM-152Y	C CAPACITOR	1500pF 16V M	
C310	QCBB1HK-223Y	C CAPACITOR	0.022uF 50V K	
C313	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M	
C314	QCFB1HZ-105Y	C CAPACITOR	1uF 50V Z	
C316	QFG32AJ-223Z	PP CAPACITOR	0.022uF 100V J	
C319	QFLC1HJ-472Z	M CAPACITOR	4700pF 50V J	
C331	QEKJ1CM-476Z	E CAPACITOR	47uF 16V M	
C340	QEKJ1CM-476Z	E CAPACITOR	47uF 16V M	
C341	QEKJ1HM-105Z	E CAPACITOR	1uF 50V M	
C342	QEKJ1CM-476Z	E CAPACITOR	47uF 16V M	
C371	QEKJ1EM-475Z	E CAPACITOR	4.7uF 25V M	
C374	QEKJ1AM-107Z	E CAPACITOR	100uF 10V M	
C376	QDYB1CM-103Y	C CAPACITOR	0.01uF 16V M	
R101	QRE141J-512Y	C RESISTOR	5.1kΩ 1/4W J	
R102	QRE141J-512Y	C RESISTOR	5.1kΩ 1/4W J	
R104	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R105	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R106	QRE141J-113Y	C RESISTOR	11kΩ 1/4W J	
R107	QRE141J-912Y	C RESISTOR	9.1kΩ 1/4W J	
R108	QRE141J-273Y	C RESISTOR	27kΩ 1/4W J	
R110	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R116	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R121	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J	
R201	QRE141J-512Y	C RESISTOR	5.1kΩ 1/4W J	
R202	QRE141J-512Y	C RESISTOR	5.1kΩ 1/4W J	
R204	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R205	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R206	QRE141J-113Y	C RESISTOR	11kΩ 1/4W J	
R207	QRE141J-912Y	C RESISTOR	9.1kΩ 1/4W J	
R208	QRE141J-273Y	C RESISTOR	27kΩ 1/4W J	
R210	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R216	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R221	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J	
R301	QRE141J-221Y	C RESISTOR	220Ω 1/4W J	
R302	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R303	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R304	QRJ146J-101X	UNF C RESISTOR	100Ω 1/4W J	
R305	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
R306	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
△ R310	QRJ146J-4R7X	UNF C RESISTOR	4.7Ω 1/4W J	
R313	QRE141J-2R2Y	C RESISTOR	2.2Ω 1/4W J	
R314	QRE141J-153Y	C RESISTOR	15kΩ 1/4W J	
R315	QRE141J-101Y	C RESISTOR	100Ω 1/4W J	
R327	QRE141J-474Y	C RESISTOR	470kΩ 1/4W J	
R335	QRE141J-222Y	C RESISTOR	2.2kΩ 1/4W J	
R336	QRE141J-223Y	C RESISTOR	22kΩ 1/4W J	

△ Symbol No.	Part No.	Part Name	Description	Local
R337	QRE141J-332Y	C RESISTOR	3.3kΩ 1/4W J	
R338	QRE141J-392Y	C RESISTOR	3.9kΩ 1/4W J	
R339	QRE141J-104Y	C RESISTOR	100kΩ 1/4W J	
R340	QRE141J-681Y	C RESISTOR	680Ω 1/4W J	
R341	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J	
R342	QRE141J-243Y	C RESISTOR	24kΩ 1/4W J	
R343	QRE141J-183Y	C RESISTOR	18kΩ 1/4W J	
R344	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R345	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R346	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
R347	QRE141J-103Y	C RESISTOR	10kΩ 1/4W J	
△ R353	QRZ9005-100X	F.RESISTOR	10Ω	
R371	QRE141J-123Y	C RESISTOR	12kΩ 1/4W J	
R372	QRE141J-102Y	C RESISTOR	1kΩ 1/4W J	
R375	QRE141J-151Y	C RESISTOR	150Ω 1/4W J	
R376	QRE141J-472Y	C RESISTOR	4.7kΩ 1/4W J	
VR31	QVP0008-203Z	TRIM RESISTOR	20kΩ	
VR37	QVP0077-103Z	TRIM RESISTOR	10kΩ	
L301	QQR1118-002	OSC COIL(BIAS)		
L303	QQL244K-100Z	COIL	10uH K	
CN31	QGF1205F1-06	CONNECTOR	FFC/FPC (1-6)	
CN32	QGF1205F1-09	CONNECTOR	FFC/FPC (1-9)	
CN33	QGF1205F1-09	CONNECTOR	FFC/FPC (1-9)	
CN34	QGF1201F3-10	CONNECTOR	FFC/FPC (1-10)	
FW100	QUM024-07A2Z3	PARA RIBON WIRE		
H32	GV40397-001A	IC HOLDER		

# Packing materials and accessories parts list

Block No. M 3 M M



## Packing and accessories

Block No. [M][3][M][M]

△ Symbol No.	Part No.	Part Name	Description	Local
A 1	GVT0096-003A	INST BOOK	ENG,CHI(PEKIN), ARA	
A 2	GV40325-003A	NOTICE/AVIS		
A 3	QAL0014-001	AM LOOP ANT		
A 4	QAL0457-001	ANT.WIRE		
A 5	RM-SHXZ9V	REMOCON		
A 6	-----	BATTERY	(x2)	
A 7	QAM0060-002	AC ADAPTOR		
A 8	QAM0216-001	SIGNAL CORD		
A 9	HXZ9VK-SPBOX-R	SPK WITH BOX		
A 10	HXZ9VK-SPBOX-L	SPK WITH BOX		
A 11	SP-XSHXZ9VK	SPK WITH BOX	(x2)	
A 12	SP-XWHXZ9VK	SPK WITH BOX		
A 13	GVT0107-001A	INST BOOK(SPK)	ENG,CHI,ARA,SPA, POR	
P 1	GV20224-001A	CARTON ASSY.		
P 2	GV10118-001A	CUSHION TOP		
P 3	GV10119-001A	CUSHION BOTTOM		
P 4	GV40168-007A	SHEET		
P 5	QPC06507015P	ENVELOPE	65cm x 70cm	
P 6	QPC02503515P	POLY BAG	25cm x 35cm	
P 7	700-120034-20	HDPE BAG	(x2)	
P 8	715-250081-00	MIRAMAT SHEET	(x2)	
P 9	720-B0HXZ9-00	POLYFOAM(BTM)		
P 10	720-T0HXZ9-00	POLYFOAM(TOP)		
P 11	730-00HXZ9-10	CARTON		
P 12	700-120080-10	HDPE BAG	(x2)	
P 13	720-00HXZ9-00	POLYFOAM	(x2)	
P 14	700-120076-10	HDPE BAG		
P 15	715-250054-00	MIRAMAT SHEET		
P 16	720-B1HXZ9-01	POLYFOAM(BTM)		
P 17	720-T1HXZ9-01	POLYFOAM(TOP)		