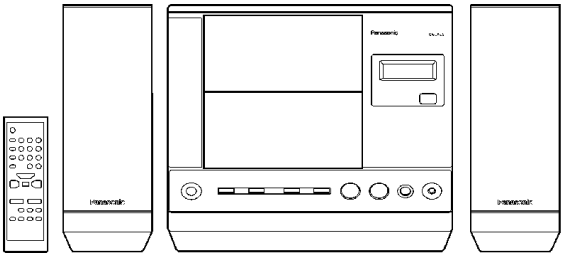
ORDER NO.AD0603021CE
A6

Service Manual

CD Stereo System

COMPACT disc DIGITAL AUDIO

SC-EN25P
SC-EN26P
SC-EN27PC



Colour

(S).....Silver Type

System

SC-EN25P

Main Unit: SA-EN25P

Speakers: SB-EN25P

SC-EN26P

Main Unit: SA-EN26P

Speakers: SB-EN26P

SC-EN27PC

Main Unit: SA-EN27PC

Speakers: SB-EN25P

Specifications

MAIN UNIT

RADIO

Frequency range:	
FM;	87.9 - 107.9 MHz (200kHz steps) 87.5 - 108.0 MHz (100kHz steps)
AM;	520 to 1710 kHz (10kHz steps)
Intermediate Frequency:	
FM;	10.7MHz
AM;	450kHz

CD PLAYER

Sampling frequency:	44.1kHz
Decoding:	16 bit linear
Beam source:	Semiconductor laser (wavelength 795nm)
Number of channels:	2 channel, stereo
Wow and flutter:	Less than possible measurement data
D/A converter:	MASH(1 bit DAC)

Terminals

Input:	MUSIC PORT; 3.5mm stereo (33kΩ)
Output:	PHONES: 3.5mm stereo (32Ω)

GENERAL

Power supply:	AC120V, 60Hz
Power consumption:	16W
Dimensions (W×H×D):	241×206×206mm (9-1/2”×8-1/8”×8-1/8”)
Mass:	3.1kg (6lb. 13oz.) with speakers 1.8kg (3lb. 15oz.) without speakers

SPEAKERS

Full range:	8cm (3-1/8”), 6Ω×2
Dimensions (W×H×D):	91mm×206mm×176mm (3-19/32”×8-1/8”×6-15/16”)

Power consumption in standby mode: 2.0W

Note:

Panasonic®

Specifications are subject to change without notice.
Mass and dimensions are approximate.

MPEG Layer-3 audio decording technology
licenced from Fraunhofer IIS and Thomson multimedia.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

CONTENTS

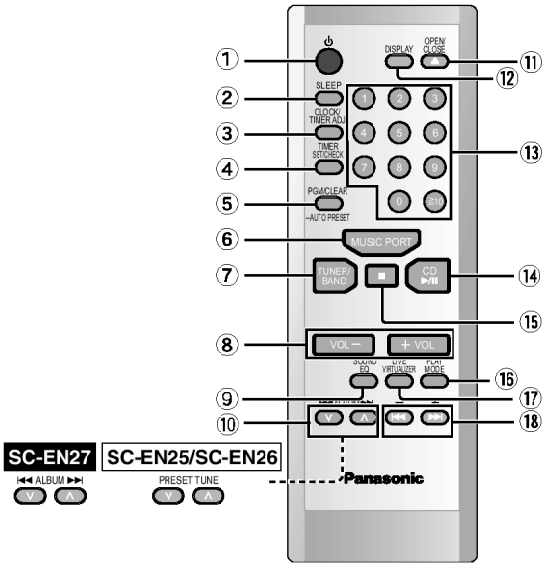
1 Accessories

- Remote control.....1pc.
  (N2QAGB000037): SC-EN25/26
  (N2QAGB000038): SC-EN27
- AC power supply cord (RJA0065-1D).....1pc.
- Batteries.....2pcs.
- FM/AM loop antenna (N1DADYY00003).....1pc.

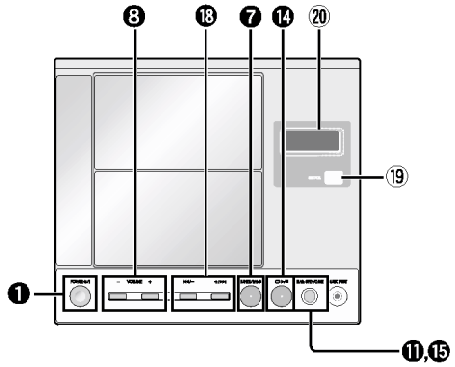
Note:

- The included AC power supply cord is for use with this unit only. Do not use it with other equipment.

2 Location of Control



The shaded buttons, such as ❶, function in the same way as the buttons on the remote control.



① **Standby/on switch [⏻, POWER ⏻/I]**
Press to switch the unit from on to standby mode or vice versa.
In standby mode, the unit is still consuming a small amount of power.
② **SLEEP timer button [SLEEP]**
③ **Clock/timer adjust button [CLOCK/TIMER ADJ]**
④ **Timer set/check button [TIMER SET/CHECK]**
⑤ **CD program/clear, tuner preset button [PGM/CLEAR, –AUTO PRESET]**
⑥ **MUSIC PORT button [MUSIC PORT]**
⑦ **Tuner/band select button [TUNER/BAND]**
⑧ **Volume buttons [VOL –, + VOL, – VOLUME +]**
⑨ **Sound EQ button [SOUND EQ]**
⑩ **SC-EN27 Album skip, preset channel select buttons [∨, ∧, ⏮ ALBUM ⏭]**
SC-EN25/SC-EN26 Preset channel select buttons [∨, ∧, PRESET TUNE]
⑪ **CD open/close button [⏏, OPEN/CLOSE]**
⑫ **Display button [DISPLAY]**
⑬ **Numbered buttons [1–9, 0, ≧10]**
⑭ **CD play/pause button [CD ▶/❚❚]**
⑮ **CD stop button [■]**
⑯ **Play mode button [PLAY MODE]**
⑰ **Live virtualizer button [LIVE VIRTUALIZER]**
⑱ **CD skip/search, frequency select, time adjust buttons [⏮, ⏭, –, +, ⏮/–, +/⏭]**
⑲ **Remote control signal sensor**
⑳ **Display**

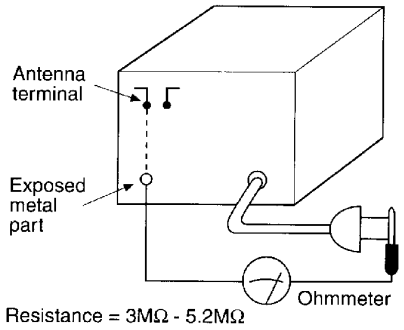
3 Safety Precaution

(This “Safety Precaution” is applied only in U.S.A.)

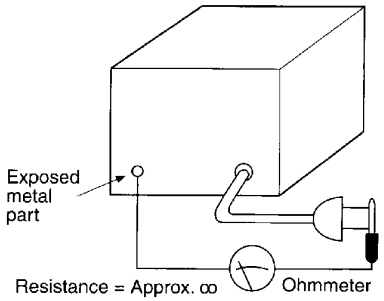
1. Before servicing, unplug the power cord to prevent an electric shock.
2. When replacing parts, use only manufacturer’s recommended components for safety.
3. Check the condition of the power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

Insulation Resistance Test

1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
2. Turn on the power switch.
3. Measure the resistance value with ohmmeter between the jumper AC plug and each exposed metal cabinet part, such as screw heads, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3MΩ and 5.2MΩ to allexposedparts. (Fig.A) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig.B)
   *Note: Some exposed partsmay beisolated from the chassis by design. These will read infinity.



(Fig.A)



(Fig.B)

4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

4 Protection Circuitry

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Stop during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are “shorted”, or if speaker with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outline below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note:

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

5 Handling Precautions For Traverse Deck (Optical Pickup)

The laser diode in the traverse deck (optical pickup) may break down due to potential caused by static electricity of clothes or human body. So, be careful of electrostatic breakdown during repair of the traverse deck (optical pickup).

- **Handling of traverse deck (optical pickup)**
  1. Do not subject the traverse deck (optical pickup) to static electricity as it is extremely sensitive to electrical shock.
  2. To prevent the breakdown of the laser diode, an antistatic shorting pin is inserted into flexible board (FFC board).(Fig.1)
  3. Take care not to apply excessive stress to the flexible board (FFC board). When removing or connecting the short pin, finish the job in as short time as possible.
  4. Do not turn the variable resistor (laser power adjustment). It has already been adjusted.

- **Grounding for electrostatic breakdown prevention**
  1. Human body grounding (Fig.2)

     Use the anti-static wrist strap to discharge the static electricity from your body.
  2. Work table grounding (Fig.2)

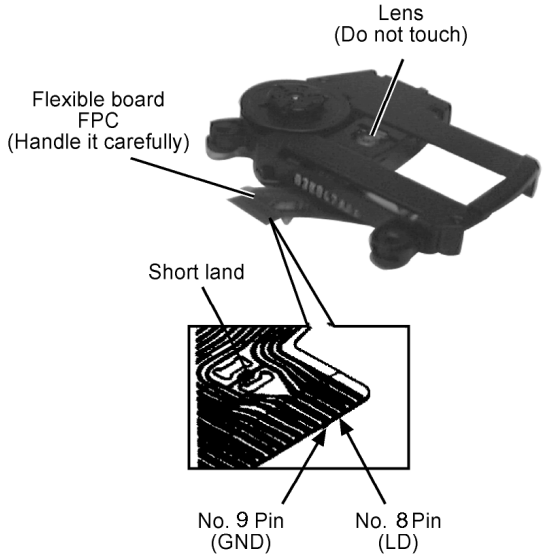
     Put a conductive material (sheet) or steel sheet on the area where the traverse deck (optical pickup) is place, and ground the sheet.

Caution:

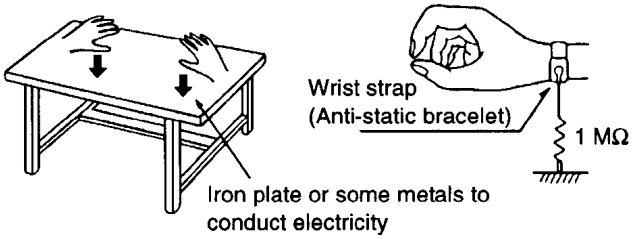
The static electricity of your clothes will not be grounded through the wrist strap. So, take care not to let your clothes touch the traverse deck (optical pickup).

Caution when replacing the Traverse Deck

The traverse deck has a short point shorted with solder to protect the laser diode against electrostatics breakdown. Be sure to remove the solder from the short point before making connections.



(Fig.1)



(Fig.2)

6 Precaution of Laser Diode

Caution:

This unit utilizes a class 1 laser. Invisible laser radiation is emitted from the optical pickup lens. When the unit is turned on:

1. Do not look directly into the pickup lens.
2. Do not use optical instruments to look at the pickup lens.
3. Do not adjust the preset variable resister on the pickup lens.
4. Do not disassemble the optical pickup unit.
5. If the optical pickup is replaced, use the manufacturer's specified replacement pickup only.
6. Use of control or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION	INVIS BLE LASER RAD ATION WHEN OPEN AND NTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM. (IEC60825-1/Class 3b)
ATTENTION	RAYONNEMENT LASER NV SIBLE DANGEREUX EN CAS D'OUVERTURE ET LORSQUE LA SÉCURITÉ EST NEUTRAL SÉE. EXPOSITION DANGEREUSE AU FA SCEAU.
ADVARSEL	USYNLIG LASERSTRÅL NG VED ÅBNING NÅR S KKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSÆTTELSE FOR STRÅL NG.
VARO!	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTÖNTÄ LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING	OSYNLIG LASERSTRÅLN NG NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD BETRAKTA EJ STRÅLEN.
VORSICHT	UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET UND S CHERHE TSVERRIEGELUNG ÜBERBRÜCKT NICHT DEM STRAHL AUSSETZEN.
ADVARSEL	USYNLIG LASERSTRÅL NG NÅR DEKSEL ÅPNES OG S KKERHEDSLÅS BRYTES. UNNGÅ EKSPONER NG FOR STRÅLEN. RQLXS0053

(Inside of product)

7 Prevention of Electro Static Discharge (ESD) To Electrostatically (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES Devices are integrated circuits and some field-effect transistors and semiconductor “chip” components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, Which should be removed for potential shock resons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as alminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal devices. Some solder removal devices not classified as “anti-static (ESD protected)” can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, alminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   Caution

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices.(Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

8 Handling the Lead-free Solder

8.1. About lead free solder (PbF)

Distinction of PbF P.C.B.:

P.C.B.s (manufactured) using lead free solder will have a PbF stamp on the P.C.B.

Caution

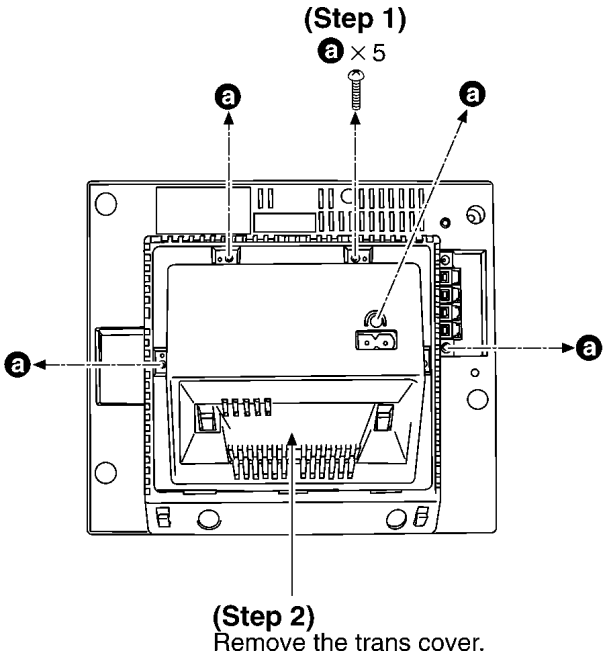
- Pb free solder has a higher melting point than standard solder; Typically the melting point is 50-70°F (30 - 40°C) higher.Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 700± 20 °F (370 ± 10°C).
- Pb free solder will tent to splash when heated too high (about 1100°F/600°C).
- When soldering or unsoldering, please completely remove all of the solder on the pins and solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

9 Operation Checks and Component Replacement

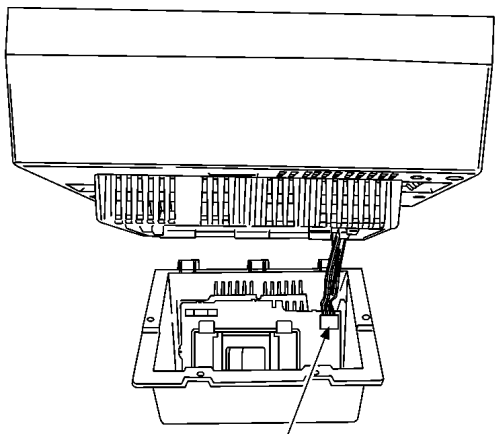
- This section desceibes procedures for checking the operation of the major printed circuit boards and replacing the main components.
- For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

9.1. Main Unit

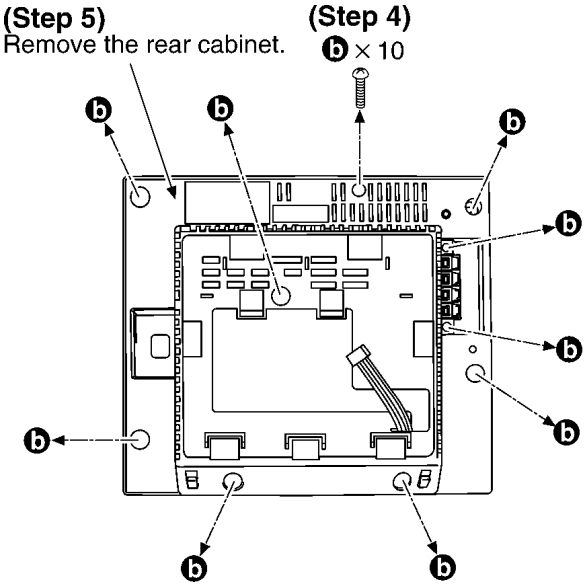
9.1.1. Checking for the main P.C.B., CD servo P.C.B. and loading motor P.C.B.

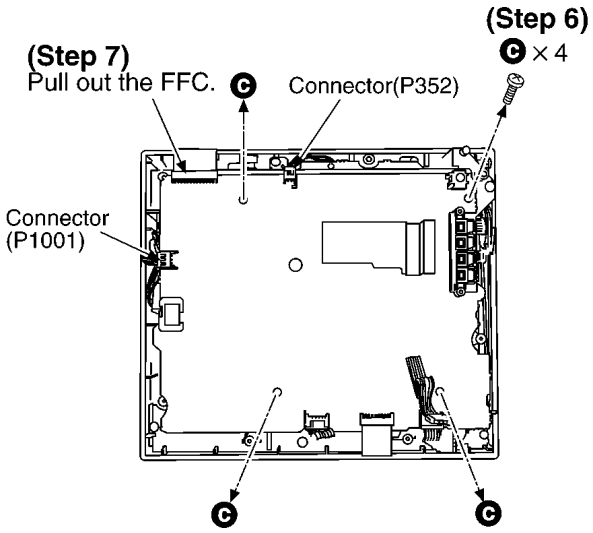


(Step 2)
Remove the trans cover.

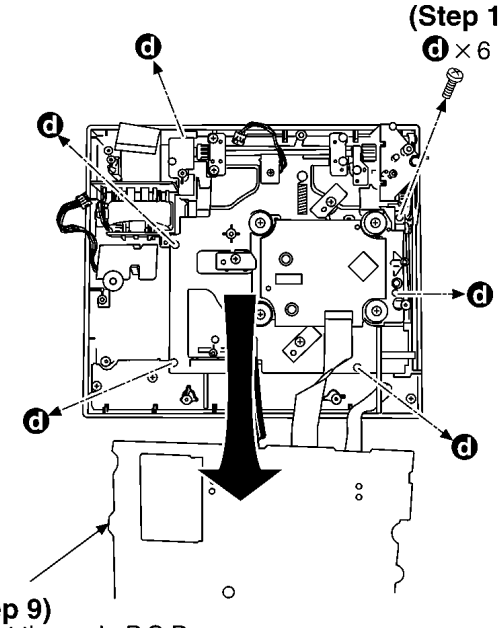


(Step 3)
Remove the connector(P901).



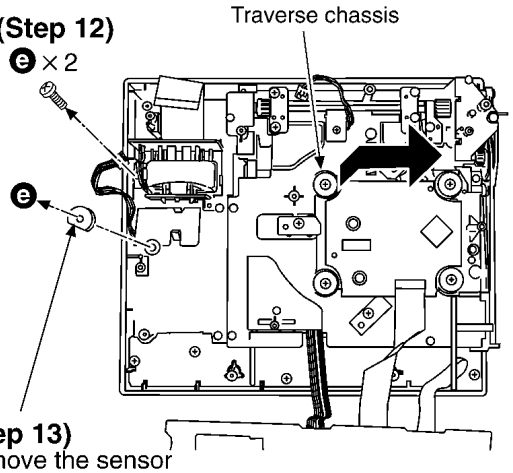


(Step 8)
Remove the 2 connectors(P352,P1001).



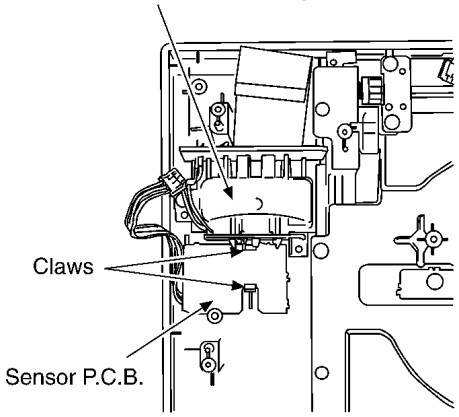
(Step 9)
Upset the main P.C.B.

(Step 11)
Move the traverse chassis in the direction of arrow.



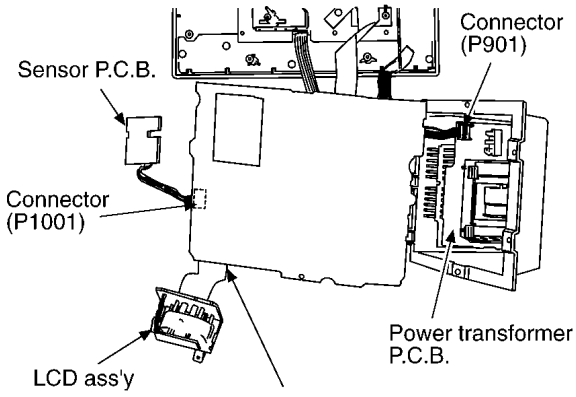
(Step 13)
Remove the sensor support.

(Step 14)
Remove the LCD ass'y.



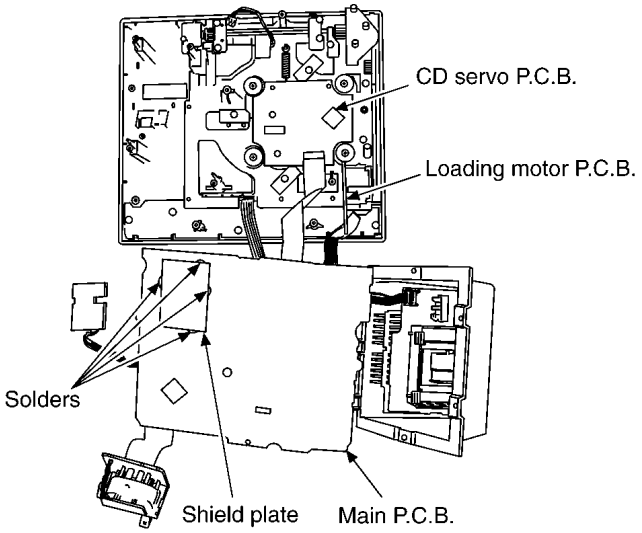
(Step 15)
Release the 2 claws, and then remove the sensor P.C.B..

(Step 16)
Connect the 2 connectors.



(Step 17)
Connect the FFC from LCD ass'y.

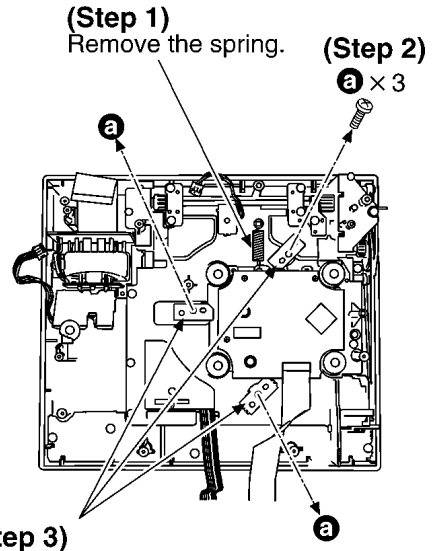
- Check the main P.C.B., CD servo P.C.B. and loading motor P.C.B. as shown below.

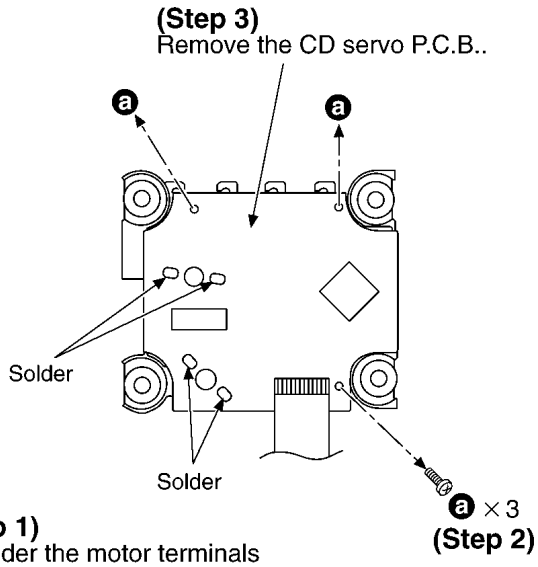


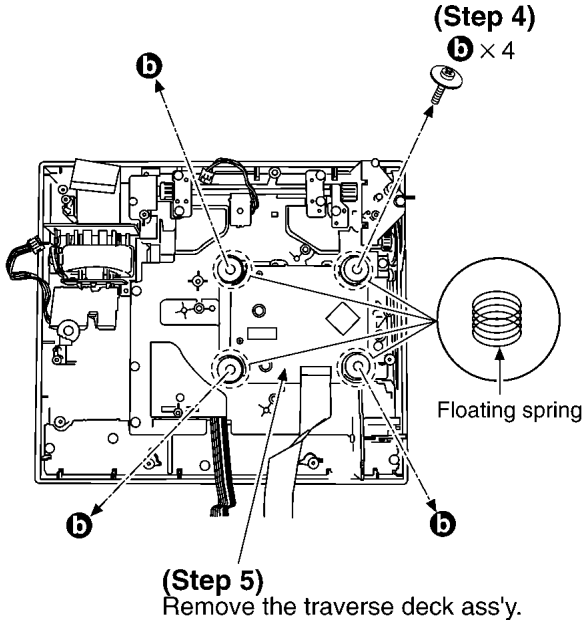
(Step 18)
Unsolder the 4 shield plate terminals.

9.1.2. Replacement for the traverse deck ass'y

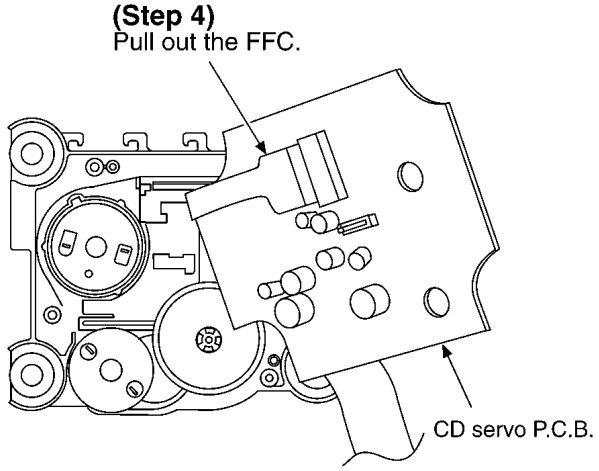
- Follow the (Step1) - (Step9) of item 9.1.1.



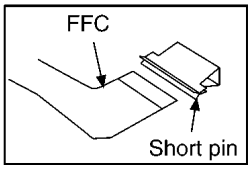




NOTE:
Be careful not to lose the 3 floating springs because those will also be removed on removal of the traverse deck ass'y.

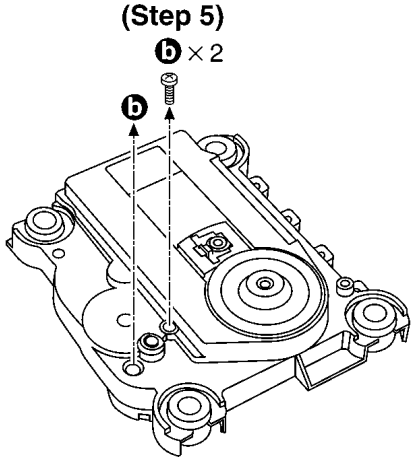


NOTE:
Insert a short pin into FFC(Terminal side) of the traverse deck.
(Refer to "**Handling Precautions for Traverse Deck**".)

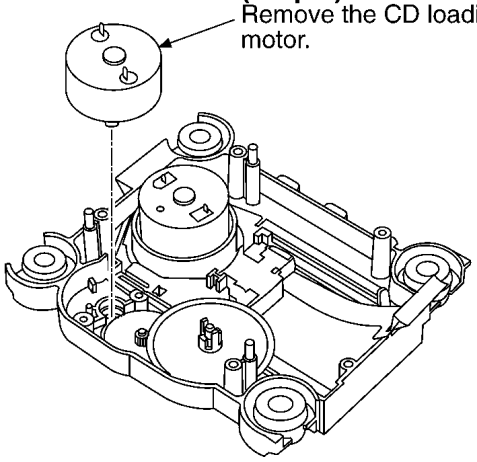


9.1.3. Replacement for the CD loading motor and optical pick-up

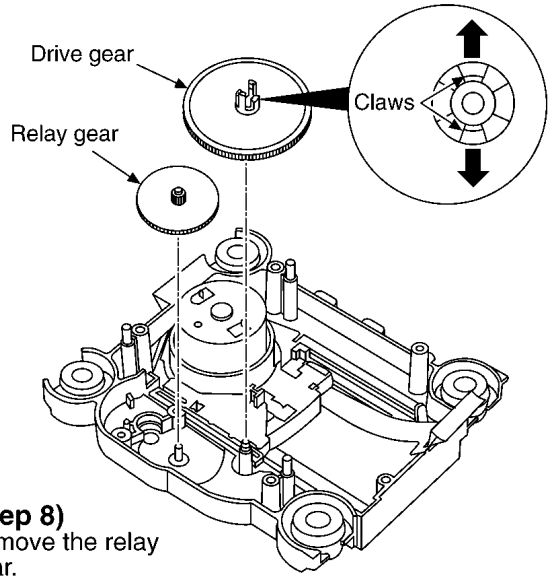
- Follow the (Step1) - (Step9) of item 9.1.1.
- Follow the (Step1) - (Step5) of item 9.1.2.



(Step 6)
Remove the CD loading motor.

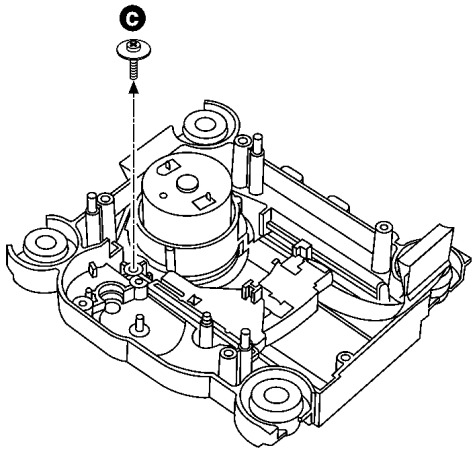


(Step 7)
Release the 2 claws, and then remove the drive gear.

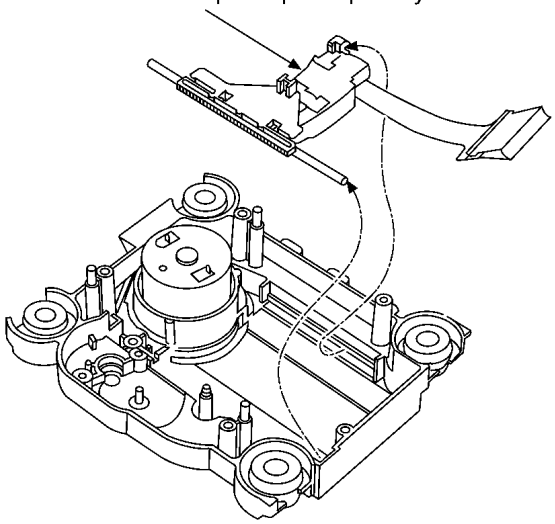


(Step 8)
Remove the relay gear.

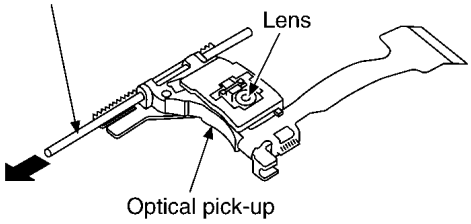
(Step 9)



(Step 10)
Remove the optical pick-up ass'y.

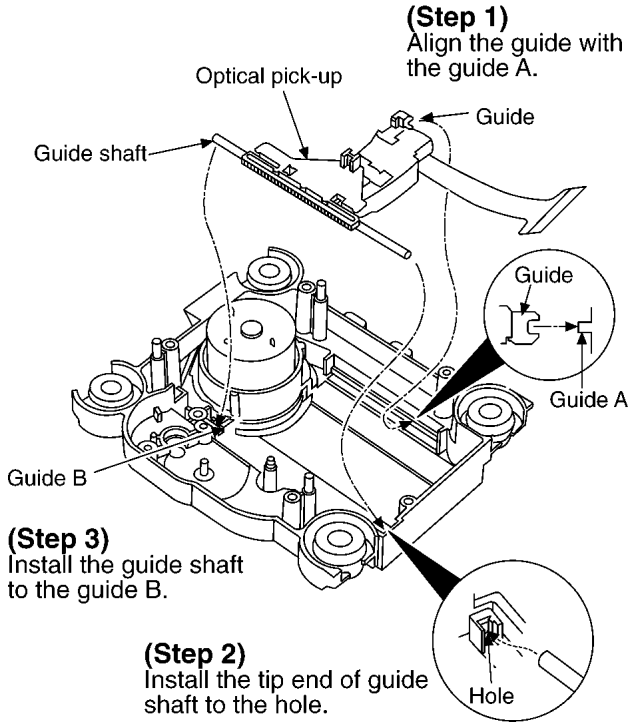


(Step 11)
Remove the guide shaft.



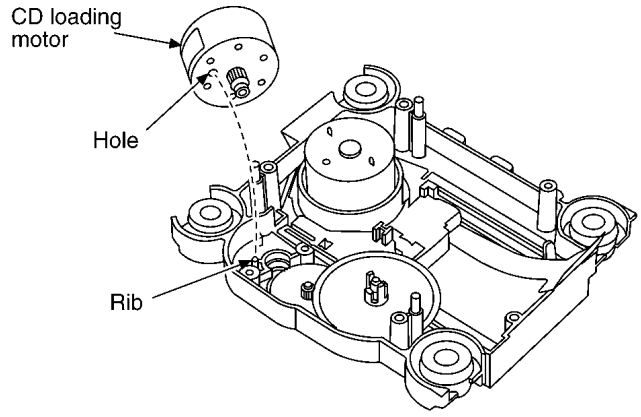
NOTE:
1. Use care to prevent damage the optical pick-up, due to the precision construction.
2. Do not apply the grease on the lens of optical pick-up.
3. Do not touch the lens of the optical pick-up.

Installing the optical pick-up



Notice for CD loading motor installation

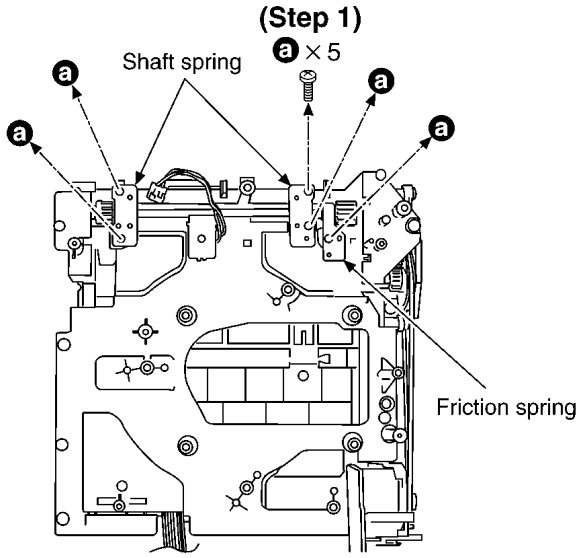
• Align the hole of CD loading motor with the ribs.



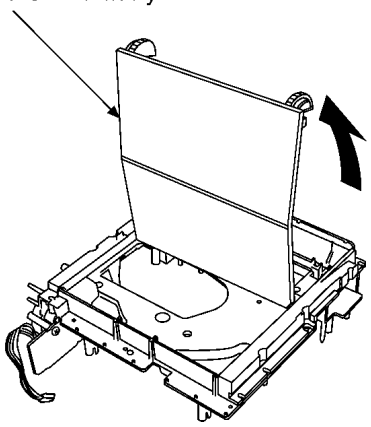
9.1.4. Replacement for the CD lid ass'y and gear CH R

- Follow the (Step1) - (Step11) of item 9.1.1.
- Follow the (Step1) - (Step5) of item 9.1.2.

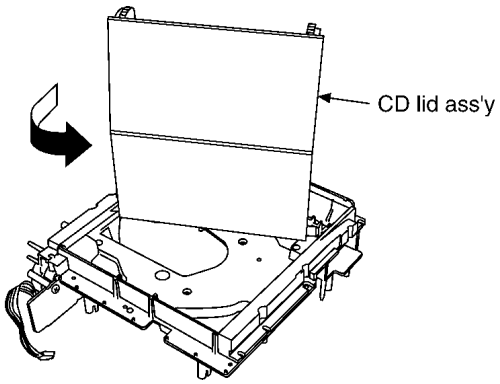
(Step 2)
Remove the 2 shaft springs and friction spring.

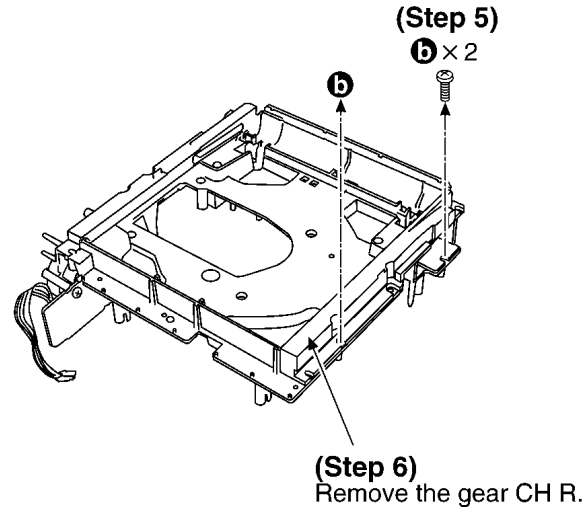


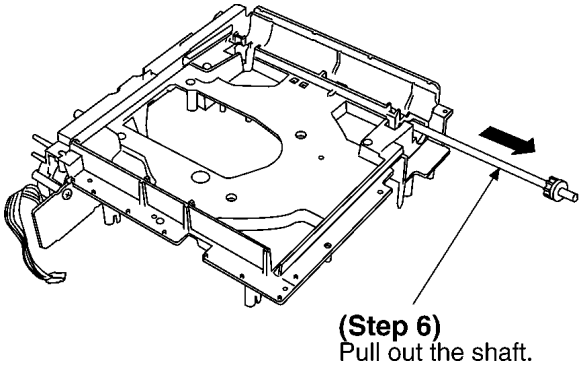
(Step 3)
Raise the CD lid ass'y.

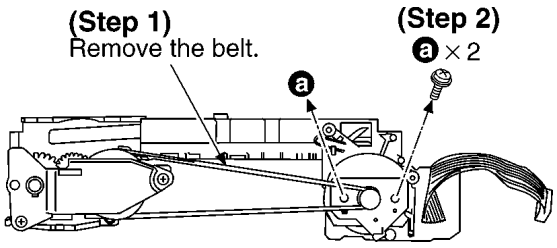


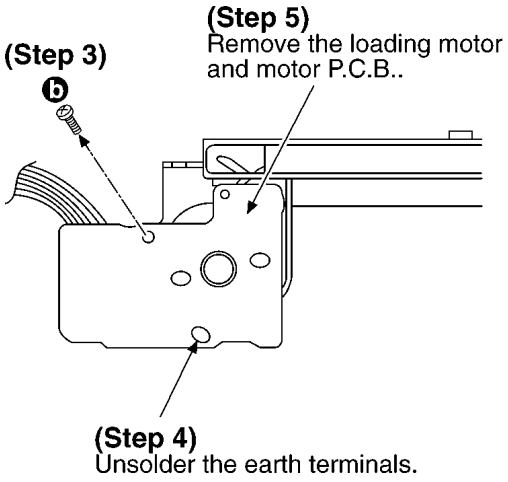
(Step 4)
Rotate the CD lid ass'y in the direction of arrow, and then remove it.





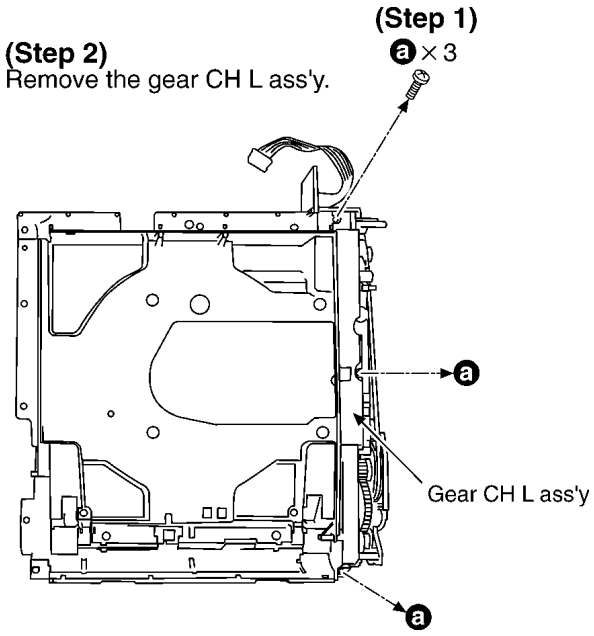


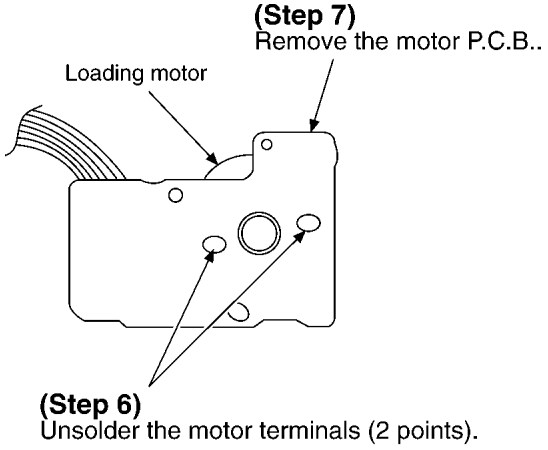


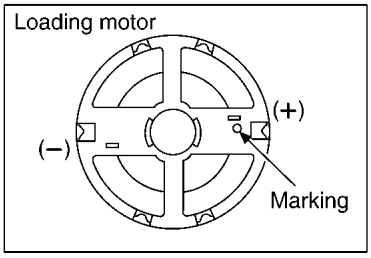


9.1.5. Replacement for the loading motor

- Follow the (Step1) - (Step11) of item 9.1.1.
- Follow the (Step1) - (Step5) of item 9.1.2.
- Follow the (Step1) - (Step6) of item 9.1.4.

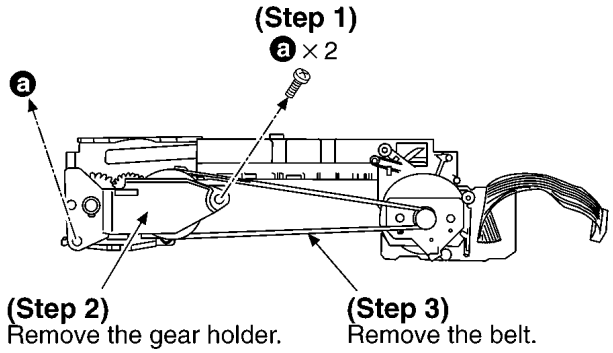




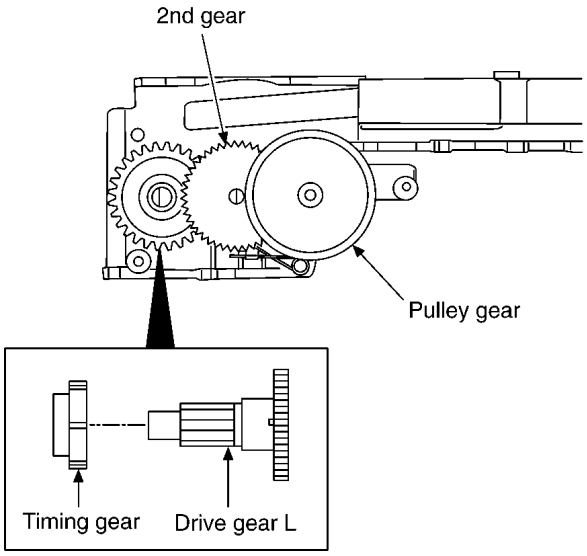


9.1.6. Replacement for the pulley gear, 2nd gear, drive gear L, timing gear and lid kicker

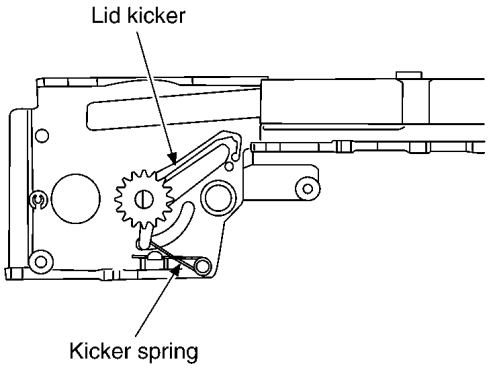
- Follow the (Step1) - (Step11) of item 9.1.1.
- Follow the (Step1) - (Step5) of item 9.1.2.
- Follow the (Step1) - (Step6) of item 9.1.4.



(Step 4)
Remove the pulley gear, 2nd gear, drive gear L and timing gear.

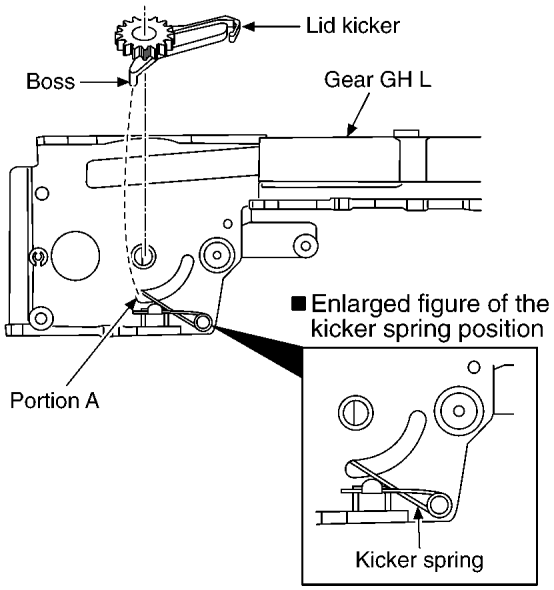


(Step 4)
Remove the lid kicker and kicker spring.



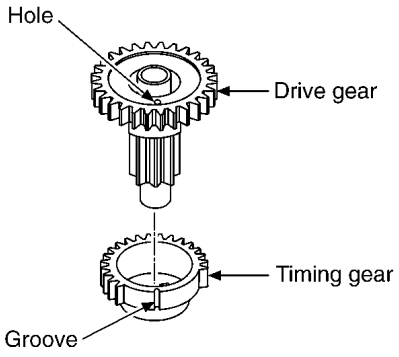
Notice for installation of gear B

- Install the lid kicker so that the boss faces to the portion A.

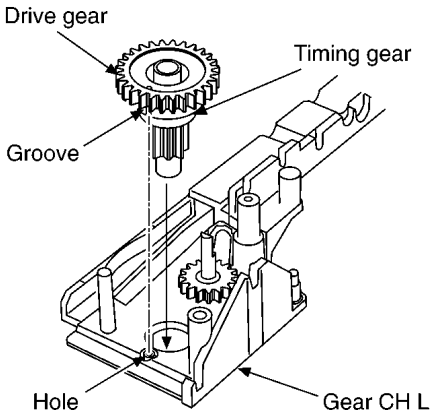


Notice for installation of drive gear and timing gear

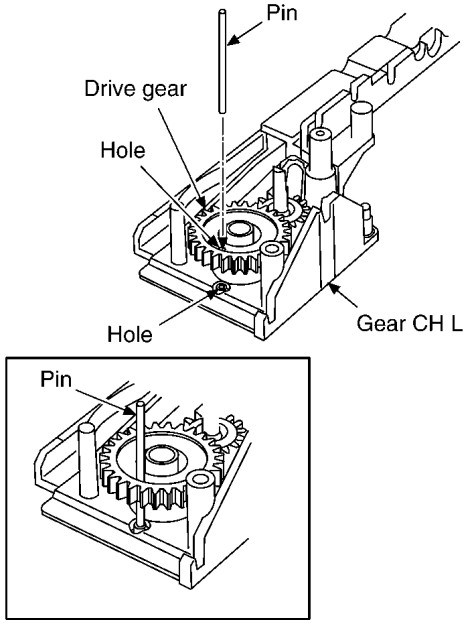
1. Install the drive gear to the timing gear by aligning the hole of the drive gear and the groove of the timing gear.



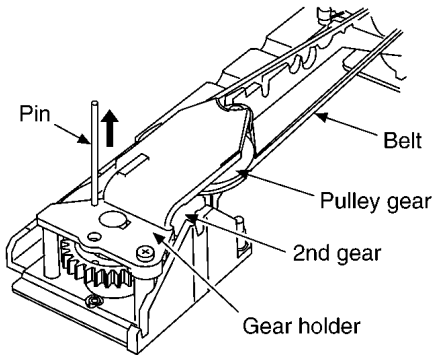
2. Install the drive gear and the timing gear to gear CH L by aligning the groove of the timing gear and the hole of gear CH L.



3. Insert the pin into the hole of the drive gear and push it into the hole of gear CH L.

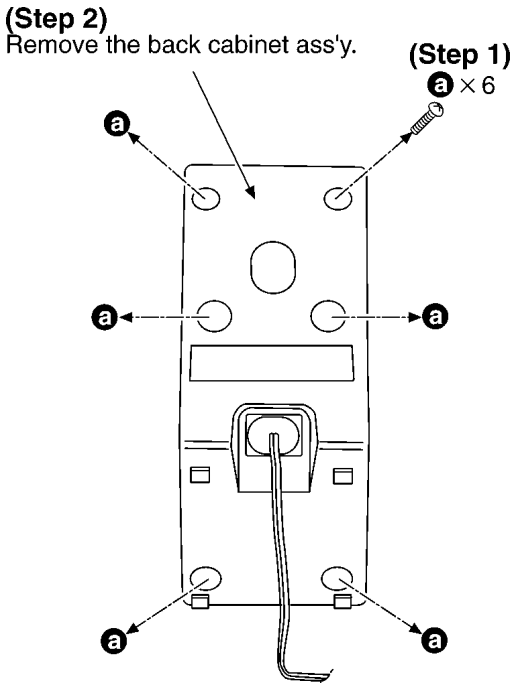


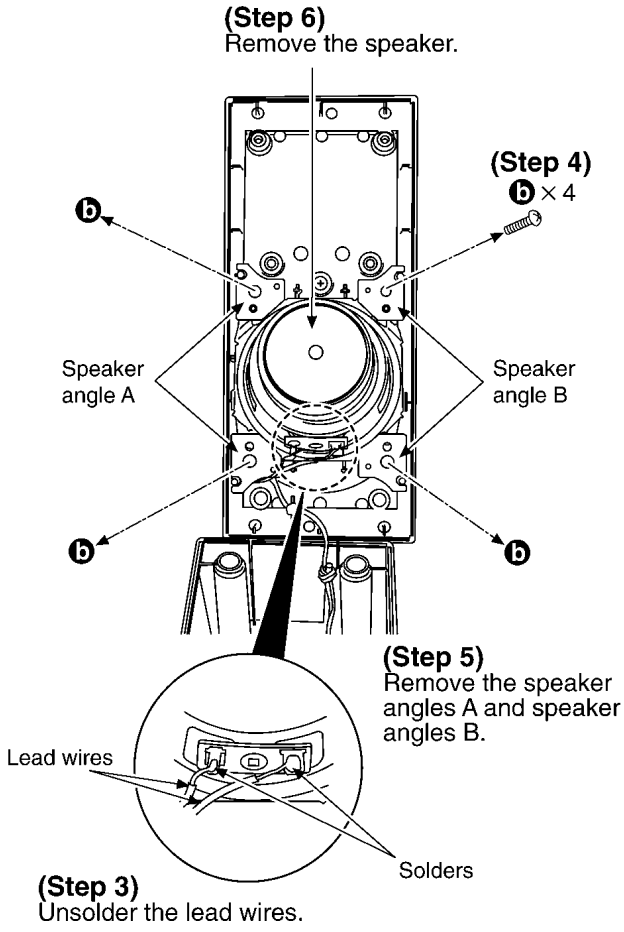
4. After inserting the pin, install the 2nd gear, pulley gear, belt, and gear holder and tighten the screw.
5. Then, pull out the pin



9.2. Speaker

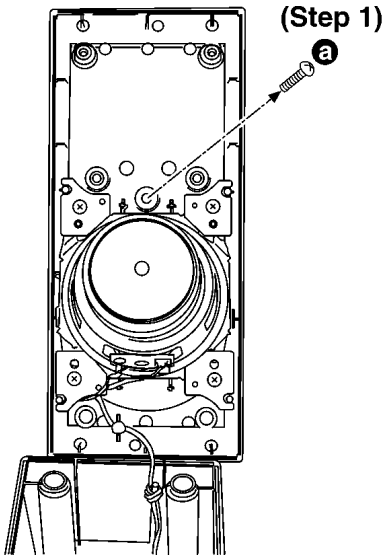
9.2.1. Removal of the speaker



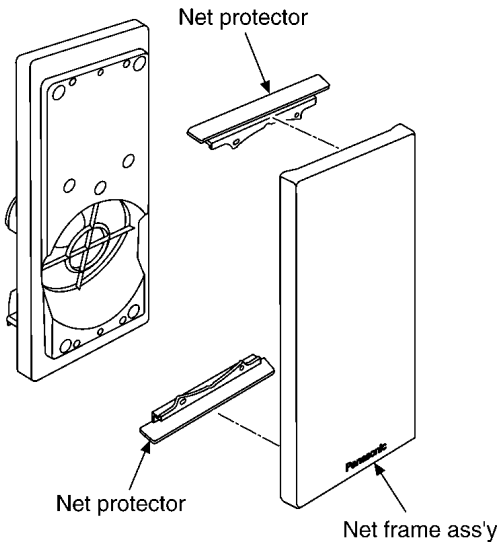


9.2.2. Removal of the net frame ass'y and net protector (SB-EN25)

・Follow the (Step1), (Step2) of item 9.2.1.



(Step 2)
Remove the net frame ass'y and net protector.



10 Self Diagnostic Function

10.1. Setting of self diagnostic Function

10.1.1. Setting of self diagnostic mode

1. To enter into self-diagnostic mode:
   - Press & hold **+** key,followed by **VOL+** key for more than 2 seconds.
2. LCD will show the following display as below:

(LCD Display)

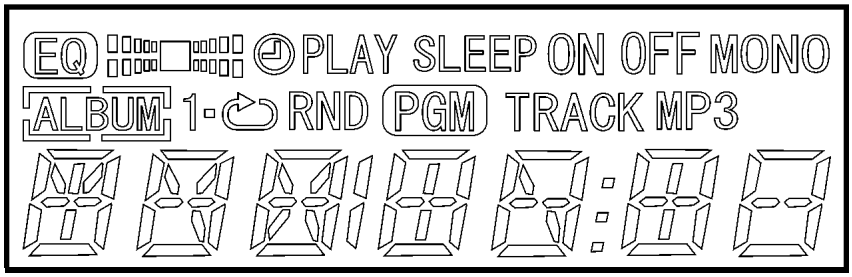
3. Error during Test:
   - Press & hold ■/▲ key (> 2sec) will show blinking error code. If abnormality occurs during test, error code will be displayed.

   Example:

NOTE: Refer to error code table 11.1.

10.1.2. Test Mode Checking

1. Operation keys and all segment display check mode:
   - Activate the Self Diagnosis mode before performing the following steps
   - Press & hold REMORT CONTROL [2] key (>2 sec) will enter this mode.
   - When the keys of the main set is pressed, the various corresponding key functions shall light up and display that particular function. After all the main set keys were pressed, the LCD shows the following (Including CD LED):



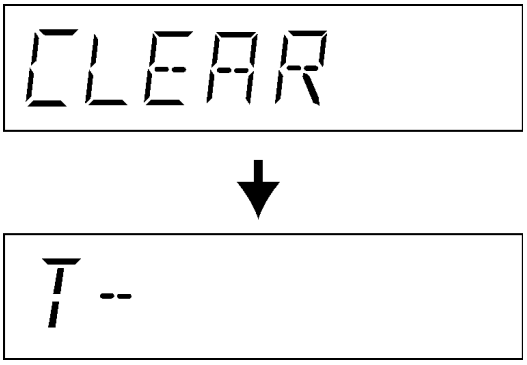
2. CD lid OPEN/CLOSE aging test mode:
   - Press & hold ■/▲ key (>5 sec) will enter this mode.
   - This mode counts the number of times the CD lid open/close (MAX is 65535).
     – <OPEN>:

     – <CLOSE>:

3. CD unit (250Z) and CD lid reliability test mode (Combination)
   - Press & hold REMOTE CONTROL ≧10 →1→0key (>2 sec) will enter into this test mode.
   - This test is the combination of CD lid operation and the inner and outer disc access operation aging test.The testing process is as follow: CD lid OPEN→Wait for 1sec. open state→CD lid CLOSE→TOC read → Play all tracks → Increment counter (Repeat the whole process).

10.1.3. Exiting from self-diagnostic mode

1. Press the POWER ON/OFF button eihter on the remote controller or main set to exit from Self-Diagnostic mode.
2. The content of abnormalities (error code) are kept as long as the microcontroller memory is backup.
3. If there is an error detected in RAM check at Reset, the content in the RAM shall be initialised and all the contents of abnormalities shall be cleared.
4. For force clearance, press “STOP” key while in self diagnostic mode.
   “CLEAR” is displayed in upper row of LCD for one second followed by “T” is.



11 Description of Error Code

11.1. Error detection for CD Mechanism block

No.	Error	Error Display	Problem condition
1	CD Open Switch Error	H15	Detect error during opening operation and memorised it as an error.
2	CD Close Switch (Bottom Sw) Error	H16	Detect error during closing operation and memorised it as an error.
3	CD Rest Switch Error	F15	Under normal operation (Self-Diagnostic Mode inclusive), this error occurs when the Rest_SW ON is not detected within the specified time (10 s) and shall be memrised.
4	Communication between CD LSI and Micro-P	F26	This error occurs when communication between CD LSI and Micro-P is abnormal.
5	Power Supply Error	F76	This error occurs when PDET (Input for detecting over/under voltage of power supply) voltage level is not in the range between 1.72V and 2.80V.

12 Schematic Diagram

12.1. Schematic Diagram Notes

(All schematic diagrams may be modified at any time with the development of new technology.)

Notes:

S351:	CD TOP DETECTION Switch in “OFF” position.
S352:	CD BOTTOM DETECTION Switch in “OFF” position.
S700:	REST Switch in “OFF” position.
S801:	CD switch
S802:	TUNER switch
S803:	VOL + switch.
S804:	VOL - switch
S805:	FWD- Skip Switch (+/▶▶|)
S806:	REV- Skip Switch (|◀◀/−)
S807:	CD OPEN/CLOSE Switch
S808:	POWER OFF/TAPE Switch

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

No mark :	CD STOP
( ) :	CD PLAY
< > :	FM
⌈ ⌋ :	AM

- Battery Curent

Vol min.:	120mA (CD)
	103mA (FM)
	102mA (AM)
Vol max.:	118mA (CD)
	102mA (FM)
	100mA (AM)

– Measurement instruction

CD:	1kHz, 0dB
FM:	60dB, 30% Mod.
AM:	74dB/m, 30% Mod.

- **Importance safety notice:**

  Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer’s specified parts shown in the parts list.

Caution!

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on theinternalimpedanceof the DC circuit tester.
- No mark: All VR is set as a center position.

Important safety notice:

Components identified by ⚠ mark have special characteristics important for safety.

Furthermore, special parts which have purpose of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacture´s specified parts shownintheparts list.

Caution!

- IC and LSI are sensitive to static electricity.
- Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with aluminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

12.2. Schematic Diagram

SCHEMATIC DIAGRAM-1

NOTE:
The number which noted at the connectors on the schematic diagram as "SCHEMATIC DIAGRAM-1" or "SCHEMATIC DIAGRAM-2" indicates the schematic diagram serial number located on the left corner in the schematic diagram.

⚠ OPTICAL PICK-UP

A CD SERVO CIRCUIT

:POSITIVE VOLTAGE LINE :CD PLAYBACK SIGNAL LINE

IC700
BA5948FPE2
FOCUS COIL/
TRACKING COIL/
TRAVERSE MOTOR/
SPINDLE MOTOR DRIVE

IC701
MN6627953HB
SERVO AMP/SERVO PROCESSOR/
DIGITAL SIGNAL PROCESSOR/
DIGITAL FILTER/
D/A CONVERTER

Q700
2SB0709A0L
LASER POWER
DRIVE

M701
TRAVERSE
MOTOR

M702
SPINDLE
MOTOR

TRACKING COIL

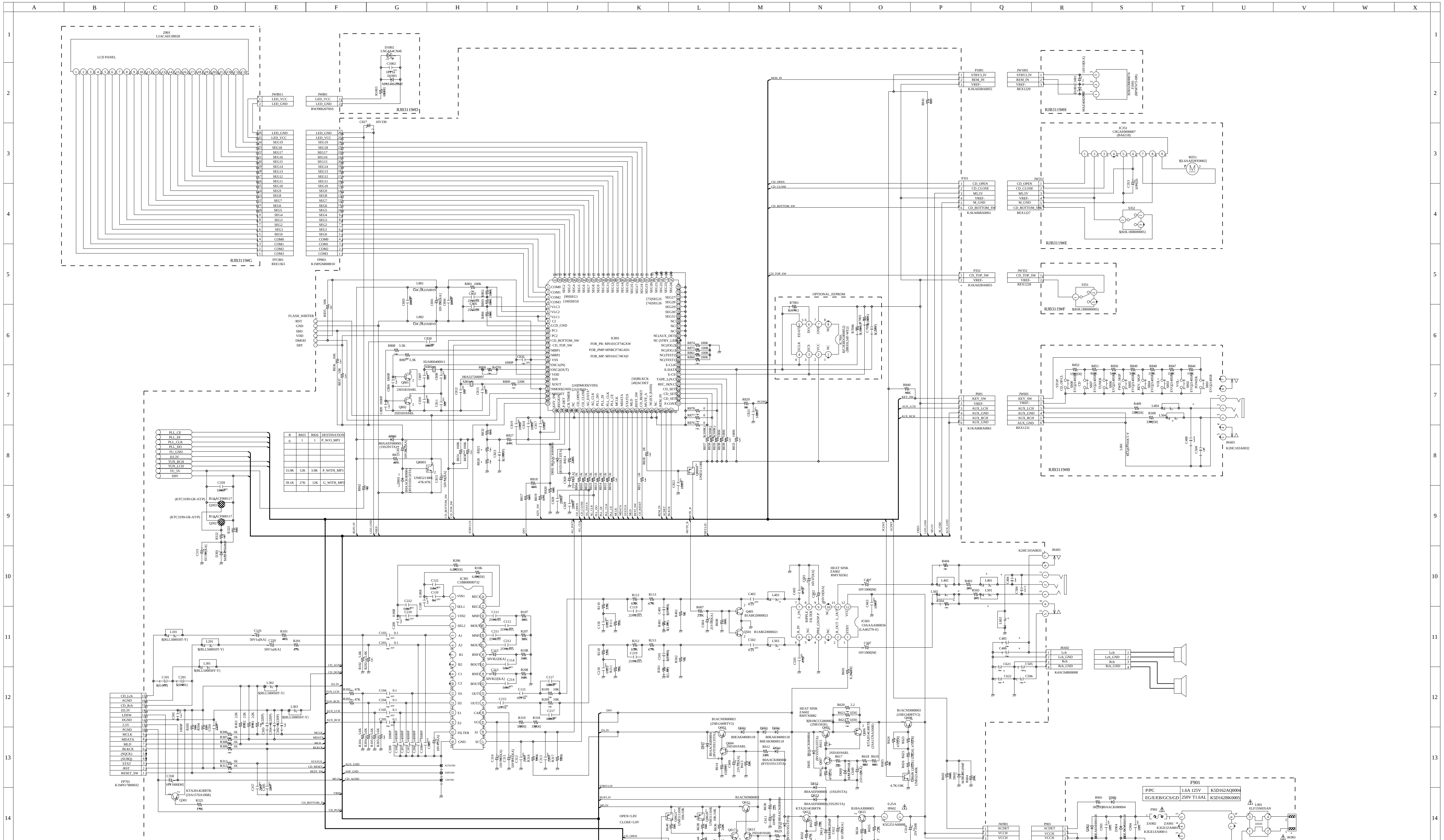
FOCUS COIL

S700
(REST)

X700
(16.9344MHz)

To C MAIN CIRCUIT(CS701)

SA-EN25/26/27 CD SERVO CIRCUIT DIAGRAM



Modify Category

	Variation	Type
1	EN25P	A
2	EN27PC	B
3	EN27P	C
4	EN27E	D
5	EN27EB	E
6	EN27EG	F
7	EN27GCS	G
8	EN27GD	H
9	EN27GK	J
10	EN26P	K
11	PCB	Z

VariationCategory	EN25P	EN27PC	EN27P	EN27E	EN27EB	EN27EG	EN27GCS	EN27GD	EN27GK	EN26P	PCB
	A	B	C	D	E	F	G	H	J	K	Z
C404	$	$	$	$	$	$	$	$	$	$	0.01
C405	$	$	$	0.01	0.01	0.01	0.01	0.01	0.01	$	0.01
C406	$	$	$	1000P	1000P	1000P	1000P	1000P	1000P	$	1000P
C408	$	$	$	$	$	$	$	$	$	$	0.01
C504	$	$	$	$	$	$	$	$	$	$	0.01
C505	$	$	$	0.01	0.01	0.01	0.01	0.01	0.01	$	0.01
C506	$	$	$	1000P	1000P	1000P	1000P	1000P	1000P	$	1000P
C508	$	$	$	$	$	$	$	$	$	$	0.01
C621	$	$	$	$	$	$	$	$	$	$	0.01
C622	$	$	$	$	$	$	$	$	$	$	1000P
JK901	K2AB2B000007	K2AB2B000007	K2AB2B000007	K2AA2B000015	K2AA2B000015	K2AA2B000015	K2AA2B000015	K2AA2B000015	K2AA2B000015	K2AB2B000007	K2AB2B000007
K1	RWDJ05-050	$	$	$	$	$	$	$	$	RWDJ05-050	RWDJ05-050
K2	$	RWDJ05-050	RWDJ05-050	$	$	$	$	$	$	$	RWDJ05-050
K3	$	$	$	RWDJ05-050	RWDJ05-050	RWDJ05-050	RWDJ05-050	RWDJ05-050	RWDJ05-050	$	RWDJ05-050
L401	$	$	$	$	$	$	$	$	$	$	J0JBC0000032
L402	$	$	$	J0JKB0000020	J0JKB0000020	J0JKB0000020	J0JKB0000020	J0JKB0000020	J0JKB0000020	$	J0JKB0000020
L403	$	$	$	$	$	$	$	$	$	$	J0JBC0000032
L404	$	$	$	$	$	$	$	$	$	$	J0JBC0000032
L501	$	$	$	$	$	$	$	$	$	$	J0JBC0000032
L502	$	$	$	J0JKB0000020	J0JKB0000020	J0JKB0000020	J0JKB0000020	J0JKB0000020	J0JKB0000020	$	J0JKB0000020
L503	$	$	$	$	$	$	$	$	$	$	J0JBC0000032
L504	$	$	$	$	$	$	$	$	$	$	J0JBC0000032
L602	$	$	$	$	$	$	$	$	$	$	J0JBC0000032
R404	$	$	$	10[36]	10[36]	10[36]	10[36]	10[36]	10[36]	$	10[36]
R504	$	$	$	10[36]	10[36]	10[36]	10[36]	10[36]	10[36]	$	10[36]
R825	1	12K	12K	27K	27K	27K	27K	27K	27K	1	1
R826	1	3.9K	3.9K	12K	12K	12K	12K	12K	12K	1	1

R	R825	R826	DESTINATION
0	1	1	P_W/O_MP3
15.9K	12K	3.9K	P_WITH_MP3
39.1K	27K	12K	G_WITH_MP3

ZA601	$[RMYX0082]
ZA602	$[RMY0362]

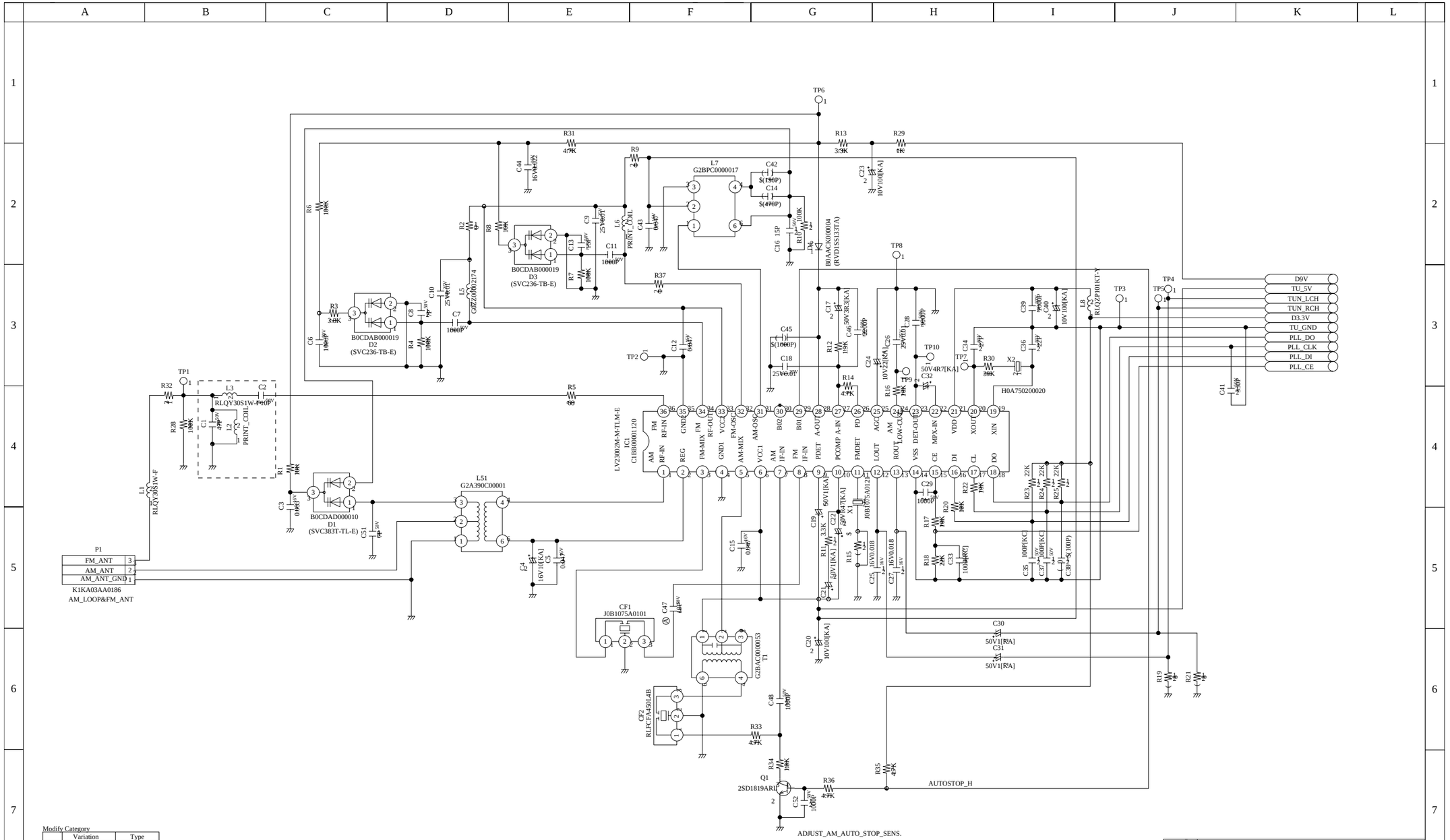
deftype		VALUE
	R	[18]
	C	[18]

NAME	MAIN		
CIRCUIT BOARD NO	RJB3119A/RJB3119B	MODEL NO	SC-EN25 SC-EN26 SC-EN27
DRAWING NO	KR9A0149		
DATE	SECTION	APPROVED	CHECKED	DESIGNED	DRAWN
	NWBG PD3	S.NINOMIYA	Y.TAWA	Y.TAWA	K.MASUDA

REVISED DATE : 2005.08.24 Rule ID : M_DRS Factory : M

NO	ITEM	DATE	NAME	CHECK	NO	ITEM	DATE	NAME	CHECK
1	SEMKO_CE_SAFETY_APPRICATION	1102			6				
2					7				
3					8				
4					9				
5					10				

A0



Modify Category

	Variation	Type
1	EN25P	A
2	EN27PC	B
3	EN27P	C
4	EN27E	D
5	EN27EB	E
6	EN27EG	F
7	EN27GCS	G
8	EN27GD	H
9	EN27GK	J
10	EN27GN	K

VariationCategory1

	A	B	C	D	E	F	G	H	J	K
R32	33	33	33	0	0	0	0	0	0	0

ZA1	$[RSC0733]

deftype

		VALUE
	R	[18]
	C	[18]

NO	ITEM	DATE	NAME	CHECK	NO	ITEM	DATE	NAME	CHECK
1					6				
2					7				
3					8				
4					9				
5					10				

NAME: TUNER

CIRCUIT BOARD NO	MODEL NO
RJB3119A/RJB3119B	SC-EN25 SC-EN26 SC-EN27
DRAWING NO	
KR7A0063	

DATE	SECTION	APPR0VED	CHECKED	DESIGNED	DRAWN
	NWBG PD3	S.NINOMIYA	Y.TAWA	Y.TAWA	K.MASUDA

REVISED DATE : 2005.08.18 Rule ID : M_DRS Factory : M

12.3. Voltage Value

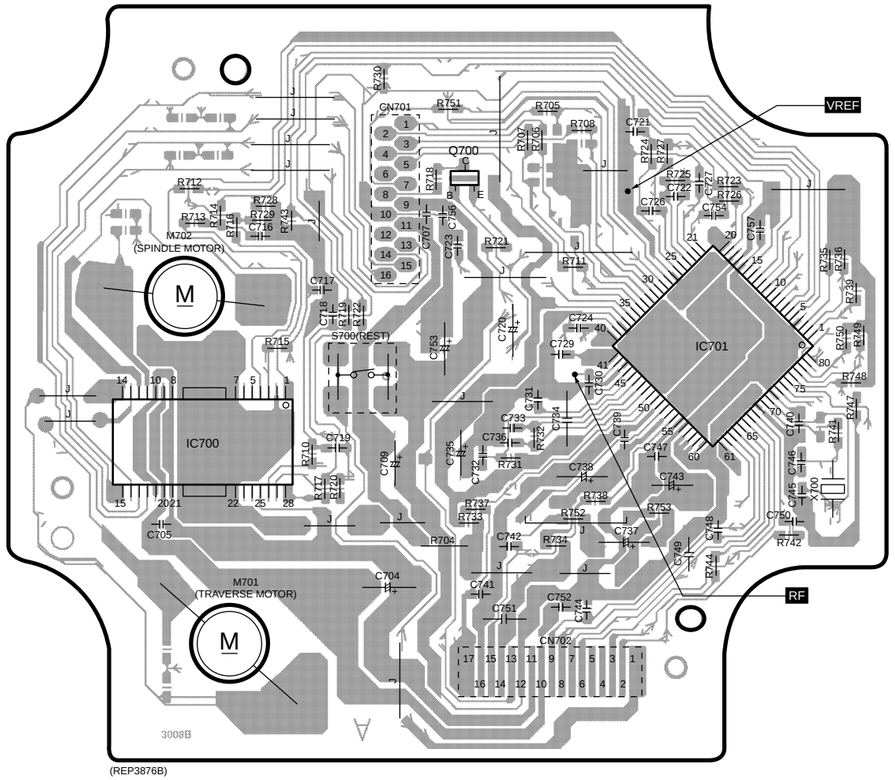
Ref.No.	IC1																			
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD STOP	2.3	2.3	2.5	0	5	5	2.3	2.3	3.9	3.9	2.9	2.2	2.2	0	0	3.3	3.3	3.3	0.3	1.2
CD PLAY	2.3	2.3	2.5	0	5	5	2.3	2.3	3.9	3.7	3.3	2.2	2.2	0	0	3.3	3.3	3.3	0.3	1.2
Ref.No.	IC1																			
Mode	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36				
CD STOP	3.4	2.2	2.6	0	1.4	2	2	2	0.1	0.1	5.1	5.1	5.1	5.1	0	1				
CD PLAY	3.4	2.2	0.9	1.9	0.9	2	2	0.8	0.1	0.1	5.1	5.1	5.1	5.1	0	0				
Ref.No.	IC301																			
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD STOP	4.1	4.5	4	4.5	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.4	4.4	4.4	0	3.3	0	8.8	3.3
CD PLAY	4.1	4.5	4	4.5	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.4	4.4	4.4	0	3.3	0	8.8	0.7
Ref.No.	IC301																			
Mode	21	22	23	24	25	26	27	28	29	30	31	32								
CD STOP	4.4	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.4	4.3	4.4	4.4								
CD PLAY	4.4	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.4	4.3	4.4	4.4								
Ref.No.	IC351																			
Mode	1	2	3	4	5	6	7	8	9											
CD STOP	0	0	0	0	0	5.6	0	0	0											
CD PLAY	0	0	0	0	0	5.6	0	0	0											
Ref.No.	IC601																			
Mode	1	2	3	4	5	6	7	8	9	10	11	12								
CD STOP	1.5	6.9	0	0	0	1.4	1.4	6.9	9.8	0	6.8	13.9								
CD PLAY	1.5	6.6	0	0	0	1.4	1.4	6.6	9.5	0	6.5	13.4								
Ref.No.	IC700																			
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD STOP	1.6	0	1.6	3.4	–	–	–	5.8	0	5.8	2.9	2.9	2.5	2.5	2.5	2.5	2.5	2.5	5.8	0
CD PLAY	1.6	0	1.6	0	–	–	–	5.8	0	5.8	3.3	2.4	2.5	2.5	2.5	2.5	2.5	2.5	5.8	0
Ref.No.	IC700																			
Mode	21	22	23	24	25	26	27	28												
CD STOP	5.8	0	–	–	5.8	1.6	1.6	1.6												
CD PLAY	5.8	0	–	–	5.8	1.6	1.6	1.6												
Ref.No.	IC701																			
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD STOP	0	0	0	3.5	1.6	3.4	1.6	–	–	–	1.6	–	1.6	–	3.5	1.5	0	1.6	1.6	1.6
CD PLAY	0	0	0	3.5	1.6	0	1.6	–	–	–	1.6	–	1.6	–	3.5	1.5	0	1.6	1.6	1.6
Ref.No.	IC701																			
Mode	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD STOP	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.4	2.8	1.7	1.7	1.6	1.7	1.7	1.7	0.7	3.4	0	0	1.7
CD PLAY	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1	2.3	2	2	1.6	2	2	2	1.6	3.4	0	1.4	2.1
Ref.No.	IC701																			
Mode	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD STOP	0	0	0	1.7	1.7	0.8	1	1	3.4	1.5	0	–	3.1	1.5	0	3.5	1.5	3.5	0	3.5
CD PLAY	1.7	1.4	0	1.6	1.6	0.8	1.8	1.8	3.4	1.5	0	–	3.1	1.5	0	3.5	1.5	3.5	0	3.5
Ref.No.	IC701																			
Mode	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD STOP	–	–	3.3	3.3	3.3	0	0	3.3	0	1.5	1.5	3.5	–	–	0	0	0	0	–	–
CD PLAY	–	–	3.3	3	3.3	1.6	0	3.3	0	1.4	1.4	3.5	–	–	0	0	0	0	–	–

Ref.No.	IC801																			
Mode	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
CD STOP	1.4	1.5	1.4	1.5	1.1	1.9	3.1	3.1	0	3.3	3.3	0	2.9	0	3.2	0	1.4	1.5	3.3	0.2
CD PLAY	1.4	1.5	1.4	1.5	1.1	1.9	3.1	3.1	0	3.3	3.3	0	2.9	0	3.2	0	1.4	1.5	3.3	0.2
Ref.No.	IC801																			
Mode	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
CD STOP	1.4	0	3.2	3.3	3.3	3.2	0	2.4	3.3	0	0	0	0	3.3	3.3	3.3	3.3	0	3.2	3.2
CD PLAY	1.4	0	3.2	3.3	3.3	3.2	0	2.4	3.3	0	0	0	0	3.3	3.3	3.3	3.3	0	3.2	3.2
Ref.No.	IC801																			
Mode	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
CD STOP	0	3.3	3.3	3.3	0	0	0	2.9	1.2	0	3.3	0	0	0	2.9	3	0	0	0	0
CD PLAY	1.5	3.3	3.3	3.3	3.2	0	0	2.9	1.2	0.1	3.3	0	0	0	2.9	3	0	0	0	0
Ref.No.	IC801																			
Mode	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
CD STOP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CD PLAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ref.No.	IC801																			
Mode	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
CD STOP	1.6	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
CD PLAY	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Ref.No.	QR609				QR614				QR618				QR619				QR620			
Mode	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD STOP	0	0.2	2.6		0	0	7.6		0	0.7	0		0	5.4	0		5.6	3.3	5.4	
CD PLAY	0	0.2	2.6		0	0	7.6		0	0.7	0		0	5.4	0		5.6	3.3	5.4	
Ref.No.	QR621				QR803				QR804				Q1				Q301			
Mode	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD STOP	5.6	3.3	5.4		0	3.2	0		3.3	3.2	0.3		0	0	0.1		3.4	3.3	2.6	
CD PLAY	5.6	3.3	5.4		0	3.2	0		3.1	0	3.1		0	0	0.1		3.4	3.3	2.6	
Ref.No.	Q302				Q303				Q401				Q501				Q603			
Mode	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD STOP	5	9.1	5.7		5	9.1	5.7		0	0	0.7		0	0	0.6		7	3.4	6.4	
CD PLAY	5	9.1	5.7		5	9.1	5.7		0	0	0		0	0	0		7	3.4	6.4	
Ref.No.	Q604				Q605				Q606				Q607				Q608			
Mode	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD STOP	2.7	6.4	3.2		13.9	9.3	13.4		13.7	12.9	13.6		8.5	12.9	9.1		14.1	14.1	13.4	
CD PLAY	2.7	6.4	3.2		13.9	9.3	13.4		13.7	12.9	13.6		8.5	12.9	9.1		14.1	14.1	13.4	
Ref.No.	Q611				Q612				Q613				Q615				Q617			
Mode	E	C	B		E	C	B		E	C	B		E	C	B		E	C	B	
CD STOP	7.7	5.6	7.1		2.7	7.1	3.3		4.1	4	3.4		4.1	14.1	4.7		2.7	7.7	3.4	
CD PLAY	7.7	5.6	7.1		2.7	7.1	3.3		4.1	4	3.4		4.1	14.1	4.7		2.7	7.7	3.4	
Ref.No.	Q700				Q801				Q802											
Mode	E	C	B		E	C	B		E	C	B									
CD STOP	3.4	1.2	2.8		0	0	0.6		0	0.3	0									
CD PLAY	3.4	2.1	2.3		0	0	0.6		0	0.2	0									

13 Printed Circuit Board

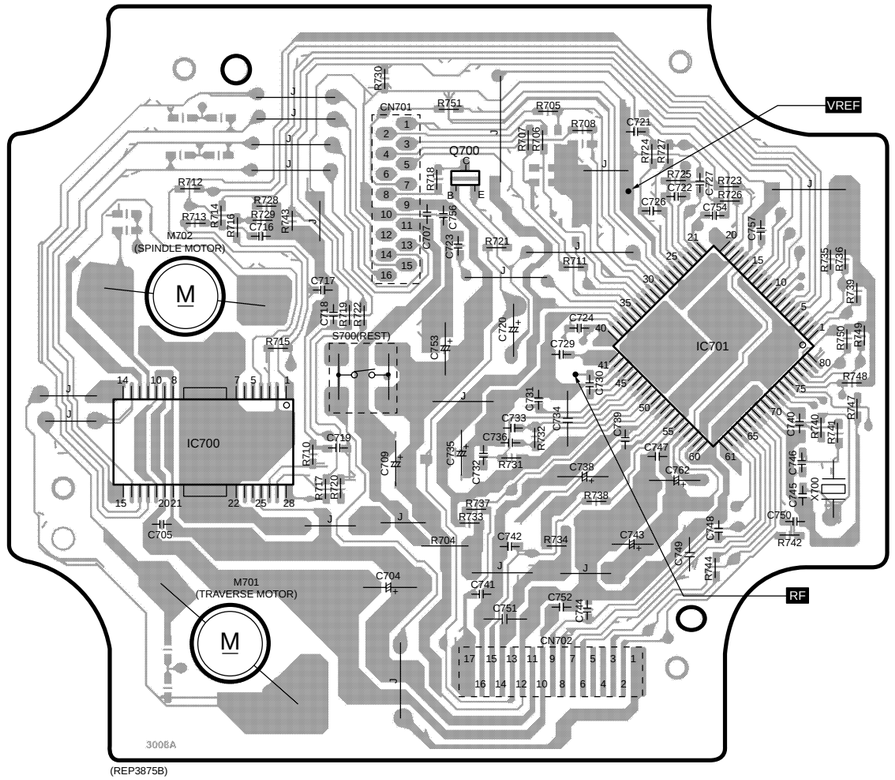
Note: This printed circuit board diagram may be modified at any time with the development of new technology.

A CD SERVO P.C.B. : For SA-EN25/26 (P) areas.



(REP3876B)

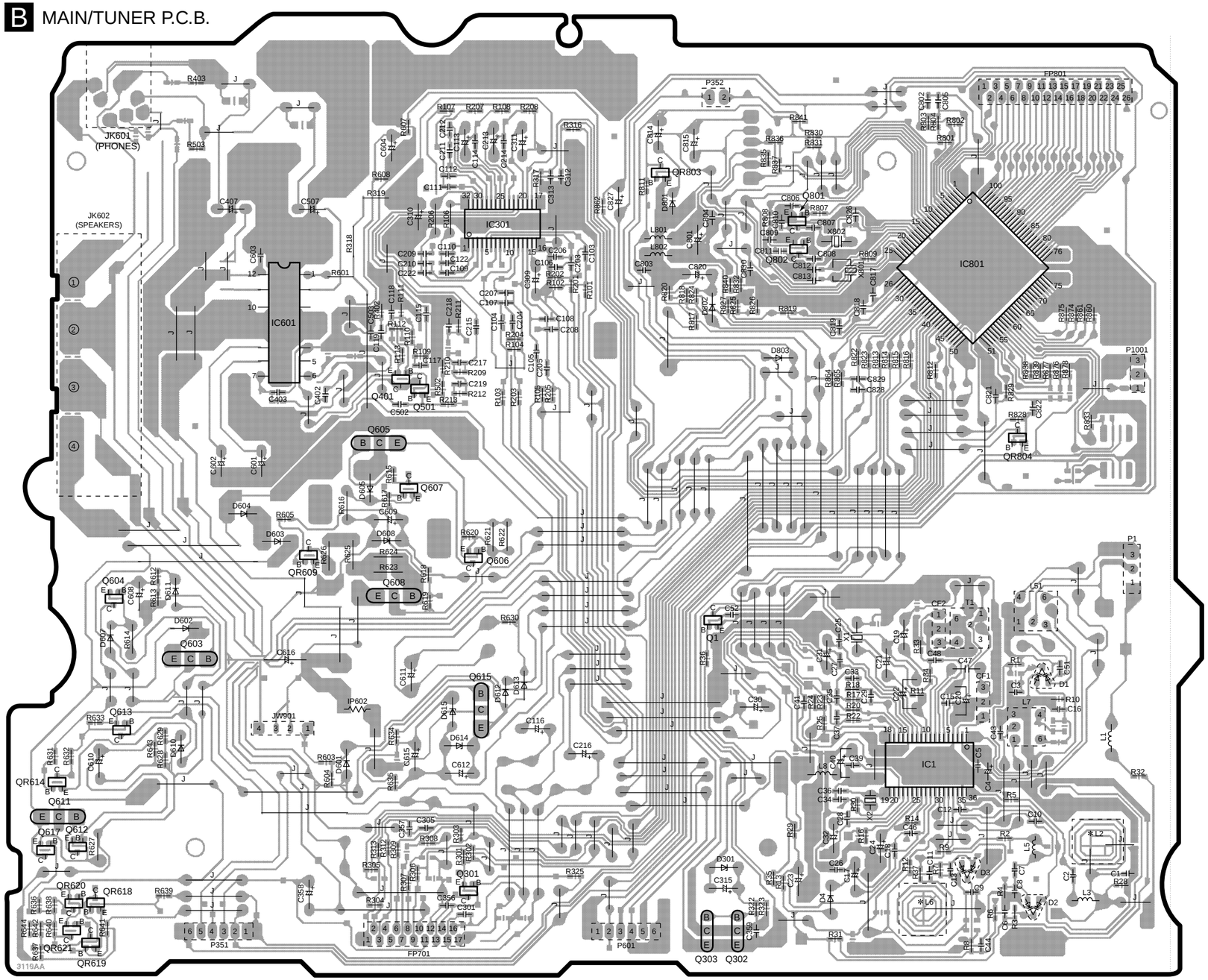
A CD SERVO P.C.B. : For SA-EN27(PC) area.



(REP3875B)

SA-EN25/26/27(P,PC) CD SERVO P.C.B.

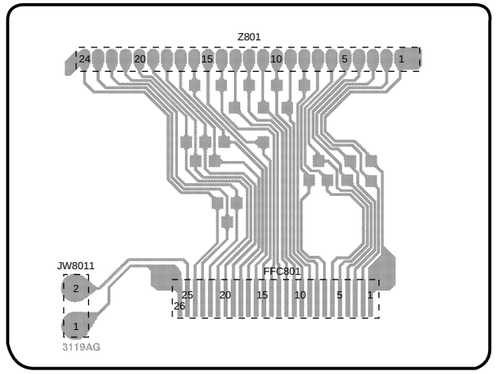
B MAIN/TUNER P.C.B.



REP4044A-M ····· SA-EN25/26(P)
REP4044B-M ····· SA-EN27(PC)

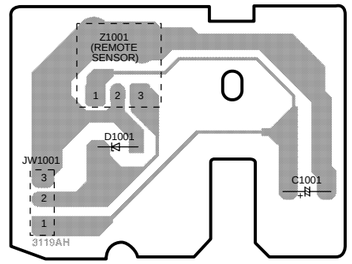
SA-EN25/26/27(P,PC) MAIN P.C.B.

C LCD P.C.B.



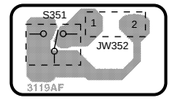
(REP4044A-M ..... SA-EN25/26(P)
REP4044B-M ..... SA-EN27(PC))

E SENSOR P.C.B.



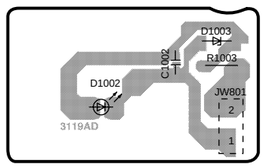
(REP4044A-M ..... SA-EN25/26(P)
REP4044B-M ..... SA-EN27(PC))

G SW P.C.B.



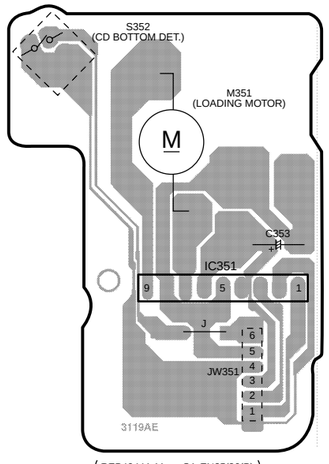
(REP4044A-M ..... SA-EN25/26(P)
REP4044B-M ..... SA-EN27(PC))

D LCD BACK-LIGHT P.C.B.



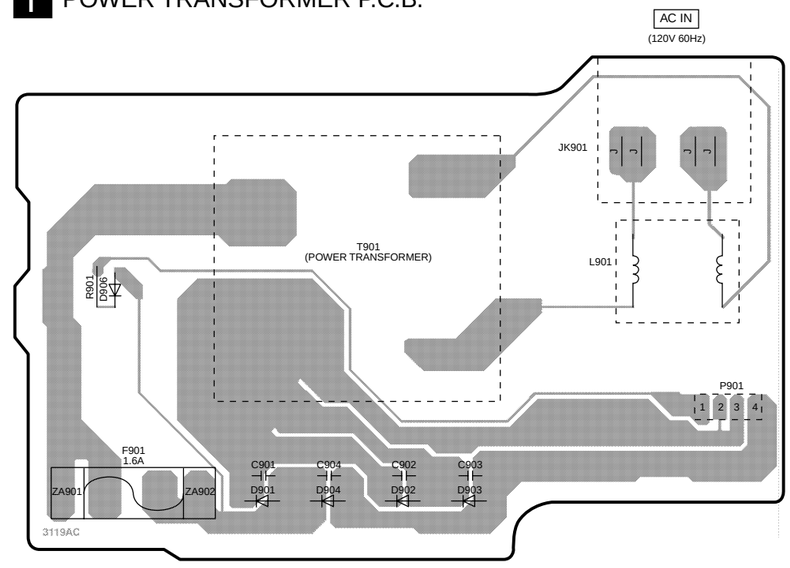
(REP4044A-M ..... SA-EN25/26(P)
REP4044B-M ..... SA-EN27(PC))

F MOTOR P.C.B.



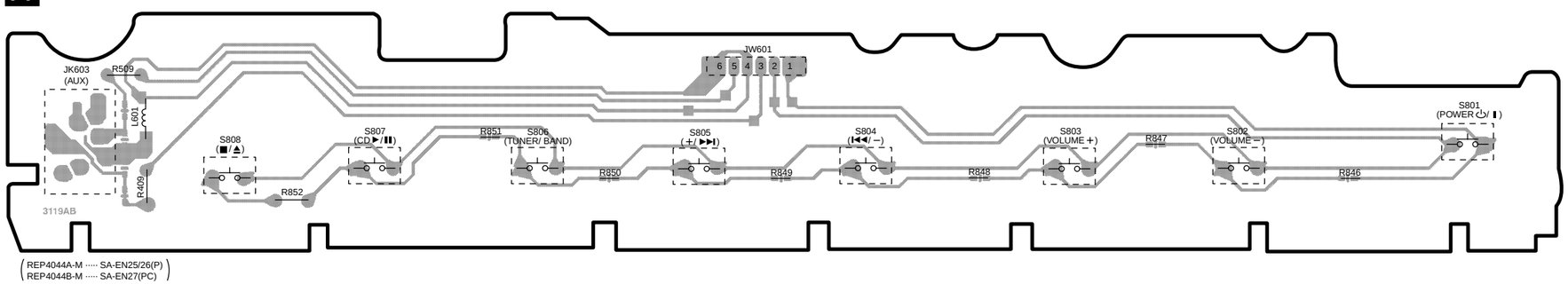
(REP4044A-M ..... SA-EN25/26(P)
REP4044B-M ..... SA-EN27(PC))

I POWER TRANSFORMER P.C.B.



(REP4044A-M ..... SA-EN25/26(P)
REP4044B-M ..... SA-EN27(PC))

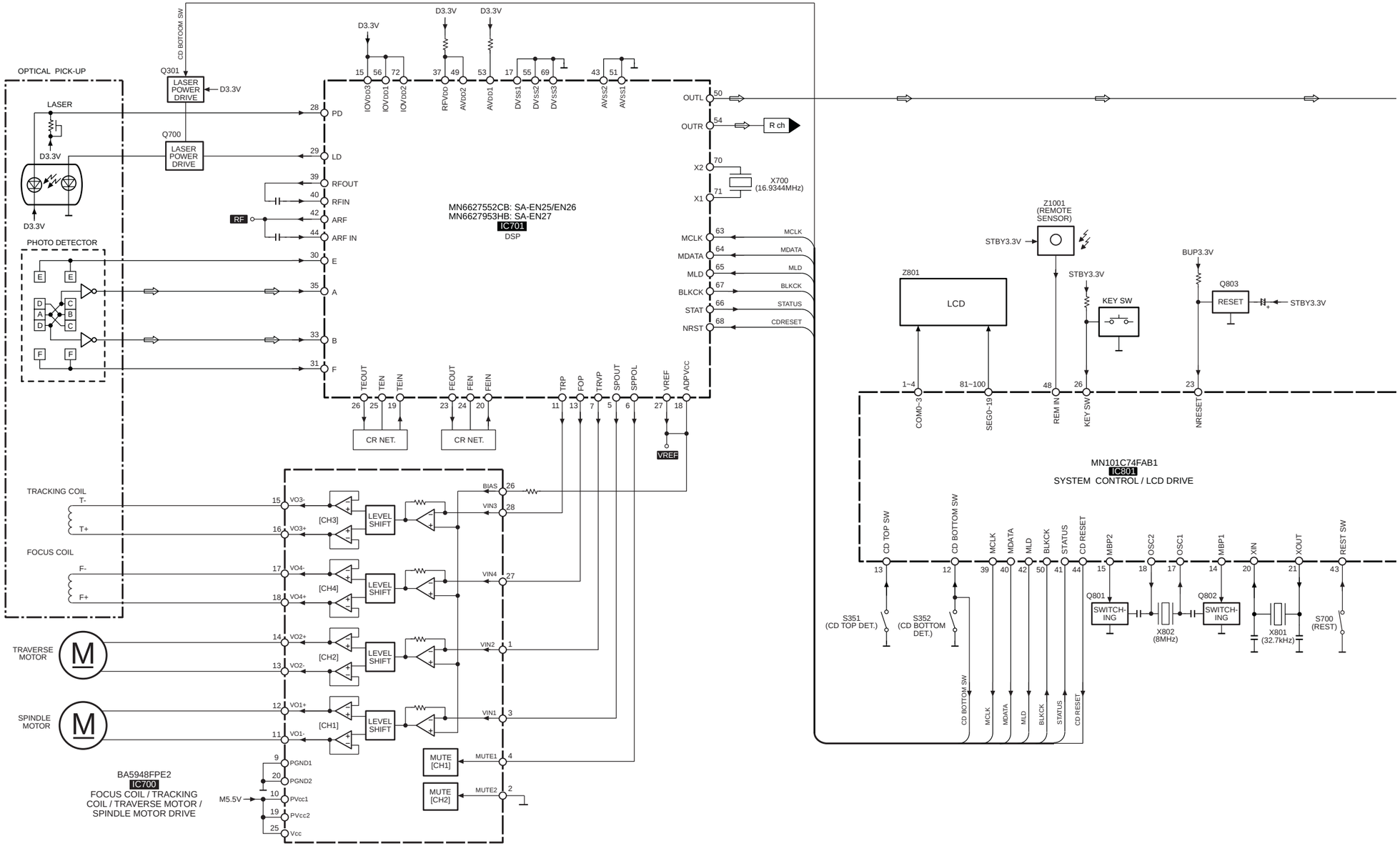
H OPERATION P.C.B.



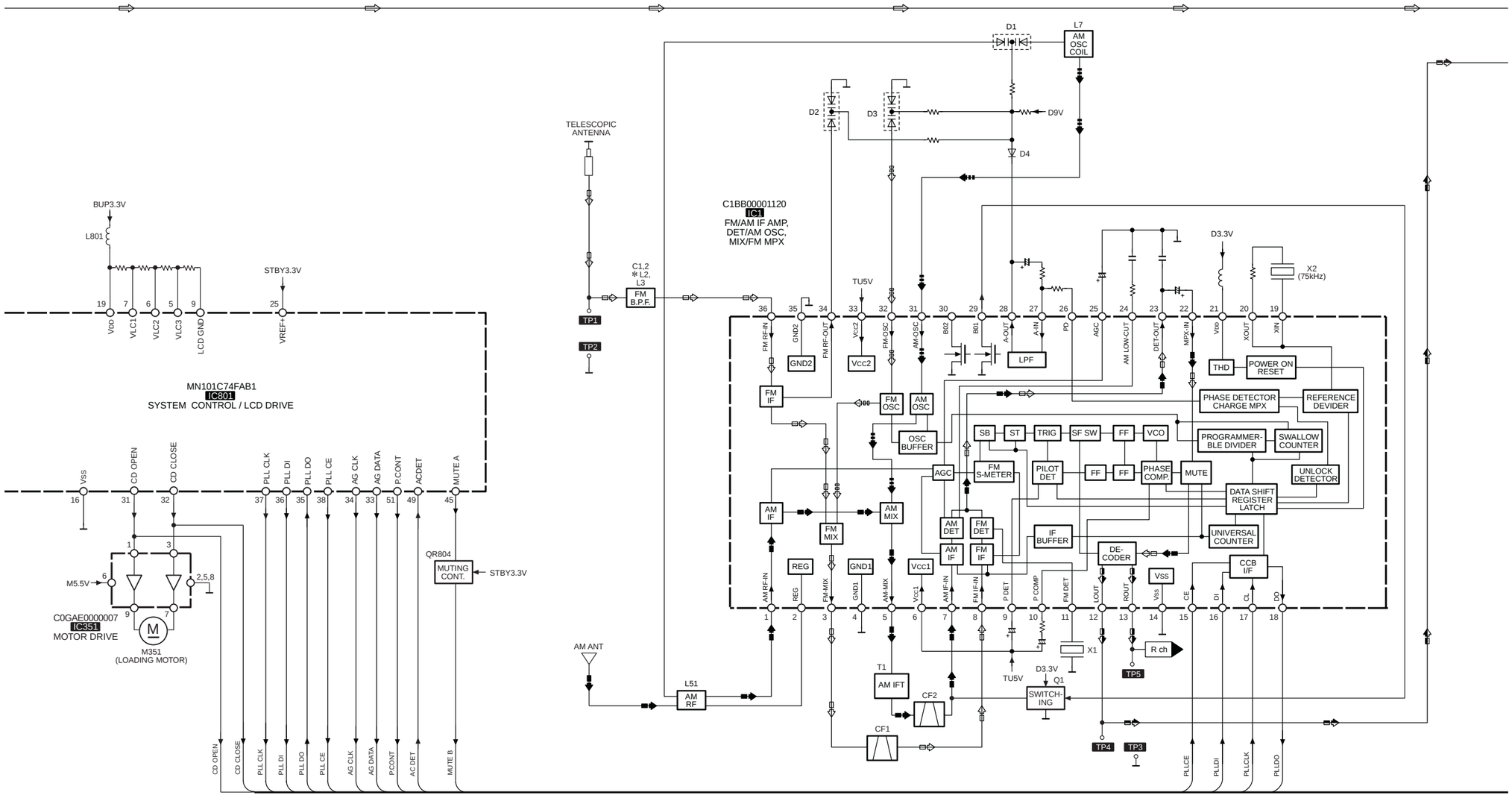
(REP4044A-M ..... SA-EN25/26(P)
REP4044B-M ..... SA-EN27(PC))

SA-EN25/26/27(P,PC) LCD, LCD BACK-LIGHT, MOTOR, SENSOR, SW, OPERATION,POWER TRANSFORMER P.C.B.

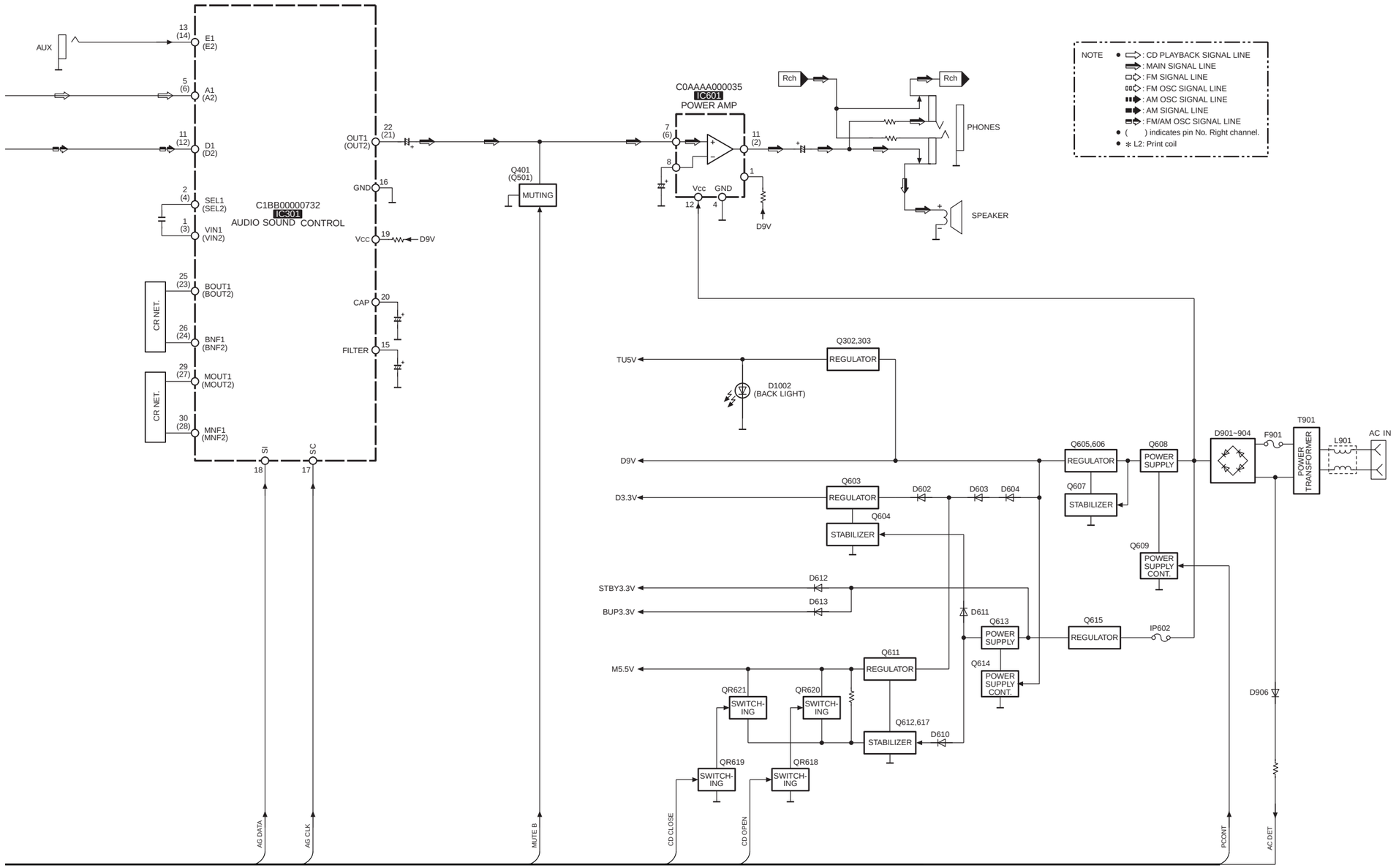
14 Block Diagram



SA-EN25/EN26/EN27(P,PC) BLOCK DIAGRAM

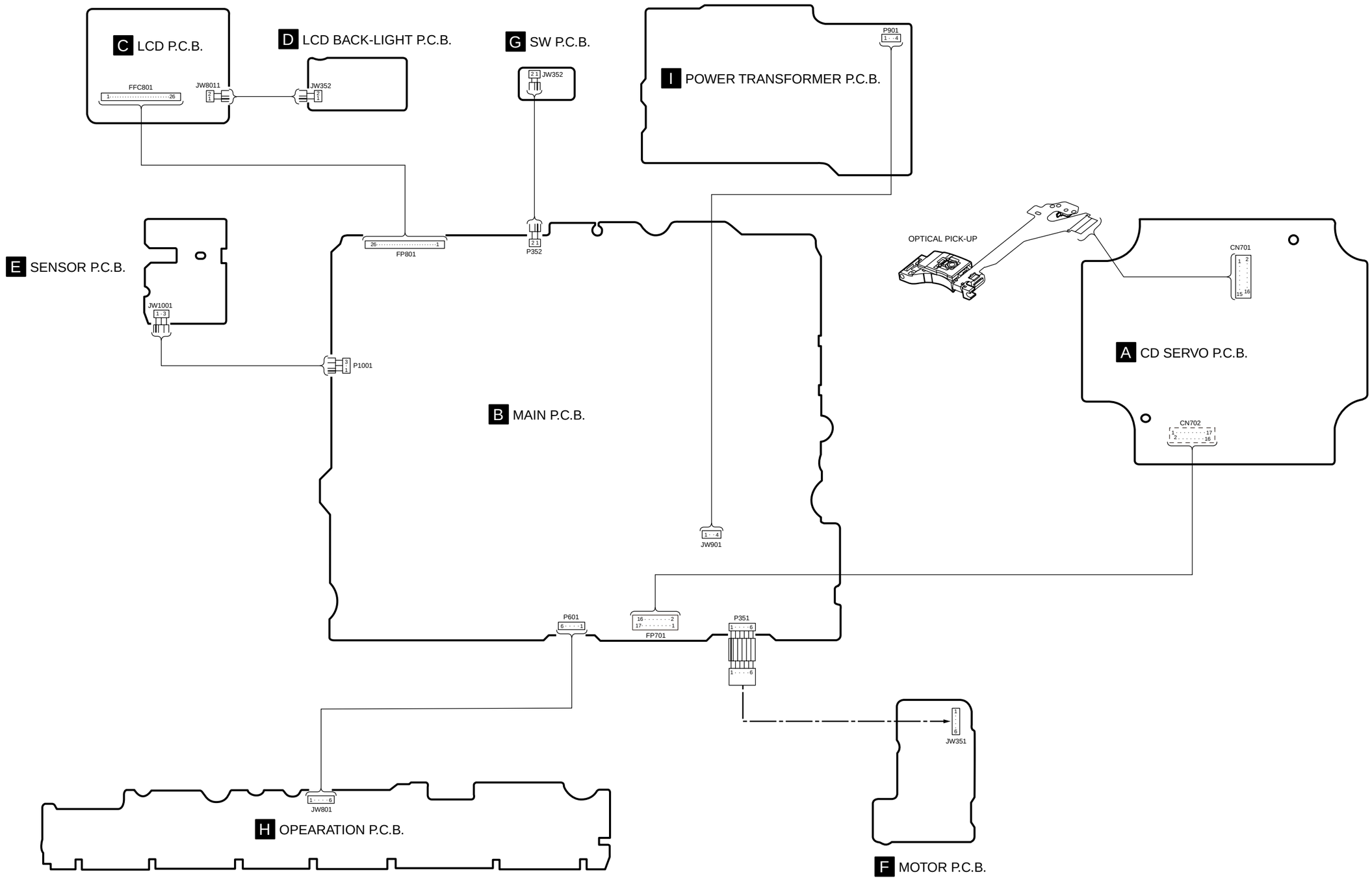


SA-EN17(P,PC) BLOCK DIAGRAM



SA-EN25/EN26/EN27(P,PC) BLOCK DIAGRAM

15 Wiring Connection Diagram



16 Measurements and Adjustments

16.1. Tuner Adjustment

16.1.1. Required tools and equipment

- Signal generator
- AM loop antenna
- Oscilloscope or electrical voltage meter
- Headphone jig

16.1.2. Preparations for Adjustment

- Apply under [9. Operation Checks and Component Replacement].
- Connect to the power supply (AC120V).
- Maximize the volume.

16.1.3. AM RF Adjustment

1. Input AM signal generator output from the AM loop antenna.
2. Connect a measuring instrument to the headphone jack.
3. Tune to the signal (SG 603kHz).
4. Adjust L51 so that the output reaches maximum.(Fig.01)

16.1.4. AM IF Adjustment

1. Follow the steps 1 and 2 of AM RF Adjustment.
2. Tune to the signal (SG 450kHz).
3. Revolve the T1 core and adjust that the output waveforms reaches maximum. (Fig.02)

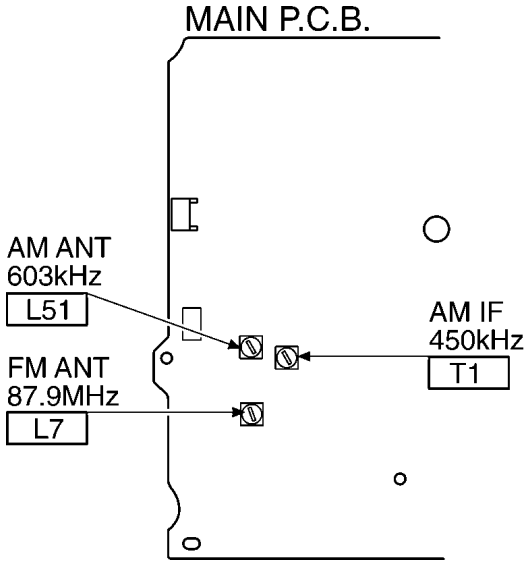
16.1.5. AM VCO Adjustment

1. Input AM single generator output from the AM loop antenna.
2. Set the electrical voltage meter to TP1 - TP3.
3. Tune to the signal (SG 520kHz).
4. Adjust L51 so that the output reaches DC 1.4±0.3V.

16.1.6. FM RF Adjustment

1. Set the frequency of FM signal generator to 87.9MHz.
2. Input to TP1(RF I/P) - TP2(RF O/P) through FM dummy antenna.
3. Adjust L7 so that the output reaches maximum. (Fig.01)
4. Take measurement at point 1, point 2 and point 3 (GND). Range from 2.15 ± 0.5 V

16.2. Adjustment Point



(Fig.01)

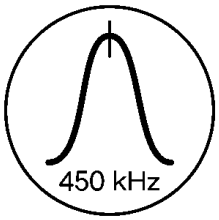


Fig 2

(Fig.02)

17 Terminal Functions of ICs

・IC801 (MN101C74FAD) Microprocessor

Pin No.	Mark	I/O	Function
1 - 4	COM0 - COM4	O	LCD common output
5 - 7	VLC3 -VLC1	-	LCD power supply
8	C2	-	Capacitor terminal for pressure
9	LCD_GND	O/I	LCD GND
10	PC1	I	Writing data
11	PC2	I/O	Writing clock
12	CD_BOTTOM_SW	I/O	CD bottom switch
13	CD_TOP_SW	I/O	CD top switch
14	MBP1	O	Beet proof 1
15	MBP2	O	Beet proof 2
16	VSS	-	GND
17	OSC1	I	Main oscillator input (8MHz)
18	OSC2	O	Main oscillator output (8MHz)
19	VDD	-	VDD +3.3V
20	XI	I	Sub oscillator input (32kHz)
21	XO	O	Sub oscillator output (32kHz)
22	NMOD	I	CD Memory mode select
23	NRESET	I	Reset
24	DMOD	I	Silial writing mode
25	VREF+	-	A/D converter reference voltage
26	KEYSW	A/D	Key input
27	REGION	A/D	Aria/Model select
28	PDET	A/D	Main voltage check
29	CRT	A/D	CR timer
30	NC	I	N.C.
31	CD_OPEN	O	CD open switch function
32	CS_CLOSE	O	CD close switch function
33	AG_DATA	O	ASP data output
34	AG_CLK	O	ASP clock output
35	PLL_D0	I/O	PLL data input
36	PLL_D1	O/I	PLL data output
37	PLL_CLK	O/I	PLL CLK
38	PLL_CE	O/I	PLL chip select output
39	MCLK	O/I	CD LSI command clock
40	MDATA	O/I	CD LSI command data
41	STATUS	I/O	CD status
42	MLD	O/I	CD LSI command load
43	REST_SW	I/O	CD travers limit switch
44	CD_RESET	O	CD reset switch
45	MUTE_A	I/O	Audio Mute Output (L: MUTE ON)
46	NC(EX_BASS)	I	N.C.
47	NC	I	N.C.
48	REM_IN	I	Remocon input
49	ACDET	I	Ac detection
50	BLKCK	I/O	CD subcode block clock input
51	PCONT	O	Power control output
52	CD_SET1	I	CD setting 1
53	CD _SET2	I	CD setting 2
54	CD_SET3	I	CD setting 3
55	NC(REC_H)	I	Not used. Connected with GND exterminally through resistance.
56	NC(TAPE_L)	I	N.C.
57	E_CS	O	EEPROM chip select
58	E_DATA	I/O	EEPROM DATA
59	E_CLK	O	EEPROM CLOCK
60	NC(TEST1)	I	TEST 1 terminal
61	NC(TEST2)	I	TEST 2 terminal
62	NC(JOG1)	I	Not used
63	NC(JOG2)	I	Not used
64	STBY_LED	O	Standby_LED
65	NC(AUX_DET)	I	Not used
66	NC	I	Not used
67	NC	I	Not used
68	NC	I	Not used
69-80	NC	I	Not used
81-100	SEG19-SEG0	O	LCD Segment Output

18 Replacement Parts List

Notes:

- Important safety notice:

  Components identified by ⚠ mark have special characteristics important for safety.

  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

  When replacing any of these components, be sure to use only manufacturers's specified parts shown in the parts list.
- Warning: This product uses a laser diode. Refer to caution statements on "Precaution of Laser Diode"
- Capacitor values are in microfarad (μF) unless specified otherwise, P=Pico-farads(pF); Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000(ohms).
- The marking (RTL) indicates the Retention Time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.
- All parts are supplied by **ASPC**.
- The parenthesized indications in the Remarks column specify the areas. (Refer to the cover page for area.)

  Parts without these indications can be used for all areas.
  - (25P): SA-EN25P
  - (26P): SA-EN26P
  - (27PC): SA-EN27PC

18.1. SA-EN25P,SA-EN26P and SA-EN27PC

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
	REP3876B	CD P.C.B. ASS'Y		(RTL) (25P) (26P)
	REP3875B	CD P.C.B. ASS'Y		(RTL) (27PC)
C704	ECEA0JKA331B	6.3V 330U	1	
C705	F1H1C104A042	16V 0.1U	1	
C707	F1H1C104A042	16V 0.1U	1	
C709	ECEA0JKA101B	6.3V 100U	1	
C716	ECUV1C333KBV	16V 0.033U	1	
C717	ECUVNC154KBV	16V 0.15U	1	
C718	ECUV1H272KBV	50V 2700P	1	
C719	ECUV1H332KBV	50V 3300P	1	
C720	ECEA0JKA330B	6.3V 33U	1	
C721	ECUV1H472KBV	50V 4700P	1	
C722	ECUV1H821JCV	50V 820P	1	
C723	F1H1C104A042	16V 0.1U	1	
C724	F1H1C104A042	16V 0.1U	1	
C726	ECUV1H471JCV	50V 470P	1	
C727	ECUV1C473KBV	16V 0.047U	1	
C729	F1H1C104A042	16V 0.1U	1	
C730	ECUV1H821KBV	50V 820P	1	
C731	ECUV1C223KBV	16V 0.022U	1	
C732	F1H1C104A042	16V 0.1U	1	
C733	ECUV1H102KBV	50V 1000P	1	
C734	ECBT1H104KB5	50V 0.1U	1	
C735	ECEA0JKA101B	6.3V 100U	1	
C736	ECUV1C823KBV	16V 0.082U	1	
C737	ECEA0JKA101B	6.3V 100U	1	(25P) (26P)
C738	ECEA0JKA221B	6.3V 220U	1	
C739	F1H1C104A042	16V 0.1U	1	
C740	ECUV1E103KBN	25V 0.01U	1	
C741	ECUV1H102KBV	50V 1000P	1	
C742	ECUV1H102KBV	50V 1000P	1	
C743	ECEA0JKA331B	6.3V 330U	1	
C744	ECUV1H221KBV	50V 220P	1	
C745	ECUV1H220JCV	50V 22P	1	
C746	ECUV1H220JCV	50V 22P	1	
C747	F1H1C104A042	16V 0.1U	1	
C748	ECUV1H221KBV	50V 220P	1	
C749	F1D1H221A012	50V 220P	1	
C750	ECUV1E103KBV	25V 0.01U	1	
C751	F1D1H471A012	50V 470P	1	
C752	F1H1C104A042	16V 0.1U	1	
C753	ECEA0JKA101B	6.3V 100U	1	
C754	ECUV1C393KBV	16V 0.039U	1	
C756	F1H1C104A042	16V 0.1U	1	
C757	F1H1C104A042	16V 0.1U	1	
C762	ECEA0JKA100B	6.3V 10U	1	(27PC)
CN701	K1MN16B00154	CONNECTOR	1	
CN702	REE1362	CD SERVO FFC	1	
IC700	BA5948FPE2	IC	1	
IC701	MN6627552CB	IC	1	(25P) (26P)
IC701	MN6627953HB	IC	1	(27PC)
Q700	2SB0709A0L	TRANSISTOR	1	
R704	ERDS2TJ5R6T	1/4W 5.6	1	
R705	ERJ3GEYJ562V	1/10W 5.6K	1	
R706	ERJ3GEYJ822V	1/10W 8.2K	1	
R707	ERJ3GEYJ822V	1/10W 8.2K	1	
R708	ERJ3GEYJ562V	1/10W 5.6K	1	
R710	ERJ3GEYJ101V	1/10W 100	1	
R711	ERJ3GEYJ822V	1/10W 8.2K	1	
R712	ERJ3GEYJ101V	1/10W 100	1	
R713	ERJ3GEYJ682V	1/10W 6.8K	1	
R714	ERJ3GEYJ223V	1/10W 22K	1	
R715	ERJ3GEYJ102V	1/10W 1K	1	
R716	ERJ3GEYJ332V	1/10W 3.3K	1	
R717	ERJ3GEYJ562V	1/10W 5.6K	1	
R718	ERJ3GEYJ5R6V	1/10W 5.6	1	
R719	ERJ3GEYJ683V	1/10W 68K	1	
R720	ERJ3GEYJ562V	1/10W 5.6K	1	
R721	ERJ3GEYJ4R7V	1/10W 4.7	1	
R722	ERJ3GEYJ563V	1/10W 56K	1	
R723	ERJ3GEYJ102V	1/10W 1K	1	
R724	ERJ3GEYJ332V	1/10W 3.3K	1	
R725	ERJ3GEYJ273V	1/10W 27K	1	
R726	ERJ3GEYJ102V	1/10W 1K	1	
R727	ERJ3GEYJ393V	1/10W 39K	1	
R728	ERJ3GEYJ562V	1/10W 5.6K	1	
R729	ERJ3GEYJ562V	1/10W 5.6K	1	
R730	ERJ3GEYJ562V	1/10W 5.6K	1	
R731	ERJ3GEYJ823V	1/10W 82K	1	
R732	ERJ3GEYJ821V	1/10W 820	1	
R733	ERJ3GEYJ5R6V	1/10W 5.6	1	
R734	ERJ3GEYJ101V	1/10W 100	1	
R735	ERJ3GEYJ683V	1/10W 68K	1	
R736	ERJ3GEYJ683V	1/10W 68K	1	
R737	ERJ3GEYJ102V	1/10W 1K	1	
R738	ERJ3GEYJ102V	1/10W 1K	1	
R739	ERJ3GEYJ683V	1/10W 68K	1	
R740	ERJ3GEYJ105V	1/10W 1M	1	(27PC)
R741	ERJ3GEYJ101V	1/10W 100	1	
R742	ERJ3GEYJ102V	1/10W 1K	1	
R743	ERJ3GEYJ102V	1/10W 1K	1	
R744	ERJ3GEY0R00V	1/10W 0	1	
R747	ERJ3GEYJ683V	1/10W 68K	1	
R748	ERJ3GEYJ683V	1/10W 68K	1	
R749	ERJ3GEYJ683V	1/10W 68K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R750	ERJ3GEYJ683V	1/10W 68K	1	
R751	ERJ3GEY0R00V	1/10W 0	1	
R752	ERJ6GEY0R00V	1/8W 0	1	(25P) (26P)
R753	ERJ3GEY0R00V	1/10W 0	1	(25P) (26P)
S700	K0L1BA000109	SW	1	
X700	H2A169500008	CRYSTAL OSC.	1	
	REP4044A	MAIN P.C.B. ASS'Y		(RTL) (25P) (26P)
	REP4044B	MAIN P.C.B. ASS'Y		(RTL) (27PC)
C1	ECJ1VC1H470J	50V 47P	1	
C2	ECJ1VC1H100D	50V 10P	1	
C3	ECJ1VB1C333K	16V 0.033U	1	
C4	ECEA1CKA100B	16V 10U	1	
C5	ECJ1VB1C473K	16V 0.047U	1	
C6	ECJ1VB1H102K	50V 1000P	1	
C7	ECJ1VB1H102K	50V 1000P	1	
C8	ECJ1VC1H070D	50V 7P	1	
C9	ECJ1VB1E103K	25V 0.01U	1	
C10	ECJ1VB1E103K	25V 0.01U	1	
C11	ECJ1VB1H102K	50V 1000P	1	
C12	ECJ1VB1C473K	16V 0.047U	1	
C13	ECJ1VC1H150J	50V 15P	1	
C15	ECJ1VB1C473K	16V 0.047U	1	
C16	ECJ1VC1H150J	50V 15P	1	
C17	ECEA1HKA3R3B	50V 3.3U	1	
C18	ECJ1VB1E103K	25V 0.01U	1	
C19	ECEA1HKA010B	50V 1U	1	
C20	ECEA1AKA101B	10V 100U	1	
C21	ECEA1HKA010B	50V 1U	1	
C22	ECEA1HKAR47B	50V 0.47U	1	
C23	ECEA1AKA101B	10V 100U	1	
C24	ECEA1AKA220B	10V 22U	1	
C25	ECJ1VB1C183K	16V 0.018U	1	
C26	ECJ1VB1E103K	25V 0.01U	1	
C27	ECJ1VB1C183K	16V 0.018U	1	
C28	ECJ1VB1H102K	50V 1000P	1	
C29	ECJ1VB1H102K	50V 1000P	1	
C30	ECEA1HKA010B	50V 1U	1	
C31	ECEA1HKA010B	50V 1U	1	
C32	ECEA1HKA4R7B	50V 4.7U	1	
C33	ECJ1VC1H101K	50V 100P	1	
C34	ECJ1VC1H270J	50V 27P	1	
C35	ECJ1VC1H101K	50V 100P	1	
C36	ECJ1VC1H220J	50V 22P	1	
C37	ECJ1VC1H101K	50V 100P	1	
C39	ECJ1VB1H102K	50V 1000P	1	
C40	ECEA1CKA101B	16V 100U	1	
C41	ECJ1VB1H331K	50V 330P	1	
C43	ECJ1VB1C473K	16V 0.047U	1	
C44	ECJ1VB1C223K	16V 0.023U	1	
C46	ECJ1VB1H222K	50V 2200P	1	
C47	F1D1H100A015	50V 10U	1	
C48	ECJ1VB1H102K	50V 1000P	1	
C51	ECJ1VC1H070D	50V 7P	1	
C52	ECJ1VB1H102K	50V 1000P	1	
C103	F1H1C104A042	16V 0.1U	1	
C104	F1H1C104A042	16V 0.1U	1	
C105	F1H1C104A042	16V 0.1U	1	
C106	ECJ1VB1H102K	50V 1000P	1	
C107	ECJ1VB1H102K	50V 1000P	1	
C108	ECJ1VB1H102K	50V 1000P	1	
C109	ECJ1VB1C683K	16V 0.068U	1	
C110	F1H1C104A042	16V 0.1U	1	
C111	ECJ1VB1E103K	25V 0.01U	1	
C112	ECJ1VB1E153K	25V 0.015U	1	
C113	ECEA1HKAR22B	50V 0.22U	1	
C114	ECJ1VB1C473K	16V 0.047U	1	
C115	ECJ1VB1C105K	16V 1U	1	
C116	ECEA1HKA010B	50V 1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C117	ECUV1H682KBV	50V 6800P	1	
C118	ECJ1VB1C333K	16V 0.033U	1	
C119	ECJ1VB1E153K	25V 0.015U	1	
C122	ECJ1VB1C473K	16V 0.047U	1	
C203	F1H1C104A042	16V 0.1U	1	
C204	F1H1C104A042	16V 0.1U	1	
C205	F1H1C104A042	16V 0.1U	1	
C206	ECJ1VB1H102K	50V 1000P	1	
C207	ECJ1VB1H102K	50V 1000P	1	
C208	ECJ1VB1H102K	50V 1000P	1	
C209	ECJ1VB1C683K	16V 0.068U	1	
C210	F1H1C104A042	16V 0.1U	1	
C211	ECJ1VB1E103K	25V 0.01U	1	
C212	ECJ1VB1E153K	25V 0.015U	1	
C213	ECEA1HKAR22B	50V 0.22U	1	
C214	ECJ1VB1C473K	16V 0.047U	1	
C215	ECJ1VB1C105K	16V 1U	1	
C216	ECEA1HKA010B	50V 1U	1	
C217	ECUV1H682KBV	50V 6800P	1	
C218	ECJ1VB1C333K	16V 0.033U	1	
C219	ECJ1VB1E153K	25V 0.015U	1	
C222	ECJ1VB1C473K	16V 0.047U	1	
C301	ECJ1VB1H102K	50V 1000P	1	
C305	ECJ1VB1H221K	50V 220P	1	
C309	ECEA1AKA470B	10V 47U	1	
C310	ECEA1AKA101B	10V 100U	1	
C311	ECEA1HKAR33B	50V 0.33U	1	
C312	ECJ1VB1H221K	50V 220P	1	
C313	ECJ1VB1H221K	50V 220P	1	
C315	ECEA0JKA101B	6.3V 100U	1	
C353	ECA1AM221B	10V 220U	1	
C356	ECJ1VB1H221K	50V 220P	1	
C357	ECJ1VB1H221K	50V 220P	1	
C358	ECA1AM102B	10V 1000U	1	
C359	ECJ1VB1H102K	50V 1000P	1	
C402	ECUV1C224KBV	16V 0.22U	1	
C403	ECJ1VB1H471K	50V 470P	1	
C407	ECA1AM102B	10V 1000U	1	
C502	ECUV1C224KBV	16V 0.22U	1	
C503	ECJ1VB1H471K	50V 470P	1	
C507	ECA1AM102B	10V 1000U	1	
C601	ECEA1CKA470B	16V 47U	1	
C602	ECEA1CKA100B	16V 10U	1	
C603	ECJ1VB1H102K	50V 1000P	1	
C604	ECEA1EKA100B	25V 10U	1	
C608	ECEA1EKA100B	25V 10U	1	
C609	ECEA1EKA100B	25V 10U	1	
C610	ECEA1EKA100B	25V 10U	1	
C611	ECA0JM472E	6.3V 4700U	1	
C612	ECEA0JKA101B	6.3V 100U	1	
C615	ECEA1CKA101B	16V 100U	1	
C616	ECA1EM332E	25V 3300U	1	
C801	ECEA1AKA101B	10V 100U	1	
C802	ECJ1VB1E103K	25V 0.01U	1	
C803	ECJ1VB1H102K	50V 1000P	1	
C804	ECJ1VB1H102K	50V 1000P	1	
C805	ECJ1VB1E103K	25V 0.01U	1	
C806	ECJ1VB1H102K	50V 1000P	1	
C807	ECJ1VC1H560J	50V 56P	1	
C808	ECJ1VC1H560J	50V 56P	1	
C809	ECJ1VB1H102K	50V 1000P	1	
C810	ECJ1VC1H390J	50V 39P	1	
C811	ECJ1VC1H560J	50V 56P	1	
C812	ECUV1H180JCV	50V 18P	1	
C813	ECUV1H180JCV	50V 18P	1	
C814	ECEA1HKA2R2B	50V 2.2U	1	
C815	ECEA1HKA010B	50V 1U	1	
C817	ECJ1VB1H102K	50V 1000P	1	
C818	ECJ1VB1H102K	50V 1000P	1	
C819	ECJ1VB1H102K	50V 1000P	1	
C820	ECEA1EKA100B	25V 10U	1	
C821	ECJ1VB1H102K	50V 1000P	1	
C822	ECJ1VB1H102K	50V 1000P	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C826	ECJ1VB1H102K	50V 1000P	1	
C827	ECA1AM331B	10V 330U	1	
C828	ECJ1VB1H222K	50V 2200P	1	
C829	ECJ1VB1H222K	50V 2200P	1	
C830	ECJ1VB1H102K	50V 1000P	1	
C901	ECBT1H103KB5	50V 0.01U	1	
C902	ECBT1H103KB5	50V 0.01U	1	
C903	ECBT1H103KB5	50V 0.01U	1	
C904	ECBT1H103KB5	50V 0.01U	1	
C1001	ECEA1CKA100B	16V 10U	1	
C1002	ECJ1VB1C105K	16V 1U	1	
CF1	J0B1075A0101	FM CERAMIC FILTER	1	
CF2	RLFCFA450L4B	AM FILTER	1	
D1	B0CDAD000010	DIODE	1	
D2	B0CDAB000019	DIODE	1	
D3	B0CDAB000019	DIODE	1	
D4	B0AACK000004	DIODE	1	
D301	MAZ40560MF	DIODE	1	
D601	MAZ40510MF	DIODE	1	
D602	B0EAKM000118	DIODE	1	
D603	B0EAKM000118	DIODE	1	
D604	B0EAKM000118	DIODE	1	
D605	B0AACK000004	DIODE	1	
D607	B0AACK000004	DIODE	1	
D608	MAZ40910LF	DIODE	1	
D610	B0AACK000004	DIODE	1	
D611	B0AACK000004	DIODE	1	
D612	B0AAEF000001	DIODE	1	
D613	B0AAEF000001	DIODE	1	
D614	MAZ40620MF	DIODE	1	
D615	MAZ40470MF	DIODE	1	
D801	B0AACK000004	DIODE	1	
D802	B0AACK000004	DIODE	1	
D803	B0AAEF000001	DIODE	1	
D901	B0EAKM000118	DIODE	1	
D902	B0EAKM000118	DIODE	1	
D903	B0EAKM000118	DIODE	1	
D904	B0EAKM000118	DIODE	1	
D906	B0AACK000004	DIODE	1	
D1001	MAZ40820MF	DIODE	1	
D1002	LNG4A4CN4E	LED	1	
D1003	MAZ40620MF	DIODE	1	
FFC801	REE1363	LCD FFC	1	
FP701	K1MN17B00032	CONNECTOR	1	
FP801	K1MN26B00010	CONNECTOR	1	
IC1	C1BB00001120	TUNER IC	1	
IC301	C1BB00000732	IC	1	
IC351	C0GAE0000007	MOTOR DRIVER IC	1	
IC601	C0AAAA000036	POWER IC	1	
IC801	MN101C74FAD	MICON IC	1	
IP602	K5G251A00008	FUSE PROTECTOR	1	⚠
JK601	K2HC103A0031	JACK	1	
JK602	K4AC04B00008	TERMINAL	1	
JK603	K2HC1YYA0002	JACK	1	
JK901	K2AB2B000007	AC INTEL	1	⚠
JW351	REX1227	MOTER TO MAIN WIRE	1	
JW352	REX1228	SW TO MAIN WIRE	1	
JW601	REX1227	SW TO MAIN WIRE	1	
JW801	RWJ9002070SS	LEAF SW WIRE	1	
JW1001	REX1229	SENSOR TO MAIN WIRE	1	
L1	RLQY30S1W-F	COIL	1	
L3	RLQY30S1W-F	COIL	1	
L5	G0ZZ00002174	FM COIL	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
L7	G2BPC0000017	COIL	1	
L8	RLQZP101KT-Y	AXIAL COIL	1	
L51	G2A390C00001	AM RF COIL	1	
L601	RLQZP101KT-Y	AXIAL COIL	1	
L801	G0C2R2JA0019	FIXED INDUCTOR	1	
L802	G0C2R2JA0019	FIXED INDUCTOR	1	
L901	ELF15N035AN	POWER COIL	1	
P1	K1KA03AA0186	CONNECTOR(3P)	1	
P351	K1KA06BA0061	CONNECTOR	1	
P352	K1KA02BA0055	CONNECTOR	1	
P601	K1KA06BA0061	CONNECTOR	1	
P901	K1KA04BA0055	CONNECTOR	1	
P1001	K1KA03BA0055	CONNECTOR	1	
Q1	2SD1819ARL	TRANSISTOR	1	
Q301	KTA2014GRRTK	TRANSISTOR	1	
Q302	B1AACF000117	TRANSISTOR	1	
Q303	B1AACF000117	TRANSISTOR	1	
Q401	B1ABGD000021	TRANSISTOR	1	
Q501	B1ABGD000021	TRANSISTOR	1	
Q603	B1ACND000003	TRANSISTOR	1	
Q604	2SD1819ARL	TRANSISTOR	1	
Q605	B1BCCG000002	P TRANSISTOR	1	
Q606	KTA2014GRRTK	TRANSISTOR	1	
Q607	2SD1819ARL	TRANSISTOR	1	
Q608	B1ACND000003	TRANSISTOR	1	
Q611	B1ACND000003	TRANSISTOR	1	
Q612	2SD1819ARL	TRANSISTOR	1	
Q613	KTA2014GRRTK	TRANSISTOR	1	
Q615	B1BAAJ000003	TRANSISTOR	1	
Q617	2SD1819ARL	TRANSISTOR	1	
Q801	2SD1819ARL	TRANSISTOR	1	
Q802	2SD1819ARL	TRANSISTOR	1	
QR609	UNR521400L	TRANSISTOR	1	
QR614	UNR521F00L	TRANSISTOR	1	
QR618	UNR521F00L	TRANSISTOR	1	
QR619	UNR521F00L	TRANSISTOR	1	
QR620	UNR511100L	TRANSISTOR	1	
QR621	UNR511100L	TRANSISTOR	1	
QR803	UNR521300L	TRANSISTOR	1	
QR804	UNR511100L	TRANSISTOR	1	
R1	ERJ3GEYJ103V	1/10W 10K	1	
R2	ERJ3GEY0R00V	1/10W 0	1	
R3	ERJ3GEYJ332V	1/10W 3.3K	1	
R4	ERJ3GEYJ104V	1/10W 100K	1	
R5	ERJ3GEYJ680V	1/10W 68	1	
R6	ERJ3GEYJ104V	1/10W 100K	1	
R7	ERJ3GEYJ104V	1/10W 100K	1	
R8	ERJ3GEYJ103V	1/10W 10K	1	
R9	ERJ3GEY0R00V	1/10W 0	1	
R10	ERJ3GEYJ104V	1/10W 100K	1	
R11	ERJ3GEYJ332V	1/10W 3.3K	1	
R12	ERJ3GEYJ152V	1/10W 1.5K	1	
R13	ERJ3GEYJ332V	1/10W 3.3K	1	
R14	ERJ3GEYJ472V	1/10W 4.7K	1	
R16	ERJ3GEYJ103V	1/10W 10K	1	
R17	ERJ3GEYJ103V	1/10W 10K	1	
R18	ERJ3GEYJ223V	1/10W 22K	1	
R20	ERJ3GEYJ103V	1/10W 10K	1	
R22	ERJ3GEYJ103V	1/10W 10K	1	
R23	ERJ3GEYJ223V	1/10W 22K	1	
R24	ERJ3GEYJ223V	1/10W 22K	1	
R25	ERJ3GEYJ223V	1/10W 22K	1	
R28	ERJ3GEYJ104V	1/10W 100K	1	
R29	ERJ3GEYJ102V	1/10W 1K	1	
R30	ERJ3GEYJ393V	1/10W 39K	1	
R31	ERJ3GEYJ472V	1/10W 4.7K	1	
R32	ERJ3GEYJ330V	1/10W 33	1	
R33	ERJ3GEYJ472V	1/10W 4.7K	1	
R34	ERJ3GEYJ182V	1/10W 1.8K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R35	ERJ3GEYJ472V	1/10W 4.7K	1	
R36	ERJ3GEYJ472V	1/10W 4.7K	1	
R37	ERJ3GEY0R00V	1/10W 0	1	
R101	ERJ3GEYJ473V	1/10W 47K	1	
R102	ERJ3GEYJ562V	1/10W 5.6K	1	
R103	ERJ3GEYJ473V	1/10W 47K	1	
R104	ERJ3GEYJ562V	1/10W 5.6K	1	
R105	ERJ3GEYJ562V	1/10W 5.6K	1	
R106	ERDS2TJ682T	1/4W 6.8K	1	
R107	ERJ3GEYJ223V	1/10W 22K	1	
R108	ERJ3GEYJ332V	1/10W 3.3K	1	
R109	ERJ3GEYJ103V	1/10W 10K	1	
R110	ERJ3GEYJ392V	1/10W 3.9K	1	
R111	ERJ3GEYJ333V	1/10W 33K	1	
R112	ERJ3GEYJ682V	1/10W 6.8K	1	
R113	ERJ3GEYJ472V	1/10W 4.7K	1	
R201	ERJ3GEYJ473V	1/10W 47K	1	
R202	ERJ3GEYJ562V	1/10W 5.6K	1	
R203	ERJ3GEYJ473V	1/10W 47K	1	
R204	ERJ3GEYJ562V	1/10W 5.6K	1	
R205	ERJ3GEYJ562V	1/10W 5.6K	1	
R206	ERDS2TJ682T	1/4W 6.8K	1	
R207	ERJ3GEYJ223V	1/10W 22K	1	
R208	ERJ3GEYJ332V	1/10W 3.3K	1	
R209	ERJ3GEYJ103V	1/10W 10K	1	
R210	ERJ3GEYJ392V	1/10W 3.9K	1	
R211	ERJ3GEYJ333V	1/10W 33K	1	
R212	ERJ3GEYJ682V	1/10W 6.8K	1	
R213	ERJ3GEYJ472V	1/10W 4.7K	1	
R301	ERJ3GEYJ223V	1/10W 22K	1	
R302	ERJ3GEYJ223V	1/10W 22K	1	
R303	ERJ3GEYJ223V	1/10W 22K	1	
R304	ERJ3GEYJ223V	1/10W 22K	1	
R305	ERJ3GEYJ103V	1/10W 10K	1	
R306	ERJ3GEYJ102V	1/10W 1K	1	
R307	ERJ3GEYJ102V	1/10W 1K	1	
R308	ERJ3GEYJ102V	1/10W 1K	1	
R309	ERJ3GEYJ102V	1/10W 1K	1	
R312	ERJ3GEYJ102V	1/10W 1K	1	
R313	ERJ3GEYJ102V	1/10W 1K	1	
R316	ERJ3GEYJ334V	1/10W 330K	1	
R317	ERJ3GEYJ334V	1/10W 330K	1	
R318	ERDS2TJ330T	1/4W 33	1	
R319	ERDS2TJ330T	1/4W 33	1	
R322	ERJ3GEYJ470V	1/10W 47	1	
R323	ERJ3GEYJ331V	1/10W 330	1	
R325	ERJ3GEYJ152V	1/10W 1.5K	1	
R402	ERJ3GEYJ102V	1/10W 1K	1	
R403	ERJ3GEYJ271V	1/10W 270	1	
R409	ERDS2TJ333T	1/4W 33K	1	
R502	ERJ3GEYJ102V	1/10W 1K	1	
R503	ERJ3GEYJ271V	1/10W 270	1	
R509	ERDS2TJ333T	1/4W 33K	1	
R601	ERDS2TJ822T	1/4W 8.2K	1	
R603	ERJ3GEYJ104V	1/10W 100K	1	
R604	ERJ3GEYJ273V	1/10W 27K	1	
R605	ERJ3GEYJ102V	1/10W 1K	1	
R607	ERJ3GEYJ222V	1/10W 2.2K	1	
R608	ERJ3GEYJ333V	1/10W 33K	1	
R612	ERJ3GEYJ222V	1/10W 2.2K	1	
R613	ERJ3GEYJ223V	1/10W 22K	1	
R614	ERDS2TJ151T	1/4W 150	1	
R615	ERJ3GEYJ1R0V	1/10W 1	1	
R616	ERDS2TJ471T	1/4W 470	1	
R617	ERJ3GEYJ101V	1/10W 100	1	
R618	ERJ3GEYJ681V	1/10W 680	1	
R619	ERJ3GEYJ681V	1/10W 680	1	
R620	ERJ3GEYJ2R2V	1/10W 2.2	1	
R621	ERDS2TJ1R0T	1/4W 1	1	
R622	ERDS2TJ1R0T	1/4W 1	1	
R623	ERDS2TJ471T	1/4W 470	1	
R624	ERDS2TJ471T	1/4W 470	1	
R625	ERDS2TJ121T	1/4W 120	1	
R626	ERDS2TJ121T	1/4W 120	1	
R627	ERDS2TJ221T	1/4W 220	1	
R628	ERJ3GEYJ102V	1/10W 1K	1	
R629	ERJ3GEYJ102V	1/10W 1K	1	
R630	ERJ3GEYJ221V	1/10W 220	1	
R631	ERJ3GEYJ102V	1/10W 1K	1	
R632	ERJ3GEYJ472V	1/10W 4.7K	1	
R633	ERJ3GEYJ103V	1/10W 10K	1	
R634	ERJ3GEYJ101V	1/10W 100	1	
R635	ERJ3GEYJ222V	1/10W 2.2K	1	
R636	ERJ3GEYJ222V	1/10W 2.2K	1	
R637	ERJ3GEYJ681V	1/10W 680	1	
R638	ERJ3GEYJ153V	1/10W 15K	1	
R639	ERJ3GEYJ102V	1/10W 1K	1	
R640	ERJ3GEYJ153V	1/10W 15K	1	
R641	ERJ3GEYJ102V	1/10W 1K	1	
R642	ERJ3GEYJ562V	1/10W 5.6K	1	
R643	ERJ3GEYJ273V	1/10W 27K	1	
R644	ERJ3GEYJ562V	1/10W 5.6K	1	
R801	ERJ3GEYJ123V	1/10W 12K	1	
R802	ERJ3GEYJ104V	1/10W 100K	1	
R803	ERJ3GEYJ104V	1/10W 100K	1	
R804	ERJ3GEYJ104V	1/10W 100K	1	
R807	ERJ3GEYJ332V	1/10W 3.3K	1	
R808	ERJ3GEYJ332V	1/10W 3.3K	1	
R809	ERJ3GEYJ224V	1/10W 220K	1	
R811	ERJ3GEYJ473V	1/10W 47K	1	
R812	ERJ3GEYJ102V	1/10W 1K	1	
R813	ERJ3GEYJ102V	1/10W 1K	1	
R814	ERJ3GEYJ102V	1/10W 1K	1	
R815	ERJ3GEYJ102V	1/10W 1K	1	
R816	ERJ3GEYJ102V	1/10W 1K	1	
R817	ERJ3GEYJ183V	1/10W 18K	1	
R818	ERJ3GEYJ103V	1/10W 10K	1	
R819	ERJ3GEYJ472V	1/10W 4.7K	1	
R820	ERJ3GEYJ103V	1/10W 10K	1	
R822	ERJ3GEYJ102V	1/10W 1K	1	
R823	ERJ3GEYJ102V	1/10W 1K	1	
R824	ERJ3GEYJ224V	1/10W 220K	1	
R825	ERJ3GEYJ123V	1/10W 12K	1	(27PC)
R825	ERJ3GEYJ1R0V	1/10W 1	1	(25P) (26P)
R826	ERJ3GEYJ1R0V	1/10W 1	1	(25P) (26P)
R826	ERJ3GEYJ392V	1/10W 3.9K	1	(27PC)
R827	ERJ3GEYJ472V	1/10W 4.7K	1	
R828	ERJ3GEYJ102V	1/10W 1K	1	
R829	ERJ3GEYJ102V	1/10W 1K	1	
R830	ERJ3GEYJ104V	1/10W 100K	1	
R831	ERJ3GEYJ104V	1/10W 100K	1	
R832	ERJ3GEYJ153V	1/10W 15K	1	
R833	ERJ3GEYJ104V	1/10W 100K	1	
R835	ERJ3GEYJ103V	1/10W 10K	1	
R836	ERJ3GEYJ103V	1/10W 10K	1	
R837	ERJ3GEYJ103V	1/10W 10K	1	
R838	ERJ3GEYJ104V	1/10W 100K	1	
R839	ERJ3GEYJ104V	1/10W 100K	1	
R840	ERJ3GEYJ153V	1/10W 15K	1	
R841	ERJ3GEYJ821V	1/10W 820	1	
R846	ERJ3GEYJ152V	1/10W 1.5K	1	
R847	ERJ3GEYJ222V	1/10W 2.2K	1	
R848	ERJ3GEYJ272V	1/10W 2.7K	1	
R849	ERJ3GEYJ392V	1/10W 3.9K	1	
R850	ERJ3GEYJ562V	1/10W 5.6K	1	
R851	ERJ3GEYJ822V	1/10W 8.2K	1	
R852	ERDS2TJ153T	1/4W 15K	1	
R860	ERJ3GEYJ104V	1/10W 100K	1	
R861	ERJ3GEYJ104V	1/10W 100K	1	
R862	ERJ3GEYJ820V	1/10W 82	1	
R864	ERJ3GEYJ102V	1/10W 1K	1	
R865	ERJ3GEYJ102V	1/10W 1K	1	
R874	ERJ3GEYJ104V	1/10W 100K	1	
R875	ERJ3GEYJ104V	1/10W 100K	1	
R876	ERJ3GEY0R00V	1/10W 0	1	
R877	ERJ3GEY0R00V	1/10W 0	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R878	ERJ3GEY0R00V	1/10W 0	1	
R901	ERDS2TJ102T	1/4W 1K	1	
R1003	ERDS2TJ680T	1/4W 68	1	
S351	K0L1BB000005	SW	1	
S352	K0L1BB000005	SW	1	
S801	EVQ21405R	SW	1	
S802	EVQ21405R	SW	1	
S803	EVQ21405R	SW	1	
S804	EVQ21405R	SW	1	
S805	EVQ21405R	SW	1	
S806	EVQ21405R	SW	1	
S807	EVQ21405R	SW	1	
S808	EVQ21405R	SW	1	
T1	G2BAC0000053	IFT	1	
X1	J0B1075A0121	DISCRIMINATOR	1	
X2	H0A750200020	CRYSTAL OSCILLATOR	1	
X801	H0A327200097	CRYSTAL OSCILLATOR	1	
X802	H2A800400011	CERAMIC OSCILLATOR	1	
Z801	L5ACAEC00028	LCD	1	
Z1001	B3RAD0000074	SENSOR	1	
ZA901	K3GE1ZA00011	FUSE HOLDER	1	
ZA902	K3GE1ZA00011	FUSE HOLDER	1	
		CABINET PARTS		
1	RAE0250Z-1X	TRAVERSE ASS'Y	1	
1-1	RAF0250A-8X	PICK-UP	1	⚠
1-2	RDG0593	RELAY GEAR	1	
1-3	RDG0592	DRIVE GEAR	1	
1-5	RMS0849	GUIDE SHAFT	1	
1-6	RXQ1225	TRV MOTOR ASS'Y	1	
1-7	XQN2+C3FJ	SCREW	1	
1-8	XQN2+C3FJ	SCREW	1	
2	RMG0649-A	FLOATING RUBBER B	1	
3	RMG0649-A	FLOATING RUBBER B	1	
4	RMG0649-A	FLOATING RUBBER B	1	
5	RMG0649-A	FLOATING RUBBER B	1	
6	XTN2+6GFJ	SCREW	1	
7	XTN2+6GFJ	SCREW	1	
8	XTN2+6GFJ	SCREW	1	
10	RMN0837	LCD HOLDER	1	
11	RMN0838	LED HOLDER	1	
12	RMN0839	ANT HOLDER	1	
13	RMN0840	LCD FIX PIECE	1	
14	RMN0840	LCD FIX PIECE	1	
15	RMX0353	LCD SPACE SHEET	1	
16	XTV3+6FFJ	SCREW	1	
17	RDG0612	PULLEY GEAR	1	
18	RDG0613	2ND GEAR	1	
19	RDG0614	DRIVE GEAR L	1	
20	RDG0615	DRIVE GEAR R	1	
21	RDG0616	TIMING GEAR	1	
22	RDG0617	LID KICKER	1	
23	RDG0618	LID GEAR L	1	
24	RDG0619	LID GEAR R	1	
25	RDP0118	LID ROLLER	1	
26	RDP0118	LID ROLLER	1	
27	RDV0076	BELT	1	
28	RGU2449-S1	FUNCTION BUTTON	1	
29	RHD14136	SCREW	1	
30	RHD14136	SCREW	1	
32	RHD26044-1	SCREW	1	
33	RHD26044-1	SCREW	1	
34	RHD26044-1	SCREW	1	
35	RHD26044-1	SCREW	1	
36	RHD26047	SCREW	1	
37	RHD26047	SCREW	1	
38	RHD26047	SCREW	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
39	RHD26047	SCREW	1	
40	RHD26047	SCREW	1	
41	RHD26047	SCREW	1	
42	RHD26047	SCREW	1	
43	RHD26047	SCREW	1	
44	RHD26047	SCREW	1	
45	RHD26047	SCREW	1	
46	RHD26047	SCREW	1	
47	RHD26047	SCREW	1	
48	RHD26047	SCREW	1	
49	RHD26047	SCREW	1	
50	RHD26047	SCREW	1	
51	RHD26047	SCREW	1	
52	RHD26047	SCREW	1	
53	RHD26047	SCREW	1	
54	RHD26047	SCREW	1	
55	RHD26047	SCREW	1	
56	RHD26047	SCREW	1	
57	RHD26047	SCREW	1	
58	RHD26047	SCREW	1	
59	RHD26047	SCREW	1	
60	RHD26047	SCREW	1	
61	RHD26047	SCREW	1	
62	RHD26047	SCREW	1	
64	RHD26051	SCREW	1	
65	RHD26051	SCREW	1	
66	RHD26051	SCREW	1	
67	RHD26051	SCREW	1	
68	RHD26051	SCREW	1	
69	RHD26051	SCREW	1	
70	RKA0162-K	LEG RUBBER	1	
71	RKA0162-K	LEG RUBBER	1	
72	RKA0162-K	LEG RUBBER	1	
73	RKA0162-K	LEG RUBBER	1	
74	RKQ0274-K	CD BASE	1	(25P)(26P)
74	RKQ0274A-K	CD BASE	1	(27PC)
75	RKS0423-H	BACK CAB	1	(25P)(26P)
75	RKS0423A-H	BACK CAB	1	(27PC)
76	RMB0819	CD SPRING	1	
77	RMB0845	KICKER SPRING	1	
78	RMB0846	SW SPRING	1	
79	RMC0671	FRICTION SPRING	1	
80	RMC0683	SHAFT FIXER	1	
81	RMC0683	SHAFT FIXER	1	
82	RMET0025-1	CD FLOATING SPRING	1	
83	RMET0025-1	CD FLOATING SPRING	1	
84	RMET0025-1	CD FLOATING SPRING	1	
85	RMET0025-1	CD FLOATING SPRING	1	
86	RMG0699-K	LID CUSHON	1	
87	RMG0699-K	LID CUSHON	1	
91	RMK0657	GEAR CH L	1	
92	RMK0658	GEAR CH R	1	
93	RML0710	SW LEVER	1	
94	RMQ1494-1	GEAR FIXTRURE	1	
95	RMS0876	LID BEARING L	1	
96	RMS0877	LID BEARING R	1	
97	RMS0878	SHAFT BEARING	1	
98	RMS0879	ROLLER BEARING L	1	
99	RMS0880	ROLLER BEARING R	1	
100	RMS0881	SHAFT	1	
102	RMS0885	SHAFT BEARING2	1	
103	RSC0732	EARTH PLATE	1	
104	RSC0733	TUNER SHIELD	1	
105	RYK1477-S	FRONT CAB UNIT	1	(25P)
105	RYK1477A-S	FRONT CAB UNIT	1	(27PC)
105	RYK1477C-S	FRONT CAB UNIT	1	(26P)
106	XTN2+6GFJ	SCREW	1	
107	XTN2+6GFJ	SCREW	1	
108	XTN2+6GFJ	SCREW	1	
109	XTN2+6GFJ	SCREW	1	
110	XTN2+6GFJ	SCREW	1	
111	XTN2+6GFJ	SCREW	1	
112	XTN2+6GFJ	SCREW	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
113	XTN2+6GFJ	SCREW	1	
114	XTN2+6GFJ	SCREW	1	
115	XTV3+12GFJ	SCREW	1	
116	XTV3+12GFJ	SCREW	1	
117	XTV3+12GFJ	SCREW	1	
118	XTV3+12GFJK	SCREW	1	
119	XTV3+12GFJK	SCREW	1	
120	XTV3+12GFJK	SCREW	1	
121	XTV3+12GFJK	SCREW	1	
122	XTV3+12GFJK	SCREW	1	
123	XTV3+12GFJK	SCREW	1	
124	XTV3+12GFJK	SCREW	1	
125	XTV3+12GFJK	SCREW	1	
126	XTV3+12GFJK	SCREW	1	
127	XTV3+12GFJK	SCREW	1	
128	XTV3+12GFJK	SCREW	1	
129	XTV3+12GFJK	SCREW	1	
130	XTV3+12GFJK	SCREW	1	
131	XTV3+12GFJK	SCREW	1	
132	XTV3+12GFJK	SCREW	1	
133	XTV3+6FFJ	SCREW	1	
134	XTV3+6FFJ	SCREW	1	
135	XYN26+C6FJ	SCREW	1	
136	XYN26+C6FJ	SCREW	1	
137	RFKPAEN25PS	SMALL DC MOTOR ASS'Y	1	
138	RFKNAEN25PS	CD LID ASS'Y	1	
139	RGN2875-K	NAME PLATE	1	(27PC)
139	RGN2875E-K	NAME PLATE	1	(26P)
140	RQLXS0053	LASER CAUTIONLABEL	1	(27PC)
141	RKU0086-H	TRANS COVER	1	(25P) (26P)
141	RKU0086A-H	TRANS COVER	1	(27PC)
F901	K5D162AQ0004	FUSE	1	⚠
JW901	REX1226	WIRE	1	
PCB1	REP3876B	CD SERVO PCB ASS'Y	1	(25P) (26P)
PCB1	REP3875B	CD SERVO PCB ASS'Y	1	(27PC)
PCB2	REP4044A	MAIN PCB ASS'Y	1	(25P) (26P)
PCB2	REP4044B	MAIN PCB ASS'Y	1	(27PC)
T901	G4C4ABD00011	POWER TRANSFORMERS	1	⚠
		ACCESSORY AND PACKAGING		
A1	N1DADYY00003	LINEAR ANTENNAS	1	
A2	N2QAGB000037	REMOTE CONTROL UNITS	1	(25P) (26P)
A2	N2QAGB000038	REMOTE CONTROL UNITS	1	(27PC)
A3	RJA0065-1D	AC CORD	1	⚠
A4	RQT8520-P	O/I BOOK	1	
A4	RQT8521-C	O/I BOOK	1	(27PC)
P1	RPG7815	PACKING CASE	1	(25P)
P1	RPG7959	PACKING CASE	1	(26P)
P1	RPG7816	PACKING CASE	1	(27PC)
P2	RPN1850	CUSHION	1	
P3	RPF0417	BAG A	1	
P4	RPFW0009	MIRAMAT SHEET	1	
P5	RPFW0009	MIRAMAT SHEET	1	

18.2. SB-EN25P

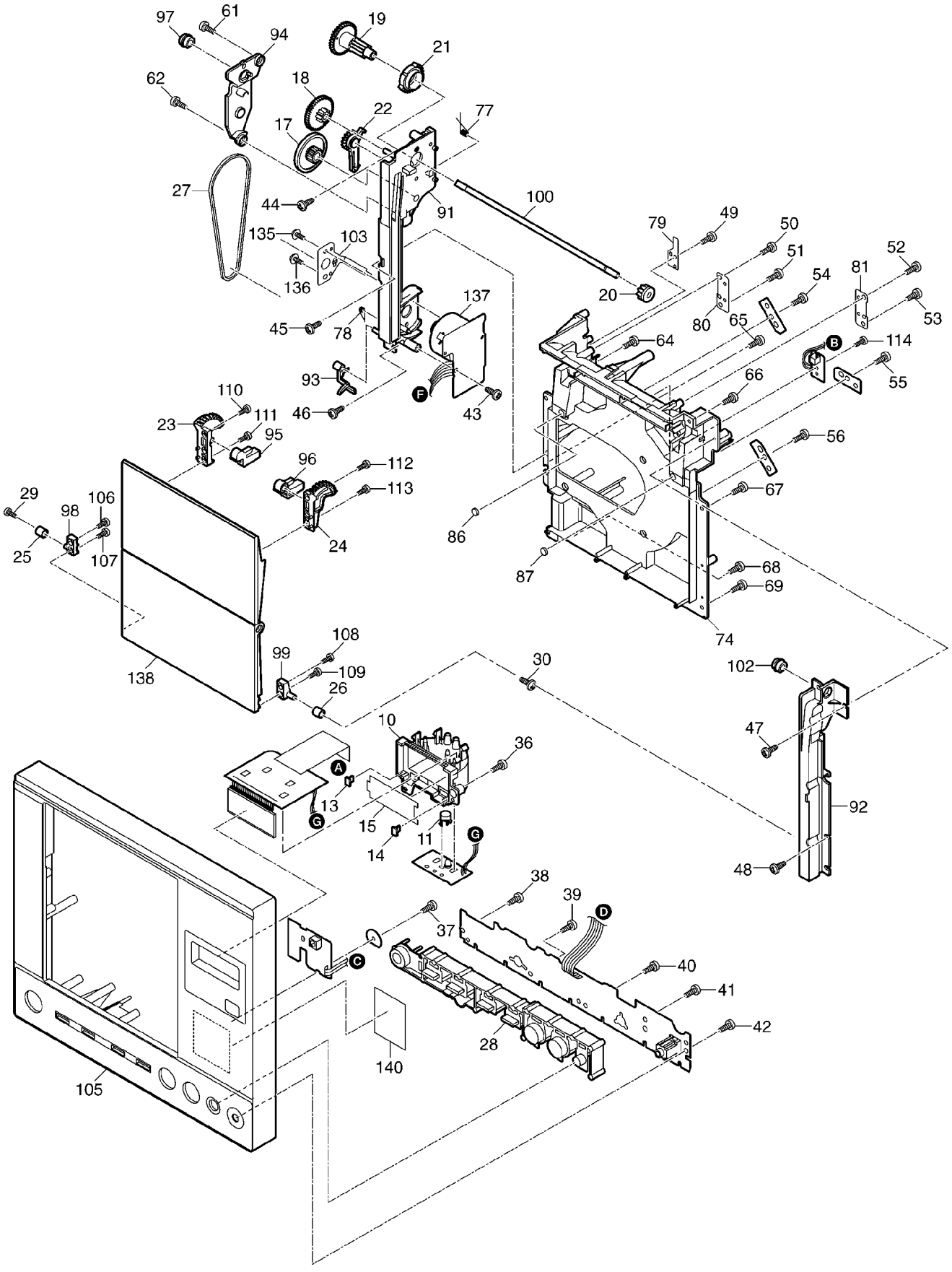
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
201	EAS8P198A	SPEAKER	1	
202	RGK1970-S	NET PROTECTOR	1	
203	RGK1970-S	NET PROTECTOR	1	
204	RKP0067-K	SP FRONT CAB	1	
205	RMA1981	SP ANGLE A	1	
206	RMA1981	SP ANGLE A	1	
207	RMA1982	SP ANGLE B	1	
208	RMA1982	SP ANGLE B	1	
209	RFKHBEN25PS	SP BACKCAB ASS'Y	1	
209-1	RKAX0011-K	LEG FELT	4	
209-2	RKAX0011-K	LEG FELT	1	
209-3	RKAX0011-K	LEG FELT	1	
209-4	RKAX0011-K	LEG FELT	1	
210	RFKNBEN25PS	SP NET FRAME ASS'Y	1	
211	XTV3+14GFJ	SCREW	1	
212	XTV3+14GFJ	SCREW	1	
213	XTV3+14GFJ	SCREW	1	
214	XTV3+14GFJ	SCREW	1	
215	XTV3+14GFJ	SCREW	1	
216	XTV3+14GFJ	SCREW	1	
217	XTV3+14GFJ	SCREW	1	
218	XTV3+14GFJ	SCREW	1	
219	XTV3+14GFJ	SCREW	1	
220	XTV3+14GFJ	SCREW	1	
221	XTV3+14GFJ	SCREW	1	
222	RQLA1030	SP CAUTION LABEL	1	

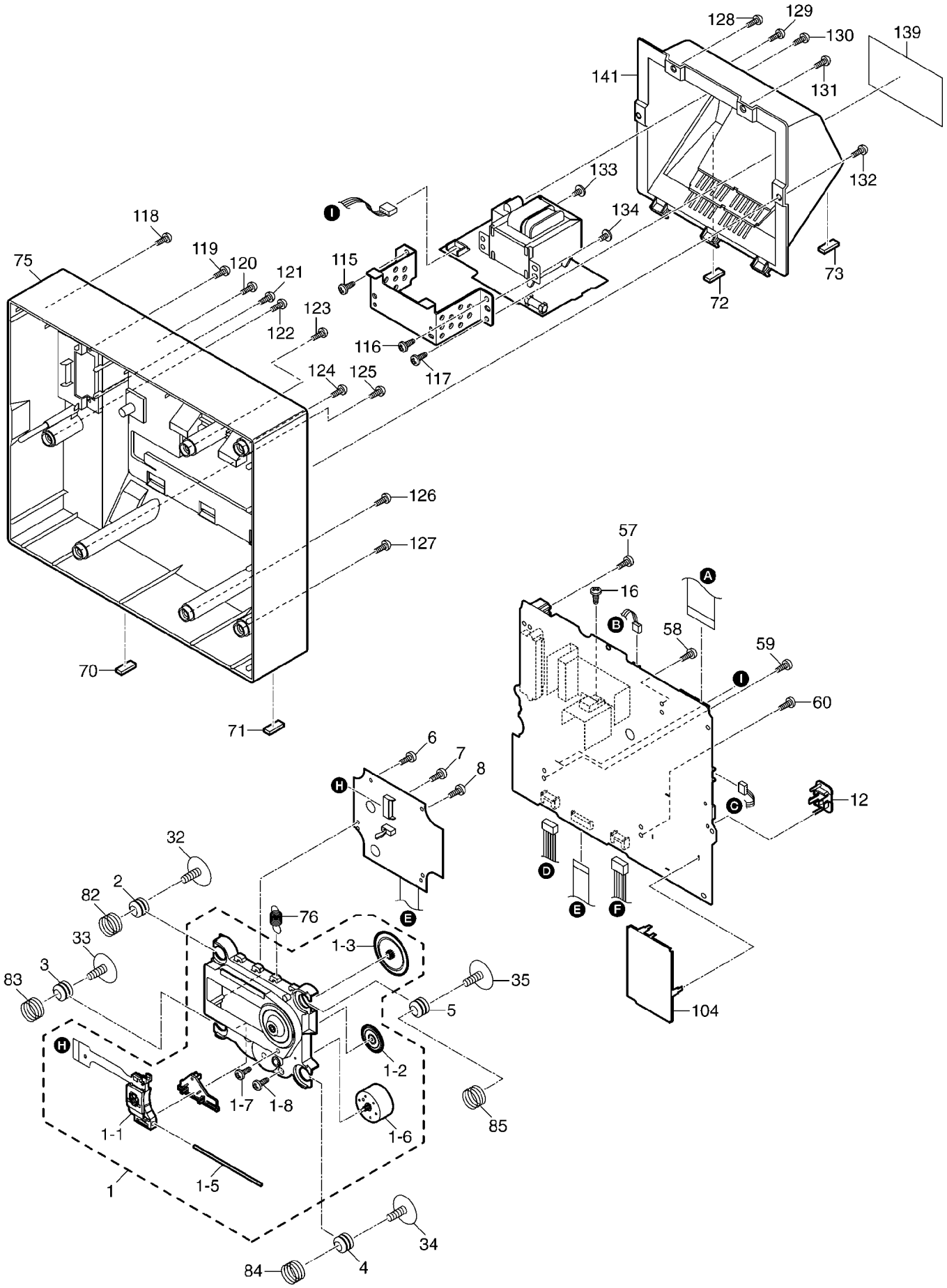
18.3. SB-EN26P

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
301	EAS8P198A	SPEAKER	1	
302	RMA1981	SP ANGLE A	1	
303	RMA1981	SP ANGLE A	1	
304	RMA1982	SP ANGLE B	1	
305	RMA1982	SP ANGLE B	1	
306	RFKHBEN25PS	SP BACK CAB ASS'Y	1	
306-1	RKAX0011-K	LEG FELT	1	
306-2	RKAX0011-K	LEG FELT	1	
306-3	RKAX0011-K	LEG FELT	1	
306-4	RKAX0011-K	LEG FELT	1	
307	RFKGBEN26PS	SP FRONT CAB ASS'Y	1	
308	XTV3+14GFJ	SCREW	1	
309	XTV3+14GFJ	SCREW	1	
310	XTV3+14GFJ	SCREW	1	
311	XTV3+14GFJ	SCREW	1	
312	XTV3+14GFJ	SCREW	1	
313	XTV3+14GFJ	SCREW	1	
314	XTV3+14GFJ	SCREW	1	
315	XTV3+14GFJ	SCREW	1	
316	XTV3+14GFJ	SCREW	1	
317	XTV3+14GFJ	SCREW	1	
318	RQLA1030	SP CAUTION LABEL	1	
319	RGN2908-K	SP NAME PLATE	1	

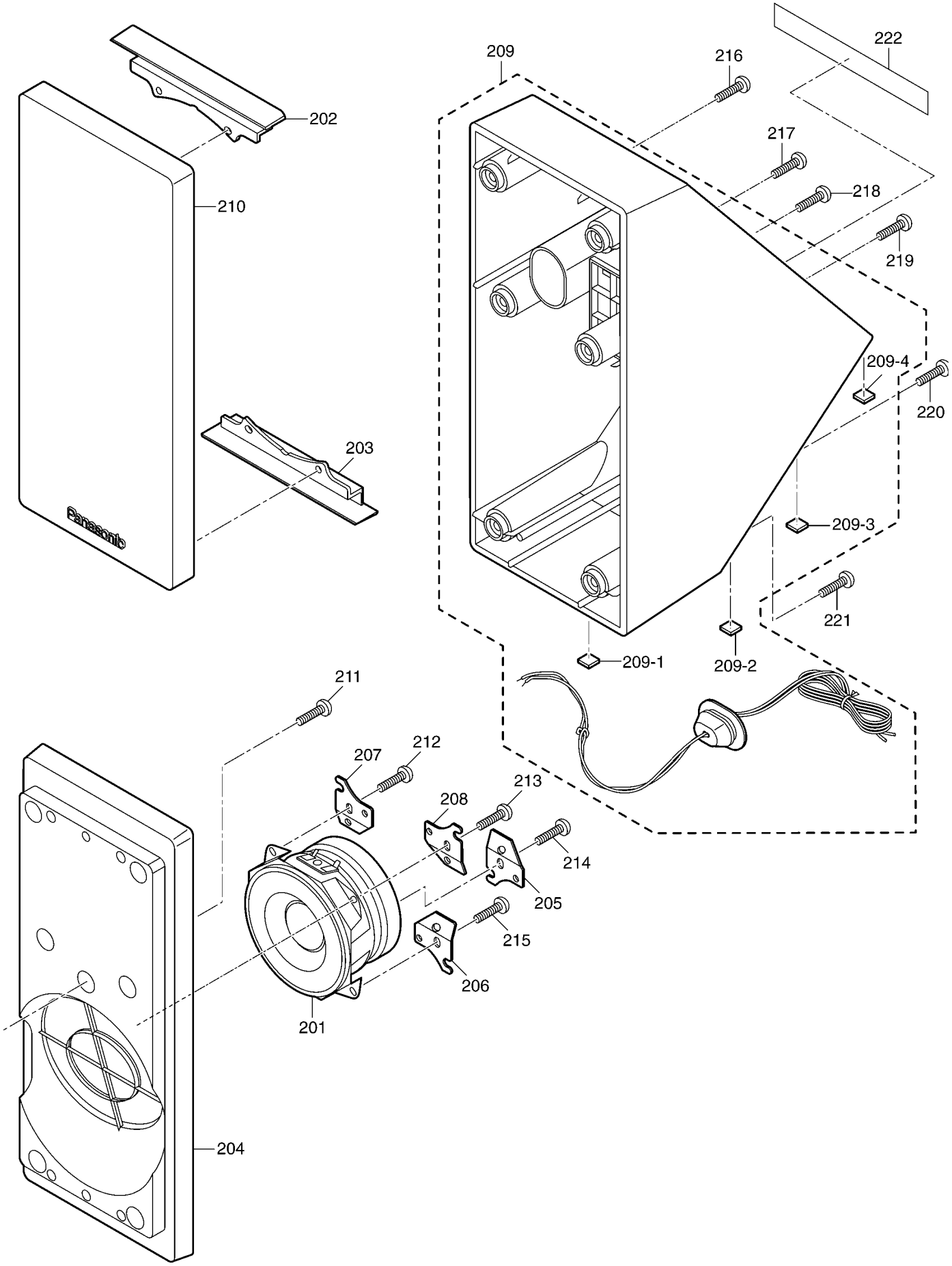
19 Cabinet Parts Location

19.1. Main Unit

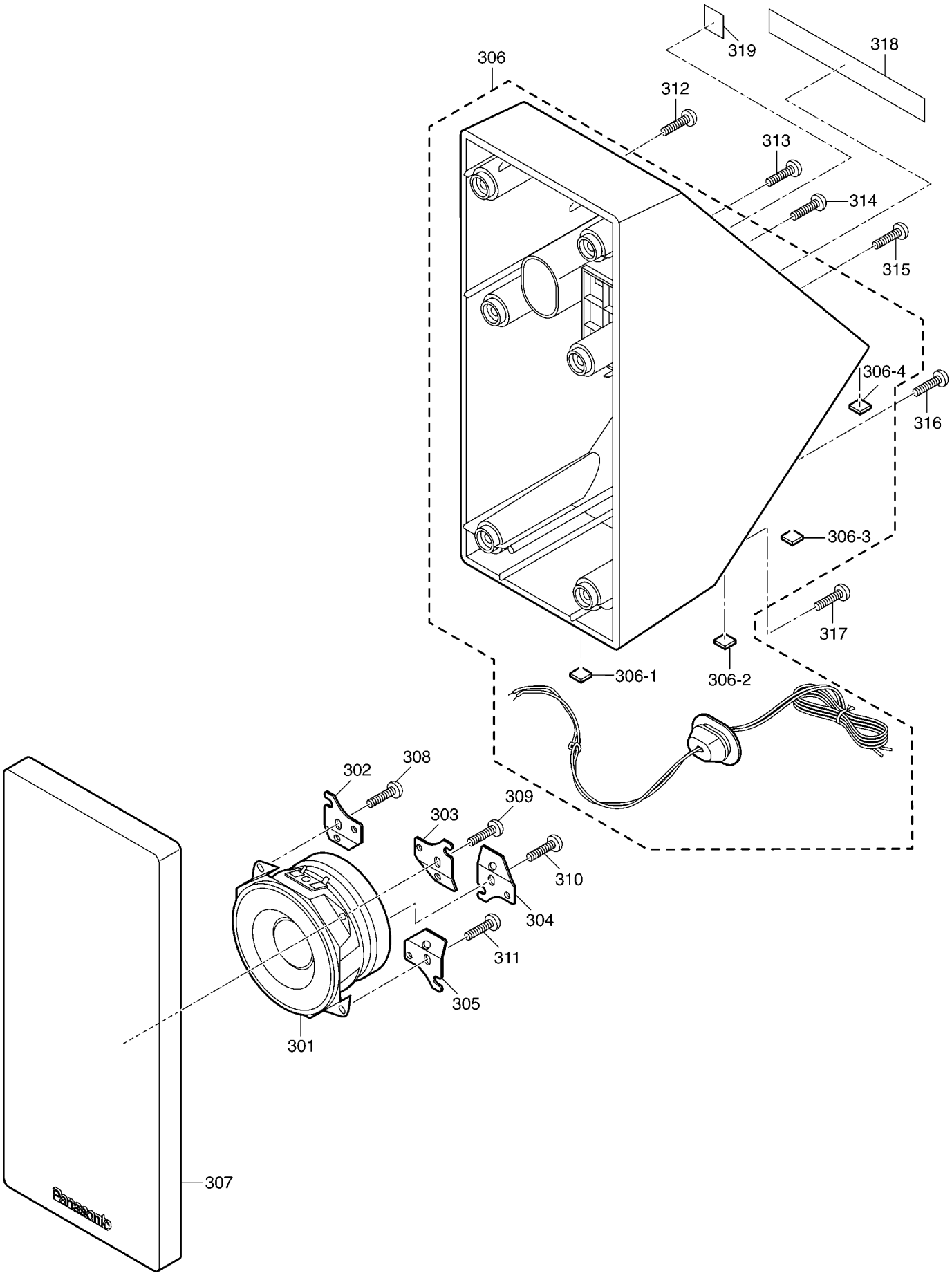



128
129
130
139
141
131
133
132
134
118
119
120
121
115
75
122
123
73
72
116
117
124
125
126
127
70
71
57
16
58
59
60
12
104
6
7
8
32
2
82
76
1-3
33
3
83
35
5
1-2
1-7
1-8
1-1
1-6
85
1
1-5
34
84
4

19.2. Speaker(SB-EN25)



19.3. Speaker(SB-EN26)



20 Packaging