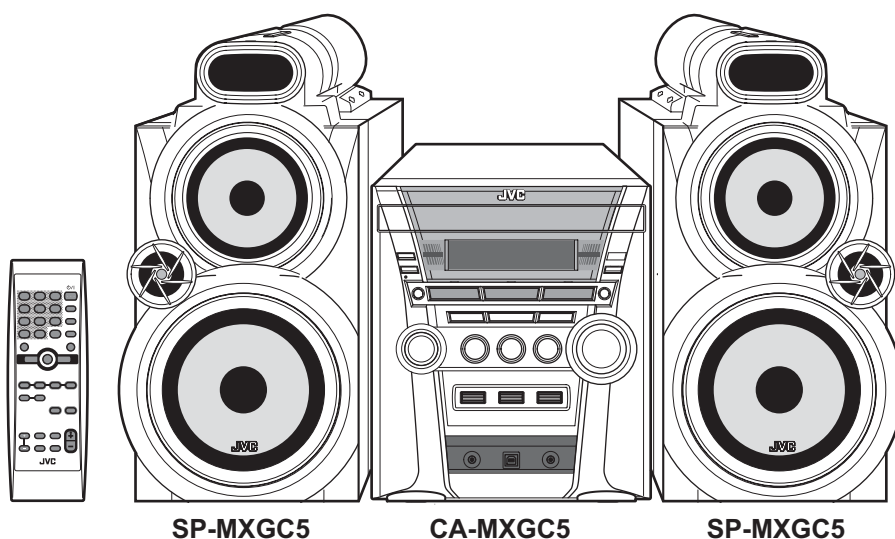


JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

MX-GC5



COMPACT
disc
DIGITAL AUDIO

Area Suffix

J	U.S.A.
C	Canada

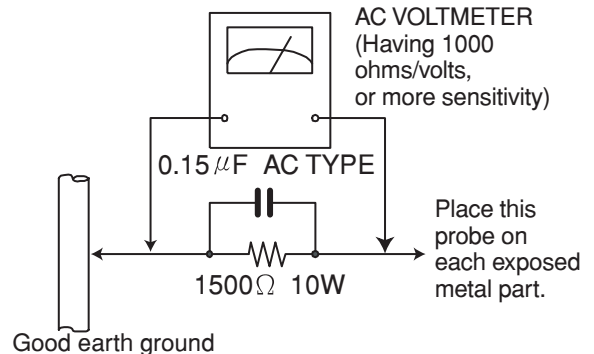
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Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by ($\triangle$) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)
After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.)
- Alternate check method
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Voltage measured Any must not exceed 0.75 V AC(r.m.s.). This corresponds to 0.5 mA AC(r.m.s.).



Warning

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

$\triangle$ 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 performing repair of this system.

Preventing static electricity

1. Grounding to prevent damage by static electricity

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

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

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

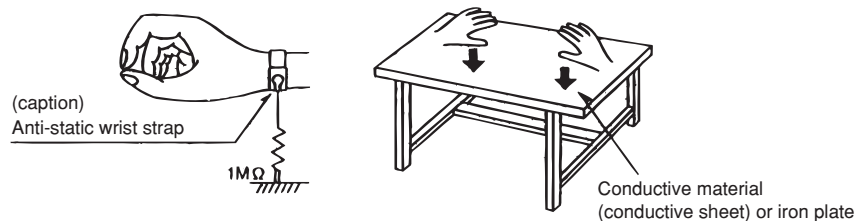
Be careful to use proper grounding in the area where repairs are being performed.

2-1 Ground the workbench

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

2-2 Ground yourself

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



3. Handling the optical pickup

1. In order to maintain quality during transport and before installation, both sides of the laser diode on the replacement optical pickup are shorted. After replacement, return the shorted parts to their original condition. (Refer to the text.)
2. Do not use a tester to check the condition of the laser diode in the optical pickup. The tester's internal power source can easily destroy the laser diode.

4. Handling the CD changer unit (optical pickup)

1. Do not subject the CD changer unit (optical pickup) to strong shocks, as it is a sensitive, complex unit.
2. Cut off the shorted part of the flexible cable using nippers, etc. after replacing the optical pickup. For specific details, refer to the replacement procedure in the text.
Remove the anti-static pin when replacing the CD changer unit. Be careful not to take too long a time when attaching it to the connector.
3. Handle the flexible cable carefully as it may break when subjected to strong force.
4. It is not possible to adjust the semi-fixed resistor that adjusts the laser power. Do not turn it.

Attention when traverse unit is decomposed

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

1. Remove the CD changer unit.
2. Disconnect the harness from connector on the CD motor board.
3. Solder is put up before the card wire is removed from connector Cn601 on the main board as shown in Fig.A and Fig. B.
(When the wire is removed without putting up solder, the CD pick-up assembly might destroy.)
4. Please remove solder after connecting the card wire with CN601 when you install picking up in the substrate.

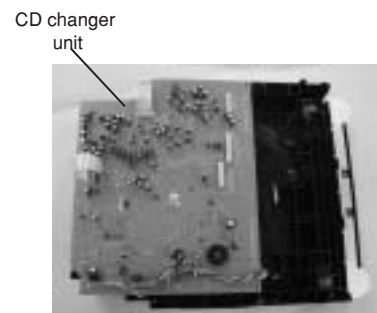


Fig.A

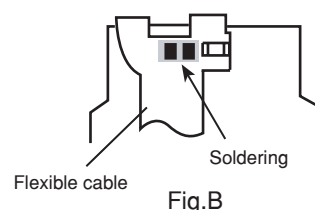


Fig.B

Important for laser products

1. CLASS 1 LASER PRODUCT

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

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

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

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

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

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

CAUTION : Visible and invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)

VARNING : Synlig och osynlig laserstrålning när den öppnas och spärren är urkopplad. Betrakta ej strålen. (s)

ADVARSEL : Synlig og usynlig laserstråling når maskinen er åben eller interlocken fejler. Undgå direkte eksponering til stråling. (d)

VARO : Avattaessa ja suojalukitus ohitettuna tai viallisena olet alttiina näkyvälle ja näkymättömälle lasersäteilylle. Vältä säteen kohdistumista suoraan itseesi. (f)

FUSE CAUTION

CAUTION:
REPLACE WITH SAME TYPE
AND RATING FUSE (S).

ATTENTION:
REPLACER PAR UN(LES)
FUSIBLE(S) DE MÊME TYPE
ET DE MÊME VALEUR

Disassembly method

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

Replacement of the fuses and the power IC

- Top cover
- CD changer unit
- Front panel assembly

- CD changer unit
 - Removing the main PCB
 - Removing the CD changer mechanism assembly
 - Removing the CD pickup
 - Replacing the loading motor and belt of the CD changer tray
 - Replacing the CD tray rotor belt of CD changer, and removing the motor

- Front panel assembly
 - Removing the (USB, AUX jack) earphone jack PCB
 - Removing the control/FL PCB
 - Removing the volume, preset and CD Function switch PCB
 - Removing the remote sensor PCB
 - Removing the standby Led PCB
 - Removing jack Led backlight PCB
 - Removing Sound mode PCB

<Disassembly of the main blocks of the set>

Replacement of the fuses and the power IC

■ Replacing the fuses (See Fig.1)

- Prior to performing the following procedure, remove the left side BOARD.
1. Replace the fuses inside.

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

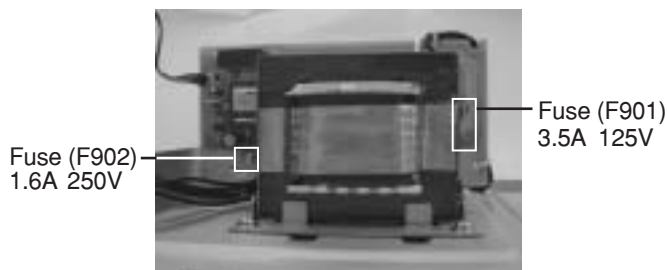


Fig.1

■ Replacing the heat sink cover (See Fig.3)

1. Remove four screws **B** from the rear panel.
2. Remove four screws **E** from the heat cover.
3. Pull the heat sink cover outward.

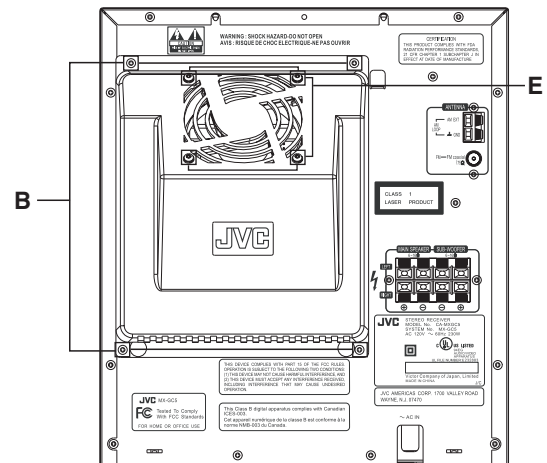


Fig.3

■ Replacing the power IC (See Fig.2)

- Prior to performing the following procedure, remove the top cover.
1. Remove the two screws **A** from the heat sink between the power IC (STK412-430)
 2. Remove the four screws **B** from the heat sink the between the power IC (D1889,B1340)
 3. Remove the solder fixing the power IC.

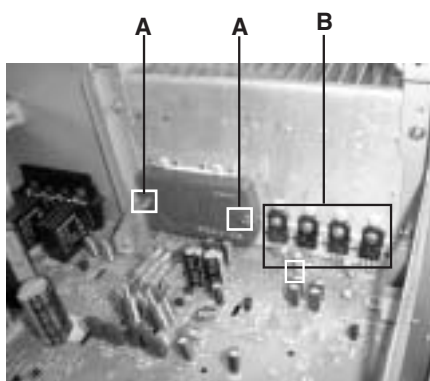


Fig.2

■ Removing the top cover

(See Fig.4 and 5)

1. Remove six screws **C** that retain the top cover from the panel rear of the body.
2. Remove six screws **D** that retain the top cover from the two sides of the body.
3. Remove the top cover from the body by lifting it toward the rear.

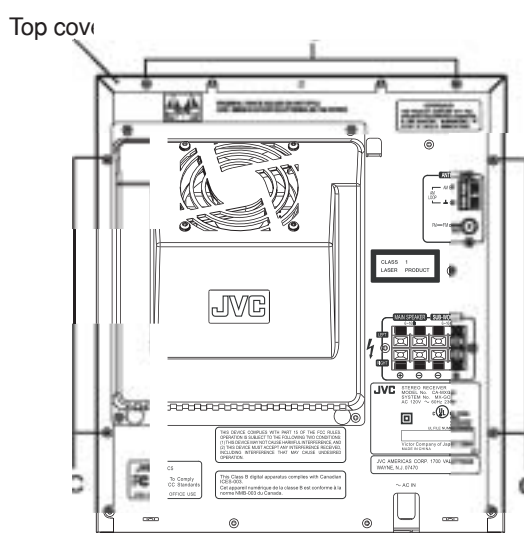


Fig.4

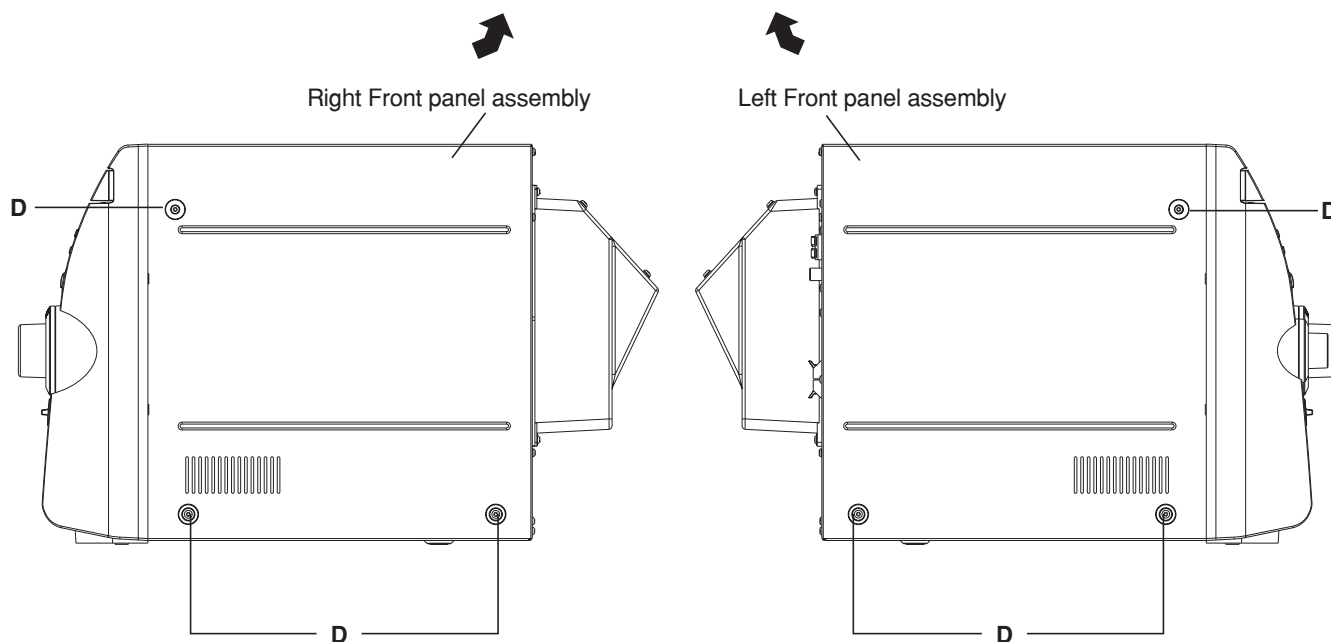


Fig.5

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

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

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

- From the front panel side of this set, push in the sections marked with arrows and pull out the CD tray toward the front.
- Remove the CD tray panel by pushing both of its extremities upward in the direction of the arrows.
- Push the CD tray deep into the set.

1. Disconnect the cord wires from the main PCB CN401, CN601, CN501 and CN203.
2. From the rear of the set, remove two screws **E**, two screws **F** and four screws **G** on the front panel left and right side.
3. Handle the CD changer unit rear, take out the unit.



CD tray panel

Fig.7

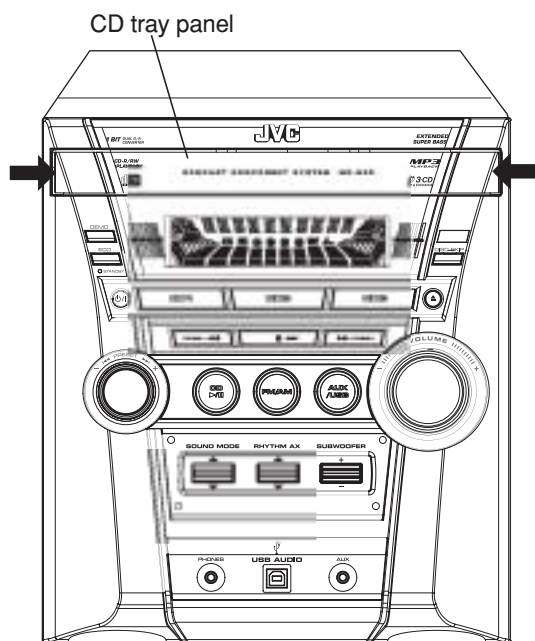


Fig.6

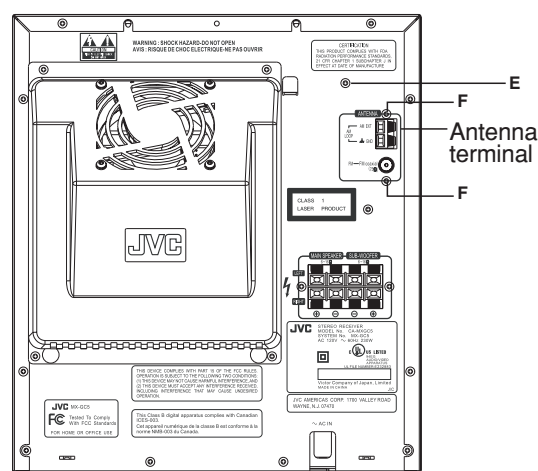


Fig.8

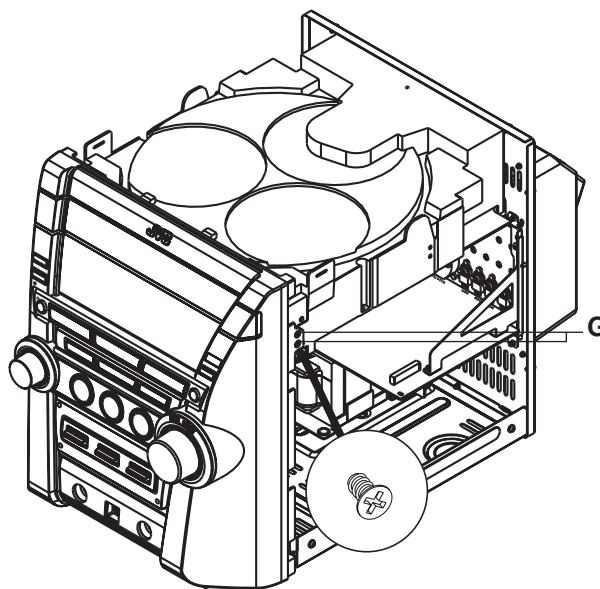


Fig.9

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

- Prior to performing the following procedures, remove the top cover.
 - Also remove the CD changer unit.
1. Disconnect the parallel wire and the cord wire from the connectors CN201, CN401 on the main PCB.
 2. Remove one screws **H** retaining the front panel assembly onto the bottom of the body.
 3. Remove two screws **I** on the left and right side of the set retaining the panel front from the bottom and then remove then GND lug **b** that comes from the power amp and supply PCB.
 4. Disengage the claws **c** on both sides of the front panel assembly and then remove the assembly.

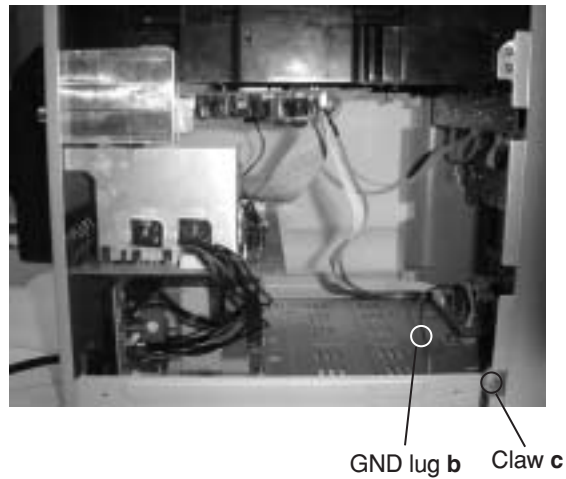
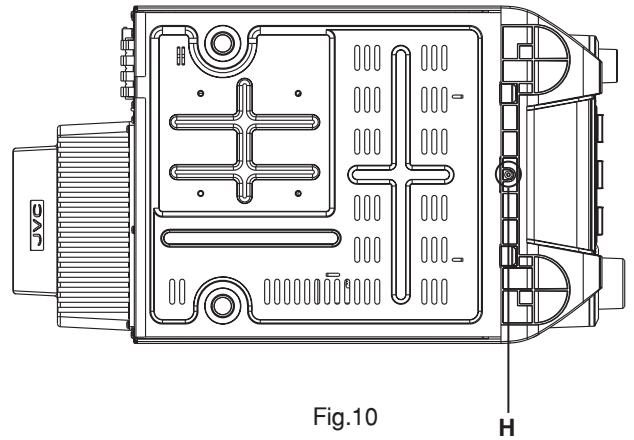


Fig.11

<Disassembly of units and assembly inside this set>

■ Removing the MAIN PCB

(See Fig.12 to 13)

- Prior to performing the following procedures, remove the top cover.
 - Also remove the CD changer unit.
1. Disconnect the wires from CN701, CN702 and CN703 on the CD PACK PCB, which is located on the down side of the CD changer unit.
 2. The four screws **J** that retain the CD PCB should be removed.
 3. Remove the CD PCB by pulling it toward the side where the CN701 is located.
 4. Using solder, short the CD pickup to connect to short round.
- [Caution]** After re-connecting the wires, be sure to remove the shorting solder from the GND connection.
5. Disconnect the card wire from the connector CN701 on the main PCB and then remove the main PCB.

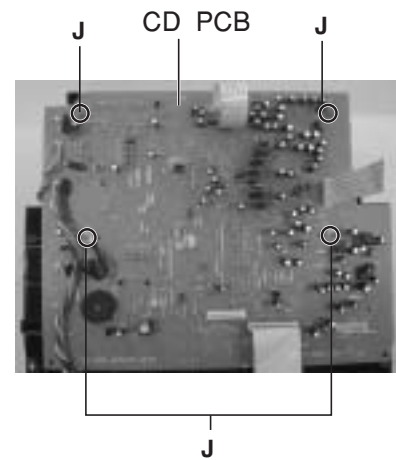


Fig.12

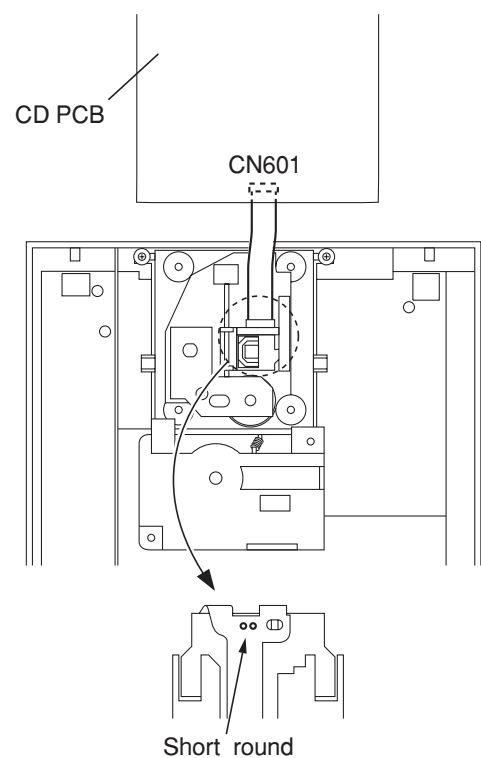


Fig.13

■ Removing the CD changer mechanism assembly (See Fig.14 to 15)

- Prior to performing the following procedures, remove the top cover.
 - Also remove the CD changer unit.
1. Turn the CD changer mechanism cover base and remove the screws **d** connecting the unit to the CD changer mechanism assembly.
 2. Removing four screws **e** retaining the CD mechanism holder assembly.

[Caution] When replacing the CD changer mechanism assembly, be sure not to mistake the positions of the silver color and copper color spring.

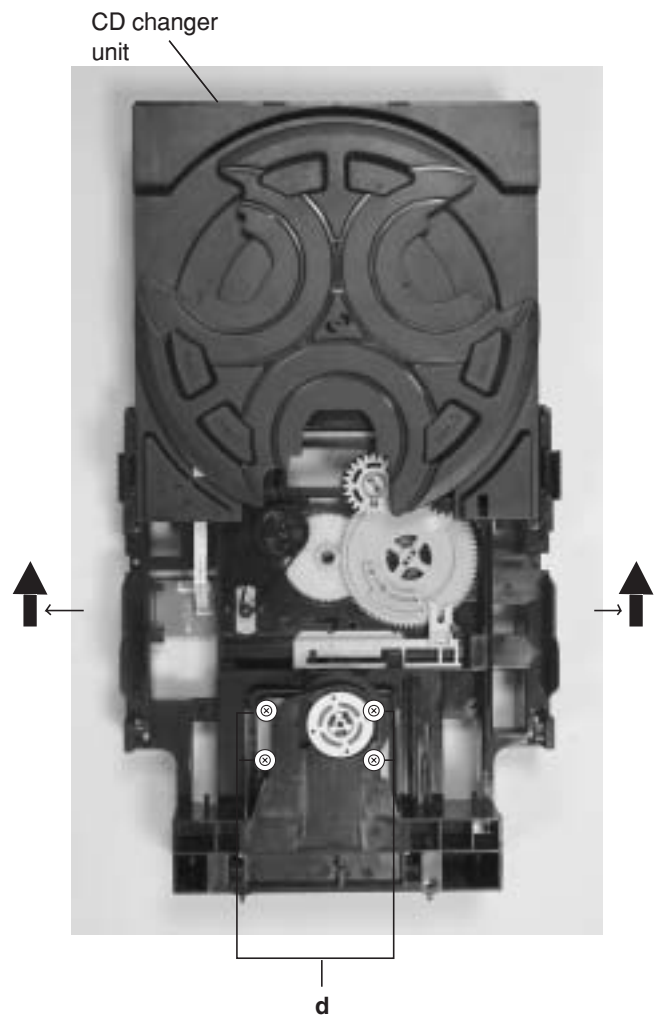


Fig.14

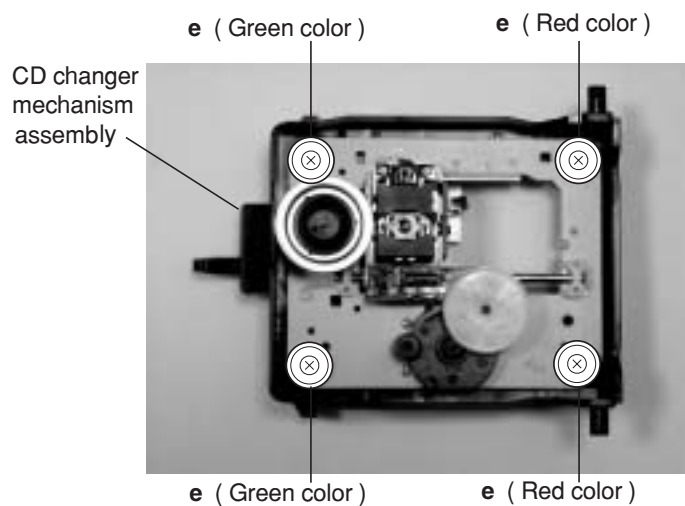


Fig.15

■ Removing the CD pickup (See Fig.16)

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

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

■ Replacing the loading motor and rotor belt of the CD changer (See Fig .17)

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

1. Remove the two screws **L** retaining the CD changer tray loading motor.
2. Remove the two screws **M** retaining the gear plate and take it out, after remove the rotor belt from the pulley.

■ Replacing the CD turn table and removing the motor (See Fig. 18)

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

1. Remove the one screws **N** retaining the CD (Turn table).
2. Remove the two screws **O** retaining the stopper brackets on both sides of the CD changer unit.
3. Remove the stopper brackets from both sides of the CD changer unit.
4. Pull out the CD tray from the CD changer unit, all the way and lift the tray (u/~ ward) to remove.
5. Remove the gear and after push out the tray motor locker and pull out the tray motor from the CD tray.

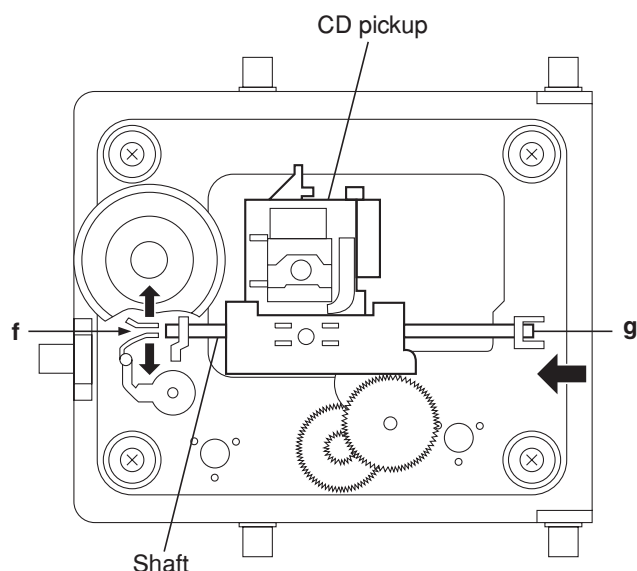


Fig.16

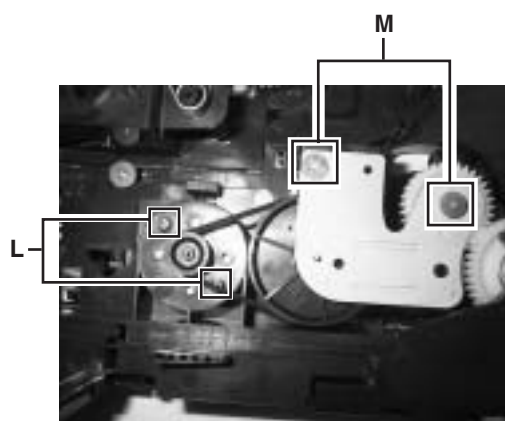


Fig.17

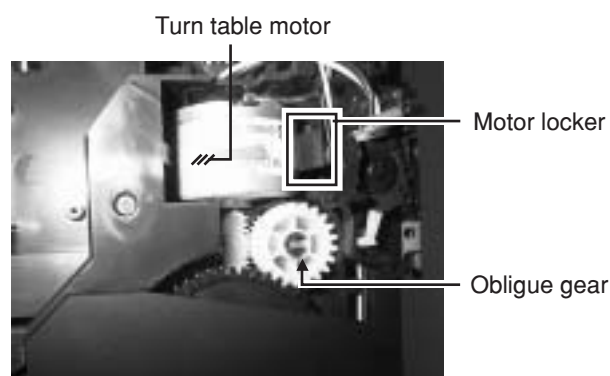


Fig.18

■ Removing the USB,AUX,earphone PCB (See Fig.19)

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

Remove six screws **Z** retaining the USB,AUX,earphone PCB.

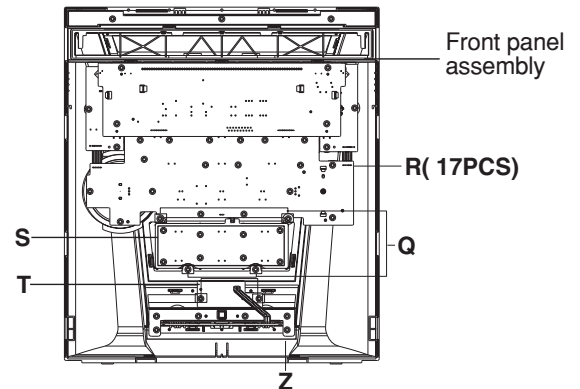


Fig.19

■ Removing the remote sensor PCB & the standby PCB (See Fig.20)

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

1. Remove four screws **P** that retains the remote sensor PCB.
2. Remove four screws **L** that retains the standby Led PCB.

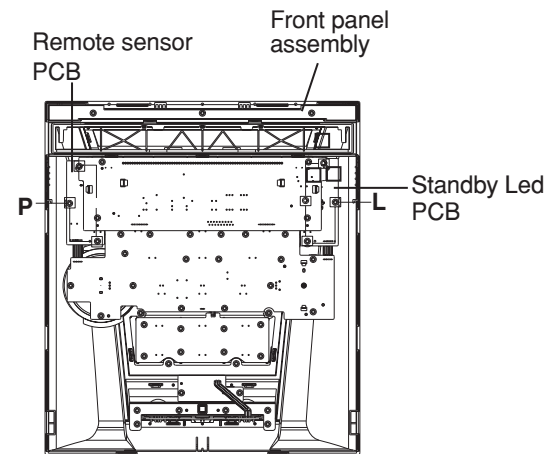


Fig.20

■ Removing the display PCB (See Fig.21)

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

1. Remove four screws **Q** that retain the display PCB from the back of the front panel unit.

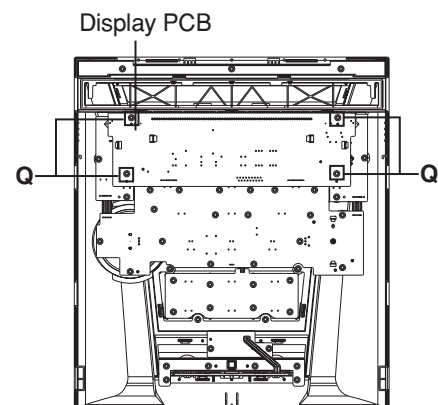


Fig.21

■ Removing sound mode and volume , pre-set and CD function switch PCB (See Fig.20 to 23)

- Prior to performing the following procedures, remove the top cover.
 - Also remove the CD changer unit.
 - Also remove the front panel assembly.
1. Pull out the volume control knob from the front of the front panel assembly.(Fig.22)
 2. Pull out the preset knob from the front of the front panel assembly (Fig.22)
 3. Remove four screws **Q** retaining the front panel assembly.
 4. Remove the control/FL PCB.
 5. Remove eight screws **S** retaining the sound mode switch PCB.(Fig.21)
 6. Remove seventeen screws **R** retaining the volume , preset and CD founction switch PCB.(Fig.20)
 7. Remove two screws **T** retaining the jack Led Backlight PCB.

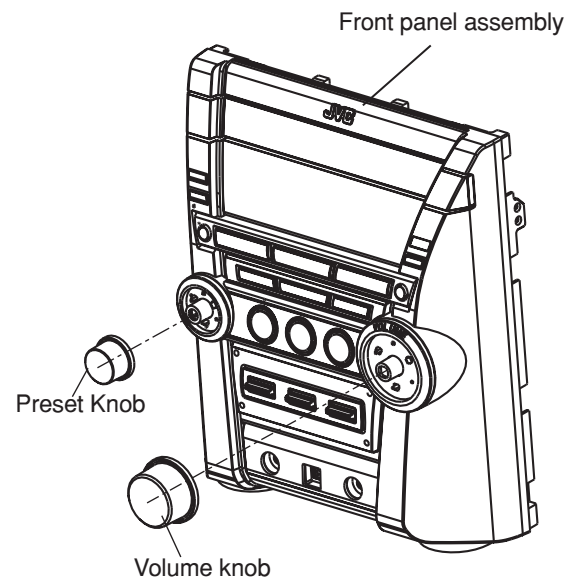


Fig.22

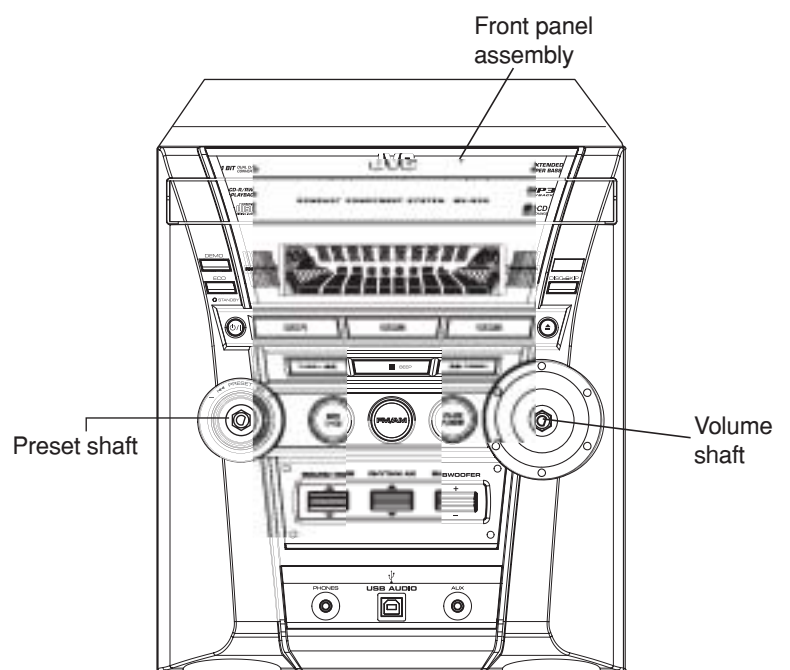


Fig.23

■ Removing the bridge diode (See D214, D215 and Fig.28)

- Prior to performing the following procedures, remove the top cover and both sides board.
- 1. Remove two screws **W** that connect the heat sink.
- 2. Remove the solder fixing the 4-pin bridge diode (D214, D215).

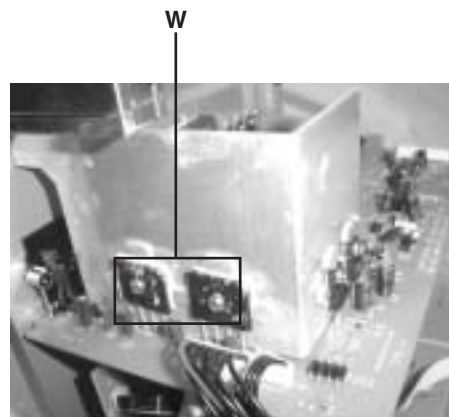


Fig.28

■ Removing the power amp and supply PCB and the power trans PCB (See Fig. 2, 29 to 31)

- Prior to performing the following procedures, remove the top cover and CD changer unit.
- 1. Remove four screws **B** from the rear panel. (Fig.3)
- 2. Pull the heat sink cover outward.
- 3. Remove four screws **AA** from the rear panel between the heat sink holder.
- 4. Remove four screws **YY** that retains the rear panel, and then remove the rear panel.
- 5. Disconnect the parallel wires from the connectors FW951 on the power trans PCB.
- 6. Remove screws **Z** that retain the power amp and supply PCB and then remove the assembly.
- 7. Remove four screws that retain the power trans PCB and then remove the assembly.

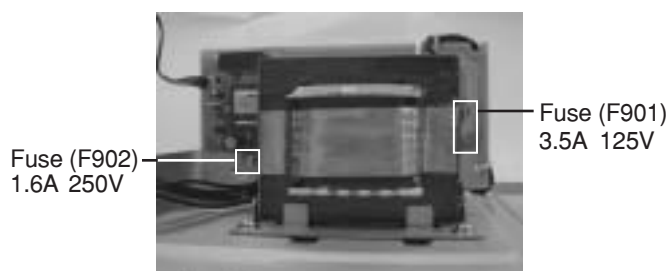


Fig.29

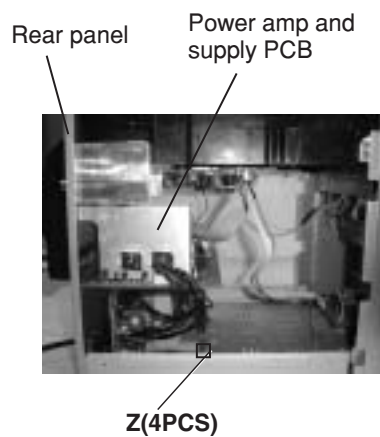


Fig.31

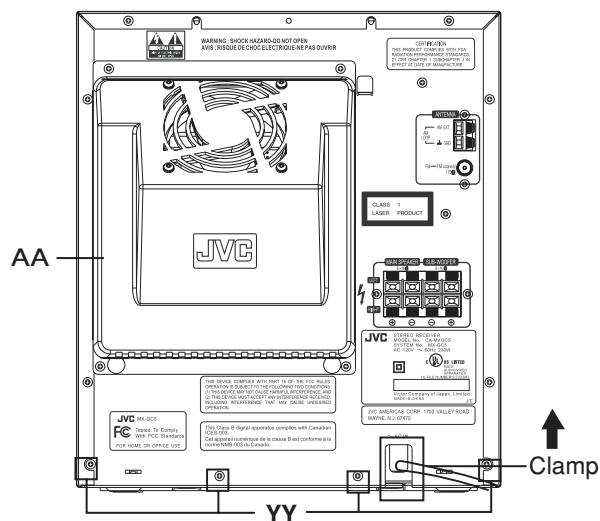
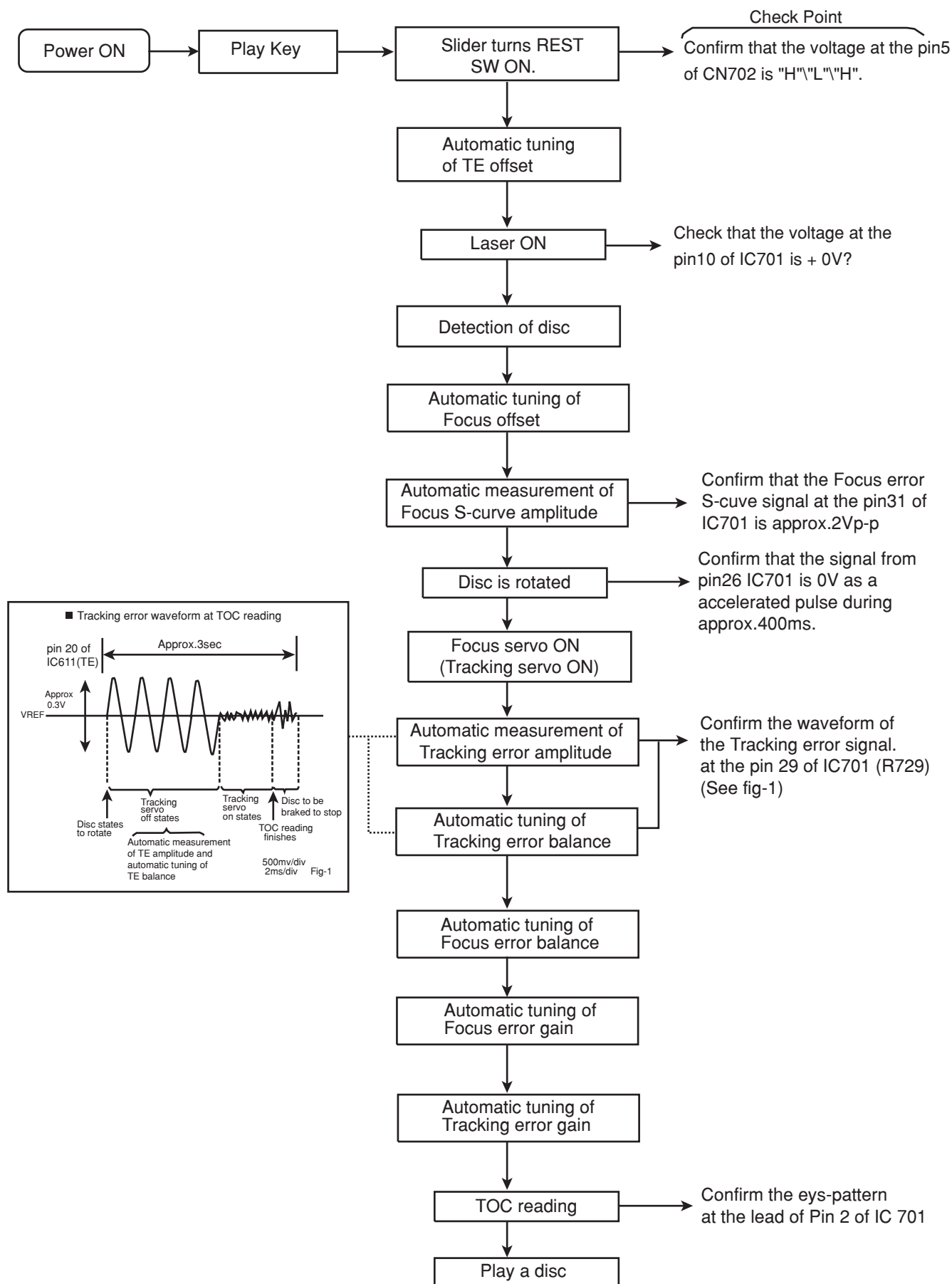


Fig.30

Flow of functional operation until TOC read



Maintenance of laser pickup

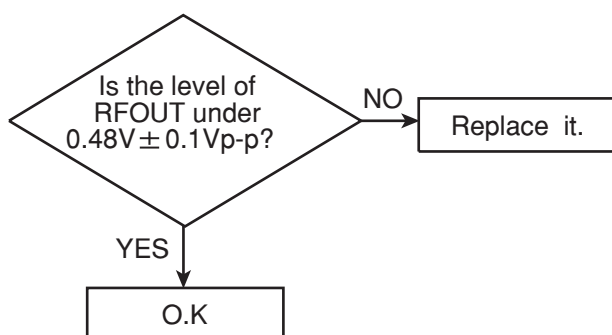
(1) Cleaning the pick up lens

Before you replace the pick up, please try to clean the lens with a alcohol soaked cotton swab.

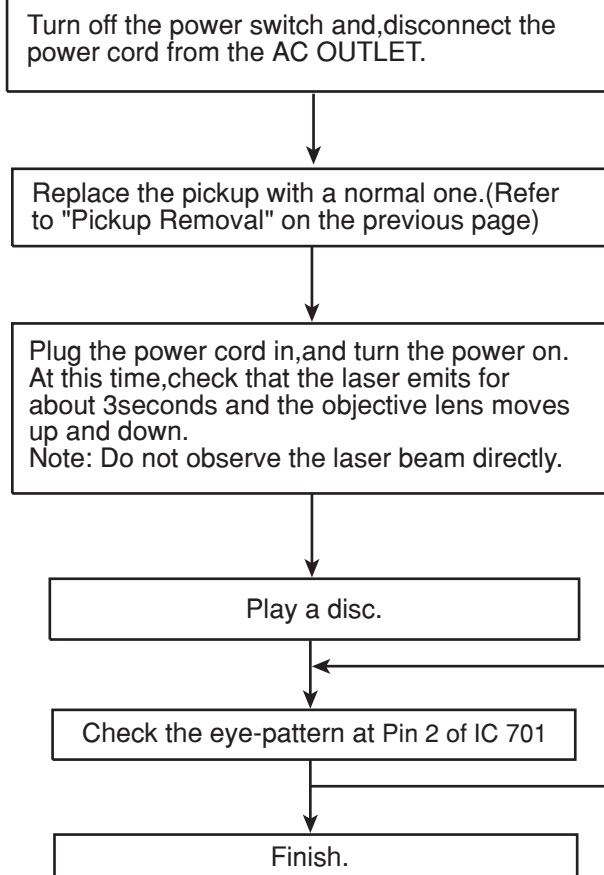
(2) Life of the laser diode

When the life of the laser diode has expired, the following symptoms will appear.

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



Replacement of laser pickup



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

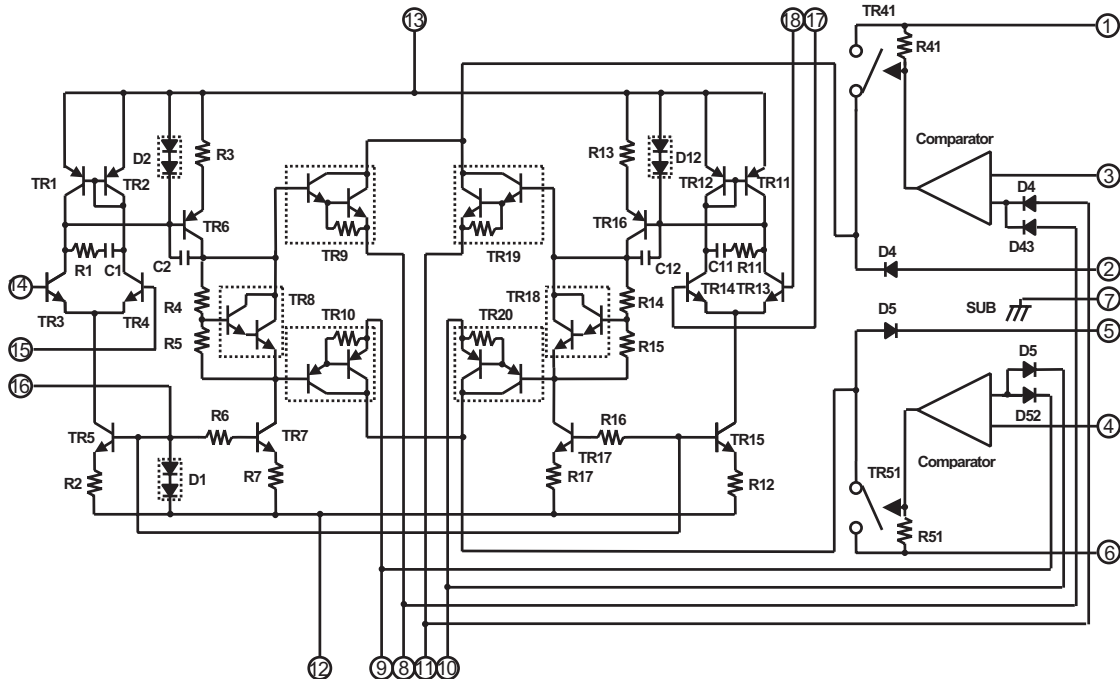
The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power.Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.

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

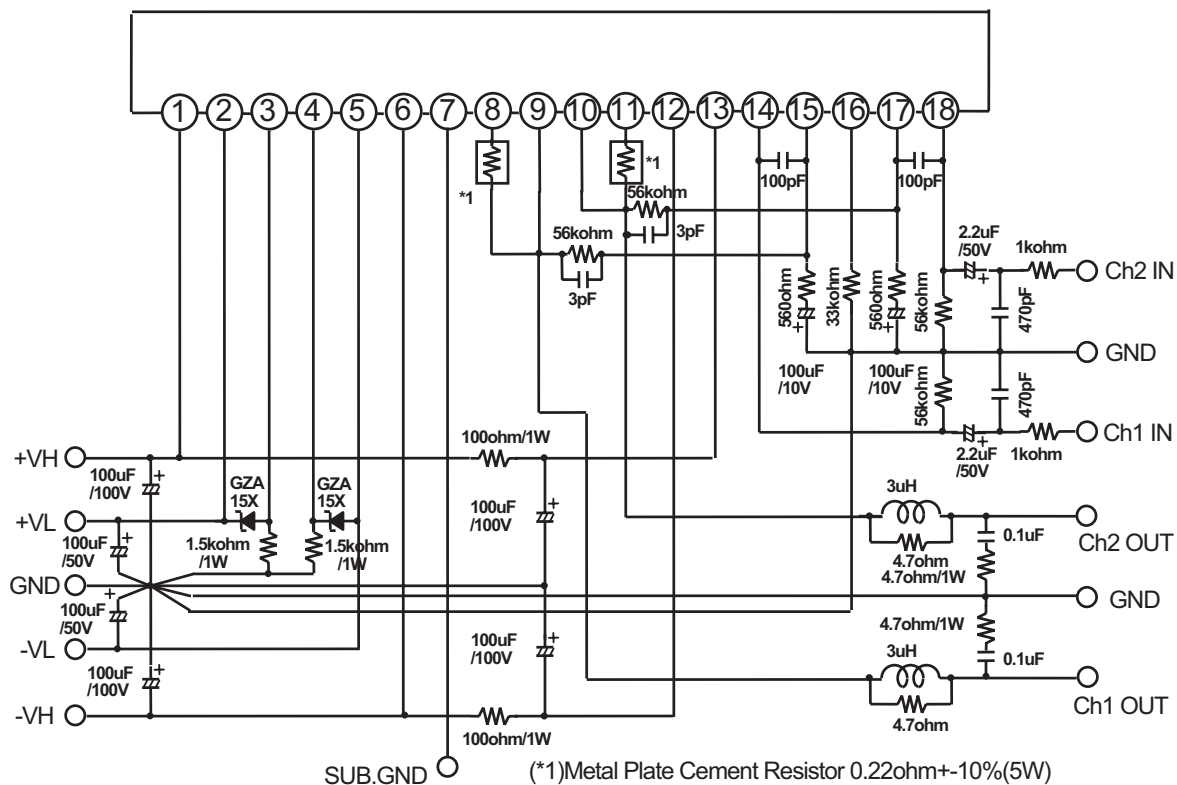
If the semi-fixed resistor would be adjusted when the pickup operates normally, the laser pickup may be damaged due to excessive current.

■ **Description of major ICs STK412-430 (IC201) : Dual low noise operational**

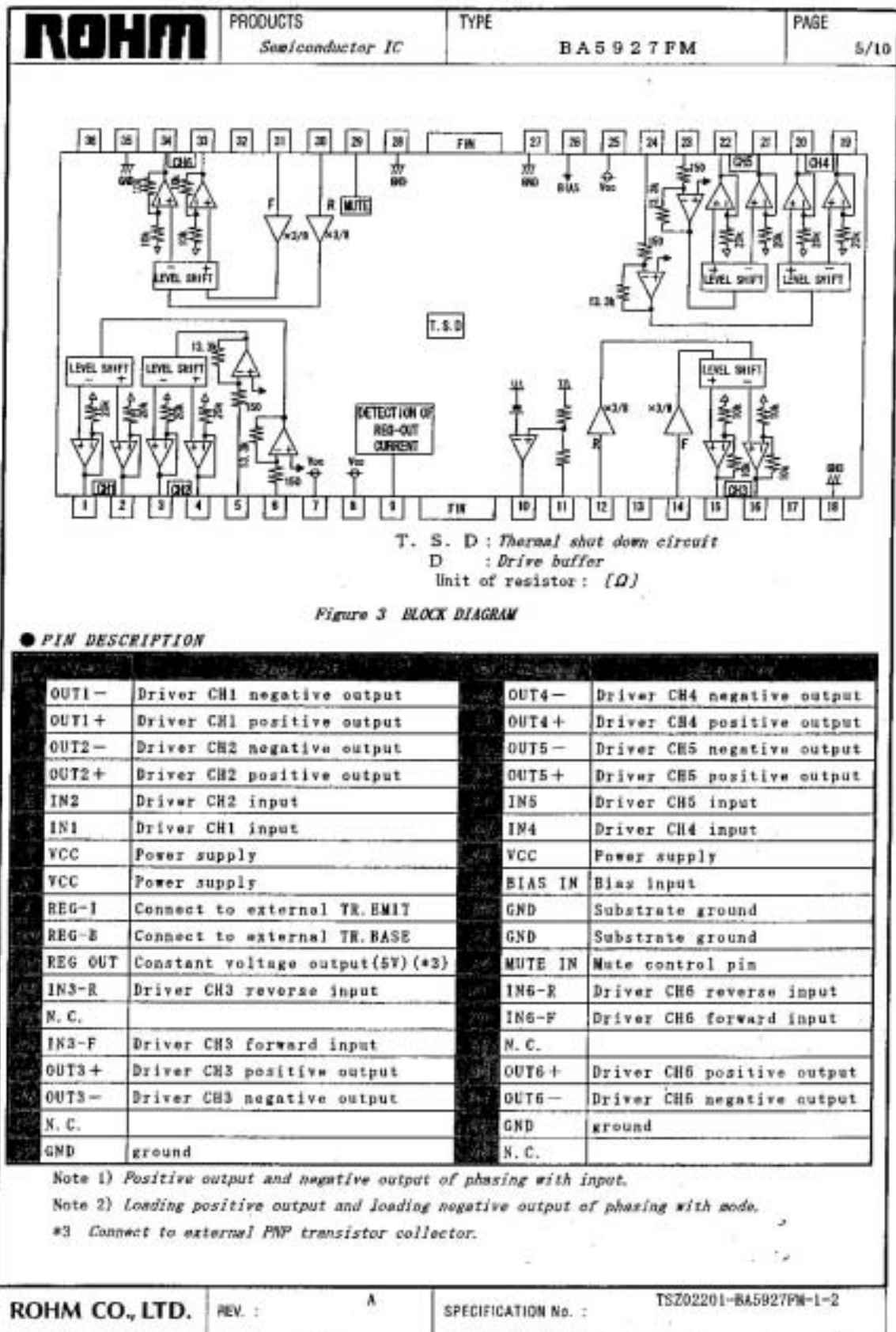
1. Equivalent Block Diagram



2. Test Circuit

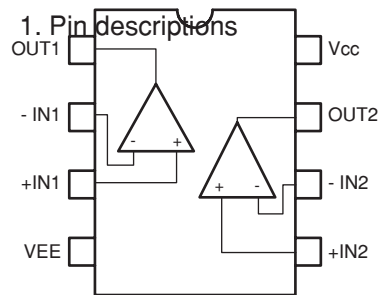


■ CD DRIVE ICS BA5927FM(IC702)



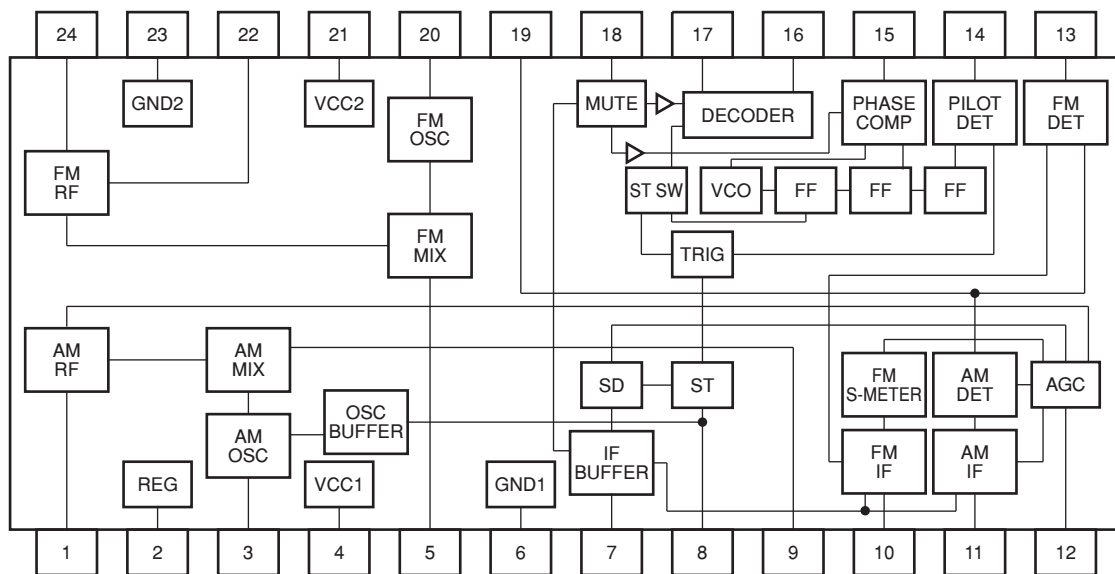
■ BA4558F (IC503) : Dual low noise operational amp.

1. Terminal layout



■ 1chip AM/FM, MPX tuner system

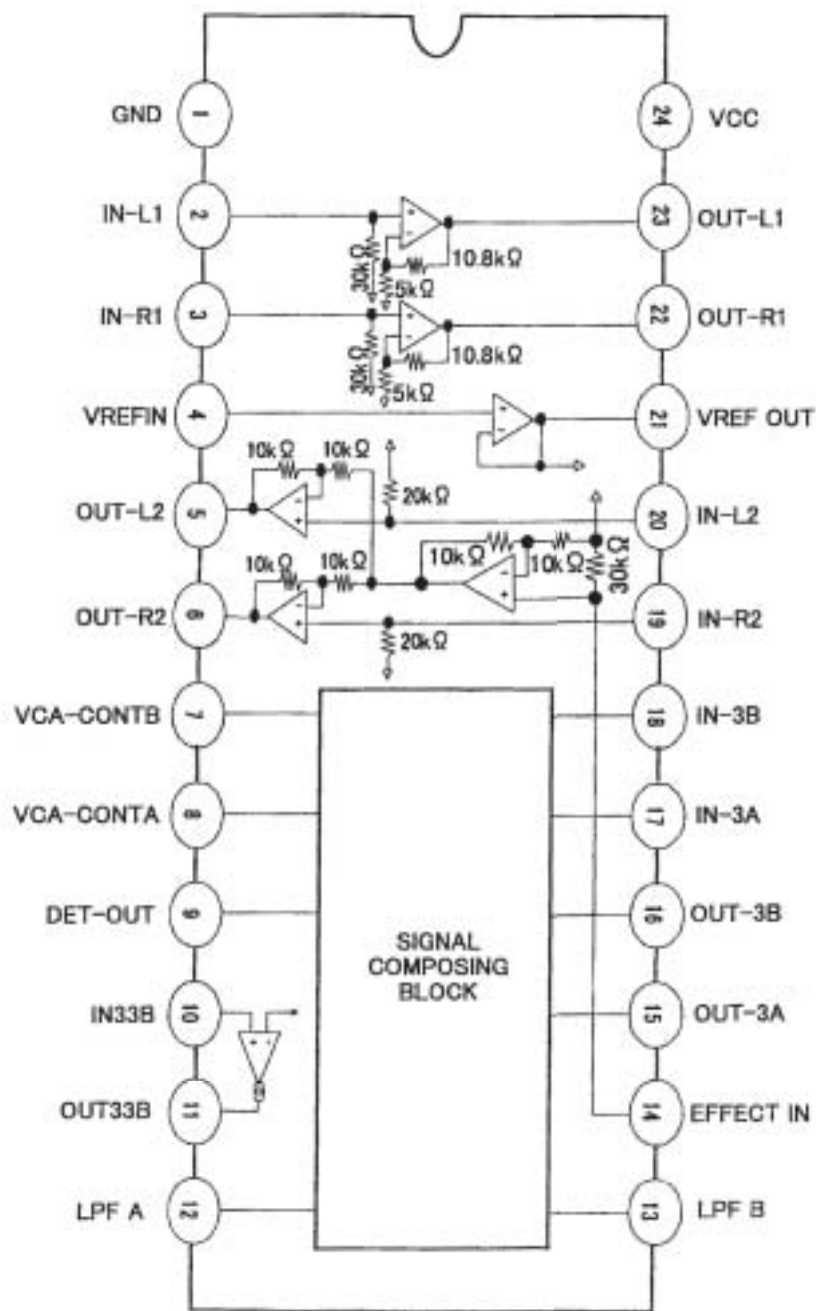
1. Block diagram



2. Pin function

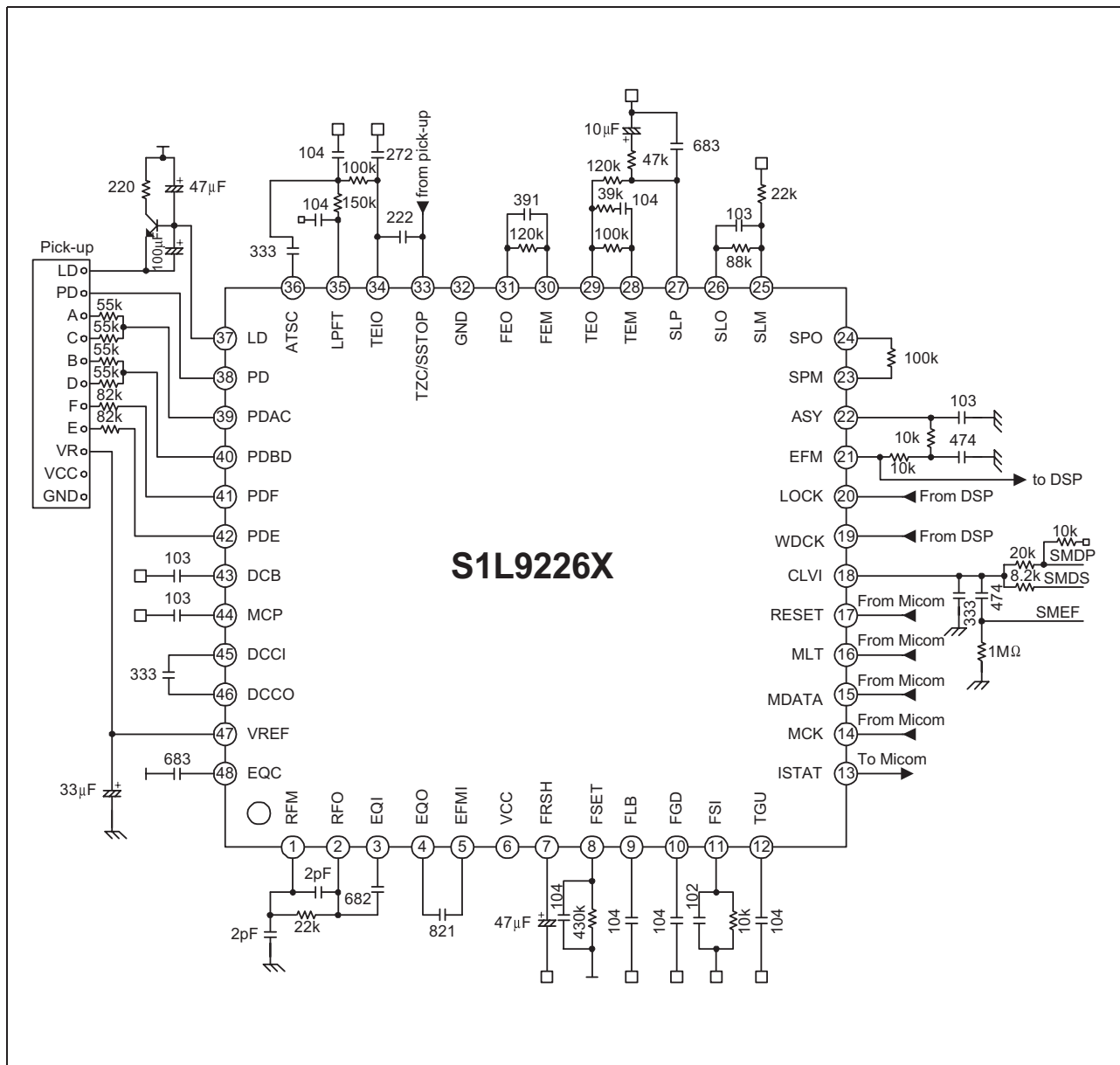
Pin No.	Symbol	I/O	Function	Pin No.	Symbol	I/O	Function
1	AM_RFIN	I	AMRF signal input	13	FM_DET	O	FM detection signal output
2	REG.	-		14	ST/MON_SW	I	Stereo/Monaural switching signal input
3	AM_OSC	-	AM local oscillation circuit	15	AM/FM_SW	I	AM/FM switching signal input
4	VCC_1	-	Power supply terminal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

■ RHYTHM AX (IC502) JCV8011 : Block diagram

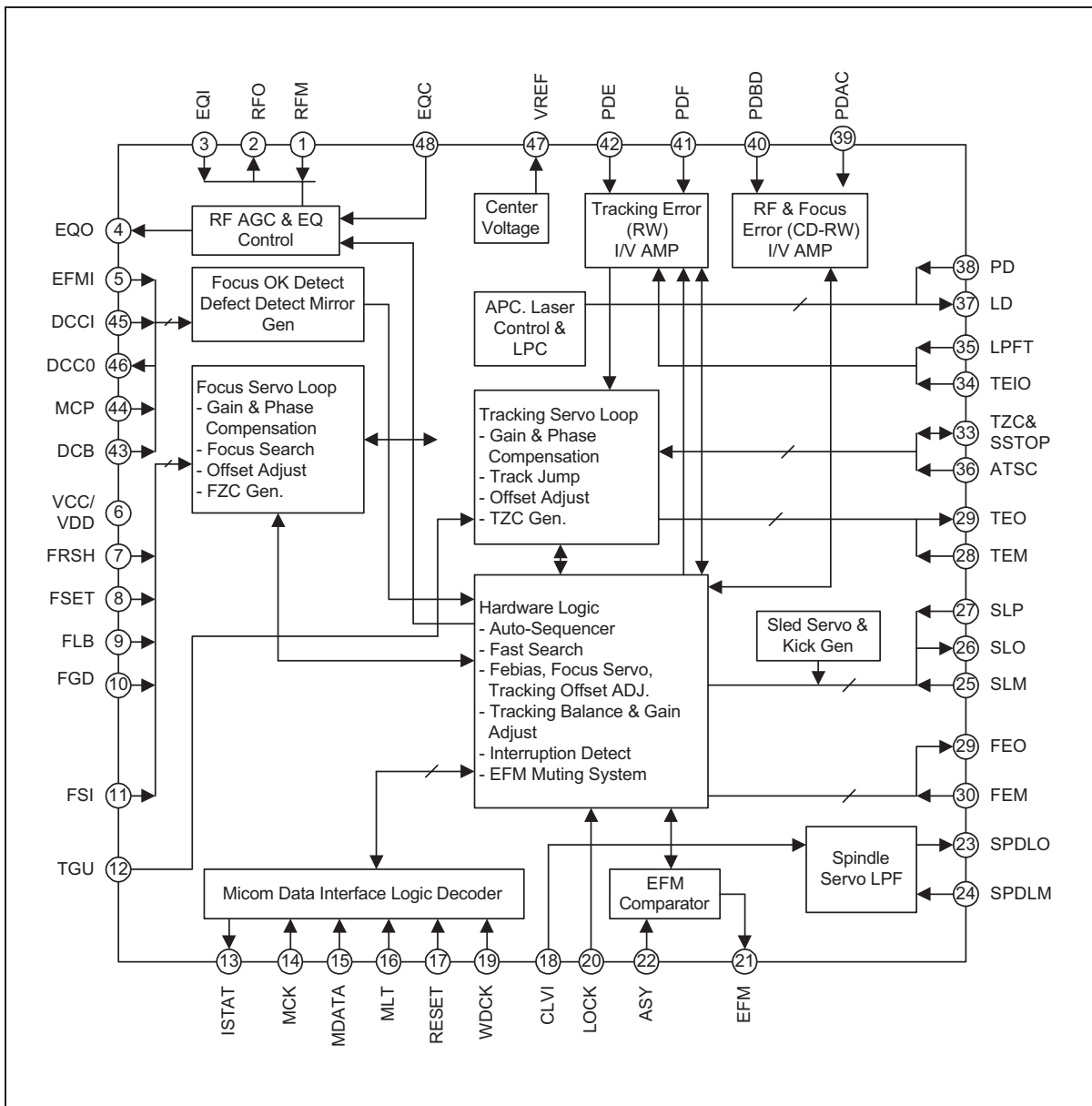


■ RF AMP & SERVO SIGNAL PROCESSOR (IC701): S1L9226X

1. Application diagram



2. Block diagram



3. Pin description

Table 1. Pin Description

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

Table 1. Pin Description (Continued)

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

Item	Symbol	Rating	Unit
Power supply voltage	V_{DD}	2.7 — 3.3	V
Absolute Ratings	V_I	4.5	V
Operating temperature	T_{OPR}	-20 — 75	°C
Storage temperature	T_{STG}	-40 — 125	°C

5. Electrical characteristics

Table 2. Electrical Characteristics

No.	Characteristics	Symbols	Test Block	Spec			Unit
				Min.	Typ.	Max.	
1	Supply current 2.7V	ICCTY	RF AMP	5	10	20	mA
2	RF AMP offset voltage	Vrfo		-100	0	100	mV
3	RF AMP offset voltage 2	Vrfo2		-300	-200	-100	mV
4	RF AMP oscillation voltage	Vrfosc		0	50	100	mV
5	RF AMP voltage gain AC	Grf		15.5	18.5	23.5	dB
6	RF THD characteristic	Rfthd		-	-	5	%
7	RF AMP maximum output voltage	Vrfh		2.35	-	-	V
8	RF AMP minimum output voltage	Vrfl		-	-	0.85	V
9	RF CDRW gain AC1	GRWAC1		1.05	1.30	1.55	-
10	RF CDRW gain AC2	GRWAC2		1.05	1.30	1.55	-
11	RF CDRW gain AC3	GRWAC3		1.05	1.30	1.55	-
12	Focus error offset voltage	VFE01	Focus Error	-525	-250	0	mV
13	Focus error auto voltage	VFE02		-50	0	50	mV
14	ISTAT state after FEBIAS control	VISTAT1		2.2	-	-	V
15	Focus positive offset 1	Vfep1		0	40	80	mV
16	Focus positive offset 2	Vfep2		10	60	100	mV
17	Focus positive offset 3	Vfep3		50	120	180	mV
18	Focus negative offset 1	Vfen1		-80	-40	0	mV
19	Focus negative offset 2	Vfen2		-100	-60	-10	mV
20	Focus negative offset 3	Vfen3		-180	-120	-50	mV
21	Focus Error voltage gain 1	GFEAC		19	23	27	dB
22	Focus Error voltage gain 2	GFEBD		19	23	27	dB
23	Focus Error voltage gain difference	Δ GFE		-3	0	3	dB
24	Focus Error RW down	GFERWD		0.4	0.7	1.0	-
25	Focus Error AC difference	VFEACP		0	50	100	mV
26	FERR maximum output voltage H	VFEPPH	AGC_EQ	2.3	-	-	V
27	FERR minimum output voltage L	VFEPL		-	-	0.4	V
28	AGC max gain	GAGC		15	19	22	dB
29	AGC EQ gain	GEQ		-3	1	2.5	dB
30	AGC normal gain	GAGC2		3	6	9	dB
31	AGC compress ratio	CAGC		0	2.5	5	dB

4. Maximum absolute ratings

■ 32X16 VFD DRIVER & CONTROLLER preliminary DATASHEET (IC402)

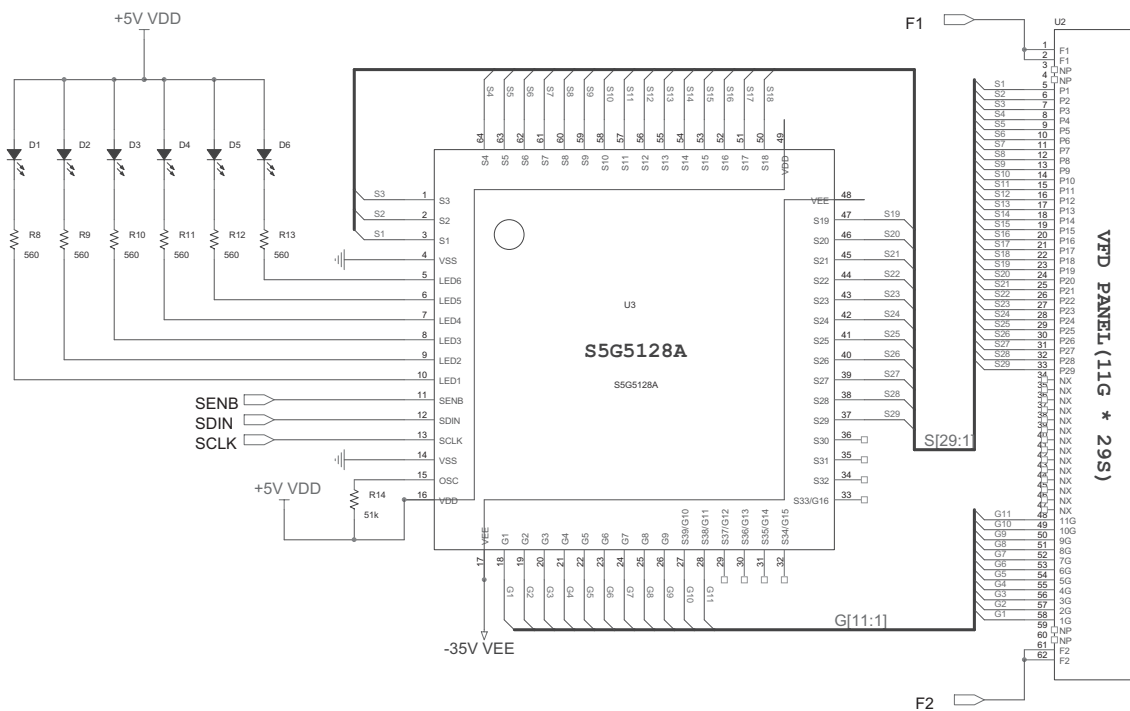
1. Sample application circuit

Panel : 11Grid & 29Seg

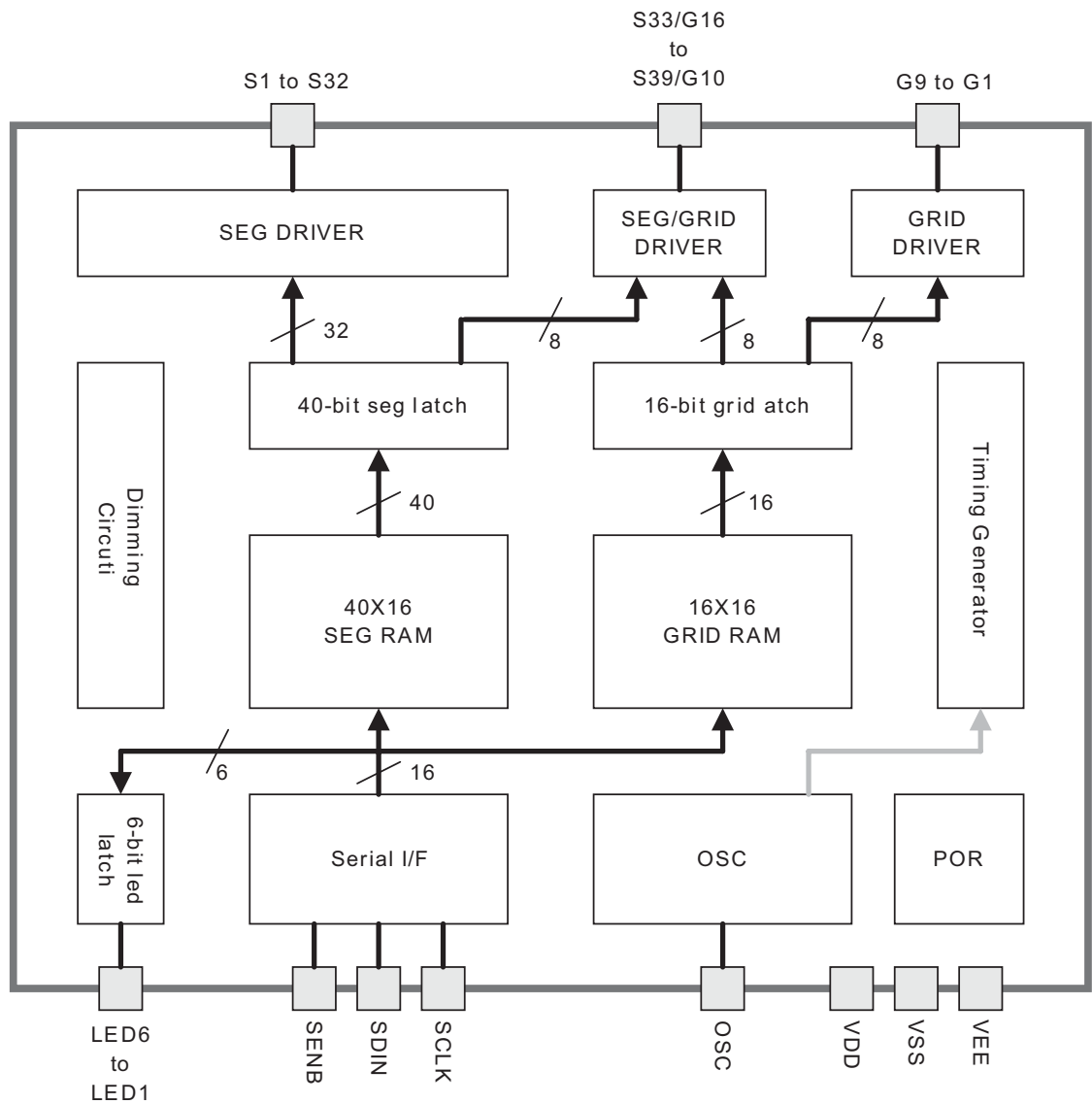
The value of control register

Display Mode Control Register(dsp) : 111 (default)

Display Sub Time Control Register(tsub) : 101 (-5)



2. Block diagram

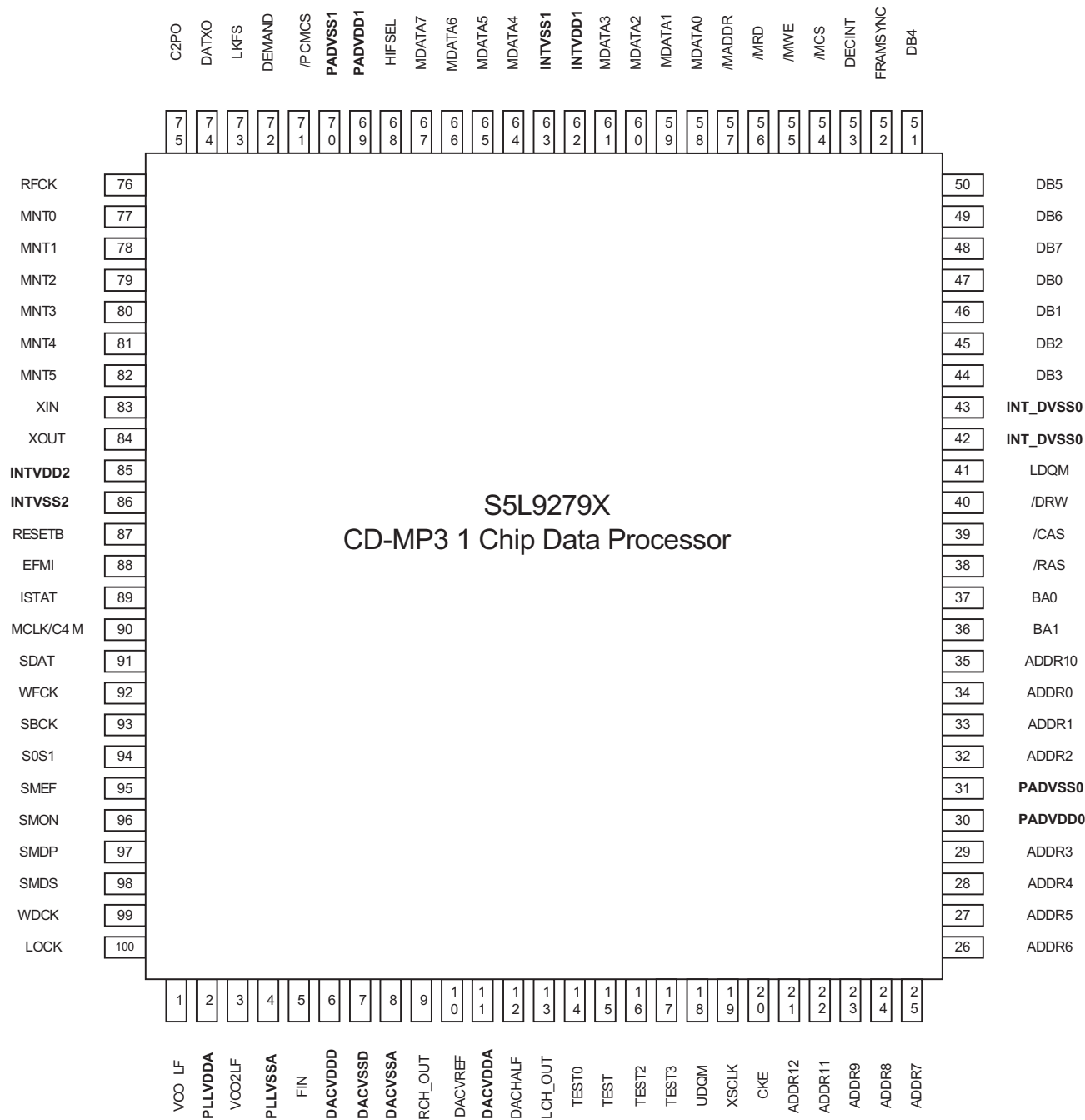


3. Pin description

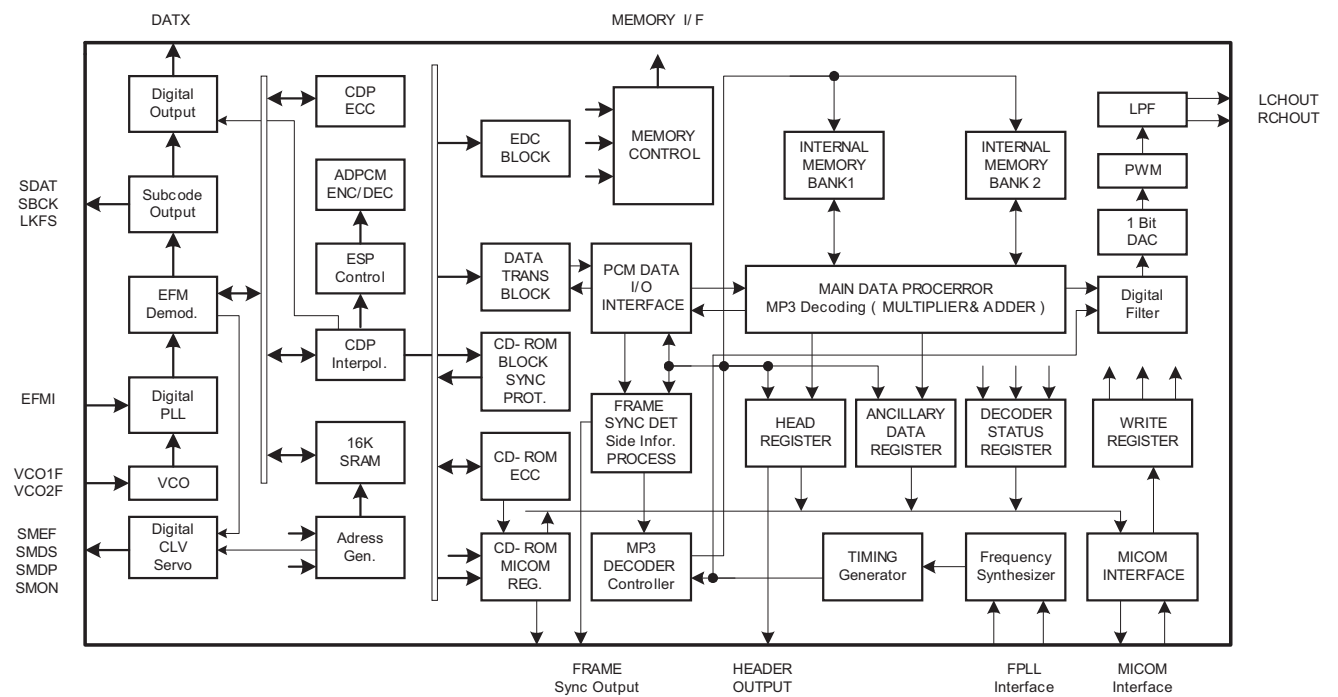
Pin No.	Name	Function	IN/OUT
1 to 3	S3 to S1	Segment driver output pins (segment only). This is P-ch open-drain output with pull-down resistor	O
5 to 10	LED6 to LED1	6 LED driver output ports. This is a CMOS output pin.	O
11	SENB	Serial Interface Enable All shifted data is latched into the corresponding register at the rising edge of SENB.	I
12	SDIN	Serial Interface Data IN Input serial data at the rising edge of the shift clock.	I
13	SCLK	Serial Interface Clock Reads serial data at the rising edge when SENB is low	I
15	OSC	Connected to an external resistor or an RC oscillator circuit.	I/O
18 to 26	G1 to G9	Grid driver output pins (Grid only). This is push-pull CMOS output.	O
27 to 33	S39/G10 to S33/G16	Segment or Grid driver output pins. These pins are selectable for segment or grid driving. This is P-ch open drain output with pull-down resistor	O -
34 to 47	S32 to S19	Segment driver output pins (segment only). This is P-ch open-drain output with pull-down resistor	O
50 to 64	S18 to S4	Segment driver output pins (segment only). This P-ch open-drain output with pull-down resistor	O
16,49	VDD	Positive power (Internally connected)	PWR
4,14	VSS	Ground (Internally connected)	GND
17,48	VEE	Negative power for driving VFD Panel (Internally connected)	PWR

■ CD-MP3 Decoder Specification (IC804)

1. PKG Type : 100 TQFP PKG



2. CD-MP3 1 Chip Block Diagram



■ SYSTEM IC (IC301) S3P825A

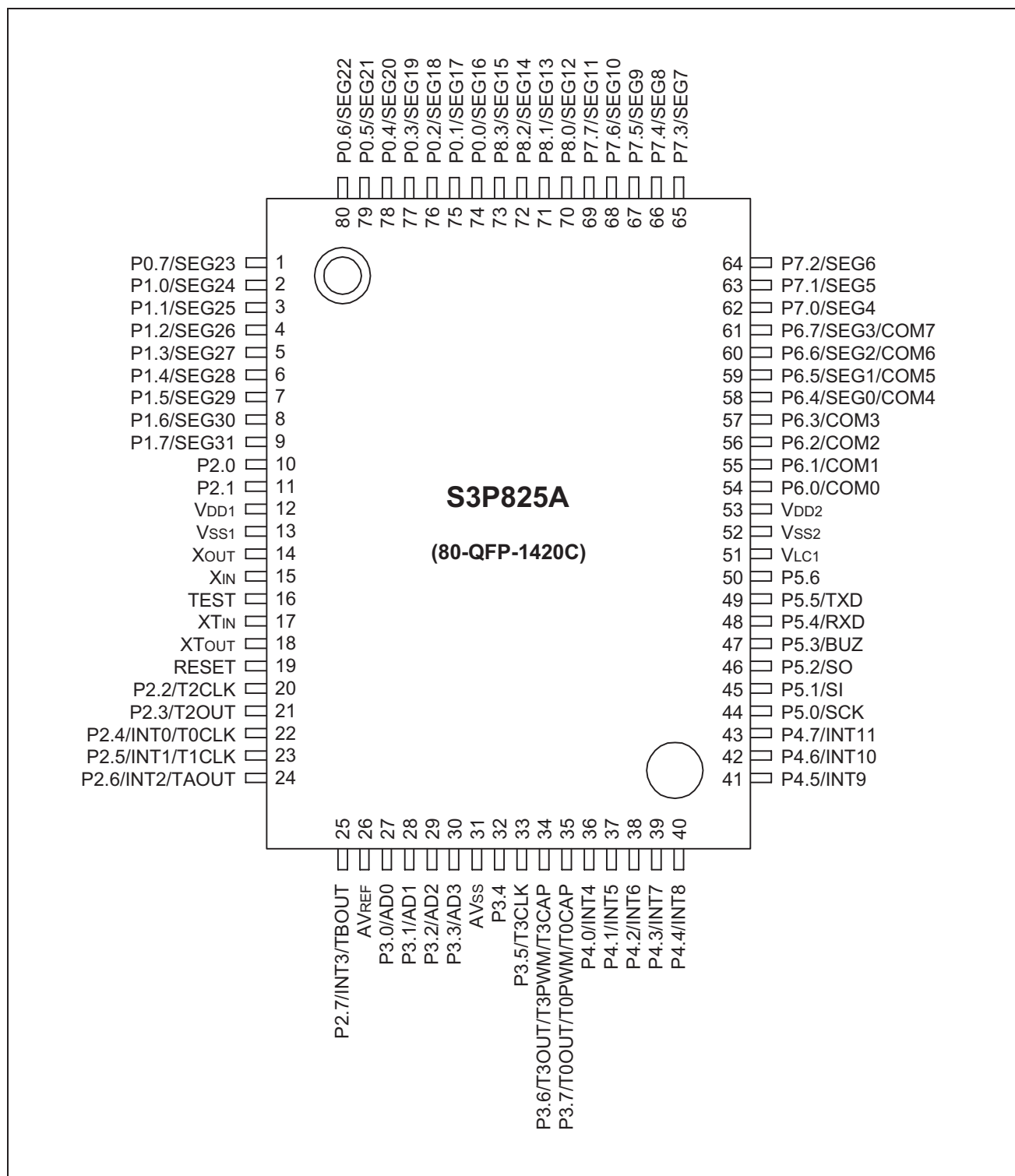


Figure 1-3. S3C825A Pin Assignments (80-QFP-1420)

2. PIN DESCRIPTIONS

Table 1-1. S3C825A Pin Descriptions

Pin Names	Pin Type	Pin Description	Circuit Type	Pin Numbers	Share Pins
P0.0–P0.7	I/O	4-bit-programmable I/O port. Input or push-pull, open-drain output and software assignable pull-ups.	H-32	72–79 (74-80, 1)	SEG16 – SEG23
P1.0–1.7	I/O	4-bit-programmable I/O port. Input or push-pull, open-drain output and software assignable pull-ups.	H-32	80, 1–7 (2-9)	SEG24 – SEG31
P2.0 P2.1 P2.2 P2.3 P2.4 P2.5 P2.6 P2.7	I/O	1-bit-programmable I/O port. Schmitt trigger input or push-pull, open-drain output and software assignable pull-ups. P2.4–P2.7: Alternately used for external interrupt input (Noise filters, interrupt enable and pending control)	E-4	8 (10) 9 (11) 18 (20) 19 (21) 20 (22) 21 (23) 22 (24) 23 (25)	– – T2CLK T2OUT INT0/T0CLK INT1/T1CLK INT2/TAOUT INT3/TBOUT
P3.0–P3.3	I/O	1-bit-programmable I/O port. Schmitt trigger input or push-pull, open-drain output, and software assignable pull-ups.	F-16	25–28 (27–30)	AD0–AD3
P3.4 P3.5 P3.6 P3.7			E-4	30(32) 31(33) 32(34) 33(35)	– T3CLK T3OUT/T3PWM/T3CAP T0OUT/T0PWM/T0CAP
P4.0–P4.7	I/O	1-bit-programmable I/O port. Schmitt trigger input or push-pull, open-drain output and software assignable pull-ups. P4.0–P4.7: Alternately used for external interrupt input (Noise filters, interrupt enable and pending control)	E-4	34–41 (36–43)	INT4–INT11
P5.0 P5.1 P5.2 P5.3 P5.4 P5.5 P5.6	I/O	1-bit-programmable I/O port. Schmitt trigger input or push-pull, open-drain output and software assignable pull-ups.	E-4	42 (44) 43 (45) 44 (46) 45 (47) 46 (48) 47 (49) 48 (50)	SCK SI SO BUZ RXD TXD –
P6.0-P6.3 P6.4–P6.7	I/O	4-bit programmable I/O port. Input or push-pull, open-drain output and software assignable pull-ups.	H-32	52-55(54-57) 56-59(58-61)	COM0–COM3 COM4–COM7/ SEG0–SEG3
P7.0–P7.7	I/O		H-32	60-67(62-69)	SEG4–SEG11
P8.0–P8.3	I/O		H-32	68-71(70-73)	SEG12–SEG15

NOTE: Parentheses indicate pin number for 80-QFP-1420 package.

Table 1-1. S3C825A Pin Descriptions (Continued)

Pin Names	Pin Type	Pin Description	Circuit Type	Pin Numbers (note)	Share Pins
V_{SS1} , V_{DD1}	–	Power input pins for core block	–	10, 11 (12, 13)	–
X_{OUT} , X_{IN}	–	Main oscillator pins	–	12, 13 (14, 15)	–
TEST	–	Test signal input pin (must be connected to V_{SS})	–	14 (16)	–
XT_{IN} , XT_{OUT}	–	Sub oscillator pins	–	15, 16 (17, 18)	–
RESET	I	System reset pin	B	17 (19)	–
INT0–INT3	I/O	External interrupt input pins	E-4	20–23 (22–25)	P2.4–P2.7
T0CLK	I/O	Timer 0 external clock input.	E-4	20 (22)	P2.4
T0OUT	I/O	Timer 0 clock output	E-4	33 (35)	P3.7
T0PWM	I/O	Timer 0 PWM output	E-4	33 (35)	P3.7
T0CAP	I/O	Timer 0 capture input	E-4	33 (35)	P3.7
T1CLK	I/O	Timer 1/A external clock input.	E-4	21 (23)	P2.5
TAOUT	I/O	Timer 1/A clock output	E-4	22 (24)	P2.6
TBOUT	I/O	Timer B clock output	E-4	23 (25)	P2.7
T2CLK	I/O	Timer 2 external clock input.	E-4	18 (20)	P2.2
T2OUT	I/O	Timer 2 clock output	E-4	19 (21)	P2.3
T3CLK	I/O	Timer 3 external clock input.	E-4	31 (33)	P3.5
T3OUT	I/O	Timer 3 clock output	E-4	32 (34)	P3.6
T3PWM	I/O	Timer 3 PWM output	E-4	32 (34)	P3.6
T3CAP	I/O	Timer 3 capture input	E-4	32 (34)	P3.6
AD0–AD3	I/O	Analog input pins for A/D convert module	F-16	25–28 (27–30)	P3.0–P3.3
AV_{REF} , AV_{SS}	–	A/D converter reference voltage and ground	–	24, 29 (26, 31)	–
INT4–INT11	I/O	External interrupt input pins	E-4	34–41 (36–43)	P4.0–P4.7
BUZ	I/O	Buzzer signal output	E-4	45 (47)	P5.3
SCK, SI, SO	I/O	Serial clock, serial data input, serial data output	E-4	42–44 (44–46)	P5.0–P5.2
RXD, TXD	I/O	UART data input, output	E-4	46–47 (48–49)	P5.4–P5.5
V_{LC1}	–	LCD bias voltage input pins	–	49 (51)	–
V_{SS2} , V_{DD2}	–	Power input pins for peripheral block	–	50, 51 (52, 53)	–
COM0–COM3	I/O	LCD Common signal output	H-32	52–55 (54–57)	P6.0–P6.3
SEG0–SEG3 (COM4–COM7)	I/O	LCD Common or Segment signal output	H-32	56–59 (58–61)	P6.4–P6.7
SEG4–SEG11	I/O	LCD segment signal output	H-32	60–67 (62–69)	P7.0–P7.7
SEG12–SEG15	I/O	LCD segment signal output	H-32	68–71 (70–73)	P8.0–P8.3
SEG16–SEG23	I/O	LCD segment signal output	H-32	72–79 (74–80, 1)	P0.0–P0.7
SEG24–SEG31	I/O	LCD segment signal output	H-32	80, 1–7 (2–9)	P1.0–P1.7

NOTE: Parentheses indicate pin number for 80-QFP-1420 package.

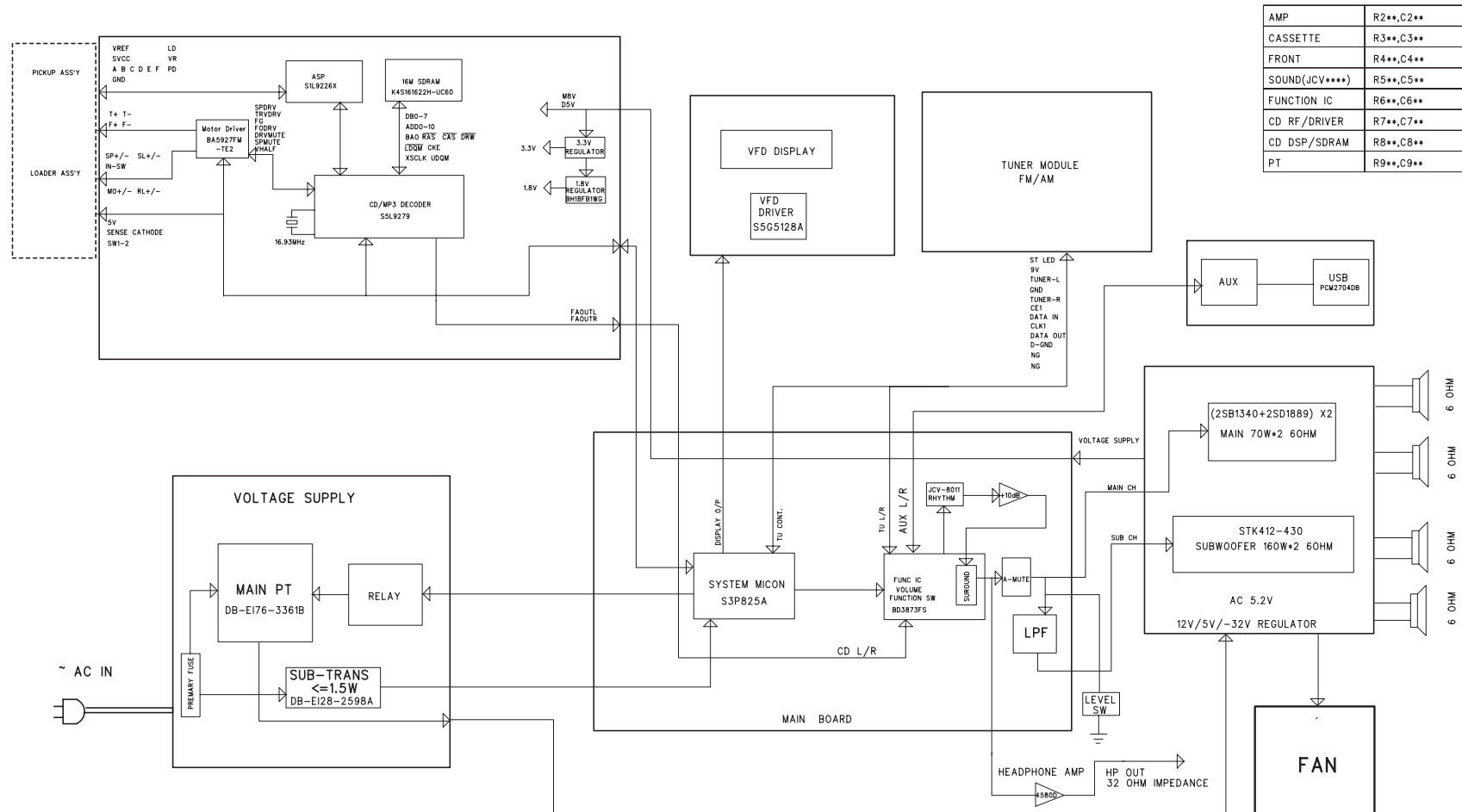


JVC

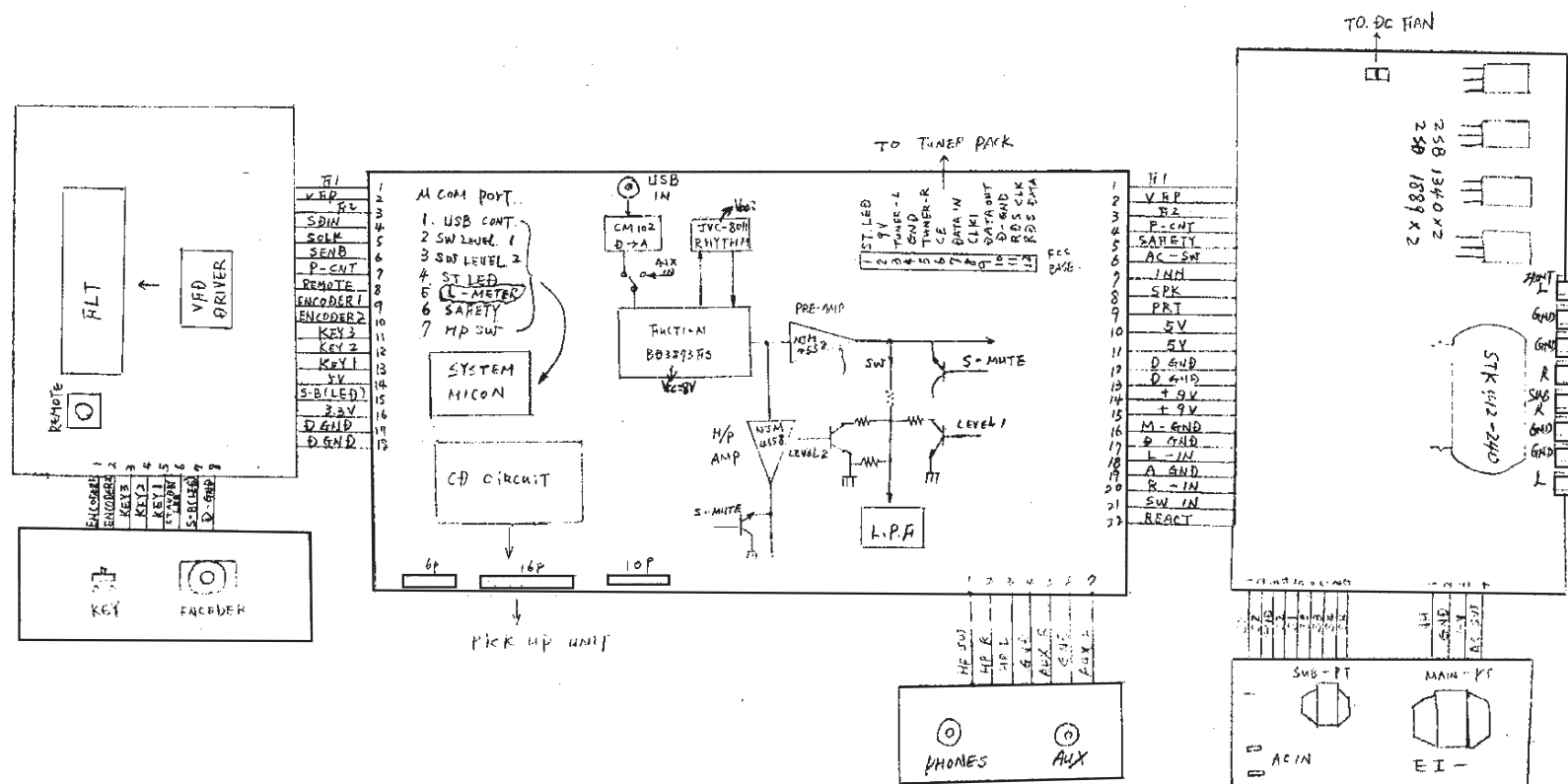


Printed in Japan

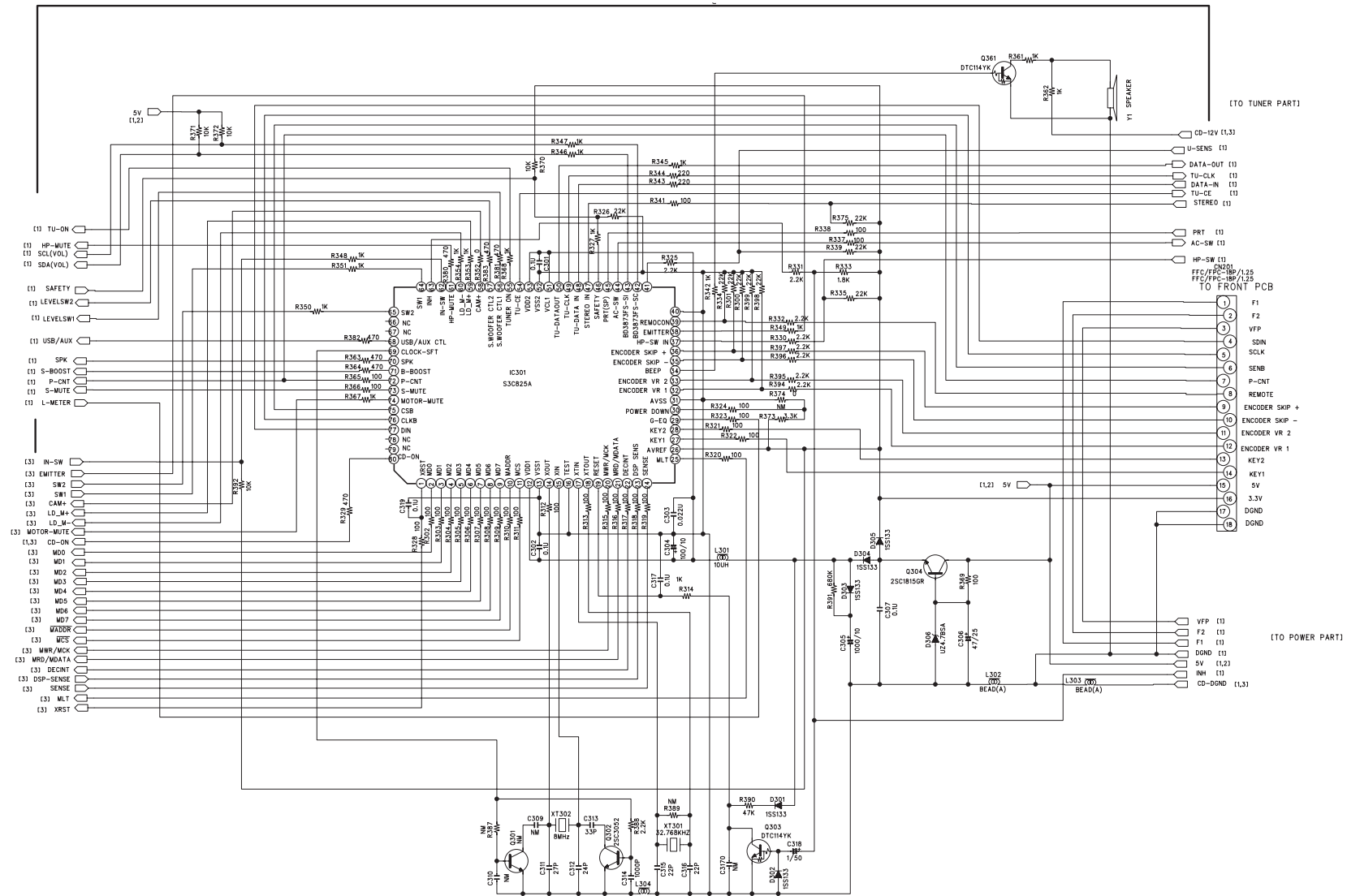
■ BLOCK DIAGRAM



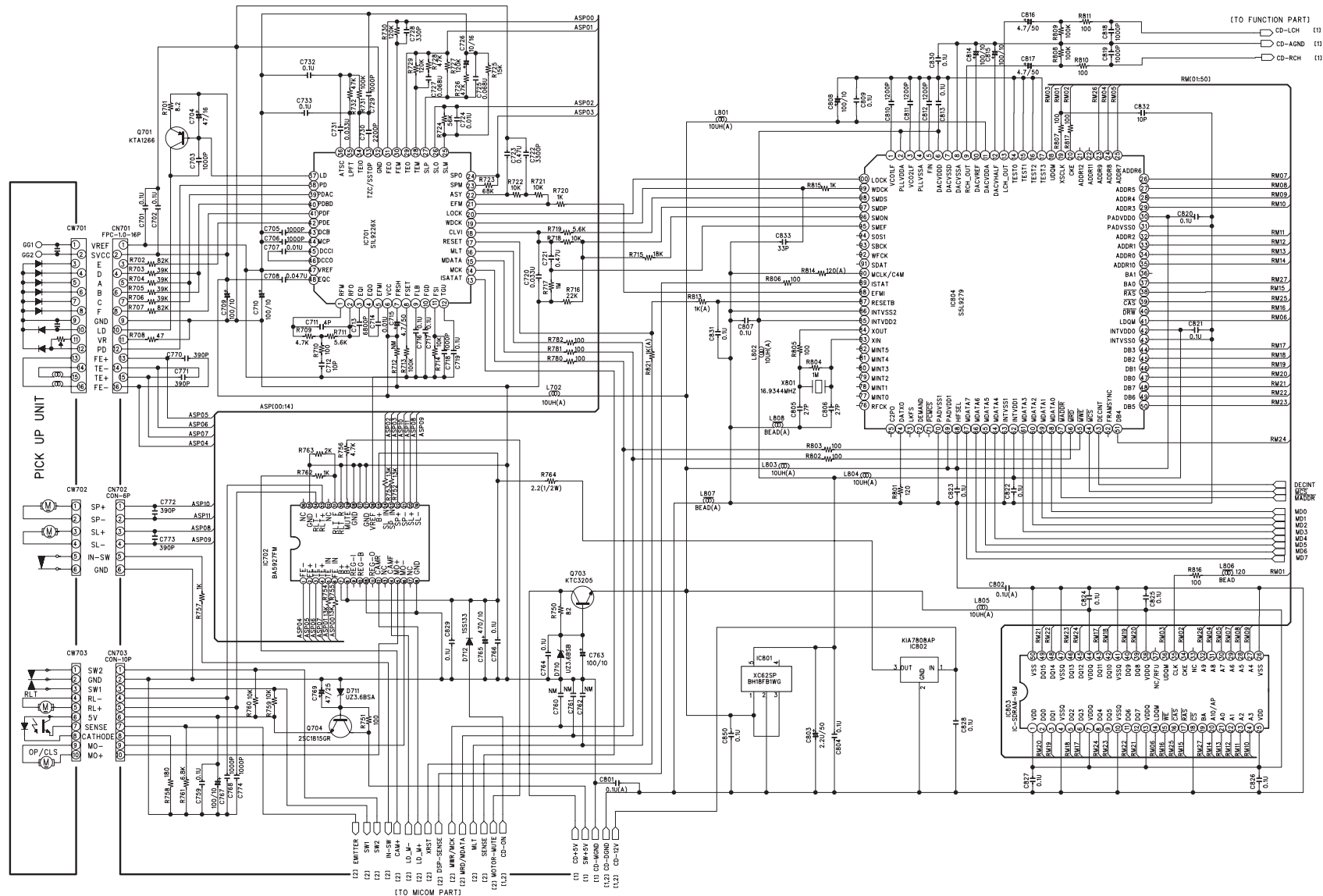
■ WIRE ASS'Y BLOCK DIAGRAM



■ MAIN SCHEMATIC DIAGRAM(2/3)



■ MAIN SCHEMATIC DIAGRAM(3/3)

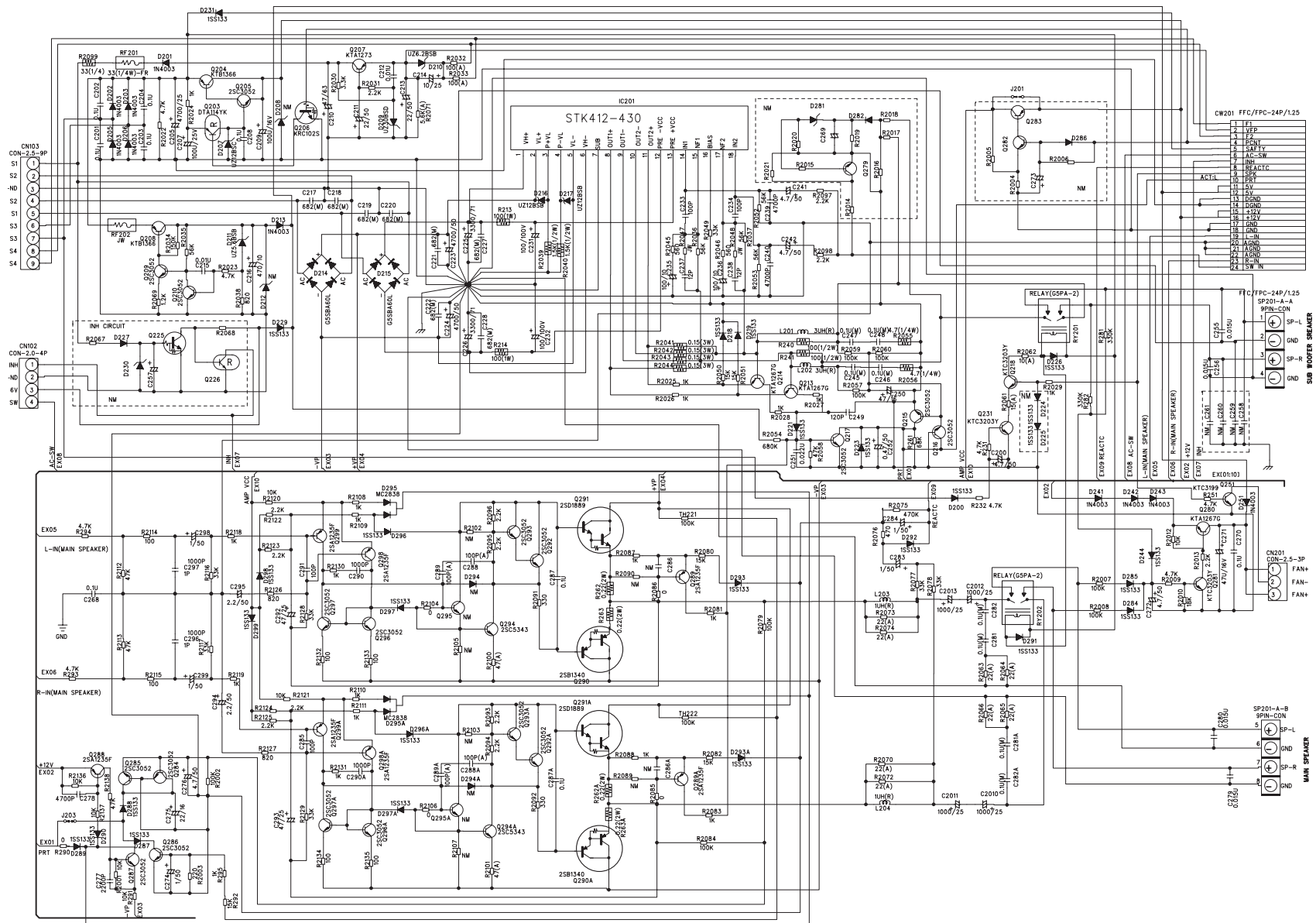


This is a detailed electronic schematic diagram for a car stereo system. The central component is the STK412-430 IC, which is a monolithic integrated circuit designed for car audio applications. The diagram shows the internal circuitry of the IC, including various transistors, resistors, and capacitors, and how they are connected to external components.

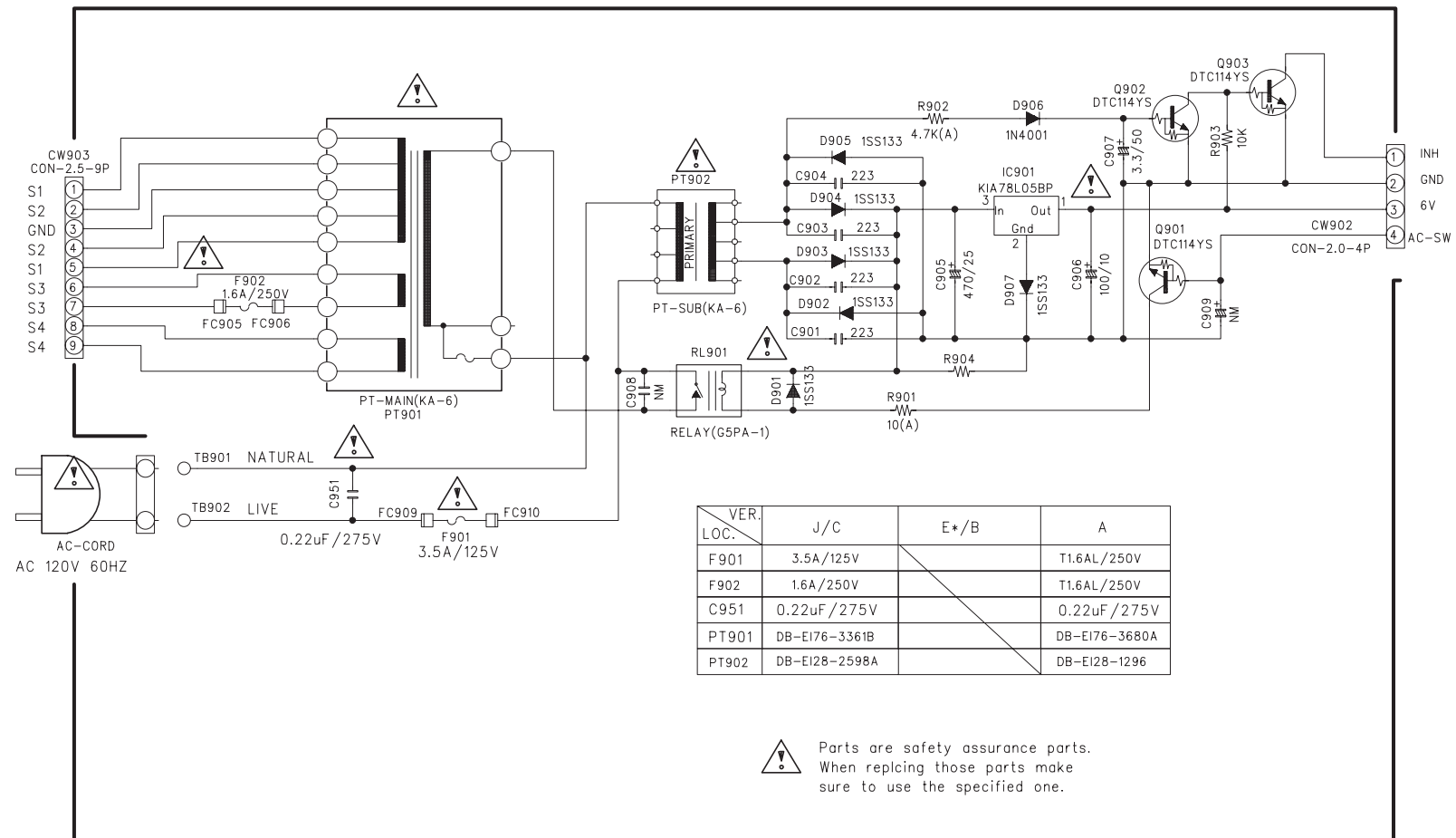
Key Components and Connections:

- Power Supply:** The system is powered by a 12V battery (EX02) connected to the power supply pins of the IC. A fuse (F001) is used for protection. The ground connection is labeled GND.
- Audio Input:** The audio input is connected to the IC via a 2.0-4P connector (CN02). The input signal is processed by the IC's internal amplifier stages.
- Speakers:** The system includes two main speakers (L-MAIN SPEAKER and R-MAIN SPEAKER) and two sub-speakers (EX05 and EX06). The speaker outputs are connected to the IC's speaker output pins.
- Relays:** Two relays (RELAY (GSPA-2)) are used to switch the speakers. The relays are controlled by the IC's relay control pins.
- Resistors and Capacitors:** The schematic includes numerous resistors (R001-R099) and capacitors (C001-C099) for biasing, coupling, and filtering. Values range from 100Ω to 100kΩ and 100pF to 100μF.
- Transistors:** Several transistors (Q001-Q099) are used for signal amplification and switching. They are connected to the IC's various output and control pins.
- Connectors:** The diagram shows several connectors for external components, including a 2.0-4P connector (CN02) for the power supply, a 2.5-3P connector (CN01) for the speakers, and a 12P connector (CN03) for the audio input.

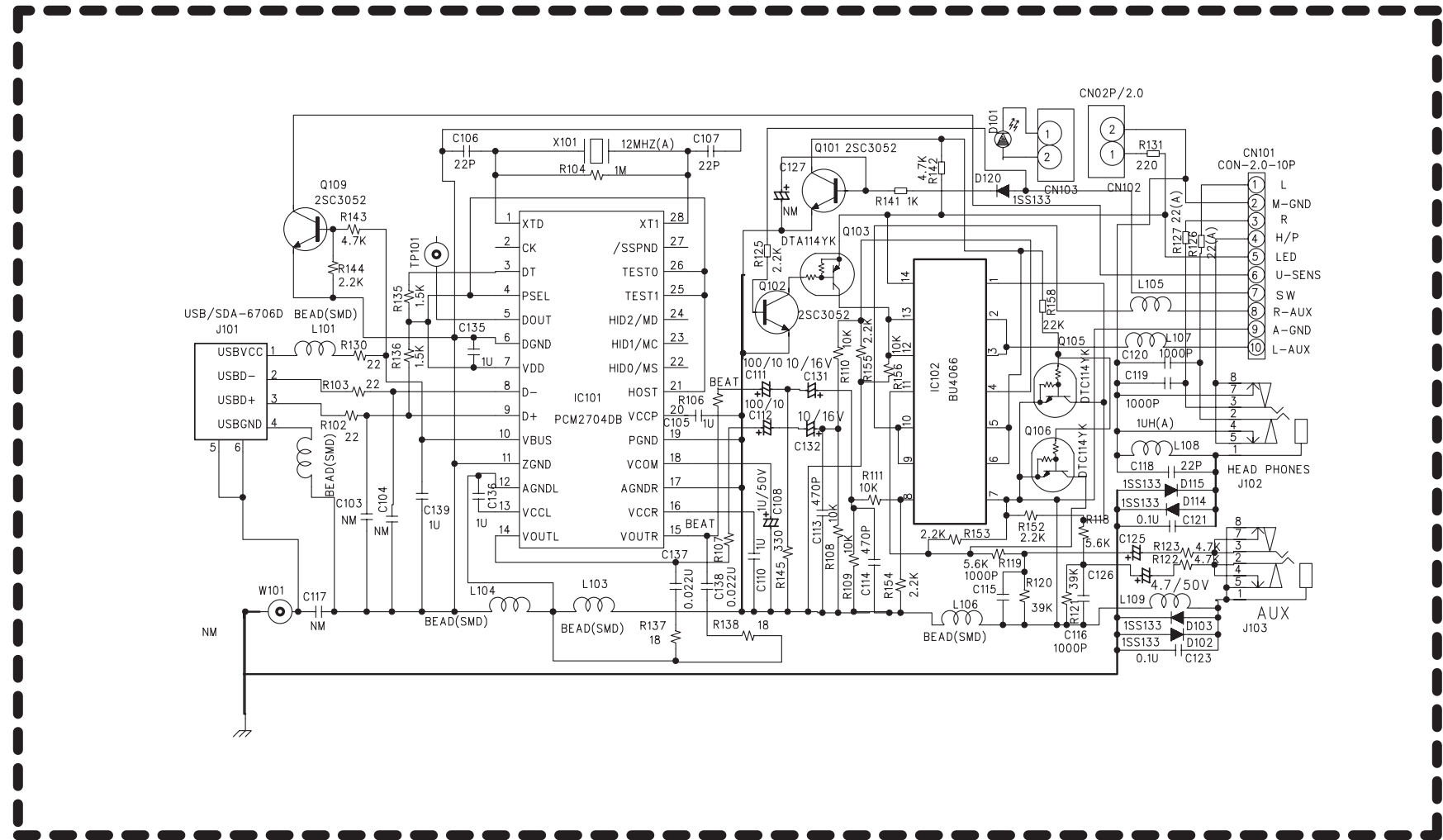
The schematic is a comprehensive representation of the car stereo's internal circuitry, showing the flow of power and audio signals through the various components.



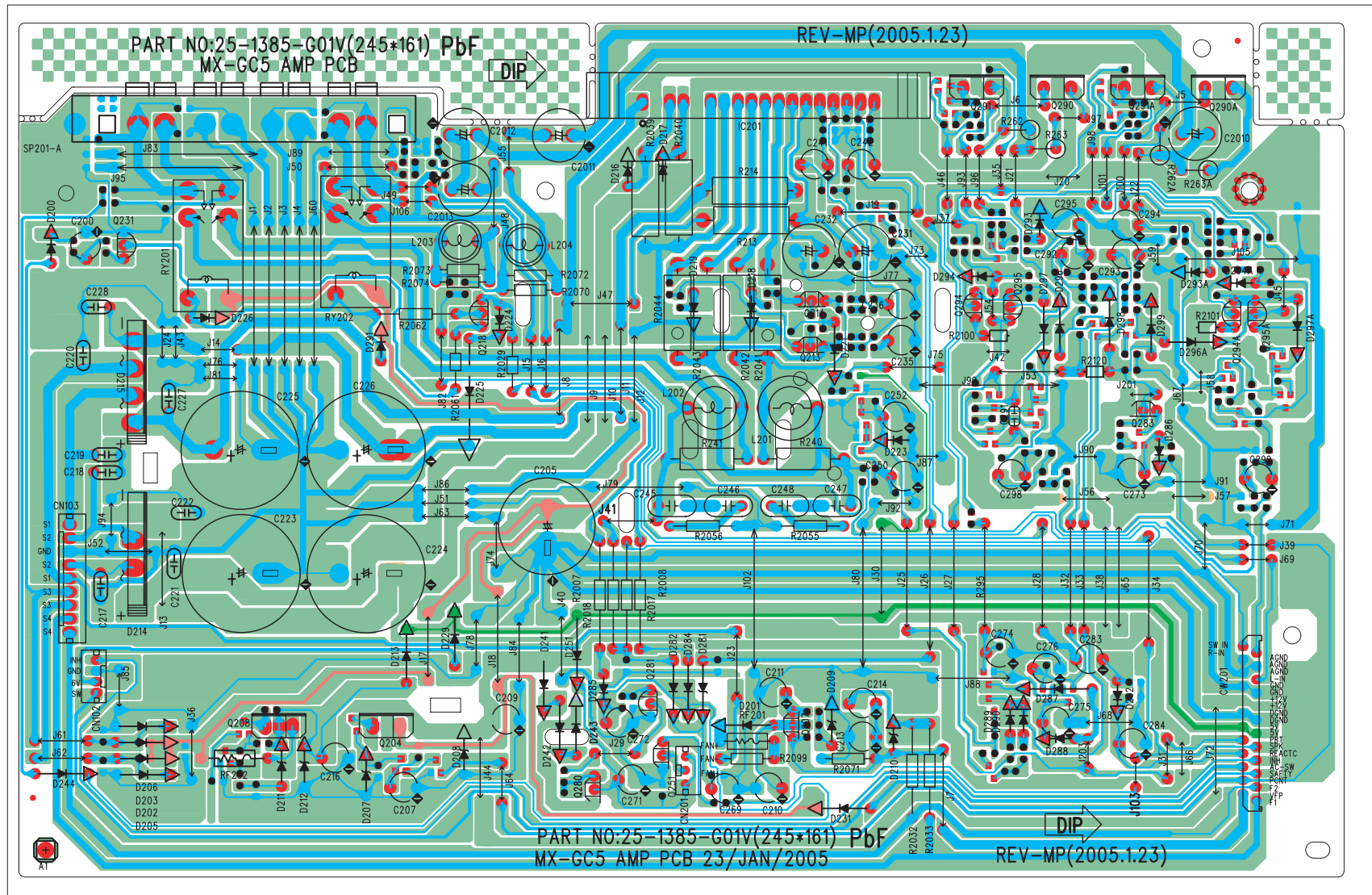
■Power SCHEMATIC DIAGRAM



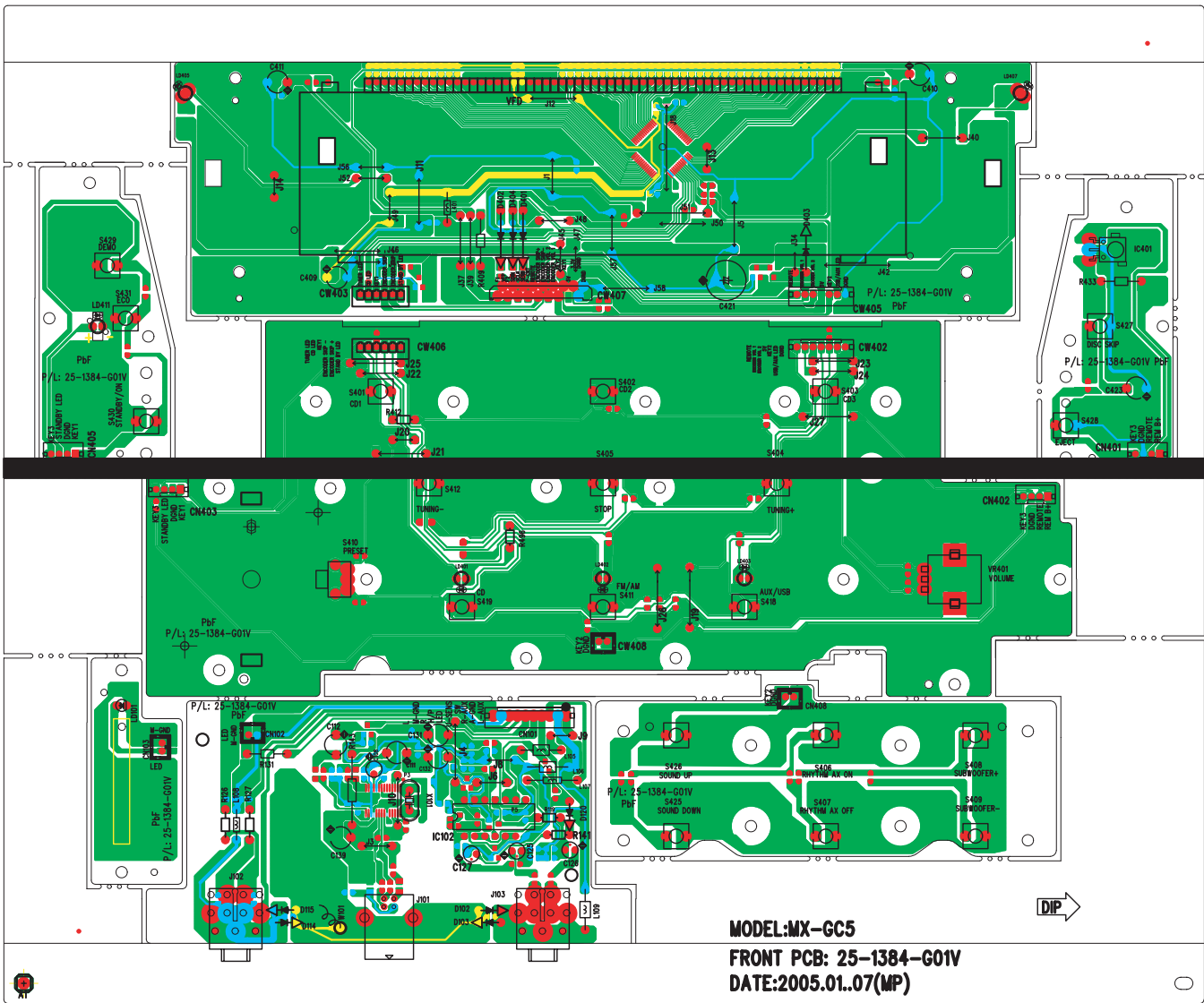
■ USB SCHEMATIC DIAGRAM



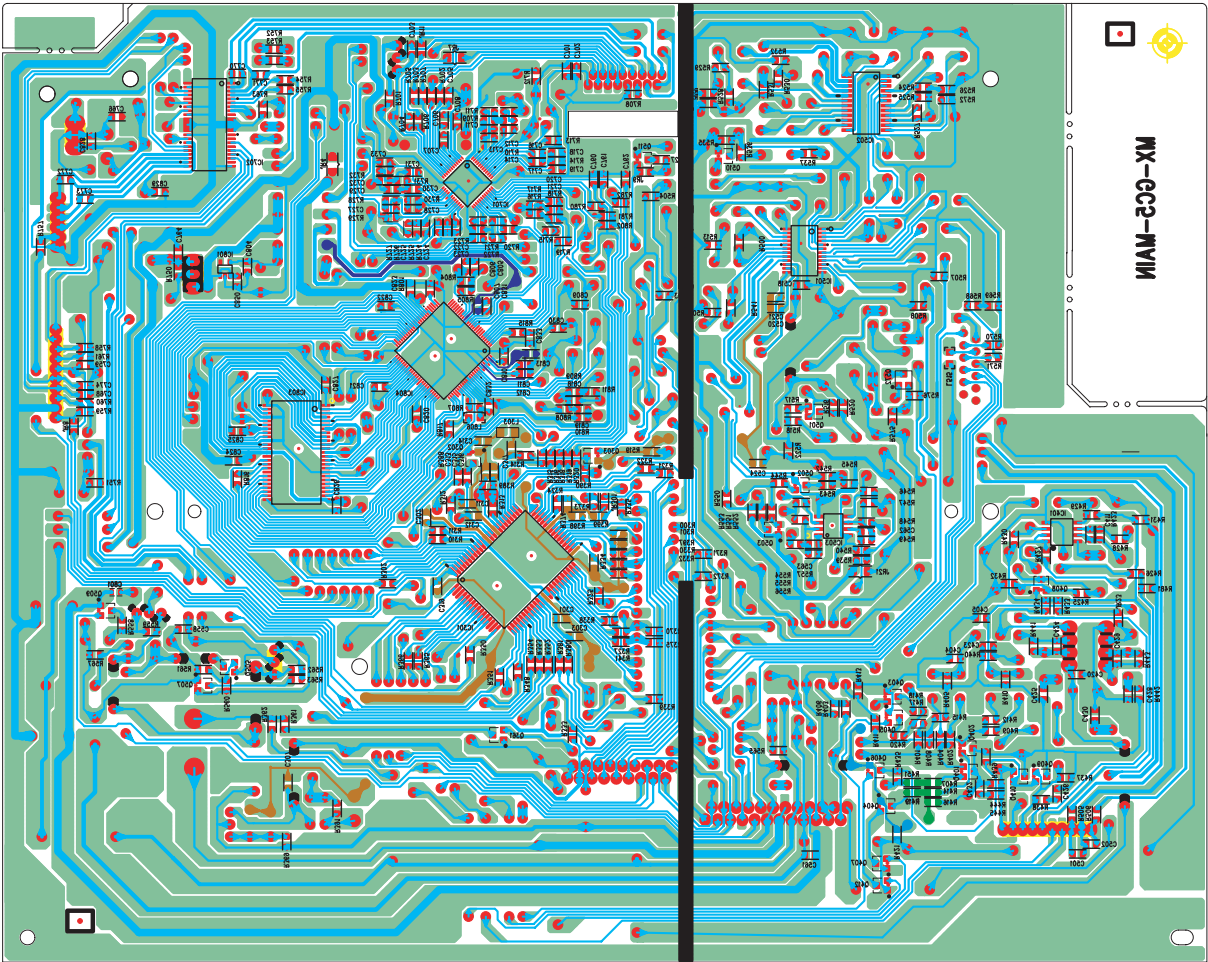
■AMP PCB TOP



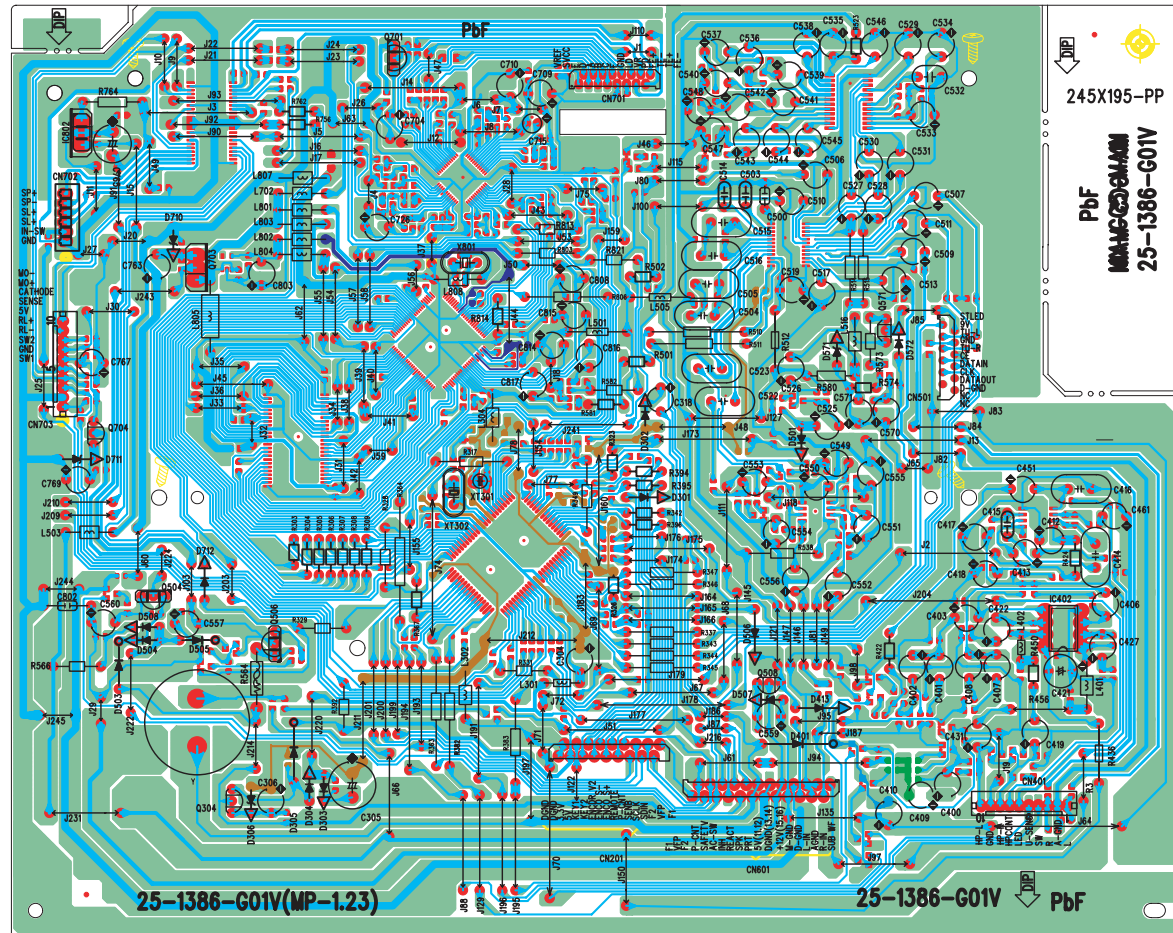
■ FRONT PCB TOP



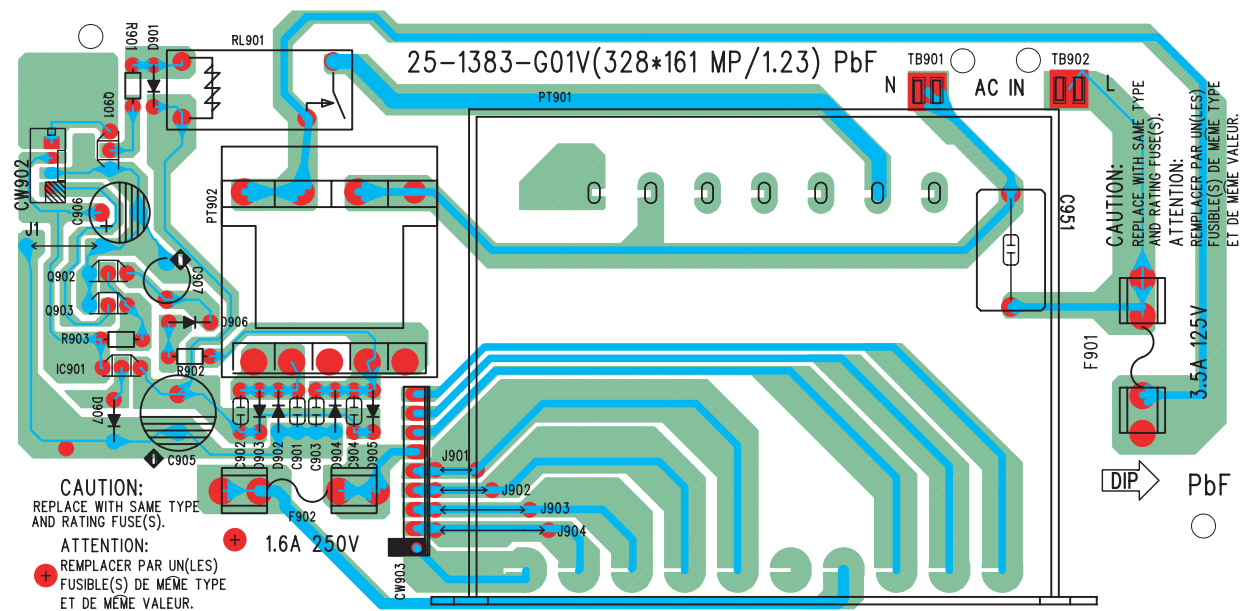
■ MAIN PCB BOTTOM



■ MAIN PCB TOP



■PT PCB TOP



PARTS LIST

[MX-GC5]

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

Area suffix

J ----- U.S.A.
C ----- Canada

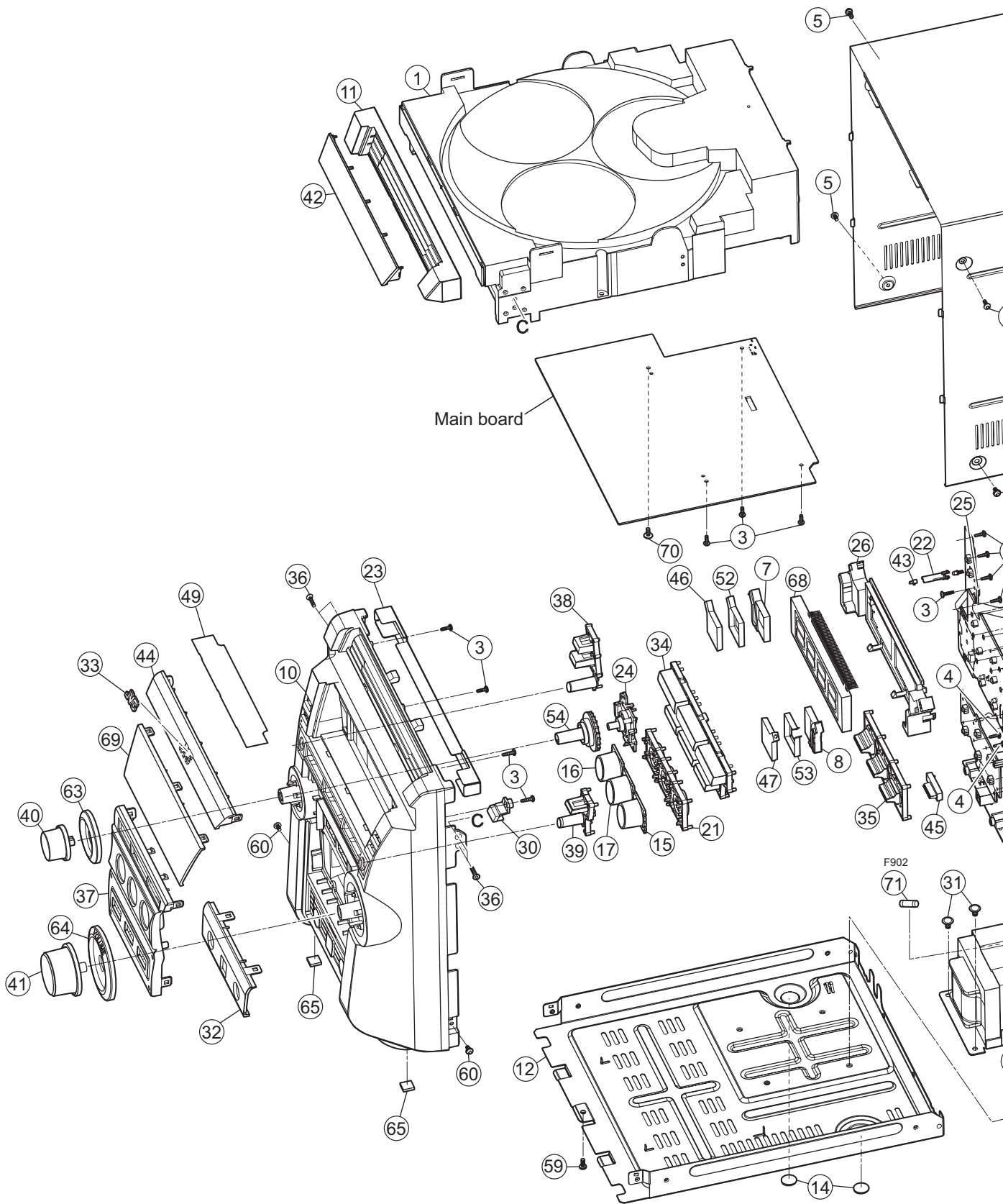
- Contents -

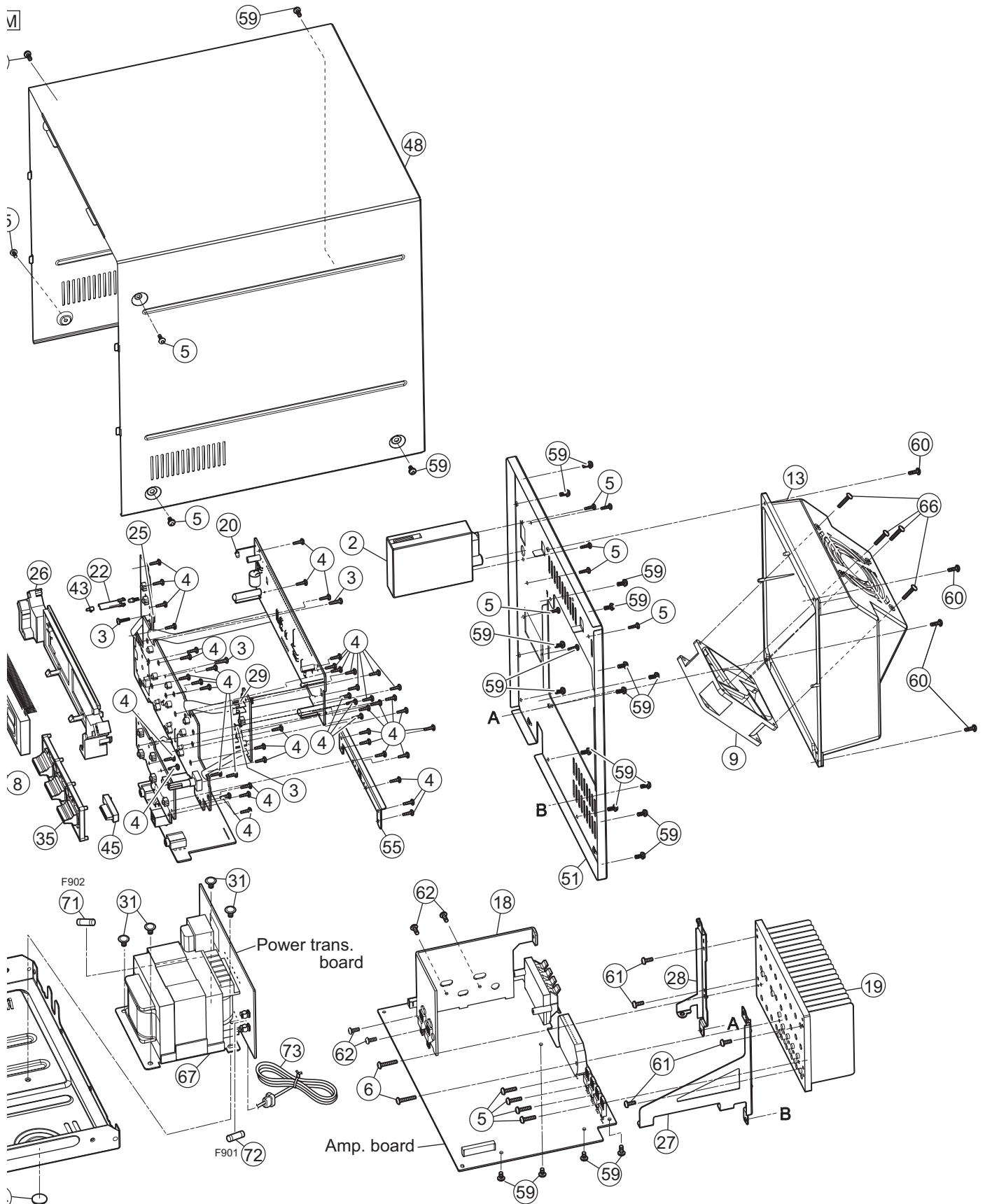
Exploded view of general assembly and parts list (Block No.M1)	3- 2
CD changer mechanism assembly and parts list (Block No.MA)	3- 5
Electrical parts list (Block No.01~05)	3- 7
Packing materials and accessories parts list (Block No.M3)	3-16

Exploded view of general assembly and parts list

Block No.

M	1	M	M
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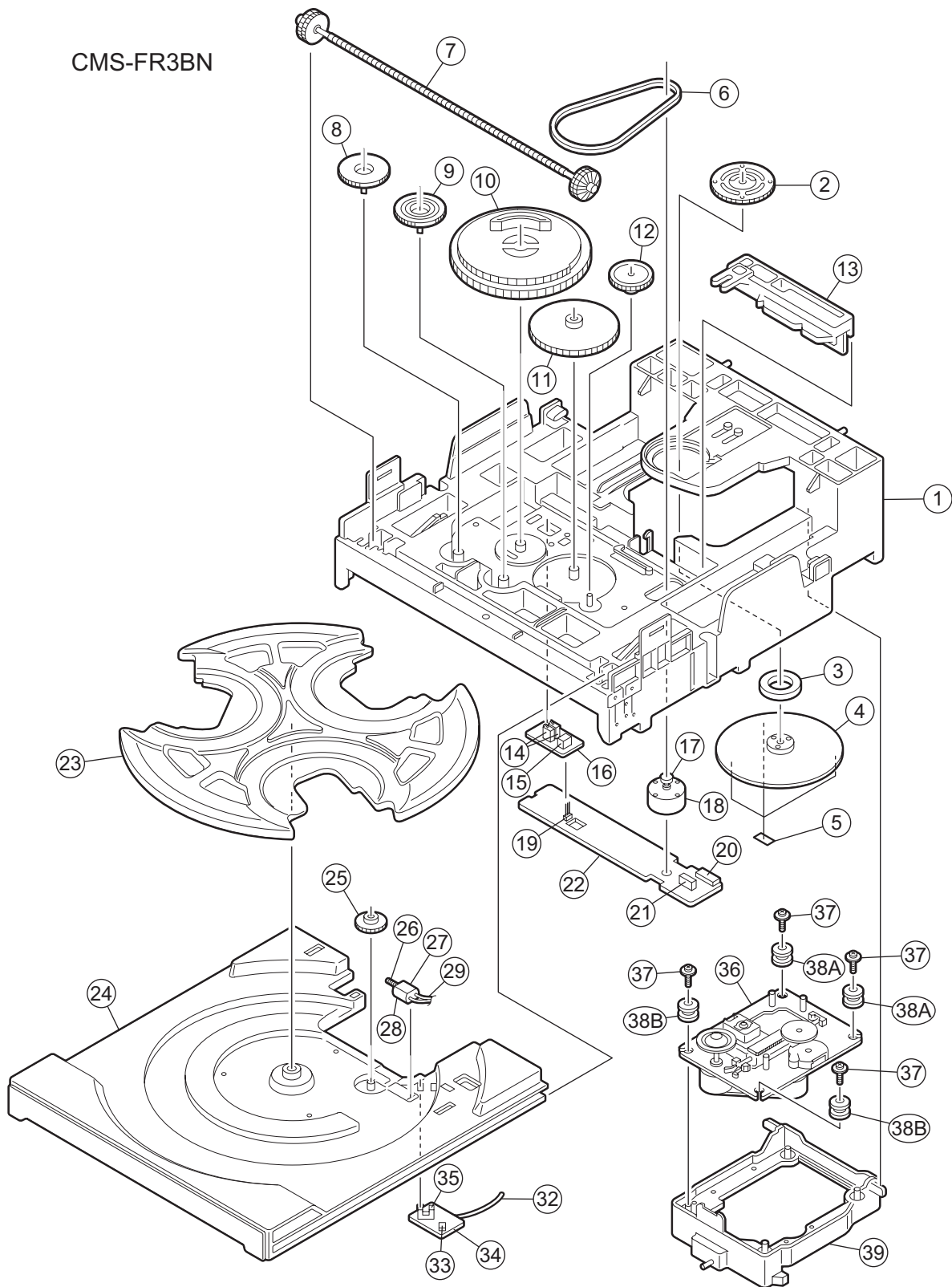
General Assembly

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

Symbol No.	Part No.	Part Name	Description	Local
1	BI251030093100V	3CD MECHANISM		
2	BI225094901VV	TUNER PACK		
3	BI2000410S3	SCREW	6XL10(x11)	
4	BI2000418	SCREW	6XL18(x47)	
5	BI2000608	SCREW	3XL12(x14)	
6	BI2000654	SCREW	3XL16(x2)	
7	BI1081740101X1	VFD BOX L		
8	BI1081750101X1	VFD BOX R		
9	BI2400261V	FAN		
10	BI1079689101X1	FRONT CABINET	HIPS-8002	
11	BI1079690101X1	CD DOOR	HIPS470	
12	BI2029220101W1	MAIN CHASSIS	SECC THK=0.8mm	
13	BI1080030101X1	HEAT SINK COVER	PA777D	
14	BI301779010101	CUSHION	BACK FOAM(x2)	
15	BI1079760101X1	FUNCTION KNOB	AUX	
16	BI1080120101X1	FUNCTION KNOB	PMMA-CP-51 CD	
17	BI1079750101X1	FUNCTION KNOB	PMMA-CP-51 TUNER	
18	BI202924010101	HEAT SINK	PMMA-CP-51	
19	BI2029230101W1	HEAT SINK		
20	BI28GL3B0URP010	HIGH BRIGHT LED		
21	BI1080000101X1	FUNC KEY HLDR	AL	
22	BI1080130101X1	LED HOLDER	AL	
23	BI2029500101W1	PLATE HOLDER	ABS-700	
24	BI1079980101X1	PRESET HLDR	ABS-700	
25	BI1080020101X1	PWB VFD HOLDER	SECC THK=0.6mm	
26	BI1080010101X1	VFD HOLDER	ABS-700	
27	BI2029200101W1	HEATSINK HLDR R	ABS-700	
28	BI2029190101W1	HEATSINK HLDR L	ABS-700	
29	BI2028690101W1	SENSOR HOLDER	SECC	
30	BI1080150101X1	LENS	SECC	
31	BI1079970101X1	SCREW	SECC(x4)	
32	BI1079970101X1	JACK COVER	SAN2495	
33	BI109835010101	BADGE	JVC	
34	BI1080110101X1	KEY	SAN2495 CD	
35	BI1079810101X1	KEY	ABS-700 FUNC SOUND	
36	BIKT000627	SCREW	ABS-700 3X-12(x4)	
37	BI1079900101X1	KNOB	ABS-700 BASE	
38	BI1079910101X1	KNOB	ABS470 DEMO ECO	
39	BI1079920101X1	KNOB	ABS470 DISC SKIP	
40	BI1079940101X1	KNOB	ABS470 PRESE	
41	BI1079710101X1	KNOB	ABS470 VOL	
42	BI1079950101X1	LENS DOOR CD	SAN2495	
43	BI1080140101X1	LENS POWER	SAN2495	
44	BI1079960101X1	LENS TOP	SAN2495	
45	BI1080080101X1	LIGHT GUID JACK	PMMA CP-51	
46	BI1080050101X1	LIGHT GUID L	PMMA CP-51	
47	BI1080060101X1	LIGHT GUID R	PMMA CP-51	
48	BI2029670101W1	TOP COVER	SECC THK-0.8mm	
49	BI3021570101X1	MIRROR SHEET	PC	
51	BI2028680101W1	REAR PANEL	SECC THK-0.8mm	
52	BI302204010101	PET PLATE L	PET THK=0.05mm	
53	BI302201010101	PET PLATE R	PET THK=0.05mm	
54	BI1079990101X1	PRESET DRIVE	ABS470	
55	BI2029180101W1	BRACKET	SECC	
59	BI2029180101W1	SCREW	3XL6(x21)	
60	BI2029180101W1	SCREW	3XL8(x6)	
61	BI2029180101W1	SCREW	3XL10(x4)	
62	BI2029180101W1	SCREW	3XL8(x4)	
63	BI1079940101X1	PRESET RING	ABS470	
64	BI1079930101X1	VOL RING	ABS470	
65	BI3021970101V1	RUBBER FOOT	RUBBER(x2)	
66	BI2000614P2	SCREW	3X14(x4)	
67	BI211021025001W	POWER TRANS		
68	BI2702201V	DISPLAY		
69	BI1079700101X1	WINDOW DISPLAY	SAN2495	
70	BIWPT000601P31	SCREW	3XL8	
71	BI402991	FUSE	1.6A 250V F902	
72	BI403281	FUSE	3.5A 125V F901	
73	BI1401701V	POWER CORD		

CD loading mechanism assembly and parts list

Block No. M A M M



The parts without symbol number are not service.

CD loading mechanism

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

 Symbol No.	Part No.	Part Name	Description	Local
1	BIAJ7200601J	BASE-MAIN	1X1	
2	BIAJ6100601P	BRKT-CHUCK		
3	BI3302000158	MAGNET-FERRITE		
4	BIAJ7200601L	TABLE-CHUCK	1X4	
5	BIAJ6300601A	SHEET-CHUCK	(x3)	
6	BIAJ7300601B	BELT-LOAD		
7	BIAJ6600601N	GEAR-SYNCRO	1X2	
8	BIAJ6600601L	GEAR-CONVERT	1X4	
9	BIAJ6600601M	GEAR-TRAY	1X4	
10	BIAJ6600601R	GEAR-CAM	1X2	
11	BIAJ6600601K	GEAR-LOAD	1X4	
12	BIAJ6600601J	GEAR-PULLEY	1X4	
13	BIAJ7200601N	SLIDER-CAM	1X4	
14	BI3405000101	SWITCH-MICRO	(x2)	
15	BI3711003379	CONNECTOR-HEADE		
16	BIAJ4100601K	PCB-SW		
17	BIAJ6100601K	PULLEY-MOTOR	1X4	
18	BIAJ3100601F	MOTOR-DC		
19	BI3710001248	CONNECTOR-SOCE		
20	BI3711003692	CONNECTOR-HEADE		
21	BI3708001163	CONNECTOR-FPC		
22	BIAJ4100601L	PCB-MECHA		
23	BIAJ7200601P	TRAY-ROULETTE	1X2	
24	BIAJ7200601Q	TRAY-DISC	1X2	
25	BIAJ6600601Q	GEAR-ROULETTE	1X4	
26	BIAJ6600601P	GEAR-WORM	1X2	
27	BIAJ3100601K	MOTOR-LOADING		
28	BIAJ6300601B	SHEET-MOTOR		
29	BIAJ3900601A	WIRE-ROULETTE		
32	BIAJ3900601B	WIRE-TRAY		
33	BI3711000003	CONNECTOR-HEADE		
34	BIAJ4100601J	PCB-SENSOR		
35	BIAJ3200601A	SENSOR-ROULETTE		
36	BIAJ9050605F	CMS-B31NG6U		
37	BIAJ6000601F	SCREW	(x4)	
38A	BIAJ7300601F	RUBBER-B31Y	(x2)	
38B	BIAJ7300601D	RUBBER-B31	(x2)	
39	BIAJ7200602F	LEVER-LIFTER	1X2	

Electrical parts list

Main board

Block No. [0][1]

△ Symbol No.	Part No.	Part Name	Description	Local
IC301	S3C825AX39-QWRA	IC	BI118501	
IC401	BA4558F	IC	BI103952	
IC402	NJM4580 D	IC	BI115511U	
IC501	BD3873FS	IC	BI118231	
IC502	JCV8011	IC	BI116561	
IC503	BA4558F	IC	BI103952	
IC701	SIL9226	IC	BI116431	
IC702	ICBA5927 FM	IC	BI118221	
IC801	BH18FB1WG	IC	BI118171	
IC802	NJM7808FA	IC	BI110061	
IC803	K4S161622H-UC60	IC	BI117401V	
IC804	S5L9279	IC	BI116401	
Q302	2SC3052	TRANSISTOR	BI2SC3052FA013	
Q303	DTA114YK	TRANSISTOR	BI2DTC114YKA01	
Q304	2SC1815GR	TRANSISTOR	BI2SC1815GRP000	
Q361	DTA114YK	TRANSISTOR	BI2DTC114YKA01	
Q401	DTC323TK	TRANSISTOR	BI2DTC323TKA01	
Q402	DTC323TK	TRANSISTOR	BI2DTC323TKA01	
Q403	DTA114YK	TRANSISTOR	BI2DTC114TKA01	
Q404	DTA114YK	TRANSISTOR	BI2DTA114YKA01	
Q405	DTA114YK	TRANSISTOR	BI2DTC114TKA01	
Q406	DTA114YK	TRANSISTOR	BI2DTA114YKA01	
Q407	DTA114YK	TRANSISTOR	BI2DTC114TKA01	
Q408	2SC3052	TRANSISTOR	BI2SC3052FA013	
Q409	DTC323TK	TRANSISTOR	BI2DTC323TKA01	
Q410	DTC323TK	TRANSISTOR	BI2DTC323TKA01	
Q412	DTA114YK	TRANSISTOR	BI2DTC114TKA01	
Q501	2SC3052	TRANSISTOR	BI2SC3052FA013	
Q502	2SC3052	TRANSISTOR	BI2SC3052FA013	
Q503	2SC3052	TRANSISTOR	BI2SC3052FA013	
Q504	KTA1267GR	TRANSISTOR	BI2KTA1267GP000	
Q505	DTA114YK	TRANSISTOR	BI2DTC114TKA01	
Q506	KTA1267GR	TRANSISTOR	BI2KTA1267GP000	
Q507	DTA114YK	TRANSISTOR	BI2DTC114TKA01	
Q508	2SC1815GR	TRANSISTOR	BI2SC1815GRP000	
Q509	DTA114YK	TRANSISTOR	BI2DTC114TKA01	
Q510	DTA114YK	TRANSISTOR	BI2DTC114TKA01	
Q571	KTA1267GR	TRANSISTOR	BI2KTA1267GP000	
Q572	2SC3052	TRANSISTOR	BI2SC3052FA013	
Q701	KTA1266GR	TRANSISTOR	BI2KTA1266GP0000	
Q703	KTC3205	TRANSISTOR	BI2KTC3205P0008	
Q704	2SC1815GR	TRANSISTOR	BI2SC1815GRP000	
D301	1SS133	FR DIODE	BI31SS133M000V7	
D302	1SS133	FR DIODE	BI31SS133M000V7	
D303	1SS133	FR DIODE	BI31SS133M000V7	
D304	1SS133	FR DIODE	BI31SS133M000V7	
D305	1SS133	FR DIODE	BI31SS133M000V7	
D306	UZ4.7BSA	Z DIODE	BI3UZ4.7BSAM000	
D401	1SS133	FR DIODE	BI31SS133M000V7	
D413	1SS133	FR DIODE	BI31SS133M000V7	
D501	1SS133	FR DIODE	BI31SS133M000V7	
D503	1SS133	FR DIODE	BI31SS133M000V7	
D504	1SS133	FR DIODE	BI31SS133M000V7	
D505	1SS133	FR DIODE	BI31SS133M000V7	
D506	1SS133	FR DIODE	BI31SS133M000V7	
D507	UZ11BSC	Z DIODE	BI3UZ11BSCM000	

△ Symbol No.	Part No.	Part Name	Description	Local
D508	1SS133	FR DIODE	BI31SS133M000V7	
D571	UZ9.1BSC	Z DIODE	BI3UZ9.1BSCM000	
D572	1SS133	FR DIODE	BI31SS133M000V7	
D710	UZ3.6BSB	Z DIODE	BI3UZ3.6BSBM000	
D711	UZ3.6BSB	Z DIODE	BI3UZ3.6BSBM000	
D712	1SS133	FR DIODE	BI31SS133M000V7	
C301	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C302	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C303	BICC223500KA042	C CAPACITOR	0.022uF 50V	
C304	BICE107100MP015	E CAPACITOR	100uF	
C305	BICE108100MP015	E CAPACITOR	1000uF	
C306	BICE476250MP015	E CAPACITOR	47uF	
C307	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C311	BICC270500JA041	C CAPACITOR	27pF 50V	
C312	BICC240500JA041	C CAPACITOR	24pF 50V	
C313	BICC330500JA041	C CAPACITOR	33pF 50V	
C314	BICC102500KA042	C CAPACITOR	1000pF 50V	
C315	BICC220500JA041	C CAPACITOR	22pF 50V	
C316	BICC220500JA041	C CAPACITOR	22pF 50V	
C317	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C318	BICE105500MP015	E CAPACITOR	1uF 50V	
C319	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C400	BICE226160MP015	E CAPACITOR	22uF	
C401	BICE224500MP015	E CAPACITOR	0.22uF 50V	
C402	BICE224500MP015	E CAPACITOR	0.22uF 50V	
C403	BICE106250MP015	E CAPACITOR	10uF	
C404	BICC102500KA042	C CAPACITOR	1000pF 50V	
C405	BICC102500KA042	C CAPACITOR	1000pF 50V	
C406	BICE106250MP015	E CAPACITOR	10uF	
C407	BICE224500MP015	E CAPACITOR	0.22uF 50V	
C408	BICE224500MP015	E CAPACITOR	0.22uF 50V	
C409	BICE226160MP015	E CAPACITOR	22uF	
C410	BICE476160MP015	E CAPACITOR	47uF	
C411	BICC393500KA042	C CAPACITOR	0.039uF 50V	
C412	BICE107160MP015	E CAPACITOR	100uF	
C413	BICE106500MP015	E CAPACITOR	10uF	
C414	BICM334500JP015	M CAPACITOR	0.33uF 50V	
C415	BICM474500JP01	M CAPACITOR	0.47uF 50V	
C416	BICM224101KP015	M CAPACITOR	0.22uF	
C417	BICE107160MP015	E CAPACITOR	100uF	
C418	BICE107160MP015	E CAPACITOR	100uF	
C419	BICE106250MP015	E CAPACITOR	10uF	
C420	BICC103500KA042	C CAPACITOR	0.01uF 50V	
C421	BICE227160MP015	E CAPACITOR	220uF	
C422	BICE475500MP015	E CAPACITOR	4.7uF	
C423	BICC473500KA042	C CAPACITOR	0.047uF 50V	
C424	BICC103500KA042	C CAPACITOR	0.01uF 50V	
C425	BICC272500KA042	C CAPACITOR	2700pF 50V	
C426	BICC472500KA042	C CAPACITOR	4700pF 50V	
C427	BICE475500MP015	E CAPACITOR	4.7uF	
C428	BICC473500KA042	C CAPACITOR	0.047uF 50V	
C429	BICC103500KA042	C CAPACITOR	0.01uF 50V	
C430	BICC272500KA042	C CAPACITOR	2700pF 50V	
C431	BICE106250MP015	E CAPACITOR	10uF	
C432	BICC472500KA042	C CAPACITOR	4700pF 50V	
C451	BICE106500MP015	E CAPACITOR	10uF	
C461	BICE107160MP015	E CAPACITOR	100uF	
C500	BICM334500JP015	M CAPACITOR	0.33uF 50V	
C501	BICC101500JA041	C CAPACITOR	100pF 50V	
C502	BICC101500JA041	C CAPACITOR	100pF 50V	
C503	BICM222101KP015	M CAPACITOR	2200pF	
C504	BICM224101KP015	M CAPACITOR	0.22uF	
C505	BICM224101KP015	M CAPACITOR	0.22uF	
C506	BICE105500MP015	E CAPACITOR	1uF 50V	
C507	BICE105500MP015	E CAPACITOR	1uF 50V	
C509	BICE105500MP015	E CAPACITOR	1uF 50V	
C510	BICE105500MP015	E CAPACITOR	1uF 50V	
C511	BICE105500MP015	E CAPACITOR	1uF 50V	
C513	BICE105500MP015	E CAPACITOR	1uF 50V	
C514	BICM222101KP015	M CAPACITOR	2200pF	
C515	BICM224101KP015	M CAPACITOR	0.22uF	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C516	BICM224101KP015	M CAPACITOR	0.22uF		C729	BICC102500KA042	C CAPACITOR	1000pF 50V	
C517	BICE106500MP015	E CAPACITOR	10uF		C730	BICC222500KA042	C CAPACITOR	2200pF 50V	
C518	BICC103500KA042	C CAPACITOR	0.01uF 50V		C731	BICC333250KA042	C CAPACITOR	0.033uF 25V	
C519	BICE476250MP015	E CAPACITOR	47uF		C732	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C520	BICC101500JA041	C CAPACITOR	100pF 50V		C733	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C521	BICC101500JA041	C CAPACITOR	100pF 50V		C759	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C522	BICM224101KP015	M CAPACITOR	0.22uF		C763	BICE107100MP015	E CAPACITOR	100uF	
C523	BICM224101KP015	M CAPACITOR	0.22uF		C764	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C524	BICC105160ZA023	C CAPACITOR	1uF 16V		C765	BICE477100MP015	E CAPACITOR	470uF	
C525	BICE475500MP015	E CAPACITOR	4.7uF		C766	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C526	BICE105500MP015	E CAPACITOR	1uF 50V		C767	BICE107100MP015	E CAPACITOR	100uF	
C527	BICE475500MP015	E CAPACITOR	4.7uF		C768	BICC102500KA042	C CAPACITOR	1000pF 50V	
C528	BICE475500MP015	E CAPACITOR	4.7uF		C769	BICE476250MP015	E CAPACITOR	47uF	
C529	BICE105500MP015	E CAPACITOR	1uF 50V		C770	BICC391500JA041	C CAPACITOR	390pF 50V	
C530	BICE475500MP015	E CAPACITOR	4.7uF		C771	BICC391500JA041	C CAPACITOR	390pF 50V	
C531	BICE475500MP015	E CAPACITOR	4.7uF		C772	BICC391500JA041	C CAPACITOR	390pF 50V	
C532	BICM273101KP015	M CAPACITOR	0.027uF		C773	BICC391500JA041	C CAPACITOR	390pF 50V	
C533	BICE225500MP015	E CAPACITOR	2.2uF		C774	BICC102500KA042	C CAPACITOR	1000pF 50V	
C534	BICE106250MP015	E CAPACITOR	10uF		C801	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C535	BICE476250MP015	E CAPACITOR	47uF		C802	BICH104500KM019	CAPACITOR	0.1uF /50V	
C536	BICE226250MP015	E CAPACITOR	22uF		C803	BICE225500MP015	E CAPACITOR	2.2uF	
C537	BICE226250MP015	E CAPACITOR	22uF		C804	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C538	BICE226250MP015	E CAPACITOR	22uF		C805	BICC270500JA041	C CAPACITOR	27pF 50V	
C539	BICE106250MP015	E CAPACITOR	10uF		C806	BICC270500JA041	C CAPACITOR	27pF 50V	
C540	BICE106250MP015	E CAPACITOR	10uF		C807	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C541	BICE475500MP015	E CAPACITOR	4.7uF		C808	BICE107100MP015	E CAPACITOR	100uF	
C542	BICE475500MP015	E CAPACITOR	4.7uF		C809	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C543	BICE106250MP015	E CAPACITOR	10uF		C810	BICC122500KA042	C CAPACITOR	1200pF 50V	
C544	BICE106250MP015	E CAPACITOR	10uF		C811	BICC122500KA042	C CAPACITOR	1200pF 50V	
C545	BICE475500MP015	E CAPACITOR	4.7uF		C812	BICC122500KA042	C CAPACITOR	1200pF 50V	
C546	BICE106250MP015	E CAPACITOR	10uF		C813	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C547	BICE224500MP015	E CAPACITOR	0.22uF 50V		C814	BICE107100MP015	E CAPACITOR	100uF	
C548	BICE105500MP015	E CAPACITOR	1uF 50V		C815	BICE107100MP015	E CAPACITOR	100uF	
C549	BICE105500MP015	E CAPACITOR	1uF 50V		C816	BICE475500MP015	E CAPACITOR	4.7uF	
C550	BICE476250MP015	E CAPACITOR	47uF		C817	BICE475500MP015	E CAPACITOR	4.7uF	
C551	BICE107100MP015	E CAPACITOR	100uF		C818	BICC102500KA042	C CAPACITOR	1000pF 50V	
C552	BICE475500MP015	E CAPACITOR	4.7uF		C819	BICC102500KA042	C CAPACITOR	1000pF 50V	
C553	BICE105500MP015	E CAPACITOR	1uF 50V		C820	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C554	BICE107100MP015	E CAPACITOR	100uF		C821	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C555	BICE476250MP015	E CAPACITOR	47uF		C822	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C556	BICE475500MP015	E CAPACITOR	4.7uF		C823	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C557	BICE107100MP015	E CAPACITOR	100uF		C824	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C558	BICC103500KA042	C CAPACITOR	0.01uF 50V		C825	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C559	BICE476160MP015	E CAPACITOR	47uF		C826	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C560	BICE476160MP015	E CAPACITOR	47uF		C827	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C561	BICC104500KA042	C CAPACITOR	0.1uF 50V		C828	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C562	BICC101500JA041	C CAPACITOR	100pF 50V		C829	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C563	BICC101500JA041	C CAPACITOR	100pF 50V		C830	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C570	BICE476160MP015	E CAPACITOR	47uF		C831	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C571	BICE476160MP015	E CAPACITOR	47uF		C832	BICC100500DA041	C CAPACITOR	10pF 50V	
C701	BICC104500KA042	C CAPACITOR	0.1uF 50V		C833	BICC330500JA041	C CAPACITOR	33pF 50V	
C702	BICC104500KA042	C CAPACITOR	0.1uF 50V		C850	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C703	BICC102500KA042	C CAPACITOR	1000pF 50V						
C704	BICE476160MP015	E CAPACITOR	47uF		R300	BIRC2230105A005	C RESISTOR	22KΩ	
C705	BICC102500KA042	C CAPACITOR	1000pF 50V		R301	BIRC2230105A005	C RESISTOR	22KΩ	
C706	BICC102500KA042	C CAPACITOR	1000pF 50V		R302	BIRC1010105A005	C RESISTOR	100Ω	
C707	BICC103500KA042	C CAPACITOR	0.01uF 50V		R303	BIRC1010085M000	C RESISTOR	100Ω 1/8W	
C708	BICC473500KA042	C CAPACITOR	0.047uF 50V		R304	BIRC1010085M000	C RESISTOR	100Ω 1/8W	
C709	BICE107100MP015	E CAPACITOR	100uF		R305	BIRC1010085M000	C RESISTOR	100Ω 1/8W	
C710	BICE107100MP015	E CAPACITOR	100uF		R306	BIRC1010085M000	C RESISTOR	100Ω 1/8W	
C711	BICC040500CA041	C CAPACITOR	4pF 50V		R307	BIRC1010085M000	C RESISTOR	100Ω 1/8W	
C712	BICC100500DA041	C CAPACITOR	10pF 50V		R308	BIRC1010085M000	C RESISTOR	100Ω 1/8W	
C713	BICC682500KA042	C CAPACITOR	6800pF 50V		R309	BIRC1010085M000	C RESISTOR	100Ω 1/8W	
C714	BICC103500KA042	C CAPACITOR	0.01uF 50V		R310	BIRC1010105A005	C RESISTOR	100Ω	
C715	BICE475500MP010	E CAPACITOR	4.7uF		R311	BIRC1010105A005	C RESISTOR	100Ω	
C716	BICC104500KA042	C CAPACITOR	0.1uF 50V		R312	BIRC1010105A005	C RESISTOR	100Ω	
C717	BICC104500KA042	C CAPACITOR	0.1uF 50V		R313	BIRC1010105A005	C RESISTOR	100Ω	
C718	BICC102500KA042	C CAPACITOR	1000pF 50V		R314	BIRC1020105A005	C RESISTOR	1KΩ	
C719	BICC104500KA042	C CAPACITOR	0.1uF 50V		R315	BIRC1010105A005	C RESISTOR	100Ω	
C720	BICC333250KA042	C CAPACITOR	0.033uF 25V		R316	BIRC1010105A005	C RESISTOR	100Ω	
C721	BICC474100KA042	C CAPACITOR	0.47uF 10V		R317	BIRC1010085N000	C RESISTOR	100Ω 1/8W	
C722	BICC332500KA042	C CAPACITOR	3300pF 50V		R318	BIRC1010105A005	C RESISTOR	100Ω	
C723	BICC474100KA042	C CAPACITOR	0.47uF 10V		R319	BIRC1010105A005	C RESISTOR	100Ω	
C724	BICC103500KA042	C CAPACITOR	0.01uF 50V		R320	BIRC1010105A005	C RESISTOR	100Ω	
C725	BICC683160KA042	C CAPACITOR	0.068uF 16V		R321	BIRC1010105A005	C RESISTOR	100Ω	
C726	BICE106160MP015	E CAPACITOR	10uF		R322	BIRC1010105A005	C RESISTOR	100Ω	
C727	BICC683160KA042	C CAPACITOR	0.068uF 16V		R323	BIRC1010085M000	C RESISTOR	100Ω 1/8W	
C728	BICC331500KA042	C CAPACITOR	330pF 50V		R324	BIRC1010105A005	C RESISTOR	100Ω	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
R326	BIRC2230085M000	C RESISTOR	22KΩ		R434	BIRC4730105A005	C RESISTOR	47KΩ	
R327	BIRC1020105A005	C RESISTOR	1KΩ		R435	BIRC4740105A005	C RESISTOR	470KΩ	
R328	BIRC1010085N000	C RESISTOR	100Ω 1/8W		R436	BIRC4700085M000	C RESISTOR	47Ω	
R329	BIRC4710085N000	C RESISTOR	470Ω		R437	BIRC1020105A005	C RESISTOR	1KΩ	
R330	BIRC2220105A005	C RESISTOR	2.2KΩ		R439	BIRC4730105A005	C RESISTOR	47KΩ	
R331	BIRC2220085M000	C RESISTOR	2.2KΩ		R440	BIRC1520105A005	C RESISTOR	1.5KΩ	
R333	BIRC1820105A005	C RESISTOR	1.8KΩ		R441	BIRC3320105A005	C RESISTOR	3.3KΩ	
R334	BIRC2230105A005	C RESISTOR	22KΩ		R442	BIRC1520105A005	C RESISTOR	1.5KΩ	
R335	BIRC2230105A005	C RESISTOR	22KΩ		R443	BIRC3320105A005	C RESISTOR	3.3KΩ	
R337	BIRC1010085N000	C RESISTOR	100Ω 1/8W		R444	BIRC1020105A005	C RESISTOR	1KΩ	
R338	BIRC1010105A005	C RESISTOR	100Ω		R451	BIRC4740105A005	C RESISTOR	470KΩ	
R339	BIRC2230105A005	C RESISTOR	22KΩ		R500	BIRC3940105A005	C RESISTOR	390KΩ	
R341	BIRC1010105A005	C RESISTOR	100Ω		R501	BIRC5630085M000	C RESISTOR	56KΩ 1/8W	
R342	BIRC1020085M000	C RESISTOR	1KΩ 1/8W		R502	BIRC5630085M000	C RESISTOR	56KΩ 1/8W	
R343	BIRC2210085N000	C RESISTOR	220Ω		R503	BIRC3920105A005	C RESISTOR	3.9KΩ	
R344	BIRC2210085N000	C RESISTOR	220Ω		R504	BIRC3920105A005	C RESISTOR	3.9KΩ	
R345	BIRC1020085N000	C RESISTOR	1KΩ		R507	BIRC8220105A005	C RESISTOR	8.2KΩ	
R346	BIRC1020085N000	C RESISTOR	1KΩ		R508	BIRC8220105A005	C RESISTOR	8.2KΩ	
R347	BIRC1020085N000	C RESISTOR	1KΩ		R509	BIRC5620105A005	C RESISTOR	5.6KΩ	
R348	BIRC1020105A005	C RESISTOR	1KΩ		R510	BIRC1020085N000	C RESISTOR	1KΩ	
R349	BIRC1020085N000	C RESISTOR	1KΩ		R511	BIRC1020085N000	C RESISTOR	1KΩ	
R350	BIRC1020105A005	C RESISTOR	1KΩ		R512	BIRC4700085M000	C RESISTOR	47Ω	
R351	BIRC1020105A005	C RESISTOR	1KΩ		R513	BIRC5620105A005	C RESISTOR	5.6KΩ	
R353	BIRC1020105A005	C RESISTOR	1KΩ		R514	BIRC3930085N000	C RESISTOR	39KΩ	
R354	BIRC1020105A005	C RESISTOR	1KΩ		R515	BIRC3930085N000	C RESISTOR	39KΩ	
R363	BIRC4710085N000	C RESISTOR	470Ω		R516	BIRC3340105A005	C RESISTOR	330KΩ	
R364	BIRC4710085N000	C RESISTOR	470Ω		R517	BIRC5610105A005	C RESISTOR	560Ω	
R365	BIRC1010105A005	C RESISTOR	100Ω		R518	BIRC1040105A005	C RESISTOR	100KΩ	
R366	BIRC1010105A005	C RESISTOR	100Ω		R519	BIRC1040105A005	C RESISTOR	100KΩ	
R367	BIRC1020085M000	C RESISTOR	1KΩ 1/8W		R520	BIRC1030105A005	C RESISTOR	10KΩ	
R369	BIRC1010105A005	C RESISTOR	100Ω		R523	BIRC1000085M000	C RESISTOR	10Ω	
R370	BIRC1030105A005	C RESISTOR	10KΩ		R524	BIRC4740105A005	C RESISTOR	470KΩ	
R371	BIRC1030105A005	C RESISTOR	10KΩ		R525	BIRC4740105A005	C RESISTOR	470KΩ	
R372	BIRC1030105A005	C RESISTOR	10KΩ		R526	BIRC2250105A005	C RESISTOR	2.2MΩ	
R373	BIRC3320105A005	C RESISTOR	3.3KΩ		R527	BIRC1010105A005	C RESISTOR	100Ω	
R375	BIRC2230105A005	C RESISTOR	22KΩ		R532	BIRC1520105A005	C RESISTOR	1.5KΩ	
R380	BIRC4710105A005	C RESISTOR	470Ω		R533	BIRC1520105A005	C RESISTOR	1.5KΩ	
R381	BIRC4710105A005	C RESISTOR	470Ω		R534	BIRC2020105A005	C RESISTOR	2KΩ	
R382	BIRC4710085N000	C RESISTOR	470Ω		R535	BIRC1040105A005	C RESISTOR	100KΩ	
R383	BIRC4710045N000	C RESISTOR	470Ω		R536	BIRC3920105A005	C RESISTOR	3.9KΩ	
R388	BIRC2220105A005	C RESISTOR	2.2KΩ		R537	BIRC5620105A005	C RESISTOR	5.6KΩ	
R390	BIRC4730105A005	C RESISTOR	47KΩ		R538	BIRC1000085N000	C RESISTOR	10Ω	
R391	BIRC6840105A005	C RESISTOR	680KΩ		R541	BIRC3940105A005	C RESISTOR	390KΩ	
R392	BIRC1030085M000	C RESISTOR	10KΩ 1/8W		R542	BIRC2220105A005	C RESISTOR	2.2KΩ	
R394	BIRC2220085M000	C RESISTOR	2.2KΩ		R546	BIRC1540105A005	C RESISTOR	150KΩ	
R395	BIRC2220085M000	C RESISTOR	2.2KΩ		R549	BIRC3320105A005	C RESISTOR	3.3KΩ	
R396	BIRC2220085M000	C RESISTOR	2.2KΩ		R550	BIRC2220105A005	C RESISTOR	2.2KΩ	
R398	BIRC2230105A005	C RESISTOR	22KΩ		R554	BIRC1540105A005	C RESISTOR	150KΩ	
R399	BIRC2230105A005	C RESISTOR	22KΩ		R555	BIRC2220105A005	C RESISTOR	2.2KΩ	
R401	BIRC1540105A005	C RESISTOR	150KΩ		R557	BIRC3320105A005	C RESISTOR	3.3KΩ	
R402	BIRC1030105A005	C RESISTOR	10KΩ		R558	BIRC4720105A005	C RESISTOR	4.7KΩ	
R403	BIRC2220105A005	C RESISTOR	2.2KΩ		R559	BIRC4730105A005	C RESISTOR	47KΩ	
R404	BIRC2720105A005	C RESISTOR	2.7KΩ		R560	BIRC2230105A005	C RESISTOR	22KΩ	
R405	BIRC1030105A005	C RESISTOR	10KΩ		R561	BIRC2230105A005	C RESISTOR	22KΩ	
R406	BIRC1040105A005	C RESISTOR	100KΩ		R562	BIRC2230105A005	C RESISTOR	22KΩ	
R407	BIRC2220105A005	C RESISTOR	2.2KΩ		R563	BIRC4710105A005	C RESISTOR	470Ω	
R408	BIRC1540105A005	C RESISTOR	150KΩ		R565	BIRC4710105A005	C RESISTOR	470Ω	
R409	BIRC1030105A005	C RESISTOR	10KΩ		R566	BIRC6820085M000	C RESISTOR	6.8KΩ 1/8W	
R410	BIRC1030105A005	C RESISTOR	10KΩ		R567	BIRC3320105A005	C RESISTOR	3.3KΩ	
R411	BIRC2220105A005	C RESISTOR	2.2KΩ		R568	BIRC2720105A005	C RESISTOR	2.7KΩ	
R412	BIRC2720105A005	C RESISTOR	2.7KΩ		R569	BIRC2720105A005	C RESISTOR	2.7KΩ	
R413	BIRC1040105A005	C RESISTOR	100KΩ		R570	BIRC5630105A005	C RESISTOR	56KΩ	
R416	BIRC2230105A005	C RESISTOR	22KΩ		R571	BIRC5630105A005	C RESISTOR	56KΩ	
R418	BIRC3330105A005	C RESISTOR	33KΩ		R572	BIRC1530105A005	C RESISTOR	15KΩ	
R419	BIRC2230105A005	C RESISTOR	22KΩ		R573	BIRC4710085M000	C RESISTOR	470Ω 1/8W	
R420	BIRC2230105A005	C RESISTOR	22KΩ		R574	BIRC4700085M000	C RESISTOR	47Ω	
R421	BIRC2220105A005	C RESISTOR	2.2KΩ		R575	BIRC1040105A005	C RESISTOR	100KΩ	
R422	BIRC2730085M000	C RESISTOR	27KΩ 1/8W		R576	BIRC3320105A005	C RESISTOR	3.3KΩ	
R423	BIRC1040105A005	C RESISTOR	100KΩ		R580	BIRC1000045M000	C RESISTOR	10Ω 1/4W	
R424	BIRC1000085N000	C RESISTOR	10Ω		R581	BIRC1020085M000	C RESISTOR	1KΩ 1/8W	
R425	BIRC8220105A005	C RESISTOR	8.2KΩ		R582	BIRC1020085M000	C RESISTOR	1KΩ 1/8W	
R426	BIRC3320105A005	C RESISTOR	3.3KΩ		R701	BIRC0820105A005	C RESISTOR	8.2Ω	
R428	BIRC6820105A005	C RESISTOR	6.8KΩ		R702	BIRC8230105A005	C RESISTOR	82KΩ	
R429	BIRC1040105A005	C RESISTOR	100KΩ		R703	BIRC3930105A005	C RESISTOR	39KΩ	
R430	BIRC4730105A005	C RESISTOR	47KΩ		R704	BIRC3930105A005	C RESISTOR	39KΩ	
R431	BIRC1020105A005	C RESISTOR	1KΩ		R705	BIRC3930105A005	C RESISTOR	39KΩ	
R432	BIRC1530105A005	C RESISTOR	15KΩ		R706	BIRC3930105A005	C RESISTOR	39KΩ	
R433	BIRC4730105A005	C RESISTOR	47KΩ		R707	BIRC8230105A005	C RESISTOR	82KΩ	

△ Symbol No.	Part No.	Part Name	Description	Local
R708	BIRC4700105A005	C RESISTOR	47KΩ	
R709	BIRC4720105A005	C RESISTOR	4.7KΩ	
R710	BIRC1010105A005	C RESISTOR	100Ω	
R711	BIRC5620105A005	C RESISTOR	5.6KΩ	
R713	BIRC1040105A005	C RESISTOR	100KΩ	
R714	BIRC1030105A005	C RESISTOR	10KΩ	
R715	BIRC1830105A005	C RESISTOR	18KΩ	
R716	BIRC2230105A005	C RESISTOR	22KΩ	
R717	BIRC1050105A005	C RESISTOR	1MΩ	
R719	BIRC5620105A005	C RESISTOR	5.6KΩ	
R723	BIRC6830105A005	C RESISTOR	68KΩ	
R724	BIRC5630105A005	C RESISTOR	56KΩ	
R725	BIRC1530105A005	C RESISTOR	15KΩ	
R726	BIRC4730105A005	C RESISTOR	47KΩ	
R727	BIRC1240105A005	C RESISTOR	120KΩ	
R728	BIRC4730105A005	C RESISTOR	47KΩ	
R729	BIRC1240105A005	C RESISTOR	120KΩ	
R730	BIRC1240105A005	C RESISTOR	120KΩ	
R731	BIRC1040105A005	C RESISTOR	100KΩ	
R732	BIRC4730105A005	C RESISTOR	47KΩ	
R750	BIRC8200105A005	C RESISTOR	82Ω	
R751	BIRC1010105A005	C RESISTOR	100Ω	
R752	BIRC1330105A005	C RESISTOR	13KΩ	
R753	BIRC1330105A005	C RESISTOR	13KΩ	
R754	BIRC1330105A005	C RESISTOR	13KΩ	
R755	BIRC1330105A005	C RESISTOR	13KΩ	
R756	BIRC4720085M000	C RESISTOR	4.7KΩ 1/8W	
R757	BIRC1020105A005	C RESISTOR	1KΩ	
R758	BIRC1810105A005	C RESISTOR	180Ω	
R759	BIRC1030105A005	C RESISTOR	10KΩ	
R760	BIRC1030105A005	C RESISTOR	10KΩ	
R761	BIRC6820105A005	C RESISTOR	6.8KΩ	
R762	BIRC1020085M000	C RESISTOR	1KΩ 1/8W	
R763	BIRC2020105A005	C RESISTOR	2KΩ	
R764	BIRC0220025N000	C RESISTOR	2.2Ω	
R780	BIRC1010105A005	C RESISTOR	100Ω	
R781	BIRC1010105A005	C RESISTOR	100Ω	
R782	BIRC1010105A005	C RESISTOR	100Ω	
R801	BIRC1210105A005	C RESISTOR	120Ω	
R802	BIRC1010105A005	C RESISTOR	100Ω	
R803	BIRC1010085M000	C RESISTOR	100Ω 1/8W	
R804	BIRC1050105A005	C RESISTOR	1MΩ	
R805	BIRC1010105A005	C RESISTOR	100Ω	
R806	BIRC1010085N000	C RESISTOR	100Ω 1/8W	
R807	BIRC1010105A005	C RESISTOR	100Ω	
R808	BIRC1040105A005	C RESISTOR	100KΩ	
R809	BIRC1040105A005	C RESISTOR	100KΩ	
R810	BIRC1010105A005	C RESISTOR	100Ω	
R811	BIRC1010105A005	C RESISTOR	100Ω	
R813	BIRC1020085M000	C RESISTOR	1KΩ 1/8W	
R814	BIRC1210085M000	C RESISTOR	120Ω	
R816	BIRC1010105A005	C RESISTOR	100Ω	
R817	BIRC1010105A005	C RESISTOR	100Ω	
R821	BIRC1020085M000	C RESISTOR	1KΩ 1/8W	
L301	BI26100000KM000	COIL	10UH	
L302	BI18A843556N000	FILTER BEAD	843556 TB36	
L303	BI18A916121A005	FERITTE BEAD	120Ω	
L304	BI18A843556N000	FILTER BEAD	843556 TB36	
L401	BI26101000KM002	COIL	100uH	
L402	BI26101000KM002	COIL	100uH	
L501	BI18A843556N000	FILTER BEAD	843556 TB36	
L503	BI18A843556N000	FILTER BEAD	843556 TB36	
L505	BI18A843556N000	FILTER BEAD	843556 TB36	
L515	BI26BLM21BA0000	C-COIL	BLM21B272S	
L516	BI18A843556N000	FILTER BEAD	843556 TB36	
L702	BI26100000KM000	COIL	10UH	
L801	BI26100000KM000	COIL	10UH	
L802	BI26100000KM000	COIL	10UH	
L803	BI26100000KM000	COIL	10UH	
L804	BI26100000KM000	COIL	10UH	
L805	BI26100000KN000	COIL	10UH	
L806	BI18A916121A005	FERITTE BEAD	120Ω	
L807	BI18A843556N000	FILTER BEAD	843556 TB36	
L808	BI18A843556N000	FILTER BEAD	843556 TB36	
CN201	BI12S1800061V	FFC CONNECTOR	18P	
CN401	BI12S100044V	FFC CONNECTOR	10P 2mm	

△ Symbol No.	Part No.	Part Name	Description	Local
CN501	BI12S120010	FFC CONNECTOR	12P	
CN601	BI12S240004V	FFC CONNECTOR	24P	
CN701	BI12S160031V	FFC CONNECTOR	16P	
CN702	BI12P60142V	WIRE	PH-6P+UL1007	
CN703	BI12P100035V	WIRE	PH-10P+UL1007	
X801	BI2102361	CRYSTAL	16.9344MHz HC-49U	
XT301	BI2101012	CRYSTAL	32.768 KHz	
XT302	BI29ZTA800P015U	C RESONATOR	8MHz	
XXXXX	BI251386G01V	MAIN PCB	PWB	
Y	BI7BB221V	BUZZER	DIA=22mm	

Front board

Block No. [0][2]

△ Symbol No.	Part No.	Part Name	Description	Local
IC101	PCM2704	IC	BI118061 28P	
IC102	BU4066BC	IC	BI101351	
IC401	RPM7140-V4	IC	BI115291	
IC402	S5G5128A	IC	BI116661	
Q101	2SC3052	TRANSISTOR	BI2SC3052FA013	
Q102	2SC3052	TRANSISTOR	BI2SC3052FA013	
Q103	DTA114YK	TRANSISTOR	BI2DTA114YKA011	
Q105	DTC114YK	TRANSISTOR	BI2DTC114YKA011	
Q106	DTC114YK	TRANSISTOR	BI2DTC114YKA011	
Q109	2SC3052	TRANSISTOR	BI2SC3052FA013	
Q401	DTC114TK	TRANSISTOR	BI2DTC114TKA011	
Q403	DTC114TK	TRANSISTOR	BI2DTC114TKA011	
D102	1SS133	FR DIODE	BI31SS133M000V 7	
D103	1SS133	FR DIODE	BI31SS133M000V 7	
D114	1SS133	FR DIODE	BI31SS133M000V 7	
D115	1SS133	FR DIODE	BI31SS133M000V 7	
D120	1SS133	FR DIODE	BI31SS133M000V 7	
D403	1SS133	FR DIODE	BI31SS133M000V 7	
C105	BICC105160ZA023	C CAPACITOR	1uF 16V	
C106	BICC220500JA041	C CAPACITOR	22pF 50V	
C107	BICC220500JA041	C CAPACITOR	22pF 50V	
C108	BICE106160MP010	E CAPACITOR	10uF	
C110	BICC105160ZA023	C CAPACITOR	1uF 16V	
C111	BICE107100MP015	E CAPACITOR	100uF	
C112	BICE107100MP015	E CAPACITOR	100uF	
C113	BICC471500KA042	C CAPACITOR	470pF 50V	
C114	BICC471500KA042	C CAPACITOR	470pF 50V	
C115	BICC102500KA042	C CAPACITOR	1000pF 50V	
C116	BICC102500KA042	C CAPACITOR	1000pF 50V	
C118	BICC220500JA041	C CAPACITOR	22pF 50V	
C119	BICC102500KA042	C CAPACITOR	1000pF 50V	
C120	BICC102500KA042	C CAPACITOR	1000pF 50V	
C121	CC104500KA042	C CAPACITOR	0.1uF 50V	
C122	BICC220500JA041	C CAPACITOR	22pF 50V	
C123	CC104500KA042	C CAPACITOR	0.1uF 50V	
C125	BICE475500MP010	E CAPACITOR	4.7uF	
C126	BICE475500MP010	E CAPACITOR	4.7uF	
C131	BICE106160MP015	E CAPACITOR	10uF	
C132	BICE106160MP015	E CAPACITOR	10uF	
C135	BICC105160ZA023	C CAPACITOR	1uF 16V	
C136	BICC105160ZA023	C CAPACITOR	1uF 16V	
C137	BICC223500KA042	C CAPACITOR	0.022uF 50V	
C138	BICC223500KA042	C CAPACITOR	0.022uF 50V	
C139	BICE105500MP015	E CAPACITOR	1uF 50V	
C401	BICC103500KA042	C CAPACITOR	0.01uF 50V	
C402	BICC103500KA042	C CAPACITOR	0.01uF 50V	
C403	CC103500KA042	C CAPACITOR	0.01uF 50V	
C404	CC104500KA042	C CAPACITOR	0.1uF 50V	
C405	CC103500KA042	C CAPACITOR	0.01uF 50V	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C407	CC104500KA042	C CAPACITOR	0.1uF 50V		R430	RC6220105A005	C RESISTOR	6.2KΩ	
C408	CC104500KA042	C CAPACITOR	0.1uF 50V		R433	BIRC1010085M000	C RESISTOR	100Ω 1/8W	
C409	BICE107500MP015	E CAPACITOR	100uF		R434	BIRC6810105A005	C RESISTOR	680Ω	
C410	BICE226500MP015	E CAPACITOR	22uF		R438	RC1030105A005	C RESISTOR	10KΩ	
C411	BICE226500MP015	E CAPACITOR	22uF		R443	RC1030105A005	C RESISTOR	10KΩ	
C415	CC103500KA042	C CAPACITOR	0.01uF 50V		R444	RC1020105A005	C RESISTOR	1KΩ	
C416	CC104500KA042	C CAPACITOR	0.1uF 50V		R445	RC1020105A005	C RESISTOR	1KΩ	
C417	CC104500KA042	C CAPACITOR	0.1uF 50V		R446	RC1020105A005	C RESISTOR	1KΩ	
C418	BICC101500JA041	C CAPACITOR	100pF 50V		R447	RC4730105A005	C RESISTOR	47KΩ	
C419	BICC101500JA041	C CAPACITOR	100pF 50V		R448	RC4730105A005	C RESISTOR	47KΩ	
C420	BICC101500JA041	C CAPACITOR	100pF 50V		R449	RC4730105A005	C RESISTOR	47KΩ	
C421	BICE108063MP015	E CAPACITOR	1000uF		R450	RC4730105A005	C RESISTOR	47KΩ	
C422	BICC102500KA042	C CAPACITOR	1000pF 50V		R451	RC4730105A005	C RESISTOR	47KΩ	
C423	BICE106500MP015	E CAPACITOR	10uF		R452	RC4730105A005	C RESISTOR	47KΩ	
C430	BICC104500ZA043	C CAPACITOR	0.1uF 50V		R453	RC4730105A005	C RESISTOR	47KΩ	
					R454	RC4730105A005	C RESISTOR	47KΩ	
R102	RC2200105A005	C RESISTOR	22Ω		R455	RC4730105A005	C RESISTOR	47KΩ	
R103	RC2200105A005	C RESISTOR	22Ω		R456	RC4730105A005	C RESISTOR	47KΩ	
R104	RC1050105A005	C RESISTOR	1MΩ		R457	RC4730105A005	C RESISTOR	47KΩ	
R106	BI18A160830A005	COIL	300Ω		R458	RC4730105A005	C RESISTOR	47KΩ	
R107	BI18A160830A005	COIL	300Ω		R463	RC4730105A005	C RESISTOR	47KΩ	
R110	RC1030105A005	C RESISTOR	10KΩ		R464	RC4730105A005	C RESISTOR	47KΩ	
R111	RC1030105A005	C RESISTOR	10KΩ		R465	RC4730105A005	C RESISTOR	47KΩ	
R118	BIRC5620105A005	C RESISTOR	5.6KΩ		R466	RC4730105A005	C RESISTOR	47KΩ	
R119	BIRC5620085M000	C RESISTOR	5.6KΩ 1/8W		R467	RC4730105A005	C RESISTOR	47KΩ	
R120	BIRC3930105A005	C RESISTOR	39KΩ		R468	RC4730105A005	C RESISTOR	47KΩ	
R121	BIRC3930105A005	C RESISTOR	39KΩ		R469	RC4730105A005	C RESISTOR	47KΩ	
R122	RC4720105A005	C RESISTOR	4.7KΩ		R470	RC4730105A005	C RESISTOR	47KΩ	
R123	RC4720105A005	C RESISTOR	4.7KΩ		R478	BIRC4730105A005	C RESISTOR	47KΩ	
R125	BIRC2220105A005	C RESISTOR	2.2KΩ		R479	BIRC4730105A005	C RESISTOR	47KΩ	
R126	BIRC2200085M000	C RESISTOR	22Ω 1/8W		R480	BIRC4730105A005	C RESISTOR	47KΩ	
R127	BIRC2200085M000	C RESISTOR	22Ω 1/8W		R496	BIRC2210085M000	C RESISTOR	220 J C 1/8W	
R130	RC2200105A005	C RESISTOR	22Ω		R497	RC0100105A005	C RESISTOR	1Ω	
R131	BIRC2210085M000	C RESISTOR	220 J C 1/8W		R498	BIRC3920105A005	C RESISTOR	3.9KΩ	
R135	BIRC1520105A005	C RESISTOR	1.5KΩ		R4100	RC2020105A005	C RESISTOR	2KΩ	
R136	RC1520105A005	C RESISTOR	1.5KΩ		R4105	RC3020105A005	C RESISTOR	3KΩ	
R137	BIRC1800105A005	C RESISTOR	18Ω		R4106	BIRC3920105A005	C RESISTOR	3.9KΩ	
R138	BIRC1800105A005	C RESISTOR	18Ω		VR401	BI804401V	VOLUME	RE012307PVB30	
R141	BIRC1020085M000	C RESISTOR	1KΩ 1/8W						
R142	RC4720105A005	C RESISTOR	4.7KΩ		L101	BI18A160830A005	COIL	300Ω	
R143	BIRC4720085N000	C RESISTOR	4.7KΩ 1/8W		L102	BI18A160830A005	COIL	300Ω	
R144	BIRC2220105A005	C RESISTOR	2.2KΩ		L103	BI18A160830A005	COIL	300Ω	
R145	BIRC3310105A005	C RESISTOR	330Ω		L104	BI18A160830A005	COIL	300Ω	
R146	BIRC3310105A005	C RESISTOR	330Ω		L105	BI18A843556N000	FILTER BEAD	843556 TB36	
R152	BIRC2220105A005	C RESISTOR	2.2KΩ		L106	BI18A843556N000	FILTER BEAD	843556 TB36	
R154	BIRC2220105A005	C RESISTOR	2.2KΩ		L107	BI18A843556N000	FILTER BEAD	843556 TB36	
R155	BIRC2220105A005	C RESISTOR	2.2KΩ		L108	BI26010000KM002	COIL	1uH	
R158	BIRC2230105A005	C RESISTOR	2.2KΩ		L109	BI26010000KM002	COIL	1uH	
R163	BIRC2220105A005	C RESISTOR	2.2KΩ		L401	BI26100000KM002	COIL	10UH	
R401	BIRC1010105A005	C RESISTOR	100Ω						
R402	BIRC1010105A005	C RESISTOR	100Ω		CN101	BI12P100048Y	CONNECTOR ASSY	PH-10P	
R403	BIRC1000105A005	C RESISTOR	10Ω		CW407	BI12S1800071V	FFC CONNECTOR	18P	
R404	RC2730105A005	C RESISTOR	27KΩ		J101	BI23B1561V	USB CONNECTORS	6P	
R405	BIRC1010105A005	C RESISTOR	100Ω		J102	BI23B1571V	AUX JACK	PJ-323A-7	
R406	BIRC4700105A005	C RESISTOR	47Ω		J103	BI23B1571V	AUX JACK	PJ-323A-7	
R407	RC1030105A005	C RESISTOR	10KΩ		LD101	GL-3BOURD	LED	BI28GL3B0URP010	
R408	RC0100105A005	C RESISTOR	1Ω		LD401	GL-3BOURD	LED	BI28GL3B0URP010	
R409	BIRC2200085M000	C RESISTOR	22Ω 1/8W		LD402	GL-3BOURD	LED	BI28GL3B0URP010	
R410	BIRC1000105A005	C RESISTOR	10Ω		LD403	GL-3BOURD	LED	BI28GL3B0URP010	
R411	RC1030105A005	C RESISTOR	10KΩ		LD405	GL-3BOURD	LED	BI28GL3B0URP010	
R412	BIRC9110085M000	C RESISTOR	10Ω		LD407	GL-3BOURD	LED	BI28GL3B0URP010	
R413	BIRC1120105A005	C RESISTOR	1.1KΩ		LD411	GL-320SRKDD	LED	BI28GL320SRP010	
R414	BIRC1220105A005	C RESISTOR	1.2KΩ		S401	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
R415	RC1820105A005	C RESISTOR	1.8KΩ		S402	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
R416	RC2020105A005	C RESISTOR	2KΩ		S403	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
R417	RC1030105A005	C RESISTOR	10KΩ		S404	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
R418	BIRC4700105A005	C RESISTOR	47Ω		S405	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
R419	RC6220105A005	C RESISTOR	6.2KΩ		S406	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
R420	RC1030105A005	C RESISTOR	10KΩ		S407	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
R421	BIRC9110105A005	C RESISTOR	910Ω		S410	BI805111V	SWITCH	SWITCHES	
R422	BIRC1120105A005	C RESISTOR	1.1KΩ		S411	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
R423	RC3020105A005	C RESISTOR	3KΩ		S419	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
R424	BIRC1220105A005	C RESISTOR	1.2KΩ						
R425	RC1030105A005	C RESISTOR	10KΩ						
R426	BIRC2210105A005	C RESISTOR	220Ω						
R427	RC1820105A005	C RESISTOR	1.8KΩ						
R428	BIRC2210105A005	C RESISTOR	220Ω						
R429	RC1030105A005	C RESISTOR	10KΩ						

△ Symbol No.	Part No.	Part Name	Description	Local
S425	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
S426	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
S427	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
S428	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
S430	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
S431	BI8SKRGAED0P015	TACT SWITCH	SKRGAED010	
W101	BI11AT160B0V	BLACK WIRE	WIRE	
X101	BI2102391	CRYSTAL	12MHz	
XXXXX	BI251384G01V	FRONT PCB	FRONT PCB	
XXXXX	BI1206711V	FLAT CABLE	6P CW403 TO CW406	
XXXXX	BI1206721V	FLAT CABLE	7P CW405 TO CW402	
XXXXX	BI1206731V	FLAT CABLE	4P(x2)	
XXXXX	BI1206741V	FLAT CABLE	2P(x2)	

Amp. board

Block No. [0][3]

△ Symbol No.	Part No.	Part Name	Description	Local
Q203	DTA114YK	TRANSISTOR	BI2DTA114YKA011	
Q204	KTB1366Y	TRANSISTOR	BI2KTB1366Y8V	
Q205	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q206	DTA114YK	TRANSISTOR	BI2KRC102SA0000	
Q207	KTA1273Y	TRANSISTOR	BI2KTA1273YP000	
Q208	KTB1366Y	TRANSISTOR	BI2KTB1366Y8V	
Q209	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q210	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q213	KTA1268GR	TRANSISTOR	BI2KTA1267GP000	
Q214	KTA1267GR	TRANSISTOR	BI2KTA1267GP000	
Q215	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q216	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q217	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q218	KTC3203Y	TRANSISTOR	BI2KTC3203YP000	
Q231	KTC3203Y	TRANSISTOR	BI2KTC3203YP000	
Q251	KTC3199GR	TRANSISTOR	BI2KTC3199GP000	
Q280	KTA1269GR	TRANSISTOR	BI2KTA1267GP000	
Q281	KTC3203Y	TRANSISTOR	BI2KTC3203YP000	
Q284	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q285	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q286	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q287	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q288	2SA1235F	TRANSISTOR	BI2SA1235FA012V	
Q289	2SA1235F	TRANSISTOR	BI2SA1235FA012V	
Q292	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q293	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q294	2SC5343GL	TRANSISTOR	BI2SC5343GP000	
Q296	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q297	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q298	2SA1235F	TRANSISTOR	BI2SA1235FA012V	
Q299	2SA1235F	TRANSISTOR	BI2SA1235FA012V	
Q289A	2SA1235F	TRANSISTOR	BI2SA1235FA012V	
Q292A	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q293A	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q294A	2SC5343GL	TRANSISTOR	BI2SC5343GP000	
Q296A	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q297A	2SC3052	TRANSISTOR	BI2SC3052FA013V	
Q298A	2SA1235F	TRANSISTOR	BI2SA1235FA012V	
Q299A	2SA1235F	TRANSISTOR	BI2SA1235FA012V	
D200	1SS133	FR DIODE	BI31SS133M000V7	
D201	IN4003	DIODE	BI31N4003LEM000	
D202	IN4003	DIODE	BI31N4003LEM000	
D203	IN4003	DIODE	BI31N4003LEM000	
D205	IN4003	DIODE	BI31N4003LEM000	
D206	IN4003	DIODE	BI31N4003LEM000	
D207	UZ12BSC	Z DIODE	BI3UZ12BSCM000V0	
D209	UZ30BSD	Z DIODE	BI3UZ30BSDM0000	

△ Symbol No.	Part No.	Part Name	Description	Local
D210	UZ6.2BSB	Z DIODE	BI3UZ6.2BSBM000V0	
D211	UZ5.6BSB	Z DIODE	BI3UZ5.6BSBM000V0	
D213	IN4003	DIODE	BI31N4003LEM000	
D214	GBU6J	DIODE	BI3GBU6J1V	
D215	GBU6J	DIODE	BI3GBU6J1V	
D216	UZ12BSC	Z DIODE	BI3UZ12BSCM000V0	
D217	UZ12BSC	Z DIODE	BI3UZ12BSCM000V0	
D218	1SS133	FR DIODE	BI31SS133M000V7	
D219	1SS133	FR DIODE	BI31SS133M000V7	
D221	1SS133	FR DIODE	BI31SS133M000V7	
D223	1SS133	FR DIODE	BI31SS133M000V7	
D226	1SS133	FR DIODE	BI31SS133M000V7	
D229	1SS133	FR DIODE	BI31SS133M000V7	
D231	1SS133	FR DIODE	BI31SS133M000V7	
D241	IN4003	DIODE	BI31N4003LEM000	
D242	IN4003	DIODE	BI31N4003LEM000	
D243	IN4003	DIODE	BI31N4003LEM000	
D244	1SS133	FR DIODE	BI31SS133M000V7	
D251	IN4003	DIODE	BI31N4003LEM000	
D284	1SS133	FR DIODE	BI31SS133M000V7	
D285	1SS133	FR DIODE	BI31SS133M000V7	
D287	1SS133	FR DIODE	BI31SS133M000V7	
D288	1SS133	FR DIODE	BI31SS133M000V7	
D289	1SS133	FR DIODE	BI31SS133M000V7	
D290	1SS133	FR DIODE	BI31SS133M000V7	
D291	1SS133	FR DIODE	BI31SS133M000V7	
D292	1SS133	FR DIODE	BI31SS133M000V7	
D293	1SS133	FR DIODE	BI31SS133M000V7	
D295	MC2838	DIODE	BI3MC2838A002VH	
D296	1SS133	FR DIODE	BI31SS133M000V7	
D297	1SS133	FR DIODE	BI31SS133M000V7	
D298	1SS133	FR DIODE	BI31SS133M000V7	
D299	1SS133	FR DIODE	BI31SS133M000V7	
D293A	1SS133	FR DIODE	BI31SS133M000V7	
D295A	MC2838	DIODE	BI3MC2838A002VH	
D296A	1SS133	FR DIODE	BI31SS133M000V7	
D297A	1SS133	FR DIODE	BI31SS133M000V7	
C200	BICE475500MP015	E CAPACITOR	4.11uF	
C201	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C202	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C203	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C204	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C205	BICE47825M6Y1	E CAPACITOR	4700uF 25V	
C207	BICE107250MP015	E CAPACITOR	100uF	
C208	BICC104500KA042	C CAPACITOR	0.1uF 50V	
C209	BICE107160MP015	E CAPACITOR	100uF	
C210	BICE476630MP015	E CAPACITOR	47uF	
C211	BICE226500MP015	E CAPACITOR	22uF	
C212	BICC103500KA042	C CAPACITOR	0.01uF 50V	
C213	BICE226500MP015	E CAPACITOR	22uF	
C214	BICE106250MP015	E CAPACITOR	10uF	

△ Symbol No.	Part No.	Part Name	Description	Local	△ Symbol No.	Part No.	Part Name	Description	Local
C215	BICC103500KA042	C CAPACITOR	0.01uF 50V		R251	BIRC4720105A005	C RESISTOR	4.7KΩ	
C216	BICE477100MP015	E CAPACITOR	470uF		R261	BIRC6830105A005	C RESISTOR	68KΩ	
C217	BICM682101KP015	M CAPACITOR	6800pF		R262	BIRM0022N25P015	M RESISTOR	0.22Ω	
C218	BICM682101KP015	M CAPACITOR	6800pF		R263	BIRM0022N25P015	M RESISTOR	0.22Ω	
C219	BICM682101KP015	M CAPACITOR	6800pF		R281	BIRC3340105A005	C RESISTOR	330KΩ	
C220	BICM682101KP015	M CAPACITOR	6800pF		R282	BIRC3340105A005	C RESISTOR	330KΩ	
C221	BICM682101KP015	M CAPACITOR	6800pF		R291	BIRC1030105A005	C RESISTOR	10KΩ	
C222	BICM682101KP015	M CAPACITOR	6800pF		R292	BIRC1530105A005	C RESISTOR	15KΩ	
C223	BICE47850MY	E CAPACITOR	4700uF 50V		R293	BIRC4720105A005	C RESISTOR	4.7KΩ	
C224	BICE47850MY	E CAPACITOR	4700uF 50V		R294	BIRC4720105A005	C RESISTOR	4.7KΩ	
C225	BICE33871M2Y	E CAPACITOR	3300uF 71V		R295	BIRC1020085N000	C RESISTOR	1KΩ	
C226	BICE33871M2Y	E CAPACITOR	3300uF 71V		R2002	BIRC1040105A005	C RESISTOR	100KΩ	
C227	BICM682101KP015	M CAPACITOR	6800pF		R2003	BIRC2210105A005	C RESISTOR	220Ω	
C228	BICM682101KP015	M CAPACITOR	6800pF		R2007	BIRC1040085N000	C RESISTOR	100KΩ	
C231	BICE107101MP015	E CAPACITOR	100uF		R2008	BIRC1040085N000	C RESISTOR	100KΩ	
C232	BICE107101MP015	E CAPACITOR	100uF		R2009	BIRC4720105A005	C RESISTOR	4.7KΩ	
C233	BICC101500JA041	C CAPACITOR	100pF 50V		R2010	BIRC1830105A005	C RESISTOR	18KΩ	
C234	BICC101500JA041	C CAPACITOR	100pF 50V		R2012	BIRC1030105A005	C RESISTOR	10KΩ	
C235	BICE107100MP015	E CAPACITOR	100uF		R2013	BIRC2220105A005	C RESISTOR	2.2KΩ 1/10W	
C236	BICE107100MP015	E CAPACITOR	100uF		R2022	BIRC4720105A005	C RESISTOR	4.7KΩ	
C237	BICC120500JA041	C CAPACITOR	12pF 50V		R2023	BIRC4720105A005	C RESISTOR	4.7KΩ	
C238	BICC120500JA041	C CAPACITOR	12pF 50V		R2024	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
C239	BICC472500KA042	C CAPACITOR	4700pF 50V		R2025	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
C240	BICC472500KA042	C CAPACITOR	4700pF 50V		R2026	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
C241	BICE475500MP015	E CAPACITOR	4.7uF		R2027	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
C242	BICE475500MP015	E CAPACITOR	4.8uF		R2028	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
C245	BICM104101KP015	M CAPACITOR	0.4uF		R2029	BIRC1020085M000	C RESISTOR	1KΩ 1/8W	
C246	BICM104101KP015	M CAPACITOR	0.1uF		R2030	BIRC3320105A005	C RESISTOR	3.3KΩ	
C247	BICM104101KP015	M CAPACITOR	0.2uF		R2031	BIRC2220105A005	C RESISTOR	2.2KΩ 1/10W	
C248	BICM104101KP015	M CAPACITOR	0.3uF		R2032	BIRC1010085N000	C RESISTOR	100Ω	
C249	BICC121500JA041	C CAPACITOR	120pF 50V		R2033	BIRC1010085N000	C RESISTOR	100Ω	
C250	BICE476160MP015	E CAPACITOR	47uF		R2034	BIRC1540105A005	C RESISTOR	150KΩ	
C251	BICC223500KA042	C CAPACITOR	0.022uF 50V		R2035	BIRC5630105A005	C RESISTOR	56KΩ	
C252	BICE474500MP015	E CAPACITOR	0.47uF		R2036	BIRC5630105A005	C RESISTOR	56KΩ	
C255	BICC153500KA042	C CAPACITOR	0.015uF 50V		R2037	BIRC5630105A005	C RESISTOR	56KΩ	
C256	BICC153500KA042	C CAPACITOR	0.015uF 50V		R2038	BIRC8210105A005	C RESISTOR	820Ω	
C268	BICC104500KA042	C CAPACITOR	0.1uF 50V		R2039	BIRC1520025N000	C RESISTOR	1.5KΩ	
C270	BICC104500KA042	C CAPACITOR	0.1uF 50V		R2040	BIRC1520025N000	C RESISTOR	1.5KΩ	
C271	BICE476160MP015	E CAPACITOR	47uF		R2041	BIRM001530V	M RESISTOR	0.15Ω	
C272	BICE475500MP015	E CAPACITOR	4.10uF		R2042	BIRM001530V	M RESISTOR	0.15Ω	
C274	BICE105500MP015	E CAPACITOR	1uF		R2043	BIRM001530V	M RESISTOR	0.15Ω	
C275	BICE226160MP015	E CAPACITOR	22uF		R2044	BIRM001530V	M RESISTOR	0.15Ω	
C276	BICE475500MP015	E CAPACITOR	4.9uF		R2045	BIRC5610105A005	C RESISTOR	560Ω	
C277	BICC222500KA042	C CAPACITOR	2200pF 50V		R2046	BIRC5610105A005	C RESISTOR	560Ω	
C278	BICC472500KA042	C CAPACITOR	4700pF 50V		R2049	BIRC3330105A005	C RESISTOR	33KΩ	
C279	BICC153500KA042	C CAPACITOR	0.015uF 50V		R2050	BIRC1530105A005	C RESISTOR	15KΩ	
C280	BICC153500KA042	C CAPACITOR	0.015uF 50V		R2051	BIRC1530105A005	C RESISTOR	15KΩ	
C281	BICC104500KA042	C CAPACITOR	0.1uF 50V		R2052	BIRC5630105A005	C RESISTOR	56KΩ	
C282	BICC104500KA042	C CAPACITOR	0.1uF 50V		R2053	BIRC5630105A005	C RESISTOR	56KΩ	
C283	BICE105500MP015	E CAPACITOR	1uF		R2054	BIRC6840105A005	C RESISTOR	680KΩ	
C284	BICE105500MP015	E CAPACITOR	1uF		R2055	BIRC0470045N000	C RESISTOR	4.7Ω	
C285	BICC101500JA041	C CAPACITOR	100pF 50V		R2056	BIRC0470045N000	C RESISTOR	4.7Ω	
C287	BICC104500KA042	C CAPACITOR	0.1uF 50V		R2057	BIRC1040105A005	C RESISTOR	100KΩ	
C288	BICC101500JA041	C CAPACITOR	100pF 50V		R2058	BIRC4730105A005	C RESISTOR	47KΩ	
C289	BICC101500JA041	C CAPACITOR	100pF 50V		R2059	BIRC1040105A005	C RESISTOR	100KΩ	
C290	BICC102500JA041	C CAPACITOR	1000pF 50V		R2060	BIRC1040105A005	C RESISTOR	100KΩ	
C291	BICH101500KM019	CAPACITOR	100pF K		R2061	BIRC1500085N000	C RESISTOR	15Ω	
C292	BICE476250MP015	E CAPACITOR	47uF		R2062	BIRC1000045N000	C RESISTOR	10Ω	
C293	BICE476250MP015	E CAPACITOR	47uF		R2063	BIRC2200105A005	C RESISTOR	22Ω	
C294	BICE225500MP015	E CAPACITOR	2.2uF		R2064	BIRC2200105A005	C RESISTOR	22Ω	
C295	BICE225500MP015	E CAPACITOR	2.2uF		R2065	BIRC2200105A005	C RESISTOR	22Ω	
C296	BICC102500JA041	C CAPACITOR	1000pF 50V		R2066	BIRC2200105A005	C RESISTOR	22Ω	
C297	BICC102500JA041	C CAPACITOR	1000pF 50V		R2069	BIRC1220105A005	C RESISTOR	1.2KΩ 1/10W	
C298	BICE105500MP015	E CAPACITOR	1uF		R2070	BIRC2200085M000	C RESISTOR	24Ω	
C299	BICE105500MP015	E CAPACITOR	1uF		R2071	BIRC5620045M000	C RESISTOR	5.6KΩ	
C281A	BICC104500KA042	C CAPACITOR	0.1uF 50V		R2072	BIRC2200085M000	C RESISTOR	25Ω	
C282A	BICC104500KA042	C CAPACITOR	0.1uF 50V		R2073	BIRC2200085M000	C RESISTOR	22Ω	
C287A	BICC104500KA042	C CAPACITOR	0.1uF 50V		R2074	BIRC2200085M000	C RESISTOR	23Ω	
C288A	BICC101500JA041	C CAPACITOR	100pF 50V		R2075	BIRC4740105A005	C RESISTOR	470KΩ	
C289A	BICC101500JA041	C CAPACITOR	100pF 50V		R2076	BIRC4710105A005	C RESISTOR	470Ω	
C290A	BICC102500JA041	C CAPACITOR	1000pF 50V		R2077	BIRC3330105A005	C RESISTOR	33KΩ	
					R2078	BIRC3330105A005	C RESISTOR	33KΩ	
R213	BIRF1010025N000	FUSI.RESISTOR	100Ω		R2079	BIRC1040105A005	C RESISTOR	100KΩ	
R214	BIRF1010025N000	FUSI.RESISTOR	100Ω		R2080	BIRC1530105A005	C RESISTOR	15KΩ	
R231	BIRC4720105A005	C RESISTOR	4.7KΩ		R2081	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
R232	BIRC4720105A005	C RESISTOR	4.7KΩ		R2082	BIRC1530105A005	C RESISTOR	15KΩ	
R240	BIRF1010025N000	FUSI.RESISTOR	100Ω		R2083	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
R241	BIRF1010025N000	FUSI.RESISTOR	100Ω		R2084	BIRC1040105A005	C RESISTOR	100KΩ	

△ Symbol No.	Part No.	Part Name	Description	Local
R2087	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
R2088	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
R2091	BIRC3310105A005	C RESISTOR	330Ω	
R2092	BIRC3310105A005	C RESISTOR	330Ω	
R2093	BIRC2220105A005	C RESISTOR	2.2KΩ 1/10W	
R2094	BIRC2220105A005	C RESISTOR	2.2KΩ 1/10W	
R2095	BIRC2220105A005	C RESISTOR	2.2KΩ 1/10W	
R2096	BIRC2220105A005	C RESISTOR	2.2KΩ 1/10W	
R2097	BIRC2220105A005	C RESISTOR	2.2KΩ 1/10W	
R2098	BIRC2220105A005	C RESISTOR	2.2KΩ 1/10W	
R2099	BIRC3300045M000	C RESISTOR	33Ω	
R2100	BIRC4700085M000	C RESISTOR	47Ω	
R2101	BIRC4700085M000	C RESISTOR	47Ω	
R2108	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
R2109	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
R2110	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
R2111	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
R2112	BIRC4730105A005	C RESISTOR	47KΩ	
R2113	BIRC4730105A005	C RESISTOR	47KΩ	
R2114	BIRC1010105A005	C RESISTOR	100Ω	
R2115	BIRC1010105A005	C RESISTOR	100Ω	
R2116	BIRC3330105A005	C RESISTOR	33KΩ	
R2117	BIRC3330105A005	C RESISTOR	33KΩ	
R2118	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
R2119	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
R2120	BIRC1030085M000	C RESISTOR	10KΩ 1/8W	
R2121	BIRC1030105A005	C RESISTOR	10KΩ	
R2122	BIRC2220105A005	C RESISTOR	2.2KΩ 1/10W	
R2123	BIRC2220105A005	C RESISTOR	2.2KΩ 1/10W	
R2124	BIRC2220105A005	C RESISTOR	2.2KΩ 1/10W	
R2125	BIRC2220105A005	C RESISTOR	2.2KΩ 1/10W	
R2126	BIRC8210105A005	C RESISTOR	820Ω	
R2127	BIRC8210105A005	C RESISTOR	820Ω	
R2128	BIRC3330105A005	C RESISTOR	33KΩ	
R2129	BIRC3330105A005	C RESISTOR	33KΩ	
R2130	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
R2131	BIRC1020105A005	C RESISTOR	1KΩ 1/10W	
R2132	BIRC1010105A005	C RESISTOR	100Ω	
R2133	BIRC1010105A005	C RESISTOR	100Ω	
R2134	BIRC1010105A005	C RESISTOR	100Ω	
R2135	BIRC1010105A005	C RESISTOR	100Ω	
R2136	BIRC1030105A005	C RESISTOR	10KΩ	
R2137	BIRC1030105A005	C RESISTOR	10KΩ	
R2138	BIRC4730105A005	C RESISTOR	47KΩ	
R262A	BIRM0022N25P015	M RESISTOR	0.22Ω	
R263A	BIRM0022N25P015	M RESISTOR	0.22Ω	

L201	BI2601141	SPRING COIL	3.0uH	
L202	BI2601141	SPRING COIL	3.0uH	
L203	BI2600702V	CHOCK COIL	1.0uH	
L204	BI2600702V	CHOCK COIL	1.0uH	
CN102	BI12S400551	CONNECTOR	4P	
CN103	BI12S90025V	CONNECTOR	9P	
CN201	BI12S300471V	SOCKET CONNECTO	3P	
CW201	BI12S240004V	FFC CONNECTOR	24P	
RF201	BIRF3300045M000	FUSI.RESISTOR	33Ω	
RY201	BI8RL00191V	RELAY	DC 12V	
RY202	BI8RL00191V	RELAY	DC 12V	
SPK	BI23F0821V	SOK TERMINAL	9P R/BK/BK/BL	
TH221	BIRT104THMSA002	THERMISTOR	100K 55001	
TH222	BIRT104THMSA002	THERMISTOR	100K 55001	
XXXXX	BI251385G01V	AMP PCB	PWB	

Power trans. board

Block No. [0][4]

△ Symbol No.	Part No.	Part Name	Description	Local
△ IC901	NJM78L05	IC	BI101851	
Q901	DTC114YS	TRANSISTOR	BI2DTC114YSP00	
Q902	DTC114YS	TRANSISTOR	BI2DTC114YSP00	
Q903	DTC114YS	TRANSISTOR	BI2DTC114YSP00	

D901	1SS133	FR DIODE	BI31SS133M000V7	
D902	1SS133	FR DIODE	BI31SS133M000V7	
D903	1SS133	FR DIODE	BI31SS133M000V7	
D904	1SS133	FR DIODE	BI31SS133M000V7	
D905	1SS133	FR DIODE	BI31SS133M000V7	
D906	1SS133	FR DIODE	BI31SS133M000V7	
D907	1SS133	FR DIODE	BI31SS133M000V7	
C901	BICH223250ZM018	C CAPACITOR	0.022uF	
C902	BICH223250ZM018	C CAPACITOR	0.022uF	
C903	BICH223250ZM018	C CAPACITOR	0.022uF	
C904	BICH223250ZM018	C CAPACITOR	0.022uF	
C905	BICE477250MP015	E CAPACITOR	470uF	
C906	BICE107100MP015	E CAPACITOR	100uF	
C907	BICE335500MP015	E CAPACITOR	3.3uF	
△ C951	BICT224275M	CAPACITOR	0.22uF 275V	
R901	BIRC1000085M000	C RESISTOR	10Ω 1/8W	
R902	BIRC4720085M000	C RESISTOR	4.7KΩ 1/8W	
R903	BIRC1030085M000	C RESISTOR	10KΩ 1/8W	
CW902	BI12P40290V	CONNECTOR ASSY	PH-4P PLUG	
CW903	BI12P90069V	CONNECTOR ASSY	B2512HV-9P	
△ PT902	BI2110410070001	POWER TRANS	120V DB-EI28-2598A	
△ RL901	BI8RL00171V	RELAY	DC 9V 250mW	
TB901	BI201323010101	TERMINAL	1P MSC	
TB902	BI201323010101	TERMINAL	1P MSC	
XXXXX	BI251383G01V	POWER PCB	PWB	

Wiring

Block No. [0][5]

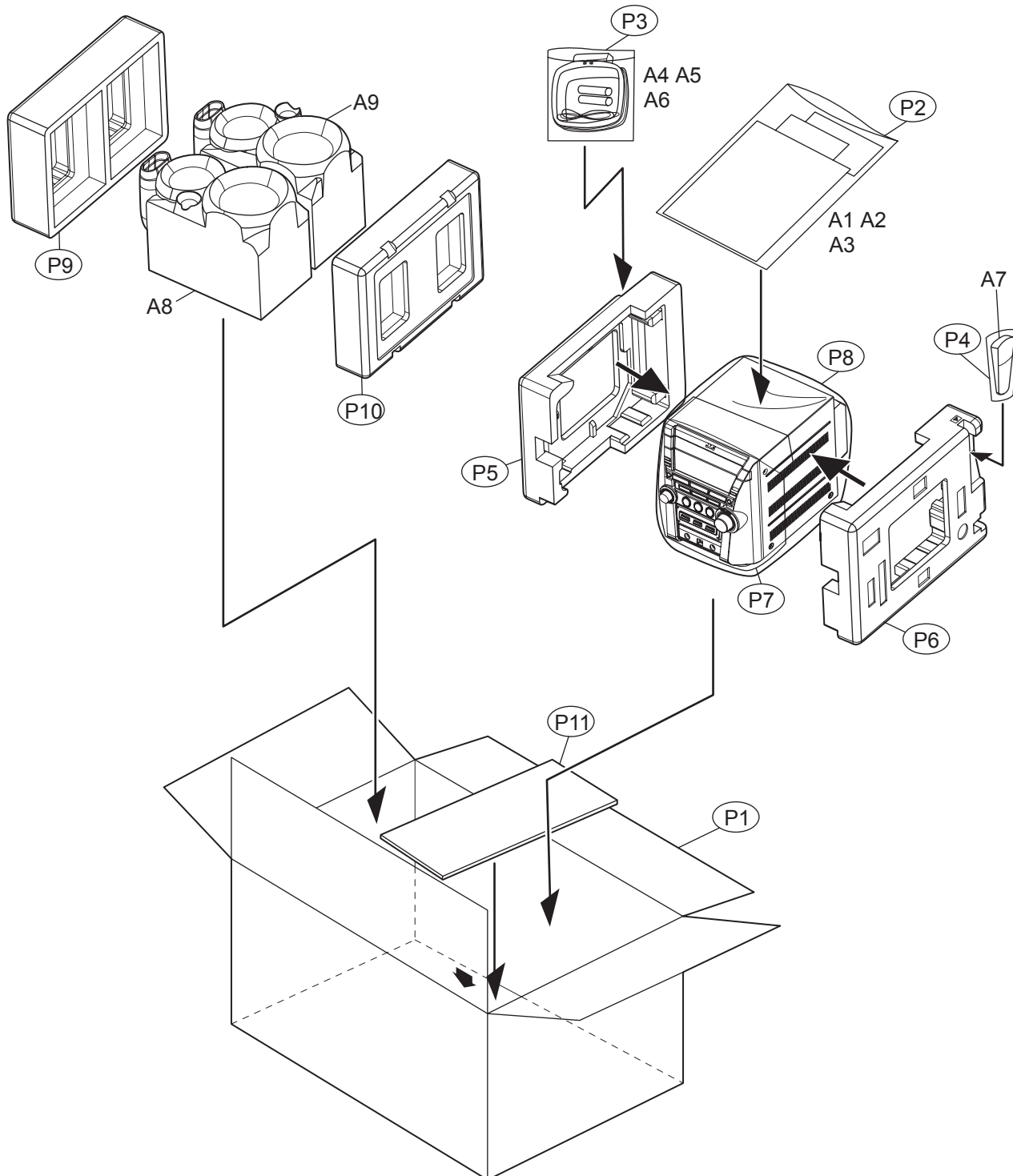
△ Symbol No.	Part No.	Part Name	Description	Local
Q290	2SB1340	TRANSISTOR	BI22SB13407V	
Q291	2SD1889	TRANSISTOR	BI22SD18897V	
Q290A	2SB1340	TRANSISTOR	BI22SB13407V	
Q291A	2SD1889	TRANSISTOR	BI22SD18897V	
IC201	STK412-430	POWER I.C	BI118201	
XXXXX	BI1205291V	FFC CABLE	16P P=1mm	
XXXXX	BI1206261V	FFC CABLE	18P P=1.25mm	
XXXXX	BI1206321V	FFC CABLE	12P	
XXXXX	BI1206761V	FFC CABLE	24P P=1.25mm	

<MEMO>

Packing materials and accessories parts list

Block No. M 3 M M

No additional / supplemental order of WARRANTY CARDS are available.



Packing and Accessories

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

△	Symbol No.	Part No.	Part Name	Description	Local
A	1	BI440001560000W	INST BOOK	ENG FRE	C
A	1	BI440001506000W	INST BOOK	ENG	J
A	2	-----	WARRANTY CARD	BT520062	C
A	2	-----	WARRANTY CARD	BT510341	J
A	3	BI400023260002W	SAFETY CARD		
A	4	-----	BATTERY	(x2)	
A	5	BIAN01051	FM ANT WIRE		
A	6	BIAN01281V	AM LOOP ANT		
A	7	BI643MXGC5050	REMOTE CONTROL		
A	8	MXGC5-SPBOX-L	SPEAKER BOX L		
A	9	MXGC5-SPBOX-R	SPEAKER BOX R		
P	1	BI430001871001W	CARTON		C
P	1	BI430001811001W	CARTON		J
P	2	BI470011031001W	POLY BAG	I/B With caution	
P	3	BI470011057001W	POLY BAG	ANT Loop	
P	4	BI4005355	POLY BAG		
P	5	BI450012001000W	POLY FORM LEFT	UNIT	
P	6	BI450012002000W	POLY FORM RIGHT	UNIT	
P	7	BI450011145001W	MIRROR MAT		
P	8	BI470011032001W	POLY BAG	Unit With caution	
P	9	BI450012008000W	POLY FORM TOP	Speaker Box	
P	10	BI450012009000W	POLY FORM BOTT	Speaker Box	
P	11	BI4200110400000	CARTON SPACER		