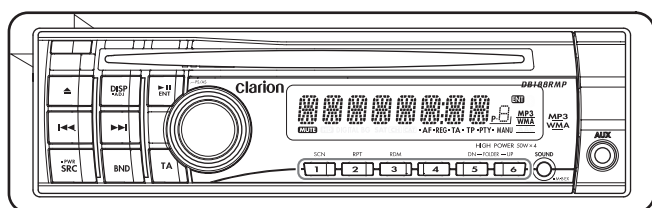


Service Manual



(DB188RMP)

CD/MP3/WMA Receiver

Model **DB188RMP**

(PE-3050E-A)

DB189RMP

(PE-3050E-B)

DB189RGMP

(PE-3050E-C)



This product is a lead free model.

Lead free solder is used in PWB stamped LF mark.

Please keep the following conditions when you repair.

1. Use lead free solder.
 - * Koki's lead free solder S3X-55M 0.6mm (CLARION Parts No.642-0231-01)
 - * Koki's lead free solder S3X-55M 1.0mm (CLARION Parts No.642-0231-02)
2. Use a nitrogen solder system.
3. Do not use "General solder" and "Lead free solder" together.

SPECIFICATIONS

Radio section

Tuning system: PLL synthesizer tuner
Receiving frequencies:
FM : 87.5 MHz to 108 MHz
(0.05 MHz steps)
MW : 531 kHz to 1602 kHz
(9 kHz steps)
LW : 153 kHz to 279 kHz
(3 kHz steps)

CD player section

System: Compact disc digital audio system
Frequency response: 5Hz to 20kHz(+1/-1dB)
Dynamic range: 90dB(1kHz)
Harmonic distortion: 0.01%

MP3/WMA mode

MP3 Sampling rate: 8kHz to 48kHz
MP3 Bit rate: 8kbps to 320kbps / VBR
WMA Bit rate: 48kbps to 192kbps
Logical format: ISO9660 level1, 2
JOLIET or Romeo

General

Output power: 25 W x 4
(DIN45324, +B=14.4V)

Power supply voltage: 14.4V DC(10.8 to 15.6V allowable), negative ground
Power consumption: Less than 15A
Speaker impedance: 4ohm(4ohm to 8ohm allowable)
Weight: 1.2kg
Dimensions(mm): 178(W)x50(H)x155(D)

COMPONENTS

PE-3050E-A/PE-3050E-B/PE-3050E-C

1. Source unit		1
2. Mounting bracket	300-7742-00	1
3. DCP case	335-6035-22	1
4. Escutcheon(OUT-ES)	370-6286-00	1
5. Parts bag		1
5-1. Removal key	331-2497-00	2
5-2. Rubber part	345-3653-20	1
5-3. Stopper	335-4899-20	1
5-4. Screw(M5x10)	716-0726-51	1
5-5. A-lead	850-6681-50	1

NOTE

- * We cannot supply PWB with component parts in principle. When a circuit on PWB has failure, please repair it by component parts base. Parts which are not mentioned in service manual are not supplied.
- * Specifications and design are subject to change without notice for further improvement.
- * Use only compact discs bearing the  or  mark. Some CDs recorded in CD-R/CD-RW mode may not be usable.
- * Windows Media™, and the Windows® logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.
- * WMA is the abbreviation of Windows Media Audio, an audio file format developed by Microsoft Corporation.
- * This product includes technology owned by Microsoft Corporation and cannot be used or distributed without a license from MSLGP.

To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.

The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.

The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.

2. Place the parts and wiring back in their original positions after replacement or re-wiring.

For proper circuit construction, use of insulation tubes, bonding, gaps to PWB, etc., is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.

If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.

3. Check for safety after repair.

Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary problems around the repaired spots.

If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

4. Caution in removal and making wiring connection to the parts for the automobile.

Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

5. Cautions in soldering

Please do not spread liquid flux in soldering.

Please do not wash the soldering point after soldering.

6. Cautions in soldering for chip capacitors

Please solder the chip capacitors after pre-heating for replacement because they are very weak to heat.

Please do not heat the chip capacitors with a soldering iron directly.

7. Cautions in handling for chip parts.

Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc).

Please make an operation test after replacement.

8. Cautions in handling flexible PWB.

Before working with a soldering iron, make sure that the iron tip temperature is around 270°C. Take care not to apply the iron tip repeatedly (more than three times) to the same patterns. Also take care not to apply the tip with force.

9. Turn the unit OFF during disassembly and parts replacement.

Recheck all work before you apply power to the unit.

10. Cautions in checking that the optical pickup lights up.

The laser is focused on the disc reflection surface through the lens of the optical pickup. When checking that the laser optical diode lights up, keep your eyes more than 30cms away from the lens. Prolonged viewing of the laser within 30cms may damage your eyesight.

11. Cautions in handling the optical pickup.

The laser diode of the optical pickup can be damaged by electrostatic charge caused by your clothes and body. Make sure to avoid electrostatic charges on your clothes or body, or discharge static electricity before handling the optical pickup.

11-1. Laser diode

The laser diode terminals are shorted for transportation in order to prevent electrostatic damage. After replacement, open the shorted circuit. When removing the pickup from the mechanism, short the terminals by soldering them to prevent this damage.

11-2. Actuator

The actuator has a powerful magnetic circuit. If a magnetic material is put close to it. Its characteristics will change. Ensure that no foreign substances enter through the ventilation slots in the cover.

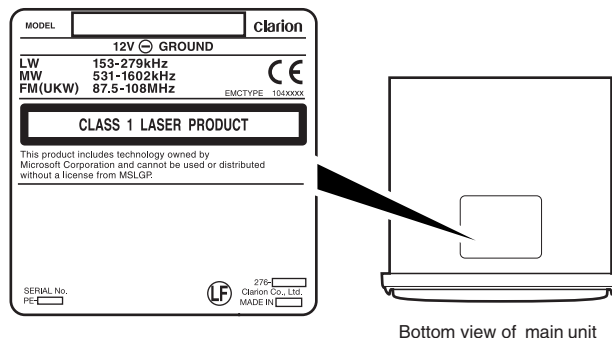
11-3. Cleaning the lens

Dust on the optical lens affects performance.

To clean the lens, apply a small amount of isopropyl alcohol to lens paper and wipe the lens gently.

CAUTION

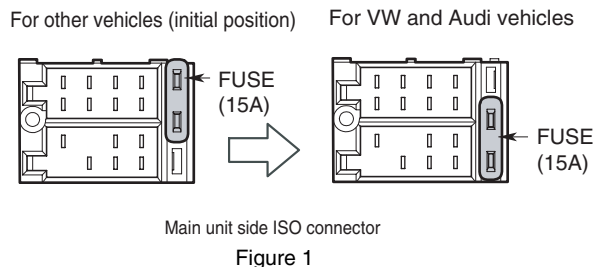
This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT". In case of any trouble with this player, please contact your nearest "authorized service station". To prevent direct exposure to the laser beam, do not try to open the enclosure.



Bottom view of main unit

NOTES OF ISO CONNECTOR

- For VW and Audi vehicles, change the position of fuse installation as shown on the diagram.(Figure 1)
ISO CONNECTOR type



- When the car stereo is installed in 1998 and later Volkswagen models, make sure to cut the car lead wire connected the A-5 terminal. (A breakdown could occur if the lead wire is not cut.) After cutting the lead wire, isolate the front end of the lead wire with insulation tape to prevent the risk of short-circuits.(Figure 2)

Note: Before cutting the lead wire, disconnect the car battery -- (negative) cable.

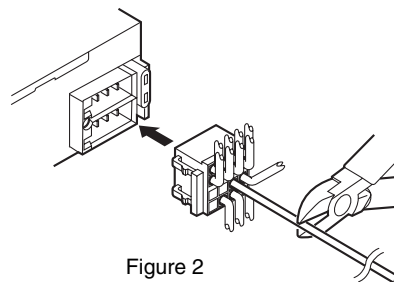
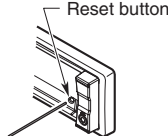


Figure 2

- When the main unit is also connected to an external amplifier, connect REMOTE on the external amplifier to the previously cut lead wire on the side of the connector.

TROUBLESHOOTING

	Problem	Cause	Measure
General	Power does not turn on. (No sound is produced.)	Fuse is blown.	Replace with a fuse of the same amperage as the old fuse.
		Incorrect wiring.	Read the attached "Installation/Wire connection Guide" once again and wire properly.
	No sound output when operating the unit with amplifiers or power antenna attached.	Power antenna lead is shorted to ground or excessive current is required for remote-on the amplifiers or power antenna.	1. Turn the unit off. 2. Remove all wires attached to the power antenna lead. Check each wire for a possible short to ground using an ohm meter. 3. Turn the unit back on. 4. Reconnect each amplifier remote wire to the power antenna lead one by one. If the amplifiers turn off before all wires are attached, use an external relay to provide remote-on voltage (excessive current required).
	Nothing happens when buttons are pressed. Display is not accurate.	The microprocessor has malfunctioned due to noise, etc.	Turn off the power, then press the [RELEASE] button and remove the DCP. Press the reset button for about 2 seconds with a thin rod. 
		DCP or main unit connectors are dirty.	Wipe the dirt off with a soft cloth moistened with cleaning alcohol.
	No sound heard.	The speaker protection circuit is operating.	Turn down sound volume. Function can also be restored by turning the power off and on again. (Speaker volume is reduced automatically when the speaker protection circuit operates).
CD/MP3/WMA	No sound heard.	MP3/WMA files are absent in a disc.	Write MP3/WMA files onto the disc properly.
		Files are not recognized as an MP3/WMA file.	Use MP3/WMA files encoded properly.
		File system is not correct.	Use ISO9660 level 1,2 or JOLIET or Romeo file system.
	Sound skips or is noisy.	Compact disc is dirty.	Clean the disc with a soft cloth.
		Compact disc is heavily scratched or warped.	Replace with a disc with no scratches.
	Sound is cut or skipped. Noise is generated or noise is mixed with sound.	MP3/WMA files are not encoded properly.	Use MP3/WMA files encoded properly.
	Sound is bad directly after power is turned on.	Water droplets may form on the internal lens when the car is parked in a humid place.	Let dry for about 1 hour with the power on.
	Wrong filename	File system is not correct.	Use ISO9660 level 1, 2 or JOLIET or Romeo file system.

ERROR DISPLAYS

If an error occurs, one of the following displays is displayed. Take the measures described below to eliminate the problem.

	Error Display	Cause	Measure
CD/MP3/WMA	ERROR 2	A CD is caught inside the CD deck and is not ejected.	This is a failure of CD deck's mechanism.
	ERROR 3	A CD cannot be played due to scratches, etc.	Replace with a non-scratched, non-warped disc.
	ERROR 6	A CD is loaded upside-down inside the CD deck and does not play.	Eject the disc then reload it properly.

If an error display other than the ones described above appears, press the reset button.

EXPLANATION OF IC

Main section

052-1955-00	LC8783J2PA-59H6-E	Main System Controller
Terminal Description		
pin 1 : DBGPO	: O : Not in use.	
pin 2 : DBGPI	: O : Not in use.	
pin 3 : DBGPI	: O : Not in use.	
pin 4 : B/U_DET	: IN : Backup detection signal input.	
pin 5 : ACC_DET	: IN : ACC detection signal input.	
pin 6 : REMCON	: IN : Remote controller signal input terminal.	
pin 7 : RDS_CLK	: IN : RDS clock pulse input.	
pin 8 : RES	: IN : Reset signal input.	
pin 9 : XT1	: IN : 32.768kHz crystal input, sub clock	
pin 10 : XT2	: O : 32.768kHz crystal output, sub clock	
pin 11 : VSS	: - : Connect to GND.	
pin 12 : CF1	: IN : 13.5MHz crystal input, main clock	
pin 13 : CF2	: O : 13.5MHz crystal output, main clock	
pin 14 : VDD	: - : Positive supply voltage, connect to 5V	
pin 15 : N.C	: O : Not in use.	
pin 16 : N.C	: O : Not in use.	
pin 17 : N.C	: IN : Not in use.	
pin 18 : S-METER	: IN : RDS S-METER signal input.	
pin 19 : NOISE	: IN : RDS noise signal input.	
pin 20 : KEY_A/D	: IN : Input terminal of A/D converter for key judgement.	
pin 21 : AMP_MUTE	: O : Muting signal output to internal audio power amplifier.	
pin 22 : N.C	: IN : Connect to GND.	
pin 23 : N.C	: IN : Connect to GND.	
pin 24 : MODEL_INT3	: IN : The destination setting input.	
pin 25 : TEXT PORT	: O : For CD text pin, Hi=OK, Lo=NG.	
pin 26 : CD_DI	: O : Connect to LC786920 DI pin.	
pin 27 : CD_DO	: IN : Connect to LC786920 DO pin.	
pin 28 : CD_CLK	: - : Connect to LC786920 CLK pin.	
pin 29 : CD_CE	: O : The chip enable signal output to LC786920.	
pin 30 : CD_MUTE	: IN : Connect to LC786920 CD_MUTE pin.	
pin 31 : CD_RST	: O : Connect to LC786920 REST pin.	
pin 32 : IF_REQ	: O : The tuner pack IF buffer control signal output.	
pin 33 : SUB_RDY	: IN : Connect to USB_READY pin.	
pin 34 : REG_RDY	: IN : Connect to REG_READY pin.	
pin 35 : CD_INSW1	: IN : Connect to CD MECHA SW1.	
pin 36 : CD_INSW2	: IN : Connect to CD MECHA SW2.	
pin 37 : CD_DMUTE	: O : Connect to CD driver IC MUTE pin.	
pin 38 : CD_S/L	: O : Connect to CD driver IC VIN-SW pin.	
pin 39 : VSS	: - : Connect to GND.	
pin 40 : VDD	: - : Positive supply voltage, connect to 5V.	
pin 41 : CD_ERROR	: IN : Connect to CD_ERROR pin.	
pin 42 : CD_LIMIT_SW	: IN : Inside limit switch signal input.	
pin 43 : CD_EM	: O : CD eject signal output for CD driver IC. CD_LM="L", CD_EM="H"	
pin 44 : CD_LM	: O : CD loading signal output for CD driver IC. CD_LM="H", CD_EM="L"	
pin 45 : RDS_NOISE_DCHG	: O : RDS noise discharge signal output.	
pin 46 : RDS_MUTE	: O : RDS mute signal output.	
pin 47 : SYS_MUTE	: O : System mute signal output.	
pin 48 : N.C	: O : Not in use.	
pin 49 : LCD_DI	: O : Connect to LCD driver IC DI pin	
pin 50 : LCD_DO	: IN : Connect to LCD driver IC DO pin	
pin 51 : LCD_CLK	: - : The clock pulse output to the LCD driver IC.	
pin 52 : LCD_CE	: O : The chip enable signal output to the LCD driver IC.	
pin 53 : EVOL_DATA	: I/O : The serial data output to the volume IC.	
pin 54 : EVOL_CLK	: O : Clock pulse output to the volume IC.	
pin 55 : VDD	: - : Positive supply voltage, connect to 5V.	
pin 56 : VSS	: - : Connect to GND.	
pin 57 : INT_1	: IN : The destination setting input.	
pin 58 : INT_2	: IN : The destination setting input.	
pin 59 : VER_1	: IN : Reference voltage input for A/D converter.	
pin 60 : VER_2	: IN : Reference voltage input for A/D converter.	
pin 61 : N.C	: IN : Connect to GND.	
pin 62 : N.C	: IN : Connect to GND.	
pin 63 : N.C	: IN : Connect to GND.	
pin 64 : N.C	: IN : Connect to GND.	
pin 65 : N.C	: IN : Not in use.	
pin 66 : N.C	: O : Not in use.	
pin 67 : N.C	: IN : Not in use.	
pin 68 : DISP_REM	: O : The power supply control signal output for LCD power and LCD backlight.	
pin 69 : ILL_REM	: O : The power supply control signal output for illumination.	
pin 70 : KEY_INT	: IN : Key interrupting signal input.	
pin 71 : INT_AMPREM	: O : ON signal output to the internal amplifier.	
pin 72 : AMP_REMOUT	: O : The control signal output to internal audio power amplifier.	

pin 73 : AUTO_ANT : O : Motor antenna control signal output.
pin 74 : PHONE_INT : IN : The telephone interrupt signal input.
pin 75 : RDS_TEST 1 : O : The power supply ON signal output for the

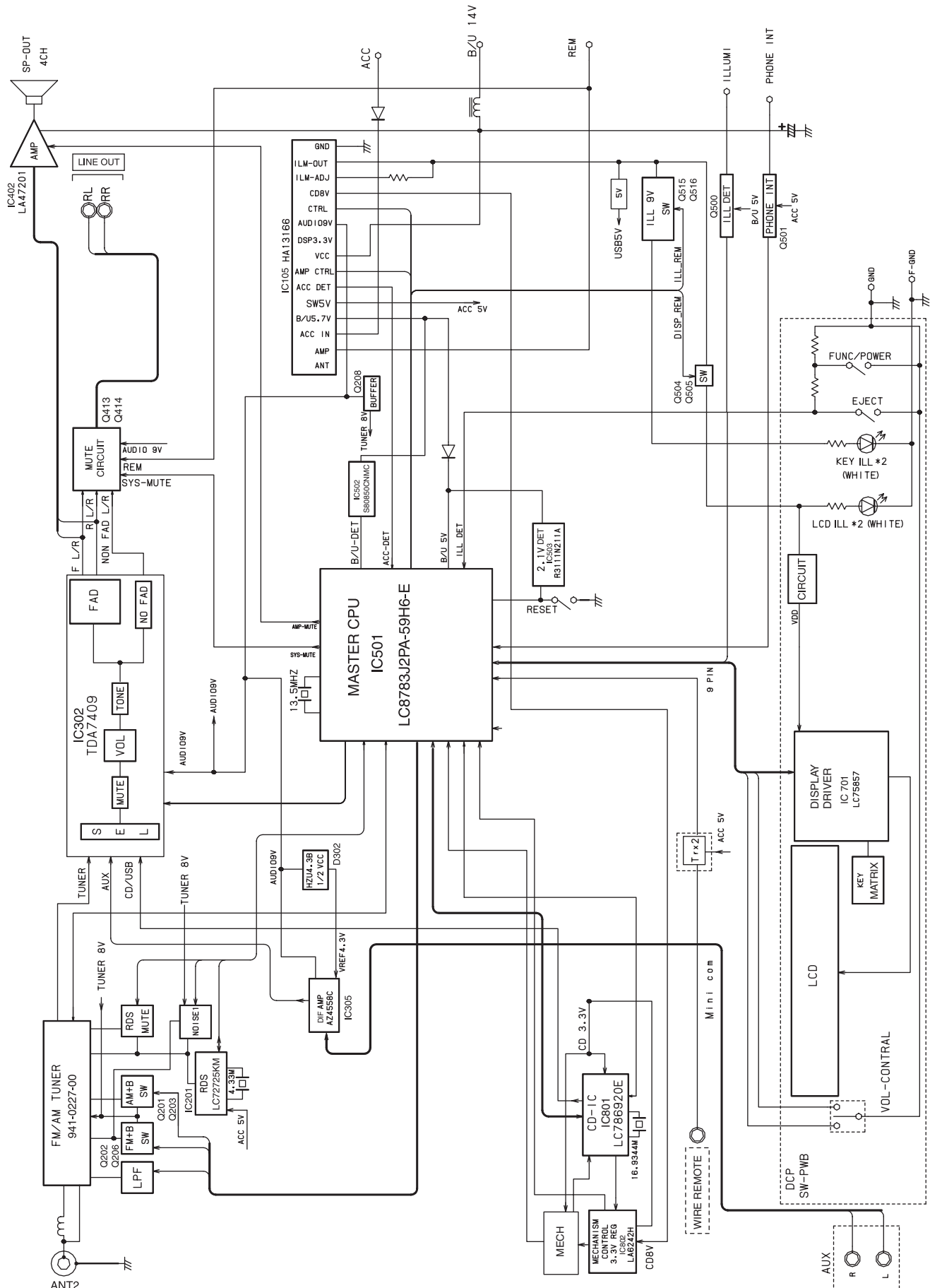
pin 76 : RDS_TEST 2 : IN : For debug when RDS_TEST.
pin 77 : N.C : O : Not in use.
pin 78 : N.C : IN : Not in use.
pin 79 : JOG_CW : IN : JOG key signal input.
pin 80 : JOG_CCW : IN : JOG key signal input.
pin 81 : CD_TEST : O : For CD mecha test pin.
pin 82 : ILL_DET : IN : illumination ON signal input.
pin 83 : CTRL : O : Power supply ON signal input.
pin 84 : OFFSET_DET : IN : The emergency signal input from the power IC.
pin 85 : RDS_TEST_DSR : IN : The communication control signal input for RDS PC test.
pin 86 : RDS_TEST_DTR : O : The communication control signal output for RDS PC test.
pin 87 : VERG : O : The reference voltage.
pin 88 : VSS : - : Connect to GND.
pin 89 : VDD : - : Positive supply voltage, connect to 5V.
pin 90 : OSC_FM/AM : IN : FM/AM oscillation input.
pin 91 : N.C : IN : Connect to GND.
pin 92 : FM/AM_IFC : IN : FM/AM IF signal input.
pin 93 : N.C : IN : Connect to GND.
pin 94 : EO : O : PLL phase compare ERROR output.
pin 95 : SUBPD : O : For high speed lock up.
pin 96 : FM_ON : O : The power supply control signal output for tuner FM+B.
pin 97 : AM_ON : O : The power supply control signal output for tuner AM+B.
pin 98 : MUTE_SPEED_UP : O : Station detection speed up command output for RDS.
pin 99 : FM-ST/SD : IN : At receiving the FM station, this port detects the stereo signal. At seeking or scanning, this port detects the station detection signal.
pin 100 : RDS_DATA : IN : RDS serial data input.

051-6743-00	LC786920E	CMOS LSI for compact disc player
Terminal Description		
pin 1 : EFMIN	: IN : RF signal input terminal.	
pin 2 : RFOUT	: O : RF signal output terminal.	
pin 3 : LPF	: O : RF signal DC label detection LPF capacitor connection terminal.	
pin 4 : PHLPF	: O : Wound detection LPF capacitor connection terminal.	
pin 5 : AIN	: IN : A signal input terminal.	
pin 6 : CIN	: IN : C signal input terminal.	
pin 7 : BIN	: IN : B signal input terminal.	
pin 8 : DIN	: IN : D signal input terminal.	
pin 9 : SLCISST	: IN : SLC output Resistance connection terminal.	
pin 10 : RFMON	: O : Inside LSI analog signal monitor terminal.	
pin 11 : VREF	: O : VREF voltage output terminal.	
pin 12 : JITTC	: O : Getta detection capacitor connection terminal.	
pin 13 : EIN	: IN : E signal input terminal.	
pin 14 : FIN	: IN : F signal input terminal.	
pin 15 : PCNCNT	: IN : EFM PLL Charge Pump Control voltage input terminal.	
pin 16 : TE_OUT	: O : TE signal output terminal.	
pin 17 : TE_IN	: IN : TES signal generation input terminal.	
pin 18 : LDD	: O : Laser power control signal output terminal.	
pin 19 : LDS	: IN : Laser power control signal input terminal.	
pin 20 : AVSS	: - : Connect to GND.	
pin 21 : AVDD	: - : Analogue power supply terminal.	
pin 22 : FDO	: O : Focus signal output terminal. D/A output.	
pin 23 : TDO	: O : Tracking signal output terminal. D/A output.	
pin 24 : SLDO	: O : Thread signal output terminal. D/A output.	
pin 25 : SPDO	: O : Spindle signal output terminal. D/A output.	
pin 26 : VVSSI	: - : Connect to GND.	
pin 27 : PDOUT1	: O : Built-in VCO control phase comparison output terminal 1.	
pin 28 : PDOUT0	: O : Built-in VCO control phase comparison output terminal 0.	
pin 29 : PCKIST	: IN : PDOUT0 output 1 Resistance connection terminal.	
pin 30 : VVDD1	: - : Connect to GND.	
pin 31 : DMUTEB	: O : Not in use.	
pin 32 : PUIN	: I/O : PUIN input output terminal.	
pin 33 : DEFECT	: O : Wound detection signal output terminal.	
pin 34 : FSEQ	: O : Synchronous signal output terminal, It becomes "H" when Synchronous Idle detected from the EFM signal is corresponding to Synchronous Idle of internal generation.	
pin 35 : C2F	: O : C2 error signal output terminal.	
pin 36 : DVDD	: - : Digital system power supply terminal.	
pin 37 : DVSS	: - : Digital system earth terminal, Must connect to 0V.	

pin 38 : DVDD15	: O : Digital circuit power source capacitor earth terminal.	pin 12 : S12	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 39 : VVDD3	: - : Building PLL into power supply terminal.	pin 13 : S13	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 40 : VVSS3	: - : Connect to GND.	pin 14 : S14	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 41 : DVDD	: - : Digital system power supply terminal.	pin 15 : S15	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 42 : DVSS	: - : Digital system earth terminal, Must connect to 0V.	pin 16 : S16	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 43 : CE	: IN : Host IF:Enable signal input terminal.	pin 17 : S17	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 44 : CL	: IN : Host IF:Data transfer clock input terminal.	pin 18 : S18	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 45 : DIN	: IN : Host IF:Data input terminal.	pin 19 : S19	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 46 : DO	: O : Host IF:Data output terminal. (Nch opening drain output) The external of the Pull-Up resistance is necessary.	pin 20 : S20	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 47 : RESB	: IN : LIS reset input terminal. Once you turn on the power supply , It turn to "L" .	pin 21 : S21	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 48 : REG_READYO	: O : Host IF:REG_READY output. (Nch opening drain output) The external of the Pull-Up resistance is necessary.	pin 22 : S22	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 49 : SUB_READYO	: O : Host IF:SUB_READYSY output. (Nch opening drain output) The external of the Pull-Up resistance is necessary.	pin 23 : S23	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 50 : CD_MUTE0	: I/O: Output L fixation after reset is released. Host IF:CD_MUTE request output. (Nch opening drain output) The external of the Pull-Up resistance is necessary.	pin 24 : S24	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 51 : LOW_BAT1	: I/O: Host IF:Standby control input.	pin 25 : S25	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 52 : CONT	: I/O: Connect to GND.	pin 26 : S26	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 53 : MODE	: IN : Setting Input terminal, Must connect to DVDD.	pin 27 : S27	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 54 : STREQ	: I/O: Stream data demand signal output terminal.	pin 28 : S28	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 55 : STCK	: I/O: Stream data bit clock input terminal.	pin 29 : S29	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 56 : STDATA	: I/O: Stream data input terminal.	pin 30 : S30	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 57 : TEST	: IN : Connect to GND.	pin 31 : S31	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 58 : DATA	: O : Lch/Rch channel data output terminal.	pin 32 : S32	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 59 : DATAACK	: O : Bit clock output terminal.	pin 33 : S33	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 60 : LRSY	: O : Lch/Rch clock output terminal.	pin 34 : S34	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 61 : VVDD2	: - : Building VCO into Power supply terminal.	pin 35 : S35	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 62 : VPREF2	: IN : Building VCO into oscillation cooking stove setting input terminal.	pin 36 : S36	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 63 : VCOC2	: IN : Building VCO into Control setting voltage terminal.	pin 37 : S37	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 64 : VPDOUT2	: O : Building VCO into control output terminal.	pin 38 : S38	: O : Segment outputs for displaying the display data transferred by serial data input.
pin 65 : VVSS2	: - : Building VCO into earth terminal, Must connect to 0V.	pin 39 : COM4/S39	: O : Common driver outputs.
pin 66 : DVDD15	: O : Digital circuit power source capacitor earth terminal.	pin 40 : COM3	: O : Common driver outputs.
pin 67 : DVSS	: - : Digital system power supply terminal, Must connect to 0V.	pin 41 : COM2	: O : Common driver outputs.
pin 68 : DVDD	: - : Digital system power supply terminal	pin 42 : COM1	: O : Common driver outputs.
pin 69 : DOUT	: O : Digital out output terminal, EIAJ format.	pin 43 : KS1/S40	: O : Key scan outputs.
pin 70 : AMUTE0	: O : CD_MUTE0 signal output terminal.	pin 44 : KS2/S41	: O : Key scan outputs.
pin 71 : XVSS	: - : Connect to GND.	pin 45 : KS3/S42	: O : Key scan outputs.
pin 72 : XOUT	: O : 16.9344MHz departure pendulum Connected terminal.	pin 46 : KS4	: O : Key scan outputs.
pin 73 : XIN	: IN : 16.9344MHz departure pendulum Connected terminal.	pin 47 : KS5	: O : Key scan outputs.
pin 74 : XVDD	: - : Oscillation circuit Power supply terminal.	pin 48 : KS6	: O : Key scan outputs.
pin 75 : LRVDD	: - : LR channel power supply terminal.	pin 49 : KI1	: IN : Key scan inputs.
pin 76 : LCHO	: O : L channel output terminal.	pin 50 : KI2	: IN : Key scan inputs.
pin 77 : LRREF	: O : LR channel Reference output terminal.	pin 51 : KI3	: IN : Key scan inputs.
pin 78 : RCHO	: O : R channel output terminal.	pin 52 : KI4	: IN : Key scan inputs.
pin 79 : LRVSS	: - : Connect to GND.	pin 53 : KI5	: IN : Key scan inputs.
pin 80 : SLCO	: O : Slice label control output terminal.	pin 54 : VDD	: - : Logic block power supply connection.
051-6095-00 LC75857W CMOS IC 1/3, 1/4 Duty LCD Display Drivers with Key Input Function		pin 55 : VLCD	: - : LCD driver block power supply connection.
Terminal Description		pin 56 : VLCD1	: IN : Used for applying the LCD drive 2/3 bias voltage externally.
pin 1 : P1/S1	: O : Segment outputs for displaying the display data transferred by serial data input.	pin 57 : VLCD2	: IN : Used for applying the LCD drive 1/3 bias voltage externally.
pin 2 : P2/S2	: O : Segment outputs for displaying the display data transferred by serial data input.	pin 58 : VSS	: - : Power supply connection. Connect to ground.
pin 3 : P3/S3	: O : Segment outputs for displaying the display data transferred by serial data input.	pin 59 : TEST	: IN : This pin must be connected to ground.
pin 4 : P4/S4	: O : Segment outputs for displaying the display data transferred by serial data input.	pin 60 : OSC	: I/O: The OSC pin can be used to form an oscillator circuit with an external resistor and an external capacitor.
pin 5 : S5	: O : Segment outputs for displaying the display data transferred by serial data input.	pin 61 : DO	: O : Serial data interface connections to the controller.
pin 6 : S6	: O : Segment outputs for displaying the display data transferred by serial data input.	pin 62 : CE	: IN : Serial data interface connections to the controller.
pin 7 : S7	: O : Segment outputs for displaying the display data transferred by serial data input.	pin 63 : CL	: IN : Serial data interface connections to the controller.
pin 8 : S8	: O : Segment outputs for displaying the display data transferred by serial data input.	pin 64 : DI	: IN : Serial data interface connections to the controller.
pin 9 : S9	: O : Segment outputs for displaying the display data transferred by serial data input.		
pin 10 : S10	: O : Segment outputs for displaying the display data transferred by serial data input.		
pin 11 : S11	: O : Segment outputs for displaying the display data transferred by serial data input.		

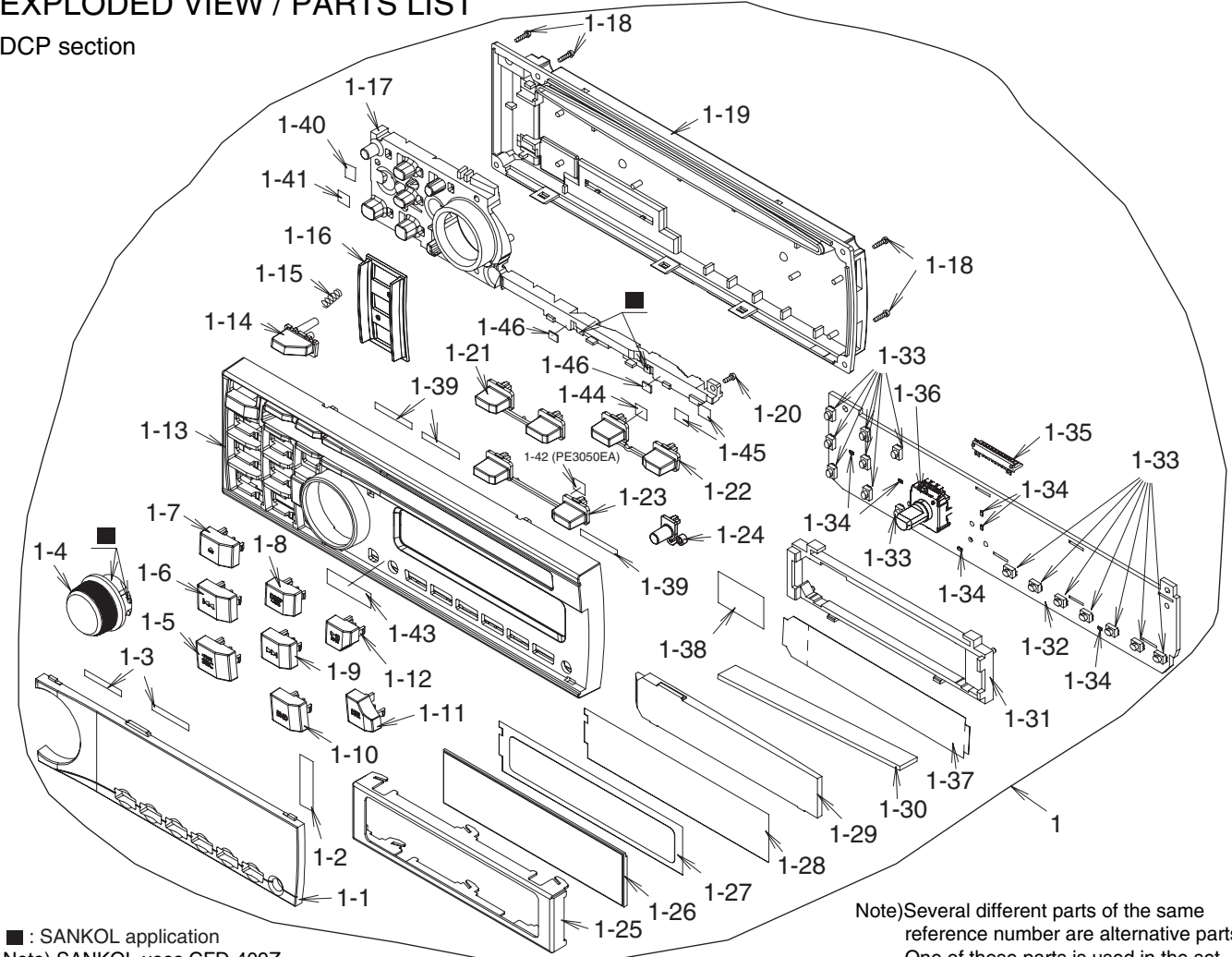
BLOCK DIAGRAM

Main section



EXPLODED VIEW / PARTS LIST

DCP section



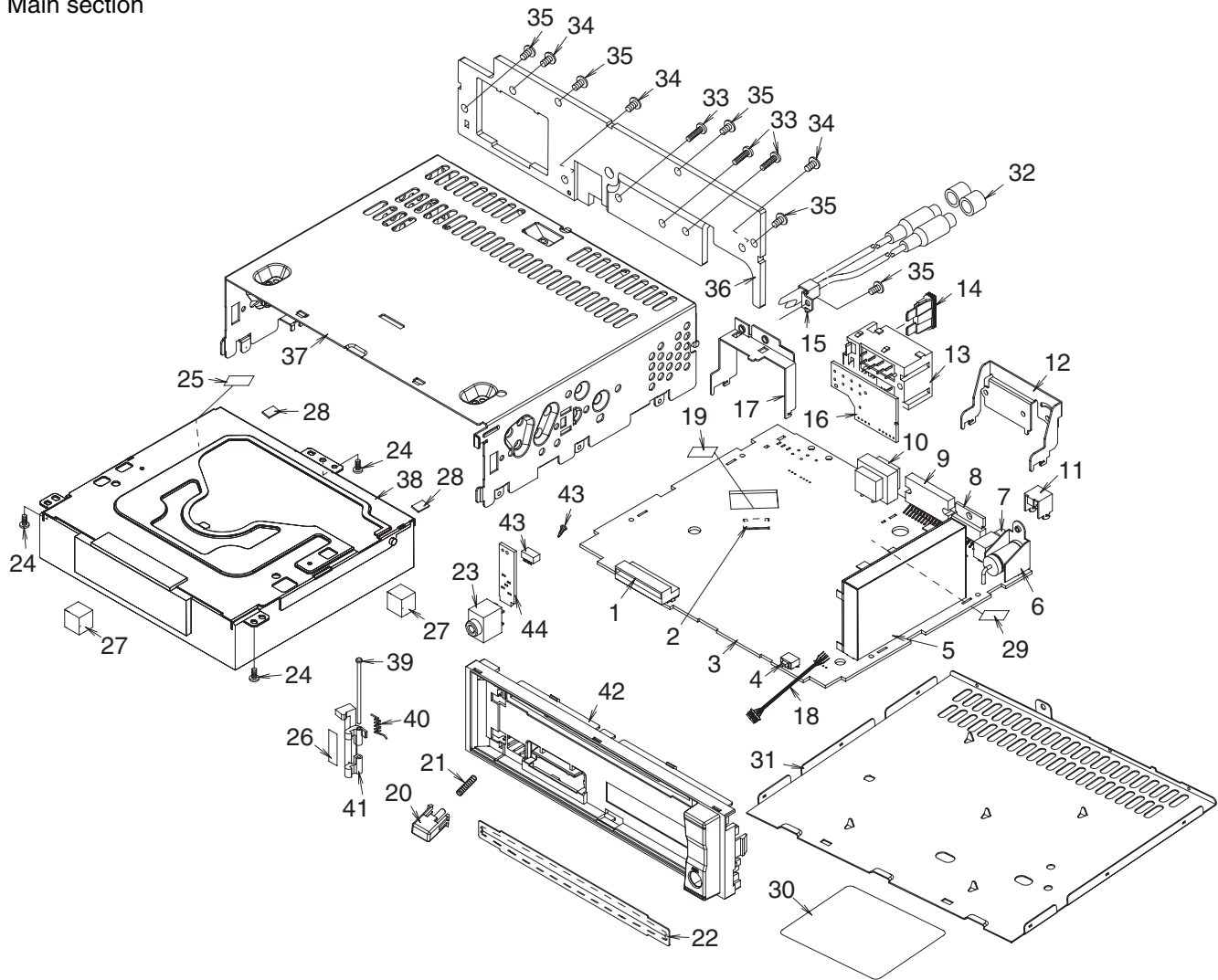
■ : SANKOL application

Note) SANKOL uses CFD-409Z

Note) Several different parts of the same reference number are alternative parts. One of those parts is used in the set.

NO.	PART NO.	DESCRIPTION	Q'TY	NO.	PART NO.	DESCRIPTION	Q'TY
1	DCP-622-700	DCP ASSY(PE-3050E-A)	1	1-17	335-8226-00	ILLUMI PLATE	1
	DCP-623-700	DCP ASSY(PE-3050E-B)	1	1-18	716-0872-62	SCREW(M1.7X6)	4
	DCP-624-700	DCP ASSY(PE-3050E-C)	1	1-19	335-8225-00	REAR COVER	1
1-1	373-1162-00	DIAL-CVR(PE-3050E-A)	1	1-20	716-1764-50	PAD SCREW(M1.7X6)	1
	373-1162-07	DIAL-CVR(PE-3050E-B)	1	1-21	382-8588-00	BUTTON(1/3)	1
	373-1162-08	DIAL-CVR(PE-3050E-C)	1	1-22	382-8617-00	BUTTON(4/6)	1
1-2	347-7999-00	DOUBLE FACE	1	1-23	382-8589-00	BUTTON(2/5)	1
1-3	347-8265-00	DOUBLE FACE	2	1-24	382-8584-00	BUTTON(SOUND)	1
1-4	380-5717-01	KNOB	1	1-25	331-4527-00	LCD COVER	1
1-5	382-8583-00	BUTTON(SRC)(PE-3050E-A)	1	1-26	379-1401-41	INDICATOR(LCD)	1
	382-8583-01	BUTTON(SRC)(PE-3050E-B/C)	1	1-27	347-8410-00	BLACK FILM	1
1-6	382-8586-00	BUTTON(FW)(PE-3050E-A)	1	1-28	347-8411-00	SHADE FILM	1
	382-8586-01	BUTTON(FW)(PE-3050E-B/C)	1	1-29	335-8227-00	LCD ILLUMI	1
1-7	382-8579-00	BUTTON(EJECT)(PE-3050E-A)	1	1-30	345-6177-00	RUBBER PART	1
	382-8579-01	BUTTON(EJECT)(PE-3050E-B/C)	1	1-31	335-8228-00	LCD HOLDER	1
1-8	382-8580-00	BUTTON(DISP)(PE-3050E-A)	1	1-32	-----	SWITCH PWB	1
	382-8580-02	BUTTON(DISP)(PE-3050E-B/C)	1	1-33	013-6312-50	TACT SWITCH	15
1-9	382-8585-00	BUTTON(FF)(PE-3050E-A)	1	1-34	001-7114-90	DIODE	6
	382-8585-01	BUTTON(FF)(PE-3050E-B/C)	1	1-35	076-0615-50	PLUG	1
1-10	382-8581-00	BUTTON(BND)(PE-3050E-A)	1	1-36	016-9901-02	VR W/SHAFT	1
	382-8581-02	BUTTON(BND)(PE-3050E-B/C)	1	1-37	347-8412-00	REFLECTOR	1
1-11	382-8582-00	BUTTON(TA)(PE-3050E-A)	1	1-38	347-8413-00	FILM	1
	382-8582-03	BUTTON(TA)(PE-3050E-B/C)	1	1-39	347-8414-00	FILM	3
1-12	382-8578-00	BUTTON(ENT)(PE-3050E-A)	1	1-40	347-8421-00	SHADE	1
	382-8578-02	BUTTON(ENT)(PE-3050E-B/C)	1	1-41	347-8426-00	FILM	1
1-13	370-6321-00	ESCUTCHEON	1	1-42	347-8428-00	FILM(PE-3050E-A)	1
1-14	382-8587-00	BUTTON(RELEASE)	1	1-43	347-8429-00	FILM	1
1-15	750-6858-00	SPRING (RELEASE)	1	1-44	347-8431-00	FILM	1
1-16	335-8224-00	BAR ILLUMI(PE-3050E-A)	1	1-45	347-8481-00	FILM	2
	335-8224-01	BAR ILLUMI(PE-3050E-B/C)	1	1-46	345-6224-00	CUSHION	2

Main section



Note) CD MECHANISM 929-4002-00 is exchanged correspondence, it is not being possible to repair.

NO.	PART NO.	DESCRIPTION	Q'TY	NO.	PART NO.	DESCRIPTION	Q'TY
1	074-1217-50	OUTLET SOCKET(12P)	1	24	731-2606-8B	TAPTIGHT(M2.6X6)	3
2	074-2246-67	OUTLET SOCKET(12P)	1	25	347-8490-00	FILM	1
3	-----	MAIN PWB	1	26	347-8456-00	FILM	1
4	013-6100-00	TACT SWITCH	1	27	345-6201-00	CUSHION	2
5	941-0227-30	TUNER PACK	1	28	345-6195-00	CUSHION	2
6	092-4000-51	ANT-RECEPT	1	29	347-8427-00	FILM	1
7	075-0393-50	JACK	1	30	276-0372-00	SETPLATE(PE-3050E-A)	1
8	051-3349-00	IC	1		276-0396-00	SETPLATE(PE-3050E-B)	1
9	051-2060-00	IC	1		276-0397-00	SETPLATE(PE-3050E-C)	1
10	009-9006-60	CHOKE	1	31	311-1859-05	LOWER CASE	1
	009-9006-70	CHOKE	1	32	345-3799-20	RUBBER PART	2
11	331-4533-00	JACK HOLDER	1	33	714-2610-85	MACHINE SCREW(M2.6X10)	3
12	331-3935-02	IC HOLDER	1	34	714-3006-85	MACHINE SCREW(M3X6)	3
13	074-1285-00	OUTLET SOCKET(P)	1	35	731-3008-89	TAPTIGHT(M3X8)	5
14	060-0057-57	AUTO FUSE(15A)	1	36	313-2006-02	HEAT SINK	1
15	855-5426-53	RCA PIN CORD(2CH)	1	37	310-1871-00	UPPER CASE	1
16	-----	ISO PWB	1	38	929-4002-00	CD MECHANISM	1
17	331-3562-02	CONNECTOR-HOLD	1	39	341-1627-00	SHAFT	1
18	854-4619-50	AUX LEAD	1	40	750-3219-00	SPRING(F-HOOK)	1
19	347-8489-00	FILM	1	41	335-5915-01	HOOK	1
20	382-8567-00	BUTTON(P)	1	42	370-6322-01	INNER-ES	1
21	750-6861-00	SPRING	1	43	076-0502-55	PLUG	1
22	346-0194-00	LEATHER SHEET	1	44	-----	AUX PWB	1
23	075-9021-50	JACK	1				

ELECTRICAL PARTS LIST

Main PWB(B1) section

Note)1. Several different parts of the same reference number are alternative parts.

One of those parts is used in the set.

2. Some parts depend on each model. The model name is specified in the description.

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
ANT2	092-4000-51	ANT-RECEPT	C319	043-1735-90	100pF	C820	043-1608-90	0.1uF
BL1	941-0227-30	TUNER PACK	C320	043-1735-90	100pF	C821	043-1804-90	0.1uF
C118	043-1608-90	0.1uF	C321	187-1063-35	16V 10uF	C822	043-1802-90	0.01uF
C119	043-1608-90	0.1uF	C322	187-1063-35	16V 10uF	C824	043-1804-90	0.1uF
C120	187-1073-15	6.3V 100uF	C337	187-1063-35	16V 10uF	C825	043-1824-90	0.22uF
C121	043-1608-90	0.1uF	C338	187-1063-35	16V 10uF	C826	043-1625-90	0.022uF
C122	187-1073-35	16V 100uF	C339	187-1063-35	16V 10uF	C827	043-1608-90	0.1uF
C123	043-1608-90	0.1uF	C340	187-1063-35	16V 10uF	C828	187-1073-15	6.3V 100uF
C124	187-1073-35	16V 100uF	C346	043-1841-90	0.047uF	C829	043-1608-90	0.1uF
C125	043-1608-90	0.1uF	C401	042-1715-00	16V 3300uF	C830	043-1804-90	0.1uF
C200	187-1063-35	16V 10uF	C413	178-4742-78	0.47uF	C831	187-1073-15	6.3V 100uF
C201	043-1804-90	0.1uF	C414	178-4742-78	0.47uF	C833	189-3373-11	6.3V 330uF
C202	043-1727-90	47pF	C415	178-4742-78	0.47uF	C834	189-4773-22	10V 470uF
C203	043-1817-90	0.018uF	C416	178-4742-78	0.47uF	C835	043-1804-90	0.1uF
C204	043-1817-90	0.018uF	C421	043-1620-90	4700pF	C836	163-4753-55	50V 4.7uF
C205	043-1623-90	560pF	C428	187-1063-35	16V 10uF	C837	163-4753-55	50V 4.7uF
C206	043-1804-90	0.1uF	C435	178-4742-78	0.47uF	C838	043-1800-90	1000pF
C207	189-2273-21	10V 220uF	C442	187-1053-65	50V 1uF	C839	043-1800-90	1000pF
C208	043-1617-90	6800pF	C445	172-1041-15	0.1uF	C840	043-1800-90	1000pF
C209	187-1073-25	10V 100uF	C447	043-1751-90	470pF	C841	043-1800-90	1000pF
C210	187-1073-25	10V 100uF	C449	043-1751-90	470pF	C842	043-1731-90	68pF
C211	043-1804-90	0.1uF	C450	043-1751-90	470pF	C843	043-1731-90	68pF
C212	043-1804-90	0.1uF	C451	043-1751-90	470pF	C844	043-1608-90	0.1uF
C213	187-1073-25	10V 100uF	C452	043-1751-90	470pF	C845	043-1608-90	0.1uF
C214	043-1804-90	0.1uF	C453	043-1751-90	470pF	C846	043-1608-90	0.1uF
C215	172-6831-15	0.068uF	C454	043-1751-90	470pF	C847	187-1053-65	50V 1uF
C216	043-1607-90	0.01uF	C455	043-1751-90	470pF	C848	187-1073-15	6.3V 100uF
C217	043-1607-90	0.01uF	C500	187-3363-45	10V 33uF	C849	043-1804-90	0.1uF
C218	043-1601-90	100pF	C501	168-1052-78	50V 1uF	C850	043-1804-90	0.1uF
C219	043-1713-90	12pF	C502	043-1608-90	0.1uF	C853	189-4773-22	10V 470uF
C220	043-1713-90	12pF	C503	043-1608-90	0.1uF	C854	043-1841-90	0.047uF
C221	043-1622-90	330pF	C504	168-1052-78	50V 1uF	C855	043-1608-90	0.1uF
C222	043-1719-90	22pF	C505	043-1804-90	0.1uF	C856	043-1804-90	0.1uF
C223	043-1804-90	0.1uF	C506	043-0540-00	16V 10uF	C857	187-1073-15	6.3V 100uF
C224	187-1073-25	10V 100uF	C507	163-1063-35	16V 10uF	C858	043-1804-90	0.1uF
C226	187-1053-65	50V 1uF	C508	043-1710-90	9pF	C859	187-1073-15	6.3V 100uF
C227	043-1804-90	0.1uF	C509	043-1710-90	9pF	C860	187-1073-15	6.3V 100uF
C230	043-1607-90	0.01uF	C510	043-1719-90	22pF	C861	043-1608-90	0.1uF
C231	187-4763-15	6.3V 47uF	C511	043-1719-90	22pF	C870	187-1073-35	16V 100uF
C232	043-1802-90	0.01uF	C512	043-1607-90	0.01uF	D100	001-0592-61	1N5404
C233	187-4753-65	50V 4.7uF	C513	043-1601-90	100pF	D109	001-0466-61	1A4
C234	043-1735-90	100pF	C514	042-1577-00	6.3V 100uF	D201	001-1323-90	L1SS355T1G
C235	043-1735-90	100pF	C515	043-1607-90	0.01uF	D202	001-1323-90	L1SS355T1G
C236	043-1618-90	0.018uF	C516	189-1083-12	6.3V 1000uF	D302	001-4316-17	LM3Z4V3T1G
C237	043-1625-90	0.022uF	C800	187-1073-15	6.3V 100uF	D401	001-4316-24	LM3Z8V2T1G
C238	043-1626-90	820pF	C801	043-1620-90	4700pF	D402	001-1323-90	L1SS355T1G
C239	043-1624-90	680pF	C802	043-1802-90	0.01uF	D403	001-1323-90	L1SS355T1G
C240	043-1600-90	10pF	C803	043-1804-90	0.1uF	D500	001-1323-90	L1SS355T1G
C244	043-1625-90	0.022uF	C804	043-1804-90	0.1uF	D502	001-4301-26	HZU4.7B2
C245	043-1607-90	0.01uF	C805	187-3363-25	6.3V 33uF	D503	001-1323-90	L1SS355T1G
C250	187-4763-35	16V 47uF	C806	043-1804-90	0.1uF	D504	001-1323-90	L1SS355T1G
C307	187-1053-65	50V 1uF	C807	187-1073-15	6.3V 100uF	D505	001-1323-90	L1SS355T1G
C308	187-1053-65	50V 1uF	C809	043-1804-90	0.1uF	D506	001-1323-90	L1SS355T1G
C309	187-1053-65	50V 1uF	C810	043-1804-90	0.1uF	D507	001-1323-90	L1SS355T1G
C310	187-1053-65	50V 1uF	C811	043-1802-90	0.01uF	D509	001-4301-41	HZU7.5B2
C311	187-1053-65	50V 1uF	C812	043-1606-90	1000pF	D510	001-4301-41	HZU7.5B2
C312	187-1053-65	50V 1uF	C813	043-1804-90	0.1uF	D511	001-4301-41	HZU7.5B2
C313	187-4763-15	6.3V 47uF	C814	043-1607-90	0.01uF	D512	001-4301-41	HZU7.5B2
C314	187-1063-35	16V 10uF	C815	187-1073-15	6.3V 100uF	D521	001-1323-90	L1SS355T1G
C315	043-1735-90	100pF	C816	168-1052-78	50V 1uF	D801	001-1323-90	L1SS355T1G
C316	043-1735-90	100pF	C817	043-1606-90	1000pF	D802	001-0644-90	MA113
C317	043-1804-90	0.1uF	C818	043-1608-90	0.1uF	IC105	051-3349-00	HA13166
C318	187-4763-35	16V 47uF	C819	187-1073-15	6.3V 100uF	IC201	051-4620-90	LC72725KM

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
IC202	051-0350-93	NJM4558	Q516	125-0021-91	DTA114EUA	R454	119-2231-15	1/10W 22k ohm
IC302	051-5028-90	TDA7409	Q516	125-0034-92	RT1P141M	R456	119-3311-15	1/10W 330 ohm
IC305	051-3060-90	AZ4558C	Q801	190-2060-00	2SA2060	R457	119-2231-15	1/10W 22k ohm
IC402	051-2060-00	LA47201	Q802	101-0941-00	2SB941	R459	033-1021-15	1/16W 1k ohm
IC501	052-1955-00	LC8783J2PA-59H6-E	R154	116-1521-15	1/4WS 1.5k ohm	R500	116-4721-15	1/4WS 4.7k ohm
IC502	051-5443-38	S80850CNMC	R156	119-1241-15	1/10W 120k ohm	R501	119-4731-15	1/10W 47k ohm
IC503	051-5437-58	R3111N211A	R200	119-1031-15	1/10W 10k ohm	R502	033-4721-15	1/16W 4.7k ohm
IC801	051-6743-00	LC786920E	R201	119-5631-15	1/10W 56k ohm	R503	033-4731-15	1/16W 47k ohm
IC802	051-6096-90	LA6242H	R202	033-1001-15	1/16W 10 ohm	R504	033-4721-15	1/16W 4.7k ohm
J501	074-1217-50	12P	R203	116-3311-15	1/4WS 330 ohm	R505	033-1031-15	1/16W 10k ohm
J502	075-0393-50	JACK	R204	033-1011-15	1/16W 100 ohm	R506	033-1041-15	1/16W 100k ohm
J801	074-2246-67	17P	R205	119-5121-15	1/10W 5.1k ohm	R507	033-6831-15	1/16W 68k ohm
L201	010-2003-04	30uH(Variable)	R206	119-5111-15	1/10W 510 ohm	R509	119-1031-15	1/10W 10k ohm
L202	010-3105-67	1k ohm/100MHz	R207	119-0000-05	1/10W 0 ohm JW	R512	119-0000-05	1/10W 0 ohm JW
L203	010-3105-67	1k ohm/100MHz	R208	119-0000-05	1/10W 0 ohm JW	R513	033-4731-15	1/16W 47k ohm
L205	010-2275-53	220uH	R209	119-2711-15	1/10W 270 ohm	R514	033-4731-15	1/16W 47k ohm
L206	010-6009-57	0.56uH	R212	119-0000-05	1/10W 0 ohm JW	R515	119-1841-15	1/10W 180k ohm
L301	010-6009-84	100uH	R213	119-1021-15	1/10W 1k ohm	R516	033-4731-15	1/16W 47k ohm
L302	010-3105-67	1k ohm/100MHz	R214	119-5621-15	1/10W 5.6k ohm	R518	033-1031-15	1/16W 10k ohm
L303	010-3105-67	1k ohm/100MHz	R222	119-4721-15	1/10W 4.7k ohm	R521	033-5641-15	1/16W 560k ohm
L501	010-3112-90	1k ohm/100MHz	R223	119-4721-15	1/10W 4.7k ohm	R526	033-1031-15	1/16W 10k ohm
L502	010-3123-90	2.2uH	R224	119-2231-15	1/10W 22k ohm	R527	033-1031-15	1/16W 10k ohm
L503	010-3123-90	2.2uH	R226	033-3311-15	1/16W 330 ohm	R528	033-5621-15	1/16W 5.6k ohm
L504	010-3123-90	2.2uH	R227	033-1021-15	1/16W 1k ohm	R529	119-4721-15	1/10W 4.7k ohm
L801	010-6009-76	22uH	R228	033-1231-15	1/16W 12k ohm	R530	033-1031-15	1/16W 10k ohm
L802	010-6009-76	22uH	R229	033-1031-15	1/16W 10k ohm	R531	033-4721-15	1/16W 4.7k ohm
Q200	198-0669-00	2SK669	R231	033-3321-15	1/16W 3.3k ohm	R532	119-4721-15	1/10W 4.7k ohm
Q201	125-0025-93	RN2303	R232	033-3331-15	1/16W 33k ohm	R533	033-1041-15	1/16W 100k ohm
Q201	125-0034-93	RT1P241M	R233	119-4741-15	1/10W 470k ohm	R534	033-1031-15	1/16W 10k ohm
Q202	125-0025-93	RN2303	R234	033-1041-15	1/16W 100k ohm	R535	033-4731-15	1/16W 47k ohm
Q202	125-0034-93	RT1P241M	R235	033-2211-15	1/16W 220 ohm	R536	033-2231-15	1/16W 22k ohm
Q203	125-2027-92	DTC124EUA	R236	119-3311-15	1/10W 330 ohm	R537	033-1041-15	1/16W 100k ohm
Q203	125-2041-93	RT1N241M	R237	119-5631-15	1/10W 56k ohm	R538	119-4711-15	1/10W 470 ohm
Q204	125-4024-90	3DG3875	R313	033-2711-15	1/16W 270 ohm	R539	119-4711-15	1/10W 470 ohm
Q205	125-0025-93	RN2303	R314	033-2711-15	1/16W 270 ohm	R540	119-0000-05	1/10W 0 ohm JW
Q205	125-0034-93	RT1P241M	R315	033-2711-15	1/16W 270 ohm	R541	119-1021-15	1/10W 1k ohm
Q206	125-2027-92	DTC124EUA	R316	033-2711-15	1/16W 270 ohm	R542	119-1021-15	1/10W 1k ohm
Q206	125-2041-93	RT1N241M	R317	119-3311-15	1/10W 330 ohm	R543	033-4721-15	1/16W 4.7k ohm
Q207	125-2027-91	DTC114EUA	R319	119-0000-05	1/10W 0 ohm JW	R558	119-0000-05	1/10W 0 ohm JW
Q207	125-2041-92	RT1N141M	R321	119-0000-05	1/10W 0 ohm JW	R560	033-0000-05	0.5A 0 ohm
Q208	125-4011-90	KTD863YAT	R325	032-0140-89	1/10W 47k ohm(F)	R561	033-3311-15	1/16W 330 ohm
Q209	125-2027-92	DTC124EUA	R326	032-0140-89	1/10W 47k ohm(F)	R562	033-1521-15	1/16W 1.5k ohm
Q209	125-2041-93	RT1N241M	R328	032-0140-89	1/10W 47k ohm(F)	R563	119-0000-05	1/10W 0 ohm JW
Q403	125-4024-90	3DG3875	R329	032-0140-89	1/10W 47k ohm(F)	R801	033-3311-15	1/16W 330 ohm
Q404	125-2027-95	DTC143ZUA	R332	032-0140-89	1/10W 47k ohm(F)	R802	119-1031-15	1/10W 10k ohm
Q404	125-2041-96	RT1N141M	R333	032-0140-89	1/10W 47k ohm(F)	R804	033-4711-15	1/16W 470 ohm
Q405	125-2198-90	KRC110S	R334	032-0140-89	1/10W 47k ohm(F)	R805	033-4721-15	1/16W 4.7k ohm
Q409	125-0021-95	DTA143ZUA	R335	032-0140-89	1/10W 47k ohm(F)	R806	033-4721-15	1/16W 4.7k ohm
Q409	125-0034-96	RT1P436M	R344	119-1021-15	1/10W 1k ohm	R807	116-3391-15	1/4W 3.3 ohm
Q413	125-4012-90	KTD1304	R346	119-1041-15	1/10W 100k ohm	R808	119-0000-05	1/10W 0 ohm JW
Q414	125-4012-90	KTD1304	R347	119-1041-15	1/10W 100k ohm	R809	119-0000-05	1/10W 0 ohm JW
Q500	125-4024-90	3DG3875	R408	033-8221-15	1/16W 8.2k ohm	R810	119-2231-15	1/10W 22k ohm
Q501	125-3014-90	ISA1602AM1	R409	119-1021-15	1/10W 1k ohm	R811	119-1531-15	1/10W 15k ohm
Q501	190-1576-00	2SA1576A	R410	033-1021-15	1/16W 1k ohm	R812	119-2231-15	1/10W 22k ohm
Q502	125-3014-90	ISA1602AM1	R411	033-4711-15	1/16W 470 ohm	R813	119-2231-15	1/10W 22k ohm
Q502	190-1576-90	2SA1576A	R412	033-2231-15	1/16W 22k ohm	R815	033-6811-15	1/16W 680 ohm
Q503	125-2027-91	DTC114EUA	R413	033-4721-15	1/16W 4.7k ohm	R817	033-6811-15	1/16W 680 ohm
Q503	125-2041-92	RT1N141M	R424	033-1231-15	1/16W 12k ohm	R818	033-6831-15	1/16W 68k ohm
Q504	125-2027-92	DTC124EUA	R425	119-0000-05	1/10W 0 ohm JW	R820	119-1011-15	1/10W 100 ohm
Q504	125-2041-93	RT1N241M	R427	033-1021-15	1/16W 1k ohm	R821	119-1011-15	1/10W 100 ohm
Q505	125-0021-91	DTA114EUA	R428	033-1021-15	1/16W 1k ohm	R825	119-3921-15	1/10W 3.9k ohm
Q505	125-0034-92	RT1P141M	R429	033-1021-15	1/16W 1k ohm	R826	119-3921-15	1/10W 3.9k ohm
Q515	125-2027-92	DTC124EUA	R430	033-1021-15	1/16W 1k ohm	R827	119-3921-15	1/10W 3.9k ohm
Q515	125-2041-93	RT1N241M	R446	033-1031-15	1/16W 10k ohm	R828	033-2731-15	1/16W 27k ohm
			R453	119-3311-15	1/10W 330 ohm	R829	033-1021-15	1/16W 1k ohm

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
R830	033-1011-15	1/16W 100 ohm	R850	033-1031-15	1/16W 10k ohm	R871	032-0140-50	1/10W 10k ohm(F)
R831	033-2221-15	1/16W 2.2k ohm	R851	033-1031-15	1/16W 10k ohm	R872	119-6221-15	1/10W 6.2k ohm
R832	033-2221-15	1/16W 2.2k ohm	R853	119-2721-15	1/10W 2.7k ohm	R873	119-1031-15	1/10W 10k ohm
R833	033-2221-15	1/16W 2.2k ohm	R854	119-1021-15	1/10W 1k ohm	R874	119-6221-15	1/10W 6.2k ohm
R834	119-2201-15	1/10W 22 ohm	R855	119-1021-15	1/10W 1k ohm	R875	119-6821-15	1/10W 6.8k ohm
R835	033-3321-15	1/16W 3.3k ohm	R856	119-1021-15	1/10W 1k ohm	R876	033-3331-15	1/16W 33k ohm
R836	033-1511-15	1/16W 150 ohm	R857	119-1021-15	1/10W 1k ohm	R877	033-3331-15	1/16W 33k ohm
R837	033-2231-15	1/16W 22k ohm	R858	033-1031-15	1/16W 10k ohm	S501	013-6100-00	SWITCH
R839	119-4701-15	1/10W 47 ohm	R859	033-1031-15	1/16W 10k ohm	SUP202	060-0122-20	DSP-141N9S00B
R840	119-3301-15	1/10W 33 ohm	R860	033-1031-15	1/16W 10k ohm	T101	009-9006-60	0.23mH
R841	119-1511-15	1/10W 150 ohm	R861	033-1031-15	1/16W 10k ohm	T101	009-9006-70	CHOKE
R842	119-1511-15	1/10W 150 ohm	R862	119-6831-15	1/10W 68k ohm	X201	061-3013-00	4.33MHz
R845	033-0000-05	0.5A 0 ohm	R863	119-2231-15	1/10W 22k ohm	X501	061-1056-00	32.768kHz
R846	033-0000-05	0.5A 0 ohm	R865	119-3351-15	1/10W 3.3m ohm	X502	061-3562-90	13.5MHz
R847	033-0000-05	0.5A 0 ohm	R866	033-1031-15	1/16W 10k ohm	X801	060-1535-90	16.9344MHz
R848	033-0000-05	0.5A 0 ohm	R867	119-1031-15	1/10W 10k ohm	PWB	039-3207-00	PWB(WITHOUT COMPONENT)
R849	033-1031-15	1/16W 10k ohm	R870	032-0140-54	1/10W 22k ohm(F)			

Switch PWB(B2) section

The same parts for PE-3050E-A/B/C

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C701	043-1841-90	0.047uF	Q713	125-2027-92	TRANSISTOR	S703	013-6312-50	SWITCH
C702	043-1841-90	0.047uF	Q713	125-2041-93	RT1N241M	S704	013-6312-50	SWITCH
C703	043-1841-90	0.047uF	Q714	125-2027-92	TRANSISTOR	S705	013-6312-50	SWITCH
C704	043-1800-90	1000pF	Q714	125-2041-93	RT1N241M	S706	013-6312-50	SWITCH
C705	042-0423-97	16V 10uF TAN	R701	119-3311-15	1/10W 330 ohm	S707	013-6312-50	SWITCH
C707	043-1841-90	0.047uF	R702	119-3931-15	1/10W 39k ohm	S709	013-6312-50	SWITCH
D702	001-4907-90	PG05GBUSU	R703	119-1041-15	1/10W 100k ohm	S710	013-6312-50	SWITCH
D705	001-4301-29	HZU5.1B2	R704	119-3921-15	1/10W 3.9k ohm	S711	013-6312-50	SWITCH
D706	001-4301-29	HZU5.1B2	R709	119-4721-15	1/10W 4.7k ohm	S713	013-6312-50	SWITCH
D707	001-4907-90	PG05GBUSU	R715	119-1021-15	1/10W 1k ohm	S714	013-6312-50	SWITCH
D708	001-4907-90	PG05GBUSU	R716	119-1021-15	1/10W 1k ohm	S715	013-6312-50	SWITCH
D717	001-4301-29	HZU5.1B2	R717	119-1021-15	1/10W 1k ohm	S716	013-6312-50	SWITCH
D718	001-4301-41	HZU7.5B2	R718	119-1021-15	1/10W 1k ohm	S717	013-6312-50	SWITCH
D720	001-4301-51	HZU10B3	R723	119-0000-05	1/10W 0 ohm JW	S718	016-9901-02	VR W/SHAFT
IC701	051-6095-00	LC75857	S701	013-6312-50	SWITCH	PWB	039-3208-01	PWB(WITHOUT COMPONENT)
J701	076-0615-50	12P	S702	013-6312-50	SWITCH			
LCD701	379-1401-41	INDICATOR(LCD)						

The parts for PE-3050E-A

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
D711	001-7114-90	LWL38G-Q1R2	D716	001-7114-90	LWL38G-Q1R2	R719	119-4711-15	1/10W 470 ohm
D712	001-7114-90	LWL38G-Q1R2	R705	119-1221-15	1/10W 1.2k ohm	R720	119-4711-15	1/10W 470 ohm
D713	001-7114-90	LWL38G-Q1R2	R706	119-4711-15	1/10W 470 ohm	R724	119-1221-15	1/10W 1.2k ohm
D714	001-7114-90	LWL38G-Q1R2	R713	119-4711-15	1/10W 470 ohm	R725	119-4711-15	1/10W 470 ohm
D715	001-7114-90	LWL38G-Q1R2	R714	119-4711-15	1/10W 470 ohm			

The parts for PE-3050E-B

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
D711	001-7115-90	VFA1111C-4B93B	R700	119-5611-15	1/10W 560 ohm	R719	119-1011-15	1/10W 100 ohm
D712	001-7115-90	VFA1111C-4B93B	R705	119-5611-15	1/10W 560 ohm	R720	119-1011-15	1/10W 100 ohm
D713	001-7115-90	VFA1111C-4B93B	R706	119-5611-15	1/10W 560 ohm	R724	119-5611-15	1/10W 560 ohm
D714	001-7115-90	VFA1111C-4B93B	R713	119-1011-15	1/10W 100 ohm	R725	119-5611-15	1/10W 560 ohm
D715	001-7115-90	VFA1111C-4B93B	R714	119-1011-15	1/10W 100 ohm	R726	119-5611-15	1/10W 560 ohm
D716	001-7115-90	VFA1111C-4B93B						

The parts for PE-3050E-C

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
D711	001-7115-91	VUG1111C-4BX3B	D716	001-7115-91	VUG1111C-4BX3B	R719	119-1511-15	1/10W 150 ohm
D712	001-7115-91	VUG1111C-4BX3B	R705	119-8211-15	1/10W 820 ohm	R720	119-1511-15	1/10W 150 ohm
D713	001-7115-91	VUG1111C-4BX3B	R706	119-4711-15	1/10W 470 ohm	R724	119-8211-15	1/10W 820 ohm
D714	001-7115-91	VUG1111C-4BX3B	R713	119-1511-15	1/10W 150 ohm	R725	119-4711-15	1/10W 470 ohm
D715	001-7115-91	VUG1111C-4BX3B	R714	119-1511-15	1/10W 150 ohm			

AUX PWB(B3) section

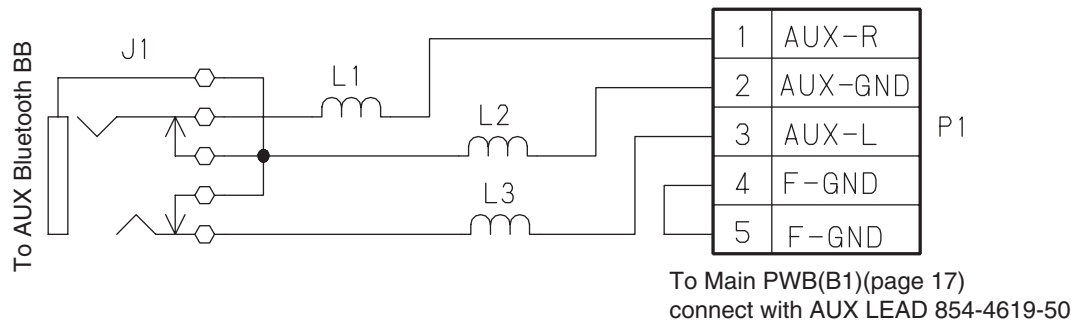
REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
J1	075-9021-50	JACK	L3	010-3105-67	1k ohm/100MHz	PWB	039-3209-00	PWB(WITHOUT COMPONENT)
L1	010-3105-67	1k ohm/100MHz	P1	076-0502-55	5P			
L2	010-3105-67	1k ohm/100MHz						

ISO PWB(B4) section

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
J401	074-1285-00	18P	JW3	999-0150-06	JUMPER WIRE	FUSE	060-0057-57	AUTO FUSE(15A)
JW1	999-0150-06	JUMPER WIRE	JW4	999-0150-06	JUMPER WIRE	PWB	039-3036-00	PWB(WITHOUT COMPONENT)
JW2	999-0150-06	JUMPER WIRE	JW5	999-0150-06	JUMPER WIRE			

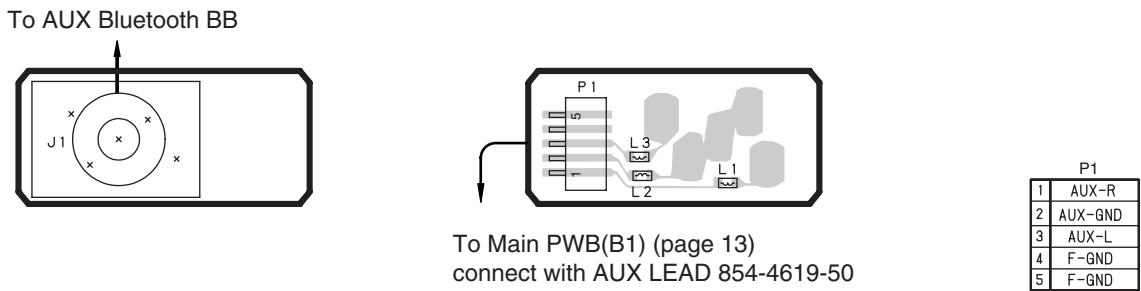
CIRCUIT DIAGRAM 1/6

AUX PWB(B3) section



PRINTED WIRING BOARD 1/4

AUX PWB(B3) section



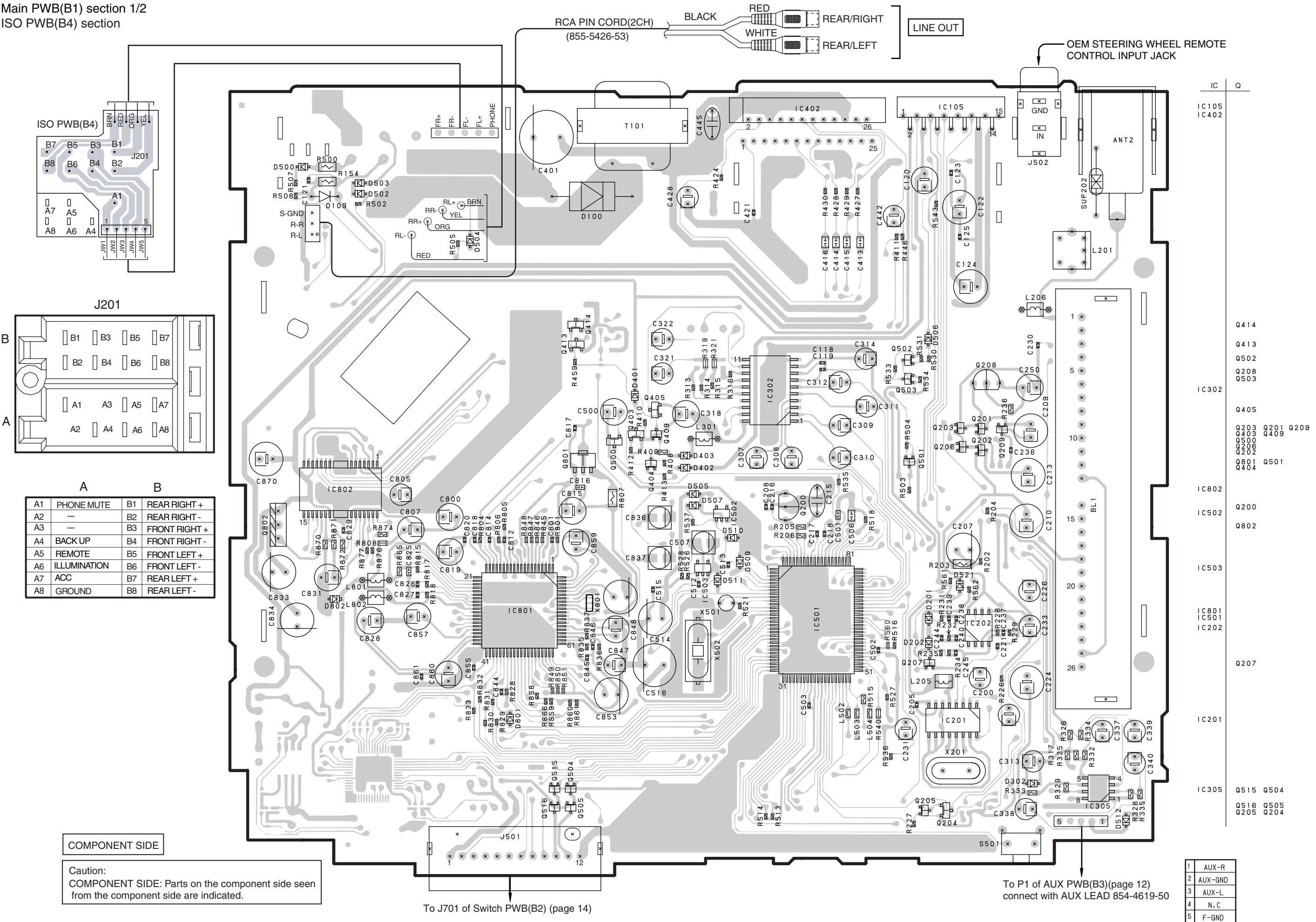
COMPONENT SIDE

SOLDER SIDE

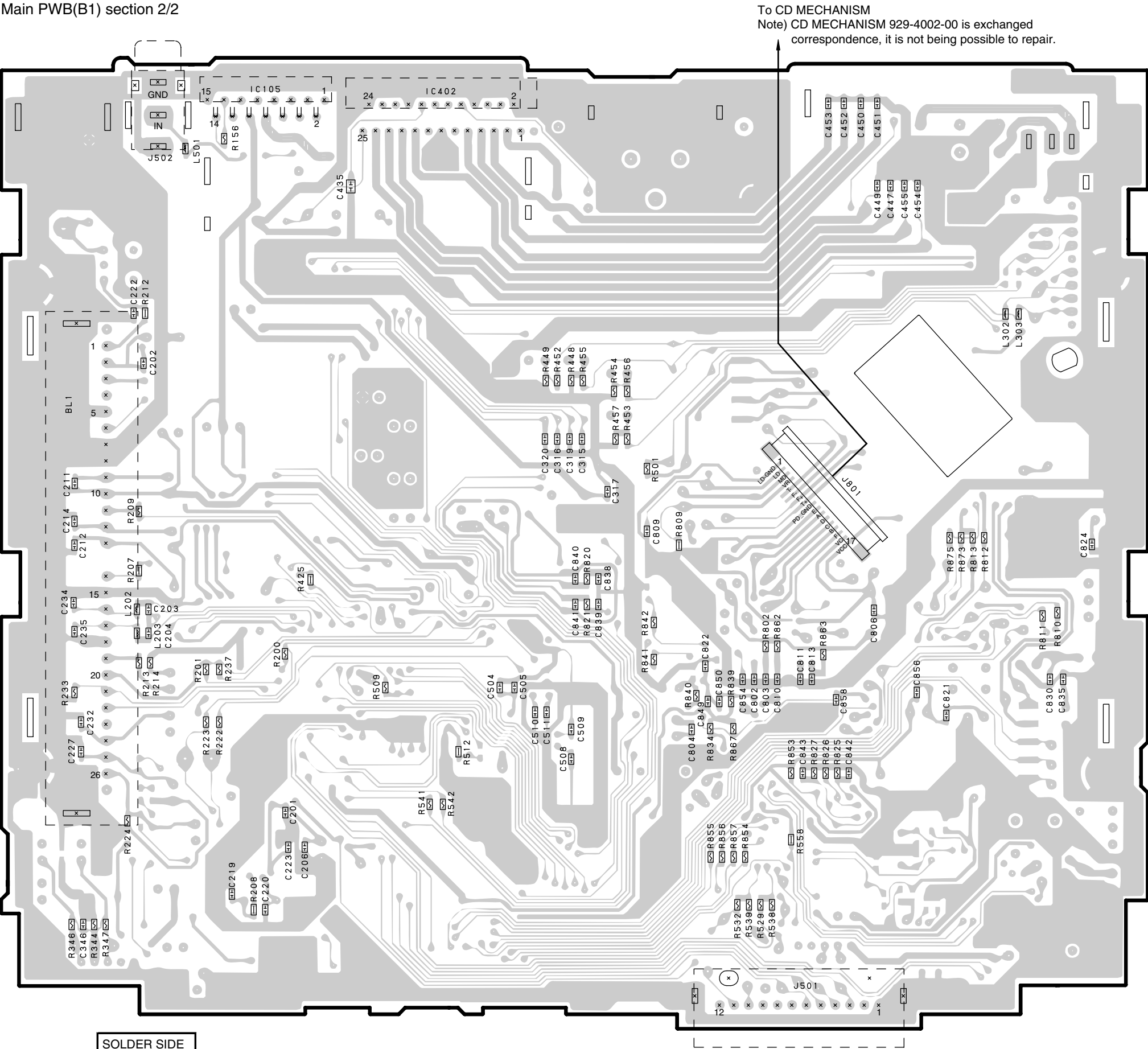
Caution:
COMPONENT SIDE: Parts on the component side seen from the component side are indicated.
SOLDER SIDE: Parts on the solder side seen from the solder side are indicated.

PRINTED WIRING BOARD 2/4

Main PWB(B1) section 1/2
ISO PWB(B4) section



PRINTED WIRING BOARD 3/4
Main PWB(B1) section 2/2



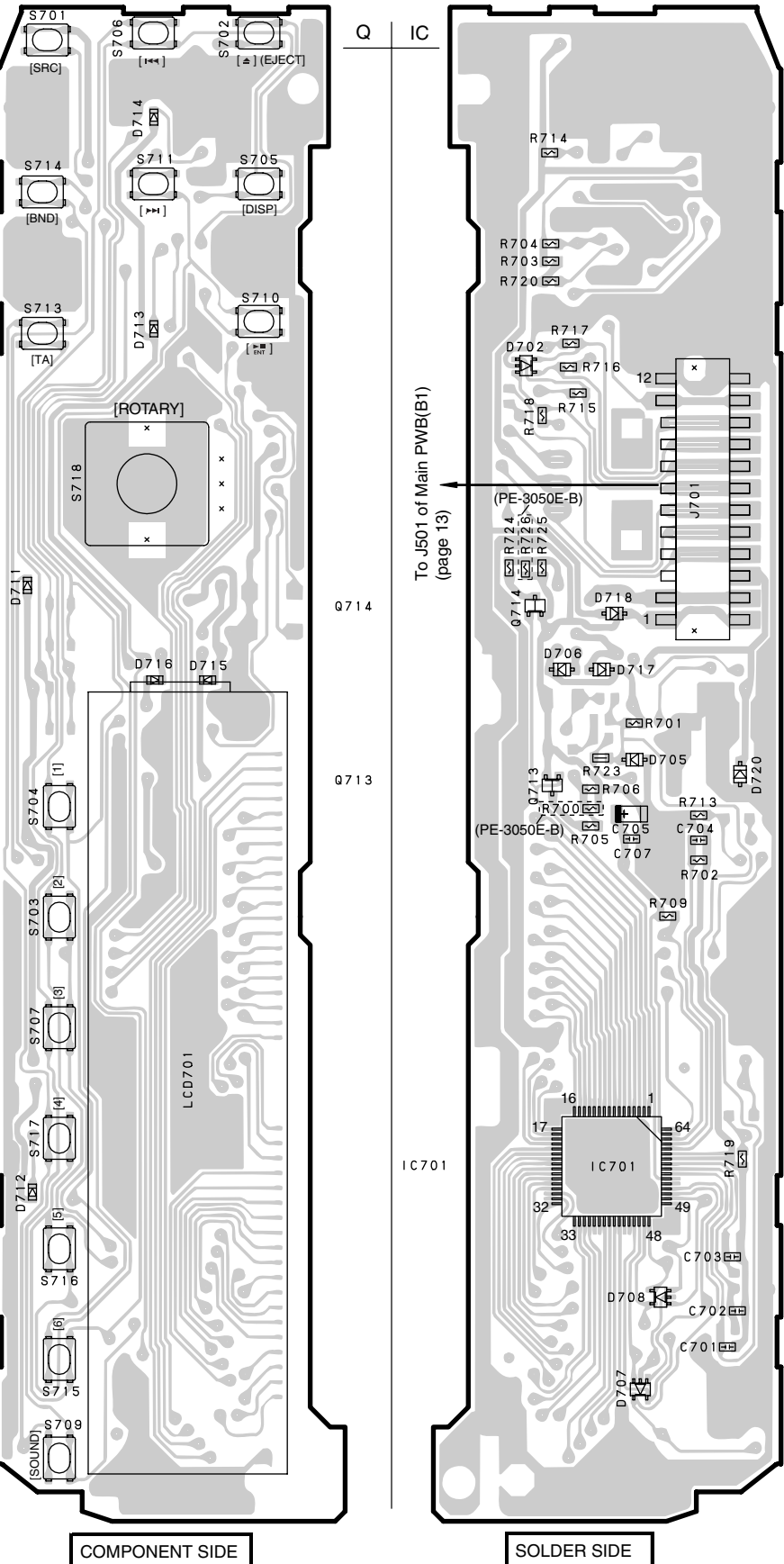
SOLDER SIDE

Caution:
SOLDER SIDE: Parts on the solder side seen from the solder side are indicated.

The parts of a dashed line express the parts on a component side.

To CD MECHANISM
Note) CD MECHANISM 929-4002-00 is exchanged
correspondence, it is not being possible to repair.

PRINTED WIRING BOARD 4/4
Swiche PWB(B2) section



COMPONENT SIDE

Caution:
COMPONENT SIDE: Parts on the component side seen from the component side are indicated.
SOLDER SIDE: Parts on the solder side seen from the solder side are indicated.

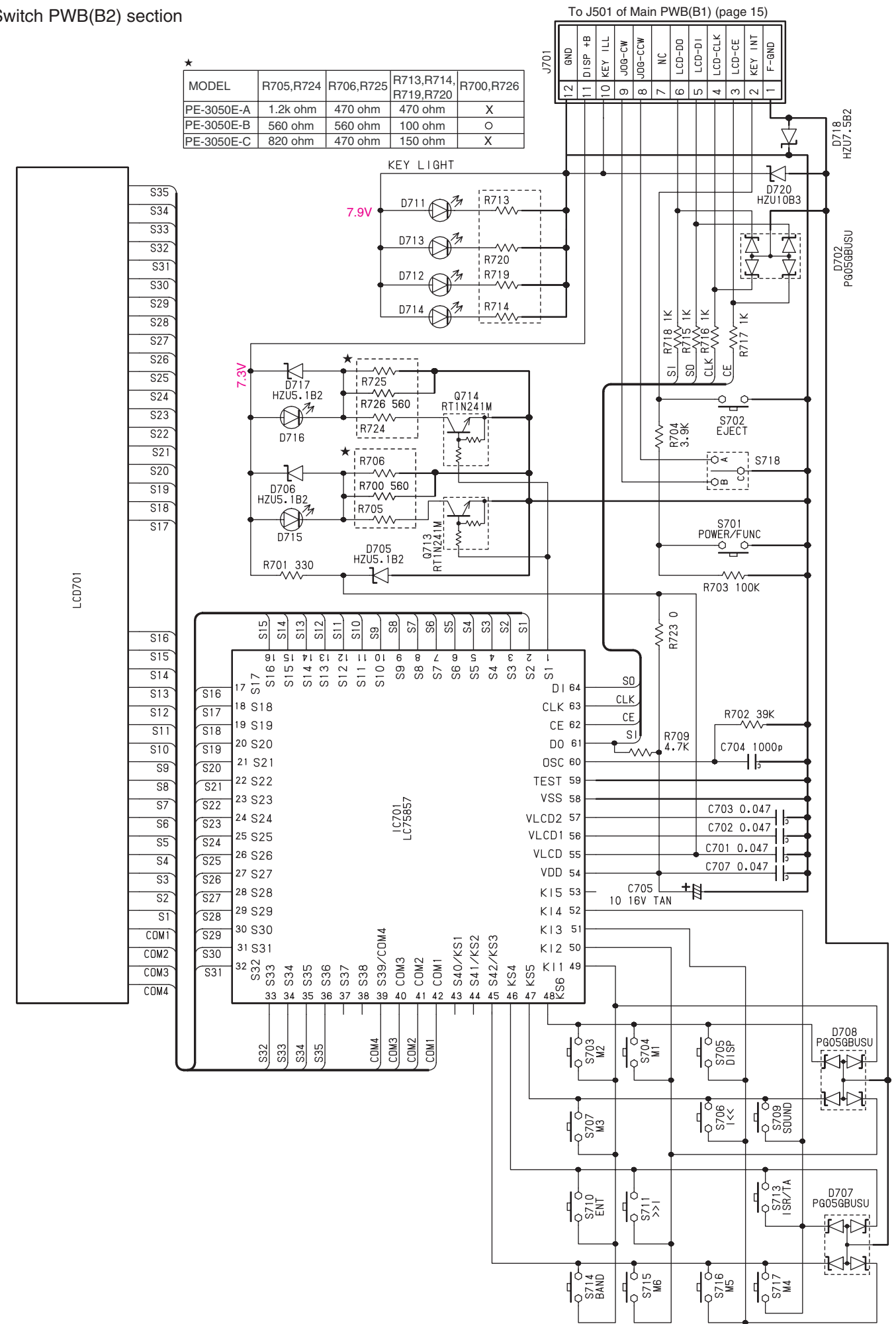
Main PWB(B1) section 1/4



Main PWB(B1) section 2/4



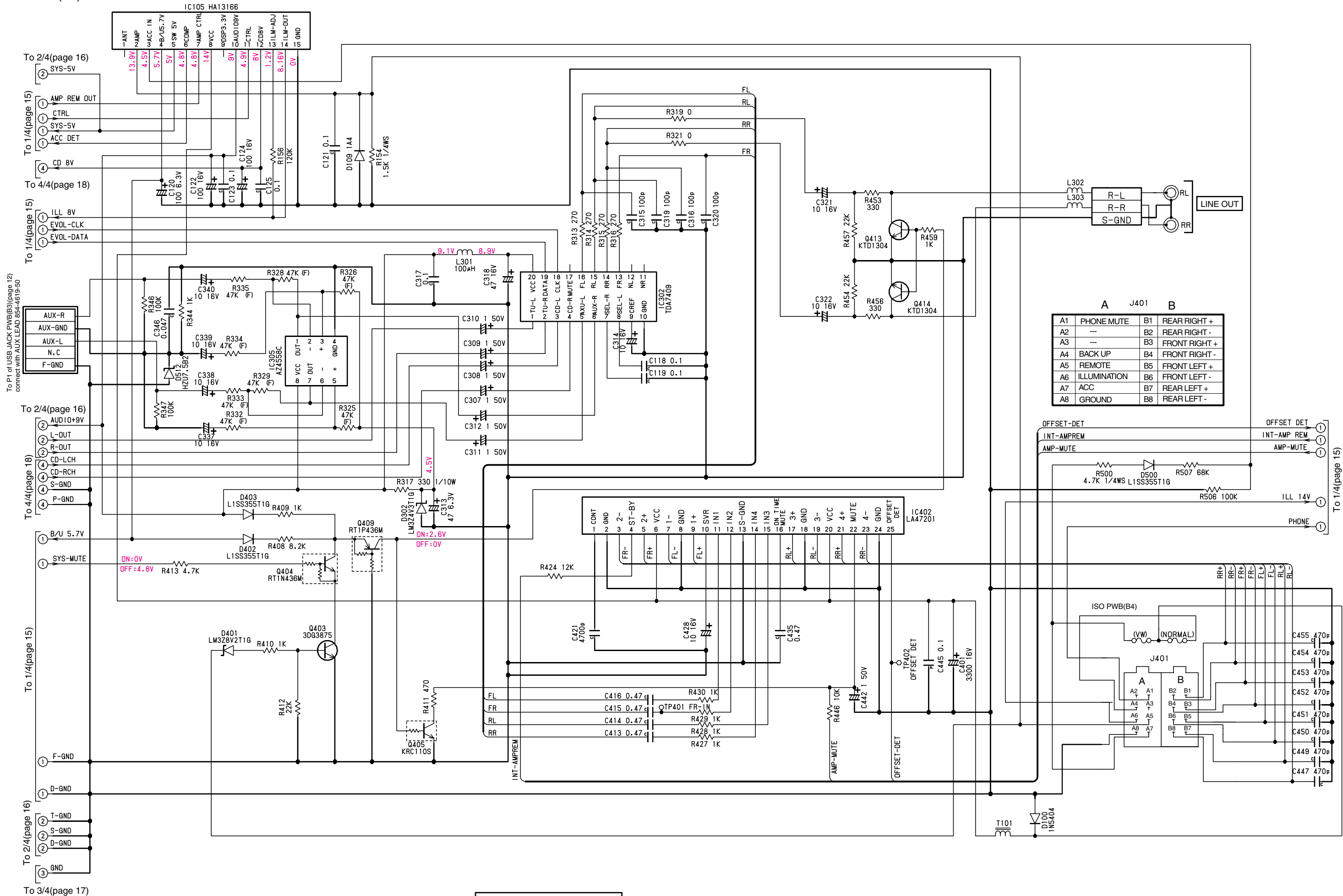
Switch PWB(B2) section



CIRCUIT DIAGRAM 5/6

Main PWB(B1) section 3/4

ISO PWB(B4) section



CIRCUIT DIAGRAM 6/6
Main PWB(B1) section 4/4

