Clarion Co., Ltd.
50 Kamitoda, Toda-shi, Saitama 335-8511 Japan
Service Dept.: 5-66 Azuma , Kitamoto-shi, Saitama 364-0007 Japan
Tel: +81-48-541-2335 / 2432 FAX: +81-48-541-2703

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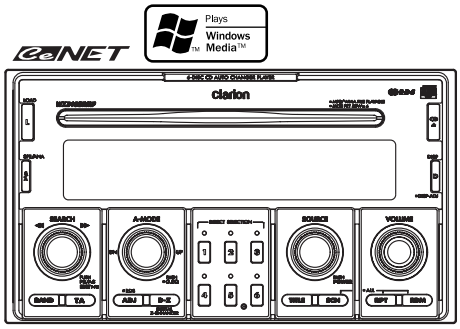
Service Manual



2-DIN 6-disc
CD/MP3/WMA Receiver
/ CeNET Control

Model ***WXZ468RMP***
(PE-2758E)

LF

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.

NOTES

* As for this model, CCC-TUNER is used.
  When you exchange it due to the tuner pack (BL1:880-2150A) trouble, it is necessary to adjust for S-meter etc. Special JIG is necessary for an accurate adjustment. The procedure document for the exclusive use jig is appended to it.
* Use only compact discs bearing the COMPACT disc DIGITAL AUDIO or COMPACT disc DIGITAL AUDIO TEXT mark.
* Some CDs recorded in CD-R/CD-RW mode may not be usable.
* This product includes technology owned by Microsoft Corporation and cannot be used or distributed without a license from MSLGP.
* Windows Media™ and Windows®logo are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries.
* 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.

SPECIFICATIONS

Radio section

Tuning system:	PLL frequency synthesizer system
Receive range:	FM 87.5MHz to 108MHz (0.05MHz steps) MW 531kHz to 1,602kHz (9kHz steps) LW 153kHz to 279kHz (3kHz steps)

CD player section

System:	Compact disc digital audio system
Usable discs:	Compact disc
Frequency response:	10Hz to 20kHz(+/-1dB)
Signal to noise ratio:	90dB(1kHz)
Dynamic range:	90dB(1kHz)
Harmonic distortion:	0.01%
Channel separation:	75dB(1kHz)
MP3/WMA mode:	MP3 ; Sampling rate 11.025kHz - 48kHz Bit rate : 8kbps - 320kbps / VBR WMA;Bit rate;48kbps-192kbps/VBR Logical format(File system); ISO9660 level 1, 2 or JOLIET or Romeo

Audio amplifier section

Output power:	27W x 4ch (DIN 45324, +B=14.4V)
Continuous average power output:	17W x 4ch (4 ohm, 20Hz to 20kHz, 1%THD)
Bass control action:	+14dB, -12dB(60Hz/80Hz/120Hz)
Treble control action:	+/-12dB(8kHz/12kHz)
9 Band-G-EQ:	1 oct step GAIN +/-12dB (63Hz to 16kHz)
Line output level:	1.8V(CD 1kHz)

General

Power supply voltage:	14.4V DC (10.8V to 15.6V allowable)
Ground:	Negative
Current consumption:	Less than 15A, 3A
Speaker impedance:	4 ohm(4 ohm to 8 ohm)
Dimensions(mm):	178(W) x 100(H) x 160(D)
Weight:	2.3kg

COMPONENTS

PE-2758E-A

1.	Main unit	----------	1
2.	Extension lead	854-6418-50	1
2-1.	FUSE(3A)	120-0030-00	1
2-2	FUSE(15A)	120-0150-00	1
3.	Parts bag	----------	1
3-1.	Finisher	383-0591-00	1
3-2.	Parts bag	----------	1
3-2-1.	Machine screw(M5 x 8)	714-5008-4B	8
3-2-2.	Hex-head screw(M5 x 8)	716-0496-51	8
3-2-3.	Spacer	340-1581-00	8
3-2-4.	Double face	347-3913-20	2

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 ploblems 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℃. 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.

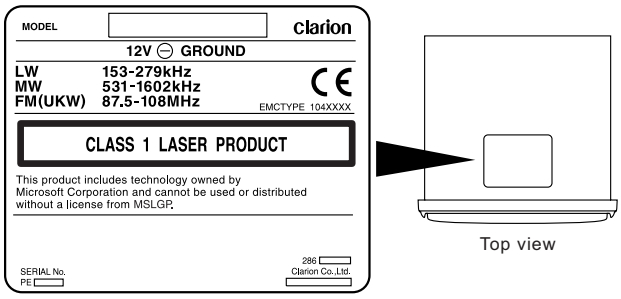
11-1. Laser diode
The laser diode terminals are shorted for transportation in order to prevent electrostatic damage. After replacement, open the shorted circuit. When removing the pickup from the mechanism, short the terminals by soldering them to prevent this damage.

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 appilance 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 to open the enclosure.



SYSTEM CHECK

This function verifies the devices hooked up through CeNET.

1. Press the [ADJ] button to switch to the adjust mode.
2. Turn the [SEARCH] knob to select "SYS CHECK" .
3. Press and hold the [SEARCH] knob for 1 second or longer to start the system check.
   The digital connection configuration is automatically checked.
   When the system check is complete, the display returns to the previous mode.

ANTI-THEFT INDICATOR

The red Anti-theft indicator is a function for detering theft.
The disc indicator for the [DIRECT] button "2" blinks.

* The factory default setting is "OFF".

1. Press the [ADJ] button to switch to the adjust mode.
2. Turn the [SEARCH] knob to select "BLINK LED".
3. Turn the [A-MODE] knob to select "ON" or "OFF".
4. Press the [ADJ] button to return to the previous mode.

NOTES OF ISO CONNECTOR

1. For VW/Audi/Opel/Vauxhall vehicles, change the position of fuse installation as shown on the diagram. (Figure 1)

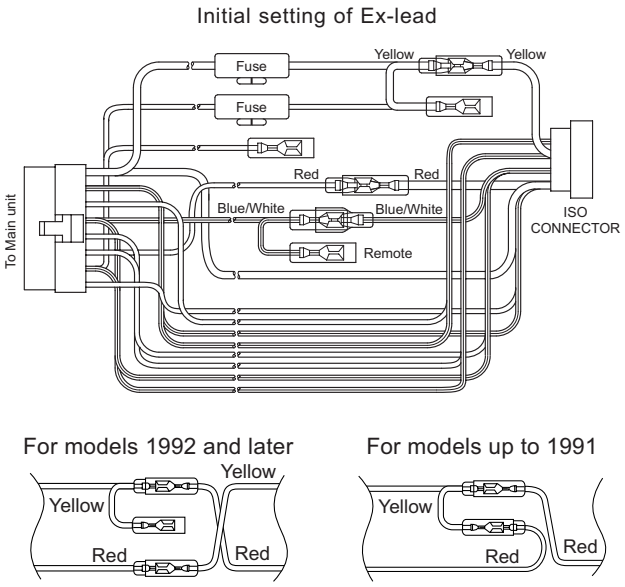


Figure 1

2. When the car stereo is installed in 1998 and later Volkswagen models, remove the auto antenna leads (A-5:Blue/White). Be sure to insulate both the ISO connector side terminal and the main unit side terminal with insulation tape, respectively. (Figure 2)

3. When the main unit is also connected to an external am plifier, connect REMOTE on the external amplifier to remote turn-on lead.

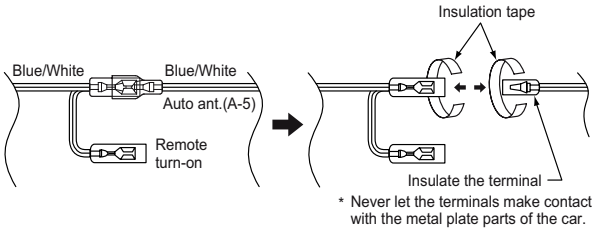
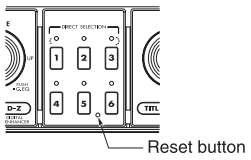


Figure 2

TROUBLE SHOOTING

	Problem	Cause	Measure
General	Power does not turn on. (No sound is produced.)	Fuse is blown.	Replace with a fuse of the same amperage(3A,15A).
	Nothing happens when buttons are pressed.	The microprocessor has malfunctioned due to noise, etc.	Press the reset button for about 2 seconds with a thin rod. 
	"Push EJECT" is displayed.	Something is wrong with disc or mechanism.	Press the [⏏] button to avoid the trouble. If the situation is not improved despite you press the [⏏] button several times.
	"FAIL**** " is displayed.	Anti-theft function is out of order.	Press and hold the reset button for 2 seconds or longer.
CD/MP3	No audio.	MP3/WMA files are absent on the 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 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.
	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	**ERROR 3**	A DISC cannot be played due to scratches, etc.	Replace with a non-scratched disc.
	ERROR 4	A foreign object is pinched in the DISC slot, or the shutter is damaged due to opening the shutter forcibly, etc.	Remove the object inside the slot. If there is no foreign object or the situation is not improved in spite of removing it.
	ERROR 6	A DISC is loaded upside-down inside the CD deck and cannot play.	Eject the disc then reload it properly.
CD changer	**ERROR 2**	A DISC inside the CD changer is not loaded properly.	This is a failure of CD changer's mechanism.
	ERROR 3	A DISC inside the CD changer cannot be played due to scratches, etc.	Replace with a non-scratched disc.
	ERROR 6	A DISC inside the CD changer cannot be played because it is loaded upside-down.	Eject the disc then reload it properly.
DVD changer	**ERROR 2**	A DISC inside the DVD changer is not loaded properly.	This is a failure of DVD mechanism.
	ERROR 3	A DISC cannot be played due to scratches, etc.	Retry or replace with a non-scratched disc.
	ERROR 6	A DISC inside the DVD changer cannot be played because it is loaded upside-down.	Eject the disc then reload it properly.
	ERROR P	Parental level error	Set the correct Parental level.
	ERROR R	Region code error	Eject the disc and replace correct region code disc.

If an error display other than the ones described above appears, press the reset button.
If the problem persists, turn off the power.

SELF-DIAGNOSIS FUNCTION

Model name/Inducing/Micom version confirmation

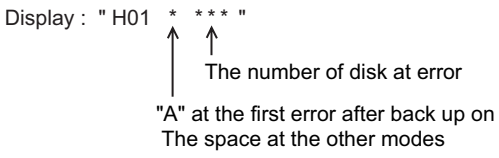
1. Press the [ADJ] button to switch to the adjust mode.
2. Turn the [SEARCH] knob to select "SYS CHECK" .
   * Micom version display :
     Keep pressing the [1] button until the display changes.
     Display : " MAIN *. ** "
   * Mechanism micom version display :
     Keep pressing the [2] button until the display changes.
     Display : " MECH **. ** "
   * Model name display and inducing display :
     Keep pressing the [3] button until the display changes.
     Display : " * PE275** "
   * CCC-TUNER version display :
     Keep pressing the [4] button until the display changes.
     Four items of the following are switched with the [SEARCH] knob.
     (1) E2PROM Version display : " E2pVer_*** "
     (2) MapType display : " MapType_** "
     (3) Test Version : " TestVer_** "
     (4) Tuner Hardware Version : " Hard___*** "
   * Keep pushing the [5] button until VFD turn on all the light.
   * Keep pushing the [6] button until VFD turn off all the light.

   When the micom version is displayed, press the [FUNC] key. Then the micom version display is canceled, enters the state of POWER ON.
   When ACC is set to ON from OFF, the micom version display is canceled, too.

Error history confirmation

Take out the disc of the main unit before confirming the error history.

1. Press the [ADJ] button to switch to the adjust mode.
2. Turn the [SEARCH] knob to select "SYS CHECK" .
3. Press the [SCN] button and the [RDM] button at the same time for two seconds or more.

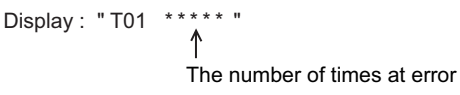


It is possible to switch from "H01" to "H20" with the [SEARCH] knob.
The number of mechanism errors exceeds 20 and a new error occurs, the content of the latest error enters "H01".

* Press the [1] button for one second or more when returning it except the error history confirmation mode.

Error frequency confirmation

1. Press the [2] button for one second or more at the error history confirmation mode.



Clearing the error history and frequency

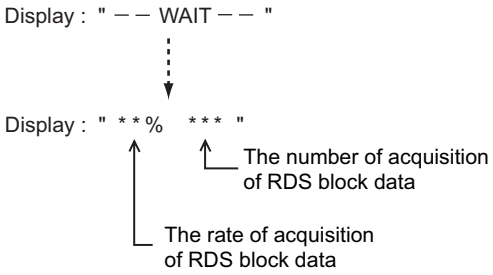
1. Press the [3] button for two seconds or more at the error history confirmation mode.
2. Press and hold the [6] button pressing the [4] button while displaying as EEP.

Display : " EEP CL3 " → " EEP CL2 " → " EEP CL1 "
→ " EEP CL1 " → " EEP CL— "

3. The error history and frequency are cleared.
4. When ACC is set to ON from OFF, the error history and frequency are cleared again.

RDS error count confirmation

1. Press the [SCN] button and the [1] button at the same time to the tuner mode.



ADJUSTMENT OF CCC-TUNER : 880-2150A

The data of receiving area and adjustment point are written in the memory of a spare tuner pack. It is possible to receive a broadcast with no adjustment. However, please adjust it to use the unit with the better conditions.

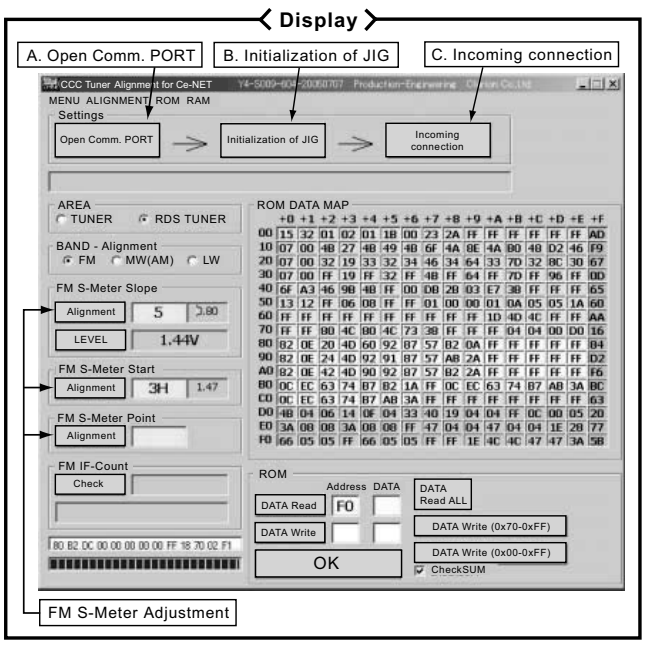
Measuring instrument

1. Personal computer with Windows98SE/WindowsME/ Windows2000 or WindowsXP operating system
2. Adjustment software : CCC-TUNER Alignment for CeNET soft
3. CeNET analyzer
4. SG
5. AM ANT Dummy box

Writing the parameter

[Strat up]

1. Install the adjustment software in the personal computer.
2. Connect the unit to the personal computer with the CeNET analyzer.
3. Open the adjustment software in the computer, and turn on the unit.



4. Click the " A. Open Comm.PORT " button of the display. The communication of the personal computer and the analyzer starts.
5. Click the " B. Initialization of JIG " button of the display. The personal computer sends the command for operation of the analyzer.
6. Click the " C. Incoming connection " button of the display. The unit recognizes the external jig. The preparation completes.

[Setting of reception band]

1. The indicator blinks according to the reception when the connected processing ends normally.
2. The adjustment band is automatically set by the main microcomputer of the unit and memorized in EEPROM in CCC-TUNER.
3. Press the reset button of the unit to set the data.

Adjustment for S-meter

1. Connect the antenna input terminal of the unit to S.S.G.
2. Adjustment in order of Slope, Start and Point.
   The reception frequency of the set is as follows.
   * Reception frequency of FM : 98.1MHz
   * Reception frequency of MW : 999kHz
   * Reception frequency of LW : 216kHz

   Click the " Alignment " button of [FM S-Meter Slope] of the display. Then, a set level of SG is displayed.
   Set the ATT value of SG to the level.
   Input 26dBu at this unit. Click the " OK " button, and the acquisition of the first data starts.
3. A set level of SG is displayed again after a while.
   Change the ATT value of SG to the level.
   Input 46dBu at this unit.
4. When the adjustment is completed, it is displayed with " COMPLETED ". Then click the " OK " button.
   The acquired value is displayed in the display.
5. Click the " Alignment " button of [FM S-Meter Start] of the display. Set the ATT value of SG to the level. Input 26dBu at this unit.
6. When the adjustment is completed, it is displayed with " COMPLETED ". Then click the " OK " button.
   The acquired value is displayed in the display.
7. Click the " Alignment " button of [FM S-Meter Point] of the display. Set the ATT value of SG to the level. Input 46dBu at this unit.
8. When the adjustment is completed, it is displayed with " COMPLETED ". Then click the " OK " button.
   The acquired value is displayed in the display.
9. The adjustment of FM was completed.
   Change the reception band of the unit to MW, and adjust MW in the order from " Slope " as well as FM.
   After adjusting MW, adjust LW as well as MW.
10. After all the adjustments, press the reset button of the unit to set the data.

Confirmation after all adjustments

Reconfirm the version of the parameter file after all adjustments are completed.

1. Press the [ADJ] button to switch to the adjust mode.
2. Turn the [SEARCH] knob to select "SYS CHECK" .
   * Microcomputer version display : Keep pressing the [1] button until the display changes.
     Display : " MAIN *. ** "
   * Model name and destination display : Keep pressing the [3] button until the display changes.
     Display : " * PE***** "
   * CCC-TUNER version display : Keep pressing the [4] button until the display changes.
     Four items of the following are switched with the [SEARCH] knob.
     (1) E2PROM Version display : " E2pVer_*** "
     (3) Test Version : " TestVer_** "
     (2) MapType display : " MapType_** "
     (4) Tuner Hardware Version : " Hard___*** "

EXPLANATION OF IC

052-3404-10 uPD703272YGC-307-8EA-A System Controller

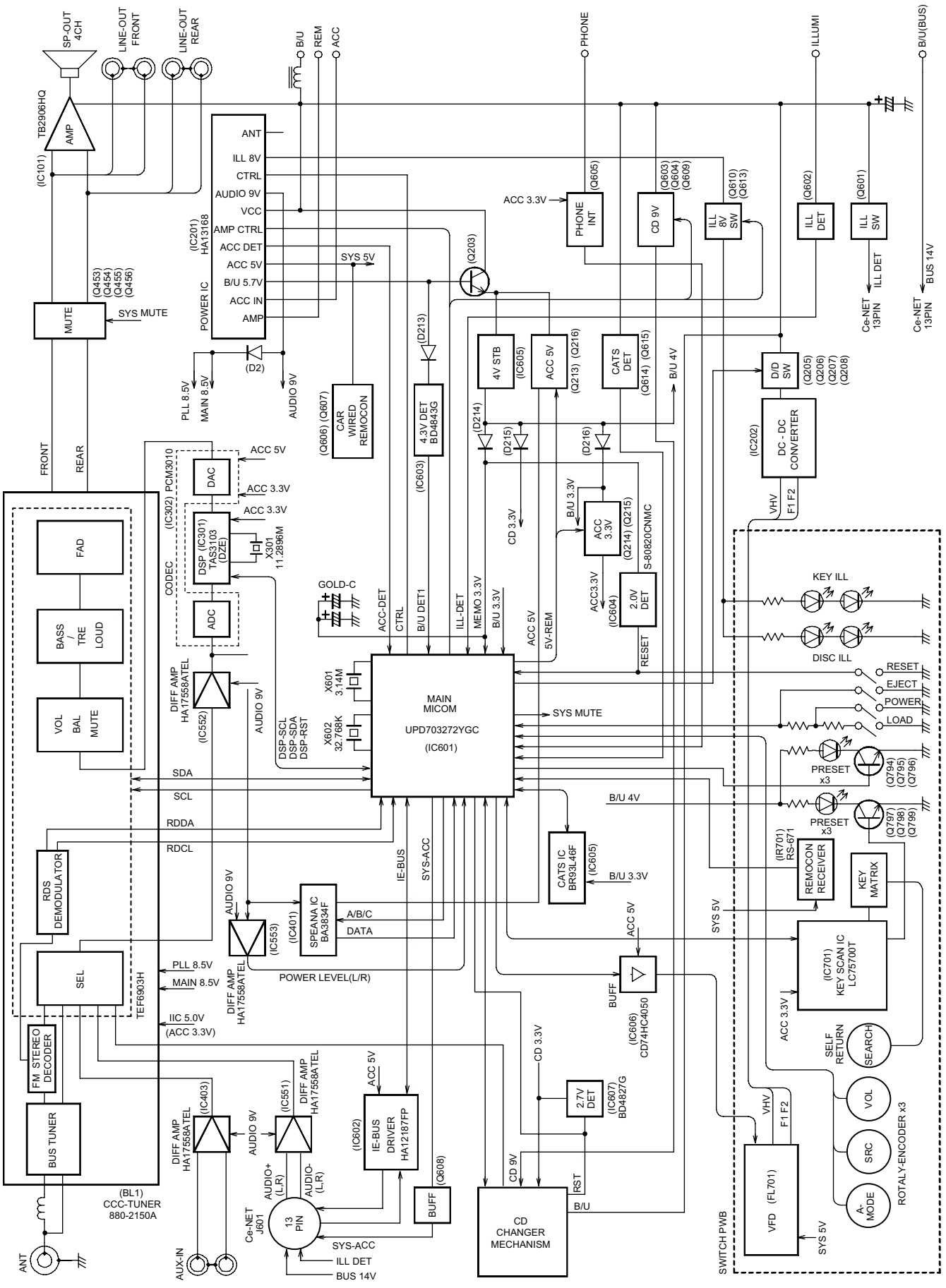
Terminal Description

pin 1: A Vref 0 : - : Reference voltage for the internal ADC.
pin 2: A VSS : - : Negative voltage supply for analog section.
pin 3: SYS ACC : O : ACC detect signal output.
pin 4: LINE SYS MU : O : The system muting command output.
pin 5: A Vref 1 : - : Reference voltage for the internal DAC.
pin 6: NU : IN : Not in use.
pin 7: AMP MUTE : O : Muting signal output to the Audio Power Amplifier.
pin 8: FLASH MODE : IN : The flash memory mode setting input.
pin 9: VDD : - : Positive voltage supply.
pin 10: REG C : - : The capacitor connection.
pin 11: GND : - : Ground.
pin 12: X 1 : - : The crystal connection.
pin 13: X 2 : - : The crystal connection.
pin 14: RESET : IN : Reset signal input.
pin 15: XT 1 : - : Crystal connection.
pin 16: XT 2 : - : Crystal connection.
pin 17: ILL DET : IN : Illumination ON signal input.
pin 18: CATS DET : IN : The backup voltage detection for CATS.
pin 19: BU DET 1 : IN : Backup-voltage detection to mute the audio signal.
pin 20: NU : IN : Not in use.
pin 21: ACC DET : IN : ACC detection signal input.
pin 22: DSP I2C SDA : I/O : I2C serial data input/output.
pin 23: DSP I2C SCL : O : I2C serial clock output.
pin 24: NU : IN : Not in use.
pin 25: FLASH TX : O : The serial data output for the flash memory.
pin 26: FLASH RX : IN : The serial data input for the flash memory.
pin 27: CATS DI : IN : Serial data input for CATS.
pin 28: CATS DO : O : Serial data output for CATS.
pin 29: CATS SCK : O : Serial clcock output for CATS.
pin 30: CATS CS : O : Chip select output for CATS.
pin 31: IE BUS TX : O : IE Bus serial data output.
pin 32: IE BUS RX : IN : IE Bus serial data input.
pin 33: E VSS : - : Ground.
pin 34: E VDD : - : Positive voltage supply.
pin 35: MECH SDA : I/O : The serial data input/output for GIX-MP3 mechanism.
pin 36: MECH SCL : O : The serial clock output for GIX-MP3 mechanism.
pin 37: MECH SRQ : IN : The request input from GIX-MP3 mechanism.
pin 38: MECH RESET : O : The reset signal output for GIX-MP3 mechanism.
pin 39: RDS TP 3 : O : The test point for RDS PI.
pin 40: NU : IN : Not in use.
pin 41: NU : IN : Not in use.
pin 42: DSP RESET : O : Reset signal output to the DSP IC.
pin 43: TUN SDA : I/O : I2BUS serial data input/output for the tuner pack.
pin 44: TUN SCL : O : I2BUS serial clock output for the tuner pack.
pin 45: TUN RD CL : IN : RDS serial clock input.
pin 46: TUN RD DA : IN : RDS serial data input.
pin 47: REMOCON : IN : Remote controller signal input terminal.
pin 48: VFD LAT : O : The latch strove signal output to the VFD driver.
pin 49: VFD BLANK : O : Blank pulse output to the VFD driver.
pin 50: MECHA MUTE : IN : Mechanism audio mute signal input.
pin 51: VFD DO : O : The serial data output to the VFD driver.
pin 52: VFD CLK : O : The clock pulse output to the VFD driver.
pin 53: CTRL : O : Power supply ON signal output.
pin 54: INT AMP REM : O : ON signal output to the internal Amplifier.
pin 55: NU : IN : Not in use.
pin 56: KEY INT : IN : Key interrupting signal input.
pin 57: NU : IN : Not in use.
pin 58: NU : IN : Not in use.
pin 59: 5V REM : O : ON signal output to the 5V power supply.
pin 60: CD 9V REM : O : 9V power supply ON signal output for CD. H=ON.
pin 61: MECH ACC : O : Mechanism ACC control signal output.
pin 62: CLK TEST : O : Sub clock test port.
pin 63: INIT 1 : IN : The initial setting input. Refer Table 1.
pin 64: INIT 2 : IN : The initial setting input. Refer Table 1.
pin 65: LED 1 : O : LED ON signal output. H=ON.
pin 66: LED 2 : O : LED ON signal output. H=ON.
pin 67: LED 3 : O : LED ON signal output. H=ON.
pin 68: NU : IN : Not in use.
pin 69: B VSS : - : Ground for the bus interface section.
pin 70: B VDD : - : Positive voltage supply for the bus interface section.
pin 71: KEY DI : IN : The serial data input from the Key scan IC.
pin 72: KEY DO : O : The serial data output to the Key scan IC.
pin 73: KEY CK : O : Clock pulse output to Key-IC.
pin 74: KEY CE : O : Chip enable output to Key-IC.
pin 75: KEY RESET : O : Reset pulse output to Key-IC.
pin 76: NU : IN : Not in use.
pin 77: VOL CW : IN : The pulse signal input from the rotary encoder.
pin 78: VOL CCW : IN : The pulse signal input from the rotary encoder.
pin 79: SOURCE CW : IN : The pulse signal input from the rotary encoder.
pin 80: SOURCE CCW : IN : The pulse signal input from the rotary encoder.
pin 81: A-MODE CW : IN : The pulse signal input from the rotary encoder.
pin 82: A-MOME CCW : IN : The pulse signal input from the rotary encoder.
pin 83: PHONE INT : IN : The telephone interrupt signal input.
pin 84: SPAN A : O : Spectrum analyzer frequency band selection signal output.
pin 85: SPAN B : O : Spectrum analyzer frequency band selection signal output.
pin 86: SPAN C : O : Spectrum analyzer frequency band selection signal output.
pin 87: ILL REM : O : Key illumination ON signal output. H=ON.
pin 88: DD REM : O : DC to DC Converter ON signal output. H=ON.
pin 89: SPAN DATA : IN : The serial data input from the spectrum analyzer.
pin 90: KEY AD : IN : Input terminal of A/D converter for Key judgment.
pin 91: NU : IN : Not in use.
pin 92: NU : IN : Not in use.
pin 93: LEVEL IN L : IN : Power level detection port.
pin 94: LEVEL IN R : IN : Power level detection port.
pin 95: NU : IN : Not in use.
pin 96: NU : IN : Not in use.
pin 97: RDS TP 1 : O : The test point for RDS.
pin 98: RDS TP 2 : O : The test point for RDS.
pin 99: EXT AMP REM : O : ON signal output to the external Amplifier.
pin100: A ANT REM : O : The automatic antenna control signal output.

Table 1. The initial setting input

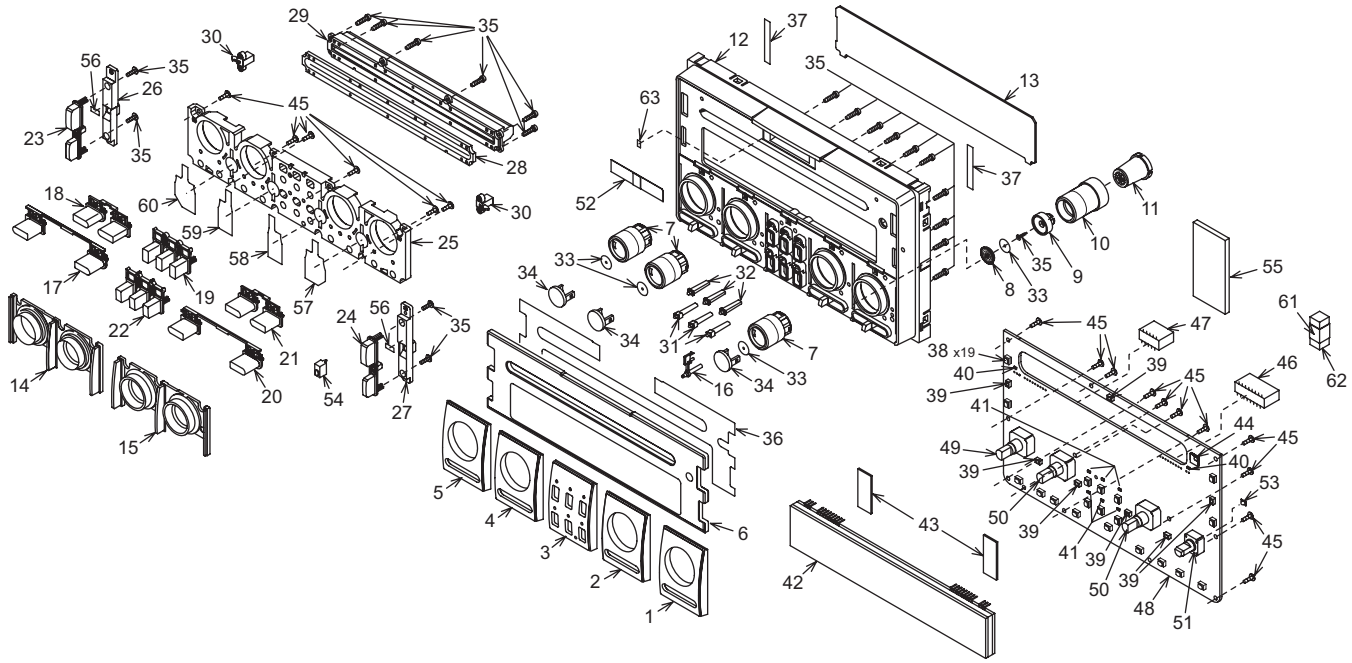
Destination	Japan	Europe	Asia	Asia
INIT 1 (pin 63)	H	L	H	L
INIT 2 (pin 64)	H	L	L	H

BLOCK DIAGRAM



EXPLODED VIEW/PARTS LIST

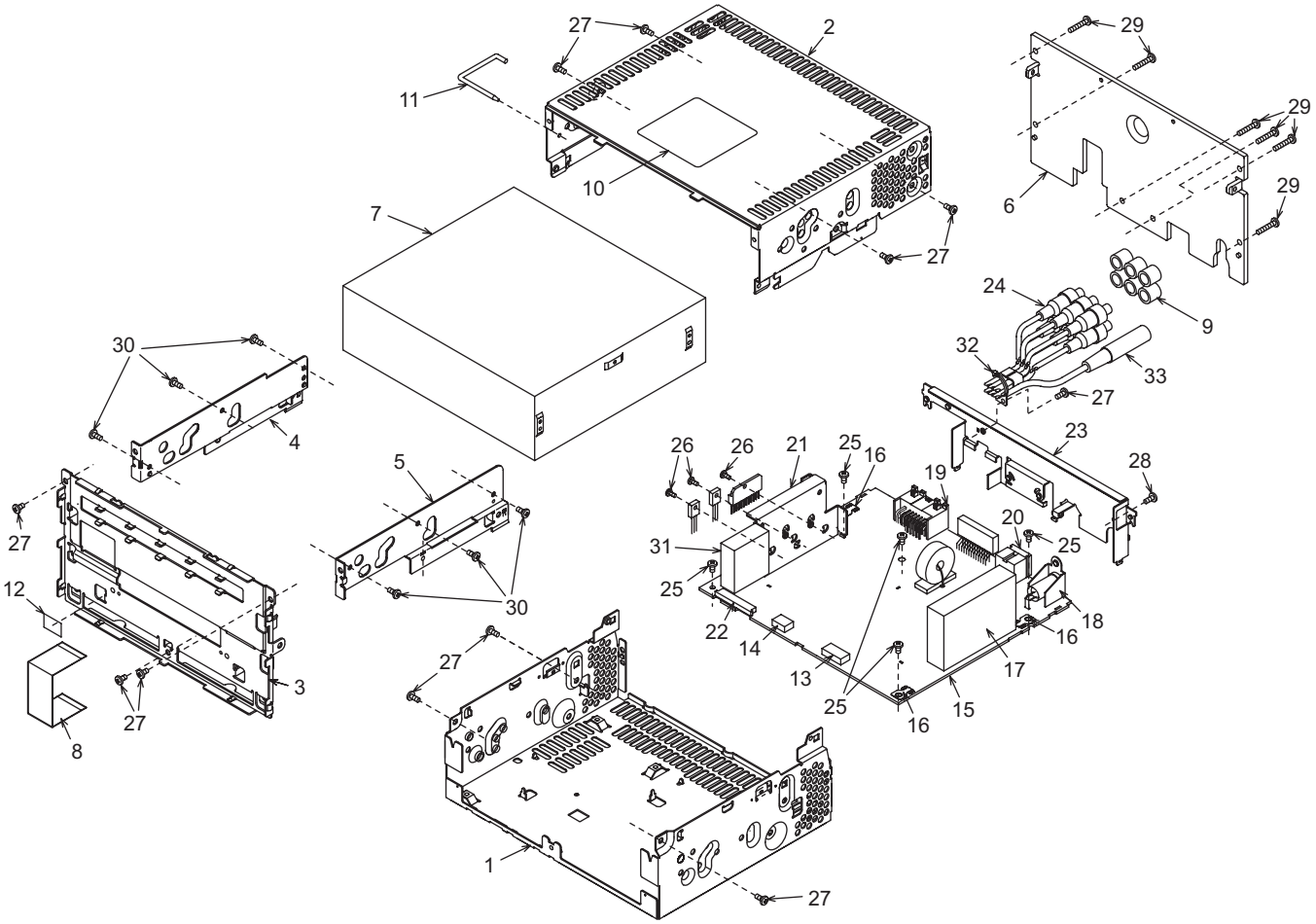
Escutcheon section



NO.	PART NO.	DESCRIPTION	Q'TY
1	371-5820-00	FACE PANEL(A)	1
2	371-5821-00	FACE PANEL(B)	1
3	371-5822-00	FACE PANEL(C)	1
4	371-5823-01	FACE PANEL(D)	1
5	371-5824-00	FACE PANEL(E)	1
6	373-1073-02	DIAL-CVR	1
7	380-5635-00	KNOB	3
8	335-7548-00	KNOB-CAP	1
9	335-7573-00	KNOB-RING	1
10	380-5636-00	KNOB (A)	1
11	380-5637-00	KNOB (B)	1
12	370-6176-01	ESCUTCHEON	1
13	335-7547-00	FILTER(VFD)	1
14	335-7549-00	ILLUMI PLATE(L)	1
15	335-7550-00	ILLUMI PLATE(R)	1
16	382-7458-00	BUTTON(RESET)	1
17	382-7451-00	BUTTON(BAD/D-Z)	1
18	382-7452-01	BUTTON(TA/ADJ)	1
19	382-7453-00	BUTTON(1,2,3)	1
20	382-7454-00	BUTTON(TIE/RDM)	1
21	382-7455-00	BUTTON(SCN/RPT)	1
22	382-7459-00	BUTTON(4,5,6)	1
23	382-7456-00	BUTTON(CD/S-A)	1
24	382-7457-00	BUTTON(L/D)OU	1
25	335-7553-00	ILLUMI PLATE(B)	1
26	335-7557-00	ILLUMI PLATE(L)	1
27	335-7556-00	ILLUMI PLATE(R)	1
28	346-0180-00	LEATHER SHEET	1
29	371-5832-01	TRIM PLATE	1
30	335-7551-00	ILLUMI PLATE(CD)	2
31	335-7561-00	ILLIMI-PLATE(A)	3
32	335-7555-00	ILLUMI PLATE(B)	3

NO.	PART NO.	DESCRIPTION	Q'TY
33	347-7528-00	DOUBLE FACE	4
34	380-5616-00	KNOB CAP	3
35	716-0872-52	PAD SCREW(M1.7 x 5)	21
36	347-7526-00	DOUBLE FACE	1
37	347-7243-00	DOUBLE FACE	2
38	013-6312-50	SWITCH	19
39	001-7040-91	LED(WHITE)	7
40	001-7043-90	LED(GREEN)	2
41	001-7062-90	LED(RED)	6
42	379-4056-28	VFD	1
43	347-7405-00	SPACER	2
44	060-4017-90	IR-RECIEVER	1
45	716-0778-51	WAVE SCREW(2 x 6)	17
46	074-3010-72	OUTLET SOCKET(22P)	1
47	074-3010-60	OUTLET SOCKET(10P)	1
48	----------	SWITCH PWB	1
49	016-9901-00	VR W/SHAFT(SEARCH)	1
50	016-9900-94	VR W/SHAFT (A-MODE,SOURCE)	2
51	016-9900-84	VR W/SHAFT(VOLUME)	1
52	347-7878-00	FILM	1
53	001-7095-90	LED(BLUE)	1
54	335-7554-00	ILLUMI PLATE	1
55	345-8090-00	CUSHION RUBBER	1
56	347-7884-00	FILM(E)	2
57	347-7877-00	FILM(D)	1
58	347-7876-00	FILM(C)	1
59	347-7875-00	FILM(B)	1
60	347-7874-00	FILM(A)	1
61	347-7321-00	E-SHEET	1
62	345-5598-00	CUSHION	1
63	347-6548-00	DOUBLE FACE	1

Main section



NO.	PART NO.	DESCRIPTION	Q'TY
1	311-1896-10	LOWER CASE	1
2	310-1799-10	UPPER CASE	1
3	309-0813-00	FRONT-BRKT	1
4	331-4036-00	MECH-BRKT(L)	1
5	331-4037-00	MECH-BRKT(R)	1
6	313-1941-00	HEAT SINK	1
7	929-0371-81	CD-CHANG-MODULE	1
8	816-4023-50	FLAT WIRE	1
9	345-3799-20	RUBBER PART	6
10	286-6687-00	SETPLATE	1
11	341-1823-00	SHAFT-S	1
12	347-7229-00	SPACER FILM	1
13	076-0648-22	PLUG(22P)	1
14	076-0648-10	PLUG(10P)	1
15	----------	MAIN PWB	1
16	073-0762-90	TERMINAL	3
17	880-2150A	CCC-TUNER	1

NO.	PART NO.	DESCRIPTION	Q'TY
18	092-4000-51	ANT-RECEPT	1
19	074-1214-00	OUTLET SOCKET	1
20	074-1194-00	OUTLET SOCKET(Ce-NET)	1
21	331-4035-00	IC HOLDER	1
22	074-1237-69	OUTLET SOCKET(19P)	1
23	307-0714-00	REAR PLATE	1
24	855-5535-50	RCA PIN CORD	1
25	716-0878-50	IT SCREW(M2.6 x 5)	5
26	714-3008-85	MACHINE SCREW(M3 x 8)	3
27	714-2606-8B	MACHINE SCREW(M2.6 x 6)	11
28	780-3006-51	SCREW(M3 x 6)	1
29	714-2610-8B	MACHINE SCREW(M2.6 x 10)	6
30	716-3552-00	SCREW(M2.3 x 2.5)	6
31	060-6028-00	DC-DC CONVERTER	1
32	335-0833-01	LEAD HOLDER	1
33	855-0569-52	MINI JACK CORD	1

ELECTRICAL PARTS LIST

Switch PWB(B1) section

REF No.	PART No.	DESCRIPTION
C701	168-1042-78	16V 0.1uF
C702	168-1022-55	1000pF K
C703	042-0423-97	16V 10uF
C704	168-1032-55	0.01uF K
C705	168-1042-78	16V 0.1uF
C706	168-1022-55	1000pF K
C708	168-1042-78	16V 0.1uF
C709	043-0318-90	5600pF
C710	043-0318-90	5600pF
D705	001-7040-91	NSCW100-T
D706	001-7040-91	NSCW100-T
D707	001-7040-91	NSCW100-T
D708	001-7040-91	NSCW100-T
D709	001-7040-91	NSCW100-T
D710	001-7095-90	HUB1105W-12-RR
D711	001-7040-91	NSCW100-T
D712	001-7040-91	NSCW100-T
D713	001-7043-90	CL-170FG F-GREEN
D714	001-7043-90	CL-170FG F-GREEN
D715	001-7062-90	RBR1111C
D716	001-7062-90	RBR1111C
D717	001-7062-90	RBR1111C
D718	001-7062-90	RBR1111C
D719	001-7062-90	RBR1111C
D720	001-7062-90	RBR1111C
D721	001-0516-90	MA111
D722	001-0516-90	MA111
D751	001-4301-32	HZU 5.6B2
D752	001-4301-32	HZU 5.6B2
D753	001-4301-32	HZU 5.6B2
D754	001-4301-32	HZU 5.6B2
D755	001-4301-32	HZU 5.6B2
D756	001-4301-32	HZU 5.6B2
D757	001-4301-32	HZU 5.6B2
D758	001-4301-32	HZU 5.6B2
D759	001-4301-32	HZU 5.6B2
D766	001-4301-32	HZU 5.6B2
D767	001-4301-21	HZU3.9B2

REF No.	PART No.	DESCRIPTION
D768	001-4301-32	HZU 5.6B2
D769	001-4301-32	HZU 5.6B2
D770	001-4301-32	HZU 5.6B2
D771	001-4301-32	HZU 5.6B2
FL701	379-4056-28	VFD
IC701	051-6642-08	LC75700T
IR701	060-4017-90	IR RECEIVER
J701	074-3010-60	10P
J702	074-3010-72	22P
L701	010-3406-66	NLV25 22uH J
Q794	125-2199-96	KRC106S
Q795	125-2199-96	KRC106S
Q796	125-2199-96	KRC106S
Q797	125-2199-96	KRC106S
Q798	125-2199-96	KRC106S
Q799	125-2199-96	KRC106S
R710	119-1021-15	1/10W 1k ohm
R711	119-3931-15	1/10W 39k ohm
R712	119-2211-15	1/10W 220 ohm
R713	119-2211-15	1/10W 220 ohm
R714	119-2211-15	1/10W 220 ohm
R715	119-2211-15	1/10W 220 ohm
R716	119-2211-15	1/10W 220 ohm
R717	119-2211-15	1/10W 220 ohm
R718	119-2711-15	1/10W 270 ohm
R719	119-2711-15	1/10W 270 ohm
R720	119-2711-15	1/10W 270 ohm
R721	119-2711-15	1/10W 270 ohm
R722	119-8211-15	1/10W 820 ohm
R723	119-5611-15	1/10W 560 ohm
R724	119-8211-15	1/10W 820 ohm
R725	119-2711-15	1/10W 270 ohm
R726	119-3311-15	1/10W 330 ohm
R727	119-3311-15	1/10W 330 ohm
R728	119-1011-15	1/10W 100 ohm
R729	119-1021-15	1/10W 1k ohm
R730	119-1021-15	1/10W 1k ohm
R736	119-3331-15	1/10W 33k ohm

REF No.	PART No.	DESCRIPTION
R737	119-2721-15	1/10W 2.7k ohm
R738	119-1201-15	1/10W 12 ohm
R739	119-1201-15	1/10W 12 ohm
R740	119-3311-15	1/10W 330 ohm
R741	119-3311-15	1/10W 330 ohm
R742	119-3311-15	1/10W 330 ohm
R743	119-3311-15	1/10W 330 ohm
R744	119-1031-15	1/10W 10k ohm
R745	119-3311-15	1/10W 330 ohm
R746	119-3311-15	1/10W 330 ohm
R747	119-3311-15	1/10W 330 ohm
S701	013-6312-50	SKRP-ABE-010
S702	013-6312-50	SKRP-ABE-010
S703	013-6312-50	SKRP-ABE-010
S704	013-6312-50	SKRP-ABE-010
S705	013-6312-50	SKRP-ABE-010
S706	013-6312-50	SKRP-ABE-010
S707	013-6312-50	SKRP-ABE-010
S708	013-6312-50	SKRP-ABE-010
S709	013-6312-50	SKRP-ABE-010
S710	013-6312-50	SKRP-ABE-010
S711	013-6312-50	SKRP-ABE-010
S712	013-6312-50	SKRP-ABE-010
S713	013-6312-50	SKRP-ABE-010
S714	013-6312-50	SKRP-ABE-010
S715	013-6312-50	SKRP-ABE-010
S716	013-6312-50	SKRP-ABE-010
S717	013-6312-50	SKRP-ABE-010
S718	013-6312-50	SKRP-ABE-010
S719	013-6312-50	SKRP-ABE-010
VR701	016-9900-84	VR W/SHAFT
VR702	016-9900-94	VR W/SHAFT
VR703	016-9900-94	VR W/SHAFT
VR704	016-9901-00	VR W/SHAFT
PWB	039-2797-01	PWB(WITHOUT COMPONENT)

Main PWB(B2) section

REF No.	PART No.	DESCRIPTION
ANT1	092-4000-51	ANTENNA RECEPT
BL1	880-2150A	CCC-TUNER
C1	166-1511-50	150pF CH
C2	187-4763-35	16V 47uF
C3	168-2232-55	0.022uF K
C4	187-4763-35	16V 47uF
C5	168-2232-55	0.022uF K
C6	187-4763-35	16V 47uF
C7	168-2232-55	0.022uF K
C8	187-1063-35	16V 10uF
C9	187-1063-35	16V 10uF
C11	187-1063-35	16V 10uF
C12	187-1063-35	16V 10uF
C13	166-2201-50	22pF CH
C15	166-1011-50	100pF CH
C16	168-4732-78	0.047uF K
C25	187-2253-65	50V 2.2uF
C102	178-4742-78	0.47uF
C103	178-4742-78	0.47uF
C104	178-4742-78	0.47uF
C105	178-4742-78	0.47uF
C106	187-1063-35	16V 10uF
C107	187-2253-65	50V 2.2uF
C108	172-1041-15	0.1uF
C109	187-1053-65	50V 1uF
C110	178-4742-78	0.47uF
C116	168-1022-55	1000pF K
C125	168-1022-55	1000pF K

REF No.	PART No.	DESCRIPTION
C126	168-1022-55	1000pF K
C127	168-1022-55	1000pF K
C128	168-1022-55	1000pF K
C129	168-1022-55	1000pF K
C130	168-1022-55	1000pF K
C131	168-1022-55	1000pF K
C132	168-1022-55	1000pF K
C205	042-1393-00	35V 100uF
C206	042-1655-00	63V100uF
C207	042-9134-00	63V 47uF
C210	168-1042-78	16V 0.1uF
C211	168-1042-78	16V 0.1uF
C214	189-3383-32	16V 3300uF
C216	168-1042-78	16V 0.1uF
C217	168-1042-78	16V 0.1uF
C218	187-1073-35	16V 100uF
C219	168-1042-78	16V 0.1uF
C220	187-1073-35	16V 100uF
C221	187-1073-35	16V 100uF
C223	168-4732-78	0.047uF K
C224	168-2232-55	0.022uF K
C225	187-4763-35	16V 47uF
C226	168-1042-78	16V 0.1uF
C301	166-1501-50	15pF CH
C302	166-1501-50	15pF CH
C303	168-1032-55	0.01uF K
C304	168-1032-55	0.01uF K
C305	187-4753-55	35V 4.7uF

REF No.	PART No.	DESCRIPTION
C306	168-1032-55	0.01uF K
C307	043-0540-02	16V 1uF
C308	043-0540-02	16V 1uF
C309	187-1063-35	16V 10uF
C310	187-1063-35	16V 10uF
C311	187-1063-35	16V 10uF
C312	168-1042-78	16V 0.1uF
C313	042-1631-50	10V 100uF
C314	168-1042-78	16V 0.1uF
C315	187-1063-35	16V 10uF
C316	168-1042-78	16V 0.1uF
C318	187-1063-35	16V 10uF
C319	168-1042-78	16V 0.1uF
C322	168-1042-78	16V 0.1uF
C323	168-1042-78	16V 0.1uF
C324	168-1042-78	16V 0.1uF
C325	168-1022-55	1000pF K
C326	166-1011-50	100pF CH
C327	168-1022-55	1000pF K
C328	166-1011-50	100pF CH
C329	168-1022-55	1000pF K
C330	166-1011-50	100pF CH
C331	042-1631-50	10V 100uF
C332	042-1631-50	10V 100uF
C333	168-1042-78	16V 0.1uF
C340	168-4732-78	0.047uF K
C341	168-4732-78	0.047uF K
C401	168-1042-78	16V 0.1uF

REF No.	PART No.	DESCRIPTION
C402	168-1042-78	16V 0.1uF
C404	168-1042-78	16V 0.1uF
C405	168-1042-78	16V 0.1uF
C406	168-1032-55	0.01uF K
C408	168-1042-78	16V 0.1uF
C409	168-1042-78	16V 0.1uF
C410	168-4732-78	0.047uF K
C411	168-4732-78	0.047uF K
C412	187-1063-35	16V 10uF
C413	187-1063-35	16V 10uF
C414	187-1063-35	16V 10uF
C415	187-1063-35	16V 10uF
C416	187-2253-65	50V 2.2uF
C417	187-2253-65	50V 2.2uF
C421	168-1042-78	16V 0.1uF
C447	168-8222-55	8200pF K
C448	168-8222-55	8200pF K
C449	168-8222-55	8200pF K
C450	168-8222-55	8200pF K
C453	187-1063-35	16V 10uF
C454	187-1063-35	16V 10uF
C455	187-1063-35	16V 10uF
C456	187-1063-35	16V 10uF
C501	166-1011-50	100pF CH
C502	166-1011-50	100pF CH
C503	168-1042-78	16V 0.1uF
C504	168-2222-55	2200pF K
C505	168-2222-55	2200pF K
C506	166-2711-50	270pF
C507	166-2711-50	270pF
C522	168-1042-78	16V 0.1uF
C541	187-1063-35	16V 10uF
C542	187-1063-35	16V 10uF
C551	187-1063-35	16V 10uF
C552	187-1063-35	16V 10uF
C553	187-1063-35	16V 10uF
C554	187-1063-35	16V 10uF
C555	187-2253-65	50V 2.2uF
C556	187-2253-65	50V 2.2uF
C557	187-2253-65	50V 2.2uF
C558	187-2253-65	50V 2.2uF
C559	168-8222-55	8200pF K
C560	168-4732-78	0.047uF K
C561	168-8222-55	8200pF K
C565	168-4732-78	0.047uF K
C566	168-4732-78	0.047uF K
C567	187-2253-65	50V 2.2uF
C568	187-2253-65	50V 2.2uF
C569	187-2253-65	50V 2.2uF
C570	187-2253-65	50V 2.2uF
C571	187-1063-35	16V 10uF
C572	187-1063-35	16V 10uF
C573	187-2253-65	50V 2.2uF
C574	187-2253-65	50V 2.2uF
C575	168-1042-78	16V 0.1uF
C576	168-1042-78	16V 0.1uF
C577	168-1042-78	16V 0.1uF
C578	187-1063-35	16V 10uF
C579	187-1063-35	16V 10uF
C601	168-1032-55	0.01uF K
C602	166-1011-50	100pF CH
C603	166-1011-50	100pF CH
C604	187-1063-35	16V 10uF
C605	187-3363-45	25V 33uF
C606	166-1011-50	100pF CH
C607	042-0423-94	10V 4.7uF
C608	166-1801-50	18pF CH
C609	166-2201-50	22pF CH
C610	168-1032-55	0.01uF K
C611	042-1577-00	6.3V 100uF
C612	166-1011-50	100pF CH
C613	166-3911-50	390pF CH
C614	187-1073-35	16V 100uF
C615	042-1596-00	5.5V 0.33F

REF No.	PART No.	DESCRIPTION
C616	187-2263-15	6.3V 22uF
C617	168-1042-78	16V 0.1uF
C618	042-1596-00	5.5V 0.33F
C619	168-4732-78	0.047uF K
C621	187-1063-35	16V 10uF
C622	187-4763-35	16V 47uF
C623	168-1042-78	16V 0.1uF
C624	168-2232-55	0.022uF K
C625	168-1042-78	16V 0.1uF
C626	168-1042-78	16V 0.1uF
C627	168-1042-78	16V 0.1uF
C628	168-2232-55	0.022uF K
C631	166-1011-50	100pF CH
C632	166-1011-50	100pF CH
D2	001-0535-90	MA729
D201	001-0424-31	MA4180
D202	001-0347-42	MA4075H
D203	001-0592-61	1N5404
D205	001-0516-90	MA111
D206	001-0516-90	MA111
D208	001-0466-91	S5688G
D209	001-0516-90	MA111
D210	001-0644-90	MA113
D211	001-0516-90	MA111
D213	001-0516-90	MA111
D214	001-0644-90	MA113
D215	001-0516-90	MA111
D216	001-0516-90	MA111
D217	001-0466-91	S5688G
D301	001-4301-21	HZU3.9B2
D501	001-0516-90	MA111
D502	001-0516-90	MA111
D503	001-4301-24	HZU 4.3B3
D504	001-4301-41	HZU 7.5B2
D505	001-0535-90	MA729
D506	001-0535-90	MA729
D507	001-0535-90	MA729
D551	001-0516-90	MA111
D552	001-0516-90	MA111
D553	001-0516-90	MA111
D554	001-0516-90	MA111
D601	001-0516-90	MA111
D602	001-4301-32	HZU 5.6B2
D603	001-0504-31	HZS6 A2L
D604	001-0535-90	MA729
D605	001-0529-26	MA8047-M
D606	001-0516-90	MA111
D607	001-0516-90	MA111
D608	001-0516-90	MA111
D609	001-0347-38	MA4068M
D610	001-0516-90	MA111
D611	001-0347-48	MA4091H
F201	060-8053-90	CHIP FUSE 1.3A
FIL302	060-3115-51	CKD310JB1C224ST
FIL303	060-3115-51	CKD310JB1C224ST
IC101	051-2057-00	TB2906HQ
IC201	051-3324-00	HA13168
IC202	060-6028-00	DC-DC CON-VERTER
IC203	051-3335-90	AN77L04M
IC301	051-6722-90	TAS3103IDBTR
IC302	051-6723-90	PCM3010DBR
IC401	051-5818-90	BA3834F
IC402	051-3054-90	HA17558ATEL
IC403	051-3054-90	HA17558ATEL
IC551	051-3054-90	HA17558ATEL
IC552	051-3054-90	HA17558ATEL
IC553	051-3054-90	HA17558ATEL
IC554	051-3054-90	HA17558ATEL
IC601	052-3404-10	uPD703272YGC-307-8EA-A
IC602	051-6600-58	HA12187FP
IC603	051-5446-08	BD4843G-TR
IC604	051-5410-18	S-80820CNMC-8BF

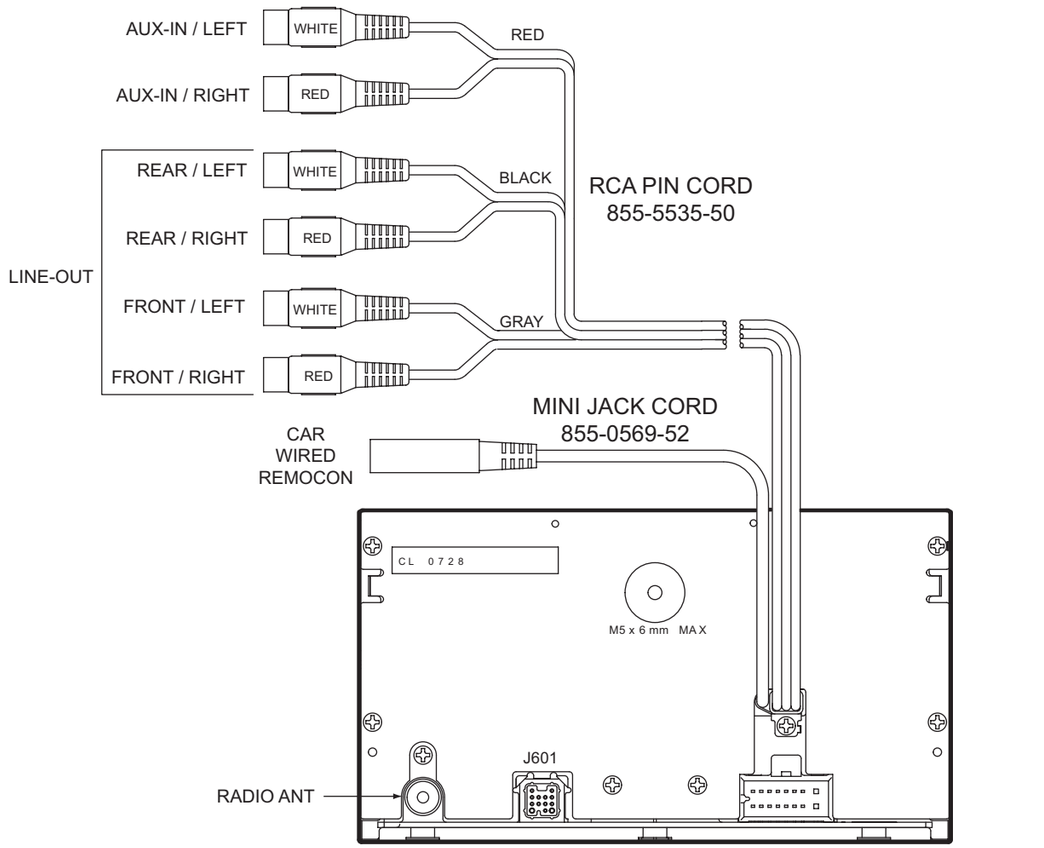
REF No.	PART No.	DESCRIPTION
IC605	051-9400-29	BR93L46F-W
IC606	051-7285-08	CD74HC4050PWR
IC607	051-5418-18	BD4827G
J101	074-1214-00	16P
J601	074-1194-00	13P CE-NET
J901	074-1237-69	19PIN
L1	010-2003-04	30uH
L3	010-6009-70	6.8uH
L4	010-6009-70	6.8uH
L5	010-6009-70	6.8uH
L101	010-8038-01	130uH
L201	010-6009-88	220uH J
L202	010-2272-03	100uH
L203	010-6009-69	5.6uH J
L301	010-3103-64	1.5k ohm/100MHz
L302	010-3103-64	1.5k ohm/100MHz
L303	010-3103-64	1.5k ohm/100MHz
L304	010-3103-64	1.5k ohm/100MHz
L305	010-3103-64	1.5k ohm/100MHz
L401	010-3406-50	NLV25 1uH J
L403	010-3103-64	1.5k ohm/100MHz
L404	010-3103-64	1.5k ohm/100MHz
L405	010-3103-64	1.5k ohm/100MHz
L406	010-3103-64	1.5k ohm/100MHz
L407	010-3103-64	1.5k ohm/100MHz
L408	010-3103-64	1.5k ohm/100MHz
L409	010-3103-64	1.5k ohm/100MHz
L410	010-3103-64	1.5k ohm/100MHz
L520	010-3105-62	1k ohm/100MHz
L521	010-6009-80	47uH J
L601	010-6009-69	5.6uH J
L602	010-6009-69	5.6uH J
L603	010-6009-80	47uH J
P601	076-0648-10	10P
P602	076-0648-22	22P
Q203	125-4015-90	KTC2026
Q205	191-1243-00	2SB1243
Q206	125-4010-90	KTC3875S
Q207	125-4010-90	KTC3875S
Q208	191-1243-00	2SB1243
Q212	191-1237-00	2SB1237
Q213	125-0013-97	RN2427
Q214	125-0013-97	RN2427
Q215	125-2199-92	KRC102S
Q216	125-2199-92	KRC102S
Q453	125-4012-90	KTD1304
Q454	125-4012-90	KTD1304
Q455	125-4012-90	KTD1304
Q456	125-4012-90	KTD1304
Q501	125-2199-96	KRC106S
Q502	125-0199-96	KRA106S
Q503	125-4010-90	KTC3875S
Q601	125-3004-90	KTA1504S
Q602	125-4010-90	KTC3875S
Q603	125-0199-92	KRA102S
Q604	125-2199-93	KRC103S
Q605	125-3004-90	KTA1504S
Q606	125-3004-90	KTA1504S
Q607	125-2199-92	KRC102S
Q608	125-2199-92	KRC102S
Q609	125-4015-90	KTC2026
Q610	125-3007-90	KTA1298
Q613	125-2199-92	KRC102S
Q614	125-0199-93	KRA103S
Q615	192-2712-00	2SC2712
Q618	125-0199-92	KRA102S
Q619	125-2199-96	KRC106S
R1	119-4721-15	1/10W 4.7k ohm
R2	119-4721-15	1/10W 4.7k ohm
R4	119-4721-15	1/10W 4.7k ohm
R5	119-4721-15	1/10W 4.7k ohm
R6	119-1041-15	1/10W 100k ohm
R101	119-1031-15	1/10W 10k ohm
R102	119-2731-15	1/10W 27k ohm

REF No.	PART No.	DESCRIPTION
R112	119-1021-15	1/10W 1k ohm
R113	119-1021-15	1/10W 1k ohm
R114	119-1021-15	1/10W 1k ohm
R115	119-1021-15	1/10W 1k ohm
R201	119-6831-15	1/10W 68k ohm
R202	119-1041-15	1/10W 100k ohm
R203	119-1031-15	1/10W 10k ohm
R206	119-2211-15	1/10W 220 ohm
R208	116-5611-15	1/4W 560 ohm
R209	119-4731-15	1/10W 47k ohm
R210	116-2721-15	1/4W 2.7k ohm
R211	116-2721-15	1/4W 2.7k ohm
R212	119-4721-15	1/10W 4.7k ohm
R213	119-4721-15	1/10W 4.7k ohm
R214	119-4721-15	1/10W 4.7k ohm
R215	116-1031-15	1/4W 10k ohm
R216	119-1021-15	1/10W 1k ohm
R217	119-2231-15	1/10W 22k ohm
R218	119-4731-15	1/10W 47k ohm
R219	116-1831-15	1/4W 18k ohm
R220	116-1521-15	1/4W 1.5k ohm
R230	119-1801-15	1/10W 18 ohm
R231	119-1041-15	1/10W 100k ohm
R304	119-4721-15	1/10W 4.7k ohm
R305	119-4721-15	1/10W 4.7k ohm
R312	119-4721-15	1/10W 4.7k ohm
R313	119-4721-15	1/10W 4.7k ohm
R314	119-0000-05	1/10W 0 ohm JW
R315	119-1521-15	1/10W 1.5k ohm
R333	119-8211-15	1/10W 820 ohm
R334	119-8211-15	1/10W 820 ohm
R335	119-8211-15	1/10W 820 ohm
R336	119-2211-15	1/10W 220 ohm
R337	119-0000-05	1/10W 0 ohm JW
R340	119-3311-15	1/10W 330 ohm
R341	119-3311-15	1/10W 330 ohm
R342	119-3311-15	1/10W 330 ohm
R343	119-3311-15	1/10W 330 ohm
R401	119-1541-15	1/10W 150k ohm
R402	119-1531-15	1/10W 15k ohm
R403	119-1041-15	1/10W 100k ohm
R404	119-1541-15	1/10W 150k ohm
R410	119-1041-15	1/10W 100k ohm
R411	119-1021-15	1/10W 1k ohm
R412	119-1021-15	1/10W 1k ohm
R413	119-1041-15	1/10W 100k ohm
R414	032-0140-00	1/10W 56k ohm F
R415	032-0140-00	1/10W 56k ohm F
R416	032-0140-00	1/10W 56k ohm F
R417	032-0140-00	1/10W 56k ohm F
R418	032-0140-54	1/10W 22k ohm F
R419	032-0140-54	1/10W 22k ohm F
R420	032-0140-54	1/10W 22k ohm F
R421	032-0140-54	1/10W 22k ohm F
R427	119-1011-15	1/10W 100 ohm
R429	119-1011-15	1/10W 100 ohm
R431	119-1031-15	1/10W 10k ohm
R432	119-1031-15	1/10W 10k ohm
R447	119-2211-15	1/10W 220 ohm
R448	119-2211-15	1/10W 220 ohm
R449	119-2211-15	1/10W 220 ohm
R450	119-2211-15	1/10W 220 ohm
R453	119-2231-15	1/10W 22k ohm
R454	119-2231-15	1/10W 22k ohm

REF No.	PART No.	DESCRIPTION
R455	119-2231-15	1/10W 22k ohm
R456	119-2231-15	1/10W 22k ohm
R459	119-3311-15	1/10W 330 ohm
R460	119-3311-15	1/10W 330 ohm
R461	119-3311-15	1/10W 330 ohm
R462	119-3311-15	1/10W 330 ohm
R464	119-1021-15	1/10W 1k ohm
R465	119-1021-15	1/10W 1k ohm
R523	119-3311-15	1/10W 330 ohm
R536	119-1021-15	1/10W 1k ohm
R537	119-8221-15	1/10W 8.2k ohm
R538	119-3321-15	1/10W 3.3k ohm
R540	119-2231-15	1/10W 22k ohm
R551	032-0140-00	1/10W 56k ohm F
R552	032-0140-00	1/10W 56k ohm F
R553	032-0140-00	1/10W 56k ohm F
R554	032-0140-00	1/10W 56k ohm F
R555	032-0140-51	1/10W 15k ohm F
R556	032-0140-51	1/10W 15k ohm F
R557	032-0140-51	1/10W 15k ohm F
R558	032-0140-51	1/10W 15k ohm F
R559	119-2211-15	1/10W 220 ohm
R560	119-2431-15	1/10W 24k ohm
R561	119-2211-15	1/10W 220 ohm
R562	119-2431-15	1/10W 24k ohm
R564	119-3931-15	1/10W 39k ohm
R566	119-3931-15	1/10W 39k ohm
R567	119-1041-15	1/10W 100k ohm
R568	119-1041-15	1/10W 100k ohm
R569	119-1021-15	1/10W 1k ohm
R570	119-1021-15	1/10W 1k ohm
R571	119-1021-15	1/10W 1k ohm
R572	119-1021-15	1/10W 1k ohm
R573	119-3921-15	1/10W 3.9k ohm
R574	119-3921-15	1/10W 3.9k ohm
R575	119-1021-15	1/10W 1k ohm
R576	119-1021-15	1/10W 1k ohm
R577	119-3921-15	1/10W 3.9k ohm
R578	119-3921-15	1/10W 3.9k ohm
R579	119-1041-15	1/10W 100k ohm
R580	119-1041-15	1/10W 100k ohm
R581	119-8221-15	1/10W 8.2k ohm
R582	119-8221-15	1/10W 8.2k ohm
R583	119-8221-15	1/10W 8.2k ohm
R584	119-8221-15	1/10W 8.2k ohm
R585	119-8221-15	1/10W 8.2k ohm
R586	119-8221-15	1/10W 8.2k ohm
R601	119-0000-05	1/10W 0 ohm JW
R602	119-0000-05	1/10W 0 ohm JW
R603	116-6801-15	1/4W 68 ohm
R604	119-3321-15	1/10W 3.3k ohm
R606	119-1031-15	1/10W 10k ohm
R607	119-1021-15	1/10W 1k ohm
R608	119-4731-15	1/10W 47k ohm
R609	119-4731-15	1/10W 47k ohm
R610	119-4721-15	1/10W 4.7k ohm
R611	119-1031-15	1/10W 10k ohm
R612	116-1521-15	1/4W 1.5k ohm
R613	119-4731-15	1/10W 47k ohm
R614	119-4721-15	1/10W 4.7k ohm
R615	119-1031-15	1/10W 10k ohm
R622	116-1811-15	1/4W 180 ohm
R623	116-1811-15	1/4W 180 ohm
R624	119-5621-15	1/10W 5.6k ohm

REF No.	PART No.	DESCRIPTION
R625	119-1031-15	1/10W 10k ohm
R626	116-1811-15	1/4W 180 ohm
R627	119-2231-15	1/10W 22k ohm
R628	119-1031-15	1/10W 10k ohm
R629	119-4721-15	1/10W 4.7k ohm
R630	119-4721-15	1/10W 4.7k ohm
R631	119-1031-15	1/10W 10k ohm
R632	119-1031-15	1/10W 10k ohm
R633	119-1031-15	1/10W 10k ohm
R634	119-1031-15	1/10W 10k ohm
R635	119-1031-15	1/10W 10k ohm
R636	119-1031-15	1/10W 10k ohm
R637	119-1031-15	1/10W 10k ohm
R638	119-1011-15	1/10W 100 ohm
R639	119-1031-15	1/10W 10k ohm
R640	119-1031-15	1/10W 10k ohm
R641	119-1031-15	1/10W 10k ohm
R642	119-1031-15	1/10W 10k ohm
R643	119-1031-15	1/10W 10k ohm
R644	119-1031-15	1/10W 10k ohm
R645	119-2241-15	1/10W 220k ohm
R646	119-4731-15	1/10W 47k ohm
R647	119-1531-15	1/10W 15k ohm
R648	119-1031-15	1/10W 10k ohm
R649	119-4721-15	1/10W 4.7k ohm
R652	119-4721-15	1/10W 4.7k ohm
R653	119-4731-15	1/10W 47k ohm
R654	119-1021-15	1/10W 1k ohm
R655	119-1031-15	1/10W 10k ohm
R656	119-1041-15	1/10W 100k ohm
R660	119-1031-15	1/10W 10k ohm
R661	119-1031-15	1/10W 10k ohm
R662	119-1041-15	1/10W 100k ohm
R663	119-0000-05	1/10W 0 ohm JW
R664	119-3311-15	1/10W 330 ohm
R665	119-3311-15	1/10W 330 ohm
R666	119-3311-15	1/10W 330 ohm
R667	119-3311-15	1/10W 330 ohm
R668	119-3311-15	1/10W 330 ohm
R671	119-1041-15	1/10W 100k ohm
R672	119-1041-15	1/10W 100k ohm
R674	119-0000-05	1/10W 0 ohm JW
R675	119-1221-15	1/10W 1.2k ohm
R680	119-3311-15	1/10W 330 ohm
R681	119-3311-15	1/10W 330 ohm
R682	119-3311-15	1/10W 330 ohm
R683	119-3311-15	1/10W 330 ohm
R684	119-3311-15	1/10W 330 ohm
R685	119-3311-15	1/10W 330 ohm
R686	119-3311-15	1/10W 330 ohm
R687	119-3311-15	1/10W 330 ohm
R697	119-0000-05	1/10W 0 ohm JW
R698	119-0000-05	1/10W 0 ohm JW
SUP1	060-0122-91	DSP-141N-S00B
TM201	073-0762-90	TERMINAL
TM203	073-0762-90	TERMINAL
TM204	073-0762-90	TERMINAL
X301	061-3536-90	11.2896MH
X601	060-1541-90	3.14MHz
X602	061-1056-00	32.768kHz
PWB	039-2796-01	PWB(WITHOUT COMPONENT)

CONNECTOR LAYOUT

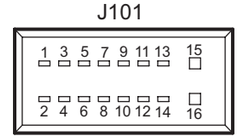


J601 (CeNET)

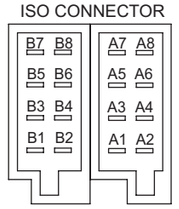
No.	Description
1	GND
2	BACK UP
3	L-CH(+)
4	N.C.
5	N.C.
6	BUS(+)
7	R-CH(+)
8	R-CH(-)
9	SYS-ACC
10	BUS(-)
11	L-CH(-)
12	ILLUMI
13	N.C.

Pin No. (J101 - ISO)	Color	Description
1 - B7	GRN	SP R/L(+)
2 - B8	GRN/BLK	SP R/L(-)
3 - B6	WHT/BLK	SP F/L(-)
4	BRN	PHONE INT
5 - B5	WHT	SP F/L(+)
6 - A7	RED	ACC
7 - B3	GRY	SP F/R(+)
8	-	N.C
9 - B4	GRY/BLK	SP F/R(-)
10 - A5	BLU/WHT	REMOTE
11 - B1	PUR	SP R/R(+)
12 - A6	ORG/WHT	ILLUMI
13 - B2	PUR/BLK	SP R/R(-)
14	YEL	BACK UP(BUS) (3A FUSE)
15 - A4	YEL	BACK UP (15A FUSE)
16 - A8	BLK	GND
A1	-	N.C
A2	-	N.C
A3	-	N.C

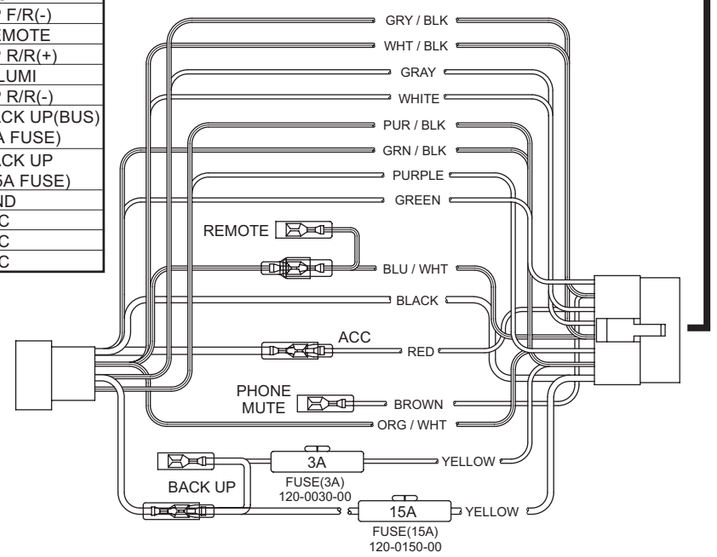
J101



ISO CONNECTOR

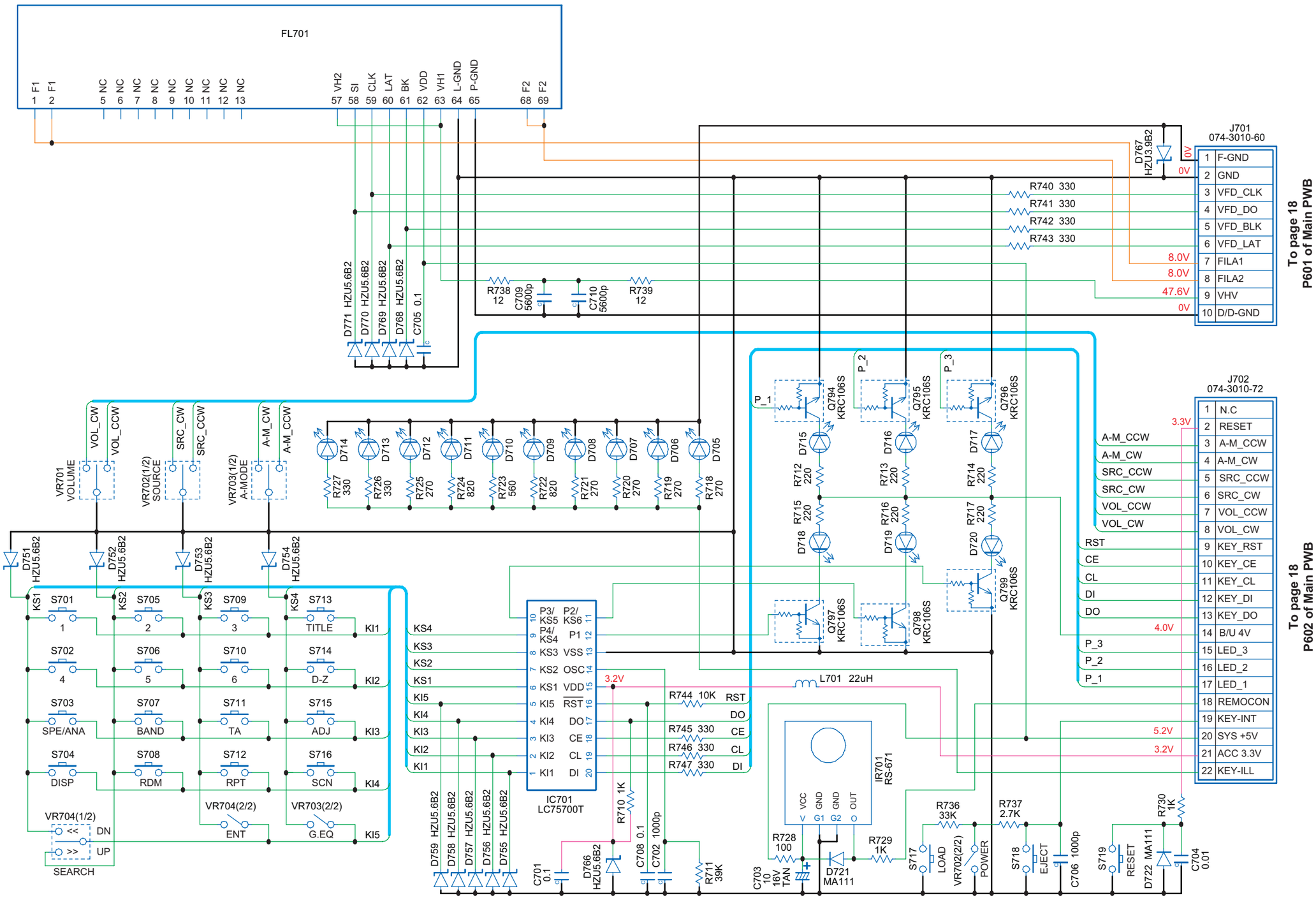


EXTENSION LEAD
854-6418-50



CIRCUIT DIAGRAM

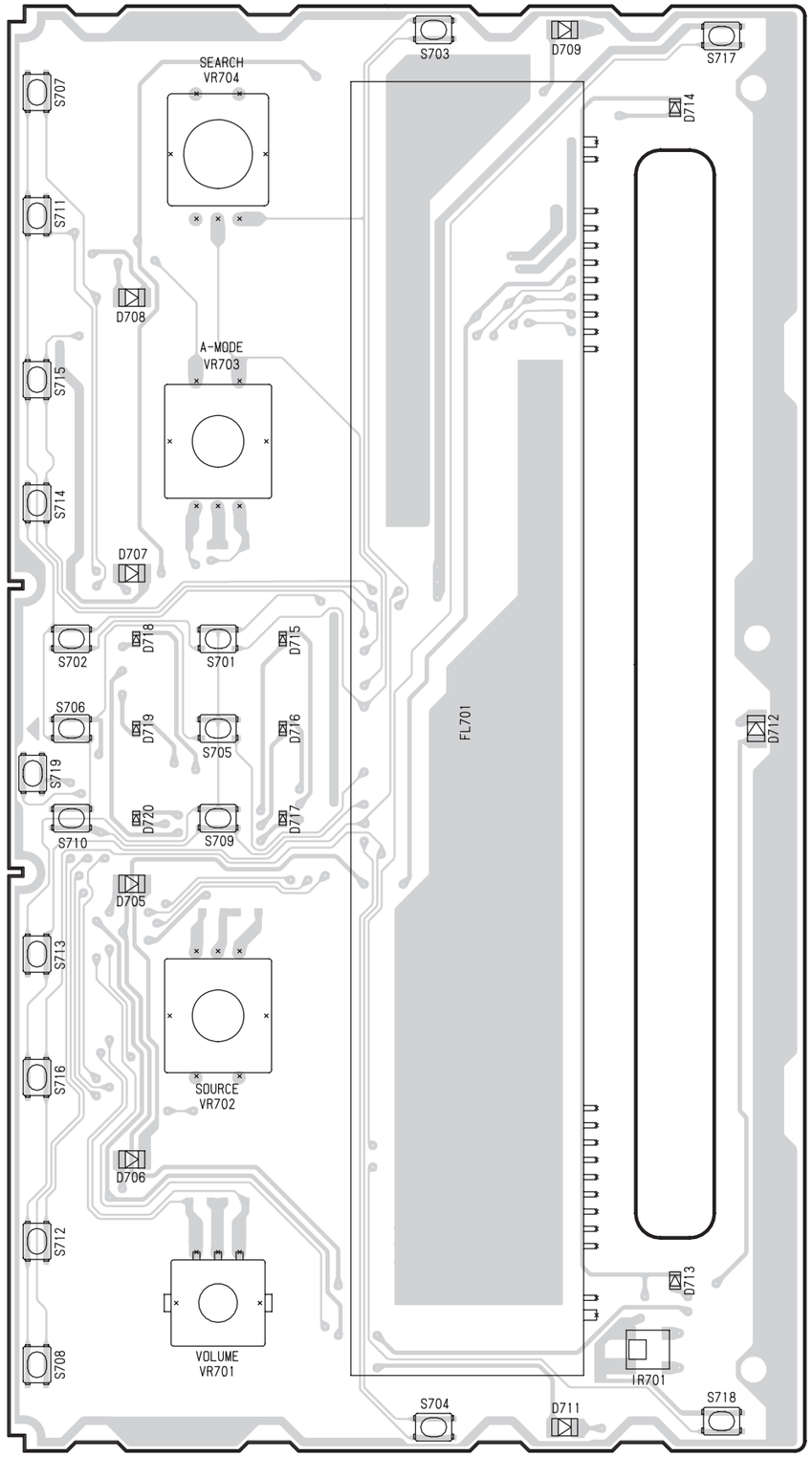
Switch PWB(B1) section



PRINTED WIRING BOARD

Switch PWB(B1) section

COMPONENT SIDE

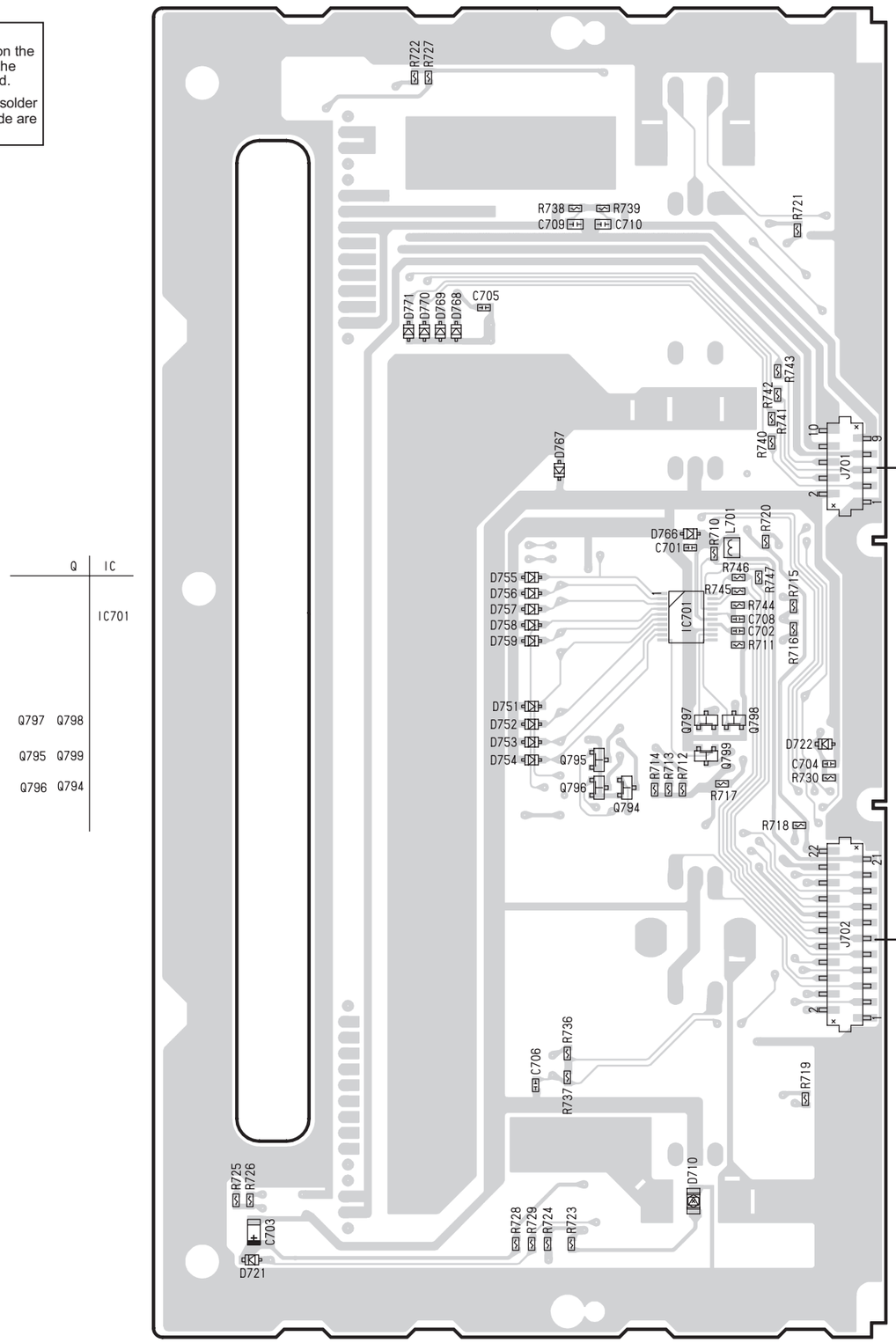


Caution:

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.

SOLDER SIDE



Q	IC
	IC701
Q797 Q798	
Q795 Q799	
Q796 Q794	

To page 16
P601 of Main PWB

To page 16
P602 of Main PWB

Main PWB(B2) section
: Component side

No.	Description	No.	Description
1	SP R/L(+)	2	SP R/L(-)
3	SP F/L(-)	4	PHONE INT
5	SP F/L(+)	6	ACC
7	SP F/R(+)	8	N.C
9	SP F/R(-)	10	REMOTE
11	SP R/R(+)	12	ILLUMI
13	SP R/R(-)	14	BACK UP(BUS)
15	BACK UP	16	GND

J101

16 14 12 10 8 6 4 2
15 13 11 9 7 5 3 1

* Refer to page 13 for the extension lead (854-6418-50).

J601
Ce-NET

No.	Description	No.	Description
1	GND	8	R-CH(-)
2	BACK UP	9	SYS-ACC
3	L-CH(+)	10	BUS(-)
4	N.C.	11	L-CH(-)
5	N.C.	12	ILLUMI
6	BUS(+)	13	N.C.
7	R-CH(+)		

RCA PIN CORD
855-5535-50

LINE OUT
AUX-IN LEFT — WHITE
AUX-IN RIGHT — RED
REAR LEFT — WHITE — BLACK
REAR RIGHT — RED
FRONT LEFT — WHITE — GRAY
FRONT RIGHT — RED

MINI JACK CORD
855-0569-52

CAR WIRED REMOCON

Q	IC
	IC101
	IC402
Q608	
	IC602
Q453 Q456 Q454 Q455	
	IC551 IC201
Q503 Q501 Q502	
	IC403
Q602 Q601	
	IC554 IC552
Q609 Q619	IC302 IC603
Q618 Q603 Q604	
Q213 Q216	
Q605 Q212 Q203 Q214 Q215 Q615 Q614	IC301 IC553 IC203
Q205	
Q207	IC605
Q206	IC604
	IC401
	IC601
Q208	IC606
Q610 Q606 Q607 Q613	IC607

COMPONENT SIDE

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

Flat wire
816-4023-50

To page M16
J1 of CD changer mechanism

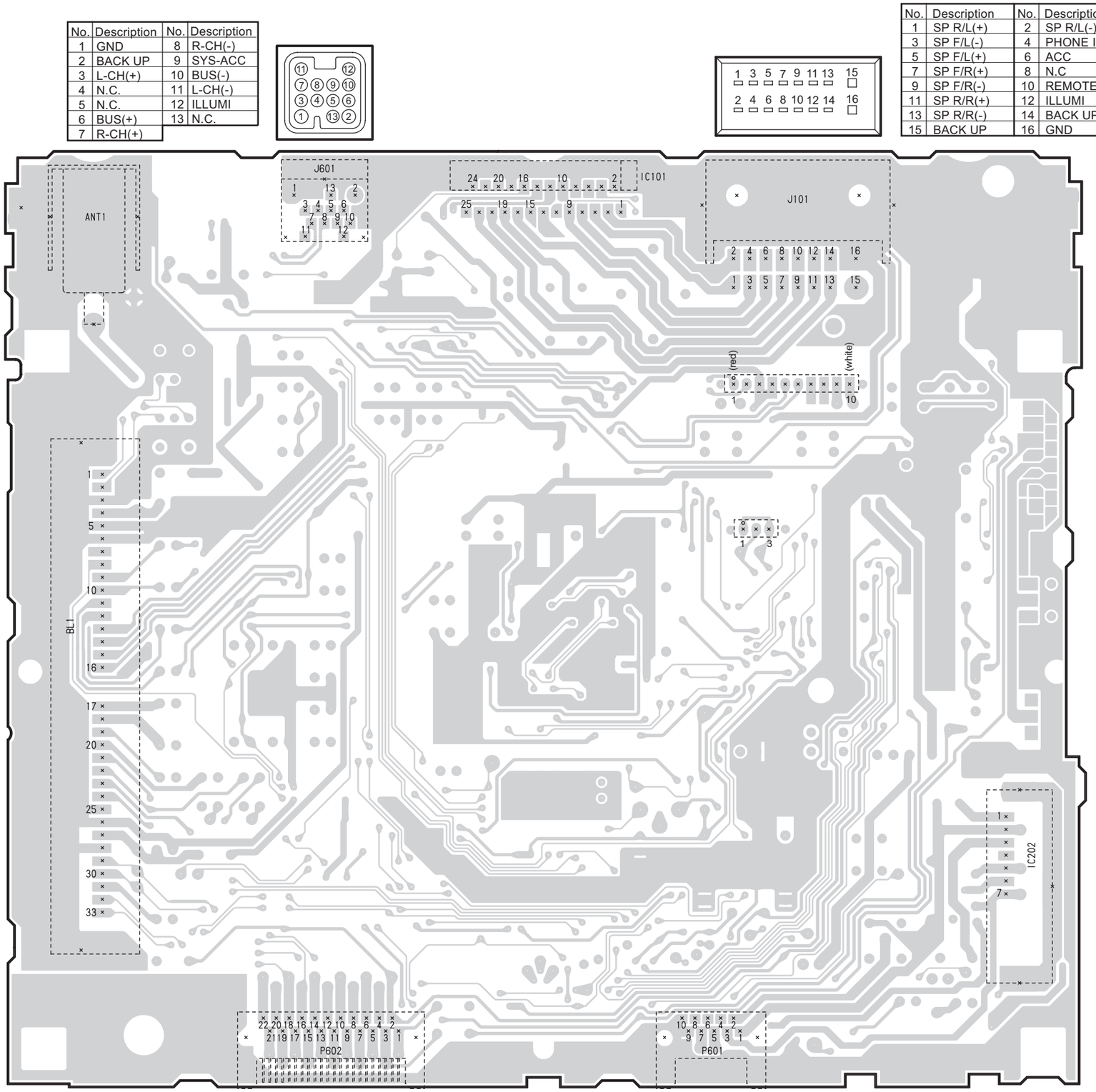
To page 15
J701 of Switch PWB

To page 15
J702 of Switch PWB

Main PWB(B2) section
: Solder side

No.	Description	No.	Description
1	GND	8	R-CH(-)
2	BACK UP	9	SYS-ACC
3	L-CH(+)	10	BUS(-)
4	N.C.	11	L-CH(-)
5	N.C.	12	ILLUMI
6	BUS(+)	13	N.C.
7	R-CH(+)		

No.	Description	No.	Description
1	SP R/L(+)	2	SP R/L(-)
3	SP F/L(-)	4	PHONE INT
5	SP F/L(+)	6	ACC
7	SP F/R(+)	8	N.C
9	SP F/R(-)	10	REMOTE
11	SP R/R(+)	12	ILLUMI
13	SP R/R(-)	14	BACK UP(BUS)
15	BACK UP	16	GND



SOLDER SIDE

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

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

CIRCUIT DIAGRAM

Main PWB(B2) section 1/3

No.	Description
1	GND
2	BACK UP
3	L-CH(+)
4	N.C.
5	N.C.
6	BUS(+)
7	R-CH(+)
8	R-CH(-)
9	SYS-ACC
10	BUS(-)
11	L-CH(-)
12	ILLUMI
13	N.C.

To page 19
Main PWB 2/3

To page 20
Main PWB 3/3

To page M15 J1 of CD changer mechanism

To page 14
J702 of Switch PWB

To page 14
J701 of Switch PWB

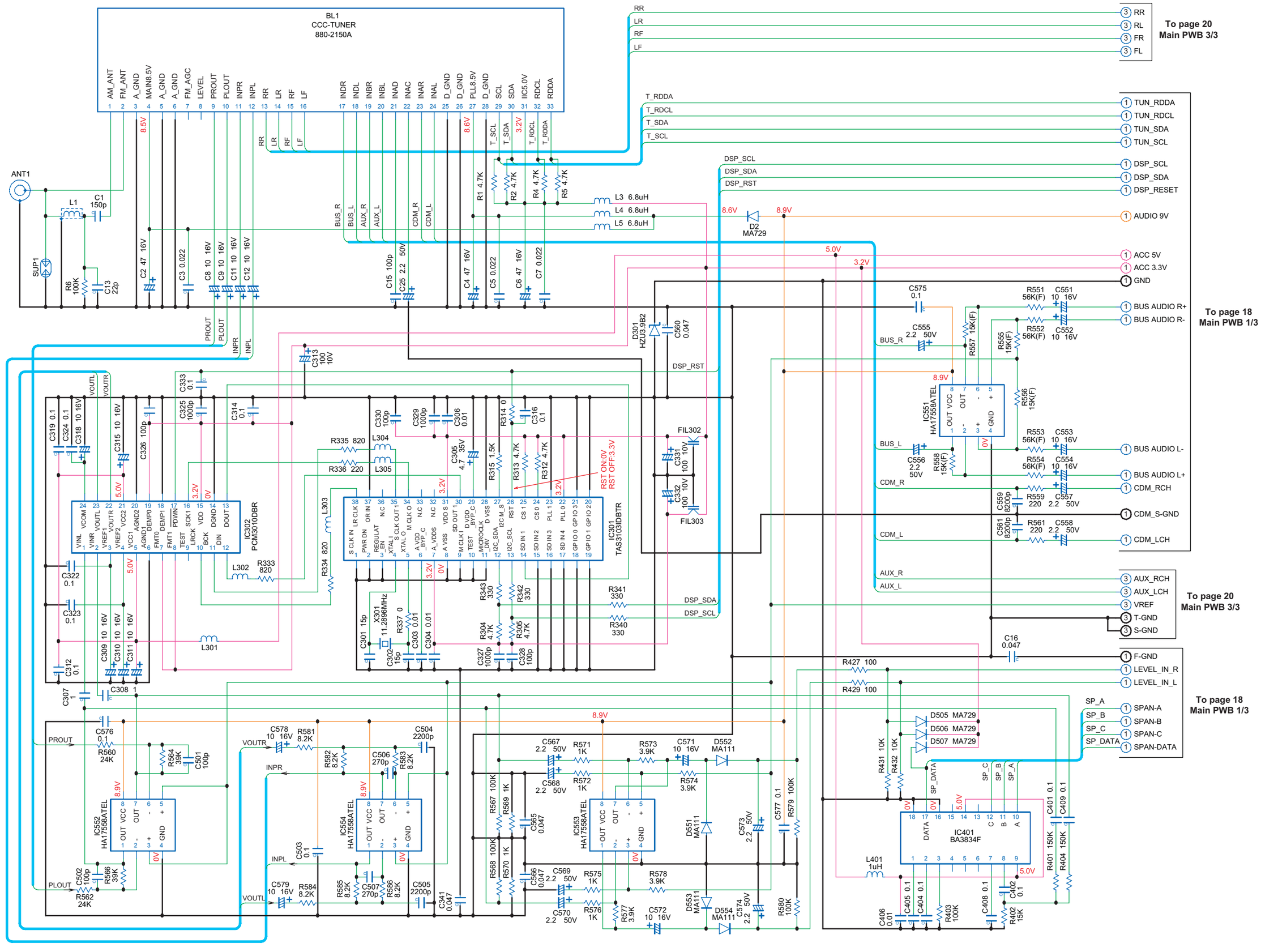
To page 19
Main PWB 2/3

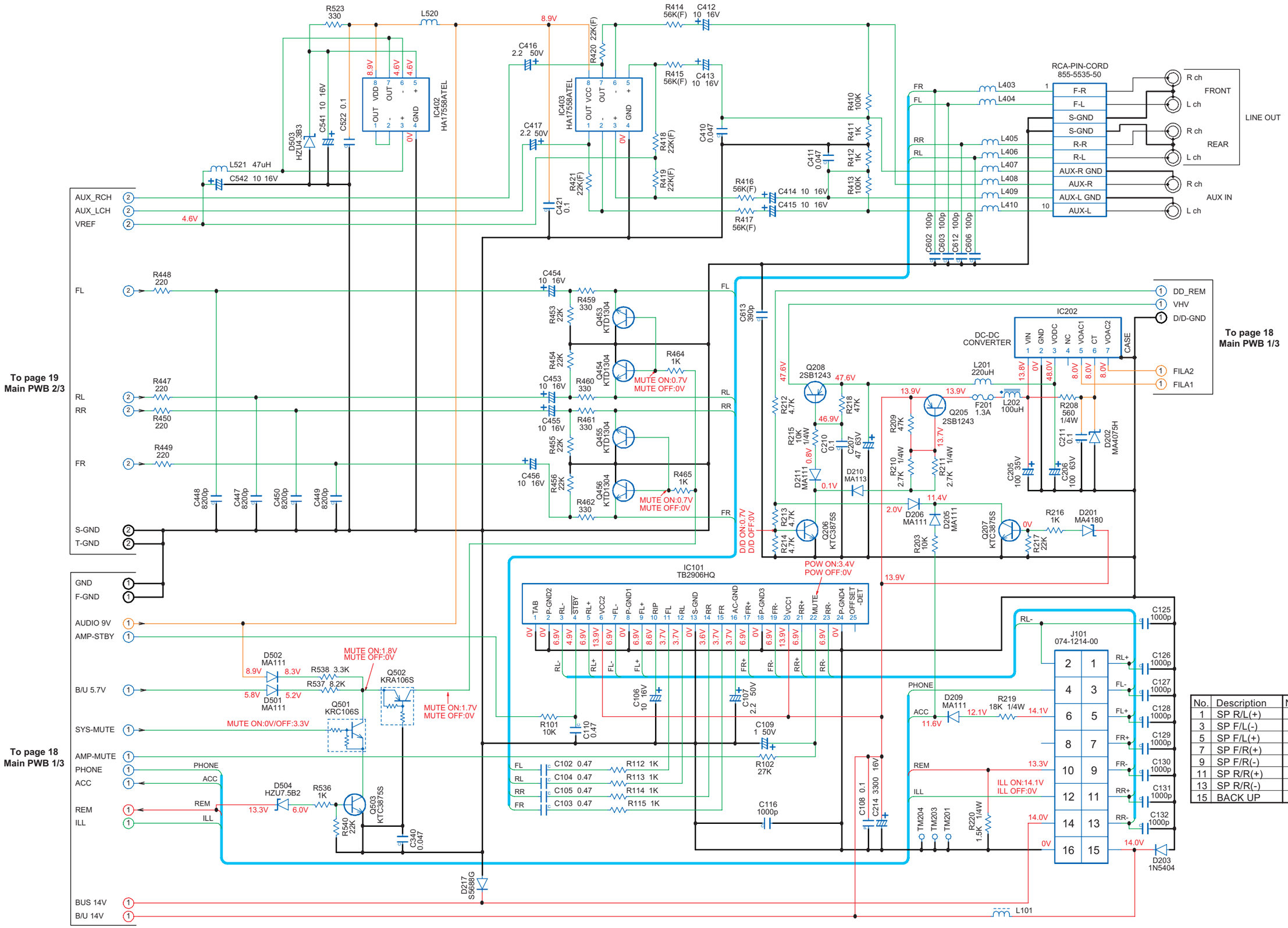
To page 20
Main PWB 3/3

To page 19
Main PWB 2/3

CAR WIRED REMOCON

Main PWB(B2) section 2/3





No.	Description	No.	Description
1	SP R/L(+)	2	SP R/L(-)
3	SP F/L(-)	4	PHONE INT
5	SP F/L(+)	6	ACC
7	SP F/R(+)	8	N.C
9	SP F/R(-)	10	REMOTE
11	SP R/R(+)	12	ILLUMI
13	SP R/R(-)	14	BACK UP(BUS)
15	BACK UP	16	GND

Clarion Co., Ltd.
50 Kamitoda, Toda-shi, Saitama 335-8511 Japan
Service Dept.: 5-66 Azuma , Kitamoto-shi, Saitama 364-0007 Japan
Tel: +81-48-541-2335 / 2432 FAX: +81-48-541-2703

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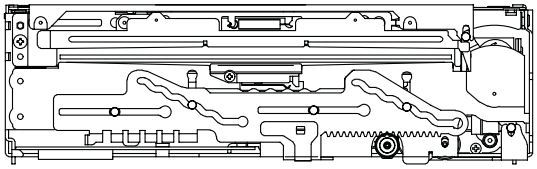
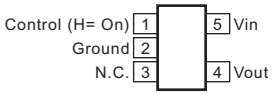


In Dash 6disc CD Auto Changer Mechanism(GI-X)

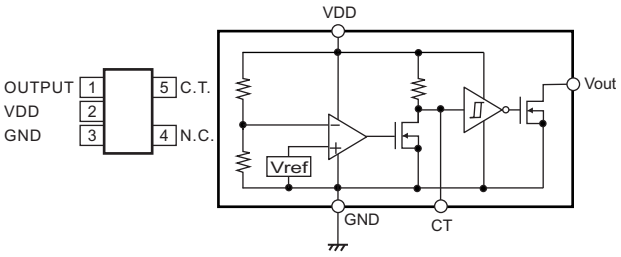
Model 929-0371-80

EXPLANATION OF IC

051-3364-90 NJU7771F15-TE2 1.5V Positive Voltage Regurator



051-5452-90 BD5235G-TR
Precision Vlotage Down Detector 3.5V



Terminal description

pin 1: OUTPUT	: N channel open drain output. This terminal will output L, if the voltage of VDD becomes lower than the setting voltage.
pin 2: VDD	: Positive supply voltage.
pin 3: GND	: Ground.
pin 4: N.C.	: Not in use.
pin 5: C.T.	: Delay time capacitor.

051-6711-20 TC94A34FG-004 CD-ROM/MP3/WMA Decoder

Terminal Description

pin 1: VDDP	: - :	Positive voltage supply.
pin 2: Reset	: IN :	Reset input.
pin 3: Standby	: IN :	Standby input.
pin 4: MiCS	: IN :	Microcomputer I/F. Chip select input.
pin 5: MiLP	: IN :	Microcomputer I/F. Latch pulse input.
pin 6: MiDio	:I/O:	Microcomputer I/F. I2C-SDA.
pin 7: MiCK	: IN :	Microcomputer I/F. Clock pulse input.
pin 8: MiACK	: O :	Microcomputer I/F. Acknowledge output.
pin 9: VDDT	: - :	Positive voltage supply.
pin 10: VSS	: - :	Ground.
pin 11: SDo 0	: O :	Audio I/F. Serial data output.
pin 12: BCKo	: O :	Audio I/F. Bit clock output.
pin 13: LRCKo	: O :	Audio I/F. LR clock output.
pin 14: SDi 0	: IN :	Audio I/F. Serial data input.
pin 15: BCKi A	: IN :	Audio I/F. Bit clock input.
pin 16: LRCKi A	: IN :	Audio I/F. LR clock input.
pin 17: Data	: IN :	Sub Code I/F. The data input.
pin 18: SBSY	: IN :	Sub Code I/F. Block sync.
pin 19: SFSY	: IN :	Sub Code I/F. Frame sync.
pin 20: TXo	: O :	SPD I/F. Transmission terminal.
pin 21: VDD	: - :	Positive voltage supply.
pin 22: CLOCK	:I/O:	Sub Code I/F Clock pulse input/output.
pin 23: VSS	: - :	Ground.
pin 24: io 0	:I/O:	SRAM/DRAM I/F. Parallel data input/output.
pin 25: io 1	:I/O:	SRAM/DRAM I/F. Parallel data input/output.
pin 26: io 2	:I/O:	SRAM/DRAM I/F. Parallel data input/output.
pin 27: io 3	:I/O:	SRAM/DRAM I/F. Parallel data input/output.
pin 28: Pio 4	:I/O:	General-purpose I/O terminal. Parallel data input/output.
pin 29: Pio 5	:I/O:	General-purpose I/O terminal. Parallel data input/output.
pin 30: Pio 6	:I/O:	General-purpose I/O terminal. Parallel data input/output.
pin 31: Pio 7	:I/O:	General-purpose I/O terminal. Parallel data input/output.
pin 32: WE	: O :	SRAM/DRAM I/F. Write enable.
pin 33: RAS	: O :	DRAM I/F. RAS output.
pin 34: CAS	: O :	DRAM I/F. CAS output.
pin 35: OE	: O :	SRAM/DRAM I/F. Output enable.
pin 36: Po 11	: O :	General-purpose output terminal.
pin 37: Po 10	: O :	General-purpose output terminal.

pin 38: Po 9	: O :	General-purpose output terminal.
pin 39: Po 8	: O :	General-purpose output terminal.
pin 40: VDDM	: - :	Positive voltage supply.
pin 41: SRMSTB	: IN :	Internal SRAM I/F. Standby input.
pin 42: VDDT	: - :	Positive voltage supply.
pin 43: AD 10	: O :	SRAM/FRAM I/F. Address output.
pin 44: AD 9	: O :	SRAM/FRAM I/F. Address output.
pin 45: AD 8	: O :	SRAM/FRAM I/F. Address output.
pin 46: AD 7	: O :	SRAM/FRAM I/F. Address output.
pin 47: AD 6	: O :	SRAM/FRAM I/F. Address output.
pin 48: AD 5	: O :	SRAM/FRAM I/F. Address output.
pin 49: AD 4	: O :	SRAM/FRAM I/F. Address output.
pin 50: AD 3	: O :	SRAM/FRAM I/F. Address output.
pin 51: AD 2	: O :	SRAM/FRAM I/F. Address output.
pin 52: AD 1	: O :	SRAM/FRAM I/F. Address output.
pin 53: AD 0	: O :	SRAM/FRAM I/F. Address output.
pin 54: VSS	: - :	Ground.
pin 55: VDD	: - :	Positive voltage supply.
pin 56: CKo	: O :	Clock output.
: Po 13	: O :	General-purpose output terminal.
pin 57: VDDX	: - :	Positive voltage supply.
pin 58: Xo	: O :	Crystal connection.
pin 59: Xi	: IN :	Crystal connection.
pin 60: VSSX	: - :	Ground.
pin 61: TEST	: IN :	H = Test.
pin 62: MiMD	: IN :	H = I2C, L = Normal.
pin 63: VSSP	: - :	Ground.
pin 64: VCOi	: O :	Control voltage output for VCO.

051-9318-10 GLT4160L04P-60TC 16M bit Dynamic RAM

Terminal	Description
pin 1 : VCC	: Positive supply voltage.
pin 2 : DQ 0	: Data input / output.
pin 3 : DQ 1	: Data input / output.
pin 4 : WE_	: Write enable.
pin 5 : RAS_	: Row address strobe.
pin 6 : NU	: Not in use.
pin 7 : NEX	: No existence.
pin 8 : A 10	: Address input.
pin 9 : A 0	: Address input.
pin 10: A 1	: Address input.
pin 11: A 2	: Address input.
pin 12: A 3	: Address input.
pin 13: VCC	: Positive supply voltage.
pin 14: VSS	: Ground.
pin 15: A 4	: Address input.
pin 16: A 5	: Address input.
pin 17: A 6	: Address input.
pin 18: A 7	: Address input.
pin 19: A 8	: Address input.
pin 20: NEX	: No existence.
pin 21: A 9	: Address input.
pin 22: OE_	: Output enable.
pin 23: CAS_	: Column address strobe.
pin 24: DQ 2	: Data input / output.
pin 25: DQ 3	: Data input / output.
pin 26: VSS	: Ground.

052-5070-91 T5AF4 Mechanism Controller

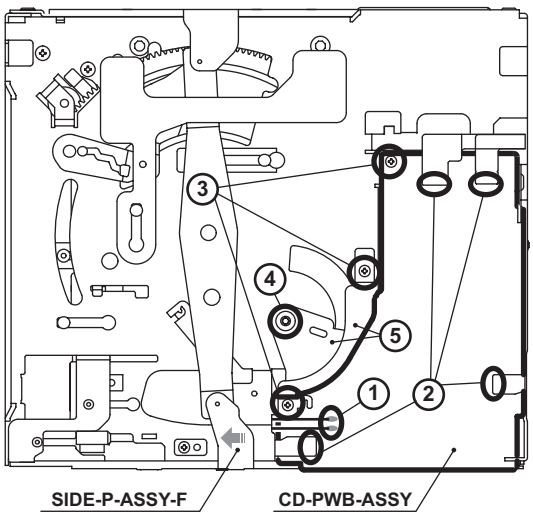
Terminal	Description
pin 1: Vref L	: - : Reference voltage.
pin 2: A VSS	: - : Negative voltage supply for analog section.
pin 3: A VCC	: - : Positive voltage supply for the internal analog section.
pin 4: LO CW	: O : Loading motor control signal output.
pin 5: LO CCW	: O : Loading motor control signal output.
pin 6: A MUTE	: O : The audio mute signal output.
pin 7: De-emphasis	: IN : De-emphasis ON command input.
pin 8: E-EJ	: IN : Emergency Eject input.
pin 9: P ON 1	: O : Power ON signal output.
pin 10: NU	: - : Not in use.
pin 11: P ON 3	: O : Power ON signal output.
pin 12: NU	: - : Not in use.
pin 13: NU	: - : Not in use.
pin 14: NU	: - : Not in use.
pin 15: NU	: - : Not in use.
pin 16: NU	: - : Not in use.
pin 17: NU	: - : Not in use.
pin 18: DSP SO	: O : Serial data output to the DSP IC.
pin 19: DSP SI	: IN : Serial data input from the DSP IC.
pin 20: DSP SCK	: O : The clock pulse output to DSP IC.
pin 21: FL TX	: O : The serial data output for flash memory.
pin 22: FL RX	: IN : The serial data input for flash memory.
pin 23: SW 9V	: O : 9V power supply control.
pin 24: PULL UP	: IN : PULL UP
pin 25: VCC	: - : Positive voltage supply.
pin 26: X out	: O : Crystal connection.
pin 27: VSS	: - : Negative voltage supply.
pin 28: X in	: IN : Crystal connection.
pin 29: PULL UP	: IN : PULL UP
pin 30: RESET	: IN : Reset signal input.
pin 31: TIME	: O : For Time base.
pin 32: NU	: - : Not in use.
pin 33: NC	: O : Not in use.
pin 34: NC	: O : Not in use.
pin 35: BU DET	: IN : Backup detection signal input.
pin 36: SW 5	: IN : The switch signal input.
pin 37: SBSY	: IN : Sub code block synchronous signal detection input.
pin 38: PON 2	: O : Power ON signal output.
pin 39: MODE CW	: O : Mode motor control.
pin 40: MODE CCW	: O : Mode motor control.
pin 41: U/D CW	: O : Holder control.
pin 42: U/D CCW	: O : Holder control.
pin 43: ALE	: O : The address latch enable output.
pin 44: DR MUTE	: O : Drive mute signal output to the CD IC.
pin 45: SRAM STNDB	: O : SRAM standby signal output.
pin 46: DSP RESET	: O : Reset signal output to the DSP IC.
pin 47: DSP CS	: O : Chip select signal output to the DSP.
pin 48: DSP LAT	: O : The latch pulse output to DSP IC.
pin 49: DSP ACK	: IN : DSP acknowledge.
pin 50: LIMIT	: IN : Inside limit switch signal input.
pin 51: EEP CS	: O : The chip select output to EEP-ROM.
pin 52: EEP SK	: O : The clock pulse output to the EEP-ROM.
pin 53: EEP DI	: IN : The serial data input from the EEP-ROM.
pin 54: EEP DO	: O : The serial data output to the EEP-ROM.
pin 55: HSSW	: IN : It is used at the jitter measurement (the speed is 2X, shock proof is through).
pin 56: HSSW 2	: IN : It is used at the jitter measurement (the speed is 1X, shock proof is through).
pin 57: DSP REQ	: IN : DSP request input.
pin 58: DSP STNDB	: O : DSP standby output.
pin 59: NU	: - : Not in use.
pin 60: NU	: - : Not in use.
pin 61: BUC CLOCK	: O : CD IC clock pulse output.
pin 62: VSS	: - : Negative voltage supply.
pin 63: NMI	: IN : Connect to VDD via a resistor.
pin 64: VCC	: - : Positive voltage supply.

pin 65: BUS 0 :I/O: CD IC Data input / output.
pin 66: BUS 1 :I/O: CD IC Data input / output.
pin 67: BUS 2 :I/O: CD IC Data input / output.
pin 68: BUS 3 :I/O: CD IC Data input / output.
pin 69: CCE : O : The chip enable signal output.
pin 70: CD RESET : O : The reset pulse output to the CD IC.
pin 71: T DATA : O : The display data output for the test mode indication.
pin 72: T CLK : O : The test clock output.
pin 73: T CLR : O : The clear signal output for the test mode indication.
pin 74: NU : - : Not in use.
pin 75: NU : - : Not in use.
pin 76: NU : - : Not in use.
pin 77: NU : - : Not in use.
pin 78: FL BOOT : IN : Flash memory control.
pin 79: TEST 1 : IN : For the test.
pin 80: TEST 2 : IN : For the test.
pin 81: TEST 3 : IN : For the test.
pin 82: TEST 4 : IN : For the test.
pin 83: REQ O : O : Transmit request signal output.
pin 84: I2C SDA :I/O: I2C serial data input/output.
pin 85: I2C SCL :I/O: I2C serial clock input/output.
pin 86: ACC DET : IN : ACC detection signal input.
pin 87: NU : - : Not in use.
pin 88: SW 1 : IN : The switch signal input.
pin 89: VCC : - : Positive voltage supply.
pin 90: SW 2 : IN : The switch signal input.
pin 91: VSS : - : Negative voltage supply.
pin 92: SW 3 : IN : The switch signal input.
pin 93: SW 4 : IN : The switch signal input.
pin 94: NU : - : Not in use.
pin 95: PT 1 : IN : The photo sensor signal input.
pin 96: PT 2 : IN : The photo sensor signal input.
pin 97: PT 3 : IN : The photo sensor signal input.
pin 98: PT 4 : IN : The photo sensor signal input.
pin 99: PT 5 : IN : The photo sensor signal input.
pin100: Vref H : - : Reference voltage.

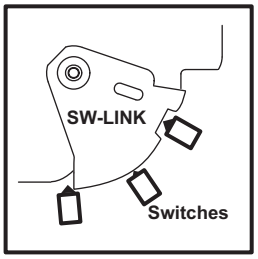
DISASSEMBLY

How to remove "CD-PWB-ASSY"

1. Add +5V to "U+" terminal of UD-MOTOR-ASSY,then SIDE-P-ASSY-F moves outside of CD-PWB.
2. Release four FPCs.
3. Remove three screws
4. Remove the washer.
5. Remove SW-H-PLATE and SW-LINK, and remove CD-PWB-ASSY.

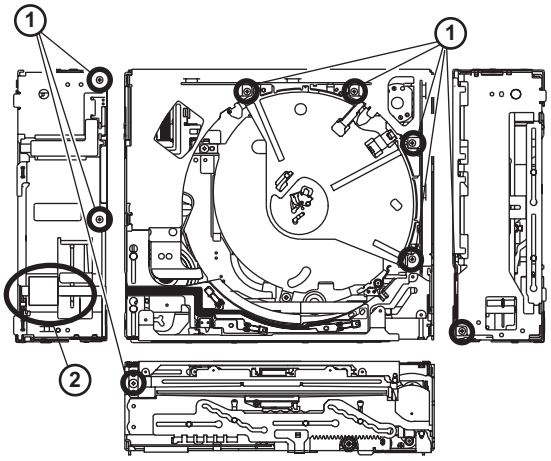


* When assembling, match SW LINK to three switches.

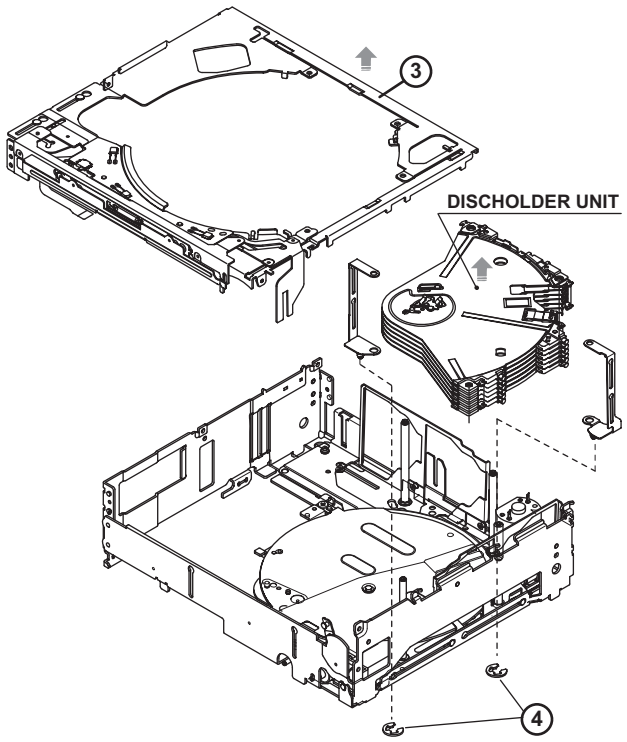


How to remove "DISCHOLDER UNIT"

1. Remove eight screws.
2. Remove the FPC.

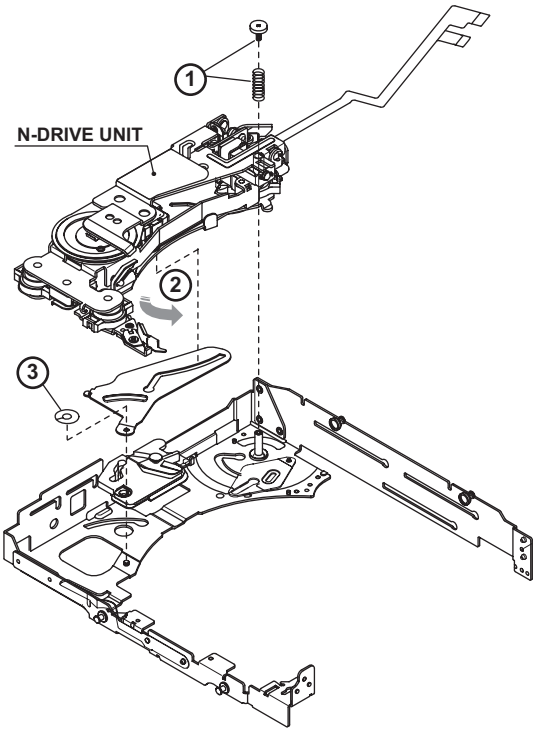


3. Remove UPPER UNIT ASSY.
4. Remove two C-RINGs, and remove DISCHOLDER UNIT.



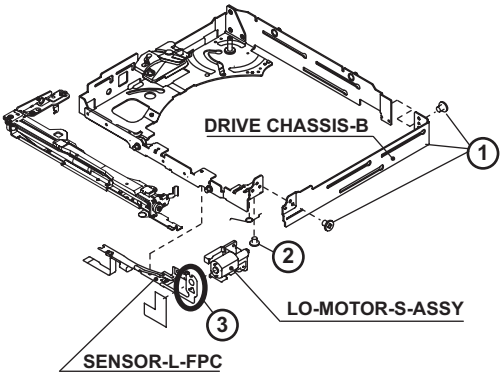
How to remove "N-DRIVE UNIT"

1. Remove the screw and DRIVE SPRING-A.
2. Rotate N-DRIVE UNIT internally.
3. Remove the washer, and remove N-DRIVE UNIT.



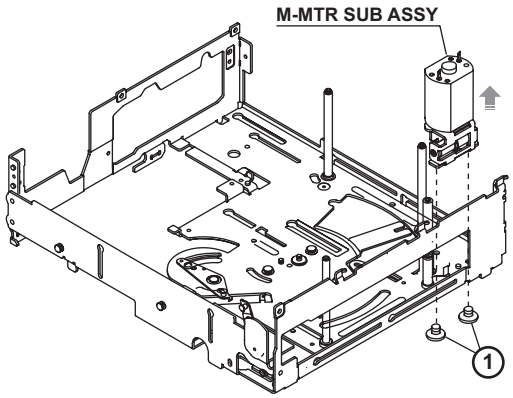
How to remove "LO-MOTOR-S-ASSY"

1. Remove two screws and DRIVE CHASSIS-B.
2. Remove the screw of the bottom side.
3. Remove the solder of SENSOR-L-FPC, and remove LO-MOTOR-S-ASSY.



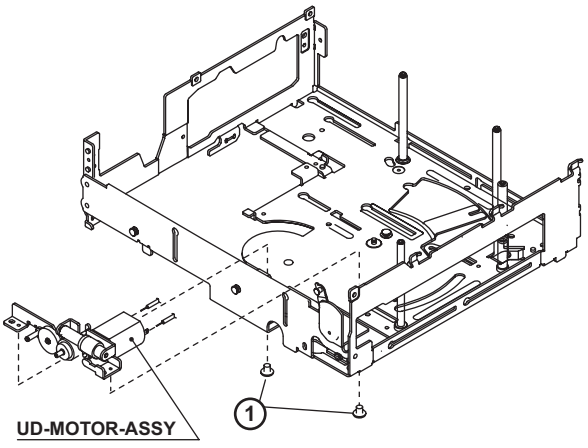
How to remove "M-MTR SUB ASSY"

1. Remove two screws, and remove M-MTR SUB ASSY.

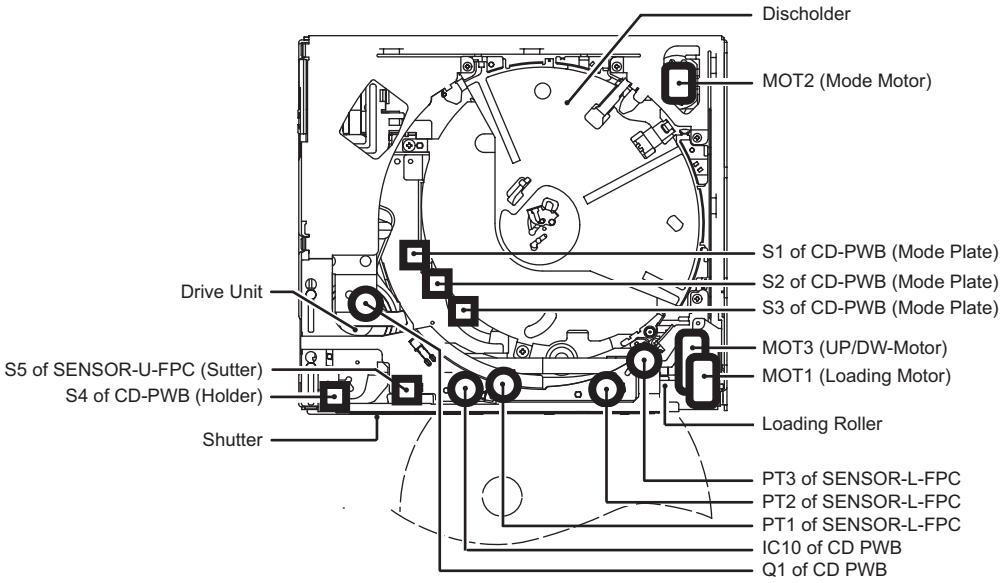


How to remove "UD-MOTOR-ASSY"

1. Remove the screw of the bottom side, and remove UD-MOTOR-ASSY.



OPERATION



Function of Mechanism

[DISC HOLDER]
Six holders.
(Related motor:UP/DW-Motor)

[DRIVE UNIT]
Chukking of a play disc.
(Related Motor:Mode motor)

[LOADING ROLLER]
Disk is stored/ejected by rotation.
(Related Motor:Laoding motor)

[SHUTTER]
Shutter at disc insertion.
(Related Motor:Mode Motor)

Function of Motors

[MOT1 LOADING MOTOR]
Rotation of loading roller.
(Related Sensor:PT1,2,3,Q1)

[MOT2 MODE MOTOR]
Rotation of mode plate.
Chukking disc.
Opening/closing holder.
Movement of loading/ejecting roller.
Opening/closing shutter.
(Related Sensor:S1,2,3)

[MOT3 UP/DW-MOTOR]
Going up and down of disc holder.
Selection of disc holder.
(Related Sensor:S4,IC10)

Function of Switches

[S1,2,3]
Detect a home position of mode plate.
Detect mode plate position by combination of on and off.

[S4]
Detection of initial position of holder.
Initial position:S4-ON,IC10-bright.

[S5]
Opening/closing detection of shutter.
OFF:Close, ON:Open

Function of Photo sensors

[PT1]
Detection of start loading and passing of disc.
Bright:no DISC, Dark:DISC

[PT2]
Detection of finish eject and passing of disc.
Bright:no DISC, Dark:DISC

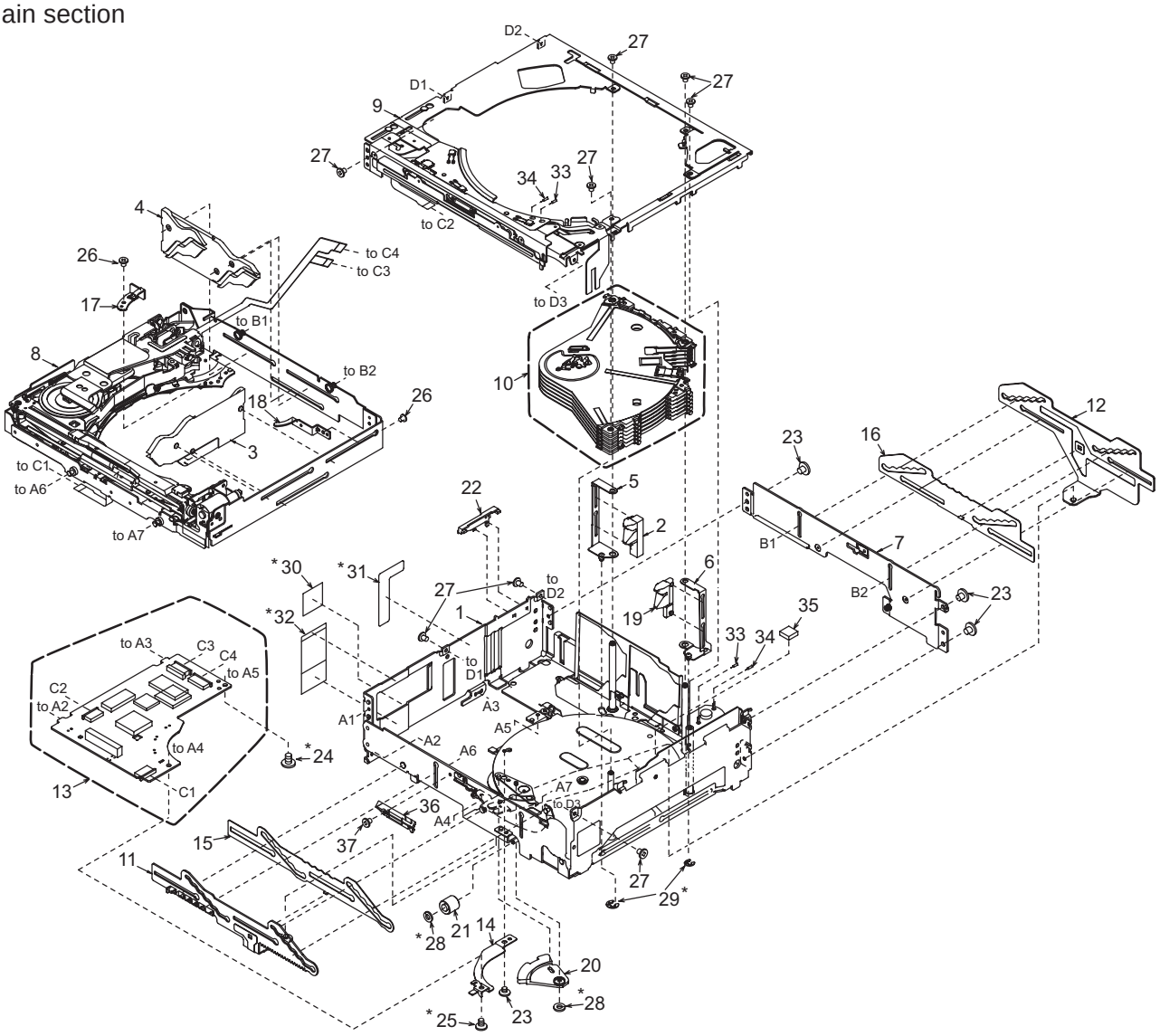
[PT3]
Detection of store and passing of disc.
Bright:no DISC, Dark:DISC

[Q1]
Detection of passing of disc.
Bright:no DISC, Dark:DISC

[IC10]
Detection of holder position

EXPLODED VIEW/PARTS LIST

Main section



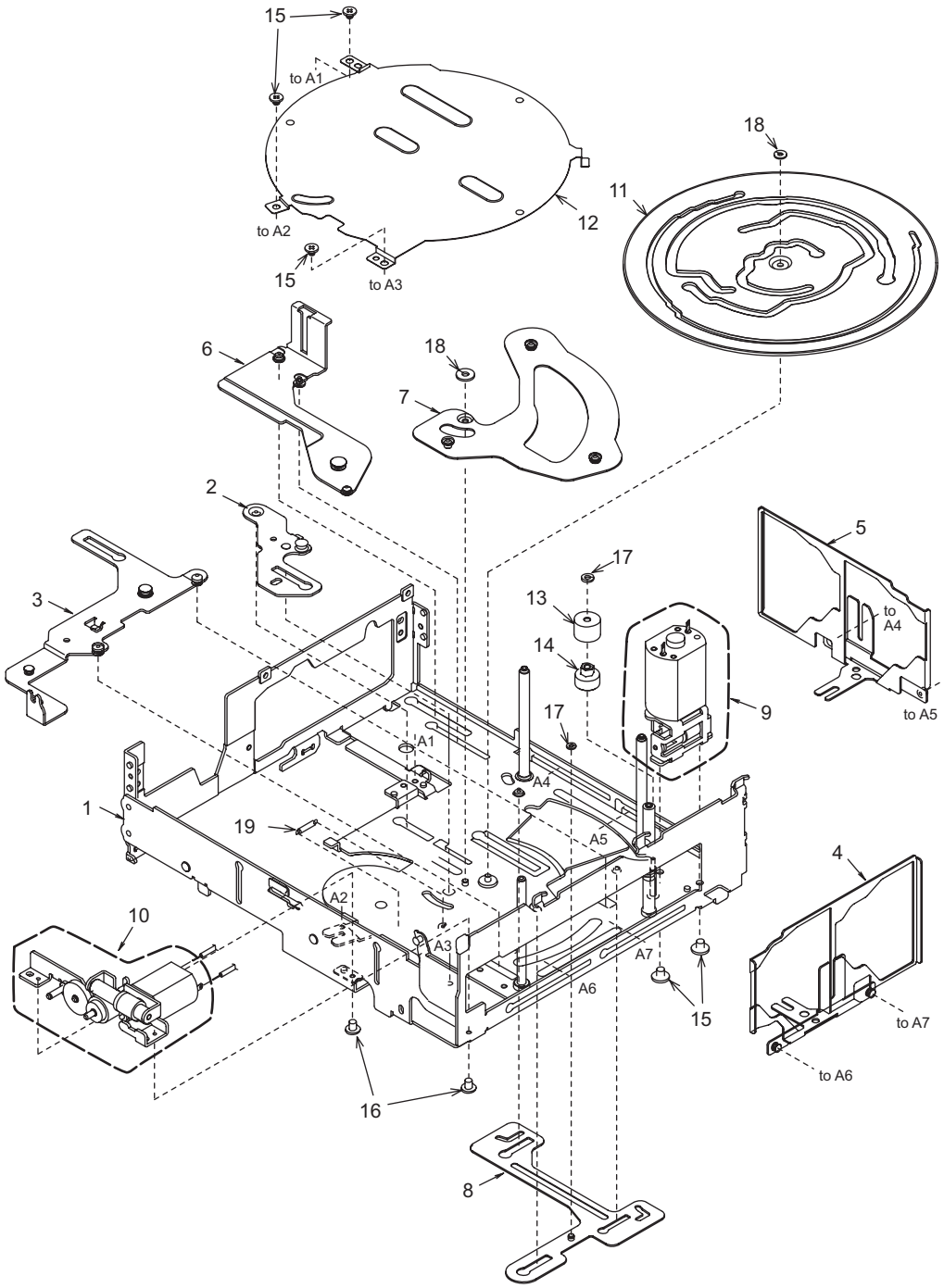
* Do not reuse the following parts.

(No.24,25,28,29,30,31,32)

NO.	PART NO.	DESCRIPTION	Q'TY
1	966-1756-24	LOWER UNIT ASSY	1
2	966-0667-21	DISC STP-ASSY L	1
3	966-0668-22	DH-SEL-ASSY S	1
4	966-0669-22	DH-SEL-ASSY R	1
5	966-0670-22	DS-SP-ASSY L	1
6	966-1760-21	DS-SP-ASSY R	1
7	966-0672-21	REAR-P-ASSY	1
8	966-1753-91	N-DRIVE-CH UNIT	1
9	966-1764-21	UPPER UNIT ASSY	1
10	HBS-566-100	DISC HOLDER UNIT	1
11	966-1771-21	SLIDE-P-ASSY F	1
12	966-0709-21	SLIDE-P-ASSY	1
13	HBS-564-100	CD-PWB-ASSY	1
14	620-1640-20	SW-H-PLATE	1
15	620-1778-20	GAP PLATE F	1
16	620-1662-21	GAP PLATE R	1
17	620-1685-21	DS-PLATE L	1
18	620-1686-20	DS-PLATE R	1
19	621-1760-21	DISC STOPPER R	1

NO.	PART NO.	DESCRIPTION	Q'TY
20	621-1636-24	SW LINK	1
21	621-1765-20	UD-GEAR-D	1
22	621-1715-20	FPC-STOPPER	1
23	716-1850-01	SCREW(M2.0x2.0)	4
24	716-1850-02	SCREW(M2.0x2.0)	1
25	716-1851-02	SCREW(M2.0x3.0)	1
26	716-3450-00	SCREW(M1.7x2.0)	2
27	716-3451-01	SCREW(M1.7x2.5)	8
28	746-0761-00	WASHER	2
29	744-0045-01	C-RING	2
30	347-7271-00	FPC SHEET	1
31	347-7275-00	PROTECT SHEET	1
32	347-7276-00	FPC-SHEET C	1
33	800-4921-60	VINYL-COAT-WIRE	1
34	802-4921-60	VINYL-COAT-WIRE	1
35	345-5824-00	RUBBER PART	1
36	621-1763-20	LOADING GUIDE B	1
37	716-1859-01	IT SCREW(M1.7 x 2)	1

Lower unit assy section



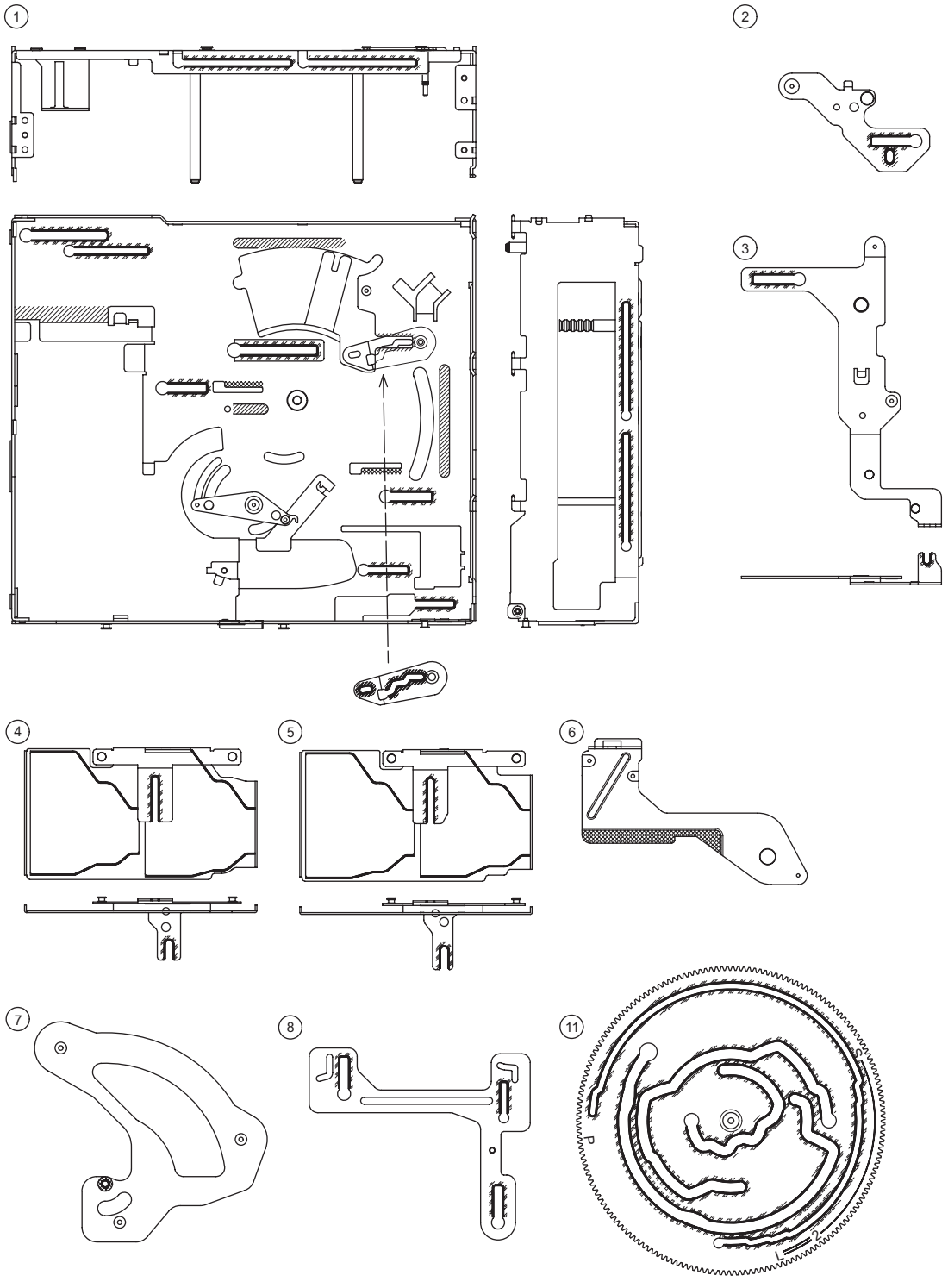
NO.	PART NO.	DESCRIPTION	Q'TY
1	966-1757-21	LOWER-C-ASSY	1
2	966-0658-21	DH-SP-ASSY A	1
3	966-1758-20	DS-SP-ASSY A	1
4	966-0660-22	DH-SP-ASSY S	1
5	966-0661-22	DH-SP-ASSY R	1
6	966-0677-23	D-SHT PL-B-ASSY	1
7	966-0659-21	DH-SP-ASSY B	1
8	966-1759-00	DS-SP-ASSY B	1
9	HBS-546-100	M-MTR SUB ASSY	1
10	HBS-568-100	UD-MOTOR-ASSY	1

NO.	PART NO.	DESCRIPTION	Q'TY
11	620-1771-22	CAM GEAR	1
12	620-1624-24	GEAR COVER	1
13	621-0732-21	M-GEAR B	1
14	621-0733-20	M-GEAR C	1
15	716-1850-01	SCREW(M2.0x2.0)	5
16	716-3451-01	SCREW(M1.7x2.5)	2
17	746-0761-00	WASHER	2
18	746-0768-00	WASHER	2
19	750-6756-00	SW-L-SPRING	1

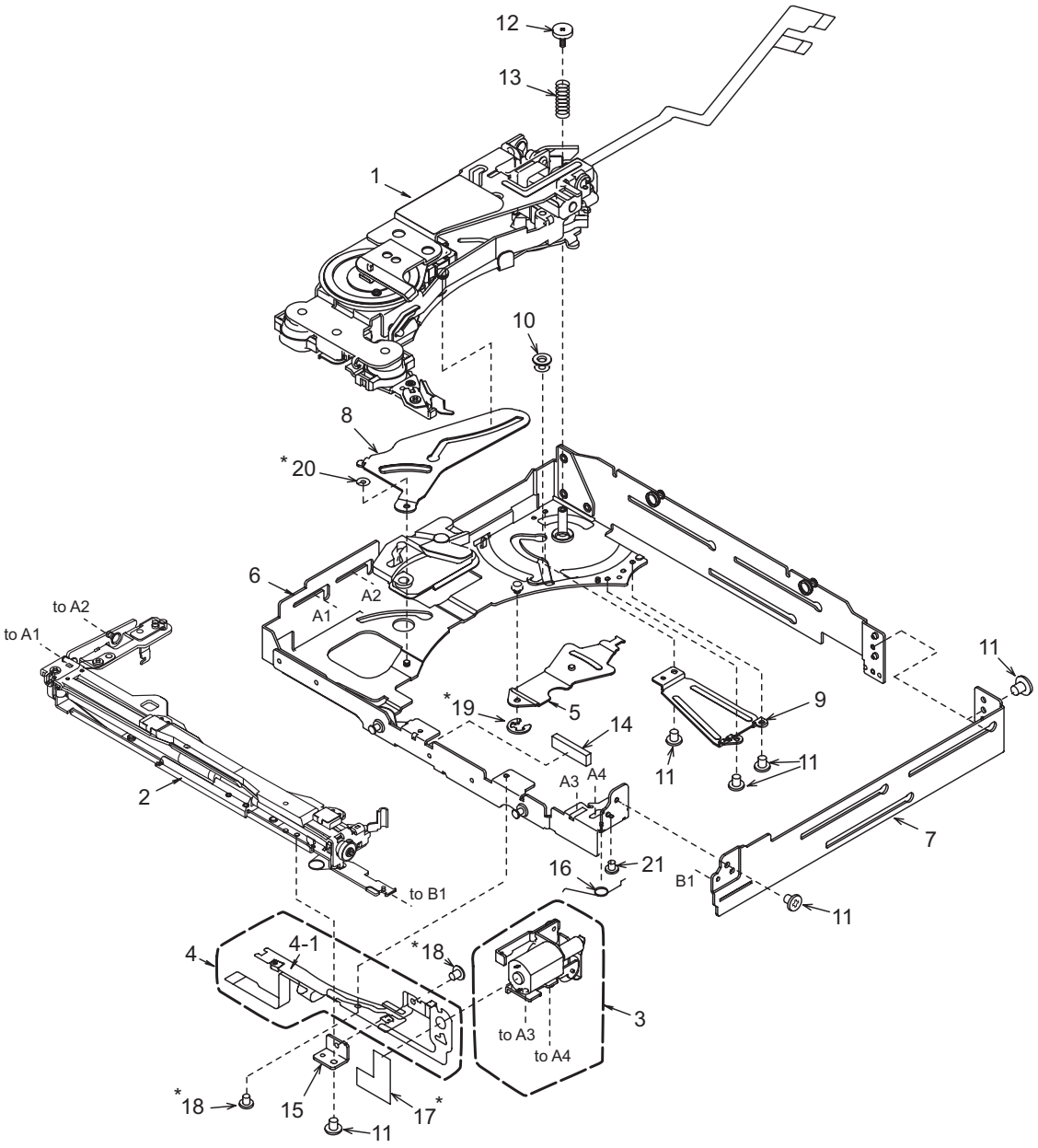
[Grease Point]

* Grease: SANKOL FG-87HSR

Put grease on the surface	
Put grease on the reverse side	
Put grease on the both sides	
Put grease on the edge	



N-Drive-CH unit section



* Do not reuse the following parts.
(No.17,18,19,20)

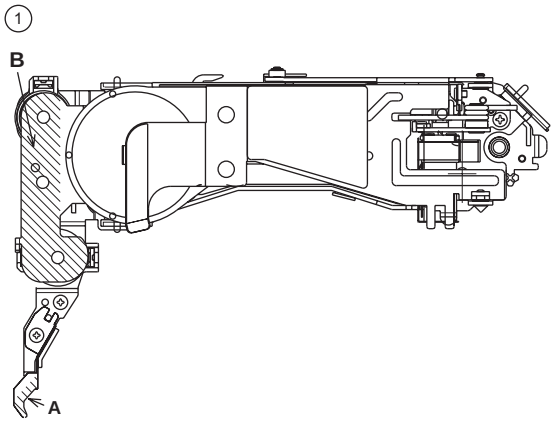
NO.	PART NO.	DESCRIPTION	Q'TY
1	HBS-565-100	N-DRIVE UNIT	1
2	HBS-567-100	LOADING-U-ASSY	1
3	HBS-556-100	LO-MOTOR-S-ASSY	1
4	HBS-552-100	L-SENSOR-S-ASSY	1
4-1	----------	SENSOR-L-FPC	1
5	966-0676-20	D-SHT LK-A-ASSY	1
6	966-1755-00	DRIVE-CH A ASSY	1
7	620-1681-21	DRIVE CHASSIS B	1
8	620-1672-21	DR-SUPPORT-PL	1
9	620-1680-20	D-SHIFT COVER	1
10	622-1743-20	D-SHIFT ROLLER B	1

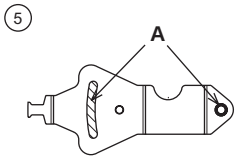
NO.	PART NO.	DESCRIPTION	Q'TY
11	716-3450-00	SCREW(M1.7x2.0)	6
12	716-3459-01	SCREW(M1.7x2.0)	1
13	750-6761-20	DRIVE SPRING A	1
14	345-5868-00	RUBBER PART	1
15	620-1651-20	S-PWB-PLATE	1
16	750-6754-20	LO-ES-SPRING B	1
17	345-5424-01	SEN-FPC GUIDE	1
18	716-1859-01	SCREW(M1.7x2.0)	2
19	744-0039-00	E-RING	1
20	746-0870-00	WASHER	1
21	716-3538-00	SCREW(M1.7x2.0)	1

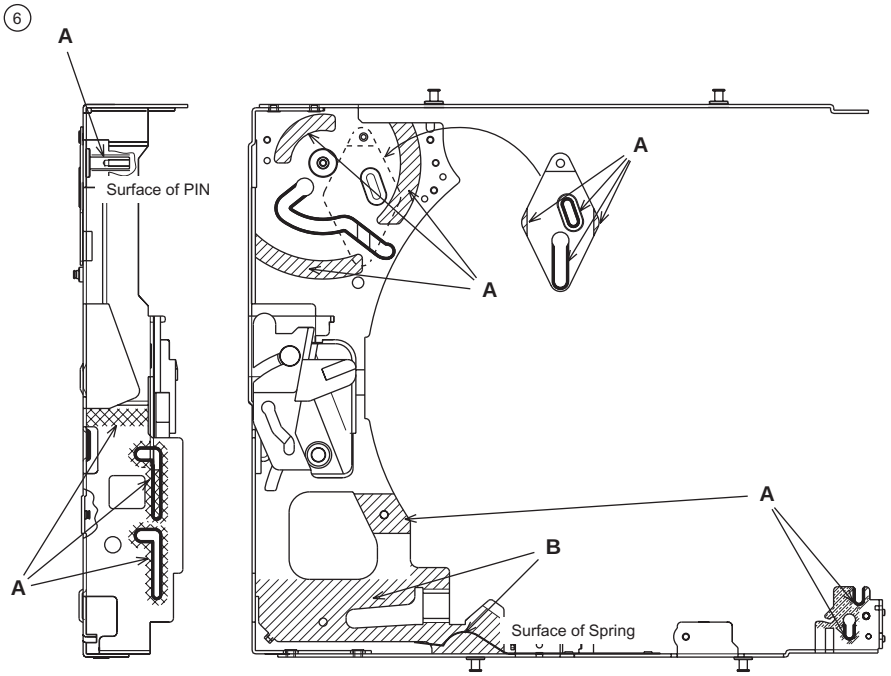
[Grease Point]

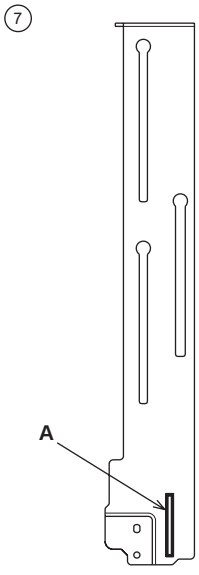
* Grease **A**: SANKOL FG-87HSR
* Grease **B**: SANKOL CFD-006MBL

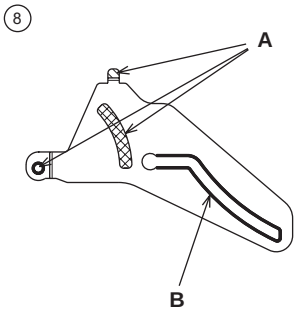
Put grease on the surface	
Put grease on the reverse side	
Put grease on the both sides	
Put grease on the edge	

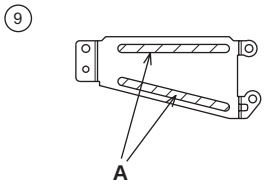


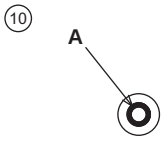




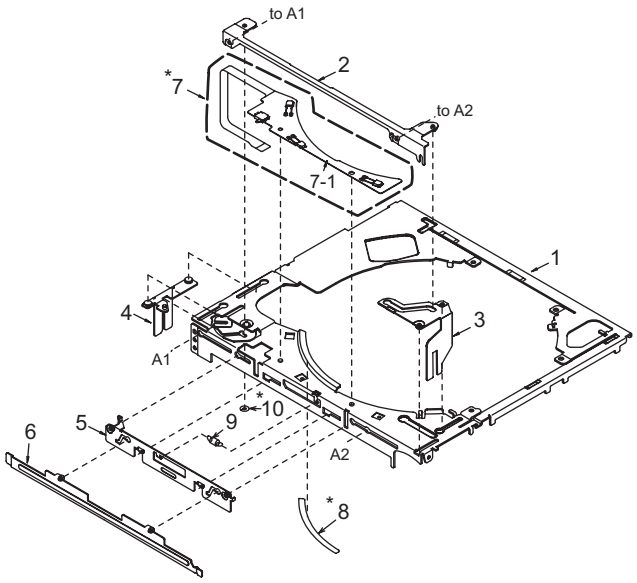








Upper unit assy section



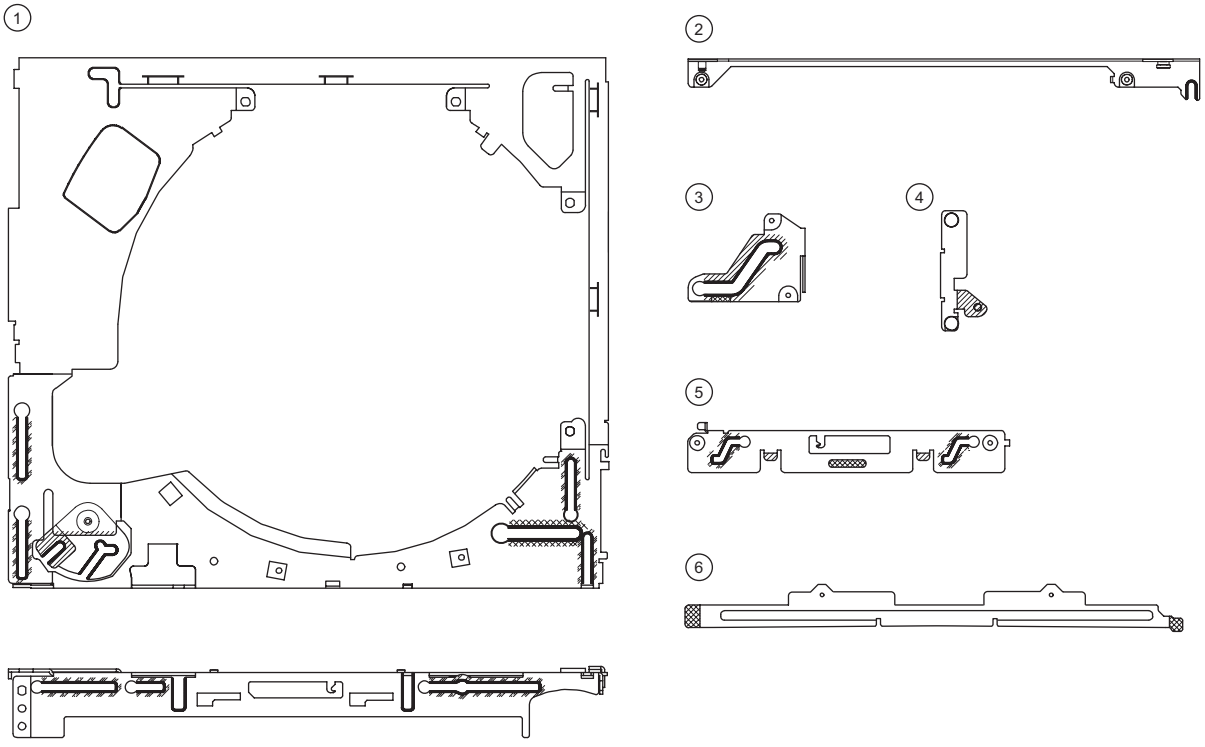
* Do not reuse the following parts.
(No.7,8,10)

NO.	PART NO.	DESCRIPTION	Q'TY
1	966-1761-21	UPPER-CHA-ASSY	1
2	966-1765-20	LO-SHIFT A ASSY	1
3	966-0700-22	LO-SHIFT B ASSY	1
4	966-0701-21	LO-SHIFT ASSY	1
5	966-1766-20	SHUTTER-PL-ASSY	1
6	966-1763-20	SHUTTER ASSY	1
7	HBS-553-100	U-SENSOR-S-ASSY	1
7-1	----------	SENSOR-U-FPC	1
8	347-7272-00	RATTLE SHEET	1
9	750-6755-21	SHUTTER SPRING	1
10	746-0870-00	WASHER	1

[Grease Point]

* Grease: SANKOL FG-87HSR

Put grease on the surface	
Put grease on the reverse side	
Put grease on the both sides	
Put grease on the edge	



ELECTRICAL PARTS LIST

CD PWB(BM1) section

REF No.	PART No.	DESCRIPTION
C1	042-0672-00	25V 47uF TA
C2	166-1011-50	100pF CH
C3	168-1042-78	16V 0.1uF
C4	178-1052-78	1uF
C5	042-0671-01	10V 47uF TA
C6	168-1045-56	0.1uF Z
C7	168-1032-55	0.01uF K
C8	168-1045-56	0.1uF Z
C9	178-1052-78	1uF
C10	168-1045-56	0.1uF Z
C11	168-1045-56	0.1uF Z
C12	178-1052-78	1uF
C13	178-1052-78	1uF
C14	042-0671-01	10V 47uF TA
C15	168-1032-55	0.01uF K
C20	178-1052-78	1uF
C21	168-1042-78	16V 0.1uF
C22	178-1052-78	1uF
C23	168-1045-56	0.1uF Z
C24	042-0671-01	10V 47uF TA
C25	168-1042-78	16V 0.1uF
C26	168-1045-56	0.1uF Z
C27	168-4732-78	0.047uF K
C28	166-4701-50	47pF CH
C29	168-4732-78	0.047uF K
C30	166-4711-50	470pF CH
C31	168-1532-55	0.015uF K
C32	166-4711-50	470pF CH
C33	168-1045-56	0.1uF Z
C34	168-6822-55	6800pF K
C35	168-1032-55	0.01uF K
C38	168-3332-78	0.033uF K
C39	168-4722-55	4700pF K
C40	168-1042-78	16V 0.1uF
C42	168-1045-56	0.1uF Z
C43	168-1532-55	0.015uF K
C44	168-1045-56	0.1uF Z
C45	168-1522-55	1500pF K
C46	168-1045-56	0.1uF Z
C47	166-6811-50	680pF
C48	166-6801-50	68pF CH
C49	178-1052-78	1uF
C50	042-0671-01	10V 47uF TA
C51	042-0671-01	10V 47uF TA
C52	178-1052-78	1uF
C53	168-1042-78	16V 0.1uF
C54	178-1052-78	1uF
C55	178-1052-78	1uF
C56	042-0671-01	10V 47uF TA
C57	168-1042-78	16V 0.1uF
C59	168-1045-56	0.1uF Z
C60	178-1052-78	1uF
C61	168-1032-55	0.01uF K
C62	168-1045-56	0.1uF Z
C63	168-1045-56	0.1uF Z
C64	168-1045-56	0.1uF Z
C65	168-1045-56	0.1uF Z
C66	168-1045-56	0.1uF Z
C67	168-1045-56	0.1uF Z
C68	168-1045-56	0.1uF Z
C70	168-1045-56	0.1uF Z
C71	168-1045-56	0.1uF Z
C72	168-1045-56	0.1uF Z

REF No.	PART No.	DESCRIPTION
C73	178-1052-78	1uF
C74	168-1045-56	0.1uF Z
C75	168-2222-55	2200pF K
C81	166-1007-50	10pF CH
C82	166-1007-50	10pF CH
C83	178-1052-78	1uF
C85	178-1052-78	1uF
C86	166-1201-50	12pF CH
C87	042-1702-90	6.3V 100uF
C91	168-1032-55	0.01uF K
CCT1	050-0145-59	1/16W 22 ohm x4
CCT2	050-0145-54	1/16W 47k ohm x4
CCT3	050-0145-54	1/16W 47k ohm x4
CCT4	050-0145-55	1/16W 10k ohm x4
D1	001-4301-14	HZU 3.0B1
D1	001-0529-14	MA8030-L
D2	001-0367-91	1SS226
D3	001-4301-16	HZU 3.3B1
D3	004-0529-16	MA8033-L
D4	001-4301-18	HZU 3.6B1
D4	001-0529-18	MA8036-L
IC1	051-6399-00	TC94A15F
IC2	052-5070-91	T5AF4
IC3	051-6711-20	TC94A34FG-004
IC4	051-6060-08	BD7961FM-E2
IC5	051-5452-90	BD5235G-TR
IC6	051-9318-10	GLT4160L04P-60TC
IC8	051-9402-78	BR93L56RFVM-W
IC9	051-6072-08	BD7931FE2
IC10	051-5833-00	GP1S093HCZ
IC11	051-3364-90	NJU7771F15
IC12	051-3364-90	NJU7771F15
J1	074-1237-69	19PIN
J2	074-1201-65	15P
J3	074-1138-56	6P
J4	074-1100-61	SOCKET 11P
J5	074-1201-61	11P SOCKET
Q1	060-0252-01	PT4850F
Q2	125-0021-91	DTA114EUA
Q3	198-3018-00	2SK3018
Q6	131-1188-50	2SB1188PQR
Q7	125-2027-91	DTC114EUA
Q8	131-1427-00	2SB1427
Q9	131-1188-50	2SB1188PQR
Q10	125-2027-91	DTC114EUA
Q11	125-0021-91	DTA114EUA
Q12	125-2027-91	DTC114EUA
Q20	131-1427-00	2SB1427
R1	119-4731-15	1/10W 47k ohm
R2	119-2211-15	1/10W 220 ohm
R3	119-2211-15	1/10W 220 ohm
R4	119-1041-15	1/10W 100k ohm
R5	119-4731-15	1/10W 47k ohm
R6	119-2211-15	1/10W 220 ohm
R7	119-2211-15	1/10W 220 ohm
R8	119-2211-15	1/10W 220 ohm
R10	032-0140-16	1/10W 180k ohm F
R11	032-0140-96	1/10W 120k ohm F
R12	119-2231-15	1/10W 22k ohm
R13	119-4711-15	1/10W 470 ohm
R14	119-2221-15	1/10W 2.2k ohm
R15	119-1031-15	1/10W 10k ohm
R16	119-0000-05	1/10W 0 ohm JW

REF No.	PART No.	DESCRIPTION
R17	119-4731-15	1/10W 47k ohm
R18	119-2231-15	1/10W 22k ohm
R19	119-2231-15	1/10W 22k ohm
R20	119-4721-15	1/10W 4.7k ohm
R21	119-4731-15	1/10W 47k ohm
R22	119-4731-15	1/10W 47k ohm
R23	119-4731-15	1/10W 47k ohm
R24	050-0145-58	1/16W 2.2k ohm x4
R25	119-4721-15	1/10W 4.7k ohm
R26	119-4721-15	1/10W 4.7k ohm
R27	117-7511-15	1/8W 750 ohm
R28	116-3391-15	1/4W 3.3 ohm
R29	032-0145-73	1/2W 6.8 ohm
R30	119-1041-15	1/10W 100k ohm
R31	119-6811-15	1/10W 680 ohm
R32	119-1041-15	1/10W 100k ohm
R33	119-6811-15	1/10W 680 ohm
R34	119-1041-15	1/10W 100k ohm
R35	117-5611-15	1/8W 560 ohm
R36	119-1041-15	1/10W 100k ohm
R37	119-1041-15	1/10W 100k ohm
R38	119-3321-15	1/10W 3.3k ohm
R39	119-1051-15	1/10W 1M ohm
R40	119-0000-05	1/10W 0 ohm JW
R41	119-1041-15	1/10W 100k ohm
R42	119-5621-15	1/10W 5.6k ohm
R43	119-4731-15	1/10W 47k ohm
R44	119-2231-15	1/10W 22k ohm
R45	119-8231-15	1/10W 82k ohm
R46	119-3341-15	1/10W 330k ohm
R48	119-2231-15	1/10W 22k ohm
R49	116-1001-15	1/4W 10 ohm
R50	119-1011-15	1/10W 100 ohm
R51	119-6811-15	1/10W 680 ohm
R52	117-7511-15	1/8W 750 ohm
R53	116-5611-15	1/4W 560 ohm
R54	119-1041-15	1/10W 100k ohm
R55	119-1041-15	1/10W 100k ohm
R56	119-1041-15	1/10W 100k ohm
R57	119-1041-15	1/10W 100k ohm
R58	119-1041-15	1/10W 100k ohm
R59	116-1511-15	1/4W 150 ohm
R60	119-4731-15	1/10W 47k ohm
R61	119-4731-15	1/10W 47k ohm
R62	119-1051-15	1/10W 1M ohm
R64	032-0140-53	1/10W 2.2k ohm F
R65	119-2211-15	1/10W 220 ohm
R66	032-0140-62	1/10W 1k ohm F
R71	119-1011-15	1/10W 100 ohm
R72	119-1011-15	1/10W 100 ohm
R73	119-1011-15	1/10W 100 ohm
R77	119-0000-05	1/10W 0 ohm JW
R82	119-1011-15	1/10W 100 ohm
R83	119-1031-15	1/10W 10k ohm
R85	119-1021-15	1/10W 1k ohm
R86	119-2231-15	1/10W 22k ohm
S1	013-7416-50	SW SPVL110200
S2	013-7416-50	SW SPVL110200
S3	013-7416-50	SW SPVL110200
S4	013-7415-50	SPVG110400
X1	061-3534-90	16.92MHz
X3	060-1545-90	20MHz

Sensor-L-PFC(BM2) section

REF No.	PART No.	DESCRIPTION
PT1	060-0252-01	PT14850F

REF No.	PART No.	DESCRIPTION
PT2	060-0252-01	PT14850F

REF No.	PART No.	DESCRIPTION
PT3	051-5833-00	GP1S093HCZ

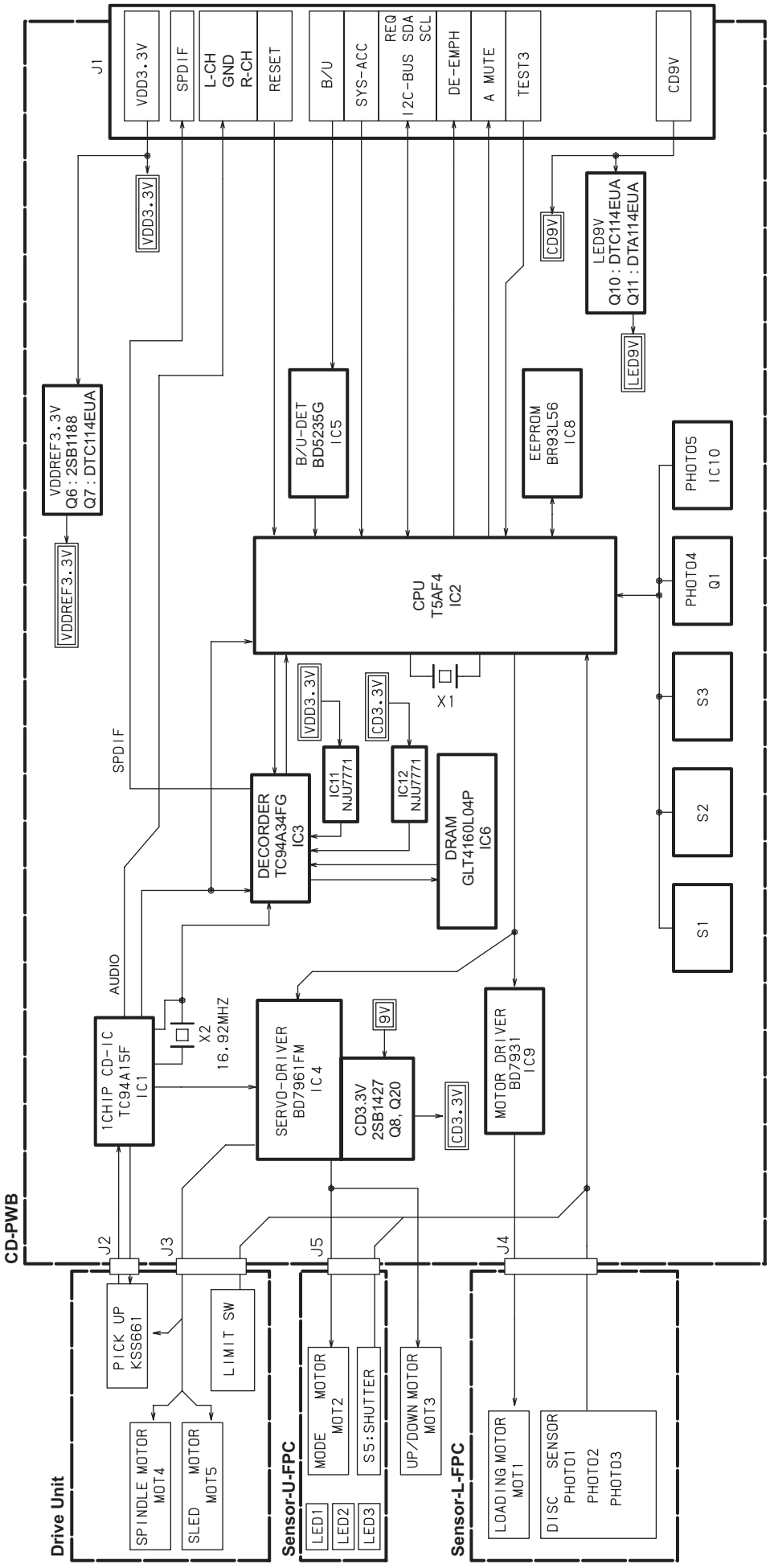
Sensor-U-PFC(BM3) section

REF No.	PART No.	DESCRIPTION
LED1	001-7077-00	GL4804
LED2	001-7077-00	GL4804

REF No.	PART No.	DESCRIPTION
LED3	001-7077-00	GL4804

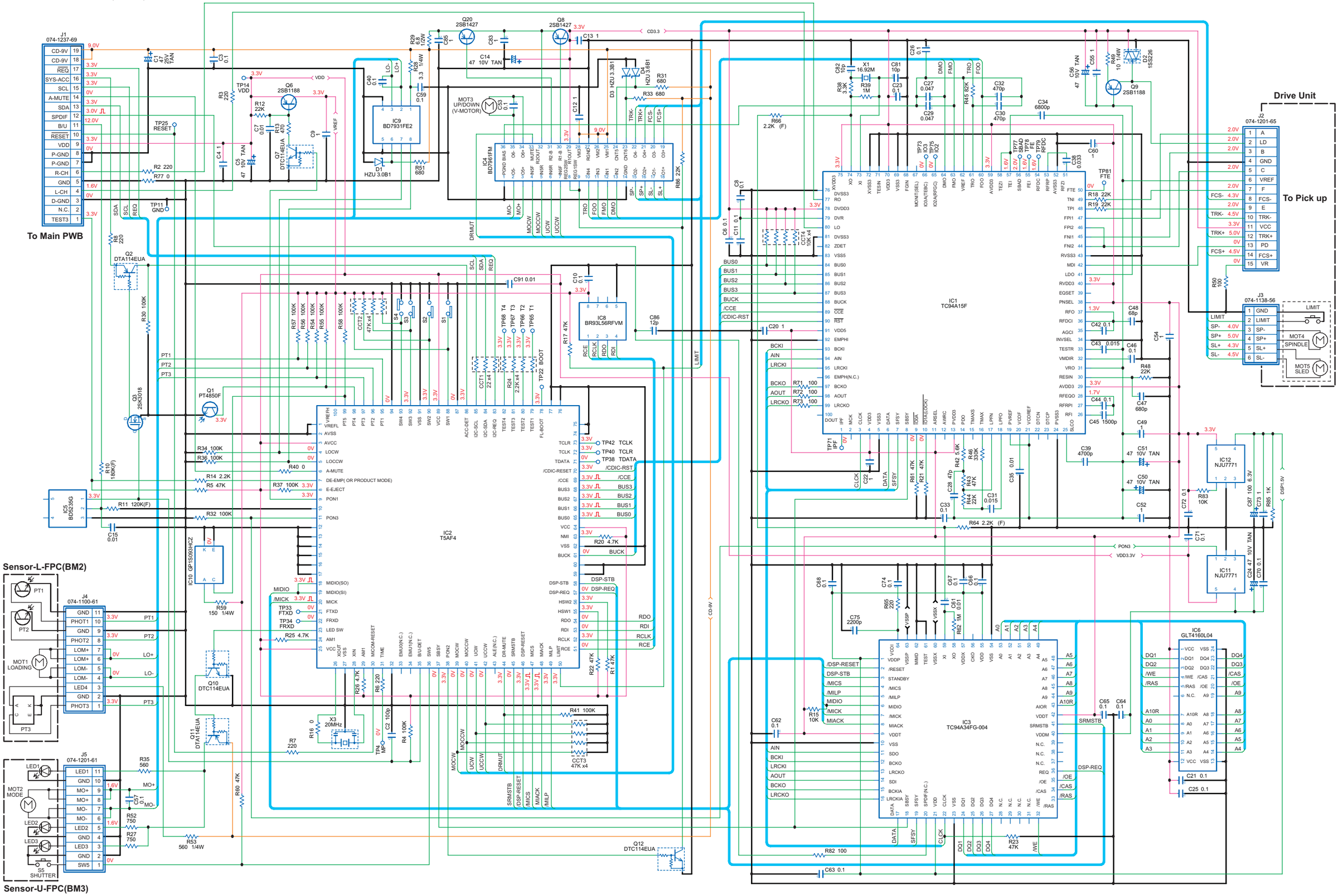
REF No.	PART No.	DESCRIPTION
S5	013-7417-50	ABC1122P161

BLOCK DIAGRAM



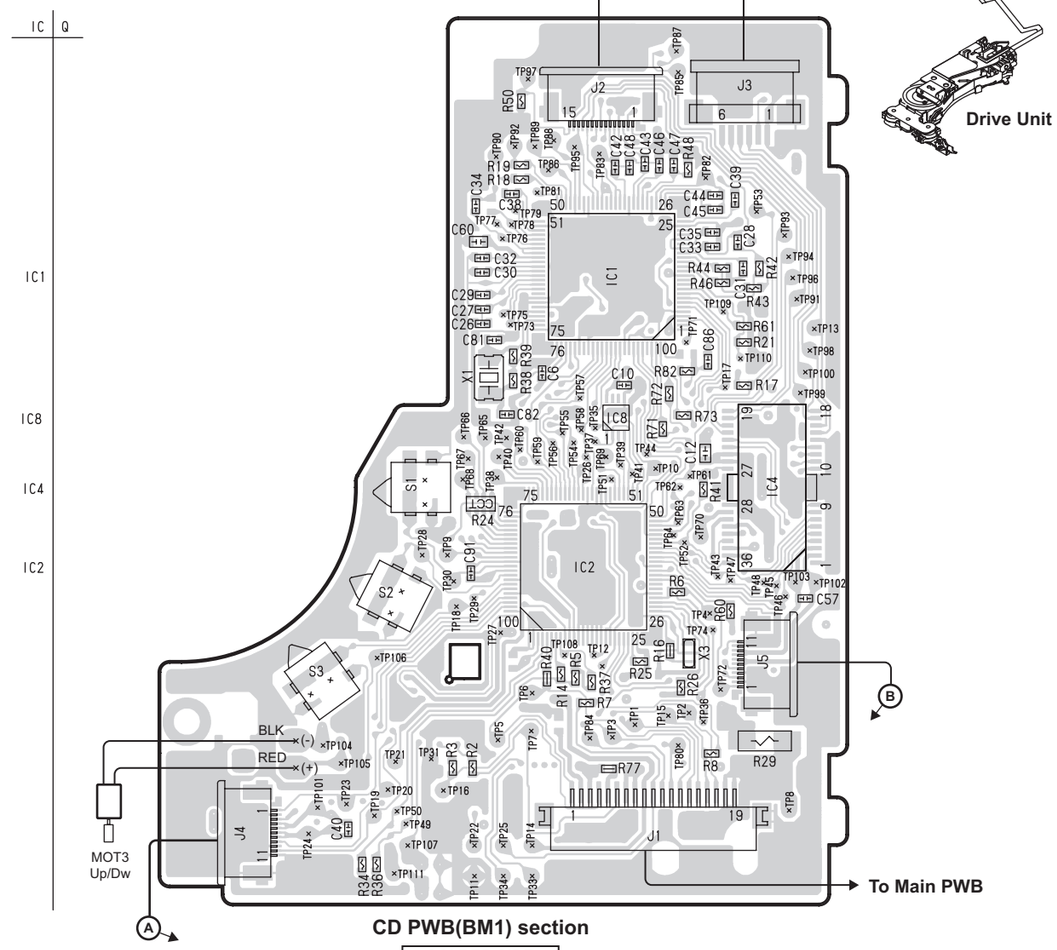
CIRCUIT DIAGRAM

CD PWB(BM1) section
Sensor-L-FPC(BM2) section
Sensor-U-FPC(BM3) section



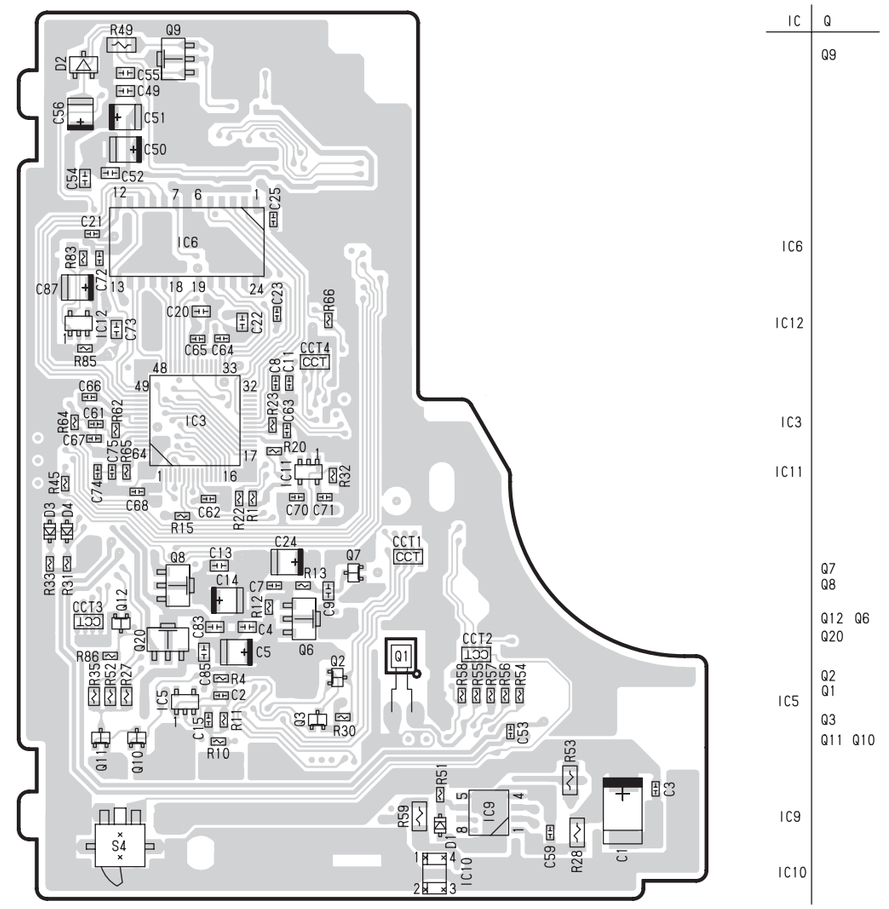
PRINTED WIRING BOARD

CD PWB(BM1) section
Sensor-L-FPC(BM2) section
Sensor-U-FPC(BM3) section



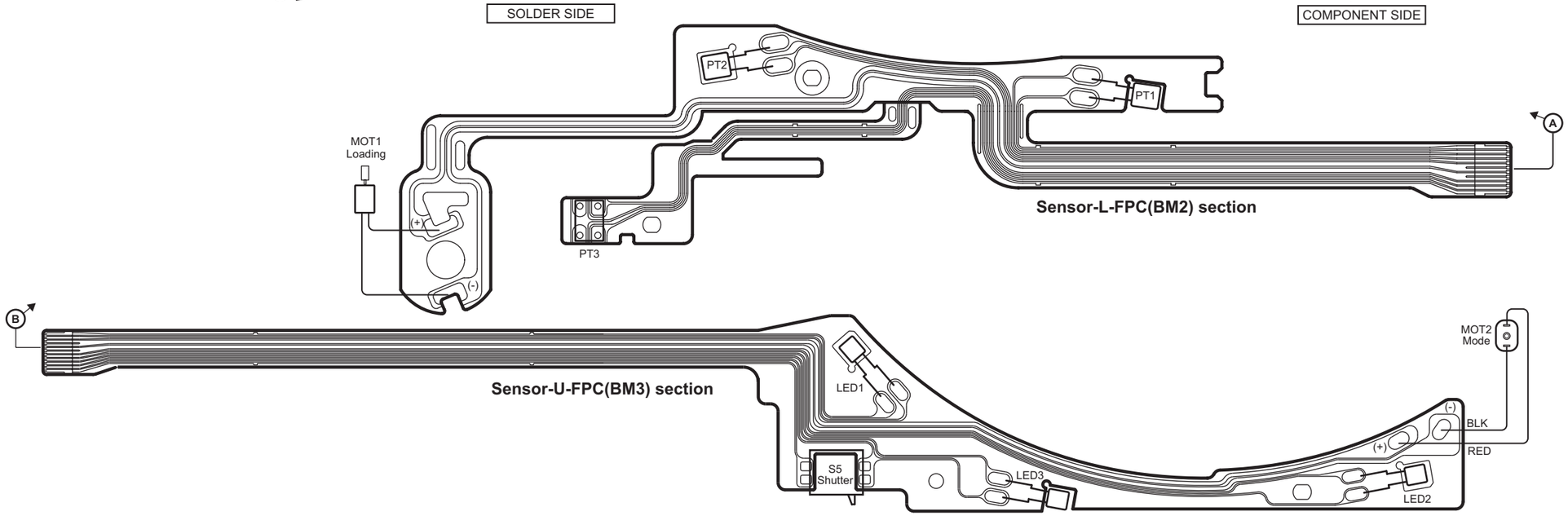
CD PWB(BM1) section

SOLDER SIDE



CD PWB(BM1) 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.

929-0371-80