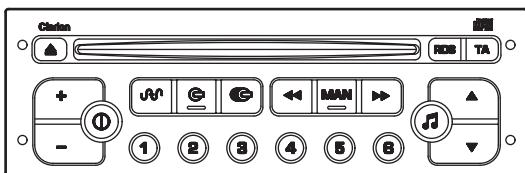
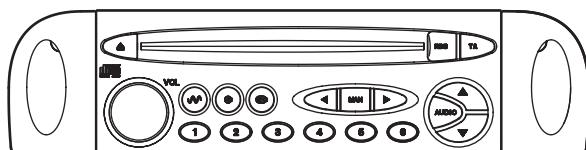


# Service Manual



PU-2471A



PU-2472B-C (WITH DUMMY COVER) / PU-2472C-C

PEUGEOT/CITROEN  
Automobile Genuine  
RDS/FM/MW/LW Radio  
& CD Stereo Player

**Model PU-2471A-G**

**Model PU-2471A-H**

**Model PU-2472B-C**

**Model PU-2472C-C**

## SPECIFICATIONS

### LW tuner section

Tuning system:	PLL frequency synthesizer system
Receive range:	153kHz to 279kHz
Quieting sensitivity:	Less than 43dBu(at 20dB S/N)
Auto tuning stop sensitivity:	
	35+10/-10dBu(DX)
	62+10/-10dBu(LO)

### MW tuner section

Tuning system:	PLL frequency synthesizer system
Receive range:	531kHz to 1,602kHz
Quieting sensitivity:	Less than 36dBu(at 20dB S/N)
Auto tuning stop sensitivity:	
	35+10/-10dBu(DX)
	62+10/-10dBu(LO)

### FM tuner section

Tuning system:	PLL frequency synthesizer system
Receive range:	87.5MHz to 108.0MHz
Intermediate frequency:	10.7MHz
Quieting sensitivity:	Less than 13dBu(at 30dB S/N)
Separation:	More than 20dB
Auto tuning stop sensitivity:	
	21+8/-8dBu(DX)
	47+10/-10dBu(LO)

### CD player section

Separation:	More than 65dB(1kHz)
S/N ratio:	More than 80dB(1kHz)
Distortion:	Less than 1.0%(1kHz)

### General

Audio Power output:	More than 10W x 4
Power supply voltage:	DC13.5V Negative ground
Current consumption:	Less than 10A
Dimensions(mm):	178(W) x 50(H) x 156.6(D)

## COMPONENTS

PU-2471A-G,A-H/PU-2472B-C,C-C

Main unit

1

## NOTES

- \* 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.
- \* Prevent damage caused by static electricity when repairing the pick-up.  
The pattern of the pick-up is short-circuiting for prevention. Remove the soldering with a solder iron whose insulation resistance is larger than 10M ohm(DC500V) after complete connection to the main PWB. For repair table shall use copper or conductive sheet (with impedance is lower to 100M ohm from 1M ohm) such as a sheet.  
Be sure to put on a wrist-strap for prevent electric static's

(with impedance is to 100M ohm from 1M ohm). The strap works to drain away the static electricity build-up on the human body.

And as static electricity build-up on clothes is not drained away, be careful and not your clothes to touch the pick-up.

Position of short soldering for pick-up protection position is different by model. Some units have two short soldering points. Always short LD circuit to open the short circuit and removes by soldering iron.

- \* Specifications and design are subject to change without notice for further improvement.

## 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 regarding chips.

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). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.

### 6. 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.

### 7. Turn the unit OFF during disassembly and parts replacement.

Recheck all work before you apply power to the unit.

### 8. 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.

### 9. 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.

#### 9-1. 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.

#### 9-2. Actuator

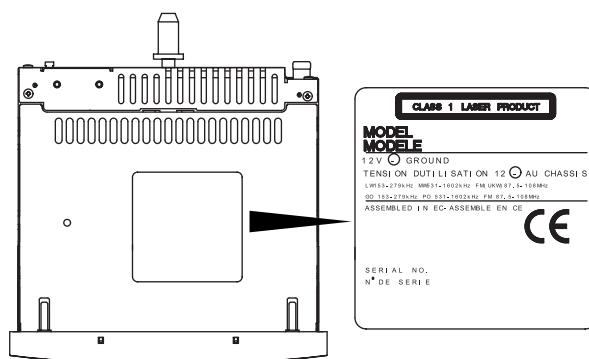
The actuator has a powerful magnetic circuit. If a magnetic material is put close to it. Its characteristics will change. Ensure that no foreign substances enter through the ventilation slots in the cover.

#### 9-3. 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.

## CAUTIONS

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.



# EXPLANATION OF IC

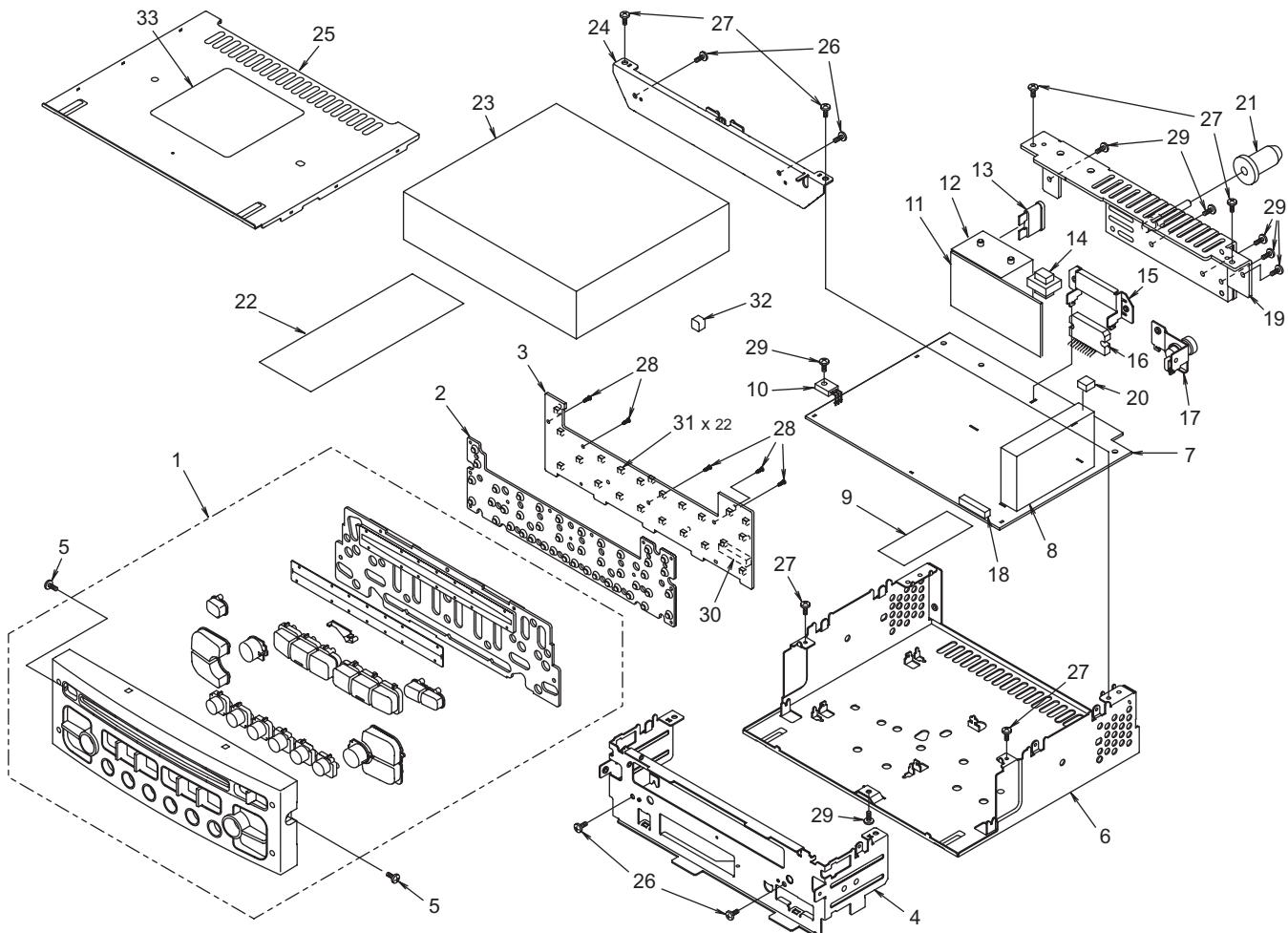
052-1170-13 uPD784216BYGC-110-8EU  
CD & Radio System Controller

## 1.Terminal Description

pin 1: KI 1	:IN: Key scan signal input.	pin 59: NU	: - : Not in use.
pin 2: KI 2	:IN: Key scan signal input.	pin 60: NU	: - : Not in use.
pin 3: KI 3	:IN: Key scan signal input.	pin 61: NU	: - : Not in use.
pin 4: KI 4	:IN: Key scan signal input.	pin 62: NU	: - : Not in use.
pin 5: KI 5	:IN: Key scan signal input.	pin 63: NU	: - : Not in use.
pin 6: NU	: - : Not in use.	pin 64: NU	: - : Not in use.
pin 7: NU	: - : Not in use.	pin 65: NU	: - : Not in use.
pin 8: NU	: - : Not in use.	pin 66: NU	: - : Not in use.
pin 9: VDD	: - : Positive supply voltage.	pin 67: NU	: - : Not in use.
pin 10: X 2	: - : Crystal connection.	pin 68: NU	: - : Not in use.
pin 11: X 1	: - : Crystal connection.	pin 69: NU	: - : Not in use.
pin 12: VSS	: - : Negative supply voltage.	pin 70: NU	: - : Not in use.
pin 13: NU	: - : Not in use.	pin 71: NU	: - : Not in use.
pin 14: NU	: - : Not in use.	pin 72: VSS	: - : Negative supply voltage.
pin 15: RESET	:IN: Reset signal input.	pin 73: NU	: - : Not in use.
pin 16: SBSY	:IN: Sub code sync input.	pin 74: CD CHO	:O : CD check signal output.
pin 17: VAN INT	:IN: The interrupt signal input from the VAN Bus.	pin 75: CD DET	:IN: CD mechanism is connected = "H".
pin 18: KI 0	:IN: Key scan signal input.	pin 76: No Exp	: - : No explanation.
pin 19: RDS CLK	:IN: RDS clock pulse input.	pin 77: No Exp	: - : No explanation.
pin 20: RDS DATA	:IN: RDS serial data input.	pin 78: No Exp	: - : No explanation.
pin 21: BU DET	:IN: Backup detection signal input.	pin 79: No Exp	: - : No explanation.
pin 22: +VAN DET	:IN: +VAN ON signal input.	pin 80: No Exp	: - : No explanation.
pin 23: A VDD	: - : Positive supply voltage for the Analog section.	pin 81: VDD	: - : Positive supply voltage.
pin 24: A Vref	:IN: Reference voltage for ADC.	pin 82: DIMMER CNT	:O : Dimmer control signal output.
pin 25: NU	: - : Not in use.	pin 83: No Exp	: - : No explanation.
pin 26: FM S METER	:IN: The input terminal of Internal A/D converter to monitor the radio field strength for FM.	pin 84: No Exp	: - : No explanation.
pin 27: DIAG PAHAN	:IN: Phantom circuit status input.	pin 85: No Exp	: - : No explanation.
pin 28: NU	: - : Not in use.	pin 86: No Exp	: - : No explanation.
pin 29: IF BAND	:IN: IF band width.	pin 87: No Exp	: - : No explanation.
pin 30: NU	: - : Not in use.	pin 88: No Exp	: - : No explanation.
pin 31: NU	: - : Not in use.	pin 89: No Exp	: - : No explanation.
pin 32: MUTE DET	:IN: The input terminal of the internal ADC for sensing the backup voltage.	pin 90: No Exp	: - : No explanation.
pin 33: A VSS	: - : Analog ground.	pin 91: No Exp	: - : No explanation.
pin 34: NU	: - : Not in use.	pin 92: VOLAI	:IN: Volume control pulse input from the rotary encoder.
pin 35: NU	: - : Not in use.	pin 93: VOLBI	:IN: Volume control pulse input from the rotary encoder.
pin 36: A Vref	:IN: Reference voltage for ADC.	pin 94: VPP	: - : Connect to ground.
pin 37: MISO	:IN: The serial data input from the VAN control IC.	pin 95: CD 5V ON	:O : Power supply control signal output for the 5V power supply of the CD mechanism.
pin 38: MISIO	:O : The serial data output to the VAN control IC.	pin 96: AM ON	:O : AM ON flag output.
pin 39: SCLK	:O : The clock pulse output to the VAN control IC.	pin 97: KO 0	:O : Key scan output terminal.
pin 40: NU	: - : Not in use.	pin 98: KO 1	:O : Key scan output terminal.
pin 41: NU	: - : Not in use.	pin 99: KO 2	:O : Key scan output terminal.
pin 42: A MUTE	:O : The audio mute signal output.	pin100: KO 3	:O : Key scan output terminal.
pin 43: S SO	:O : Slave chip select signal output.		
pin 44: BEEP	:O : Beep out.		
pin 45: SDAT	:O : The serial data output to the tuner pack.		
pin 46: VAN RESET	:O : The reset pulse output to VAN control IC.		
pin 47: S CL 1	:O : The clock pulse output for the tuner pack.		
pin 48: 12V SW	:O : ON signal output to the external power supply.		
pin 49: 5V REM	:O : ON signal output to the 5V power supply.		
pin 50: 14V REM	:O : ON signal output to the 14V power supply.		
pin 51: +VAN ON	:O : +VAN ON signal output.		
pin 52: VAN WU	:O : The Wake up signal output to VAN-BUS-IC.		
pin 53: TEL MUTE	:IN: Telephone mute command input.		
pin 54: CD 8V ON	:O : ON signal output to the CD 8V power supply.		
pin 55: NU	: - : Not in use.		
pin 56: S DA CO	:O : The serial data output to the CASP IC.		
pin 57: S CLK CO	:O : The clock pulse output to the CASP IC.		
pin 58: NU	: - : Not in use.		

# EXPLODED VIEW/PARTS LIST

Main section : PU-2471A

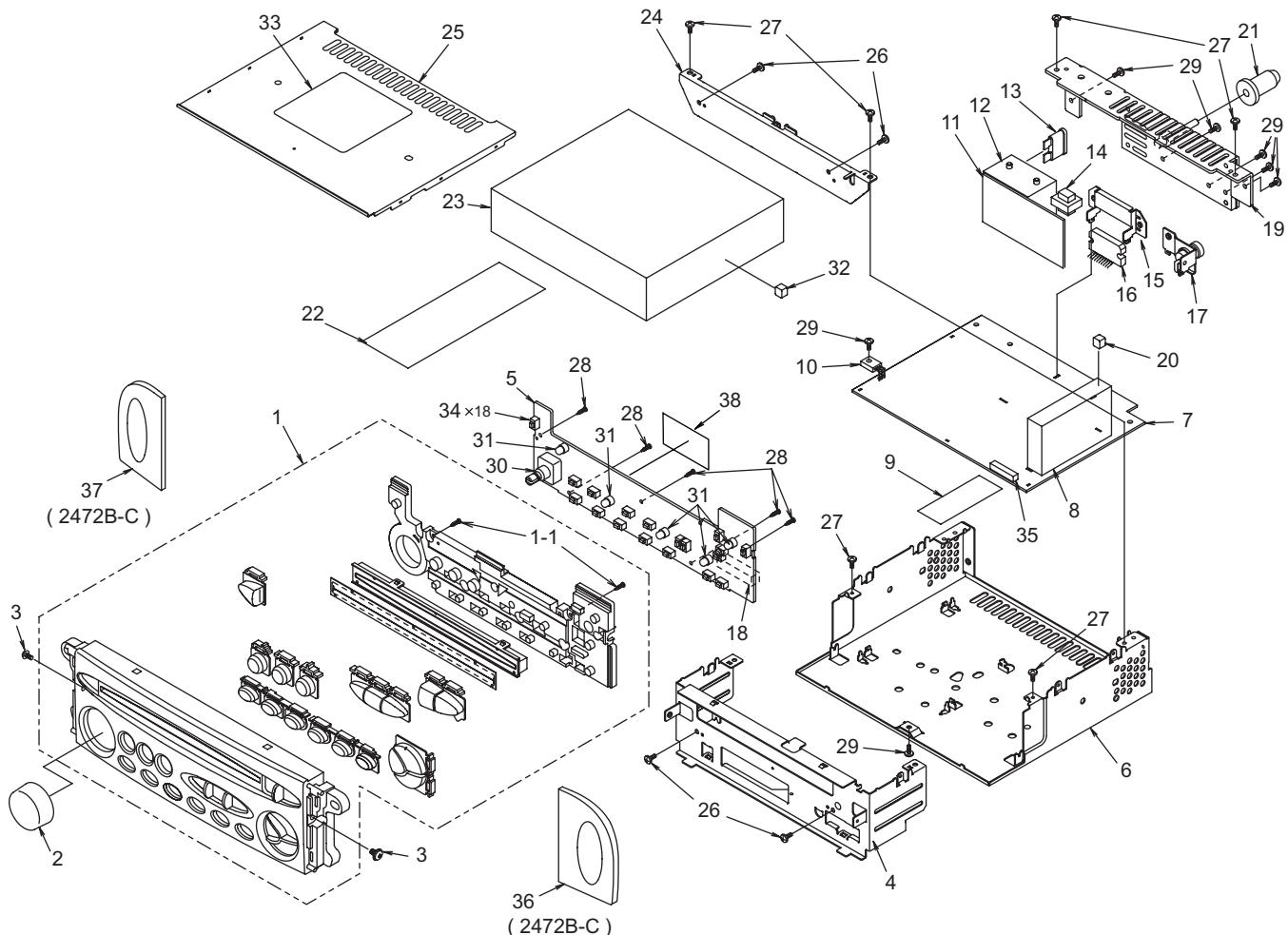


Note) Some parts depend on each model. The model name is specified in the description.

NO.	PART NO.	DESCRIPTION	Q'TY
1	940-7915-64	ESCUTCHEON ASSY	1
2	345-8532-00	RUBBER SWITCH	1
3	039-1806-01	SWITCH PWB (WITHOUT COMPONENT)	1
4	309-0759-11	FRONT PLATE	1
5	780-2605-00	IT IB SCREW(M2.6 x 5)	2
6	311-1808-01	LOWER CASE	1
7	039-2047-02	MAIN PWB (WITHOUT COMPONENT)	1
8	880-2088A	TUNER PACK(FM/MW/LW)	1
9	816-2525-02	FLAT WIRE	1
10	102-3420-00	TRANSISTOR(2SC3420)	1
11	039-1805-02	ISO PWB (WITHOUT COMPONENT)	1
12	074-1159-01	OUTLET SOCKET	1
13	060-0057-56	AUTO FUSE(10A)	1
14	009-9006-60	CHOKE	1
15	331-2574-00	IC HOLDER	1
16	051-2013-00	IC(TDA7385)	1
17	331-2989-00	ANT HOLDER	1

NO.	PART NO.	DESCRIPTION	Q'TY
18	074-1035-00	OUTLET SOCKET(18P)	1
19	313-1796-00	HEATSINK	1
20	345-8581-02	GASKET	1
21	345-4847-21	STOPPER	1
22	816-2564-01	FLAT WIRE	1
23	929-0220-80	CD MECHANISM	1
24	331-3377-00	MECHANISM BRACKET	1
25	310-1713-00	UPPER COVER	1
26	714-2603-81	MACHINE SCREW(M2.6 x 3)	4
27	731-2606-80	TAPTRIGHT(M2.6 x 6)	6
28	716-0778-10	WAVE SCREW	5
29	714-2606-81	MACHINE SCREW(M2.6 x 6)	7
30	074-1304-68	OUTLET SOCKET(18P)	1
31	001-7053-90 001-7053-91	DIODE (2471A-G) DIODE (2471A-H)	22
32	345-8581-03	GASKET	1
33	286-9487-30 286-9487-31	SETPLATE(2471A-G) SETPLATE(2471A-H)	1

Main section : PU-2472B,C

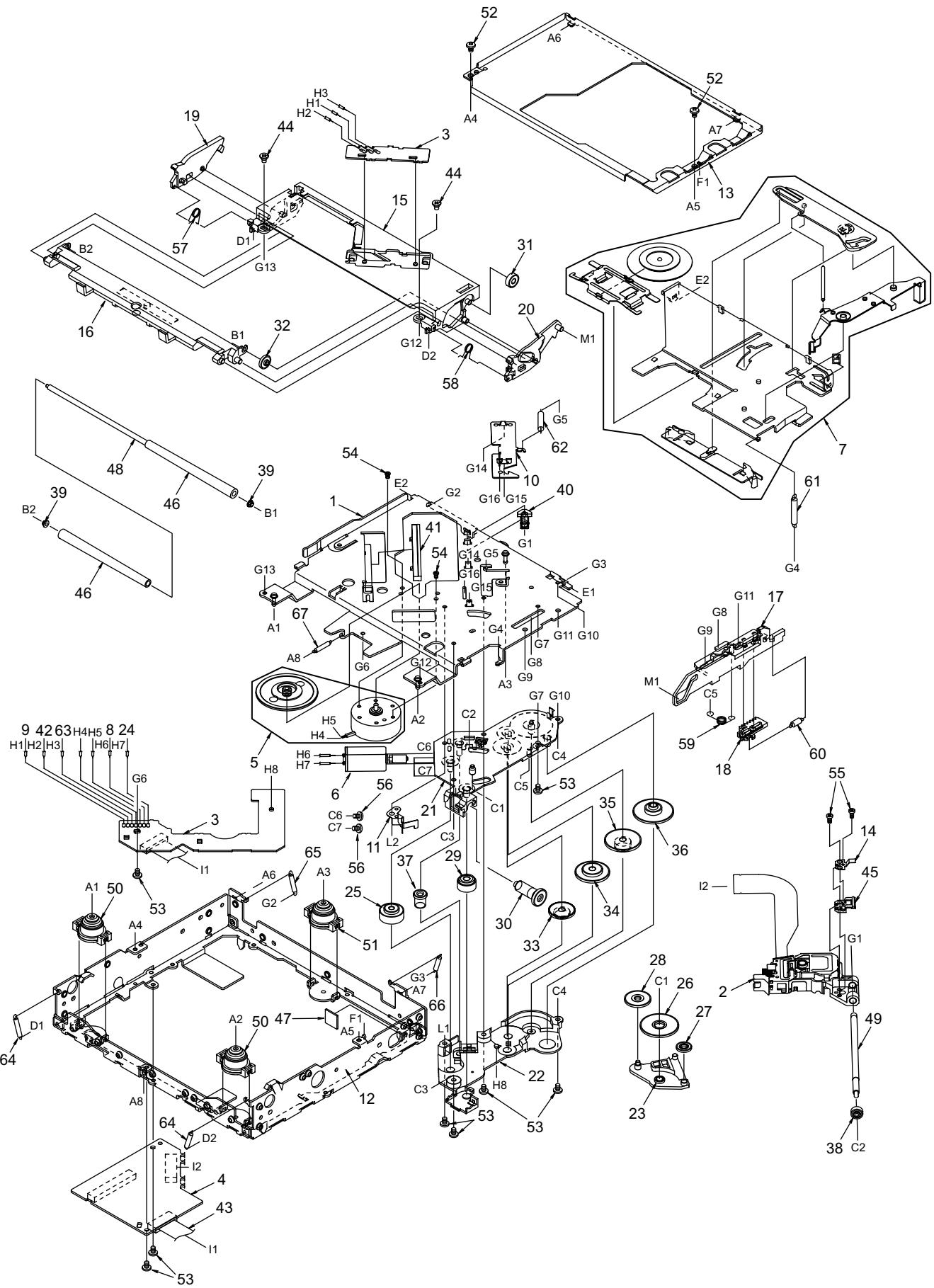


Note) Some parts depend on each model. The model name is specified in the description.

NO.	PART NO.	DESCRIPTION	Q'TY
1	940-7897-66 940-7897-72	ESCUOTCHEON ASSY(2472C-C) ESCUOTCHEON ASSY(2472B-C)	1
1-1	716-0778-00	WAVE SCREW	2
2	380-5439-11	KNOB	1
3	780-2605-00	IT IB SCREW(M2.6 x 5)	2
4	309-0774-11	FRONT PLATE	1
5	039-1936-00	SWITCH PWB (WITHOUT COMPONENT)	1
6	311-1808-11	LOWER CASE	1
7	039-2047-02	MAIN PWB (WITHOUT COMPONENT)	1
8	880-2088A	TUNER PACK(FM/MW/LW)	1
9	816-2525-02	FLAT WIRE	1
10	102-3420-00	TRANSISTOR(2SC3420)	1
11	039-1805-02	ISO PWB (WITHOUT COMPONENT)	1
12	074-1159-01	OUTLET SOCKET	1
13	060-0057-56	AUTO FUSE(10A)	1
14	009-9006-60	CHOKE	1
15	331-2574-00	IC HOLDER	1
16	051-2013-00	IC(TDA7385)	1
17	331-2989-00	ANT HOLDER	1
18	074-1228-68	OUTLET SOCKET(18P)	1

NO.	PART NO.	DESCRIPTION	Q'TY
19	313-1796-00	HEATSINK	1
20	345-8581-02	GASKET	1
21	345-4847-21	STOPPER	1
22	816-2564-01	FLAT WIRE	1
23	929-0220-80	CD MECHANISM	1
24	331-3377-00	MECHANISM BRACKET	1
25	310-1713-10	UPPER COVER	1
26	714-2603-81	MACHINE SCREW(M2.6 x 3)	4
27	731-2606-80	TAPTRIGHT(M2.6 x 6)	6
28	716-0778-10	WAVE SCREW	5
29	714-2606-81	MACHINE SCREW(M2.6 x 6)	7
30	016-0010-16	ROTARY ENCODER	1
31	017-0454-02	PILOT LAMP(14V40mA)	5
32	345-8581-03	GASKET	1
33	286-9487-32 286-9487-33	SETPLATE(2472B-C) SETPLATE(2472C-C)	1
34	013-3741-11	SWITCH	18
35	074-1035-68	OUTLET SOCKET(18P)	1
36	335-6315-10	DUMMY COVER(2472B-C)	1
37	335-6316-10	DUMMY COVER(2472B-C)	1
38	345-5162-00	INSULATOR	1

CD mechanism section : 929-0220-80



NO.	PART NO.	DESCRIPTION	Q'TY	NO.	PART NO.	DESCRIPTION	Q'TY
1	966-0595-24	DRIVE PLATE ASSY	1	34	621-0617-20	POWER GEAR B	1
2	969-0060-30	PICK UP UNIT	1	35	621-0618-20	POWER GEAR C	1
3	039-1944-21	LED PWB (WITHOUT COMPONENT)	1	36	621-0619-20	POWER GEAR D	1
4	039-1945-20	CD PWB (WITHOUT COMPONENT)	1	37	621-0620-20	THREAD GEAR A	1
5	SMA-182-100	MOTOR ASSY(SPINDLE)	1	38	621-0621-20	THREAD GEAR B	1
6	SMA-183-100	MOTOR ASSY(SLED)	1	39	621-0622-21	ROLLER SLEEVE	2
7	HBS-516-100	CLAMPER SUB ASSY	1	40	621-0623-22	LS-HOLDER	1
8	803-4906-60	VINYL COAT WIRE(ORG)	1	41	621-0624-21	GUIDE RAIL	1
9	816-2591-00	LEAD WIRE(YEL)	1	42	816-2593-00	LEAD WIRE(PUR)	1
10	620-1025-21	ID-LOCK PLATE	1	43	816-2542-01	FLAT WIRE(10P)	1
11	620-1026-21	SPRING PLATE	1	44	716-3473-00	SCREW	2
12	620-1027-24	LOWER CHASSIS	1	45	621-0628-21	SH-BASE	1
13	620-1028-21	UPPER CHASSIS	1	46	621-0629-20	LOADING ROLLER	2
14	620-1029-21	SH-SPRING	1	47	345-8704-20	CUSHION RUBBER	1
15	621-0598-25	UPPER GUIDE	1	48	622-1571-21	ROLLER SHAFT	1
16	621-0599-25	ROLLER GUIDE	1	49	624-0018-01	LEAD SCREW	1
17	621-0600-26	SHIFT LEVER	1	50	629-0081-20	DAMPER F	2
18	621-0601-21	RACK	1	51	629-0082-20	DAMPER R	1
19	621-0602-22	LOCK ARM L	1	52	714-2003-81	MACHINE SCREW	2
20	621-0603-23	LOCK ARM R	1	53	716-1507-00	SCREW	8
21	621-0604-21	GEAR BASE	1	54	716-1733-00	SCREW	2
22	621-0605-21	GEAR COVER	1	55	716-3469-00	SPECIAL SCREW	2
23	621-0606-21	IDLE CASE	1	56	716-3446-00	SCREW	2
24	816-2590-00	VINYL COAT WIRE(GRN)	1	57	750-3465-21	ROLLER SPRING L	1
25	621-0608-21	SECOND GEAR	1	58	750-3466-20	ROLLER SPRING R	1
26	621-0609-20	BASE GEAR	1	59	750-3467-21	SHIFT SPRING	1
27	621-0610-20	IDLE GEAR A	1	60	750-3468-20	RACK SPRING	1
28	621-0611-20	IDLE GEAR B	1	61	750-3469-20	CLAMPER SPRING	1
29	621-0612-21	ROLLER GEAR A	1	62	750-3470-20	ID-LOCK SPRING	1
30	621-0613-20	ROLLER GEAR B	1	63	816-2592-00	LEAD WIRE(BLU)	1
31	621-0614-20	ROLLER GEAR C	1	64	750-3472-21	DR-SPRING F	2
32	621-0615-21	ROLLER GEAR D	1	65	750-3473-20	DR-SPRING RA	1
33	621-0616-20	POWER GEAR A	1	66	750-3474-20	DR-SPRING RB	1
				67	750-3475-21	DR-SPRING C	1

## ELECTRICAL PARTS LIST

### Main PWB section(B1)

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

One of those parts is used in the set.

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
BL51	880-2088A	AM/FM TUNER PACK	C146	168-1032-55	0.01uF	C220	178-2242-78	0.22uF
C1	183-1063-37	16V10uF	C201	166-3301-50	33pF CH	C221	178-2242-78	0.22uF
C2	168-3332-78	0.033uF	C202	168-1042-78	16V 0.1uF	C222	168-6822-55	6800pF
C3	168-1042-78	16V 0.1uF	C203	183-1063-37	16V10uF	C223	168-1032-55	0.01uF
C6	183-4763-17	6.3V47uF	C204	168-1022-55	1000pF	C224	178-3342-78	0.33uF
C51	168-1022-55	1000pF	C205	168-3322-55	3300pF	C225	168-3332-78	0.033uF
C56	168-2232-55	0.022uF	C206	168-3322-55	3300pF	C226	168-2722-55	2700pF
C57	166-1011-50	100pF CH	C207	168-2722-55	2700pF	C227	178-1542-78	0.15uF
C58	168-1032-55	0.01uF	C208	168-2722-55	2700pF	C228	178-2242-78	0.22uF
C59	168-1022-55	1000pF	C209	168-4722-55	4700pF	C229	178-2242-78	0.22uF
C60	168-1222-55	1200pF	C210	168-4722-55	4700pF	C230	183-2263-37	16V22uF
C61	166-1011-50	100pF CH	C211	168-1042-78	16V 0.1uF	C231	183-1053-67	50V1uF
C105	183-2253-67	50V2.2uF	C212	168-1032-55	0.01uF	C232	168-3312-55	330pF
C106	168-3312-55	330pF	C213	168-1042-78	16V 0.1uF	C233	183-2253-67	50V2.2uF
C107	168-5612-55	560pF	C214	168-6822-55	6800pF	C234	168-3312-55	330pF
C108	166-4701-50	47pF CH	C215	168-6822-55	6800pF	C235	183-1053-67	50V1uF
C109	166-5601-50	56pF CH	C216	168-1042-78	16V 0.1uF	C236	042-0474-96	50V0.47uF NP
C111	168-1042-78	16V 0.1uF	C217	168-2232-55	0.022uF	C237	042-0474-96	50V0.47uF NP
C113	183-4763-17	6.3V47uF	C218	166-1511-50	150pF	C238	042-0474-96	50V0.47uF NP
			C219	168-1032-55	0.01uF	C239	042-0474-96	50V0.47uF NP

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C240	178-2242-78	0.22uF	CCT813	050-0140-54	1/32W 1k ohm x 4J	R6	119-3301-15	1/10W 33 ohm
C241	178-2242-78	0.22uF	CCT814	050-0140-54	1/32W 1k ohm x 4J	R7	111-2221-98	1/4W 2.2k ohm
C242	168-1032-55	0.01uF	CCT815	050-0140-54	1/32W 1k ohm x 4J	R50	032-0140-04	1/10W 8.2k ohm F
C243	168-3332-78	0.033uF	CCT816	050-0140-54	1/32W 1k ohm x 4J	R51	032-0140-72	1/4W 470 ohm F
C244	168-2722-55	2700pF	CCT817	050-0140-54	1/32W 1k ohm x 4J	R106	119-1521-15	1/10W 1.5k ohm
C245	178-1542-78	0.15uF	D2	001-2404-90	MA28T-A	R107	119-1521-15	1/10W 1.5k ohm
C247	168-1042-78	16V 0.1uF	D50	001-0330-90	ISS119	R201	119-1041-15	1/10W 100k ohm
C249	183-4763-37	16V47uF	D301	001-0330-90	ISS119	R202	119-2241-15	1/10W 220k ohm
C250	168-1042-78	16V 0.1uF	D501	001-0330-90	ISS119	R203	119-8231-15	1/10W 82k ohm
C251	168-1042-78	16V 0.1uF	D502	001-0330-90	ISS119	R204	119-4741-15	1/10W 470k ohm
C252	183-4763-37	16V47uF	D503	001-0346-46	MTZJ9.1A	R205	119-6831-15	1/10W 68k ohm
C254	168-2732-55	16V 0.027uF	D504	001-0330-90	ISS119	R206	119-1041-15	1/10W 100k ohm
C255	166-1811-50	180pF CH	D505	001-0346-32	MTZJ5.6B	R207	119-2221-15	1/10W 2.2k ohm
C256	166-1811-50	180pF CH	D507	001-0346-46	MTZJ9.1A	R210	119-4721-15	1/10W 4.7k ohm
C260	178-2242-78	0.22uF	D508	001-0330-90	ISS119	R211	119-8221-15	1/10W 8.2k ohm
C261	178-2242-78	0.22uF	D509	001-0346-48	MTZJ9.1C	R214	119-1021-15	1/10W 1k ohm
C301	183-1053-67	50V1uF	D510	001-0346-46	MTZJ9.1A	R215	119-1021-15	1/10W 1k ohm
C302	183-4763-37	16V47uF	D512	001-0330-90	ISS119	R216	119-1021-15	1/10W 1k ohm
C307	178-4742-78	0.47uF	D515	001-0330-90	ISS119	R217	119-1021-15	1/10W 1k ohm
C308	172-1041-15	0.1uF	D518	001-0466-90	S5688B	R218	119-2221-15	1/10W 2.2k ohm
C309	184-3383-32	16V3300uF	D523	001-0330-90	ISS119	R219	119-4721-15	1/10W 4.7k ohm
C310	183-4753-57	35V4.7uF	D530	001-0466-90	S5688B	R220	119-8221-15	1/10W 8.2k ohm
C401	166-4701-50	47pF CH	D701	001-0330-90	ISS119	R222	119-1051-15	1/10W 1M ohm
C402	166-4701-50	47pF CH	D702	001-0330-90	ISS119	R301	119-1031-15	1/10W 10k ohm
C403	166-4701-50	47pF CH	D802	001-0330-90	ISS119	R302	119-1051-15	1/10W 1M ohm
C404	166-5601-50	56pF CH	IC1	051-3047-90	LM7301IMX	R303	119-1031-15	1/10W 10k ohm
C405	166-3301-50	33pF CH	IC102	051-4607-90	SAA6581T	R401	119-4731-15	1/10W 47k ohm
C406	042-0416-55	16V15uF TAN	IC201	051-5018-00	TEA6880H	R402	119-4731-15	1/10W 47k ohm
C407	168-1032-55	0.01uF	IC301	051-2013-00	TDA7385	R403	119-4731-15	1/10W 47k ohm
C408	042-0452-82	16V100uF	IC401	051-6622-08	TSS463R	R404	032-0140-50	1/16W 10k ohm F
C409	168-1042-78	16V 0.1uF	IC402	051-6610-18	MTC-30521	R405	111-4321-98	1/4W 4.3k ohm
C410	168-1032-55	0.01uF	IC501	051-3272-90	TDA3606AT	R406	111-4321-98	1/4W 4.3k ohm
C411	166-1511-50	150pF CH	IC800	052-1170-13	upd784216BYGC-	R407	111-5101-98	1/4W 51 ohm
C412	166-1511-50	150pF CH			110-8EU	R408	111-5101-98	1/4W 51 ohm
C413	168-1042-78	16V 0.1uF	J601	074-1304-76	26P	R501	119-2231-15	1/10W 22k ohm
C501	168-1042-78	16V 0.1uF	J602	074-1305-68	18P	R502	119-4731-15	1/10W 47k ohm
C502	172-2241-15	0.22uF	L1	010-8017-00	22mH	R503	032-0140-03	1/16W 220k ohm
C503	168-1042-78	16V 0.1uF	L2	010-2230-68	4.7uH	R504	119-2221-15	1/10W 2.2k ohm
C504	183-1073-17	6.3V100uF	L3	010-2003-04	COIL	R505	119-6821-15	1/10W 6.8k ohm
C506	183-3353-67	50V3.3uF	L50	010-2230-66	3.3uH	R506	032-0140-97	1/10W 470k ohm F
C507	183-1073-17	6.3V100uF	L51	010-2230-84	100uH	R507	111-1021-98	1/4W 1k ohm
C508	172-2241-15	0.22uF	L201	010-2230-84	100uH	R511	119-1021-15	1/10W 1k ohm
C509	042-0452-82	16V100uF	L401	010-2230-60	1uH	R512	111-2211-98	1/4W 220 ohm
C511	178-2242-78	0.22uF	L402	010-2230-64	2.2uH	R514	119-1031-15	1/10W 10k ohm
C512	042-0621-00	16V470uF	Q1	198-0669-00	2SK669	R515	119-1031-15	1/10W 10k ohm
C513	183-1073-27	10V100uF	Q4	192-2712-00	2SC2712	R517	111-1811-88	1/2W 180 ohm
C514	042-0452-81	10V220uF	Q5	193-1858-00	2SD1858	R518	111-1521-98	1/4W 1.5k ohm
C515	168-1042-78	16V 0.1uF	Q50	125-9007-90	HN1C01F	R519	119-1031-15	1/10W 10k ohm
C516	042-0427-94	16V47uF TAN	Q106	125-0002-96	RN2406	R523	111-2211-88	1/2W 220 ohm
C517	168-1032-55	0.01uF	Q301	192-2712-00	2SC2712	R526	111-1521-98	1/4W 1.5k ohm
C519	172-1031-15	0.01uF	Q302	125-2004-92	RN1402	R527	119-1021-15	1/10W 1k ohm
C520	183-1063-57	35V10uF	Q401	192-2712-00	2SC2712	R528	119-1031-15	1/10W 10k ohm
C521	042-0621-00	16V470uF	Q402	125-2004-96	RN1406	R532	119-4721-15	1/10W 4.7k ohm
C561	168-4732-78	0.047uF	Q501	192-2712-00	2SC2712	R533	111-1821-98	1/4W 1.8k ohm
C562	168-1032-55	0.01uF	Q502	125-0002-92	RN2402	R534	119-1031-15	1/10W 10k ohm
C601	042-0505-84	10V33uF	Q503	193-1664-00	2SD1664P,Q,R	R535	119-1031-15	1/10W 10k ohm
C801	168-6832-78	0.068uF	Q505	125-0002-92	RN2402	R543	111-6891-98	1/4W 6.8 ohm
C802	183-2263-17	6.3V22uF	Q507	190-1162-00	2SA1162	R544	114-2291-18	1W 2.2 ohm
C803	168-6832-78	0.068uF	Q508	102-3420-00	2SC3420	R550	119-1031-15	1/10W 10k ohm
C804	183-1073-17	6.3V100uF	Q509	190-1162-00	2SA1162	R551	119-4721-15	1/10W 4.7k ohm
C805	166-1501-50	15pF CH	Q510	125-2004-92	RN1402	R557	119-1021-15	1/10W 1k ohm
C806	166-1501-50	15pF CH	Q511	190-1298-00	2SA1298	R562	119-3341-15	1/10W 330k ohm
C811	168-1532-55	0.015uF	Q512	125-2004-92	RN1402	R563	119-1041-15	1/10W 100k ohm
C812	168-1032-55	0.01uF	Q513	193-2118-00	2SD2118	R601	119-1031-15	1/10W 10k ohm
CCT801	050-0140-54	1/32W 1k ohm x 4J	Q516	190-1298-00	2SA1298	R602	119-1031-15	1/10W 10k ohm
CCT802	050-0140-54	1/32W 1k ohm x 4J	Q517	125-2004-92	RN1402	R801	119-1041-15	1/10W 100k ohm
CCT803	050-0140-54	1/32W 1k ohm x 4J	Q518	192-2458-00	2SC2458	R802	119-1041-15	1/10W 100k ohm
CCT804	050-0140-54	1/32W 1k ohm x 4J	Q522	125-2004-92	RN1402	R803	119-4731-15	1/10W 47k ohm
CCT805	050-0140-54	1/32W 1k ohm x 4J	Q523	190-1162-00	2SA1162	R804	119-4731-15	1/10W 47k ohm
CCT807	050-0140-54	1/32W 1k ohm x 4J	Q524	125-2004-92	RN1402	R805	119-4721-15	1/10W 4.7k ohm
CCT808	050-0140-54	1/32W 1k ohm x 4J	Q526	190-1431-00	2SA1431	R806	119-4721-15	1/10W 4.7k ohm
CCT809	050-0140-54	1/32W 1k ohm x 4J	R1	032-0140-72	1/4W 470 ohm F	R807	119-1021-15	1/10W 1k ohm
CCT810	050-0140-54	1/32W 1k ohm x 4J	R2	032-0140-01	1/10W 10 ohm F	R808	119-1031-15	1/10W 10k ohm
CCT811	050-0140-54	1/32W 1k ohm x 4J	R3	032-0140-01	1/10W 10 ohm F	R809	119-1031-15	1/10W 10k ohm

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
R810	119-2231-15	1/10W 22k ohm	R819	119-1031-15	1/10W 10k ohm	SUP1	060-0122-91	DSP-141N-S00B
R811	119-1031-15	1/10W 10k ohm	R820	119-1031-15	1/10W 10k ohm	TH501	002-0303-90	6.8 ohm
R812	119-1031-15	1/10W 10k ohm	R821	119-1031-15	1/10W 10k ohm	X100	061-3013-90	4.332MHz
R813	119-1031-15	1/10W 10k ohm	R822	119-1031-15	1/10W 10k ohm	X401	061-3031-90	4.000MHz
R815	119-1031-15	1/10W 10k ohm	R824	119-1231-15	1/10W 12k ohm	X801	061-1081-90	12MHz

### Switch PWB section(B2) : PU-2471A

Note) 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
D1	001-7053-90	FA1111R-22(A-G)	D12	001-7053-90	FA1111R-22(A-G)	P101	074-1304-68	18P
D1	001-7053-91	BG1111R-760(A-H)	D12	001-7053-91	BG1111R-760(A-H)	R4	116-5611-15	1/4W 560 ohm
D2	001-7053-90	FA1111R-22(A-G)	D13	001-7053-90	FA1111R-22(A-G)	R5	116-5611-15	1/4W 560 ohm (A-H)
D2	001-7053-91	BG1111R-760(A-H)	D13	001-7053-91	BG1111R-760(A-H)	R6	116-5611-15	1/4W 560 ohm
D3	001-7053-90	FA1111R-22(A-G)	D14	001-7053-90	FA1111R-22(A-G)	R7	116-5611-15	1/4W 560 ohm (A-H)
D3	001-7053-91	BG1111R-760(A-H)	D14	001-7053-91	BG1111R-760(A-H)	R8	116-5611-15	1/4W 560 ohm
D4	001-7053-90	FA1111R-22(A-G)	D15	001-7053-90	FA1111R-22(A-G)	R9	116-5611-15	1/4W 560 ohm (A-H)
D4	001-7053-91	BG1111R-760(A-H)	D15	001-7053-91	BG1111R-760(A-H)	R10	116-5611-15	1/4W 560 ohm
D5	001-7053-90	FA1111R-22(A-G)	D16	001-7053-90	FA1111R-22(A-G)	R11	116-5611-15	1/4W 560 ohm (A-H)
D5	001-7053-91	BG1111R-760(A-H)	D16	001-7053-91	BG1111R-760(A-H)	R12	116-5611-15	1/4W 560 ohm
D6	001-7053-90	FA1111R-22(A-G)	D17	001-7053-91	BG1111R-760(A-H)	R13	116-5611-15	1/4W 560 ohm (A-H)
D6	001-7053-91	BG1111R-760(A-H)	D17	001-7053-91	BG1111R-760(A-H)	R14	117-0000-05	1/8W 0 ohm JW
D7	001-7053-90	FA1111R-22(A-G)	D18	001-7053-90	FA1111R-22(A-G)	R15	117-1221-15	1/8W 1.2k ohm (A-G)
D7	001-7053-91	BG1111R-760(A-H)	D18	001-7053-91	BG1111R-760(A-H)	R15	117-1521-15	1/8W 1.5k ohm (A-H)
D8	001-7053-90	FA1111R-22(A-G)	D19	001-7053-90	FA1111R-22(A-G)			
D8	001-7053-91	BG1111R-760(A-H)	D19	001-7053-91	BG1111R-760(A-H)			
D9	001-7053-90	FA1111R-22(A-G)	D20	001-7053-90	FA1111R-22(A-G)			
D9	001-7053-91	BG1111R-760(A-H)	D20	001-7053-91	BG1111R-760(A-H)			
D10	001-7053-90	FA1111R-22(A-G)	D21	001-7053-90	FA1111R-22(A-G)			
D10	001-7053-91	BG1111R-760(A-H)	D21	001-7053-91	BG1111R-760(A-H)			
D11	001-7053-90	FA1111R-22(A-G)	D22	001-7053-90	FA1111R-22(A-G)			
D11	001-7053-91	BG1111R-760(A-H)	D22	001-7053-91	BG1111R-760(A-H)			

### Switch PWB section(B2) : PU-2472B,C

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
J101	074-1228-68	18P	S104	013-3741-11	SKQCAE	S113	013-3741-11	SKQCAE
PL101	017-0454-02	14V40mA	S105	013-3741-11	SKQCAE	S114	013-3741-11	SKQCAE
PL102	017-0454-02	14V40mA	S106	013-3741-11	SKQCAE	S115	013-3741-11	SKQCAE
PL103	017-0454-02	14V40mA	S107	013-3741-11	SKQCAE	S116	013-3741-11	SKQCAE
PL104	017-0454-02	14V40mA	S108	013-3741-11	SKQCAE	S117	013-3741-11	SKQCAE
PL105	017-0454-02	14V40mA	S109	013-3741-11	SKQCAE	S118	013-3741-11	SKQCAE
S101	013-3741-11	SKQCAE	S110	013-3741-11	SKQCAE	VR101	016-0010-16	VR
S102	013-3741-11	SKQCAE	S111	013-3741-11	SKQCAE			
S103	013-3741-11	SKQCAE	S112	013-3741-11	SKQCAE			

### ISO PWB section(B3)

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
D1	001-0334-30	RL202	R1	032-0140-50	1/8W 10k ohm F	R6	032-0140-50	1/8W 10k ohm F
F1	060-0057-56	AUTO FUSE 10A	R2	032-0140-50	1/8W 10k ohm F	T1	009-9006-60	CHOKE COIL
J1	074-1159-01	ISO CONNECTOR	R3	032-0140-50	1/8W 10k ohm F	TH1	002-0314-94	POSISTOR
P1	076-0324-10	10P	R4	032-0140-50	1/8W 10k ohm F			
P2	076-0324-15	15P	R5	032-0140-50	1/8W 10k ohm F			

### CD PWB section(B4) : CD mechanism

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C101	168-1042-78	0.1uF	C118	043-0533-50	0.047uF	C208	046-6822-58	6800pF
C102	045-4701-50	47pF	C119	045-2701-50	27pF	C209	168-1042-78	0.1uF
C103	046-4722-58	4700pF	C120	045-1801-50	18pF	C210	043-0533-50	0.047uF
C104	168-1042-78	0.1uF	C121	163-1063-35	16V10uF	C211	168-1042-78	0.1uF
C105	046-1532-78	0.015uF	C122	178-1052-78	1uF	C212	168-1042-78	0.1uF
C106	046-1032-78	0.01uF	C123	046-1032-78	0.01uF	C213	045-5096-50	5pF
C107	046-1032-78	0.01uF	C124	163-1073-05	4V100uF	C214	045-5601-50	56pF
C108	046-4722-58	4700pF	C125	168-1042-78	0.1uF	C215	043-0533-50	0.047uF
C109	046-1522-58	1500pF	C126	168-1042-78	0.1uF	C216	178-1052-78	1uF
C110	046-3332-78	0.033uF	C129	178-1052-78	1uF	C217	045-1011-50	100pF
C111	168-1042-78	0.1uF	C201	163-3363-05	4V33uF	C301	163-1073-35	16V100uF
C112	046-3332-78	0.033uF	C202	168-1042-78	0.1uF	C302	168-1042-78	0.1uF
C113	168-1042-78	0.1uF	C203	178-1052-78	1uF	C303	043-0533-50	0.047uF
C114	168-1042-78	0.1uF	C204	163-1073-05	4V100uF	D201	001-0516-90	MA111
C115	046-4712-58	470pF	C205	163-3363-05	4V33uF	IC101	051-6376-00	TC94A14FA
C116	046-4712-58	470pF	C206	168-1042-78	0.1uF	IC102	051-3279-90	BA033LBSG
C117	043-0533-50	0.047uF	C207	043-0533-50	0.047uF	IC201	051-5710-90	TA2157F

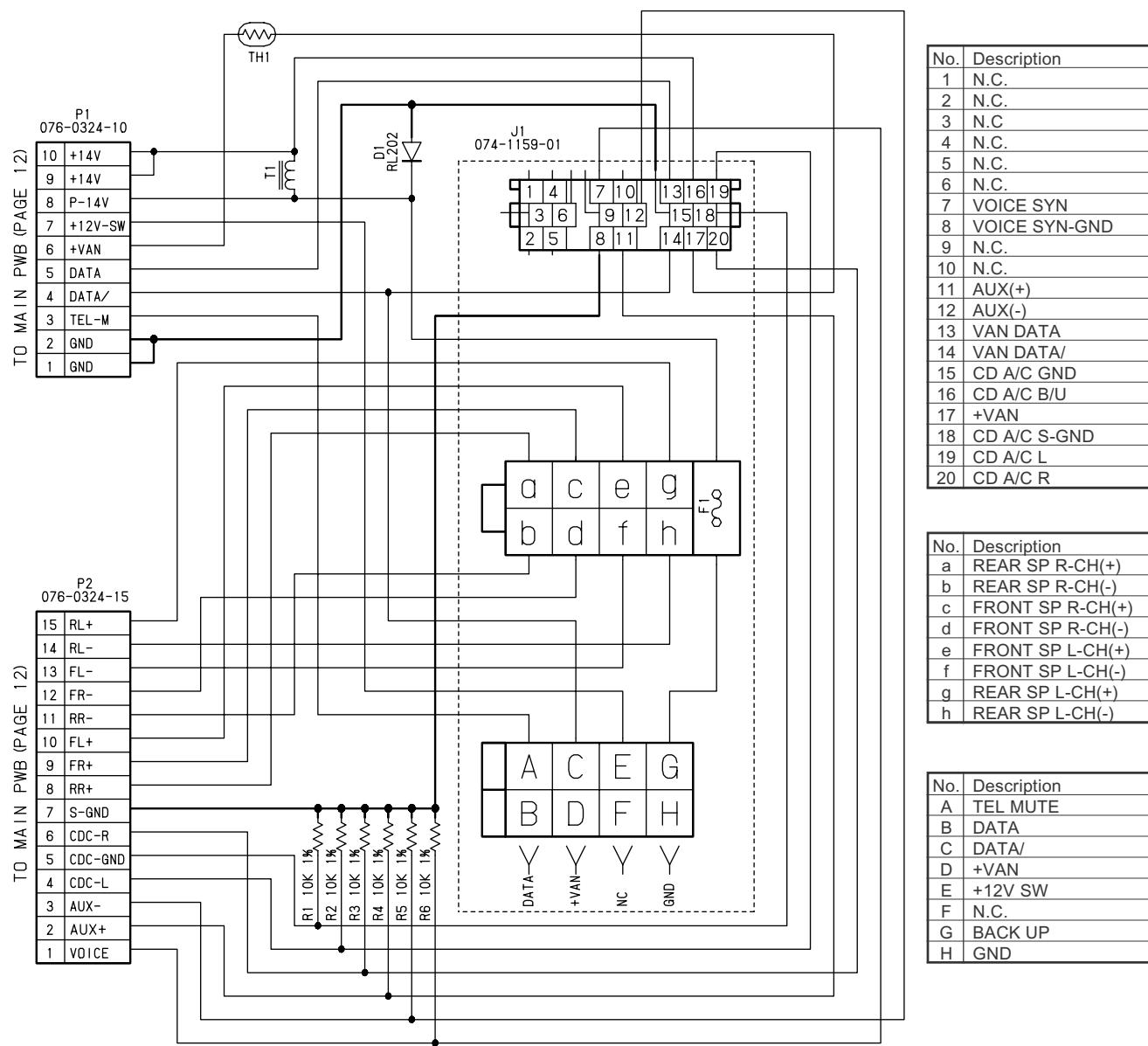
REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
IC301	051-6049-08	BA5983FP-E2	R109	033-1031-15	1/16W 10k ohm	R208	033-8231-15	1/16W 82k ohm
J101	074-1228-76	26P	R110	033-1051-15	1/16W 1M ohm	R209	033-6811-15	1/16W 680 ohm
J201	074-1138-65	15P	R111	033-3321-15	1/16W 3.3k ohm	R210	033-6831-15	1/16W 68k ohm
J301	074-1138-60	10P	R114	033-2211-15	1/16W 220 ohm	R211	033-1831-15	1/16W 18k ohm
L101	010-2285-57	BLM21B102SPT	R115	033-2211-15	1/16W 220 ohm	R212	033-2721-15	1/16W 2.7k ohm
L102	010-2285-57	BLM21B102SPT	R116	033-1031-15	1/16W 10k ohm	R213	033-1011-15	1/16W 100 ohm
L103	010-2285-57	BLM21B102SPT	R117	033-1021-15	1/16W 1k ohm	R214	033-1021-15	1/16W 1k ohm
L104	010-2285-57	BLM21B102SPT	R131	033-4711-15	1/16W 470 ohm	R215	033-1031-15	1/16W 10k ohm
L105	010-2285-57	BLM21B102SPT	R132	033-2211-15	1/16W 220 ohm	R217	033-1041-15	1/16W 100k ohm
L401	010-2155-93	10uH	R201	117-2201-15	1/8W 22 ohm	R218	033-2211-15	1/16W 220 ohm
L401	010-3050-93	10uH	R202	117-2201-15	1/8W 22 ohm	R301	117-6811-15	1/8W 680 ohm
Q201	131-1188-50	2SB1188	R203	033-1041-15	1/16W 100k ohm	R304	033-3921-15	1/16W 3.9k ohm
R102	033-5621-15	1/16W 5.6k ohm	R204	033-1041-15	1/16W 100k ohm	R305	033-3921-15	1/16W 3.9k ohm
R104	033-4731-15	1/16W 47k ohm	R205	033-1041-15	1/16W 100k ohm	R306	033-1041-15	1/16W 100k ohm
R105	033-1041-15	1/16W 100k ohm	R206	033-1041-15	1/16W 100k ohm	R307	033-2211-15	1/16W 220 ohm
R108	033-1531-15	1/16W 15k ohm	R207	033-1041-15	1/16W 100k ohm	X102	060-1528-90	16.934M

### LED PWB section(B5) : CD mechanism

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
D1	001-7058-90	AN1105W-RR	Q1	060-4015-90	PS1192H	S1	013-7414-50	CHUCKING
D2	001-7058-90	AN1105W-RR	Q2	060-4015-90	PS1192H	S2	013-7413-50	LIMIT
J1	074-1138-60	10P						

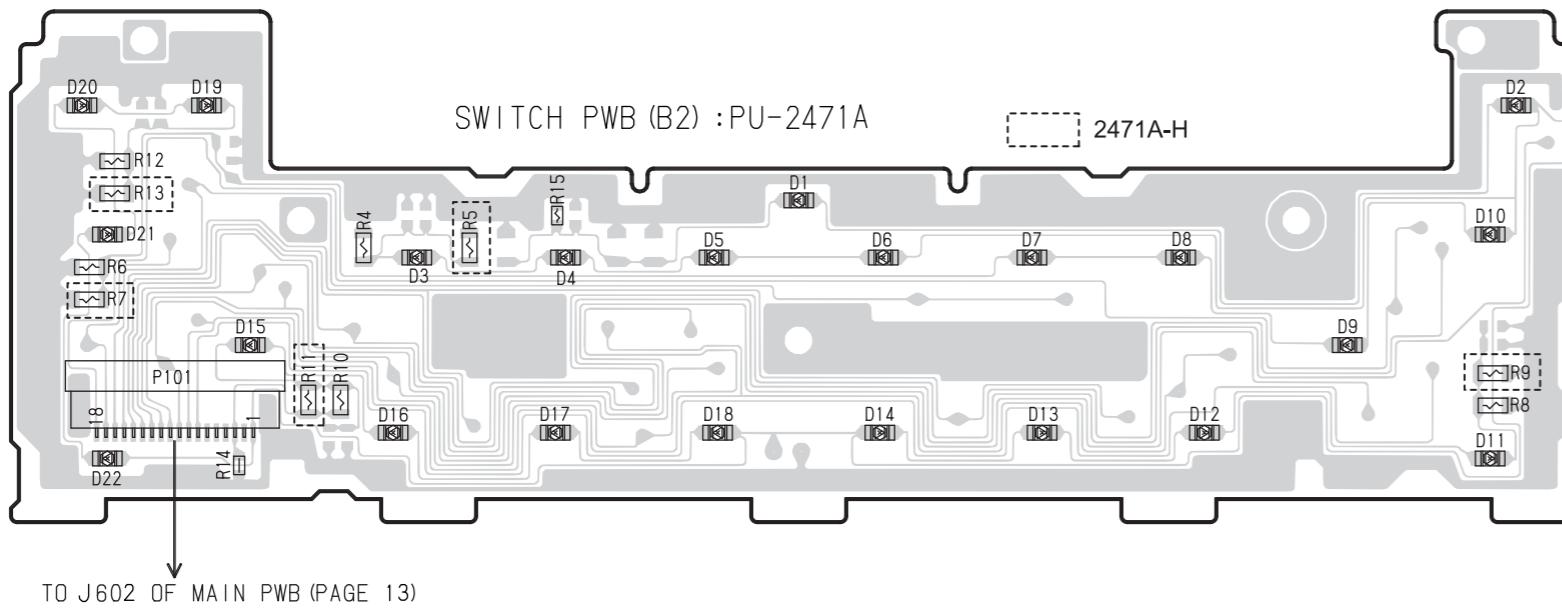
## CIRCUIT DIAGRAM

ISO PWB section(B3)



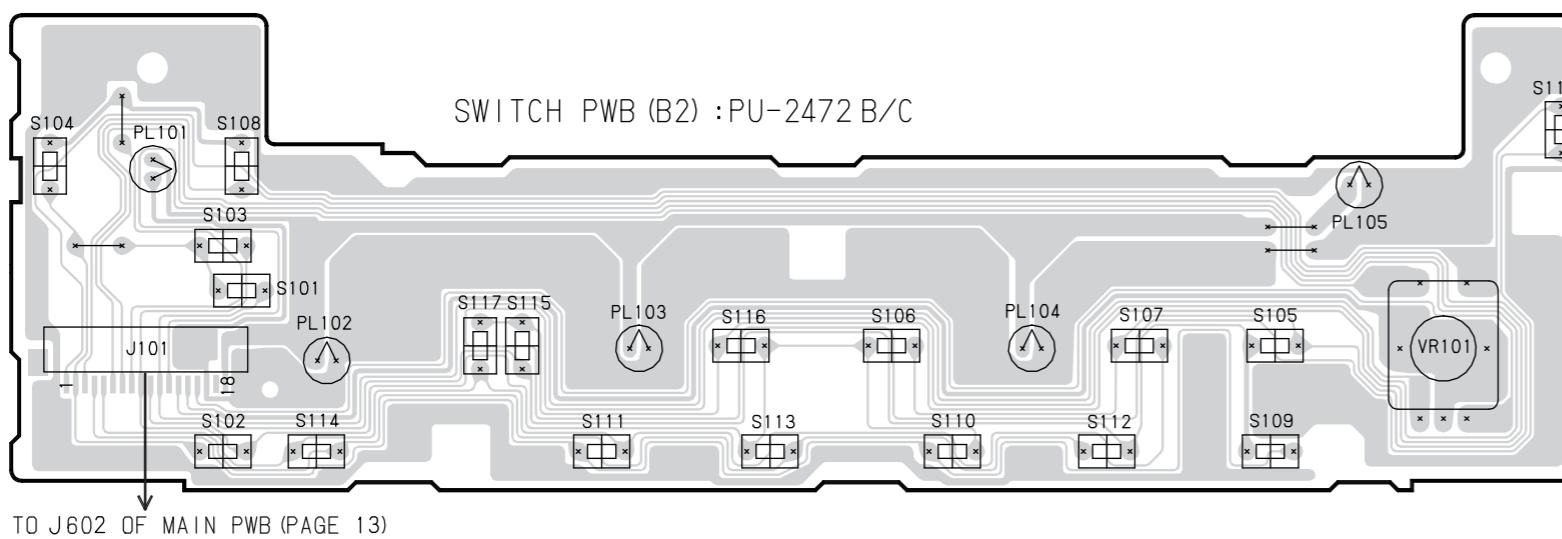
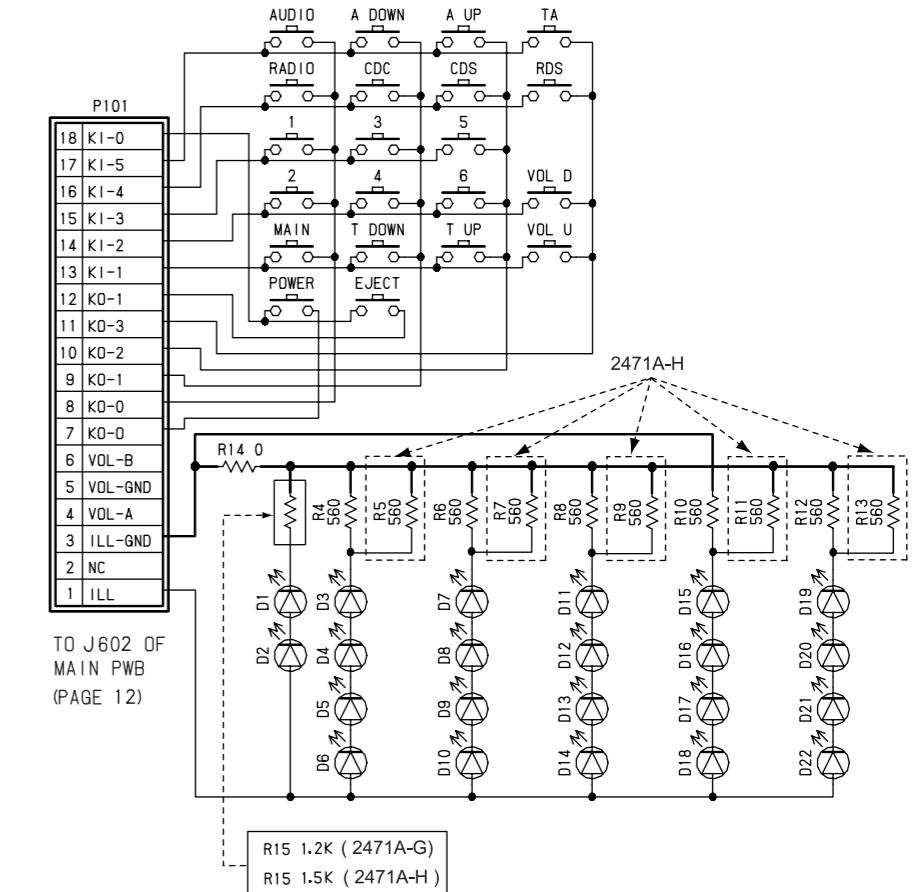
## PRINTED WIRING BOARD

Switch PWB(B2) section

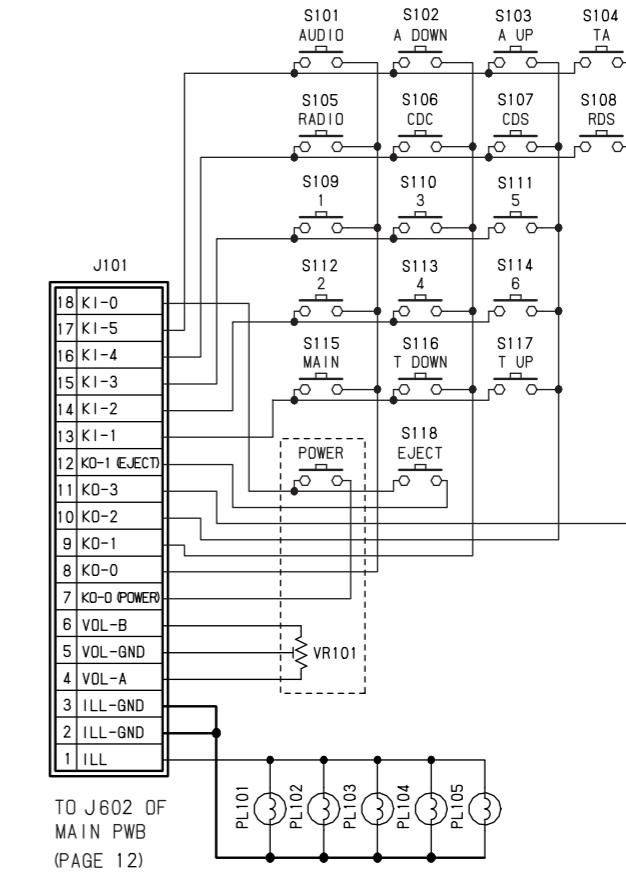


## CIRCUIT DIAGRAM

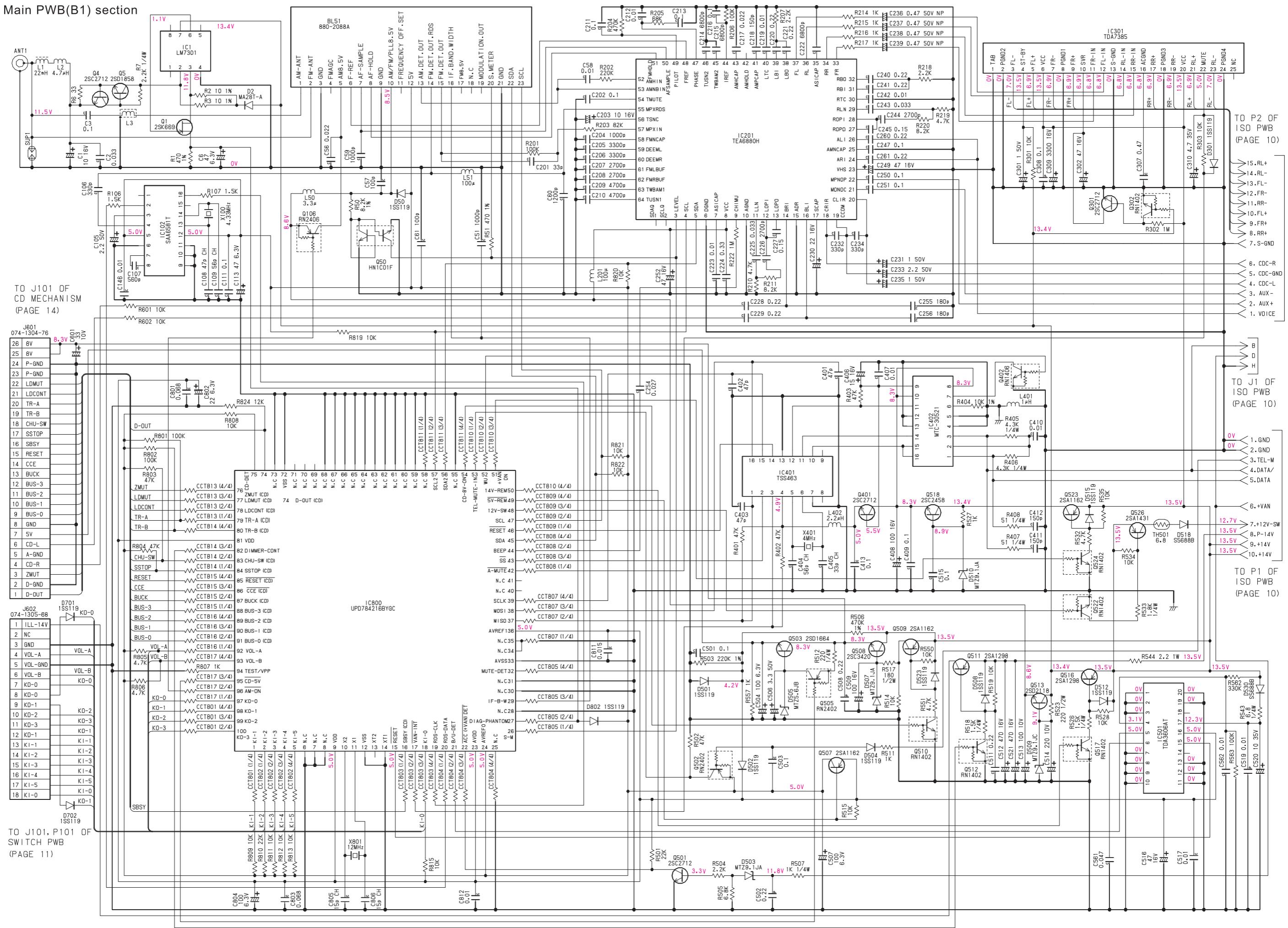
Switch PWB section(B2) : PU-2471A



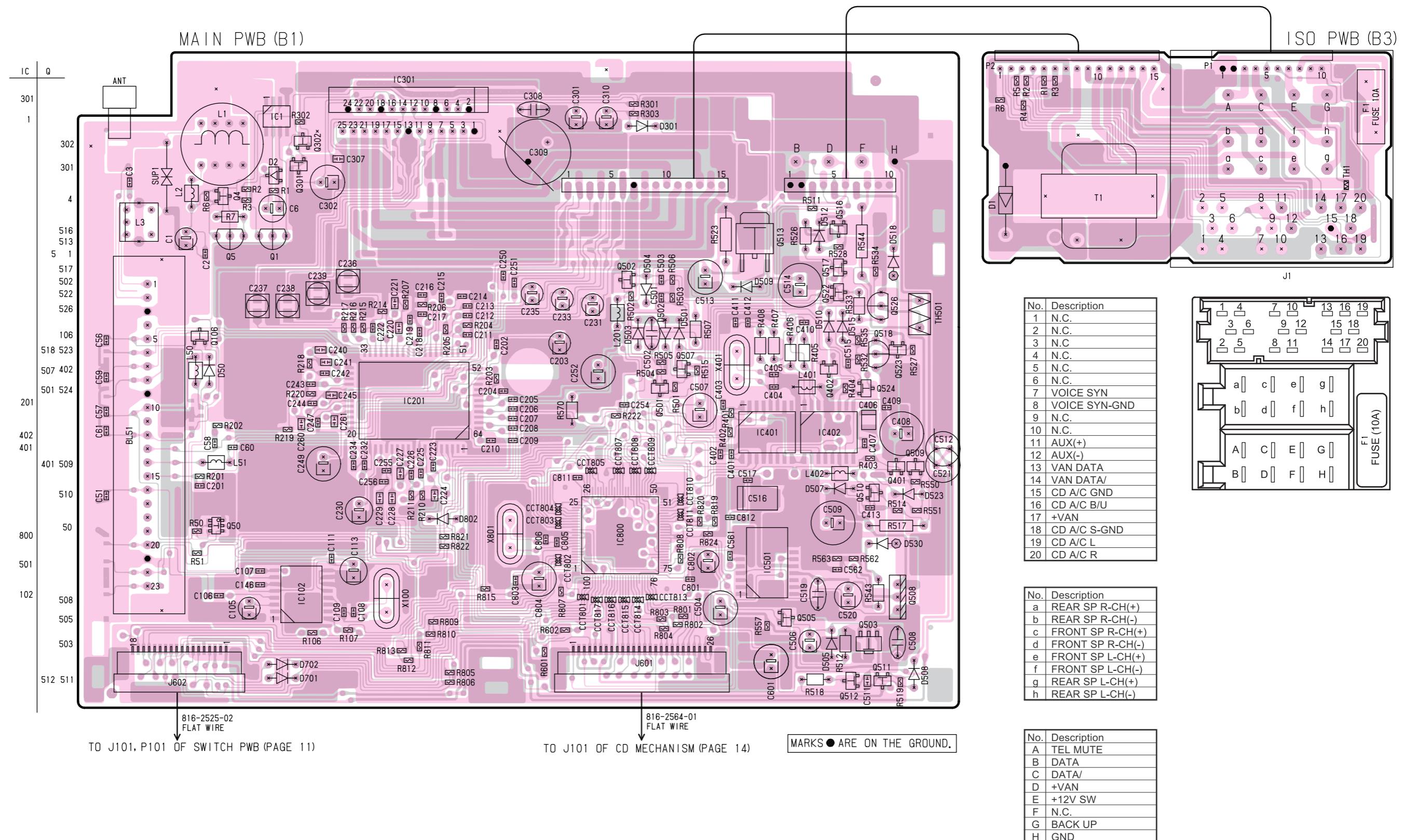
Switch PWB section(B2) : PU-2472B, C



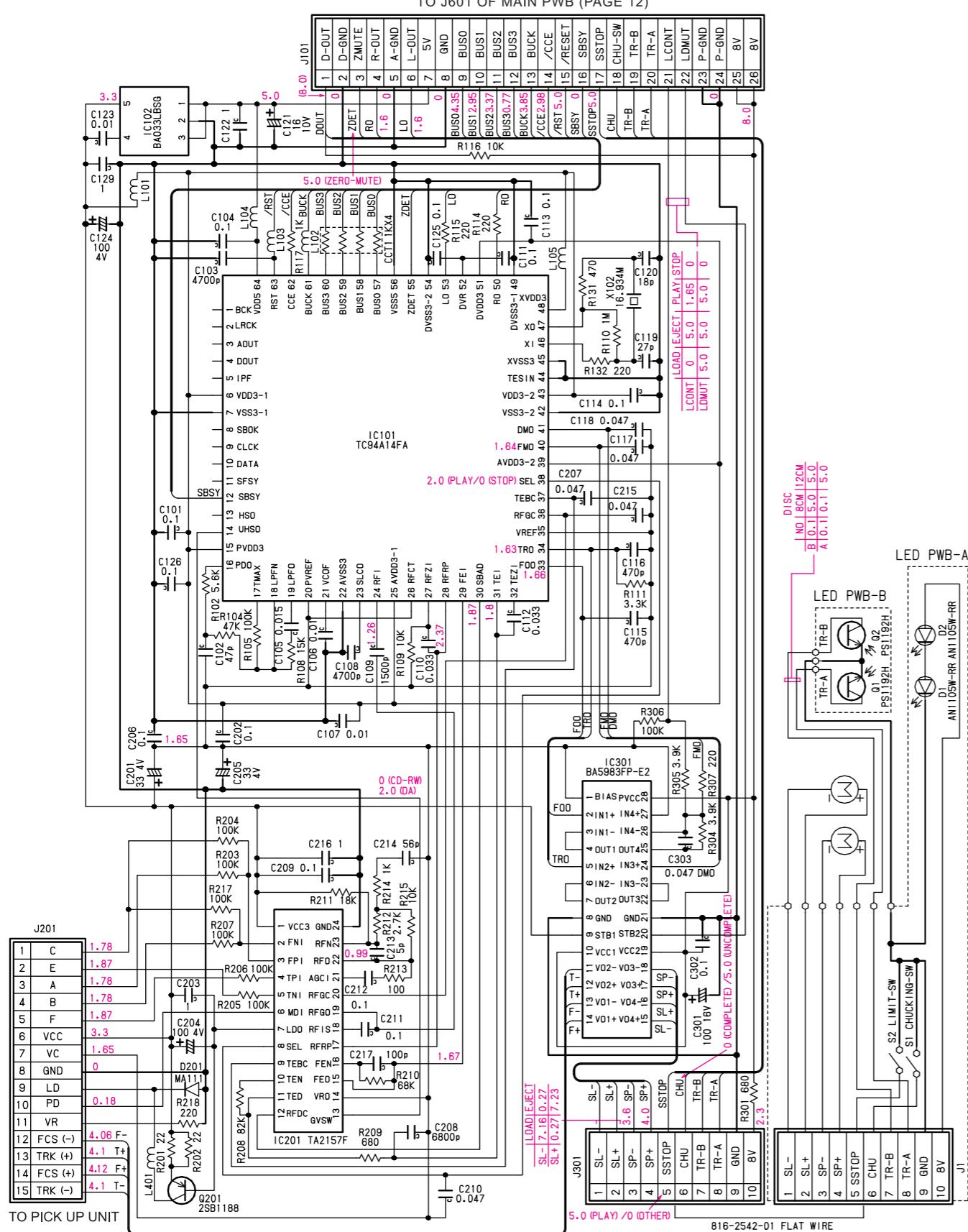
## Main PWB(B1) section



**PRINTED WIRING BOARD**  
Main PWB(B1) / ISO PWB(B3) section



CIRCUIT DIAGRAM  
CD PWB(B4) / LED PWB(B5) section



PRINTED WIRING BOARD  
CD PWB(B4) / LED PWB(B5) section

