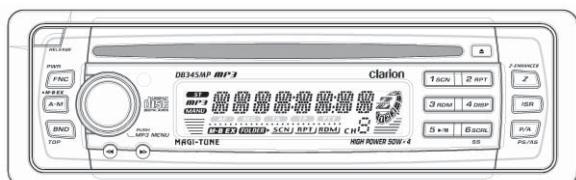


Service Manual



AM/FM CD/MP3 Player

Model **DB345MP**

(PE-2640B-A: For U.S.A.)

Model **DB346MP**

(PE-2640K-A: For other countries)

SPECIFICATIONS

Radio section

Model: PE-2640B-A

Tuning system: PLL synthesizer tuner
Receiving frequencies: FM 87.9 to 107.9MHz (0.20 MHz steps)
AM 530 to 1,710kHz (10 kHz steps)

Model: PE-2640K-A

Tuning system: PLL synthesizer tuner
Receiving frequencies: FM 87.0 to 108MHz (0.05 MHz steps)
AM 531 to 1,629kHz (9 kHz steps)

CD/MP3 player section

System: Compact disc digital audio system
Frequency response: 10Hz to 20kHz (+1dB/-1dB)
Signal to Noise ratio: 100dB (1kHz) IHF-A
Dynamic range: 95dB (1kHz)
Distortion: 0.01%

MP3

Decode Format: MPEG 1, 2 and 2.5-Layer 3
Sampling rate (kHz): MPEG-1: 32, 44.1, 48
MPEG-2: 16, 22.05, 24
MPEG-2.5: 8, 11.025, 24
Bit-rate (kbps): 8, 16, 24, 32, 40, 48, 56, 64, 80, 96, 112, 128, 144, 160, 192, 224, 256, 320, VBR
CD-ROM Format: ISO9660 Level 1, 2, Romeo and Joliet
Folder Level Limit: No limitation
Folder Support: 128
File Support: 254
Folder Name: Maximum 16 characters
File Name: Maximum 28 characters

General

Max. Power Output: 50W x 4
Line Output: 1.7V (with CD 1kHz, 10k ohm)
Bass Control Action: +14dB/-14dB (30Hz)
Treble Control Action: +14dB/-14dB (10 kHz)
Power supply voltage: DC 14.4V (10.8 to 15.6V allowable)
negative ground
Current consumption: Less than 15A
Speaker impedance: 4 ohm (4 ohm to 8 ohm allowable)
Dimensions (mm): 178 (W) x 50 (H) x 152 (D)mm
Weight: 1.1kg

※ Specification and design are subject to change without notice for further improvement.

NOTE

1. 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.

FEATURES

1. Visible Blue Negative LCD and White Illuminated Buttons
2. Aluminium Detachable Faceplate
3. Rotary Volume for Easy Operation
4. Z-Enhancer with 3 Mode Sound Selector
5. MAGNA BASS EX for Dynamic Bass Tuning
6. **MAGI-TUNE®** FM Reception System
7. Seek/Manual Up/Down Tuning
8. 8-Times Oversampling Digital Filter and Dual 1-Bit D/A Converters
9. Preset Station Scan (PS), Automatic Store (AS)
10. 4-Channel RCA Line Level Output
11. AM 1 band, FM 3 bands each 6 channels total 24 channels, Preset Memory Function
12. Repeat/Random Play/Intro Music Scan
13. 200W (50 W x 4) Maximum Power Output
14. IR Remote Control Included
15. MP3NAVI for Quick Music Folder and Track Search
16. MP3 File Playable with ID3-TAG Display

COMPONENTS

PE-2640B-A / PE-2640K-A

Source unit	_____	1
Battery (SUM-3)	_____	
(PE-2640B only)	_____	2
Remote Controller	_____	
(PE-2640B only)	RCB-164-201	1
DCP Case	335-5734-05	1
Mounting bracket	300-7742-20	1
Escutcheon (Outer-Es)	_____	
(PE-2640B)	370-6100-00	1
(PE-2640K)	370-6096-00	1
Extension Lead	854-6391-60	1
Part's bag	_____	1
Removal key	331-2497-20	2
Stopper (PE-2640B only)	335-4899-20	1

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 re-modeling 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 30cm away from the lens. Prolonged viewing of the laser within 30cm 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.

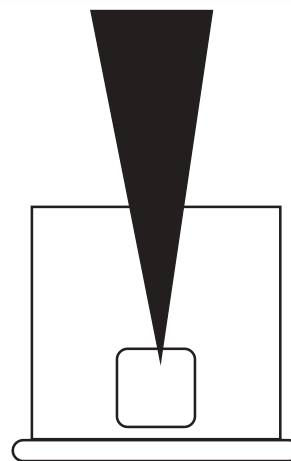
9-3. Cleaning the lens

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

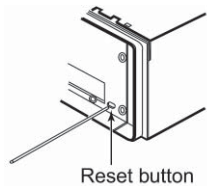
Use of controls, adjustments, or performance of procedures other those specified herein, may result in hazardous radiation exposure.

The compact disc player should not be adjustment or repaired by anyone except properly qualified service personnel.



Bottom View of Main Unit

TROUBLESHOOTING

Problem	Cause	Measure
Power does not turn on. (No sound is produced).	Fuse is blown.	Replace with a fuse of the same amperage.
	Incorrect wiring	Read the attached "Installation/Wire connection Guide" once again and wire properly.
Compact disc cannot be loaded.	Another compact disc is already loaded.	Eject the compact disc before loading the new one.
Sound skips or is noisy.	Compact disc is dirty.	Clean the compact disc with a soft cloth.
	Compact disc is heavily scratched or warped.	Replace with a compact disc with no scratches.
Sound is bad directly after power is turned on.	Water droplets may form on the internal lens when the car is parked in a humid place.	Let dry for about 1 hour with the power on.
Nothing happens when buttons are pressed. Display is not accurate.	Microprocessor has malfunctioned due to noise, etc.	Turn off the power, then press the [RELEASE] button and remove the DCP. Press the reset button for about 2 seconds with a thin rod. 
	DCP or main unit connectors are dirty.	Wipe the dirt off with a soft cloth moistened with cleaning alcohol.

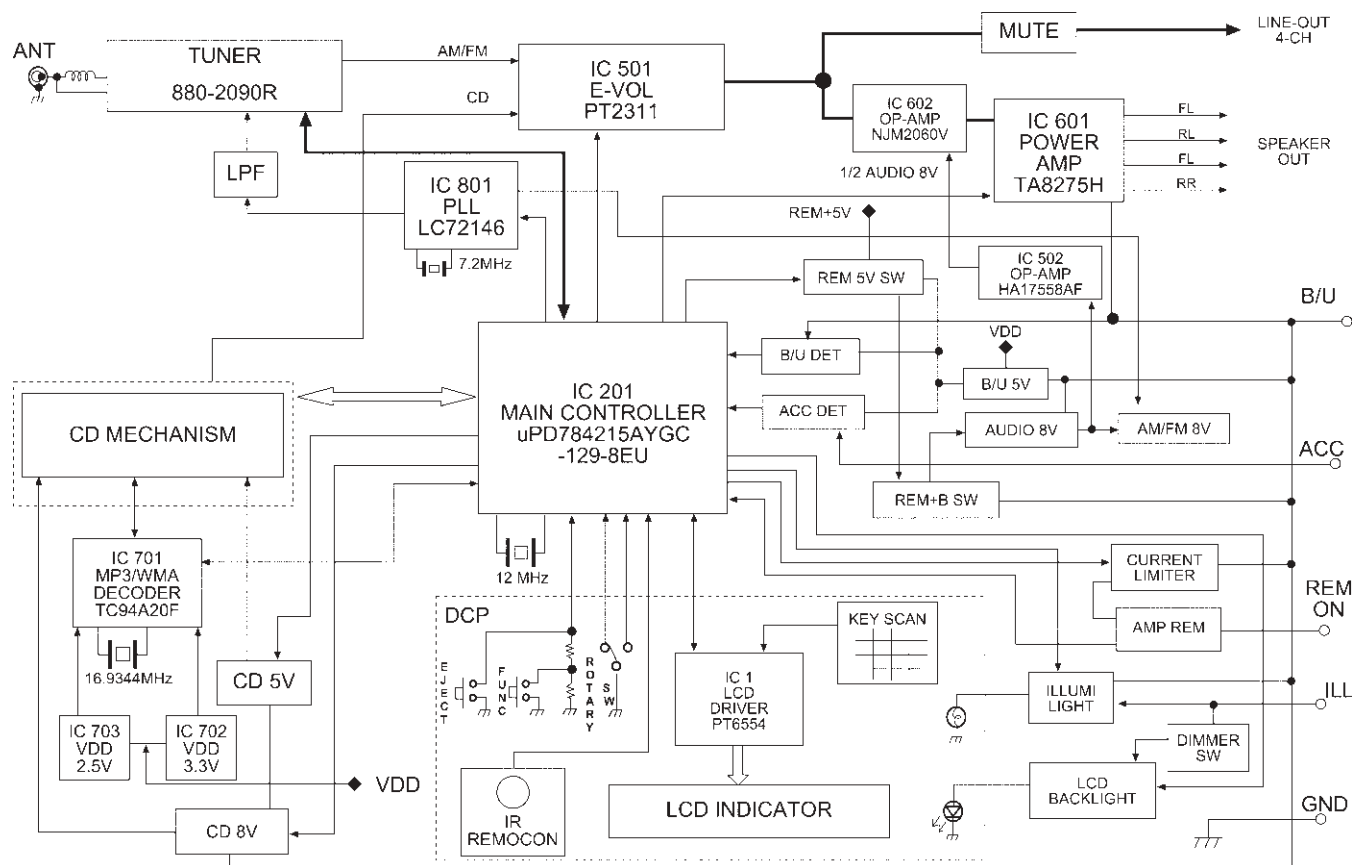
ERROR DISPLAYS

To protect the system, this unit has been equipped with self diagnostic functions. If a fault arises, a warning is issued by various error displays. Follow the corrective measures and remove the fault.

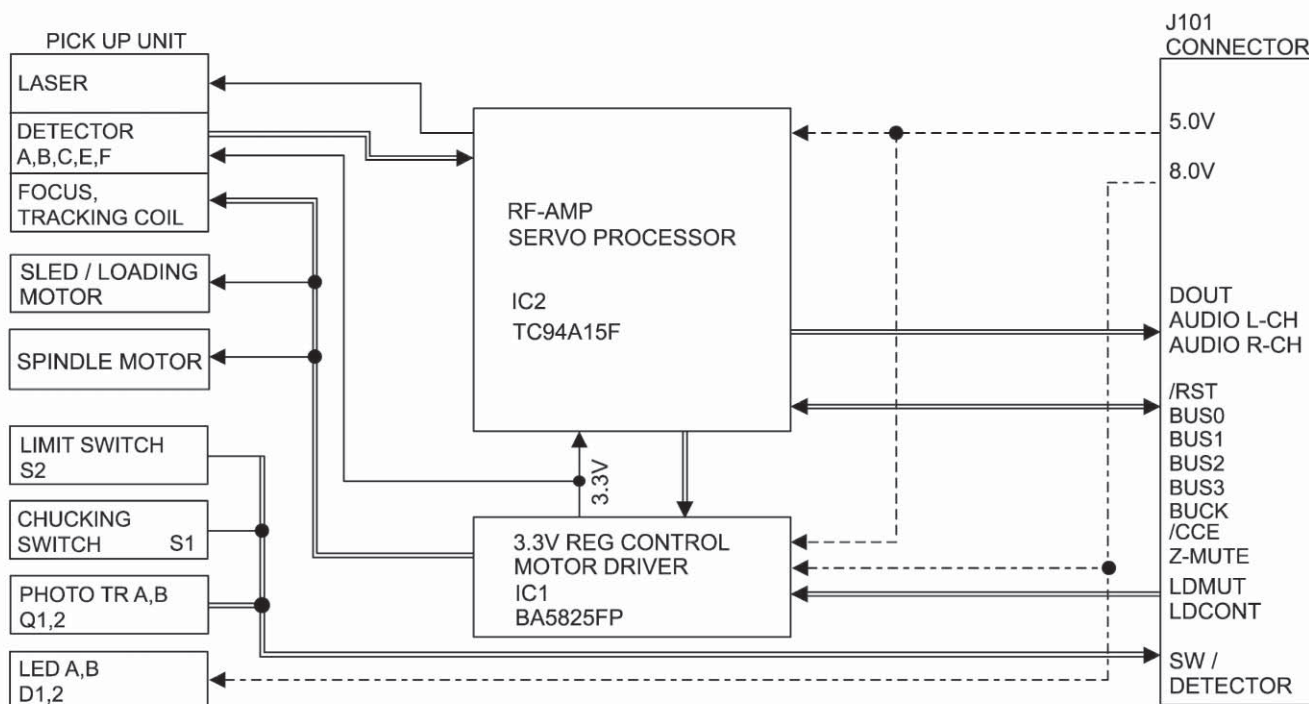
Error Display	Corrective Measure
ER2	This error display indicates that a fault has arisen in the mechanism of the source unit (for example, the disc cannot be ejected). →Check the source unit
ER3	This error display indicates that the pickup focus is off because of a scratched disc or some other factor during source unit play. →Check the compact unit
ER6	This indicates that the CD's TOC (table of contents) cannot be read, because the selected disc is upside-down.

BLOCK DIAGRAM

MAIN UNIT SECTION



CD MECHANISM SECTION 929-0290-80



EXPLANATION OF IC

uPD784215AYGC-129-8EU 052-3933-00

Master Micro computer

Outward Form

100 pins, plastic QFP

Terminal Description

Pin No	PIN NAME	I/O	DESCRIPTION
1	VOL_CLK	O	E-VOL Control Clock output
2	VOL_DATA	O	E-VOL Control Data output
3	REM_DET	I	While protecting circuit motion, it is at 'HI'
4	OFFSET_DET	I	While Power Amp IC is abnormal, it is at 'LOW'
5	PHONE_INT	I	NC
6	NC	-	NC
7	MP3_REQ	I	REQ input from MP3 decoder
8	NC	-	NC
9	VDD	-	Power supply terminal 5V
10	X_OUT	-	Crystal 12MHz (Main system clock)
11	X_IN	-	Crystal 12MHz (Main system clock)
12	VSS	-	GND
13	XT_OUT	-	NC
14	XT_IN	-	GND
15	RESET	-	Reset port (When system is reset, it is at 'LOW')
16	NC	-	NC
17	B/U_DET	I	B/U detecting terminal
18	ACC_DET	I	ACC detecting terminal
19	REMOCON	I	IR Sensor signal input for Remote Control
20	KEY_INT	I	When this terminal turns low, key A/D terminal detects the key pushed (FNC, EJECT & DCP keys)
21	SBSY	I	GS1-MC CD Sub-code block sync detection input
22	TBASE	I	PLL Time Base signal input (8Hz)
23	AVDD	-	Analog Power supply 5V
24	AVREF0	-	ADC Reference Voltage Input
25	KEY A/D	I	FNC/EJECT/DCP detection terminal for A/D converter
26	TEST	I	TEST keys detection terminal (For Test Mode purpose)
27	NC	-	NC
28	NC	-	NC
29	NC	-	NC
30	NC	-	NC
31	NC	-	NC
32	NC	-	NC
33	AVSS	-	Analog GND

Pin No	PIN NAME	I/O	DESCRIPTION
34	NC	-	NC
35	NC	-	NC
36	AVREF1	-	DAC Reference Voltage Input
37	NC	-	NC
38	NC	-	NC
39	NC	-	NC
40	NC	-	NC
41	NC	-	NC
42	NC	-	NC
43	NC	-	NC
44	NC	-	NC
45	MP3_SDA	I/O	MP3 Data Communication Port (I2C bus)
46	NC	-	NC
47	MP3_SCL	O	MP3 Clock Output (I2C bus)
48	MP3_RESET	O	When MP3 decoder is reset, it is at 'LOW'
49	MP3_STANDBY	O	When MP3 decoder is at standby mode, it is at 'LOW'
50	STANDBY	O	Power Amp IC control terminal
51	REM_ON	O	While Power on, it is at 'HI'
52	CD_8V_REM	O	CD power supply control terminal +8V
53	B/L + B	O	Illumination Control Output (While ACC is ON, it is at 'HI')
54	CS1	I	Destination Selection Input. Refer Table 1.
55	CS2	I	Destination Selection Input. Refer Table 1.
56	LCD_SI	I	Serial data input communication line to LCD Control IC
57	LCD_SO	O	Serial data output communication line to LCD Control IC
58	LCD_SCK	O	Serial clock output communication line to LCD Control IC
59	LCD_CE	O	LCD chip enable output
60	VOL-CW	I	Use for rotary volume
61	VOL-CCW	I	Use for rotary volume
62	NC	-	NC
63	NC	-	NC
64	NC	-	NC
65	TR-B	I	GS1-MC CD Disc Detection Input (HI: with disc, LOW: without disc)

Pin No	PIN NAME	I/O	DESCRIPTION
66	S-STOP	I	GS1-MC CD Pick-up Inner Limit Detection Input (HI: Limit, LOW: Playable)
67	RST	O	GS1-MC CD Servo Reset Output (While reset, it is at 'LOW')
68	BUCK	O	GS1-MC CD Servo Clock Output
69	Z-MUTE	I	GS1-MC CD DAC Zero Data Detection Input (While Zero data is detected, it is at 'HI')
70	D_OUT	I	NC
71	CCE	O	GS1-MC CD Servo Chip Enable Output
72	VSS	-	GND
73	BUS3	I/O	GS1-MC CD Servo Data Communication Port
74	BUS2	I/O	GS1-MC CD Servo Data Communication Port
75	BUS1	I/O	GS1-MC CD Servo Data Communication Port
76	BUS0	I/O	GS1-MC CD Servo Data Communication Port
77	CHU-SW	I	GS1-MC CD Disc Chucking Detection Input (HI: Chuck uncompleted, LOW: Chuck completed)
78	TR-A	I	GS1-MC CD 8cm Disc Detection Input (HI: 12cm disc, LOW: 8cm disc)
79	LD_MUTE	O	GS1-MC CD Sled Motor Standby Output (HI: Operation, LOW: Standby)
80	LD_COUNT	O	GS1-MC CD Loading/Eject Control Output (HI: Eject, LOW: Loading)

Pin No	PIN NAME	I/O	DESCRIPTION
81	VDD	-	Power supply terminal 5V
82	PLL DI	I	PLL Data Input
83	PLL DO	O	PLL Data Output
84	PLL CLK	O	PLL Clock
85	PLL CE	O	PLL Chip Enable
86	NC	-	NC
87	NC	-	NC
88	NC	-	NC
89	NC	-	NC
90	NC	-	NC
91	SD/ST_IND	I	AM/FM SD and Stereo Detection Signal Input (HI: SD Off/Mono, LOW: SD On/Stereo)
92	NC	-	NC
93	NC	-	NC
94	TEST/VPP	-	NC
95	REM 5V	O	System 5V power supply control terminal
96	SYS_MUTE	O	Audio Mute Control Output (While mute is ON, it is at 'LOW')
97	CD_5V_REM	O	CD power supply control terminal +5V
98	NC	-	NC
99	NC	-	NC
100	NC	-	NC

TABLE 1. The Destination Setting Terminal

	U.S. Area Setting	Outside U.S. Area Setting
CS1 (Pin 54)	L	H
CS2 (Pin 55)	L	L

Outward Form

100 pins, plastic QFP

Terminal Description

Pin No	PIN NAME	I/O	DESCRIPTION
1	IPF OUT	O	IP flag output
2	SB OK O	O	Sub code Q data CRCC OK signal output
3	CLOCKIO	I/O	The clock pulse input/output for the sub code reading
4	VDD	-	Positive supply voltage
5	VSS	-	Negative supply voltage
6	DATA	O	DATA
7	SF SY O	O	Playback frame synchronous signal output
8	SB SY O	O	Sub code block synchronous signal output
9	HSO	O	The play speed flag output
10	UHSO	O	The play speed flag output
11	AR SEL IN	I	Fix to the high level
12	AWRC	O	The control signal output for the active wide range VCO
13	P VDD	-	PLL positive supply voltage.
14	PDO	O	Phase difference signal output of EFMPCLK.
15	TMAX S	O	T max judgment output.
16	TMAX	O	T max judgment output.
17	LPF N	I	Inverted input of LPF for PLL.
18	LPF OUT	O	The output terminal for the Low Pass Filter.
19	P Vref	-	PLL reference voltage.
20	VCO FILTER	O	Loop filter for VCO.
21	VCO Ref	I	VCO reference voltage input.
22	DTC N	O	For the analog slicer.
23	DTC P	O	For the analog slicer.
24	PLL VSS	-	PLL ground.
25	SLCO	O	Output of internal DAC for data slice level generation.
26	RF IN	I	RF signal input.
27	RF RP	I	RF ripple input.
28	RF EQ OUT	O	The output of the RF equalizer.
29	A VDD	-	Positive supply voltage for the Analog section.
30	RES IN	-	For reference current setting.
31	Vref OUT	O	The reference voltage output.
32	VMDIR	O	The reference voltage output.
33	TESTR	O	The compensation terminal for RFEQO offset.
34	INVSEL	I	MDI polarity selection.
35	AGCI	I	The input terminal of RF AGC amplifier.
36	RF DCI	I	The input terminal for RF peak detection.
37	RF OUT	O	RF signal output.

Pin No	PIN NAME	I/O	DESCRIPTION
38	PN SEL	I	The transistor type selection input for laser diode driver. L=NPN, H=PNP.
39	EQ SET	O	The equalizer setting terminal.
40	RF VDD	-	RF power supply.
41	LDO	O	The laser diode drive output.
42	MDI	I	Monitor photo diode signal input.
43	RF VSS	-	RF ground.
44	FNI 2	I	Main beam signal input.
45	FNI 1	I	Main beam signal input.
46	FPI 2	I	Main beam signal input.
47	FPI 1	I	Main beam signal input.
48	TPI	I	Sub beam signal input.
49	TNI	I	Sub beam signal input.
50	FTEO	O	For test.
51	RF ZI	I	RF ripple zero cross signal input.
52	A VSS	-	Analog ground.
53	RF RP	O	RF ripple signal output.
54	RF DC	O	RF peak detection signal output. (hologram suitable)
55	FEI	O	Focus error signal output.
56	SBAD	O	Sub beam add signal output.
57	TEI	O	Tracking error signal output.
58	TE Z IN	I	Tracking error signal input for zero cross.
59	A VDD	-	Positive supply voltage for the Analog section.
60	FOO	O	Focus equalizer output.
61	TRO	O	Tracking equalizer output.
62	Vref	O	Reference voltage output.
63	FMO	O	Field equalizer output / Speed error output.
64	DMO	O	Disk equalizer output.
65	IO2A	I/O	General input/output.
66	IO3A	I/O	General input/output.
67	MONIT	O	Internal DSP signal monitor.
68	FG IN	I	FG input for the spindle CAV servo.
69	VSS	-	Negative supply voltage.
70	VDD	-	Positive supply voltage.
71	TESIN	I	For test.
72	X VSS	-	Master clock analog ground.
73	X IN	I	Crystal connection.
74	X O	O	Crystal connection.
75	X VDD	-	Clock power supply.
76	D VSS	-	Digital ground.

Pin No	PIN NAME	I/O	DESCRIPTION
77	RO	O	Right channel data output for 1-bit DAC.
78	D VDD	-	Positive supply voltage for the digital section.
79	D Vref	O	Digital reference voltage.
80	LO	O	Left channel data output for 1-bit DAC.
81	D VSS	-	Digital ground.
82	Z DET O	O	1bit DAC zero flag output.
83	VSS	-	Negative supply voltage.
84	BUS 0	I/O	CD IC Data input / output.
85	BUS 1	I/O	CD IC Data input / output.
86	BUS 2	I/O	CD IC Data input / output.
87	BUS 3	I/O	CD IC Data input / output.
88	BU CK IN	I	CD IC Data clock input.
89	CCEI	I	Chip enable input.

Pin No	PIN NAME	I/O	DESCRIPTION
90	RSTI	I	Reset signal input.
91	VDD	-	Positive supply voltage.
92	EMPHI/FAO	I/O	Emphasis input for 1-bit DAC / Flag A output.
93	BCKI/FBO	I/O	Bit clock input for 1-bit DAC / Flag B output.
94	AIN/FCO	I/O	Audio input for 1-bit DAC / Flag C output.
95	LRCKI/FDO	I/O	LR clock input for 1-bit DAC / Flag D output.
96	EMPHO	O	Emphasis flag output. H=Emphasis ON.
97	B CK O	O	Bit clock output.
98	A OUT	O	Audio signal output.
99	LR CK O	O	LR clock output.
100	D OUT	O	Serial data output.

TC94A20F	051-6704-00
MP3 Decoder IC	

Outward Form

64 pins, plastic QFP

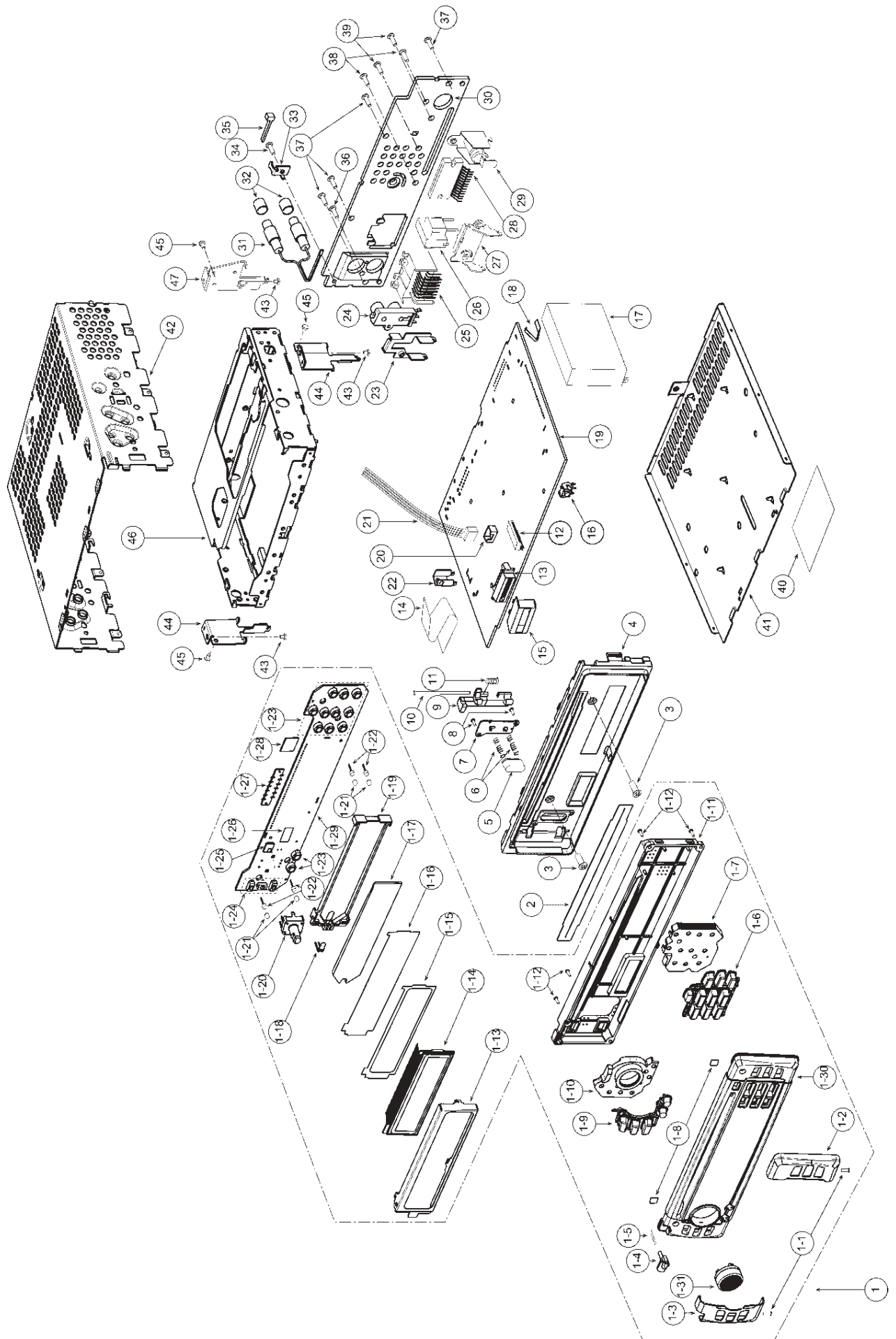
Terminal Description

Pin No	PIN NAME	I/O	DESCRIPTION
1	RESET	I	Reset Port
2	MIMD	I	Mode selection (H:I ² C L:Serial)
3	MiCS	I	NC
4	MiLP	I	NC
5	MiDio	I/O	Data input and output for micom Interface (I ² C:SDA)
6	MiCK	I	Clock input for micom interface (I ² C:SCL)
7	MiACK	O	NC
8	VDDT	-	VDD 3.3V
9	SDo	O	Data output
10	BCKo	O	NC
11	LRCKo	O	NC
12	SDi0	I	Data Input-0
13	BCKiA	I	Bit Clock Input-A
14	LRCKiA	I	LR Clock Input-A
15	SDi1	I	NC
16	BCKiB	I	NC
17	LRCKiB	I	NC
18	VDD	-	VDD 2.5V
19	STANDBY	I	Control input for Stand-by mode (H:STBY L:Normal)
20	VSS	-	GND
21	VSSL	-	GND
22	VRAL	-	NC
23	LO	O	NC
24	VDAL	-	VDD 2.5V
25	VDAR	-	VDD 2.5V
26	RO	O	NC
27	VRAR	-	NC
28	VSSR	-	GND
29	TESTP	I	GND
30	TXO	O	NC
31	Po0	O	NC

Pin No	PIN NAME	I/O	DESCRIPTION
32	Po1	O	NC
33	Po2	O	NC
34	Po3	O	NC
35	VDDT	-	VDD 3.3V
36	Po4	O	NC
37	Po5	O	NC
38	Po6	O	NC
39	Po7	O	Request pin for interrupt host
40	VSS	-	GND
41	REQ	I/O	NC
42	VDDM	-	VDD 2.5V
43	Fi0	I	NC
44	Fi1	I	NC
45	VSSM	-	GND
46	Pi0	I	NC
47	Pi1	I	NC
48	VSS	-	GND
49	Pi2	I	NC
50	Pi3	I	NC
51	Pi4	I	NC
52	VDD	-	VDD 2.5V
53	Pi5	O	NC
54	TSTiN	I	NC
55	Fi2	I	NC
56	VSSP	-	GND
57	Pdo	O	Phase detector output
58	Vcoi	I	Controlled voltage input for VCO circuit
59	VDDP	-	VDD 2.5V
60	CKi	I/O	NC
61	VDDX	-	VDD 2.5V
62	Xi	I	X-TAL 16.9344MHz
63	Xo	O	X-TAL 16.9344MHz
64	VSSX	-	GND

EXPLODED VIEW • PART LIST

Main Section/DCP Section



NO.	PART NO.	DESCRIPTION	Q'TY
1	DCP-465-600	DCP ASSY (PE-2640B-A)	1
	DCP-472-800	DCP ASSY (PE-2640K-A)	1
1-1	716-0872-03	SCREW (PE-2640B-A)	2
	716-0872-00	SCREW (PE-2640K-A)	2
1-2	371-5770-00	FACE PLATE(R)(PE-2640B-A)	1
	371-5770-01	FACE PLATE(R)(PE-2640K-A)	1
1-3	371-5771-00	FACE PLATE (L)(PE-2640B-A)	1
	371-5771-01	FACE PLATE (L)(PE-2640K-A)	1
1-4	382-6923-00	RELEASE BUTTON (PE-2640B-A)	1
	382-6924-00	RELEASE BUTTON (PE-2640K-A)	1
1-5	750-6747-00	SPRING	1
1-6	382-6925-00	BUTTON ASSY (R)	1
1-7	335-7140-00	ILLUMI PLATE (R)	1
1-8	347-7208-00	STICKER	2
1-9	382-6926-00	BUTTON ASSY (L)	1
1-10	382-6924-00	ILLUMI PLATE (L)	1
1-11	335-7139-00	REAR COVER	1
1-12	716-0872-11	SP SCREW (M1.7 X 6)	4
1-13	331-3749-00	LCD COVER	1
1-14	379-1278-41	INDICATOR (LCD)	1
1-15	347-7092-00	FILM	1
1-16	347-7093-00	SHADE	1
1-17	335-7190-00	LCD ILLUMI	1
1-18	001-7046-00	DIODE	1
1-19	335-7192-00	LCD HOLDER	1
1-20	016-9900-92	VR W/SHAFT	1
1-21	345-7148-20	LAMP CAP	4
1-22	017-0410-00	PILOT LAMP (14V 40mA)	4
1-23	013-6005-51	TACT SWITCH	12
1-24	013-6305-50	TACT SWITCH	3
1-25	060-4008-00	IR-RECEIVER	1
1-26	347-7026-00	BLACK MATTEE STICKER	1
1-27	076-0703-12	PLUG	1
1-28	051-6013-50	IC	1
1-29	-----	MAIN PWB (SWITCH)	1
1-30	947-0544-60	ES-DIAL-ASSY(PE-2640B-A)	1
	947-0545-60	ES-DIAL-ASSY(PE-2640K-A)	1
1-31	947-0543-60	VOL-KNOB-ASSY	1
2	346-0097-00	LEATHER SHEET	1
3	714-2606-87	MC SCREW (M2.6 X 6)	2
4	370-6101-00	INNER ESC	1
5	382-4078-20	BUTTON P-UP	1
6	750-3173-00	SPRING	2

NO.	PART NO.	DESCRIPTION	Q'TY
7	331-3609-00	HOOK PLATE	1
8	716-0778-00	WAVE SCREW (2 X 6)	2
9	335-5915-20	HOOK	1
10	341-1627-20	SHAFT	1
11	750-3219-20	SPRING	1
12	074-1237-76	OUTLET SOCKET	1
13	074-1316-12	OUTLET SOCKET (DCP)	1
14	816-2640-60	FLAT WIRE	1
15	331-3630-00	CONNECTOR COVER	1
16	013-3932-01	TACT SWITCH	1
17	880-2090R	TUNER	1
18	331-1861-21	EARTH PLATE	1
19	-----	MAIN PWB	1
20	076-0349-04	CONNECTOR	1
21	854-4569-60	EXTENSION LEAD	1
22	313-1873-00	HEAT SINK	1
23	331-3631-00	RCA BRKT	1
24	075-0388-00	RCA JACK	1
25	074-1214-00	OUTLET SOCKET	1
26	009-9006-60	CHOKE	1
27	331-3367-01	IC HOLDER	1
28	051-2042-00	POWER IC	1
29	092-4000-51	ANT-RECEPT	1
30	313-1872-05	HEAT SINK	1
31	855-8000-08	RCA PIN CORD	1
32	345-3799-0L	RUBBER PART	2
33	331-3637-00	BRACKET	1
34	716-1753-10	SCREW (M3 X 6)	1
35	335-0833-01	CABLE TIE	1
36	714-2012-81	MC SCREW (M2 X 12)	1
37	731-3008-80	TAPTIGHT (M3 X 8)	4
38	714-3006-81	TAPTIGHT (M3 X 6)	2
39	731-3012-80	TAPTIGHT (M3 X 12)	2
40	286-6310-00	SET PLATE (PE-2640B-A)	1
	286-6311-00	SET PLATE (PE-2640K-A)	1
41	311-1848-00	LOWER CASE	1
42	310-1775-05	UPPER CASE	1
43	731-3005-81	TAPTIGHT (M3 X 5)	3
44	331-3607-00	MECHA BRACKET	2
45	714-2604-81	MC SCREW (M2.6 X 4)	3
46	929-0290-80	CD MECHA	1
47	331-3366-00	MECHA BRACKET	1

CD mechanism section 929-0290-80



DB345MP/DB346MP

NO.	PART NO.	DESCRIPTION	QTY
1	966-0595-25	DRIVE PLATE ASSY	1
2	969-0065-31	PICK UP UNIT	1
3	—————	LED PWB	1
4	—————	CD PWB	1
5	SMA-182-100	MOTOR ASSY(SPINDLE)	1
6	SMA-183-100	MOTOR ASSY(SLED)	1
7	HBS-524-100	CLAMPER SUB ASSY	1
7-1	620-1022-25	CLAMPER LINK	1
7-2	620-1023-23	CLAMPER PLATE	1
7-3	620-1024-23	SENSOR ARM	1
7-4	621-0708-20	CLAMPER RING	1
7-5	621-0626-21	STOPPER LINK	1
7-6	621-0627-21	DISC STOPPER	1
7-7	750-3471-20	SENSOR SPRING	1
8	803-4906-60	VINYL COAT WIRE(ORG)	1
9	816-2591-00	LEAD WIRE(YEL)	1
10	620-1025-22	ID-LOCK PLATE	1
11	620-1026-21	SPRING PLATE	1
12	620-1027-27	LOWER CHASSIS	1
13	620-1028-23	UPPER CHASSIS	1
14	966-0638-20	SH-RACK ASSY	1
15	621-0598-27	UPPER GUIDE	1
16	621-0599-26	ROLLER GUIDE	1
17	621-0600-26	SHIFT LEVER	1
18	621-0601-21	RACK	1
19	621-0602-22	LOCK ARM L	1
20	621-0603-25	LOCK ARM R	1
21	621-0724-21	GEAR BASE	1
22	621-0605-22	GEAR COVER	1
23	621-0723-20	IDLE CASE	1
24	816-2590-00	VINYL COAT WIRE(GRN)	1
25	621-0608-21	SECOND GEAR	1
26	621-0609-20	BASE GEAR	1
27	621-0610-20	IDLE GEAR A	1
28	621-0611-20	IDLE GEAR B	1
29	621-0612-21	ROLLER GEAR A	1
30	621-0719-20	ROLLER GEAR B	1

NO.	PART NO.	DESCRIPTION	QTY
31	621-0720-20	ROLLER GEAR C	1
32	621-0721-20	ROLLER GEAR D	1
33	621-0616-20	POWER GEAR A	1
34	621-0617-20	POWER GEAR B	1
35	621-0618-20	POWER GEAR C	1
36	621-0619-20	POWER GEAR D	1
37	621-0620-20	THREAD GEAR A	1
38	621-0621-20	THREAD GEAR B	1
39	621-0622-21	ROLLER SLEEVE	2
40	621-0623-23	LS-HOLDER	1
41	621-0624-22	GUIDE RAIL	1
42	816-2593-00	LEAD WIRE(PUR)	1
43	816-2542-01	FLAT WIRE(10P)	1
44	716-3473-00	SCREW (M2 X 3)	2
45	621-0709-20	SH-BASE	1
46	621-0629-20	LOADING ROLLER	2
47	345-8704-20	CUSHION RUBBER	1
48	622-1571-21	ROLLER SHAFT	1
49	624-0018-01	LEAD SCREW	1
50	629-0081-20	DAMPER F	2
51	629-0082-20	DAMPER R	1
52	714-2003-81	MACHINE SCREW (M2 X 3)	2
53	716-1507-00	SCREW (M2 X 3)	9
54	716-1733-00	SCREW (M1.7 X 2.3)	2
55	716-3469-00	SCREW (3 X 4)	2
56	716-3446-00	SCREW (M1.4 X 2.5)	2
57	750-3465-21	ROLLER SPRING L	1
58	750-3466-20	ROLLER SPRING R	1
59	750-3467-21	SHIFT SPRING	1
60	750-3468-20	RACK SPRING	1
61	750-3469-20	CLAMPER SPRING	1
62	750-3470-20	ID-LOCK SPRING	1
63	816-2592-00	LEAD WIRE(BLU)	1
64	750-3472-21	DR-SPRING F	2
65	750-3473-20	DR-SPRING RA	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.
Remarks:- #: For PE-2640B-A only @: For PE-2640K-A only

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
ANT101	092-4000-51	ANT-RECEPT	C514	178-4742-78	25V 0.47uF	C702	168-1045-56	25V 0.1uF
BL101	880-2090R	TUNER	C515	168-1045-56	25V 0.1uF	C703	168-1045-56	25V 0.1uF
C101	166-2201-50	50V 22pF	C516	168-1045-56	25V 0.1uF	C706	168-1045-56	25V 0.1uF
C102	166-2201-50	50V 22pF	C517	168-2722-55	50V 2700pF	C707	168-1045-56	25V 0.1uF
C103	168-1032-55	50V 0.01uF	C518	168-1032-55	50V 0.01uF	C715	168-1045-56	25V 0.1uF
C104	168-1032-55	50V 0.01uF	C520	168-2222-55	50V 2200pF	C716	168-1045-56	25V 0.1uF
C105	168-1032-55	50V 0.01uF	C521	187-2263-35	16V 22uF	C717	168-1045-56	25V 0.1uF
C106	187-1073-25	10V 100uF	C523	187-1073-15	6.3V 100uF	C718	168-1045-56	25V 0.1uF
C107	168-1045-56	25V 0.1uF	C524	187-1063-35	16V 10uF	C719	187-3343-65	50V 0.33uF
C108	168-1032-55	50V 0.01uF	C530	168-1032-55	50V 0.01uF	C720	168-1045-56	25V 0.1uF
C109	187-4763-35	16V 47uF	C531	166-1011-50	50V 100pF	C721	168-1045-56	25V 0.1uF
C110	187-1073-25	10V 100uF	C532	166-1011-50	50V 100pF	C722	187-4763-15	6.3V 47uF
C111	168-1032-55	50V 0.01uF	C533	166-1011-50	50V 100pF	C723	187-1063-35	16V 10uF
C112	168-6822-55	50V 6800pF	C534	166-1011-50	50V 100pF	C724	166-2001-50	50V 20pF
C113	168-2732-55	50V 0.027uF	C535	166-1011-50	50V 100pF	C725	166-2001-50	50V 20pF
C114	168-2732-55	50V 0.027uF	C537	166-1011-50	50V 100pF	C726	168-1045-56	25V 0.1uF
C115	168-1022-55	50V 1000pF	C538	168-1022-55	50V 1000pF	C727	178-1052-78	16V 1uF
C116	168-4732-78	50V 0.047uF	C539	166-1011-50	50V 100pF	C728	168-1032-55	50V 0.01uF
C117	187-1053-65	50V 1uF	C551	187-1063-35	16V 10uF	C729	187-1063-35	16V 10uF
C118	168-1232-55	50V 0.012uF	C552	166-4711-50	50V 470pF	C730	178-1052-78	16V 1uF
C126	166-1011-50	50V 100pF	C553	187-1063-35	16V 10uF	C731	168-1032-55	50V 0.01uF
C127	168-1045-56	25V 0.1uF	C554	166-4711-50	50V 470pF	C732	187-2273-15	6.3V 220uF
C128	168-1032-55	50V 0.01uF	C581	187-1063-35	16V 10uF	C736	168-2222-55	50V 2200pF
C129	168-1045-56	25V 0.1uF	C582	166-4711-50	50V 470pF	C737	168-1045-56	25V 0.1uF
C201	042-1598-90	10V 470uF	C583	187-1063-35	16V 10uF	C801	166-1011-50	50V 100pF
C202	168-6832-78	50V 0.068uF	C584	166-4711-50	50V 470pF	C802	166-3311-50	50V 330pF
C203	166-1501-50	50V 15pF	C602	178-3932-78	25V 0.039uF	C803	166-1011-50	50V 100pF
C204	166-1501-50	50V 15pF	C603	178-3932-78	25V 0.039uF	C804	166-1011-50	50V 100pF
C206	168-1532-55	50V 0.015uF	C612	178-3932-78	25V 0.039uF	C805	166-1011-50	50V 100pF
C207	168-6832-78	50V 0.068uF	C613	178-3932-78	25V 0.039uF	C806	187-4763-15	6.3V 47uF
C208	042-1598-90	10V 470uF	C622	187-1063-35	16V 10uF	C807	168-1032-55	50V 0.01uF
C209	178-2242-78	25V 0.22uF	C623	178-4742-78	25V 0.47uF	C808	187-1053-65	50V 1uF
C210	168-1032-55	50V 0.01uF	C624	187-1053-65	50V 1uF	C809	168-1045-56	25V 0.1uF
C211	168-1032-55	50V 0.01uF	C625	168-2222-55	50V 2200pF	C810	166-1501-50	50V 15pF
C212	168-1032-55	50V 0.01uF	C626	168-2222-55	50V 2200pF	C811	166-1801-50	50V 18pF
C213	168-1032-55	50V 0.01uF	C627	168-2222-55	50V 2200pF	C812	168-1022-55	50V 1000pF
C215	168-1032-55	50V 0.01uF	C628	168-2222-55	50V 2200pF	C901	189-2283-32	16V 2200uF
C216	168-1032-55	50V 0.01uF	C629	168-2222-55	50V 2200pF	C902	172-1041-15	50V 0.1uF
C401	168-2232-55	50V 0.022uF	C630	168-2222-55	50V 2200pF	C903	187-1063-35	16V 10uF
C402	168-1022-55	50V 1000pF	C631	168-2222-55	50V 2200pF	C904	042-1598-90	10V 470uF
C405	168-1032-55	50V 0.01uF	C632	168-2222-55	50V 2200pF	C905	187-2263-35	16V 22uF
C406	168-1045-56	25V 0.1uF	C641	168-1542-55	25V 0.15uF	C906	042-1598-90	10V 470uF
C501	187-2253-65	50V 2.2uF	C642	168-1542-55	25V 0.15uF	C907	187-1073-25	10V 100uF
C502	187-2253-65	50V 2.2uF	C643	168-1542-55	25V 0.15uF	C908	042-1452-81	10V 220uF
C503	187-2253-65	50V 2.2uF	C644	166-2201-50	50V 22pF	C910	042-1598-90	10V 470uF
C504	178-4742-78	25V 0.47uF	C645	166-2201-50	50V 22pF	C911	168-4732-78	50V 0.047uF
C505	168-1045-56	25V 0.1uF	C646	168-1542-55	25V 0.15uF	C914	168-1032-55	50V 0.01uF
C506	168-1045-56	25V 0.1uF	C647	166-2201-50	50V 22pF	C915	187-1063-35	16V 10uF
C507	168-2722-55	50V 2700pF	C648	168-1542-55	25V 0.15uF	C927	042-1598-90	10V 470uF
C508	168-1032-55	50V 0.01uF	C649	168-1542-55	25V 0.15uF	C929	168-1045-56	25V 0.1uF
C510	168-2222-55	50V 2200pF	C650	166-2201-50	50V 22pF	CCT201	050-0148-50	CCT 1K ohm
C511	187-2253-65	50V 2.2uF	C651	168-1542-55	25V 0.15uF	CCT202	050-0148-50	CCT 1K ohm
C512	187-2253-65	50V 2.2uF	C652	168-1542-55	25V 0.15uF	CCT203	050-0148-50	CCT 1K ohm
C513	187-2253-65	50V 2.2uF	C701	168-1045-56	25V 0.1uF	CCT204	050-0148-50	CCT 1K ohm

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
CCT207	050-0148-50	CCT 1K ohm	J701	076-0349-04	4P	R202	119-2241-15	1/16W 220K ohm
CCT208	050-0148-50	CCT 1K ohm	J901	074-1214-00	16P	R203	119-0000-05	1/16W 0 ohm
CCT209	050-0148-50	CCT 1K ohm	L101	010-2003-04	COIL	R204	119-1031-15	1/16W 10K ohm
CCT210	050-0148-50	CCT 1K ohm	L103	010-2330-67	5.6uH	R205	119-2241-15	1/16W 220K ohm
CCT211	050-0148-50	CCT 1K ohm	L201	010-2330-62	2.2uH	R206	119-2231-15	1/16W 22K ohm
CCT212	050-0148-50	CCT 1K ohm	L801	010-2330-86	220uH	R207	119-0000-05	1/16W 0 ohm
CCT213	050-0148-50	CCT 1K ohm	Q101	125-2199-93	KRC103S	R208	119-0000-05	1/16W 0 ohm
CCT214	050-0148-50	CCT 1K ohm	Q102	125-0199-98	KRA118S	R209	119-1021-15	1/16W 1K ohm
CCT215	050-0148-50	CCT 1K ohm	Q103	125-0199-93	KRA103S	R210	119-1021-15	1/16W 1K ohm
CCT216	050-0148-50	CCT 1K ohm	Q401	125-2199-93	KRC103S	R211	119-4721-15	1/16W 4.7K ohm
CCT217	050-0148-50	CCT 1K ohm	Q521	125-0199-92	KRA102S	R212	119-1021-15	1/16W 1K ohm
CCT218	050-0148-50	CCT 1K ohm	Q551	125-4010-90	KTC3875GR	R213	119-3311-15	1/16W 330 ohm
D201	001-0529-35	MA8062M	Q552	125-4010-90	KTC3875GR	R214	119-4721-15	1/16W 4.7K ohm
D601	001-0466-90	S5688B	Q581	125-4010-90	KTC3875GR	R215	119-1021-15	1/16W 1K ohm
D602	001-0466-90	S5688B	Q582	125-4010-90	KTC3875GR	R216	119-1021-15	1/16W 1K ohm
D603	001-0466-90	S5688B	Q701	125-2199-93	KRC103S	R217	119-1031-15	1/16W 10K ohm @
D604	001-0466-90	S5688B	Q702	125-2199-93	KRC103S	R218	119-1031-15	1/16W 10K ohm #
D605	001-0466-90	S5688B	Q901	125-2199-93	KRC103S	R220	119-1031-15	1/16W 10K ohm
D606	001-0466-90	S5688B	Q902	125-3006-90	KTA1281	R221	119-1041-15	1/16W 100K ohm
D607	001-0466-90	S5688B	Q903	125-3004-90	KTA1504	R222	119-4731-15	1/16W 47K ohm
D608	001-0466-90	S5688B	Q904	125-4010-90	KTC3875GR	R223	119-0000-05	1/16W 0 ohm
D609	001-1310-00	KDS160	Q905	125-2199-92	KRC102S	R224	119-1021-15	1/16W 1K ohm
D901	001-0592-00	RM4Z	Q906	125-0199-92	KRA102S	R225	119-1031-15	1/16W 10K ohm
D902	001-1310-00	KDS160	Q907	102-3420-00	2SC3420	R226	119-4731-15	1/16W 47K ohm
D903	001-0466-91	S5688G	Q908	125-0199-92	KRA102S	R227	119-1041-15	1/16W 100K ohm
D904	001-0330-90	1SS119	Q909	125-4011-90	KTA863YAT	R228	119-0000-05	1/16W 0 ohm
D905	001-0347-45	MA4082H	Q910	125-4011-90	KTA863YAT	R229	119-0000-05	1/16W 0 ohm
D906	001-0529-32	MA8056M	Q911	125-2199-93	KRC103S	R230	119-0000-05	1/16W 0 ohm
D907	001-0347-48	MA4091H	Q912	125-0199-93	KRA103S	R231	119-0000-05	1/16W 0 ohm
D908	001-0330-90	1SS119	Q913	125-4011-90	KTA863YAT	R232	119-0000-05	1/16W 0 ohm
D910	001-0347-32	MA4056M	Q914	125-4011-90	KTA863YAT	R234	119-1031-15	1/16W 10K ohm
D911	001-0330-90	1SS119	Q915	125-4011-90	KTA863YAT	R235	119-4731-15	1/16W 47K ohm
D912	001-0330-90	1SS119	Q916	125-3004-90	KTA1504GR	R236	119-1021-15	1/16W 1K ohm
D915	001-1310-00	KDS160	Q921	125-4010-90	KTC3875GR	R237	119-1031-15	1/16W 10K ohm
D916	001-1310-00	KDS160	Q922	125-2199-93	KRC103S	R238	119-1031-15	1/16W 10K ohm
D917	001-1310-00	KDS160	Q923	125-3009-90	KTA1272	R239	119-1031-15	1/16W 10K ohm
D918	001-0529-32	MA8056M	Q924	125-2199-92	KRC102S	R240	119-1031-15	1/16W 10K ohm
D920	001-0347-46	MA4091L	Q925	125-4011-90	KTA863YAT	R241	119-2221-15	1/16W 2.2K ohm
D925	001-0330-90	1SS119	Q928	125-0199-92	KRA102S	R242	119-1031-15	1/16W 10K ohm
D926	001-1310-00	KDS160	R101	119-2221-15	1/16W 2.2K ohm	R243	119-1031-15	1/16W 10K ohm
IC201	052-3933-00	uPD784215AYGC	R102	119-1011-15	1/16W 100 ohm	R401	119-4321-15	1/16W 4.3K ohm
		-129-8EU	R103	119-2221-15	1/16W 2.2K ohm	R402	119-4731-15	1/16W 47K ohm
IC202	051-5413-09	S-80824KNUA	R104	119-4741-15	1/16W 470K ohm	R403	119-1241-15	1/16W 120K ohm
IC401	051-0869-58	NJM2103M	R105	119-1021-15	1/16W 1K ohm	R404	119-0000-05	1/16W 0 ohm
IC501	051-5033-90	PTC2311	R106	119-1831-15	1/16W 18K ohm	R405	119-8221-15	1/16W 8.2K ohm
IC502	051-3049-90	HA17558AF	R108	060-0108-90	1/4WS 0 ohm	R406	119-1541-15	1/16W 150K ohm
IC601	051-2042-00	TA8275H	R110	060-0108-90	1/4WS 0 ohm	R407	119-4731-15	1/16W 47K ohm
IC602	051-3019-90	NJM2060V	R111	119-0000-05	1/16W 0 ohm	R408	119-4731-15	1/16W 47K ohm
IC701	051-6704-00	TA94A20F	R113	111-4721-98	1/4WS 4.7K ohm	R409	119-0000-05	1/16W 0 ohm
IC702	051-3327-90	TAR5S33	R116	119-0000-05	1/16W 0 ohm	R501	119-1031-15	1/16W 10K ohm
IC703	051-3326-90	TAR5S25	R121	119-0000-05	1/16W 0 ohm	R502	119-1831-15	1/16W 18K ohm
IC801	051-6201-90	LC72146M	R129	119-0000-05	1/16W 0 ohm	R503	119-5621-15	1/16W 5.6K ohm
J201	074-1316-12	12P	R130	119-0000-05	1/16W 0 ohm	R504	119-2211-15	1/16W 220 ohm
J501	074-1237-76	26P	R201	119-4721-15	1/16W 4.7K ohm	R511	119-1031-15	1/16W 10K ohm

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
R512	119-1831-15	1/16W 18K ohm	R644	119-1031-15	1/16W 10K ohm	R904	111-1591-98	1/4WS 1.5 ohm
R513	119-5621-15	1/16W 5.6K ohm	R645	119-1031-15	1/16W 10K ohm	R905	111-1591-98	1/4WS 1.5 ohm
R514	119-2211-15	1/16W 220 ohm	R646	119-5631-15	1/16W 56K ohm	R906	111-1591-98	1/4WS 1.5 ohm
R531	119-3901-15	1/16W 39 ohm	R647	060-0108-90	1/4WS 0 ohm	R907	111-1591-98	1/4WS 1.5 ohm
R532	119-3901-15	1/16W 39 ohm	R706	119-4731-15	1/16W 47K ohm	R908	119-1031-15	1/16W 10K ohm
R533	119-3901-15	1/16W 39 ohm	R707	119-2231-15	1/16W 22K ohm	R909	119-3321-15	1/16W 3.3K ohm
R534	119-3901-15	1/16W 39 ohm	R711	119-4721-15	1/16W 4.7K ohm	R910	119-3321-15	1/16W 3.3K ohm
R535	119-1231-15	1/16W 12K ohm	R712	119-1821-15	1/16W 1.8K ohm	R911	119-2231-15	1/16W 22K ohm
R536	119-1031-15	1/16W 10K ohm	R713	119-4721-15	1/16W 4.7K ohm	R912	111-4711-98	1/4WS 470 ohm
R538	119-0000-05	1/16W 0 ohm	R714	119-1821-15	1/16W 1.8K ohm	R913	111-4711-98	1/4WS 470 ohm
R539	119-0000-05	1/16W 0 ohm	R715	119-4721-15	1/16W 4.7K ohm	R914	119-2211-15	1/16W 220 ohm
R543	119-0000-05	1/16W 0 ohm	R716	119-1821-15	1/16W 1.8K ohm	R915	111-2291-98	1/4WS 2.2 ohm
R550	119-4721-15	1/16W 4.7K ohm	R717	119-4741-15	1/16W 470K ohm	R916	111-2291-98	1/4WS 2.2 ohm
R551	119-1031-15	1/16W 10K ohm	R718	119-4741-15	1/16W 470K ohm	R918	060-0108-90	1/4WS 0 ohm
R552	119-3311-15	1/16W 330 ohm	R719	119-1031-15	1/16W 10K ohm	R919	111-8211-98	1/4WS 820 ohm
R553	119-5621-15	1/16W 5.6K ohm	R720	119-1031-15	1/16W 10K ohm	R920	111-8211-98	1/4WS 820 ohm
R554	119-1031-15	1/16W 10K ohm	R721	119-4741-15	1/16W 470K ohm	R921	111-2291-98	1/4WS 2.2 ohm
R555	119-3311-15	1/16W 330 ohm	R722	119-4731-15	1/16W 47K ohm	R922	111-2291-98	1/4WS 2.2 ohm
R556	119-5621-15	1/16W 5.6K ohm	R730	119-4741-15	1/16W 470K ohm	R923	111-1021-98	1/4WS 1K ohm
R557	119-6811-15	1/16W 680 ohm	R731	119-4741-15	1/16W 470K ohm	R924	119-1231-15	1/16W 12K ohm
R558	119-6811-15	1/16W 680 ohm	R732	119-4741-15	1/16W 470K ohm	R925	119-1031-15	1/16W 10K ohm
R581	119-1031-15	1/16W 10K ohm	R733	119-4741-15	1/16W 470K ohm	R926	119-1021-15	1/16W 1K ohm
R582	119-3311-15	1/16W 330 ohm	R734	119-4741-15	1/16W 470K ohm	R927	060-0108-90	1/4WS 0 ohm
R583	119-5621-15	1/16W 5.6K ohm	R735	119-4741-15	1/16W 470K ohm	R928	060-0108-90	1/4WS 0 ohm
R584	119-1031-15	1/16W 10K ohm	R736	119-4741-15	1/16W 470K ohm	R929	119-0000-05	1/16W 0 ohm
R585	119-3311-15	1/16W 330 ohm	R737	119-4741-15	1/16W 470K ohm	R930	060-0108-90	1/4WS 0 ohm
R586	119-5621-15	1/16W 5.6K ohm	R738	119-4741-15	1/16W 470K ohm	R931	060-0108-90	1/4WS 0 ohm
R587	119-6811-15	1/16W 680 ohm	R739	119-4741-15	1/16W 470K ohm	R933	119-2231-15	1/16W 22K ohm
R588	119-6811-15	1/16W 680 ohm	R740	119-4741-15	1/16W 470K ohm	R934	119-4731-15	1/16W 47K ohm
R601	119-2221-15	1/16W 2.2K ohm	R741	119-3311-15	1/16W 330 ohm	R935	111-1021-98	1/4WS 1K ohm
R602	119-2221-15	1/16W 2.2K ohm	R742	119-3311-15	1/16W 330 ohm	R936	119-1031-15	1/16W 10K ohm
R611	119-2221-15	1/16W 2.2K ohm	R743	119-2251-15	1/16W 2.2M ohm	R937	111-4711-98	1/4WS 470 ohm
R612	119-2221-15	1/16W 2.2K ohm	R744	119-2711-15	1/16W 270 ohm	R938	119-0000-05	1/16W 0 ohm
R621	119-1031-15	1/16W 10K ohm	R745	119-4741-15	1/16W 470K ohm	R940	111-1831-98	1/4WS 18K ohm
R622	119-2221-15	1/16W 2.2K ohm	R801	119-0000-05	1/16W 0 ohm	R941	111-1021-98	1/4WS 1K ohm
R624	119-0000-05	1/16W 0 ohm	R802	119-0000-05	1/16W 0 ohm	R946	119-4731-15	1/16W 47K ohm
R631	119-5631-15	1/16W 56K ohm	R803	119-0000-05	1/16W 0 ohm	R953	060-0108-90	1/4WS 0 ohm
R632	119-1031-15	1/16W 10K ohm	R804	119-0000-05	1/16W 0 ohm	R954	060-0108-90	1/4WS 0 ohm
R633	119-1031-15	1/16W 10K ohm	R805	119-5631-15	1/16W 56K ohm	R956	060-0108-90	1/4WS 0 ohm
R634	119-8231-15	1/16W 82K ohm	R806	119-1021-15	1/16W 1K ohm	RCA501	075-0388-00	RCA JACK
R635	119-8231-15	1/16W 82K ohm	R807	119-2221-15	1/16W 2.2K ohm	RCA502	855-8000-08	RCA CORD
R636	119-1031-15	1/16W 10K ohm	R808	119-1031-15	1/16W 10K ohm	S401	013-3932-01	SW RESET
R637	119-1031-15	1/16W 10K ohm	R809	119-1031-15	1/16W 10K ohm	SUP101	060-0122-20	DSP-141N-S00B
R638	119-5631-15	1/16W 56K ohm	R810	119-1041-15	1/16W 100K ohm	T901	009-9006-60	CHOKE
R639	119-5631-15	1/16W 56K ohm	R811	119-1021-15	1/16W 1K ohm	X201	061-1081-50	12MHz
R640	119-1031-15	1/16W 10K ohm	R812	060-0108-90	1/4WS 0 ohm	X701	061-9009-00	16.9344MHz
R641	119-1031-15	1/16W 10K ohm	R901	111-1521-98	1/4WS 1.5K ohm	X801	061-1066-00	7.2MHz
R642	119-8231-15	1/16W 82K ohm	R902	111-1221-98	1/4WS 1.2K ohm	PWB	039-2423-00	PWB (WITHOUT COMPONENT)
R643	119-8231-15	1/16W 82K ohm	R903	119-1031-15	1/16W 10K ohm			

Main PWB (Switch) Section (B2)

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C1	168-1022-55	50V 1000pF	C6	042-0416-51	6.3V 10uF	D6	001-0529-41	MA8075M
C2	168-4732-78	50V 0.047uF	D1	001-0529-41	MA8075M	D7	001-0529-41	MA8075M
C3	168-4732-78	50V 0.047uF	D2	001-7046-00	SPW310BS(LED)	D8	001-0529-41	MA8075M
C4	168-4732-78	50V 0.047uF	D3	001-0529-29	MA8051M	D10	001-0529-29	MA8051M
C5	042-0416-51	6.3V 10uF	D5	001-0529-41	MA8075M	D11	001-0529-41	MA8075M

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
IC1	051-6013-50	PT6554LQ	R8	119-4731-15	1/16W 47K ohm	S6	013-6005-51	SKQNABD010
IR1	060-4008-00	RS-171	R9	119-3311-15	1/16W 330 ohm	S7	013-6005-51	SKQNABD010
J1	076-0703-12	PLUG	R10	119-3311-15	1/16W 330 ohm	S8	013-6005-51	SKQNABD010
LCD1	379-1278-41	INDICATOR	R11	119-6801-15	1/16W 68 ohm	S9	013-6005-51	SKQNABD010
PL1	017-0410-00	14V 40mA	R14	119-3311-15	1/16W 330 ohm	S10	013-6005-51	SKQNABD010
PL2	017-0410-00	14V 40mA	R15	119-1011-15	1/16W 100 ohm	S11	013-6005-51	SKQNABD010
PL3	017-0410-00	14V 40mA	R16	119-1021-15	1/16W 1K ohm	S12	013-6305-50	SKQMASE010
PL4	017-0410-00	14V 40mA	R17	119-0000-05	1/16W 0 ohm	S13	013-6305-50	SKQMASE010
R1	119-2221-15	1/16W 2.2K ohm	S1	013-6005-51	SKQNABD010	S14	013-6005-51	SKQNABD010
R2	119-2221-15	1/16W 2.2K ohm	S2	013-6005-51	SKQNABD010	S15	013-6305-50	SKQMASE010
R3	119-2221-15	1/16W 2.2K ohm	S3	013-6005-51	SKQNABD010	VR1	016-9900-92	VR W/SHAFT
R4	119-3921-15	1/16W 3.9K ohm	S4	013-6005-51	SKQNABD010	PWB	039-2423-00	PWB (WITHOUT COMPONENT)
R5	119-1241-15	1/16W 120K ohm	S5	013-6005-51	SKQNABD010			
R7	119-1031-15	1/16W 10K ohm						

CD PWB section (B3) : CD Mechanism

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
C1	168-1042-78	16V 0.1uF	C35	046-6812-58	680pF	R9	033-2211-15	1/10W 220 ohm
C3	163-2273-05	4V 220uF	C36	168-1042-78	16V 0.1uF	R11	033-1051-15	1/10W 1M ohm
C4	168-1042-78	16V 0.1uF	C37	168-1042-78	16V 0.1uF	R12	119-6811-15	1/10W 680 ohm
C5	163-1073-35	16V 100uF	C38	046-1522-58	1500pF	R13	033-2211-15	1/10W 220 ohm
C6	163-1073-35	16V 100uF	C39	046-4722-58	4700pF	R14	033-2211-15	1/10W 220 ohm
C7	168-1042-78	16V 0.1uF	C40	046-1032-78	0.01uF	R16	033-2231-15	1/10W 22k ohm
C9	178-1052-78	1uF	C41	046-1532-78	0.015uF	R18	033-3341-15	1/10W 330k ohm
C10	042-0560-85	6.3V 100uF	C43	168-1042-78	16V 0.1uF	R19	033-5621-15	1/10W 5.6k ohm
C11	046-4712-58	470pF	C47	045-4701-50	47pF	R21	033-2231-15	1/10W 22k ohm
C12	178-1052-78	1uF	C48	168-1042-78	16V 0.1uF	R22	033-4731-15	1/10W 47k ohm
C13	046-4712-58	470pF	C49	168-1042-78	16V 0.1uF	R24	033-1041-15	1/10W 100k ohm
C15	168-1042-78	16V 0.1uF	C50	042-0666-00	12.5V 22uF	R25	033-1031-15	1/10W 10k ohm
C16	168-4732-78	0.047uF	C51	046-5622-58	5600pF	R26	033-1531-15	1/10W 15k ohm
C17	168-4732-78	0.047uF	C52	178-1052-78	1uF	R27	033-4731-15	1/10W 47k ohm
C18	168-1042-78	16V 0.1uF	C55	178-1052-78	1uF	R28	033-1831-15	1/10W 18k ohm
C19	168-1042-78	16V 0.1uF	CCT2	050-0140-63	1/32W 47k ohm x4J	R29	033-6821-15	1/10W 6.8k ohm
C21	046-6822-58	6800pF	D1	001-0367-91	1SS226	R30	033-8231-15	1/10W 82k ohm
C22	046-3332-78	0.033uF	IC1	051-6071-08	BA5825FP-E2	R31	033-8231-15	1/10W 82k ohm
C24	178-1052-78	1uF	IC2	051-6399-00	TC94A15F	R32	119-1001-15	1/10W 10 ohm
C25	168-1042-78	16V 0.1uF	J101	074-1228-76	26P	R33	033-2731-15	1/10W 27k ohm
C26	168-1042-78	16V 0.1uF	J201	074-1138-65	15P	R34	033-2731-15	1/10W 27k ohm
C28	168-1042-78	16V 0.1uF	J301	074-1138-60	10P	R35	033-2731-15	1/10W 27k ohm
C29	168-1042-78	16V 0.1uF	Q1	131-1188-50	2SB1188PQR	R36	033-2731-15	1/10W 27k ohm
C30	045-6801-50	68pF	Q2	131-1188-50	2SB1188PQR	R37	032-0162-50	1/10W 0.51 ohm
C31	168-1042-78	16V 0.1uF	R1	117-6811-15	1/8W 680 ohm	X1	060-1535-90	16.934MHz
C32	168-1042-78	16V 0.1uF	R2	117-1001-15	1/8W 10 ohm	PWB	039-2435-20	PWB(WITHOUT COMPONENT)
C33	046-1532-78	0.015uF						
C34	168-1042-78	16V 0.1uF						

LED PWB section (B4) : 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	S2	013-7413-50	LIMIT
D2	001-7058-90	AN1105W-RR	Q2	060-4015-90	PS1192H	PWB	039-1944-21	PWB(WITHOUT COMPONENT)
J1	074-1138-60	10P	S1	013-7414-50	CHUCKING			

REMOVING MAIN PWB FOR REPAIR

No	Part Number	Part Name	QTY
A	311-1848-00	LOWER CASE	1
B	039-2423-00	MAIN PWB	1
C	816-2640-60	FLAT WIRE	1
D	731-3005-81	TAPTIGHT	3
E	929-0290-80	MECHANISM	1
F	313-1872-05	HEAT SINK	1
G	731-3012-80	TAPTIGHT	2
H	714-3006-81	MACHINE SCREW	2
I	731-3008-80	TAPTIGHT	4
J	714-2012-81	MACHINE SCREW	1
K	714-2606-87	MACHINE SCREW	2
L	370-6101-00	INNER ES	1
M	854-4569-60	EXTENSION LEAD	1
N	076-0349-04	CONNECTOR	1
P	714-2604-81	MC SCREW	3
Q	335-0833-01	CABLE TIE	1

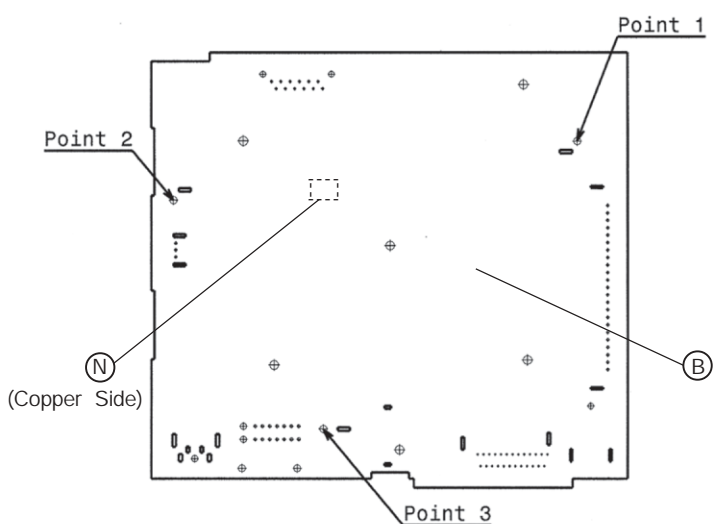


Figure 1

Step 1

Remove all screw (G) (H) (I) (J) , from Heat Sink
cut off the cable tie (Q) .

Step 2

Remove Heat Sink (F)

Step 3

Remove Lower Case (A) .

Step 4

Remove all screw (K) from Inner ES (L) .

Step 5

Remove Inner ES (L) .

Step 6

Unsolder 3 points on the Main PWB (B) ,
(Figure 1).

Step 7

Unplug the extension lead (M) from the
connector (N) .

Step 8

After unsoldering Main PWB, remove flat wire (C)
between Main PWB (B) , and Mechanism (E) .

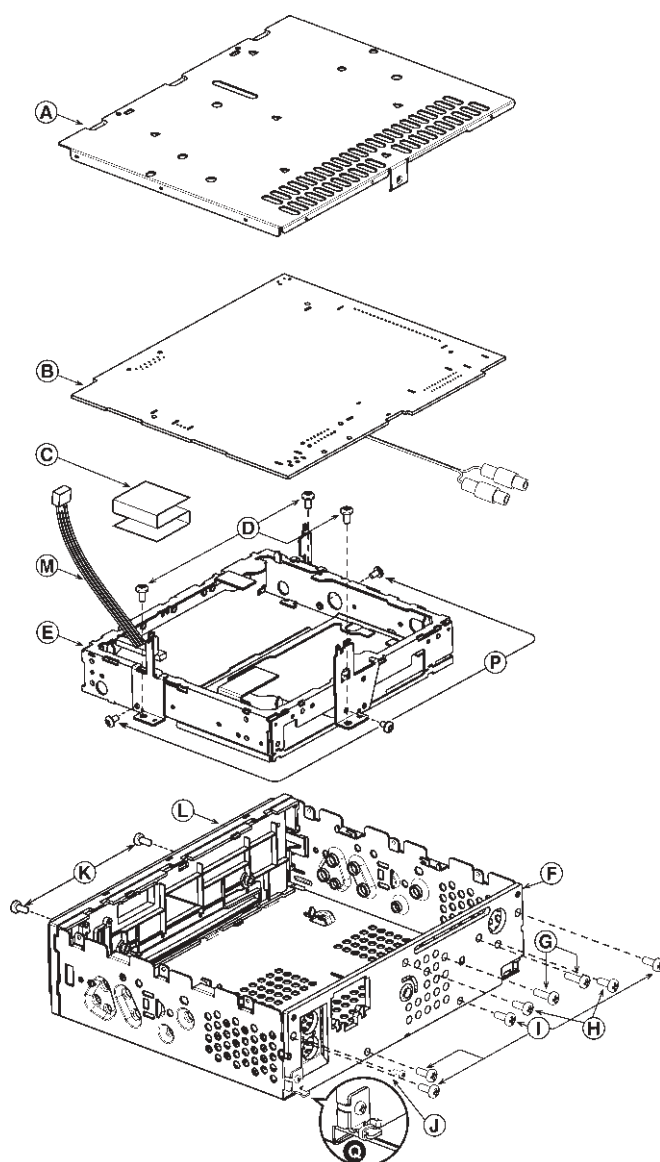
Step 9

Remove Main PWB (B) for repairing.

Step 10

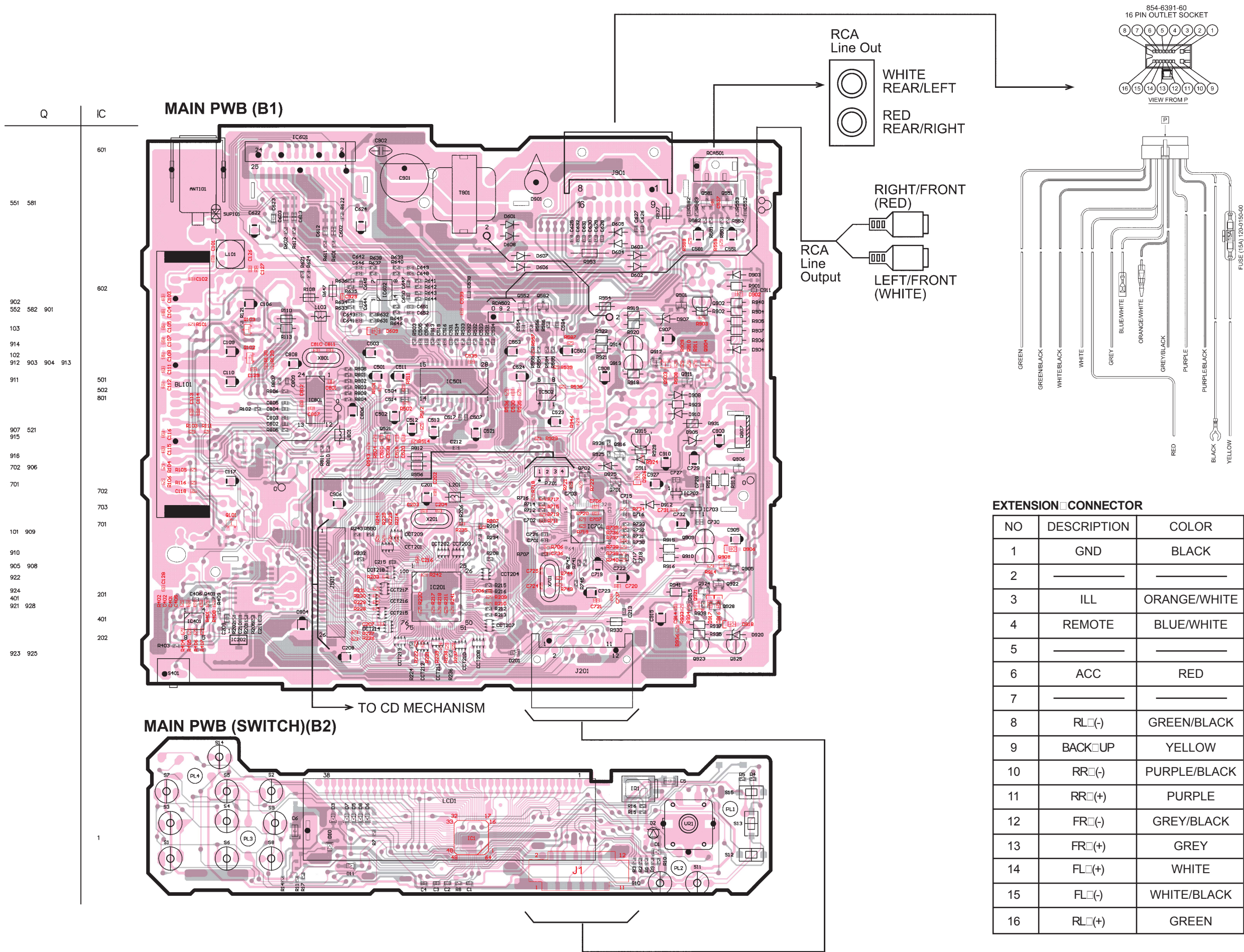
Unscrew (D) and (P) from the upper case (D) ,
if the mechanism (E) needs replacement.

See from bottom side



PRINTED WIRING BOARD

Main PWB (B1), Main PWB (Switch) (B2) Section

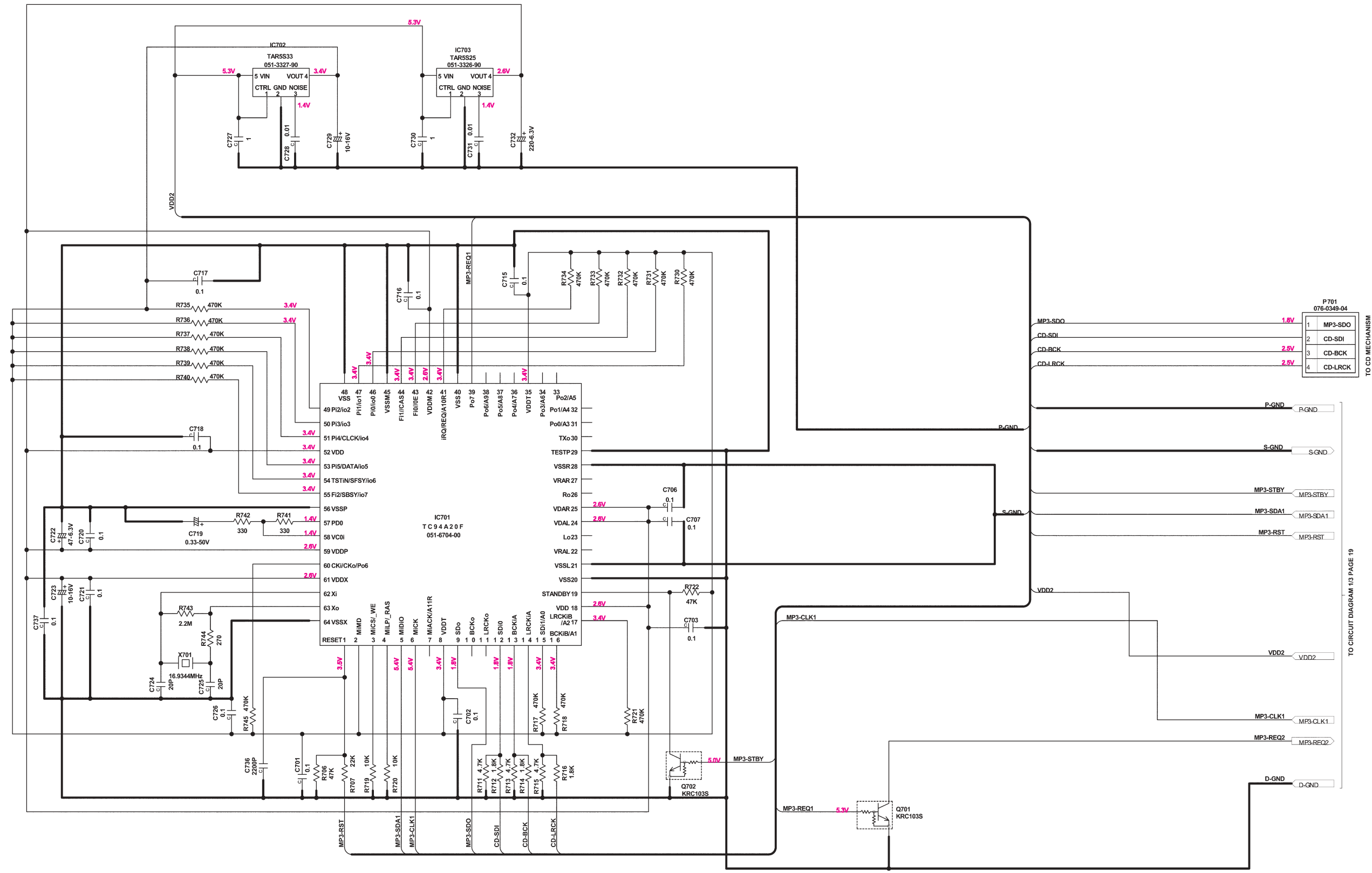


Main PWB (B1) Section



CIRCUIT DIAGRAM 2/3

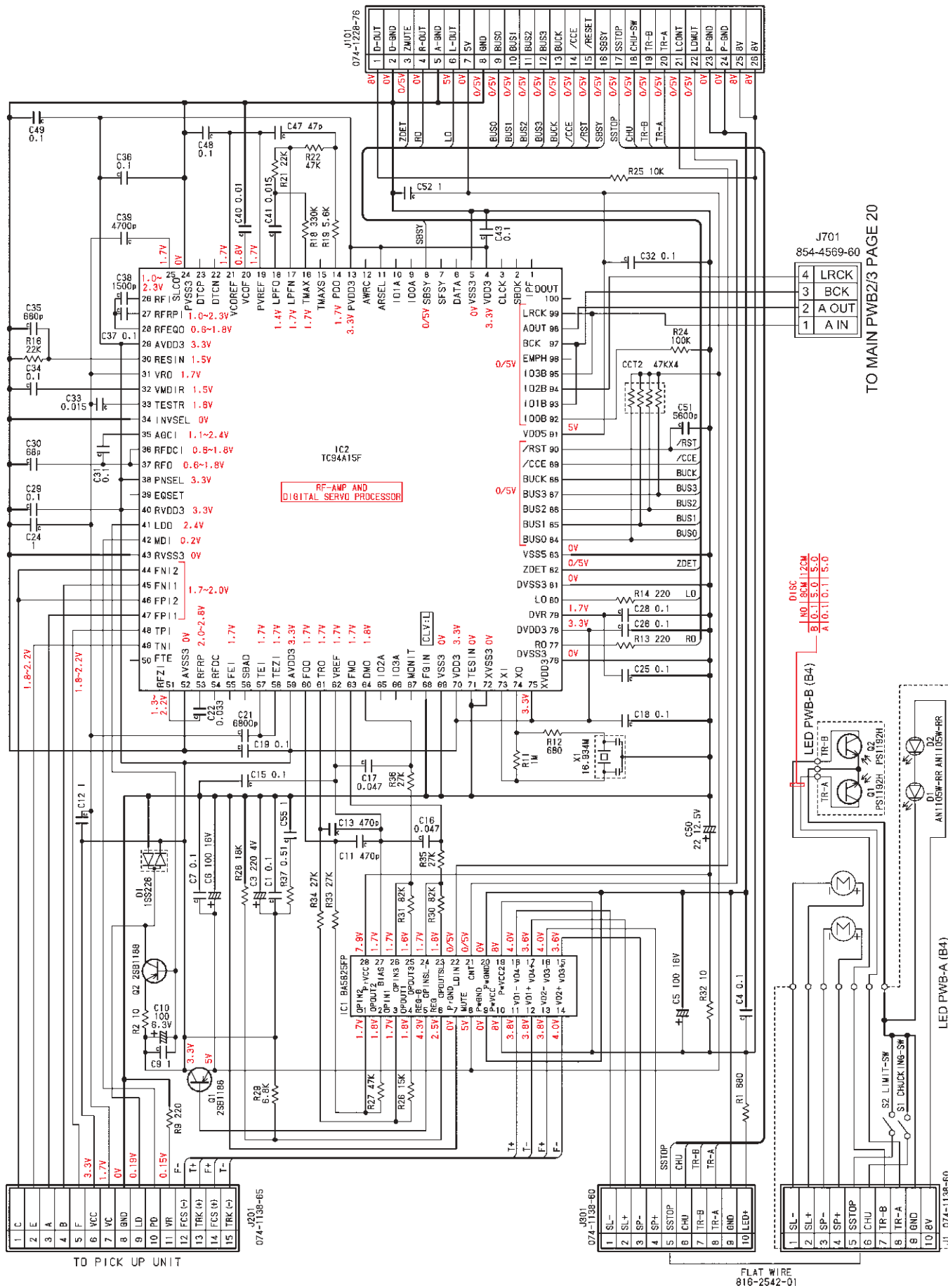
Main PWB (B1) Section



[illegible]

CD PWB (B3) / LED PWB (B4) Section

TO MAIN PWB2/3 PAGE 20



CD PWB (B3) / LED PWB (B4) Section



NO	DESCRIPTION	CONNECTOR COLOUR
1	A IN	BROWN
2	A OUT	RED
3	BCK	ORANGE
4	LRCK	YELLOW

