

# TEAC

## SERVICE MANUAL

# CD-P1450

## COMPACT DISC PLAYER



### CONTENTS

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### NOTES

- PC boards shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- $\Delta$  Parts marked with this sign are safety critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [ ] mark can be used only with the version designated.  
[US]:U.S.A. [C]:CANADA [E]:EUROPE [UK]:U.K.  
[NZ]:NEW ZEALAND

# 1 SPECIFICATIONS

## CD PLAYER

### Pickup:

3-beam, semiconductor laser

### D/A Converter:

1 bit DAC

### Digital filter:

8-times oversampling

### Frequency Response:

20 Hz ~ 20 kHz  $\pm$ 1.5dB

### Total Harmonic Distortion:

< 0.02 % (1 kHz)

### Signal-to-Noise Ratio (S/N):

>85 dB (1 kHz)

### Channel Separation:

>80 dB (1 kHz)

### Output:

Analog; 2.0 Vrms (RCA)

Digital; COAXIAL

### Wow and Flutter:

Below measurable limit

## GENERAL

### Power Requirements:

120 V AC, 60Hz (U.S.A./Canada Model)

230 V AC, 50Hz (Europe/U.K. Model)

240 V AC, 50Hz (New Zealand Model)

### Power Consumption:

12 Watts (AC)

### Dimensions (W x H x D):

435 x 104 x 290mm

### Net Weight:

3.6 kg

### Standard Accessories:

Wireless Remote Control Unit (RC-681)

RCA pin-plug cord

Battery (SUM-3, "AA", "R6" type) x 2

(Europe/U.K./New Zealand Model)

- Design and specifications are subject to change without notice.

## SAFETY INFORMATION

This product has been designed and manufactured according to FDA regulations "title 21, CFR, chapter 1, subchapter J, based on the Radiation Control for Health and Safety Act of 1968", and is classified as a class 1 laser product. There is no hazardous invisible laser radiation during operation because invisible laser radiation emitted inside of this product is completely confined in the protective housings.

The label required in this regulation is shown ①.

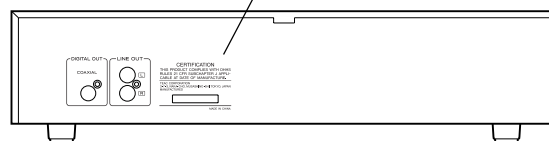
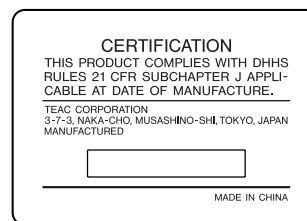
### ● CAUTION

USE OF CONTROLS OR ADJUSTMENT OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

### Optical pickup:

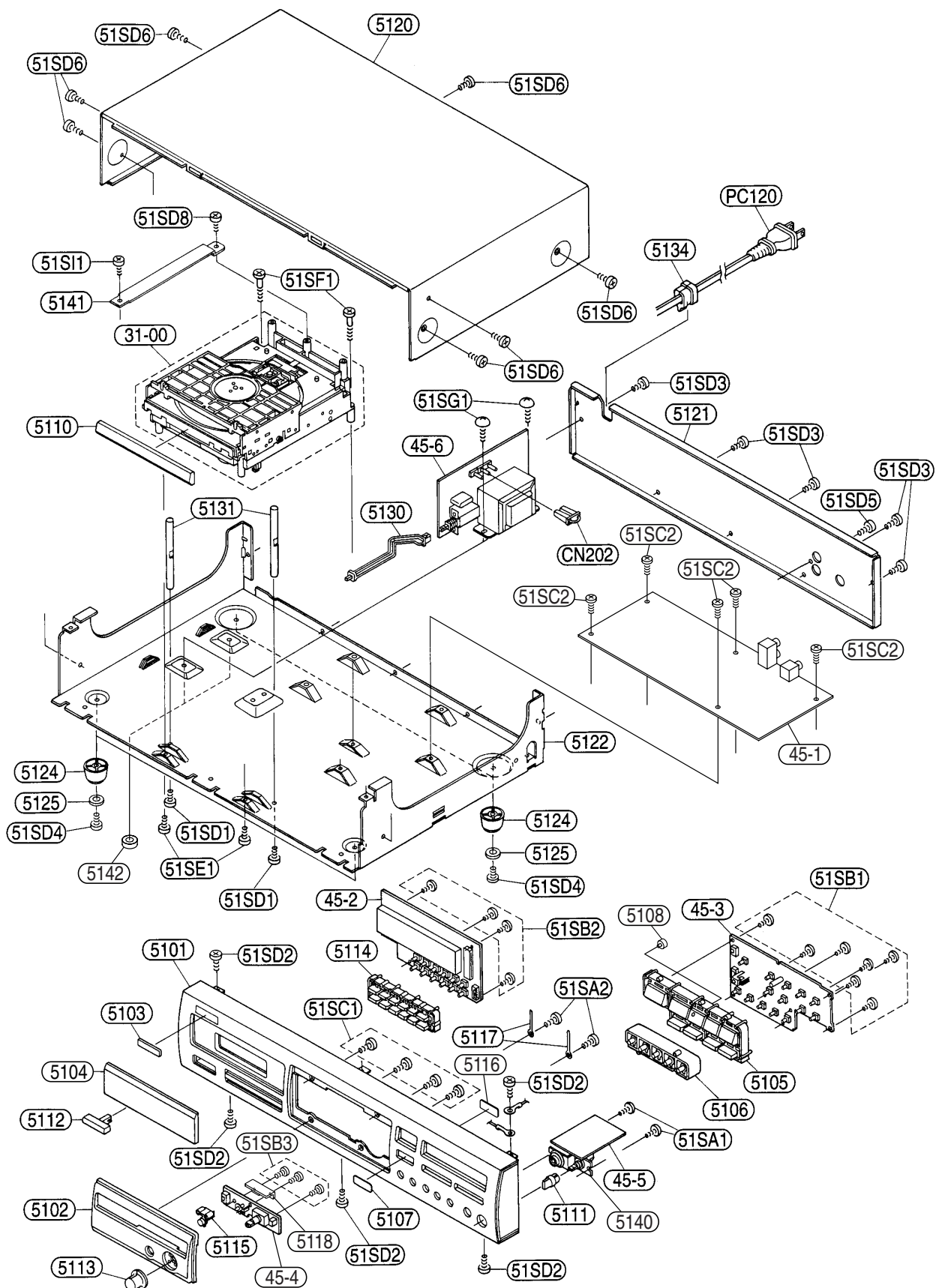
TYPE : SFP101NXR  
MANUFACTURER : Sanyo Electric Co., Ltd.  
LASER OUTPUT : Continuous Wave max. 5mW  
WAVE LENGTH : 765-815nm

① For U.S.A.



# 2 EXPLODED VIEWS AND PARTS LIST

## EXPLODED VIEW-1



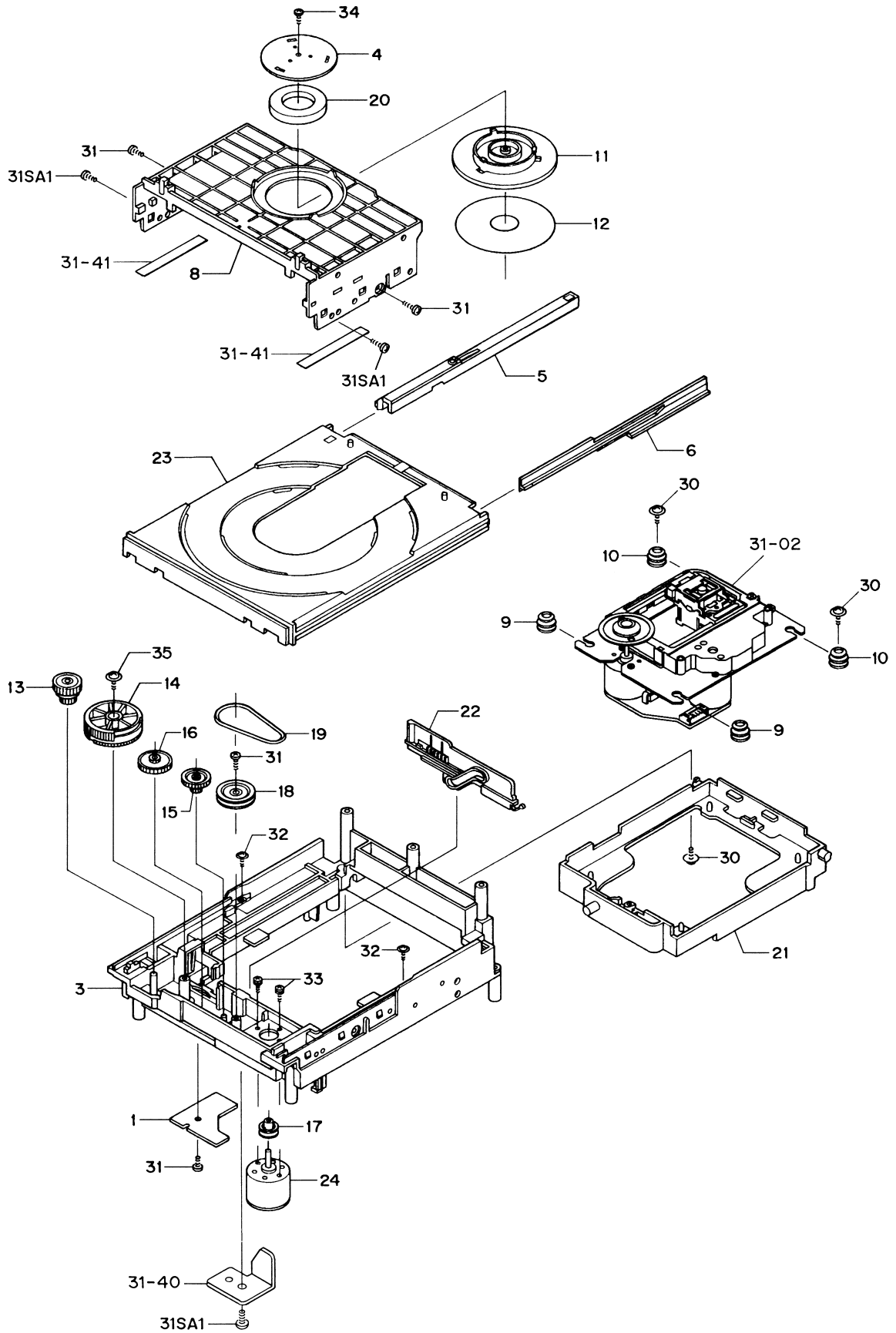
## EXPLODED VIEW-1

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
31-00	9A09092400	MECHA, CD93F8NDT	CEC0991004800
45-1	9A09157400	MAIN PCB ASSY	CEC0B10032300
45-2	9A09157500	DISPLAY PCB ASSY	CEC0B10032400
45-3	9A09187200	KEY SW PCB ASSY	CEC0B10032410
45-4	9A09187300	PITCH CON PCB ASSY	CEC0B10032420
45-5	9A09187400	H. P. PCB ASSY [US, C]	CEC0B10032900
	9A09187420	H. P. PCB ASSY [E, UK, NZ]	CEC0B10032901
45-6	9A09187510	POWER PCB ASSY, 120V [US, C]	CEC0B10032500
	9A09187520	POWER PCB ASSY, 230V [E]	CEC0B10032501
	9A09187530	POWER PCB ASSY, 230V [UK]	CEC0B10032503
	9A09187540	POWER PCB ASSY, 240V [NZ]	CEC0B10032504
5101	9A09263800	ESCUTCHEON	CEC2141003327
5102	9A07077400	PANEL, TRAY	CEC2155000810
5103	9A08667500	BADGE	CEC2163004000
5104	9A07077500	WINDOW	CEC2164006120
5105	9A07078000	BUTTON, PLAY	CEC2175012010
5106	9A07077900	BUTTON, FUNCTION	CEC2175011900
5107	9A07079200	FILTER, IR	CEC2431001200
5108	9A07079300	FILTER, LED	CEC2431001600
5110	9A07077200	DECORATION, TRAY	CEC2144003911
5111	9A07077700	KNOB, ROTARY	CEC2171001800
5112	9A07077800	KNOB, PUSH	CEC2174005200
5113	9A07077600	KNOB, ROTARY, PITCH CONT.	CEC2171001700
5114	9A07078100	BUTTON, 12KEY	CEC2175012100
5115	9A07078200	BUTTON, PITCH CONT.	CEC2175012200
5116	9A07079800	SHEET, IR	CEC2462011300
5117	9A07079000	LUG	CEC2377001600
5118	9A07079900	SHEET, LED	CEC2462011400
5120	9A07077000	COVER, TOP	CEC2121003900
5121	9A09263900	PANEL, REAR [US, C]	CEC2153002340
	9A09264300	PANEL, REAR [E, UK]	CEC2153002341
	9A09264700	PANEL, REAR [NZ]	CEC2153002342
5122	9A07078400	CHASSIS	CEC2311006900
5124	9A07078300	LEG	CEC2251003500
5125	9A07080000	FELT	CEC2571001700
5130	9A07078800	JOINT	CEC2351001900
5131	9A07078900	POST	CEC2373001100
5134	△ 9A06846200	BUSHING, NIFCO 2271	CEC2446000200
5140	9A07078500	BRACKET-E, JACK	CEC2321000800
5141	9A07078700	BRACKET-M, TOP	CEC2322001800
5142	9A07274200	FELT, PL	CEC2571002200
CN202	9A09195600	HOUSING, 2P [US, C]	43-791002031-00
PC120	△ 9A08660100	POWER CORD [US, C]	CEC4W10006400
	△ 9A09196200	POWER CORD [E]	CEC4W10006300
	△ 9A07258200	POWER CORD [UK]	CEC4W10004700
	△ 9A07089300	POWER CORD [NZ]	CEC4W10004800
	9A07508700	CORE, BP53RB120070060M	CEC4Z21000700
	9A07508800	CORE, E04RA120070060	CEC4Z21000800

**EXPLODED VIEW-1**

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
51SA1	9A06855600	SCREW, S-TPG BIN 2.6X6	SFBDN266R0SE-
51SA2	9A06855600	SCREW, S-TPG BIN 2.6X6	SFBDN266R0SE-
51SB1	9A00768400	SCREW, S-TPG BRZ M2.6X8	SFBAN268R0SE-
51SB2	9A00768400	SCREW, S-TPG BRZ M2.6X8	SFBAN268R0SE-
51SB3	9A00768400	SCREW, S-TPG BRZ M2.6X8	SFBAN268R0SE-
51SC1	9A01589800	SCREW, S-TPG BIN M3X6	SFBDN306R0SE-
51SC2	9A01589800	SCREW, S-TPG BIN M3X6	SFBDN306R0SE-
51SD1	9A01041200	SCREW, S-TPG BIN M3X8	SFBDN308R0SM-
51SD2	9A01041200	SCREW, S-TPG BIN M3X8	SFBDN308R0SM-
51SD3	9A01041200	SCREW, S-TPG BIN M3X8	SFBDN308R0SM-
51SD4	9A01041200	SCREW, S-TPG BIN M3X8	SFBDN308R0SM-
51SD5	9A01041200	SCREW, S-TPG BIN M3X8	SFBDN308R0SM-
51SD6	9A01041200	SCREW, S-TPG BIN M3X8	SFBDN308R0SM-
51SD8	9A01041200	SCREW, S-TPG BIN M3X8	SFBDN308R0SM-
51SE1	9A07086400	SCREW, S-TPG BIN 3X14	SFBDN30140SE-
51SF1	9A07086500	SCREW, S-TPG BIN 3X25	SFBDN30250SE-
51SG1	9A06856000	SCREW, S-TPG TR S4X6	SFSTN406R0SE-
51S11	9A06855700	SCREW, S-TPG BIN 3X4	SFBDN304R0SE-

# EXPLODED VIEW-2

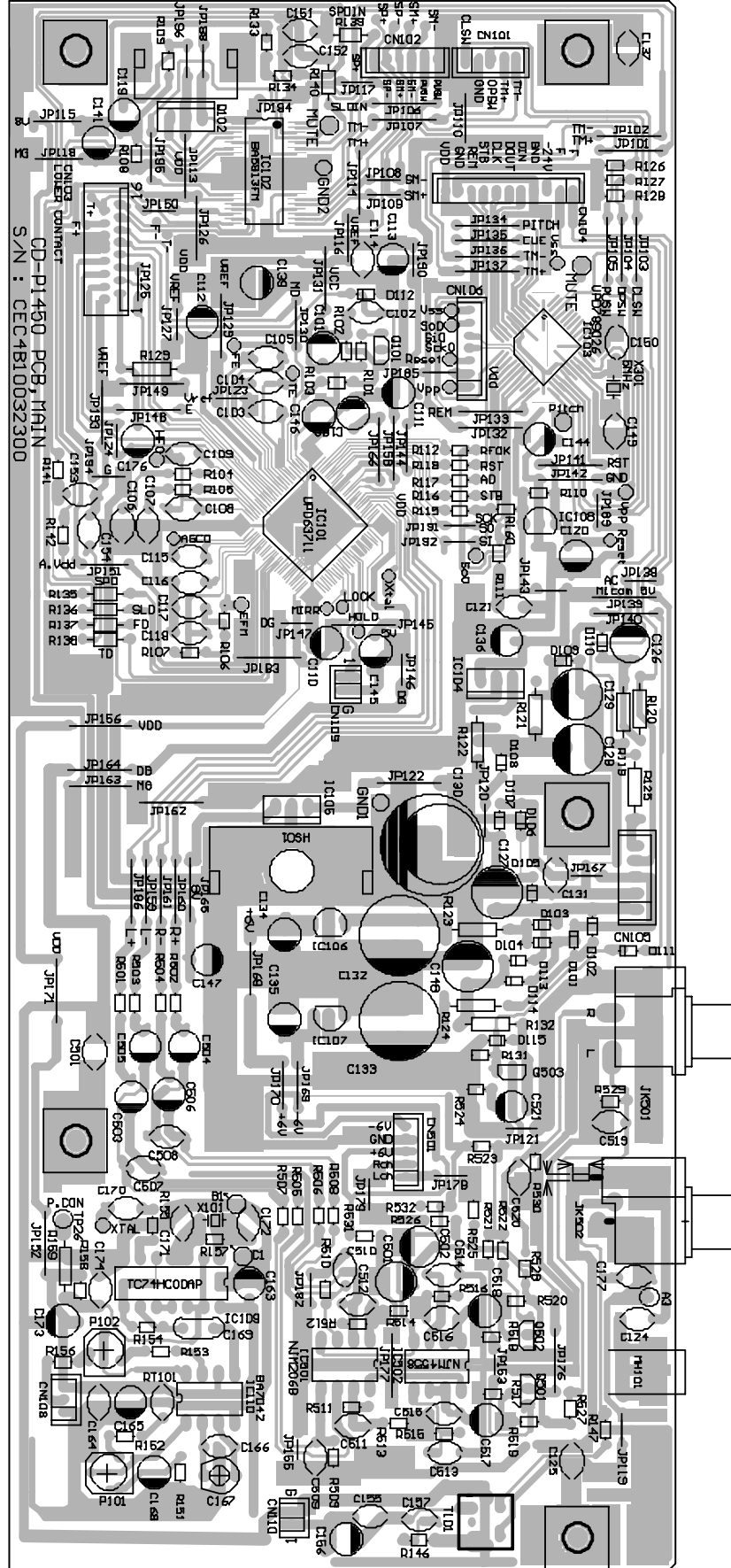


## EXPLODED VIEW-2 (CD93F8NDT)

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1	9A07071300	SWITCH PCB ASSY	1EA0B10A98100
3	9A07072300	CHASSIS, FRAME	1EA2311A06600
4	9A07071400	PLATE, MAGNET	1EA2336A05300
5	9A07071500	LEFT RAIL ASSY	1EA0363A00100
6	9A07071600	RAIL, RIGHT	1EA2363A00300
8	9A07071800	SUPPORT, MAGNET	1EA2413A01700
9	9A08438700	CUSHION, RUBBER	CEC2443000100
10	9A08438800	CUSHION, RUBBER	CEC2443000101
11	9A07072100	HOLDER, MAGNET	1EA2451A09000
12	9A07072200	SHEET	1EA2462A13200
13	9A07072400	GEAR, LOADING	1EA2511A10900
14	9A07072500	GEAR, LIFTER	1EA2511A11000
15	9A07072600	GEAR, IDLER, A	1EA2511A11100
16	9A07072700	GEAR, IDLER, B	1EA2511A11200
17	9A07072800	PULLEY, MOTOR	1EA2523A01700
18	9A07072900	PULLEY, GEAR	1EA2524A01600
19	9A07073000	BELT, SQUARE	1EA2563A02200
20	9A02677600	MAGNET, DISC CLAMP	1EA2641A01300
21	9A08438600	LIFTER, MECHA	CEC2713000700
22	9A07073200	SLIDE, LIFTER	1EA2741A01300
23	9A07073300	TABLE, LOADING	1EA2761A00700
24	9A03303300	MOTOR, 3.0V	1EA4M10A02100
30	5760707700	SCREW, B-TITE SEMS M3X10	13124201283000
31	9A07073500	SCREW, S-TPG BIN 2.6X8	SFBDN268R0SE-
31-02	9A09093000	MECH ASSY, DA11T3CN	13933102
31-40	9A07070800	BRACKET	CEC2322001300
31-41	9A07070900	SHEET, MECHA	CEC2462011200
31SA1	9A07071100	SCREW, S-TPG BIN 3X8	SFBDN308R0SE-
32	9A07073600	SCREW, S-TPG PAN+FLG 2X6	SFBPY206R0SE-
33	9A07073700	SCREW, PAN+SW 1.7X3.5	SM2PS173R5SE-
34	9A07073800	SCREW, SPECIAL	SGXEA00201---
35	9A07071100	SCREW, S-TPG BIN 3X8	SFBDN308R0SE-
	9A08632700	WIRE, JUMPER, 16P	CEC4W30009700

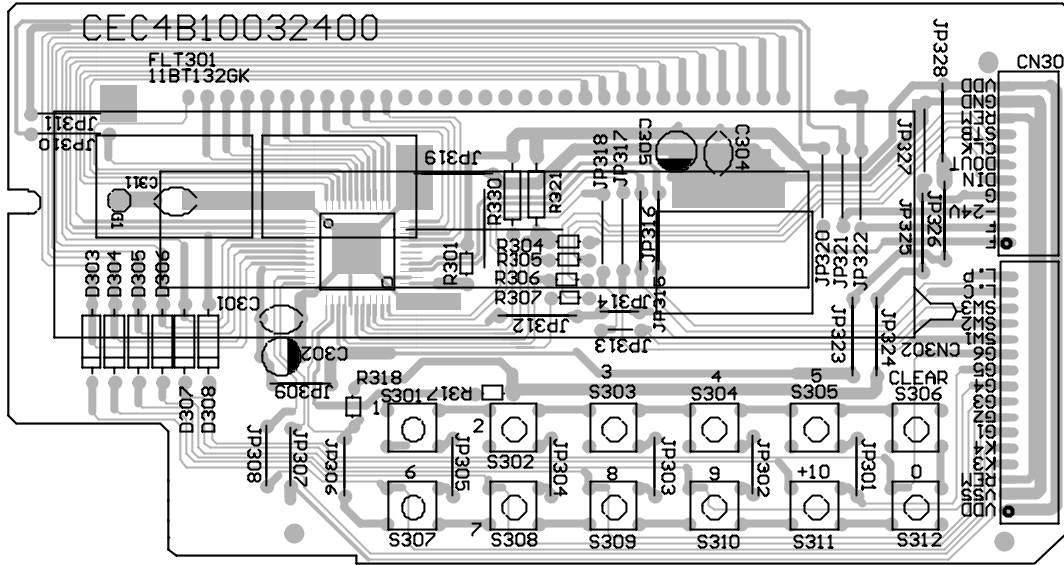
# 3 PC BOARDS AND PARTS LIST

## MAIN PCB

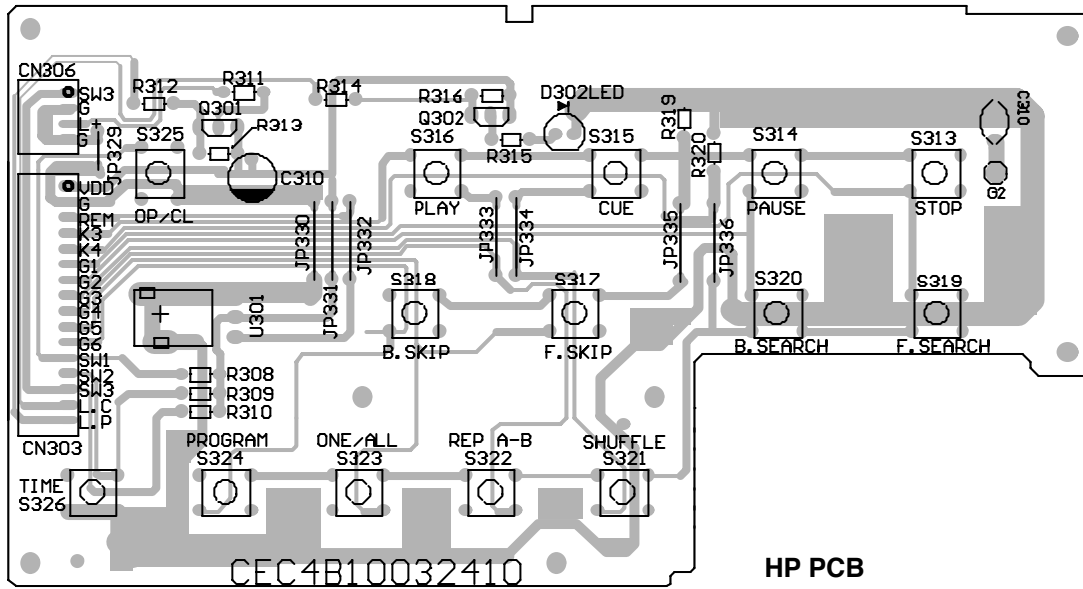




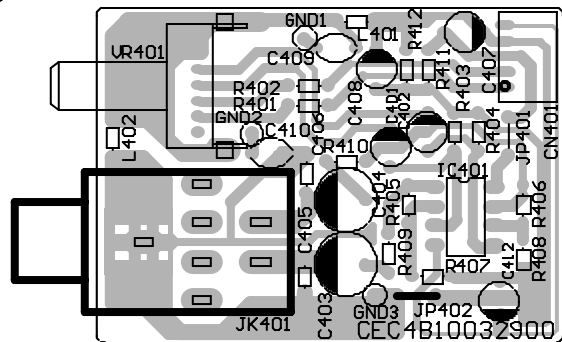
**DISPLAY PCB**



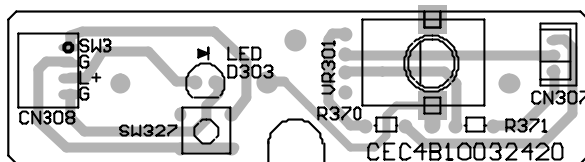
**KEY SW PCB**



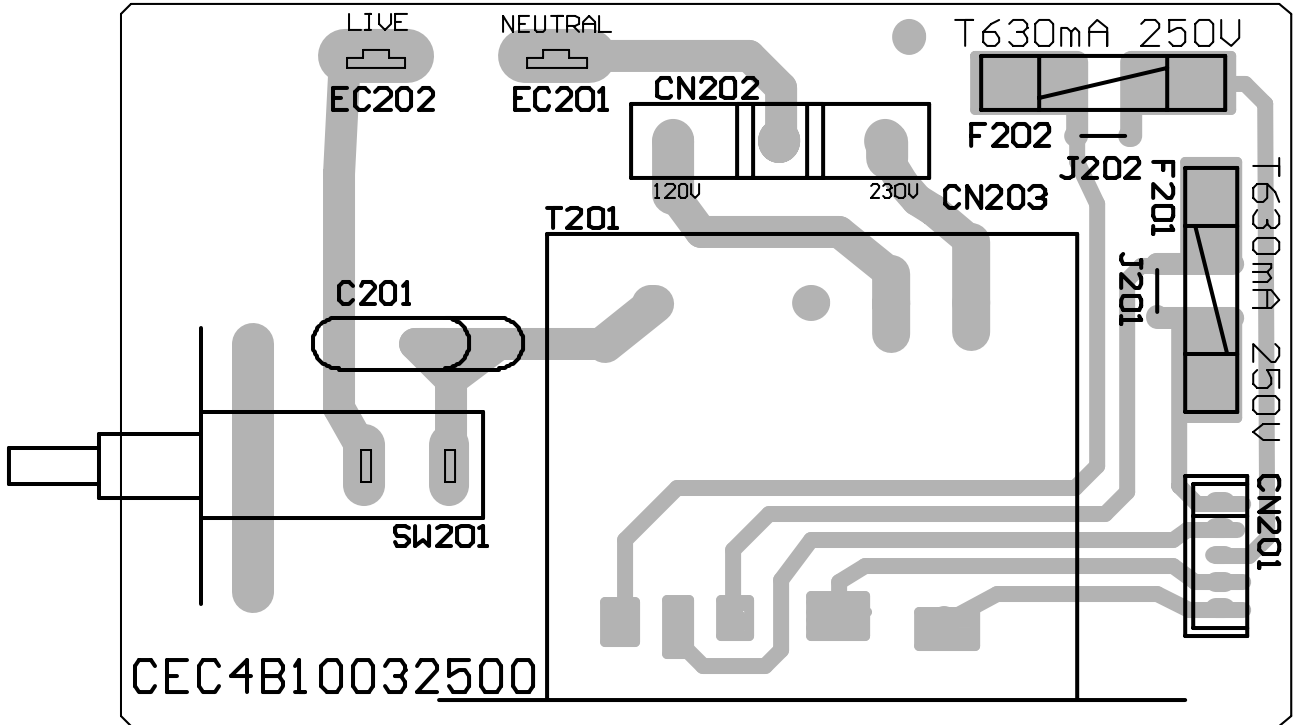
**HP PCB**



**PITCH CON PCB**



**POWER PCB**



## MAIN PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	9A09157400	MAIN PCB ASSY
	9A09188400	MAIN PCB
	9A09192100	HEAT SINK, AE338
	9A09192200	HEAT SINK, 520-R
	9A09192300	SCREW, MACHINE MS/PH 3X8
	9A09192400	NUT, 3MM HEAT SINK
C127-C129	△ 9A07084600	C, ELECT 100UF/50V M
C130	△ 9A09190800	C, ELECT 4700UF/25V M
C132, C133	△ 9A09190900	C, ELECT 2200UF/25V M
C148	△ 9A02684500	C, ELECT 470UF/16V M
CN101	9A00436800	PLUG, 5P
CN102	9A00188000	PLUG, 6P PH V
CN103	9A08899500	PLUG, 16P FFC
CN104	9A09189700	PLUG, 11P
CN105	9A00436800	PLUG, 5P
CN106	9A09189800	PLUG, 7P
CN108	9A09189900	PLUG, 3P
CN110	9A09190000	PLUG, 2P
CN501	9A00436800	PLUG, 5P
D101-D108	△ 9A06853300	DIODE, 1A3-I
D109	9A09190100	ZENER DIODE, 30V 1/2W
D110	9A06853900	ZENER DIODE, MTZJ5. 1B-T-77
D111, D112	9A06853400	DIODE, 1SS133-T-77
D113, D114	△ 9A06853300	DIODE, 1A3-I
D115	9A06853900	ZENER DIODE, MTZJ5. 1B-T-77
IC101	9A09188500	IC, UPD63711GC-8EU
IC102	9A09188600	IC, BA5813FM
IC103	9A09188700	IC, UPD789026GB-A59-8ES
IC104	△ 9A09188800	IC, KA7805
IC105	△ 9A09188900	IC, KA7808
IC106	△ 9A06854500	IC, NJM7805FA
IC107	△ 9A09189000	IC, NJM79L06A
IC108	9A09189100	IC, PST600D
IC109	9A09189200	IC, TC74HC00AP
IC110	9A09189300	IC, BA7042
IC501	9A09189400	IC, NJM2068D
IC502	9A09189500	IC, NJM4558D
JK101	9A09189600	JACK, RCA 1P
JK501	9A06859100	JACK, RCA 2P
MH101	9A07274100	TERMINAL, GND
P101, P102	9A07087600	POTENTIOMETER, 10KB
Q101	9A08895000	TR, 2SA933AS-TP
Q102	9A08895100	TR, 2SB1375
Q501-Q503	9A06857000	TR, 2SD1936-T-AC
R122-R124	△ 9A09190400	R, CARBON 4.7K JA 1/2W
RT101	9A09190600	THERMISTOR, 2.0K
T101	9A09192000	TRANS, PULSE
X101	9A02264500	CRYSTAL, 16.9344MHZ
X301	9A08900500	RESONATOR, CERAMIC 5.00MHZ

## DISPLAY PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	9A09157500	DISPLAY PCB ASSY
	9A09157600	DISPLAY PCB
	9A07079700	PAD, FL
CN301	9A09192600	PLUG, 11P
CN302	9A09192700	PLUG, 16P
D303-D308	9A06853400	DIODE, 1SS133-T-77
FL301	9A07086600	FLT, 11-BT-132GK
SW301-312	9A08467800	SWITCH, TACT, SKHHANA010

## KEY SW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	9A09187200	KEY SW PCB ASSY
	9A09192900	KEY SW PCB
	9A07079500	SPACER
CN303	9A09192700	PLUG, 16P
CN306	9A07087000	PLUG, 4P
D302	9A07076000	LED, TLOE262
Q301, Q302	9A06856900	TR, 2SA933AS-TP-R
SW313-326	9A08467800	SWITCH, TACT, SKHHANA010
U301	9A06847600	IC, GP1U281X

## PITCH CON PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	9A09187300	PITCH CON PCB ASSY
	9A09193000	PITCH CON PCB
	9A07078600	BRACKET-E, LED
	9A07079400	SPACER
CN307	9A00436900	PLUG, 3P
CN308	9A07087000	PLUG, 4P
D303	9A07076000	LED, TLOE262
SW327	9A09193100	SWITCH, TACT
VR301	9A07082800	VR, ROTARY 50KB

## H.P. PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	9A09187400	H.P. PCB ASSY [US, C]
	9A09187420	H.P. PCB ASSY [E, UK, NZ]
	9A09193200	H.P. PCB
IC401	9A09193300	IC, M5218AP
JK401	9A07081200	JACK, H.P. [US, C]
JK401	9A07613300	JACK, H.P. [E, UK, NZ]
L401	9A07082500	COIL [US, C]
L402	9A07082500	COIL
VR401	9A07082700	VR, ROTARY 50K

## POWER PCB ASSY

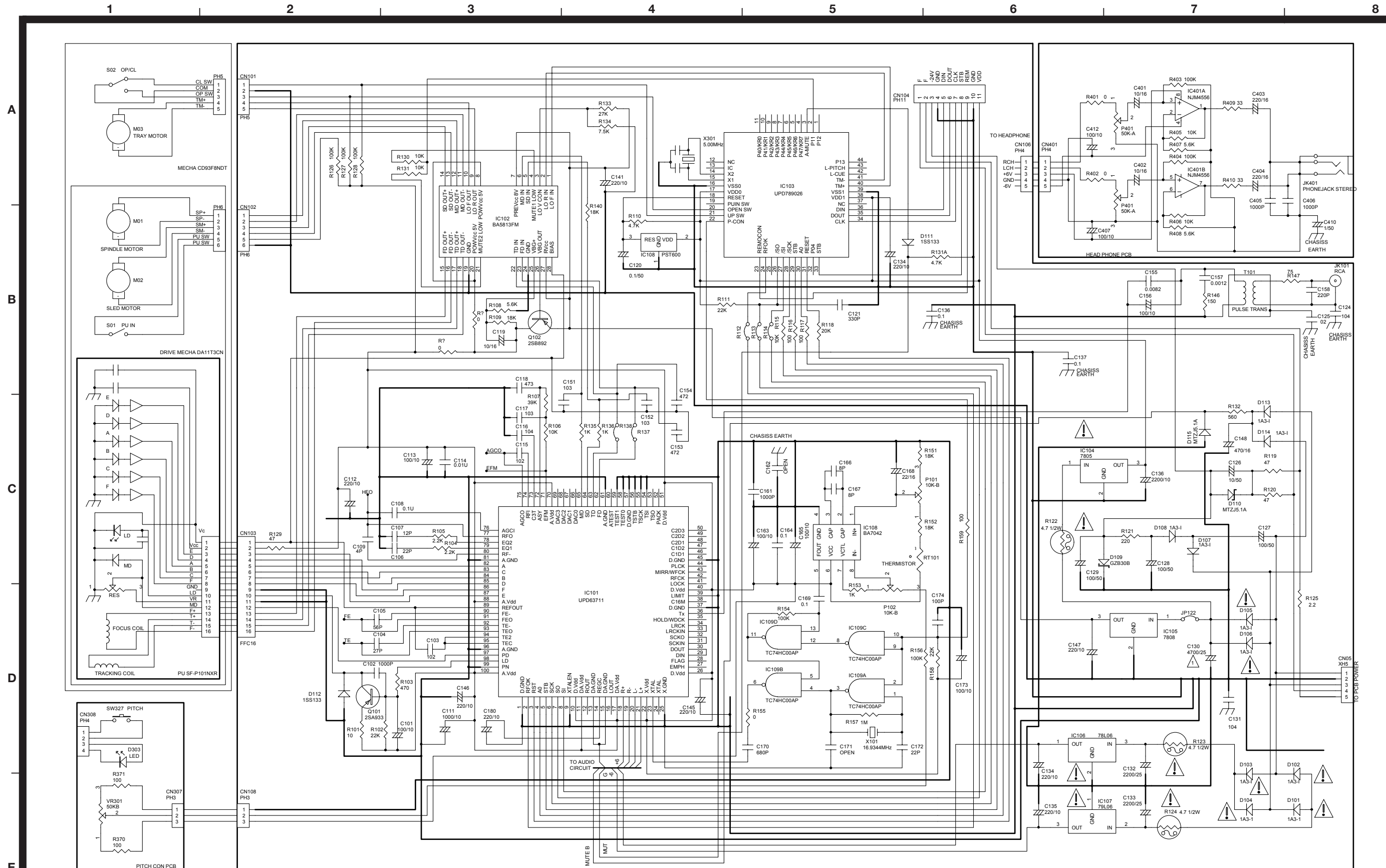
REF. NO.	PARTS NO.	DESCRIPTION
	9A09187510	POWER PCB ASSY, 120V [US, C]
	9A09187520	POWER PCB ASSY, 230V [E]
	9A09187530	POWER PCB ASSY, 230V [UK]
	9A09187540	POWER PCB ASSY, 240V [NZ]
	9A09193400	POWER PCB
	△ 9A08660100	POWER CORD [US, C]
	△ 9A09196200	POWER CORD [E]
	△ 9A07258200	POWER CORD [UK]
	△ 9A07089300	POWER CORD [NZ]
C201	△ 9A07080700	CAPACITOR
CN202	9A09195600	HOUSING, 2P [US, C]
EC201, 202	5760663000	EC TERMINAL, 1P
F201, F202	△ 9A09196300	FUSE, 250V 630MA [E, UK, NZ]
F201, F202	9A07088000	FUSE HOLDER [E, UK, NZ]
SW201	△ 9A07083100	SWITCH, PUSH, POWER
T201	△ 9A09195500	TRANSFORMER [US, C]
T201	△ 9A09196100	TRANSFORMER [E, UK]
T201	△ 9A09263700	TRANSFORMER [NZ]

## 4 INCLUDED ACCESSORIES

### INCLUDED ACCESSORIES

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	9A08952800	OWNER'S MNL [US, C]	CEC6P10069830
	9A08952500	OWNER'S MNL, MULTI [E, UK, NZ]	CEC6P10069840
	9A09264000	REMOTE CONTROL UNIT	CEC4U10002602
	9A07089700	BATTERY [E, UK, NZ]	CEC4D10000700
	9A06849900	PLUG, CORD, RCA	CEC4W20004000

# TEAC SCHEMATIC DIAGRAM CD-P1450 Main Circuit



**NOTES:**

1. Resistor values are in ohms (k=kilo-ohms, M=megohms).
2. Capacitor values are in microfarads (p=picofarads).
3. Parts marked with this sign are safety critical components. They must always be replaced with identical components-refer to the appropriate parts list and ensure exact replacement.

# TEAC SCHEMATIC DIAGRAM CD-P1450 Audio Circuit

1

2

3

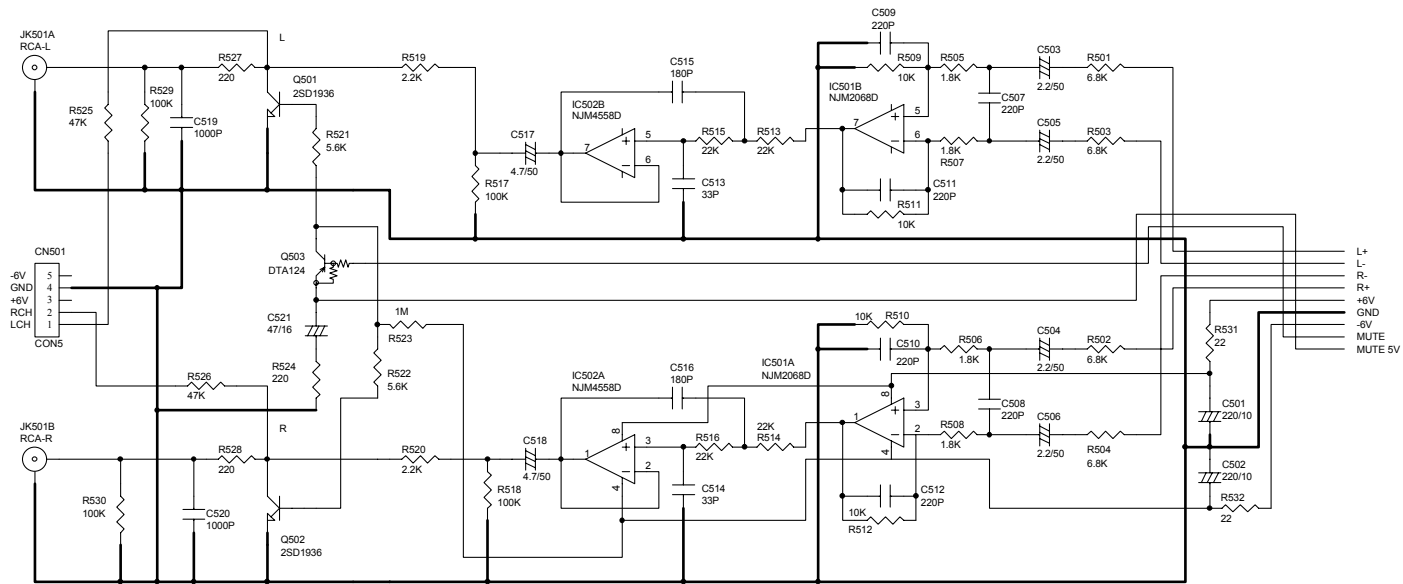
4

5

A

B

C



**NOTES:**

1. Resistor values are in ohms (k=kilo-ohms, M=megohms).
2. Capacitor values are in microfarads (p=picofarads).
3.  $\Delta$  Parts marked with this sign are safety critical components. They must always be replaced with identical components-refer to the appropriate parts list and ensure exact replacement.

# CD-P1450

COMPACT DISC PLAYER

1 st Issue; November 2001

# TEAC SCHEMATIC DIAGRAM CD-P1450 Control Circuit

1

2

3

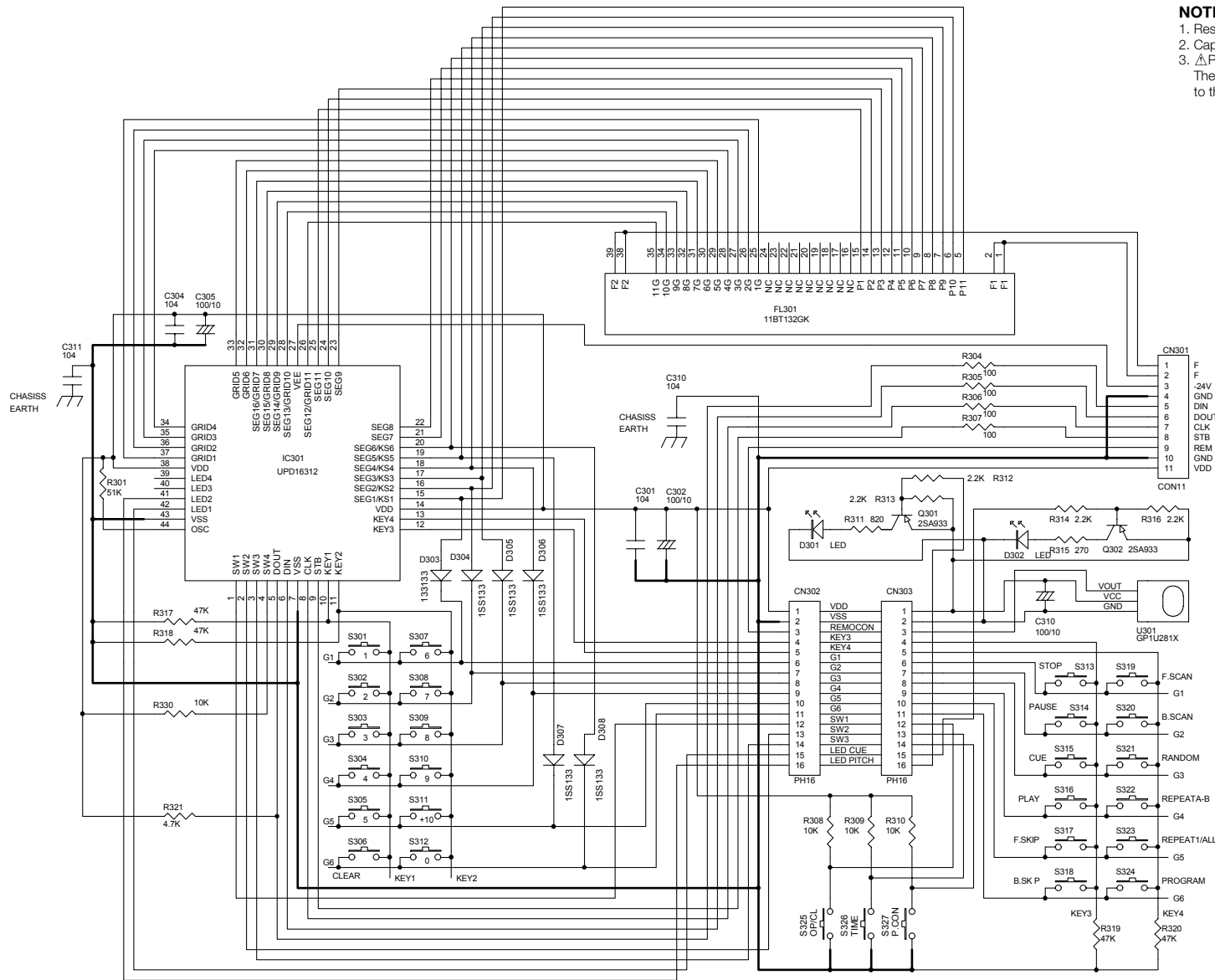
4

5

A

B

C



### NOTES:

1. Resistor values are in ohms (k=kilo-ohms, M=megohms).
2. Capacitor values are in microfarads ( $\mu$ =microfarads).
3.  $\Delta$  Parts marked with this sign are safety critical components. They must always be replaced with identical components-refer to the appropriate parts list and ensure exact replacement.

# CD-P1450

## COMPACT DISC PLAYER

1 st Issue; November 2001



# TEAC SCHEMATIC DIAGRAM CD-P1450 Power Circuit

1

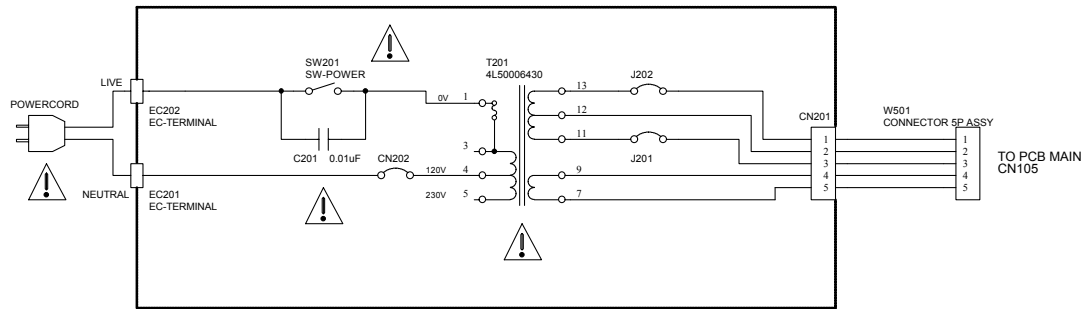
2

3

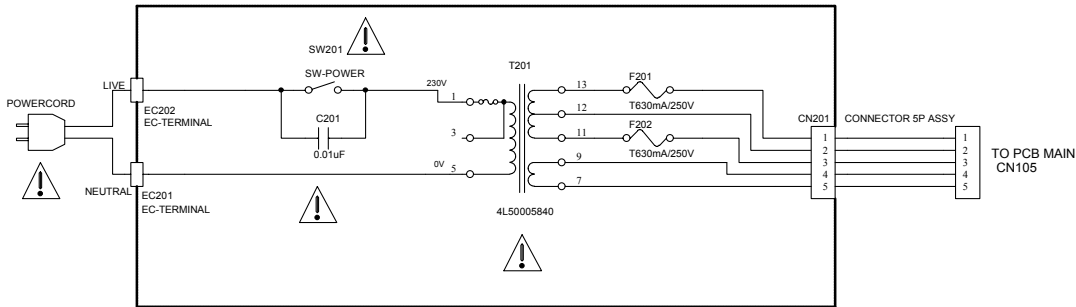
4

5

A



B



C

**INSTRUCTIONS FOR SERVICE PERSONNEL**  
**BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.**

**NOTES:**

1. Resistor values are in ohms (k=kilo-ohms, M=megohms).
2. Capacitor values are in microfarads (p=picofarads).
3. ⚠ Parts marked with this sign are safety critical components. They must always be replaced with identical components-refer to the appropriate parts list and ensure exact replacement.

**CD-P1450**  
**COMPACT DISC PLAYER**

1 st Issue; November 2001