

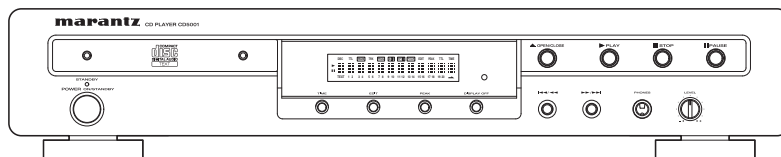
# Service Manual

CD5001 /F N/K1G/L1G/N1G  
/F B/N1B/U1B/N1S

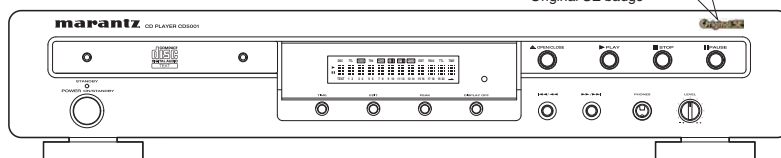
CD5001F /N1B/N1S  
CD Player

CD5001 / CD5001F

CD5001



CD5001F



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Please use this service manual with referring to the user guide ( D.F.U. ) without fail.  
修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行ってください。

# marantz®

## CD5001 / CD5001 OSE

## MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

### ORDERING PARTS :

Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

#### USA

**MARANTZ AMERICA, INC**  
1100 MAPLEWOOD DRIVE  
ITASCA, IL. 60143  
USA  
PHONE : 630 - 741 - 0300  
FAX : 630 - 741 - 0301

#### EUROPE / TRADING

**MARANTZ EUROPE B.V.**  
P. O. BOX 8744, BUILDING SILVERPOINT  
BEEMDSTRAAT 11, 5653 MA EINDHOVEN  
THE NETHERLANDS  
PHONE : +31 - 40 - 2507844  
FAX : +31 - 40 - 2507860

#### CANADA

**MARANTZ CANADA INC.**  
5-505 APPLE CREEK BLVD.  
MARKHAM, ONTARIO L3R 5B1  
CANADA  
PHONE : 905 - 415 - 9292  
FAX : 905 - 475 - 4159

#### AUSTRALIA

**QualiFi Pty Ltd,**  
24 LIONEL ROAD,  
MT. WAVERLEY VIC 3149  
AUSTRALIA  
PHONE : +61 - (0)3 - 9543 - 1522  
FAX : +61 - (0)3 - 9543 - 3677

#### THAILAND

**MRZ STANDARD CO., LTD**  
746 - 754 MAHACHAI ROAD.,  
WANGBURAPAPIROM, PHRANAKORN,  
BANGKOK, 10200 THAILAND  
PHONE : +66 - 2 - 222 9181  
FAX : +66 - 2 - 224 6795

#### SINGAPORE

**WO KEE HONG DISTRIBUTION PTE LTD**  
No.1 JALAN KILANG TIMOR  
#08-03 PACIFIC TECH CENTRE  
SINGAPORE 159303  
PHONE : +65 6376 0338  
FAX : +65 6376 0166

#### NEW ZEALAND

**WILDASH AUDIO SYSTEMS NZ**  
14 MALVERN ROAD MT ALBERT  
AUCKLAND NEW ZEALAND  
PHONE : +64 - 9 - 8451958  
FAX : +64 - 9 - 8463554

#### TAIWAN

**PAI- YUING CO., LTD.**  
6 TH FL NO, 148 SUNG KIANG ROAD,  
TAIPEI, 10429, TAIWAN R.O.C.  
PHONE : +886 - 2 - 25221304  
FAX : +886 - 2 - 25630415

#### MALAYSIA

**WO KEE HONG ELECTRONICS SDN. BHD.**  
2ND FLOOR BANGUNAN INFINITE CENTRE  
LOT 1, JALAN 13/6, 46200 PETALING JAYA  
SELANGOR DARUL EHSAN, MALAYSIA  
PHONE : +60 - 3 - 7954 8088  
FAX : +60 - 3 - 7954 7088

#### JAPAN *Technical*

**D&M Holdings Inc.**  
35- 1, 7- CHOME, SAGAMIONO  
SAGAMIHARA - SHI, KANAGAWA  
JAPAN 228-8505  
PHONE : +81 42 748 1013  
FAX : +81 42 741 9190

株式会社 ディーアンドエムホールディングス

本 社 〒228-8505  
神奈川県相模原市相模大野7-35-1

#### KOREA

**MARANTZ KOREA CO., LTD.**  
ROOM 604, ELECTRO OFFICE, 16-58,  
HANGGANG-RO 3GA, YONGSAN-KU,  
SEOUL, 140-013, KOREA  
PHONE : +82 - 2 - 323 - 2155  
FAX : +82 - 2 - 323 - 2154

### SHOCK, FIRE HAZARD SERVICE TEST :

**CAUTION :** After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins ( with unit NOT connected to AC mains and its Power switch ON ), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 1492.

In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

# 1. TECHNICAL SPECIFICATIONS

## Audio characteristics

- Channels ..... 2 channels
- Frequency response..... 2 Hz to 20 kHz
- Dynamic range ..... 100 dB
- Signal-to-noise ratio ..... 110 dB
- Channel separation ..... 100 dB (1 kHz)
- Harmonic distortion ..... 0.0025% (1 kHz)
- Wow & flutter ..... Precision of quartz
- Error correction system ..... Cross-interleave Reed Solomon code (CIRC)
- Audio output .....2.0 V rms, stereo
- Headphone output.... 18 mW/32 ohms (variable maximum)
- Digital output
  - Coaxial output (pin jack) .....0.5 Vp-p, 75 ohm
  - Optical output (square optical connector) ..... -19 dBm

## Optical readout system

- Laser ..... AlGaAs semiconductor
- Wavelength..... 780 nm

## Signal system

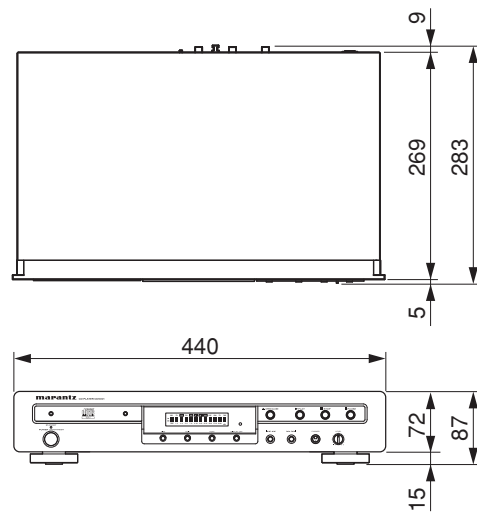
- Sampling frequency.....44.1 kHz
- Quantization ..... 16-bit linear/channel

## Power supply

- F version..... AC 100 V 50 /60 Hz
- K version ..... AC 220 V 50 Hz
- L version..... AC 110 V 60 Hz
- N version ..... AC 230 V 50 Hz
- U version ..... AC 120 V 60 Hz
- Power consumption ..... 14 W

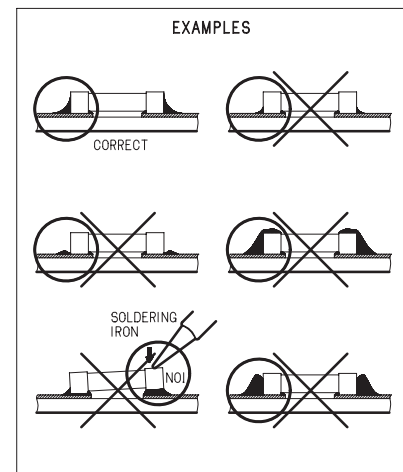
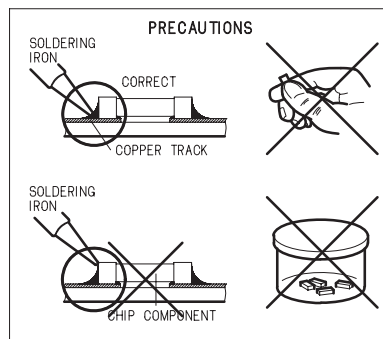
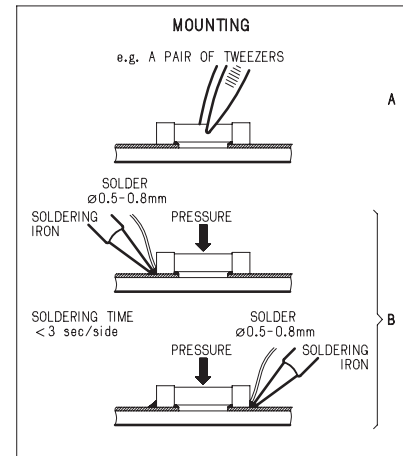
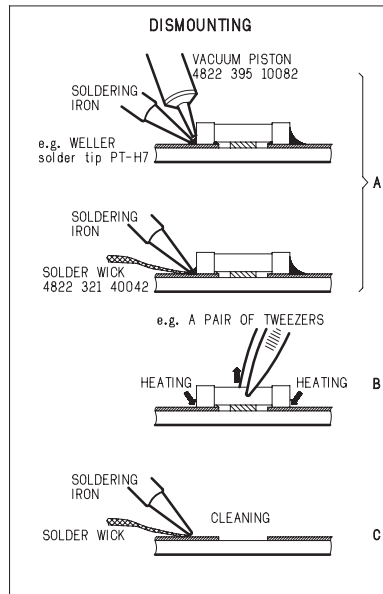
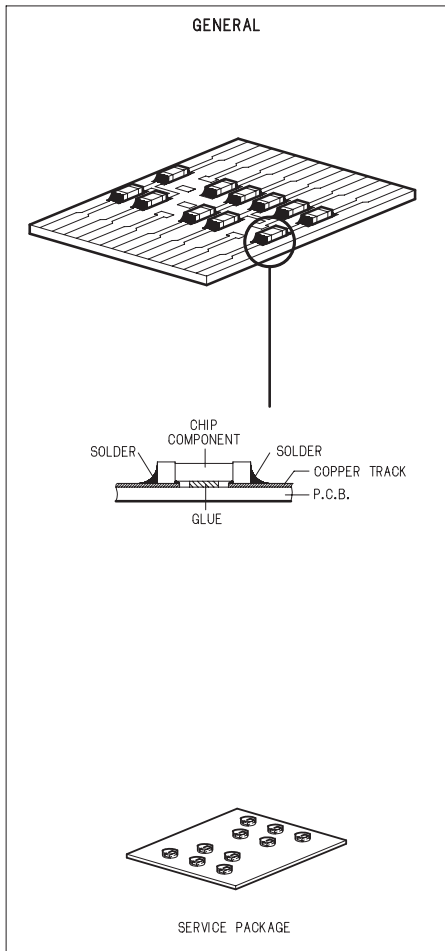
## Cabinet, etc.

- Maximum dimensions..... 440(W) x 87(H) x 283(D) mm  
17-5/16(W) x 3-1/2(H) x 11-1/8(D) inch
- Weight ..... 4.0 kg  
8.82 lbs
- Allowable operating temperature.....+5 to +35 °C
- Allowable operating humidity..5 to 90 % (no condensation)



## 2. SERVICE HINTS AND TOOLS

### SERVICE HINTS



### SERVICE TOOLS

Audio signals disc	4822 397 30184
Disc without errors (SBC444)+Disc with DO errors, black spots and fingerprints (SBC444A)	4822 397 30245
Disc (65 min 1kHz) without no pause	4822 397 30155
Max. diameter disc (58.0 mm)	4822 397 60141
13th order filter	4822 395 30204

### 3. WARNING AND LASER SAFETY INSTRUCTIONS

#### **(GB)** WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.



#### **(NL)** WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor elektrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

#### **(F)** ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation. Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité. Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

#### **(D)** WARNUNG

Alle IC und viele andere Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD). Unvorsichtige Behandlung bei der Reparatur kann die Lebensdauer drastisch vermindern. Sorgen sie dafür, das Sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind. Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

#### **(I)** AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD). La loro longevita potrebbe essere fortemente ridatta in caso di non osservazione della piu grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza. Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

#### **(GB)**

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

#### **(NL)**

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt terug gebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

#### **(D)**

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Gerats darf nicht verändert werden. Für Reparaturen sind Original-Ersatzteile zu verwenden.

#### **(I)**

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambio identici a quelli specificati.

#### **(F)**

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

\*Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne.\*

### LASER SAFETY

This unit employs a laser. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.



**USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURE OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.**

**AVOID DIRECT EXPOSURE TO BEAM**

#### **WARNING**

**The use of optical instruments with this product will increase eye hazard. Repair handling should take place as much as possible with a disc loaded inside the player**

#### **WARNING LOCATION: INSIDE ON LASER COVERSIELD**

**CAUTION** VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM  
**ADVARSEL** SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING UNDGÅ UDSÆTTELSE FOR STRÅLING  
**ADVARSEL** SYNLIG OG USYNLIG LASERSTRÅLING NÅR DEKSEL Å PNES UNNGÅ EKSPONERING FOR STRÅLEN  
**VARNING** SYNLIG OCH OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÅR ÖPPNAD BETRakta EJ STRÅLEN  
**VARO!** AVATT AESSA OLET ALTTIINA NÄKYVÄLLE JA NÄKYMÄTTÖMÄLLE LASER SÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN  
**VORSICHT** SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN  
**DANGER** VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM  
**ATTENTION** RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE EXPOSITION DANGEREUSE AU FAISCEAU

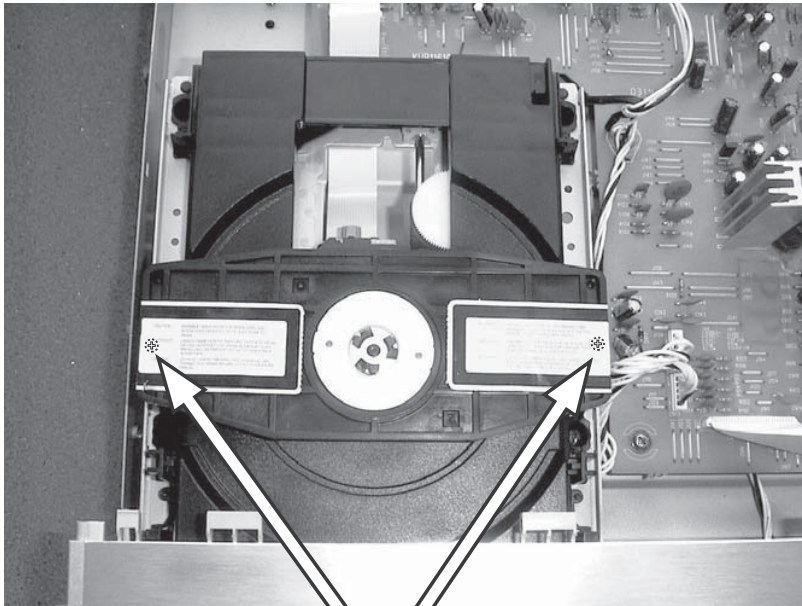
## 4. SERVICE MODE AND EMERGENCY DISC EJECT

### SERVICE MODE

1. Insert mains cable plug in the outlet and press **POWER** button.
  2. Press the **OPEN/CLOSE** button to open the tray.
  3. Press the **TIME** button for about five seconds.
  4. The version number of the microprocessor is displayed Ex: 03-19-1.
  5. Press the **EDIT** button for about five seconds.
  6. Light up all the FL segment.
- Turn off power to quit Service mode.

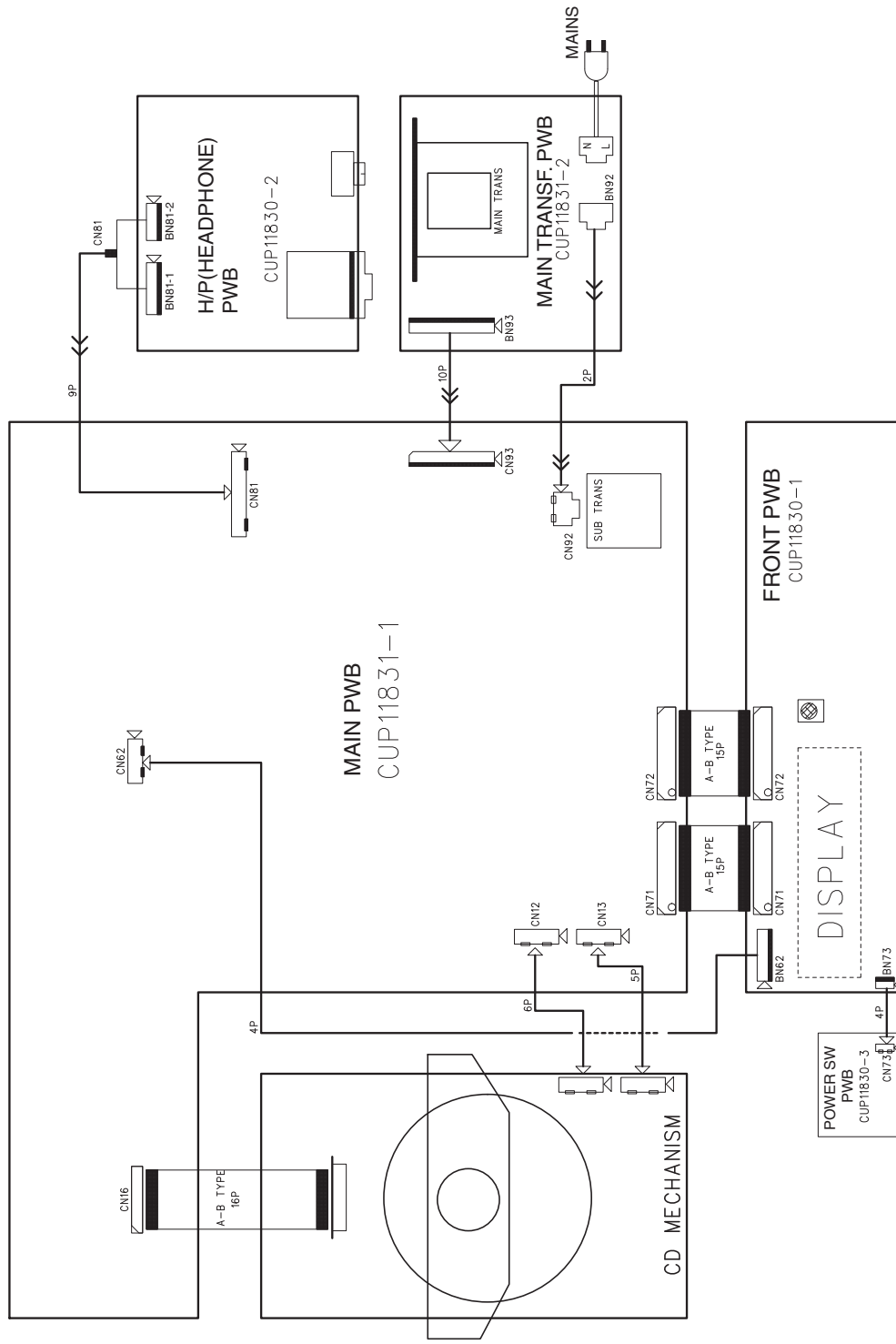
### EMERGENCY DISC EJECT

1. Remove the top cover of the poyer.
2. Remove 2 screws under the label shown in the picture follows.
3. Remove the disc clamber.
4. Now you can remove the disc.

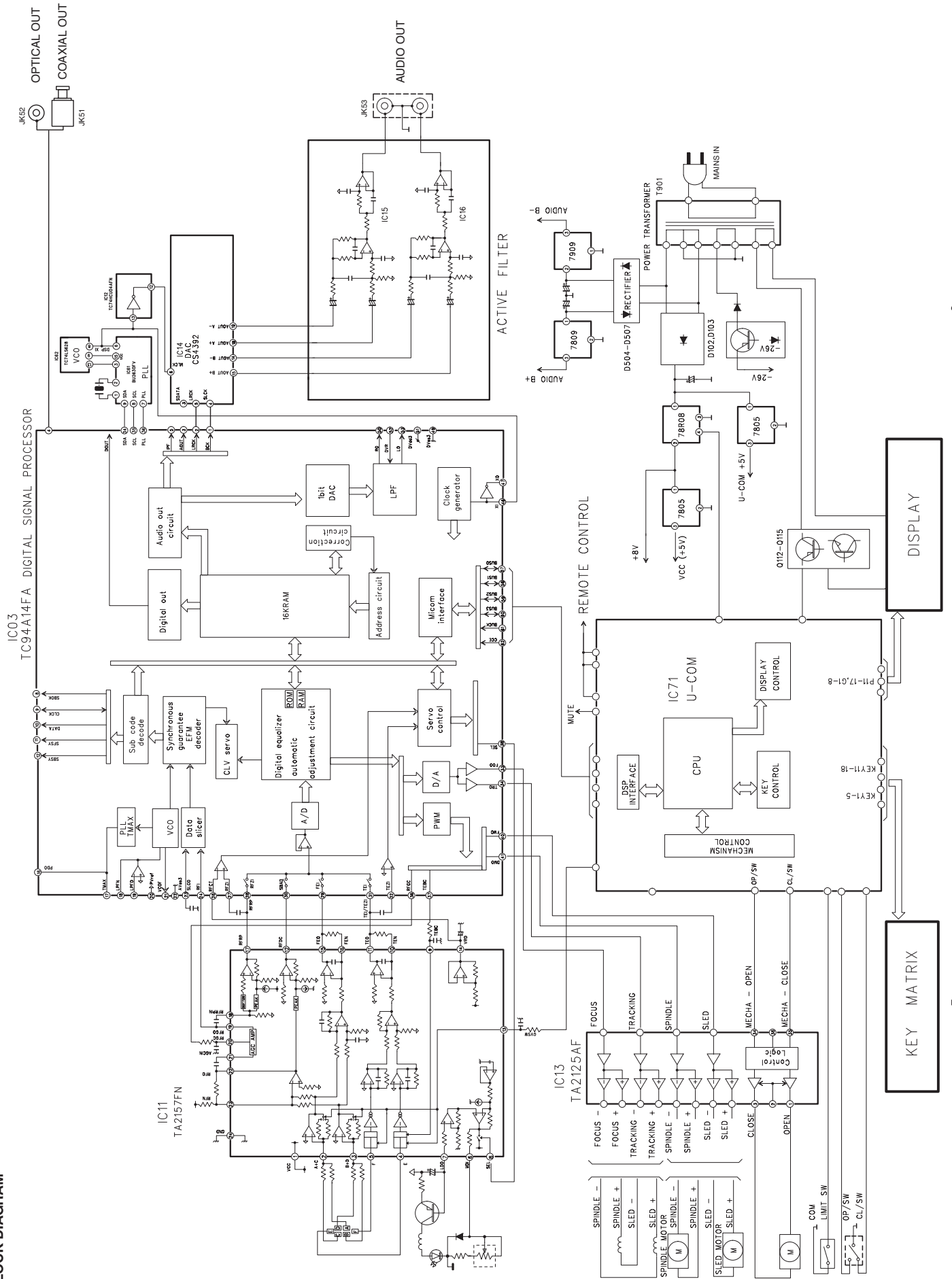


Remove those screws

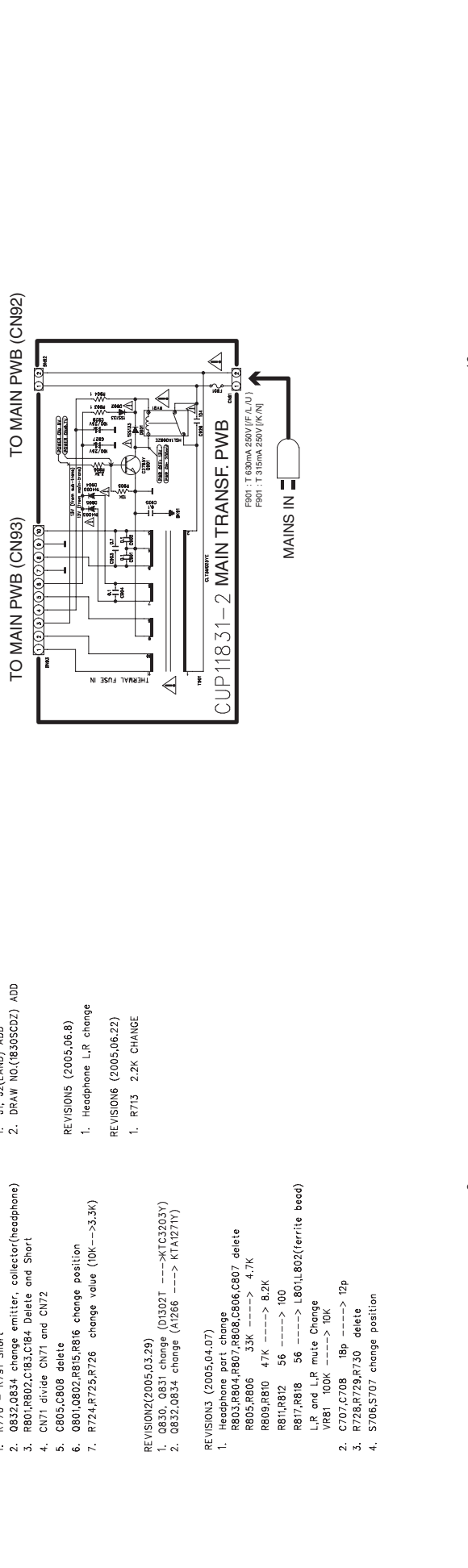
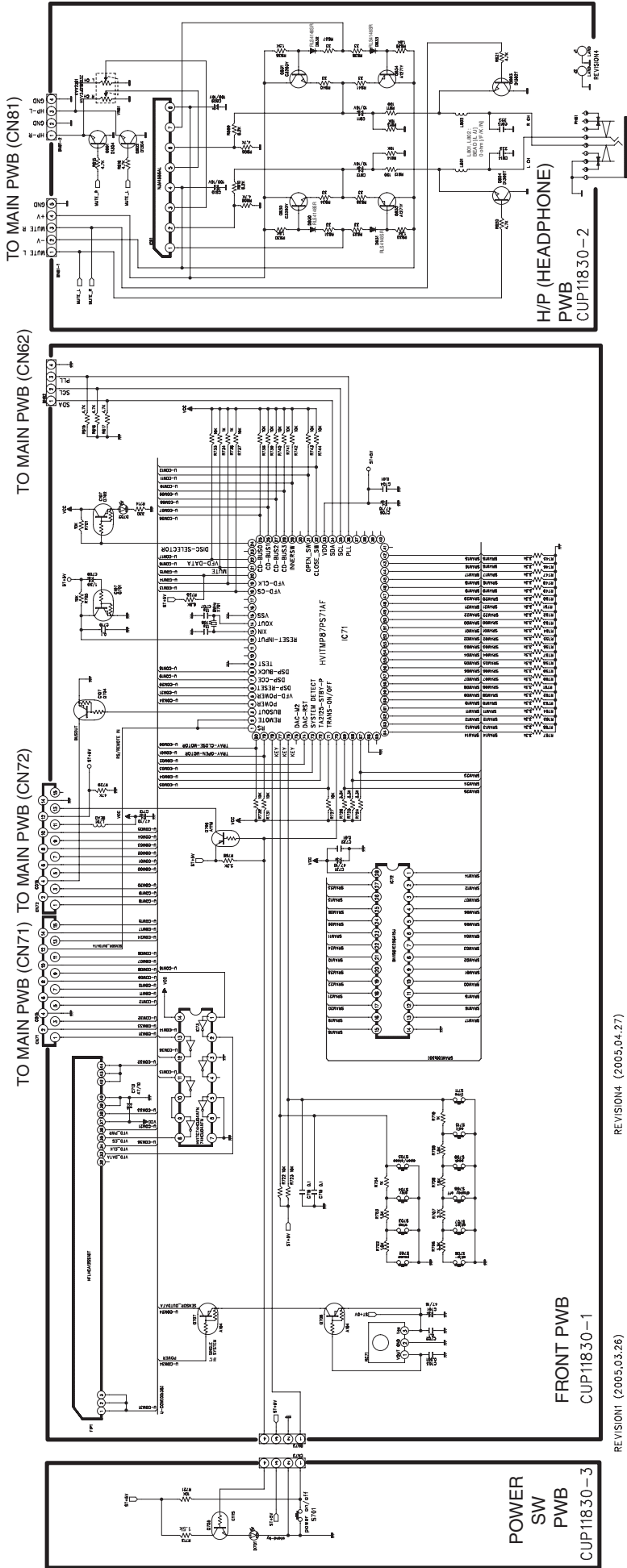
## 5. WIRING DIAGRAM



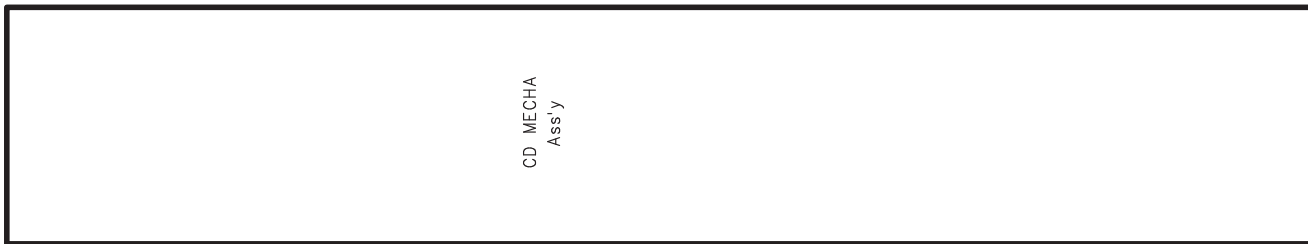
# 6. BLOCK DIAGRAM



# 7. SCHEMATIC DIAGRAM

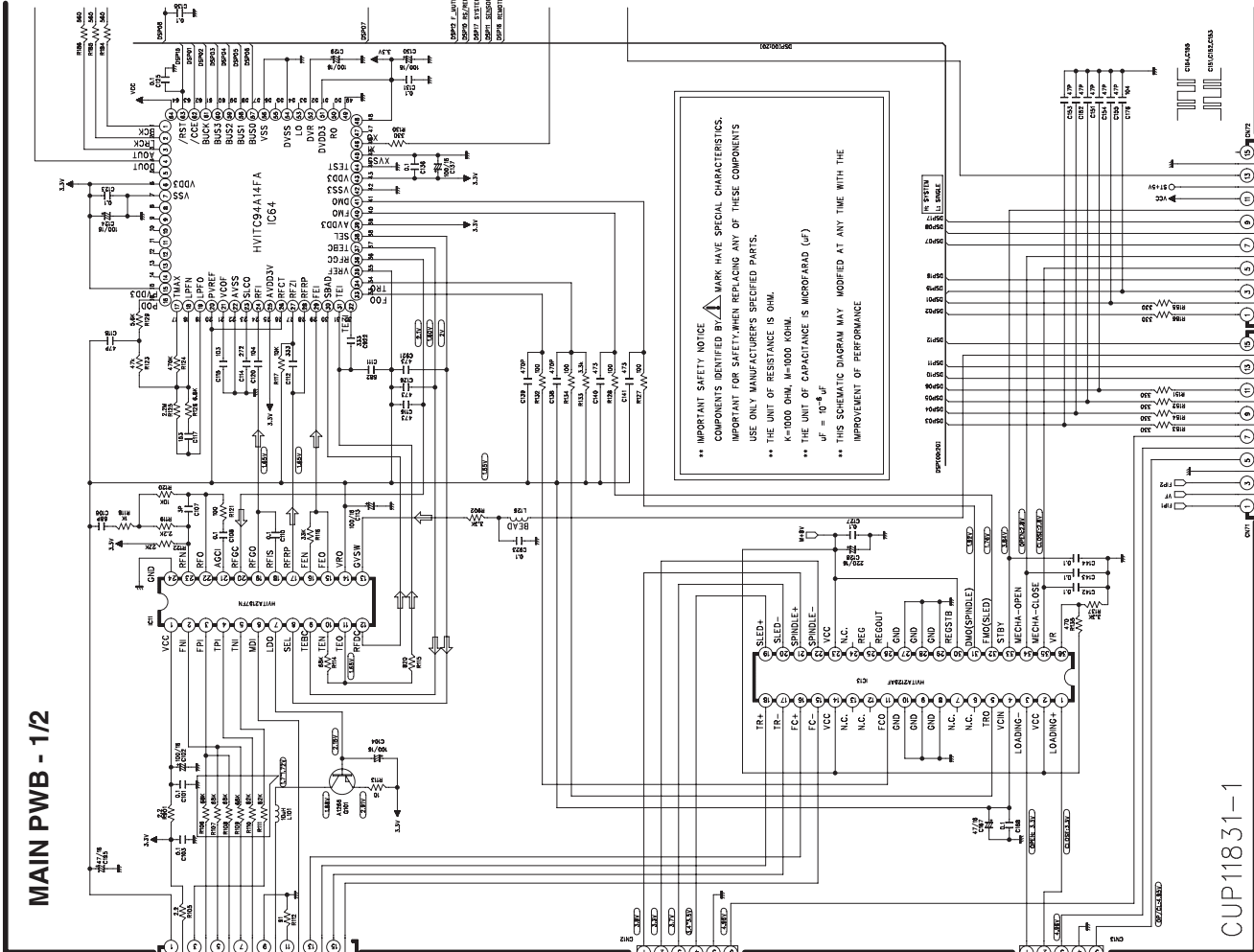


- REVISION1 (2005.03.26)
- R770 - R791 Short
  - 0832,0834 change emitter, collector(headphone)
  - R801,R802,C183,C184 Delete and Short
  - CN71 divide CN71 and CN72
  - C805,C808 delete
  - 0801,0802,R815,R816 change position
  - R724,R725,R726 change value (10K-->3.3K)
- REVISION2(2005.03.29)
- 0830, 0831 change (01302T --->KTC3203Y)
  - 0832,0834 change (A1266 ----> KTA1271Y)
- REVISION3 (2005.04.07)
- Headphone part change
  - R803,R804,R807,R808,C806,C807 delete
  - R805,R806 33K ----> 4.7K
  - R809,R810 47K ----> 8.2K
  - R811,R812 56 ----> 100
  - R817,R818 56 ----> L801,L802(territe bead)
  - L,R and L,R mute Change
  - VR81 100K ----> 10K
- C707,C708 18p ----> 12p
  - R728,R729,R730 delete
  - S706,S707 change position
- REVISION4 (2005.04.27)
- J1, J2(LAND) ADD
  - DRAW NO.(1830SGDZ) ADD
- REVISION5 (2005.06.8)
- Headphone L,R change
- REVISION6 (2005.06.22)
- R713 2.2K CHANGE



CD MECHA  
Ass'y

CD MECHANISM



MAIN PWB - 1/2

MAIN  
PWB - 2/2

**\*\* IMPORTANT SAFETY NOTICE**  
 COMPONENTS IDENTIFIED BY MARK HAVE SPECIAL CHARACTERISTICS.  
 IMPORTANT FOR SAFETY, WHEN REPLACING ANY OF THESE COMPONENTS  
 USE ONLY MANUFACTURER'S SPECIFIED PARTS.  
 \*\* THE UNIT OF RESISTANCE IS OHM.  
 \*\* K=1000 OHM, M=1000 KOHM.  
 \*\* THE UNIT OF CAPACITANCE IS MICROFARAD (μF)  
 \*\* THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANY TIME WITH THE  
 IMPROVEMENT OF PERFORMANCE

TO FRONT PWB (CM71) TO FRONT PWB (CN72)

CUP11831-1