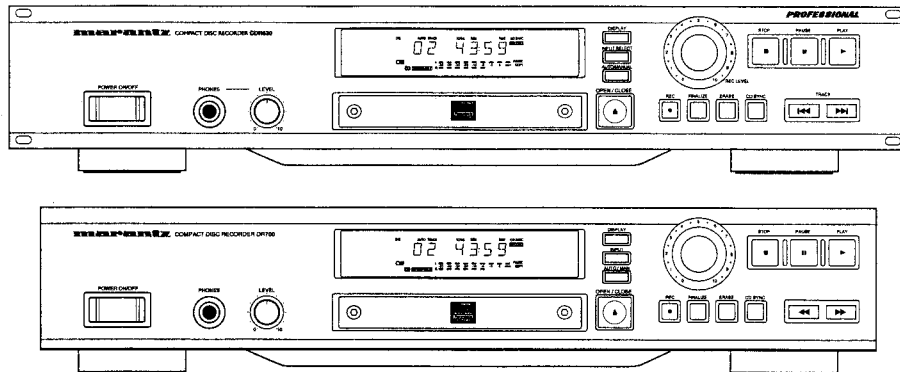


# Service Manual

74 CDR630 /02M  
CDR630 F H, U BL  
Compact Disc Recorder

74 DR700 /02B  
DR700 F N, U BL



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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®

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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.**  
440 MEDINAH ROAD  
ROSELLE, ILLINOIS 60172  
USA  
PHONE : 630 - 307 - 3100  
FAX : 630 - 307 - 2687

#### CANADA

**LENBROOK INDUSTRIES LIMITED**  
633 GRANITE COURT,  
PICKERING, ONTARIO L1W 3K1  
CANADA  
PHONE : 905 - 831 - 6333  
FAX : 905 - 831 - 6936

#### EUROPE / TRADING

**MARANTZ EUROPE B.V.**  
P.O.BOX 80002  
BUILDING SFF2  
5600 JB EINDHOVEN  
THE NETHERLANDS  
PHONE : +31 - 40 - 2732241  
FAX : +31 - 40 - 2735578

#### PROFESSIONAL USA

**SUPERSCOPE TECHNOLOGIES, INC.**  
MARANTZ PROFESSIONAL PRODUCTS  
2640 WHITE OAK CIRCLE, SUITE A  
AURORA, ILLINOIS 60504 USA  
PHONE : 630 - 820 - 4800  
FAX : 630 - 820 - 8103

#### PROFESSIONAL CANADA

**TC ELECTRONICS CANADA LTD.**  
540 FIRING AVE.  
BAIE D'URFÉ, QUEBEC H9X 3T2  
CANADA  
PHONE : 514 - 457 - 4044  
FAX : 514 - 457 - 5524

#### KOREA

**MK ENTERPRISES LTD.**  
2F SHINHAN BLDG., 247-17 SEOKYO-DONG  
MAPO-KU, SEOUL  
KOREA  
PHONE : +82 - 2 - 323 - 2155  
FAX : +31 - 2 - 323 - 2154

#### BRAZIL

**MARANTZ BRAZIL**  
CAIXA POSTAL 21462  
CEP 04698-970  
SAO PAULO, SP, BRAZIL  
PHONE : 0800 - 123123 (Discagem Direta Gratuita)  
FAX : +55 11 534. 8988

#### THAILAND

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

#### HONG KONG

**FORWARD INTERNATIONAL CORP., LTD.**  
3F, BLOCK-B WO KEE HONG BLDG., 585-609  
CASTLE PEAK RD., KWAI CHUNG, N.T.  
HONG KONG  
PHONE : +852 24942033  
FAX : +852 24101656

#### AUSTRALIA / NEW ZEALAND

**SCAN AUDIO PTY. LTD.**  
52 CROWN STREET, RICHMOND 3121  
VICTORIA  
AUSTRALIA  
PHONE : +61 - 3 - 9429 - 2199  
FAX : +61 - 3 - 9429 - 9309

#### TAIWAN

**PAI-YUING CO., LTD.**  
6 TH FL NO, 148 SUNG KIANG ROAD,  
TAIPEI, 10429, TAIWAN R.O.C.  
PHONE : +886 (2) 5221304  
FAX : +886 (2) 5630415

#### MALAYSIA

**WO KEE HONG ELECTRONICS SDN. BHD.**  
NO. 102 JALAN SS 21/35, DAMANSARA  
UTAMA, 47400 PETALING JAYA  
SELANGOR DARUL EHSAN,  
MALAYSIA  
PHONE : +60 3 - 7184666  
FAX : +60 3 - 7173828

#### JAPAN *Technical*

**MARANTZ JAPAN, INC.**  
35- 1, 7- CHOME, SAGAMIONO  
SAGAMIHARA - SHI, KANAGAWA  
JAPAN 228-8505  
PHONE : +81 427 48 1013  
FAX : +81 427 41 9190

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営業本部 〒150-0022  
東京都渋谷区恵比寿南 1-11-9

#### SINGAPORE

**FORWARD MARKETING (S) PTE. LTD.**  
23, LORONG 8, TOA PAYOH,  
SINGAPORE 319257.  
PHONE : +65 2583640  
FAX : +65 3564047

### 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 N0. 1492(DR700) and No. 813(CDR630).

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

# Servicing the DR700 and the CDR630

## 1. INTRODUCTION:

The DR700 is the consumer version of a CD recorder, this means that the SCMS (Serial Copy Management System) is included. The DR700 can only record on the Audio CDRs (Consumer Use).

The CDR630 is the professional version of a CD recorder (no SCMS). Besides the cinch input and outputs also XLR input and outputs are mounted on this product.

Both products are also suitable for recording and playback of CD-RW discs (CD-Re Writable disc).

## Playback & Recording and Disc

| Disc<br><br>Player/Recorder                            | CD | CDR           |               |                   |               | CD-RW         |               |                   |               | SCMS |
|--|----|---------------|---------------|-------------------|---------------|---------------|---------------|-------------------|---------------|------|
|  |    | Consumer Disc |               | Professional Disc |               | Consumer Disc |               | Professional Disc |               |      |
|  |    | Finalized     | non Finalized | Finalized         | non Finalized | Finalized     | non Finalized | Finalized         | non Finalized |      |
| <b>Audio CD Player</b><br>Current products Ex:CD-17    | P  | P             | no            | P                 | no            | no            | no            | no                | no            | -    |
| <b>Audio CD Player</b><br>CD-RW playback Ex:CD-17MK II | P  | P             | no            | P                 | no            | P             | no            | P                 | no            | -    |
| <b>CD Recorder</b><br>For Professional Ex:CDR620       | P  | P             | P/R           | P                 | P/R           | no            | no            | no                | no            | no   |
| <b>CD-RW Recorder</b><br>For Consumer Ex:DR700         | P  | P             | P/R           | P                 | no            | P/R           | P/R           | no                | no            | YES  |
| <b>CD-RW Recorder</b><br>For Professional Ex:CDR630    | P  | P             | P/R           | P                 | P/R           | P/R           | P/R           | P/R               | P/R           | no   |

Consumer: For Digital Audio

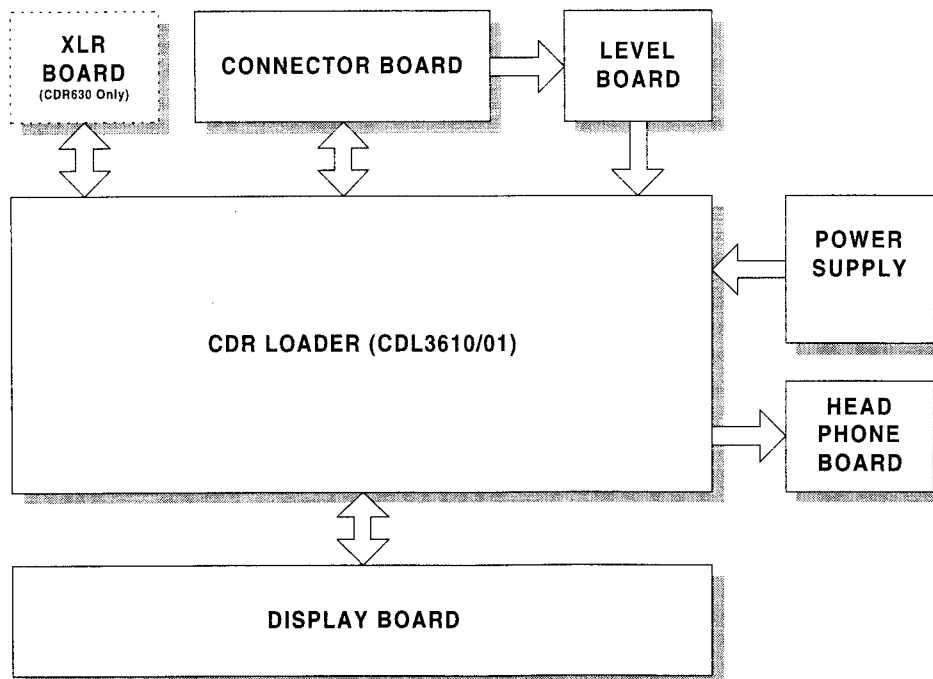
Professional: For General use (Including PC)

P: Playback

R: Recording

## 2. OPENING THE PRODUCT:

The product can be opened by removing the top cover (6 torxs). Once the product is opened one can have access to the several PCB's and the main module. To have access to the Display PCB, the Headphone PCB and the lever PCB first the front cover has to be removed (4 torx and 4 snap connections).



Below the several PCB's and it function and service policy will be discussed:

## **2.1 CDR loader (CDR main module CDL3610/01):**

**This complete CDR loader is considered as not repairable in the field,** therefore this module will be repaired centrally. A module exchange procedure will be set up for this purpose. The module can be easily removed from the product by removing 5 torx (one torx has different size) and loosening the connectors.

This module is the complete CD recorder, it contains the following parts:

- CD Mechanism (CDM3610). Underneath this mechanism a PCB is mounted which is adjusted to the mechanism (laser current settings are stored in EEPROM).
- Loader Assy. This mechanical assy takes care for the tray control.
- Main PCB. This PCB takes care that the (analogue or digital) signal to be recorded is converted into a suitable signal which can be recorded on the disc.

Digital signals with a sampling frequency other than 44,1kHz will be converted in the sample rate converter (GDIN) to 44,1kHz.

Analogue signals will be first converted into a digital converter by the AD converter.

This PCB also takes care that the signal from the CD (playback) is converted into a suitable digital signal (or analogue via the DA converter).

The main microprocessor controls the several functions of this PCB. The system software stored in a normal DIL EPROM(7322). This EPROM(7322) is mounted on a socket, so software updates can be easily done at the dealer or service agent.

## **2.2 Display Board**

This PCB contains the Display, which informs the user about the status of the recording/playback process and it also takes care for scanning the keys on the front panel. The information from the keys is fed via a I<sup>2</sup>C connection to the main microprocessor on the CDR loader module. Information which needs to be displayed is also fed via this I<sup>2</sup>C line from the main microprocessor on the CDR loader module to the display controller.

The parts for this PCB are available as service parts so this PCB can be repairable up to component level.

## **2.3 Power Supply.**

This PCB delivers the several voltages for the different PCB in the DR700/CDR630. On this power supply also the mains fuse (primary side) is mounted and seven other fuses (secondary side) are soldered on this PCB. All parts are available as spare part.

## **2.4 Headphone Board.**

This PCB contains the headphone socket and potentiometer which controls the headphone volume. All parts are available as spare parts.

## **2.5 Level Board.**

This PCB contains the potentiometer to adjust the level of the analogue input signal. All parts are available as spare parts.

## **2.6 Connector Board.**

This PCB contains the output and input connectors. All parts are available as spare parts.

## **2.7 XLR Board (CDR630 only).**

The XLR PCB contains the XLR inputs and outputs and the electronics to convert the signal to a balanced output signal and convert a balanced input signal to a single line input signal. All parts are available as spare parts.

### 3. TEST PROGRAMS.

The DR700 and CDR630 has two built in test programs. These are the “**Dealer Diagnostics**” and the “**Service Diagnostics**”. Both diagnostics can be used to determine which board or module is defect.

#### 3.1 Dealer Diagnostics.

This test diagnostics the communication between the several ICs in the CDR module. To start the test press the buttons **<PLAY>+<STOP>** simultaneously and switch on the power.

During this diagnostics the message “BUSY” is blinking on the display (this can last for a couple of minutes). When an error is detected the message “ERROR” is displayed. For the meaning of this error the service diagnostics has to be ran. Since no CD is used for this test, the playback and record parts of the module are not tested thoroughly.

#### 3.2 Service Diagnostics.

This Diagnostics tests the main board and CDM assembly (also known as Basic Engine) of the CDR module and the keyboard and display board.

If an error is detected, an error number is displayed which refers to the error.

The test is executed with a normal CD loaded, so the recording part of the CDM is not tested thoroughly.

To start the test press the keys **<PLAY>+<NEXT>** simultaneously and switch the power on.

See the attached sheet for a flowchart of the “**SERVICE TEST PROGRAM**”.

## 1.1 TECHNICAL SPECIFICATIONS

| <b>General</b>        | <b>CDR630</b>                                       | <b>DR700</b>   |
|-----------------------|---|--|
| System                | : compact disc digital audio                        | : compact disc digital audio   |
| Number of channels    | : 2 (stereo)  | : 2 (stereo)   |
| Applicable discs      | : CD, CD-R, CD-RW                                   | : CD, CD-R (digital audio), CD-RW (digital audio)                          |
| Power supply          | : AC 100/120/230/240 V<br>(74CDR630/02M, CDR630F H) | : AC 230 V (74DR700/2B)<br>: AC 120 V (DR700U BL)<br>: AC 100 V (DR700F N) |
| Power consumption     | : 15 W  | : 15 W   |
| Operating temperature | : 5 - 35 °C   | : 5 - 35 °C  |
| Weight                | : 4.7 kg  | : 4.2 kg   |
| Dimensions            | : 483(W) x 305(D) x 88(H) mm                        | : 435(W) x 305(D) x 88(H) mm   |

| <b>Audio</b>                        |                        |                         |
|-------------------------------------|------------------------|-------------------------|
| Frequency response                  | : 20 Hz - 20 kHz       | : 20 Hz - 20 kHz        |
| Playback S/N                        | : 105 dB               | : 105 dB                |
| Playback dynamic range              | : 98 dB                | : 98 dB                 |
| Playback total harmonic distortion  | : 85 dB                | : 85 dB                 |
| Recording S/N                       | : 90 dB                | : 90 dB                 |
| Recording dynamic range             | : 95 dB                | : 95 dB                 |
| Recording total harmonic distortion | : 85 dB                | : 85 dB                 |
| Line output voltage                 | : 2 Vrms               | : 2 Vrms                |
| Digital coaxial output              | : 0.5V(pp)/75 Ω        | : 0.5V(pp)/75 Ω         |
| Digital optical output              | : -20 dBm              | : -20 dBm               |
| Headphones                          | : 0 - 5 Vrms/8 - 200 Ω | : 0 - 5 Vrms/8 - 2000 Ω |

### Recording values for line input/output

|                                    |  |                   |
|------------------------------------|--|-------------------|
| Digital coaxial input              | : 32 - 48 kHz                                    | : 32 - 48 kHz     |
| (automatic sample rate conversion) |  |                   |
| Digital optical input              | : 32 - 48 kHz                                    | : 32 - 48 kHz     |
| (automatic sample rate conversion) |  |                   |
| Analogue input Cinch               | : 700 mVrms/50 kΩ                                | : 700 mVrms/50 kΩ |
| Analogue input XLR CDR630 only     |  |                   |
| -sensitivity                       | : +4 dBu (max +16 dBu)<br>: -10 dBu (max +2 dBu) |                   |
| -impedance                         | : 30 kΩ  |                   |

### Recording functions CDR630 Only

|   |                                |
|---|--------------------------------|
| Recording   |                                |
| -Auto start recording (CD sync) only digital source |                                |
| -Start delay  | : 150 - 400 ms                 |
| Auto Track increment                                |                                |
| -PQ timing deviation (digital source)               | : < 6 frames (80 ms)           |
| -Track detection level (analog source)              | : < -50 dB for more than 3 sec |
| Manual track Increment                              |                                |
| Pause recording                                     |                                |
| Erase last track (CD-RW disc)                       |                                |
| Erase disc (CD-RW disc)                             |                                |
| Remaining recording time display                    |                                |
| Finalize (writing TOC)                              | : 2 x speed                    |

### Playback functions CDR630 Only

|                               |  |
|-------------------------------|--|
| Play                          |  |
| Pause                         |  |
| Stop                          |  |
| Direct track selection        |  |
| Next/Previous track selection |  |
| Search forward/reverse        |  |
| Fast search forward/reverse   |  |
| Repeat (all/1 track)          |  |
| Program play (20 tracks)      |  |
| Time display switching        |  |

### Accessories CDR630 Only

|                              |  |
|------------------------------|--|
| Remote control (+ batteries) |  |
| Audio cable (x 2)            |  |
| Digital coaxial cable (x 1)  |  |
| AC mains cable               |  |

## 1.2 WARNINGS

### **(GB) WARNING**

All ICs and many other semiconductors 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 wristband with resistance. Keep components and tools at this potential.

### **(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 enfilez 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.

### **ESD**



### **(D) WARNUNG**

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD). Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.

Sorgen Sie dafür, daß sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind.

Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

### **(NL) WAARSCHUWING**

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische 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.

### **(I) AVVERTIMENTO**

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).

La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa del apparecchio tramite un braccialetto a resistenza.

Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

### **(GB) AVAILABLE ESD PROTECTION EQUIPMENT :**

**anti-static table mat** large 1200x650x1.25mm  
small 600x650x1.25mm

**anti-static wristband**

**connection box** (3 press stud connections, 1M)

**extendible cable** (2m, 2M, to connect wristband to connection box)

**connecting cable** (3m, 2M, to connect table mat to connection box)

**earth cable** (1M, to connect any product to mat or to connection box)

**KIT ESD3** (combining all 6 prior products - small table mat)

**wristband tester**

4822 466 10953

4822 466 10958

4822 395 10223

4822 320 11307

4822 320 11305

4822 320 11306

4822 320 11308

4822 310 10671

4822 344 13999

### **(GB)**

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

Safety components are marked by the symbol ▲

### **(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.

Les composants de sécurité sont marqués ▲

### **SAFETY**



### **(D)**

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Gerätes darf nicht verändert werden. Für Reparaturen sind Originalersatzteile zu verwenden.

Sicherheitsbauteile sind durch das Symbol ▲ markiert.

### **(NL)**

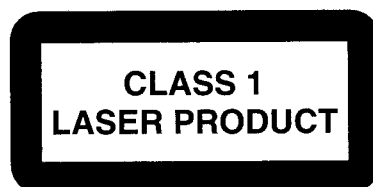
Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast. De Veiligheidsonderdelen zijn aangeduid met het symbool ▲

### **(I)**

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

Componenti di sicurezza sono marcati con ▲

**(GB) DANGER:** Invisible laser radiation when open.  
AVOID DIRECT EXPOSURE TO BEAM.



### **(S) Varning !**

Osynlig laserstrålning när apparaten är öppnad och spårren är urkopplad. Betrakta ej strålen.

### **(DK) Advarsel !**

Usynlig laserstrålning ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

### **(SF) Varoitus !**

Avatussa laitteessa ja suojauslaitteiden ohitettaessa olei alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen !

### **(GB)**

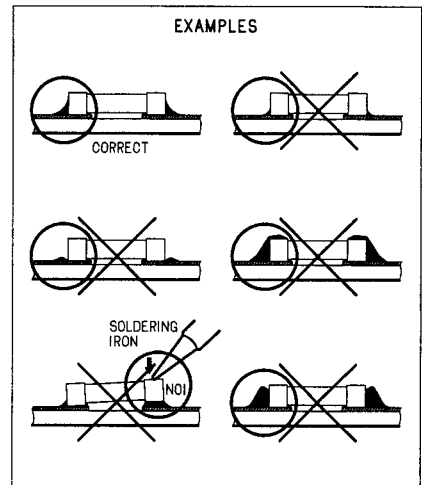
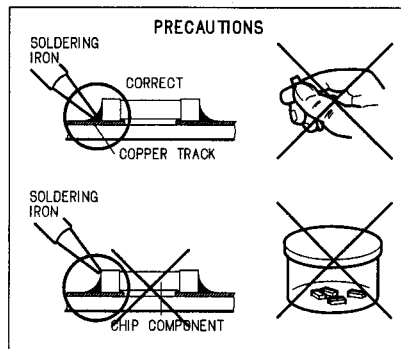
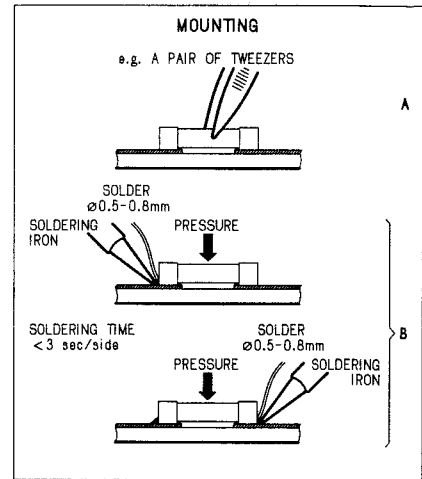
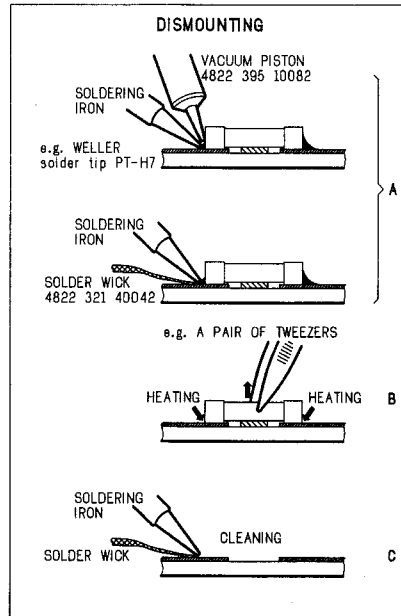
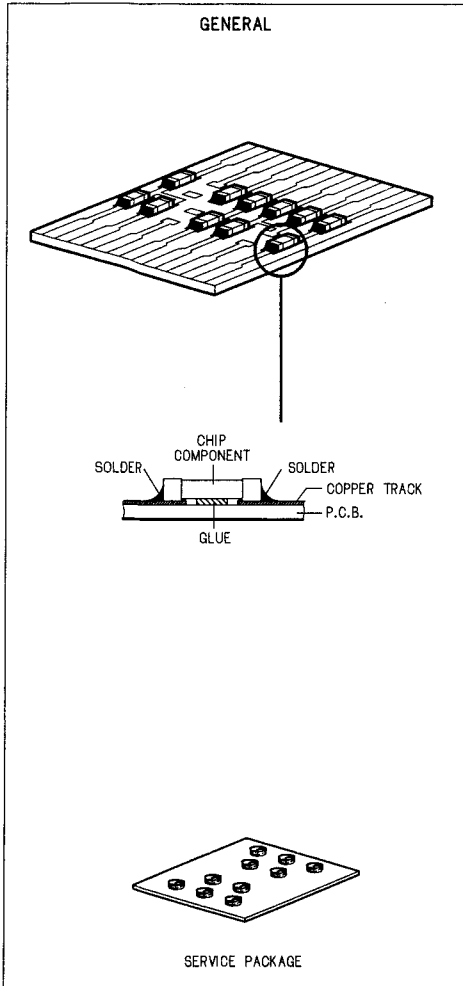
After servicing and before returning the set to customer perform a leakage current measurement test from all exposed metal parts to earth ground, to assure no shock hazard exists.

The leakage current must not exceed 0.5mA.

### **(F)**

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

### 1.3 SERVICE HINTS



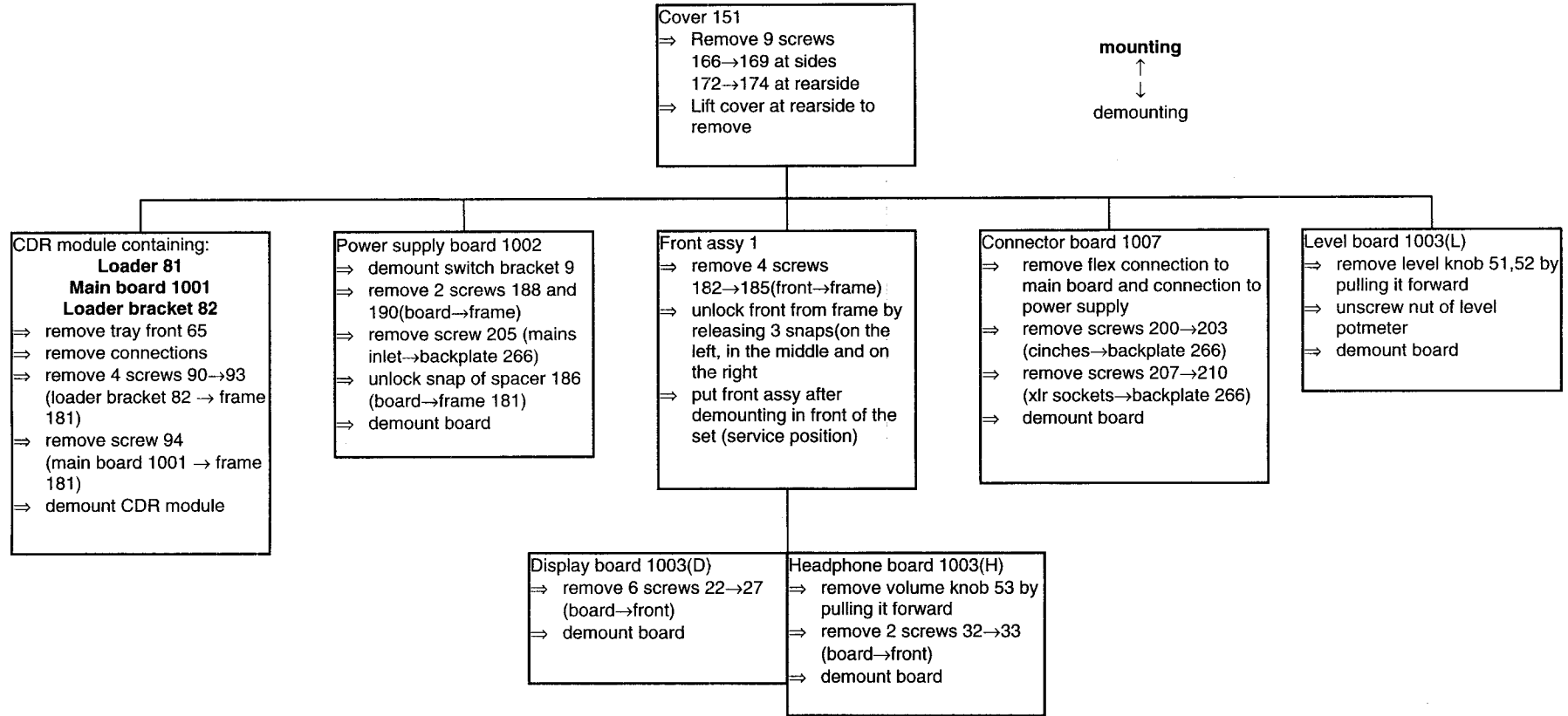
### SERVICE TOOLS

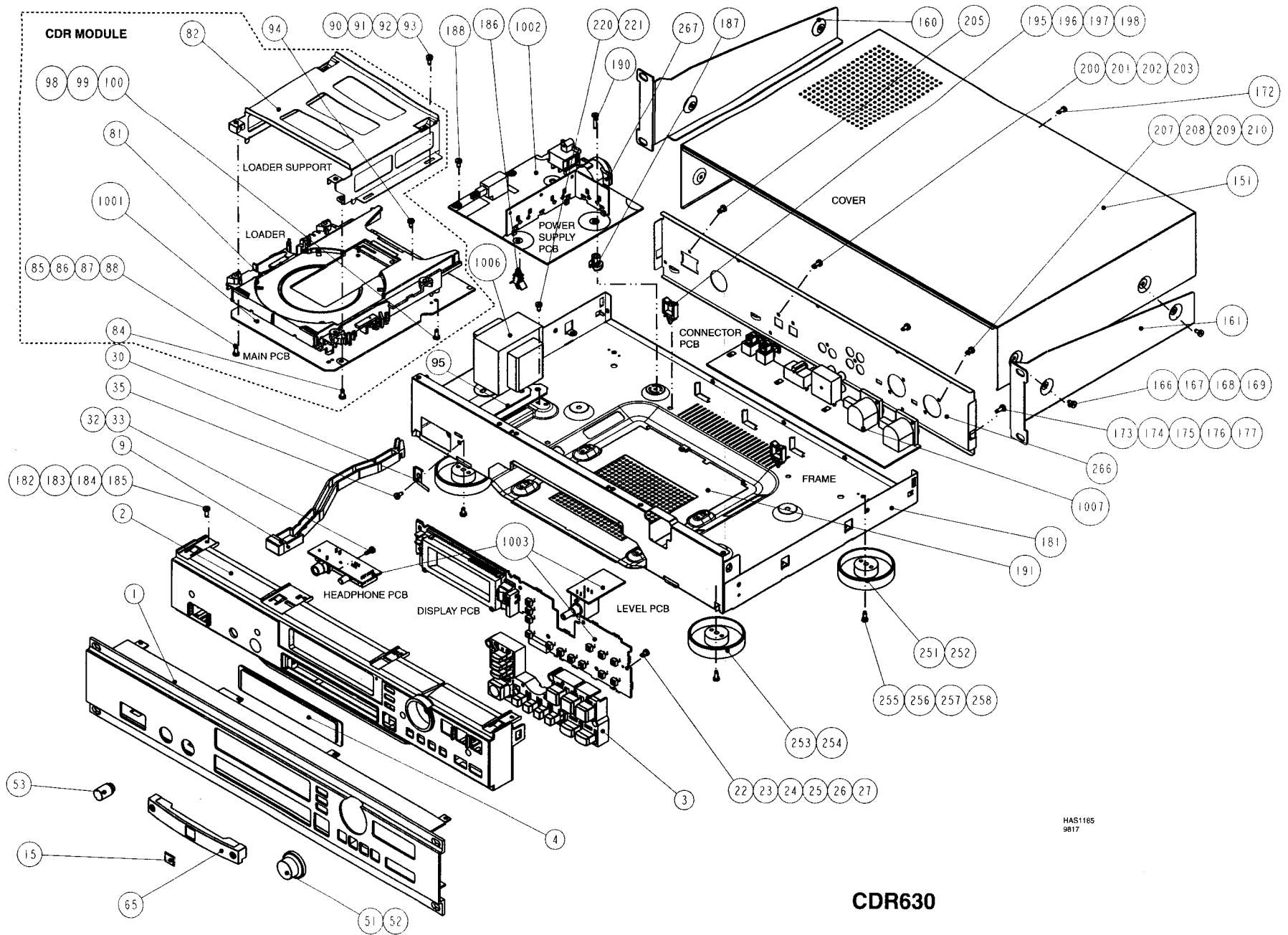
|   |                |
|---|----------------|
| Audio signals disc  | 4822 397 30184 |
| Disc without errors (SBC444)+                               |                |
| Disc with DO errors, black spots and fingerprints (SBC444A) | 4822 397 30245 |
| Disc (65 min 1kHz) without no pause                         | 4822 397 30155 |
| Max. diameter disc (58.0 mm)                                | 4822 397 60141 |
| Torx screwdrivers   |                |
| Set (straight)  | 4822 395 50145 |
| Set (square)  | 4822 395 50132 |
| 13th order filter   | 4822 395 30204 |
| Hexagon socket screw button (No. 1.5)                       |                |



**DISMANTLING INSTRUCTIONS CDR630**

See exploded view for item numbers



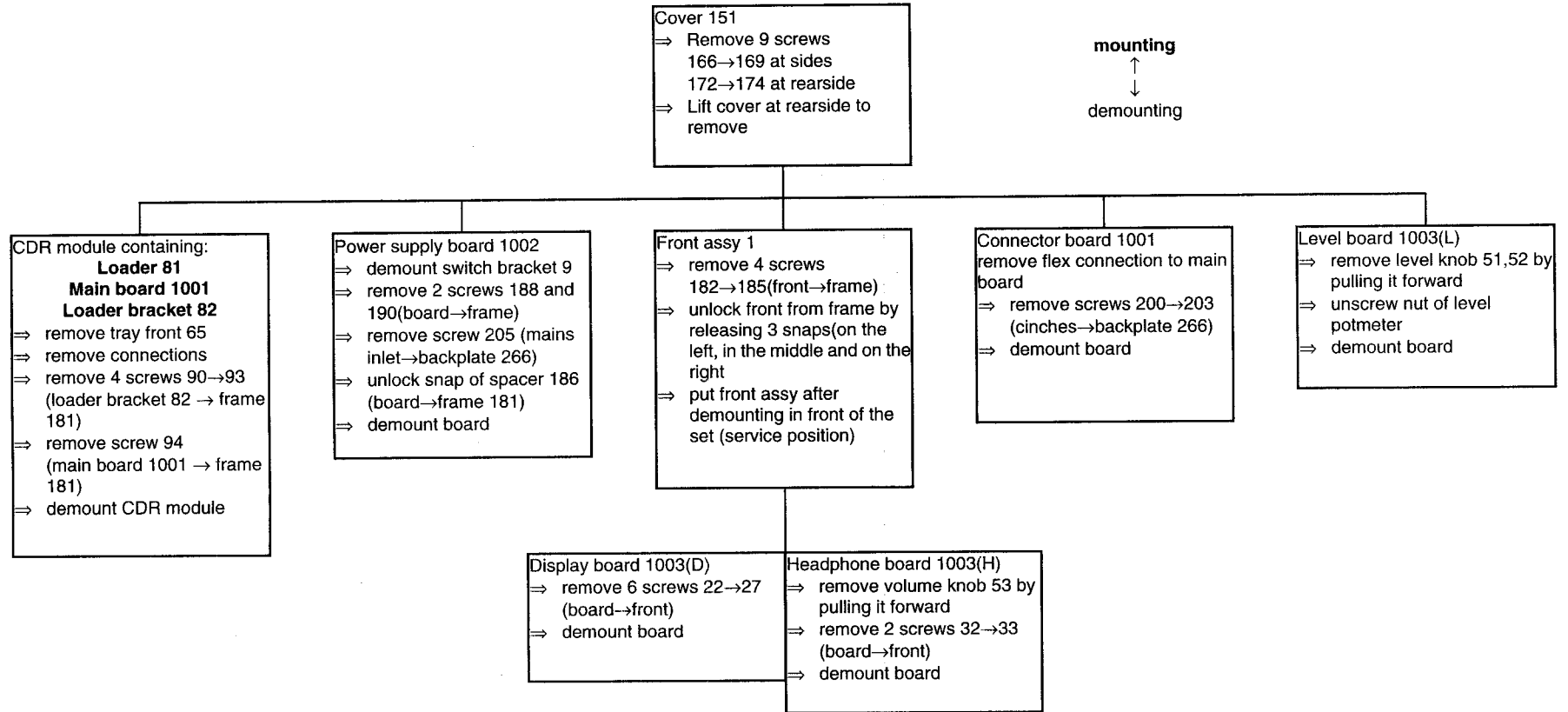


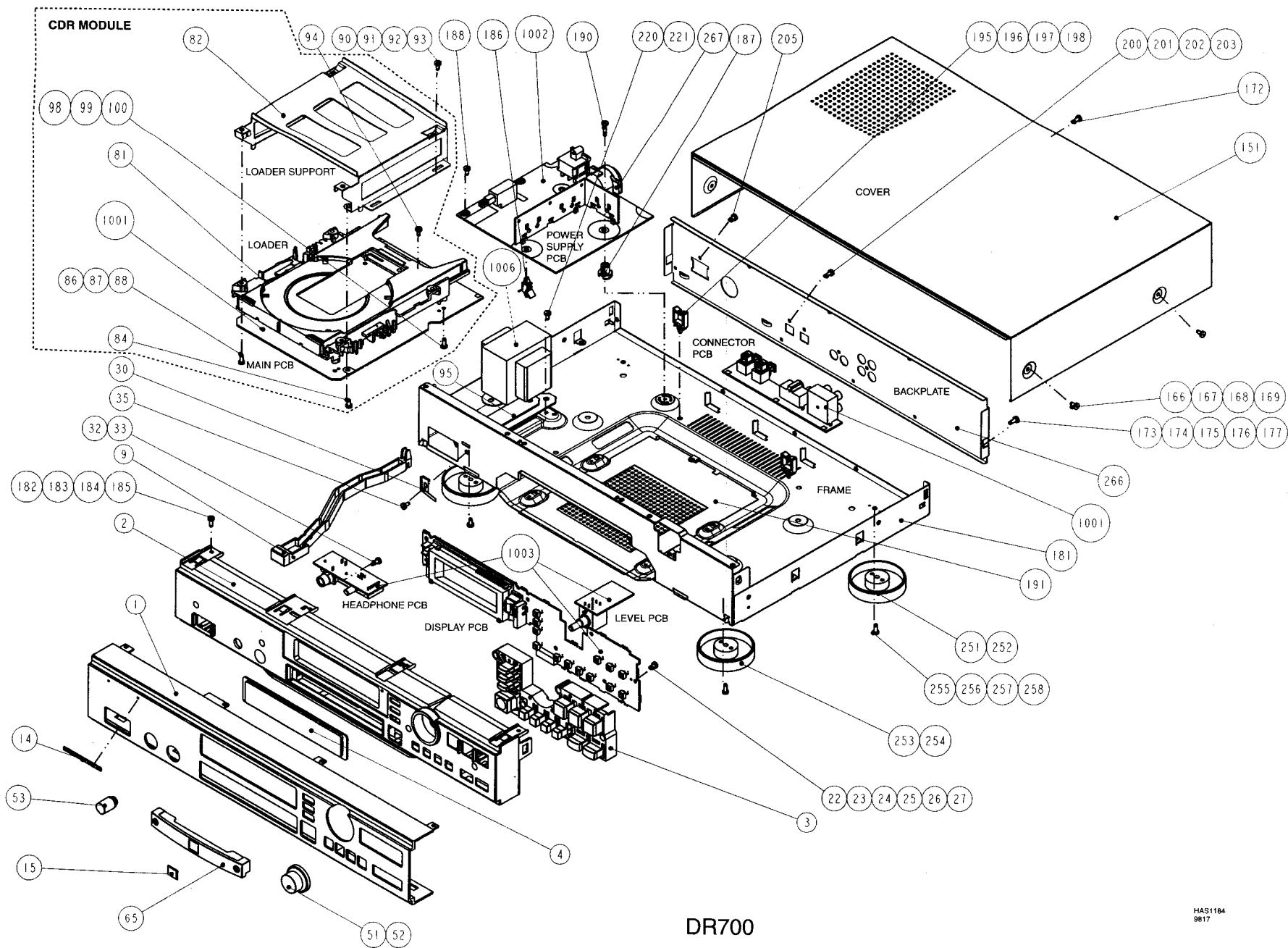
HAS1185  
9817

**CDR630**

# DISMANTLING INSTRUCTIONS DR700

See exploded view for item numbers

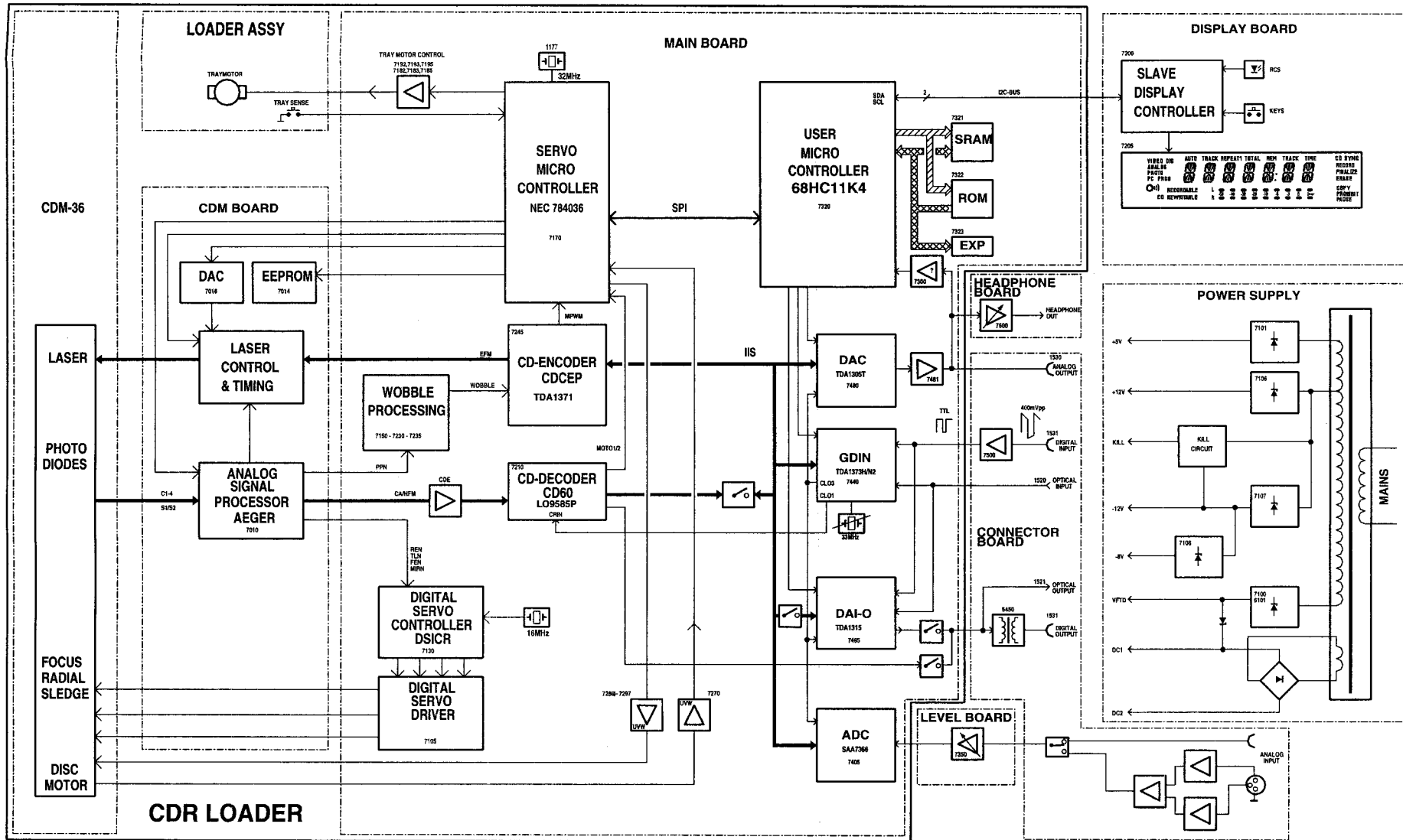




DR700

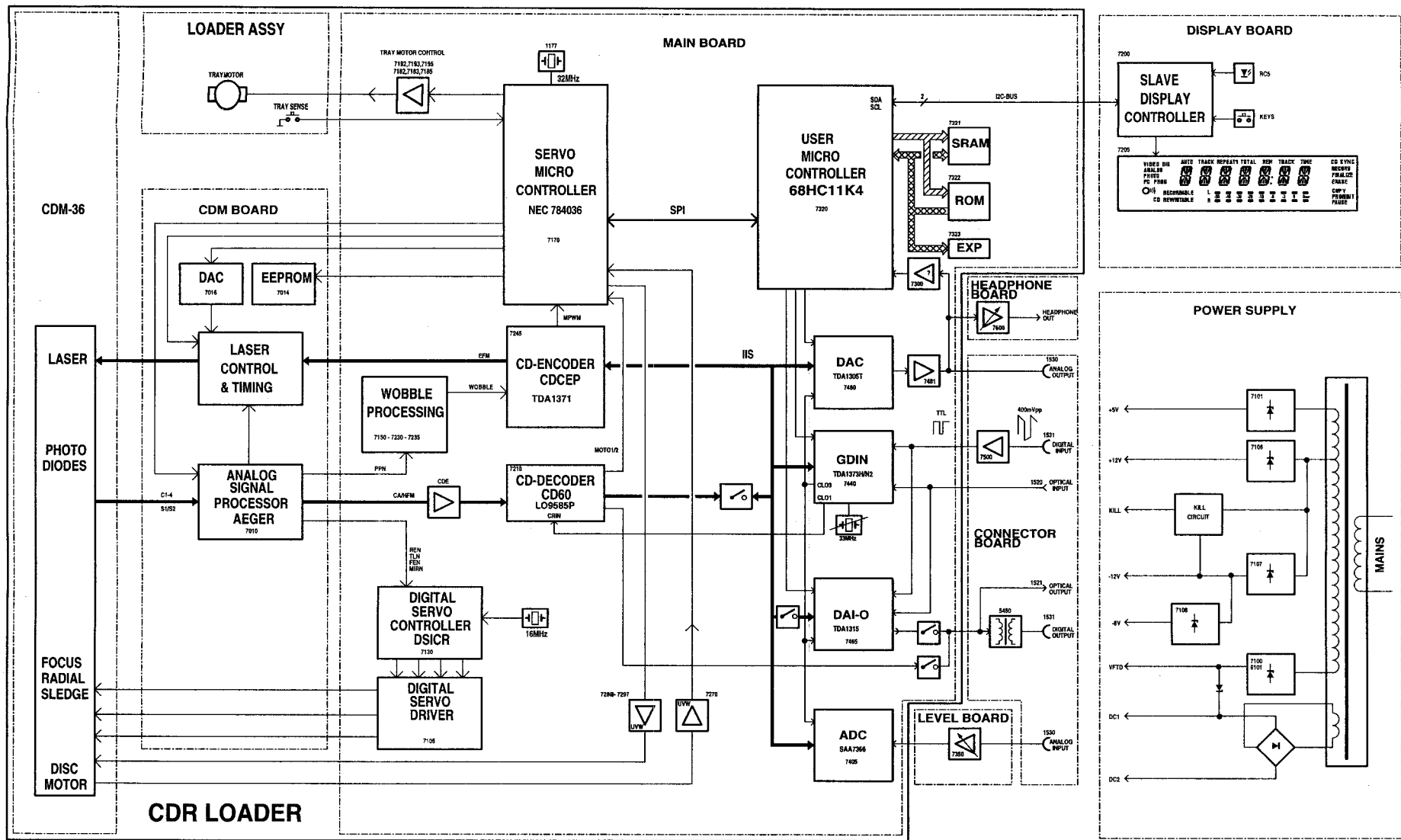
HAS1184  
9817

1.5 BLOCK DIAGRAM



CDR630

74CDR630  
80016



DR700

12DR700 8616

## 1.6 SIGNAL NAMES AND ABBREVIATIONS

| SIGNAL NAME | SIGNAL FLOW                                     | FUNCTION AND DESCRIPTION  |
|-------------|---|---|
| +12Va       |   | Single power supply +12V for op-amps 7150, 7235                           |
| +12Vb       |   | Power supply +12V for op-amps   |
| +4V         |   | Power supply +4V for servo microcontroller                                |
| +5Va        |   | Analog power supply +5V   |
| +5Vb        |   | Digital power supply +5V  |
| +5VDS       |   | Power supply +5V for Connector Part                                       |
| +5VM        |   | Power supply turntable motor control circuit                              |
| +VP         |   | Power supply User processor & memories                                    |
| -12Vb       |   | Power supply -12V for op-amps   |
| -8V         |   | Power supply -8V  |
| A1A         | IC7170→CONN.1101                                | Calculation $\beta$ and HF0<br>Positive peak detector between CA and CALF |
| A2A         | IC7170→CONN.1101                                | Beta = $(A1-A2)/(A1+A2)$<br>Negative peak detector between CA and CALF    |
| ACK         | IC7320↔R3904(IC7170)<br>IC7320↔CONN.1300        | Acknowledge serial communication user microprocessor                      |
| AD[0:17]    | IC7320→IC7321<br>IC7320→IC7322                  | Address bus   |
| ADC         |   | Analog/Digital Converter  |
| ATSB        | IC7323→IC7480                                   | Attenuation 12 dB of DAC(active low) during search                        |
| BS          | IC7320→IC7440                                   | Block synchronisation   |
| CA          | CONN.1101→R3299                                 | Central Aperture(C1+C2+C3+C4)DC →for Mod. calculation                     |
| CALF        | IC7170→CONN.1101                                | CA low frequency  |
| CD60        |   | Decoder   |
| CDAICL      | IC7320→IC7465<br>IC7320→CONN.1302               | DAI-O interface clock   |
| CDAIDA      | IC7320↔IC7465<br>IC7320↔CONN.1302               | DAI-O interface data  |
| CDAILD      | IC7320→IC7465<br>IC7320→CONN.1302               | DAI-O interface mode  |
| CDCEP       |   | CD-Circ Efm Encoder Plus  |
| CDE         | IC7170→R3255                                    | CD erase  |
| CE_INT      | IC7170←IC7245                                   | CDCEP interrupt   |
| CFLG        | IC7210→CONN.1250                                | Correction flag output(CD60)  |
| CLCE        | IC7170→IC7245                                   | $\mu$ P clock output encoder(CD60)  |
| CLDE        | IC7170→IC7210                                   | $\mu$ P clock output decoder(CD60)  |
| CLDS        | IC7170→IC7130                                   | $\mu$ P clock output DSICR  |
| CLKQ        | IC7245→IC7240<br>IC7245→IC7241                  | PLL clock output from encoder   |
| CLKQD       | IC7241→IC7240                                   | CLKQ divided by 2   |
| CLO3        | IC7440→IC7405<br>IC7440→IC7465<br>IC7440→IC7480 | GDIN clock3 out: system clock for ADC, DAC and DAI-O                      |
| CLWP        | IC7170→IC7245                                   | $\mu$ P clock Atip information CDCEP                                      |
| COMCLK      | IC7320↔R3165(IC7170)<br>IC7320↔CONN.1300        | Communication clock for data transfer from user microprocessor            |
| COMSYNC     | IC7320↔IC7170<br>IC7320↔CONN.1300               | Communication synchronisation from user microprocessor                    |
| CRIN        | IC7440→IC7210                                   | GDIN clock1 out: system clock for decoder CD60                            |
| CSEXP       | IC7320→IC7323                                   | Chip Select Expander  |

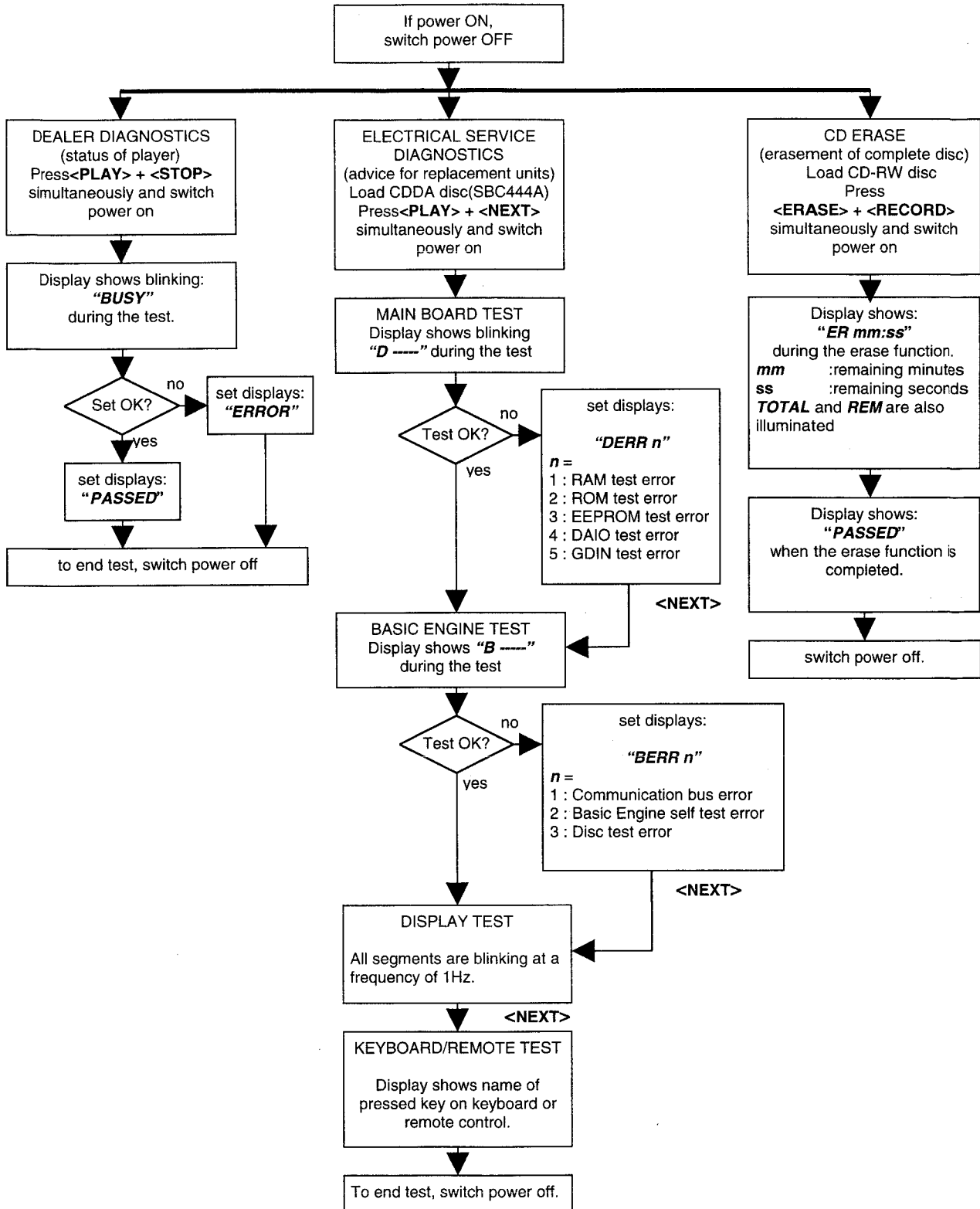
|              |   |   |
|--------------|---|---|
| CSRAM        | IC7320→IC7321                                   | Chip Select RAM   |
| CSROM        | IC7320→IC7322                                   | Chip Select ROM   |
| D[0:7]       | IC7320↔IC7322<br>IC7320↔IC7323<br>IC7320↔IC7324 | Data bus  |
| DAC          |   | Digital/Analog Converter  |
| DACE         | IC7170→IC7245                                   | μP data I/O CPCEP   |
| DACL         | IC7170→CONN.1102                                | DAC clock   |
| DADE         | IC7170→IC7210                                   | uP data CDLIP   |
| DADI         | IC7170→CONN.1102                                | DAC data in (CDM)   |
| DADS         | IC7170→IC7130                                   | μP data I/O DSICR   |
| DAI-O        |   | Digital Audio Input/Output  |
| DAIO_REC     | IC7325→IC7403                                   | high during recording from digital in source, low to prevent conflict in IIS bus during playback and analog recording |
| DAIN         | IC7245↔IC7480<br>IC7245↔IC7403<br>IC7245↔IC7440 | Data signal(CDCEP)  |
| DALD         | IC7170→CONN.1102                                | DAC load(CDM)   |
| DAOUT        | R3217(IC7210)→IC7403                            | I <sup>2</sup> S data output(CD60)  |
| DAWP         | IC7170→IC7245                                   | μP data Atip information(CDCEP)   |
| DC1          |   | Filament voltage for display  |
| DC2          |   | Filament voltage for display  |
| DEEM1        | IC7323→IC7480                                   | Deemphasis active(44.1 kHz sample rate)   |
| DIGIN        | CONN.1400→IC7440<br>CONN.1400→C2465             | Digital input   |
| DIGOUT       | IC7465→CONN.1400                                | Digital output  |
| DSICR        |   | Digital Servo IC Recordable   |
| E            | IC7320→IC7324                                   | E-clock microcontroller   |
| EECL         | IC7170→CONN.1102                                | EEPROM clock  |
| EEDA         | IC7170↔CONN.1102                                | EEPROM data   |
| EFM          | IC7245→IC7205                                   | Eight to Fourteen Modulation<br>CDCEP output for monitoring (reduced voltage from CD60 to MONON)                      |
| EFMCLK       | IC7245→CONN.1102                                | EFM clock 4.3218 or 8.6436 MHz  |
| EFMM         | IC7245→CONN.1102                                | EFM N-1   |
| FEN          | CONN.1101→IC7130                                | Focus Error Normalized = (C1 + C3 - C2 - C4)/(C1 + C2 + C3 + C4)  |
| FEOfS        | IC7170→R3133                                    | Focus Error OFF Switch  |
| FOC+         | IC7105→CONN.1101                                | Focus actuator positive connection  |
| FOC-         | IC7105→CONN.1101                                | Focus actuator negative connection  |
| FS           | CONN.1102→R3152                                 | FS = FS0 - DALFA( write power to laser control)   |
| FSM          | CONN.1102→D6155                                 | Focused sense monitor   |
| GDIN         |   | General Digital INput   |
| GDINCL       | IC7320→IC7440<br>IC7320→CONN.1304               | GDIN interface clock  |
| GDINDA       | IC7320↔IC7440<br>IC7320↔CONN.1304               | GDIN interface data   |
| GDINLD       | IC7320→IC7440<br>IC7320→CONN.1304               | GDIN interface mode   |
| HALL_U, V, W | IC7170→IC7270<br>IC7170→IC7280                  | Hall element U, V, W of motor   |
| HMSW         | CONN.1101→IC7170                                | Home Switch   |



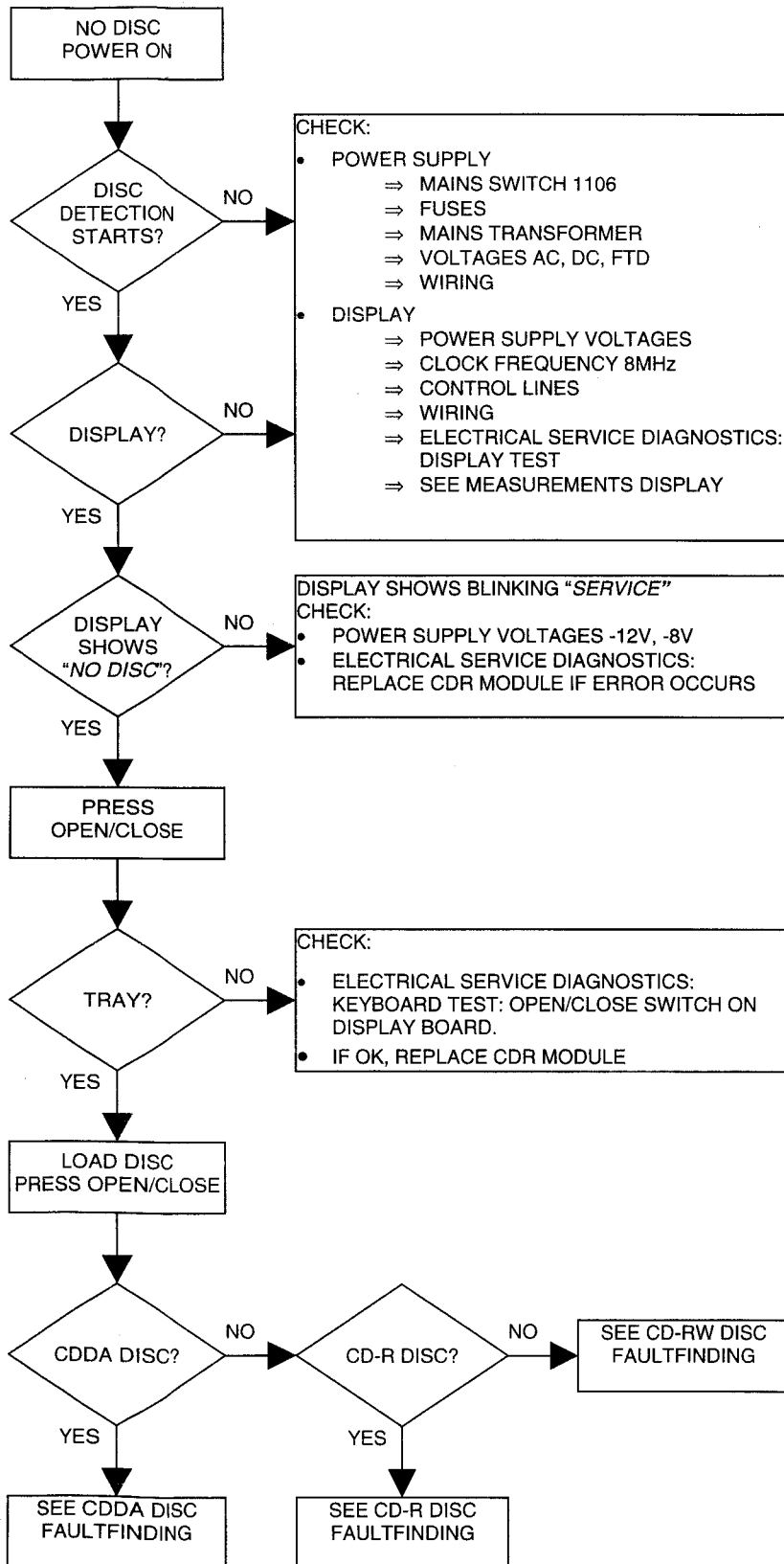
|          |  |   |
|----------|--|---|
| IISCLK   | IC7460→IC7405<br>IC7460→IC7480<br>IC7460→IC7465<br>IC7460→IC7440 | I <sup>2</sup> S-BUS clock  |
| IISDIR   | IC7323→IC7403  | I <sup>2</sup> S-BUS direction, high during playback  |
| IISWS    | R3219(IC7210)→IC7403   | I <sup>2</sup> S-BUS word select  |
| KILL     | CONN1430→CONN1420<br>CONN1430→D6400                              | Kill signal to mute analog output signal  |
| LDCE     | IC7170←IC7245  | μP load input(from CDCEP)   |
| LDDE     | IC7170→IC7210  | μP load output decoder  |
| LDDS     | IC7170→IC7130  | μP load output DSICR  |
| LDON     | IC7130→CONN.1102<br>IC7105→CONN.1102                             | Laser Diode ON(on read)   |
| LEFTOUT  | C2497→CONN.1400<br>C2497→CONN.1420<br>C2497→C2300                | Analog left output  |
| LWRT     | IC7245→CONN.1102   | Laser at writing power  |
| MIRN     | CONN.1101→IC7130   | Mirror normalized   |
| MISO     | IC7320↔R3168(IC7170)<br>IC7320↔CONN.1300                         | Master in, Slave out: data from Basic Engine to USER.                                       |
| MONON    | IC7170→IC7205  | Monitoring EFM from CDCEP to CD60   |
| MOSI     | IC7320↔R3903(IC7170)<br>IC7320↔CONN.1300                         | Master out, Slave in : data from USER to Basic Engine                                       |
| MOTO1    | IC7210→IC7170  | Control signal for motor  |
| MPWM     | IC7170→IC7245  | Motor Pulse Width Modulation  |
| N2       | IC7170→IC7240<br>IC7170→IC7205                                   | N = high(double speed)  |
| N4       | IC7170→IC7205  | N = high(fourfold speed)  |
| NCLOSE   | IC7170→R3196   | Tray close  |
| NIRQ     | IC7170→IC7245  | Interrupt request wobble processing(CDCEP)  |
| NMUTE    | IC7320→IC7480<br>IC7320→R3496, 3497                              | Mute signal (active low)  |
| NOPEN    | IC7170→R3181   | Tray open   |
| NRSMP    | IC7245→CONN.1102   | None read sample  |
| OPTIN    | CONN.1400→IC7440<br>CONN.1400→IC7465                             | Optical input   |
| OTD      | IC7130→IC7170  | Off track detection DISCR   |
| OVL      | IC7405→IC7320  | Overload flag input   |
| PLAY/REC | IC7325→IC7407  | high during recording (digital out from DAIO), low during playback (digital out from CD60). |
| PP       | CONN.1101→C2231  | XB or PPN(read or write)  |
| PWM      | IC7170→R3268   | Pulse width modulation  |
| R/W      | IC7320→IC7324  | μP read/write signal  |
| RAD+     | IC7105→CONN.1101   | Radial actuator positive connection   |
| RAD-     | IC7105→CONN.1101   | Radial actuator negative connection   |
| RADINT   | IC7170→R3111   | Radial actuator integrator voltage.   |
| REN      | CONN.1101  | Radial Error Normalized   |

|             |   |   |
|-------------|---|---|
| RENSW       | IC7170→R3124  | Radial Error Normalized switch  |
| RESEN       | IC7170→IC7245<br>IC7170→IC7130                                    | Reset encoder(CDCEP) and digital servo(DSICR)                             |
| RESET       | IC7170→IC7210   | Reset decoder CD60  |
| RIGHTOUT    | C2498→CONN.1400<br>C2498→CONN.1420<br>C2498→C2303                 | Analog right output   |
| RSTIN       | IC7320→IC7325   | Reset microcontroller( from user $\mu$ P)                                 |
| RSTHA       | IC7325→IC7465   | Reset high active, reset for DAIO   |
| RSTLA       | IC7325→IC7440<br>IC7325→R3908<br>IC7325→D6130<br>IC7325→CONN.1330 | Reset low active, reset for GDIN, servo $\mu$ P, DSD3, DSICR and display. |
| RXD         | IC7320↔IC7325   | Receive data of serial interface  |
| SCL         | IC7320↔CONN.1303<br>IC7320↔L5300                                  | I <sup>2</sup> C-bus clock for communication                              |
| SDA         | IC7320↔CONN.1303<br>IC7320↔L5300                                  | I <sup>2</sup> C-bus data to display driver                               |
| SDAUX       | IC7405→IC7440   | Analog to digital converted data from ADC to DAI-O                        |
| SL+         | IC7105→CONN.1101  | Sledge motor positive connection  |
| SL-         | IC7105→CONN.1101  | Sledge motor negative connection  |
| STROBE      | IC7320→IC7465<br>IC7320→CONN.1302                                 | Control signal for DAI-O : data strobe                                    |
| SWRT        | IC7245→CONN.1102  | Start Write 9ms(one shot at start up LWRT)                                |
| SYSSYNC     | IC7170→CONN.1135  | System synchronization  |
| TLN         | CONN.1101→IC7130  | Track Loss Normalized   |
| TRS1N       | IC7170→CONN.1103  | Tray sense  |
| TXD         | IC7320↔IC7325   | Transmit data serial interface  |
| UDAVAIL     | IC7320→IC7465   | User-data available   |
| UNLOCK      | IC7465→IC7320   | Not locked on incoming EBU-signal   |
| UNLOCK_GDIN | IC7323→R3435  | Unlock signal to GDIN   |
| V4          | IC7210→CONN.1250  | Versatile pin 4   |
| VFTD        |   | Power supply for display  |
| WCLK        | IC7210→IC7245   | Word clock  |

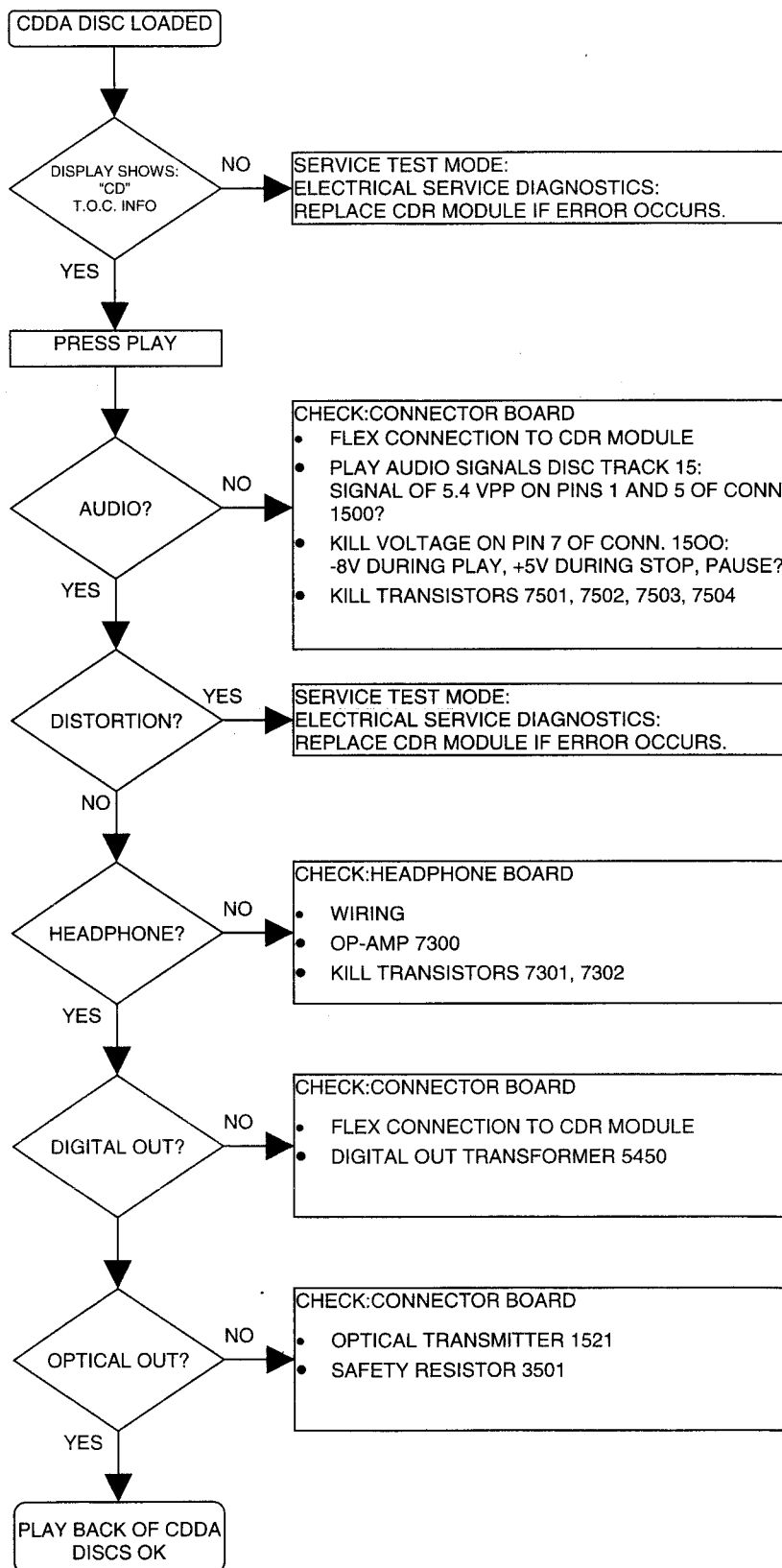
# 1.7 SERVICE TEST PROGRAM



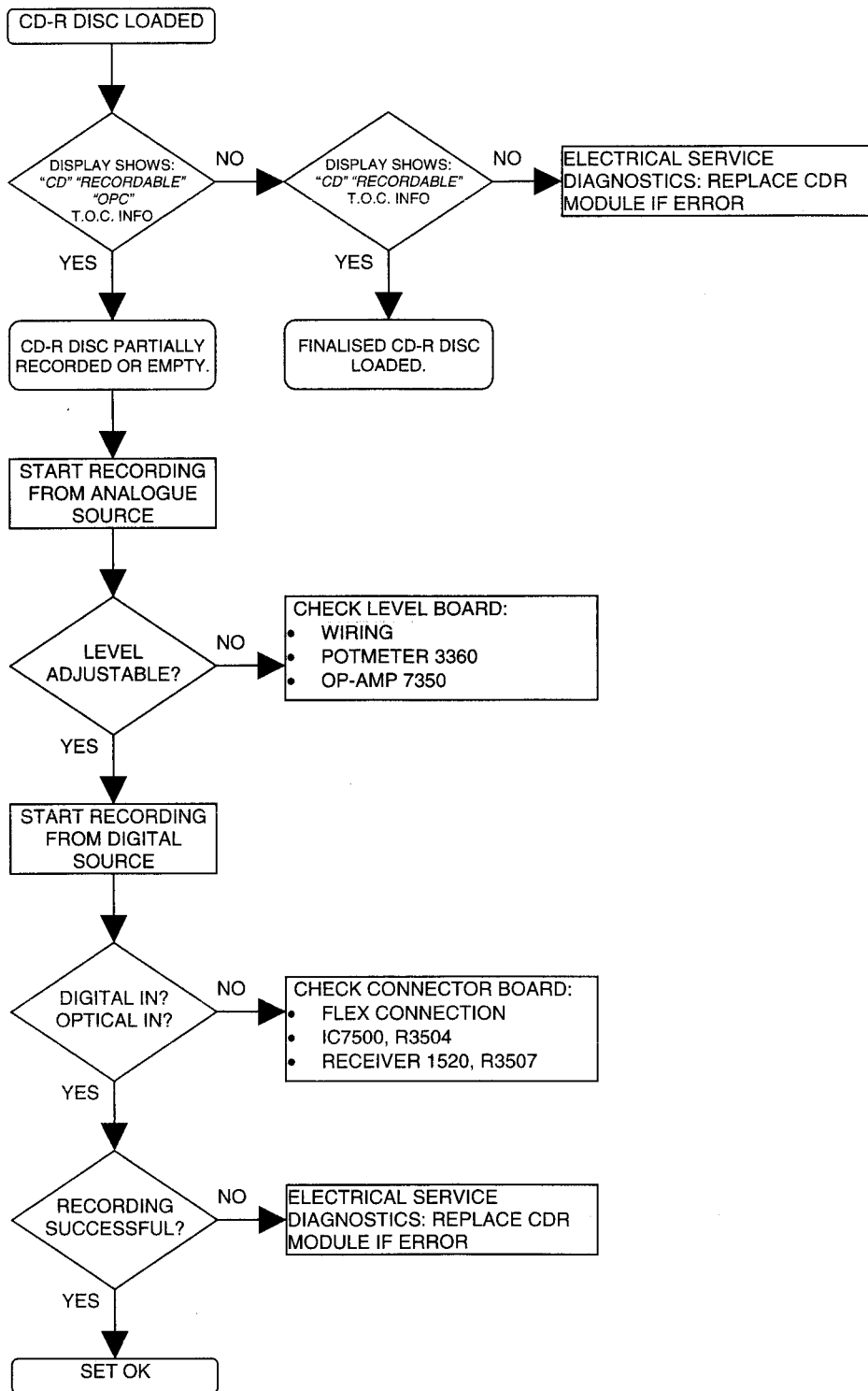
## 1.8 FAULTFINDING GUIDE



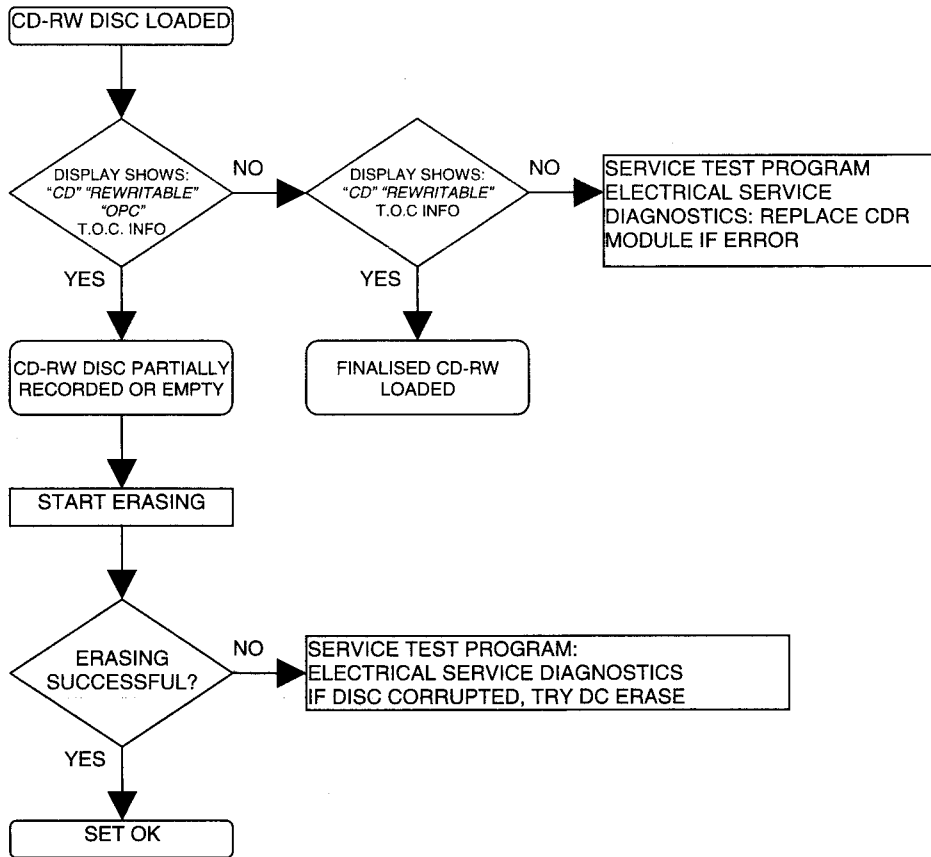
# CDDA DISC FAULTFINDING GUIDE



# CD-R DISC FAULTFINDING



# CD-RW DISC FAULTFINDING



## MEASUREMENTS DISPLAY PANEL

### 1. Measurement of voltage supplies.

Several voltages arrive at the display PCB.  
Measurements and limits.

| Voltage  | Nominal value | Limits |
|----------|---------------|--------|
| VFTD     | -26V          | ±5%    |
| VDC1-DC2 | 3.5V          | ±10%   |
| Vb       | 5V            | ±5%    |

### 2. Measurement of oscillator.

As clock driver for the display controller a resonator of 8MHz is used.  
The clock frequency is available at pin 8 of the display controller.  
Check the frequency of 8MHz±5%.

### 3. Checking the control lines.

There are several lines which are inputs to the display controller and others which are outputs, these lines have to be checked to guarantee basic functionality.

#### **RESETN:**

This line should be kept low during power up for at least 3 machine cycles, with supply voltage within the operating range and oscillation stable. 1 machine cycle =  $12 \times 1/F_c$  (8MHz) Sec.

#### **SDA and SCL:**

The level on these two lines must be checked. When there is no communication they should have the 'High' level.

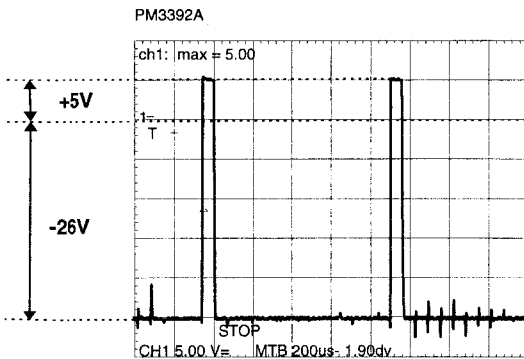
#### **INTERRUPT:**

The interrupt line is an output for the display controller. Check if this level is high after reset, no key pressed and no RC5 coming in.

#### **Key matrix lines:**

Check if at I/O port 4 of the controller all pins are high. (No keys pressed). (Pin 26 to 33). If not check respective pull-up resistors.

### 4. Operation of grid and segment control lines.



This figure shows the signal generated by the display processor on one of the grid lines. The level on the grid line changes from -26V to +5V.

The grid lines are scanned successively about every 950  $\mu$ sec.

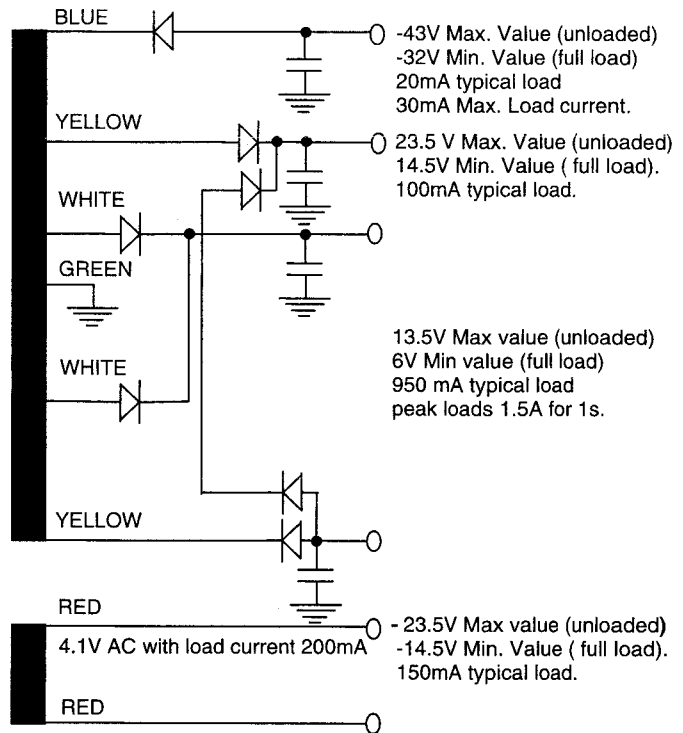
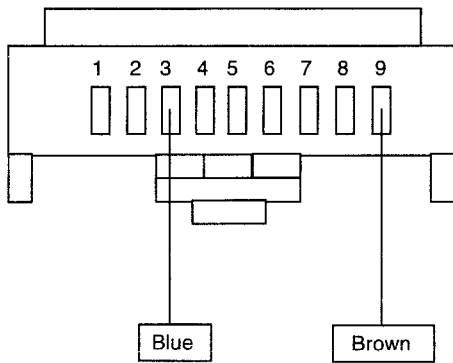


# Description of Mains Transformer

*/02 version(230V), F version(100V) U version(117V)*

Blue  
 230V 50Hz for /02  
 100V 50Hz for F  
 117V 60Hz for U

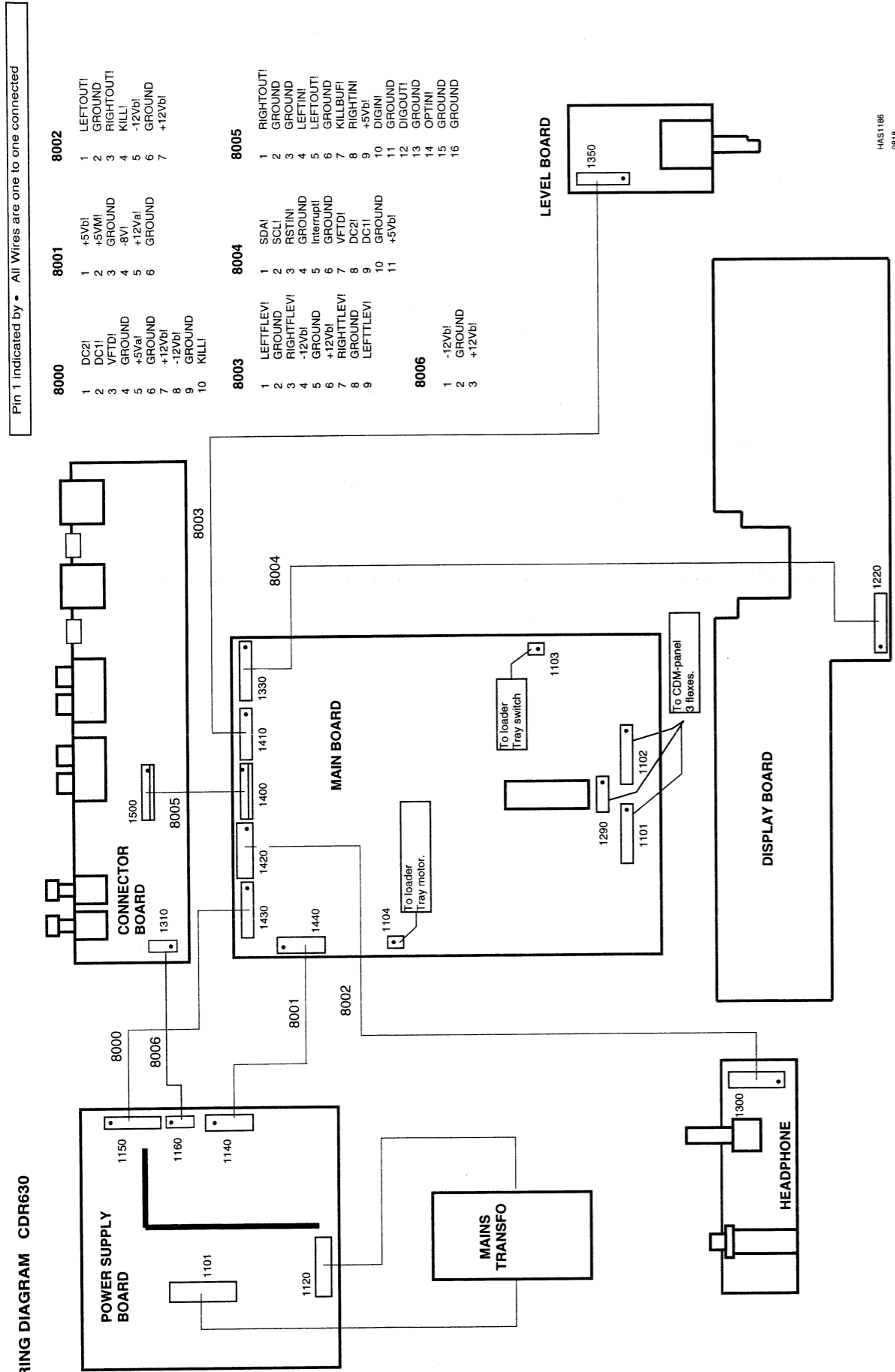
Brown 0V  
 Thermal fuse  
 not serviceable



**Note**

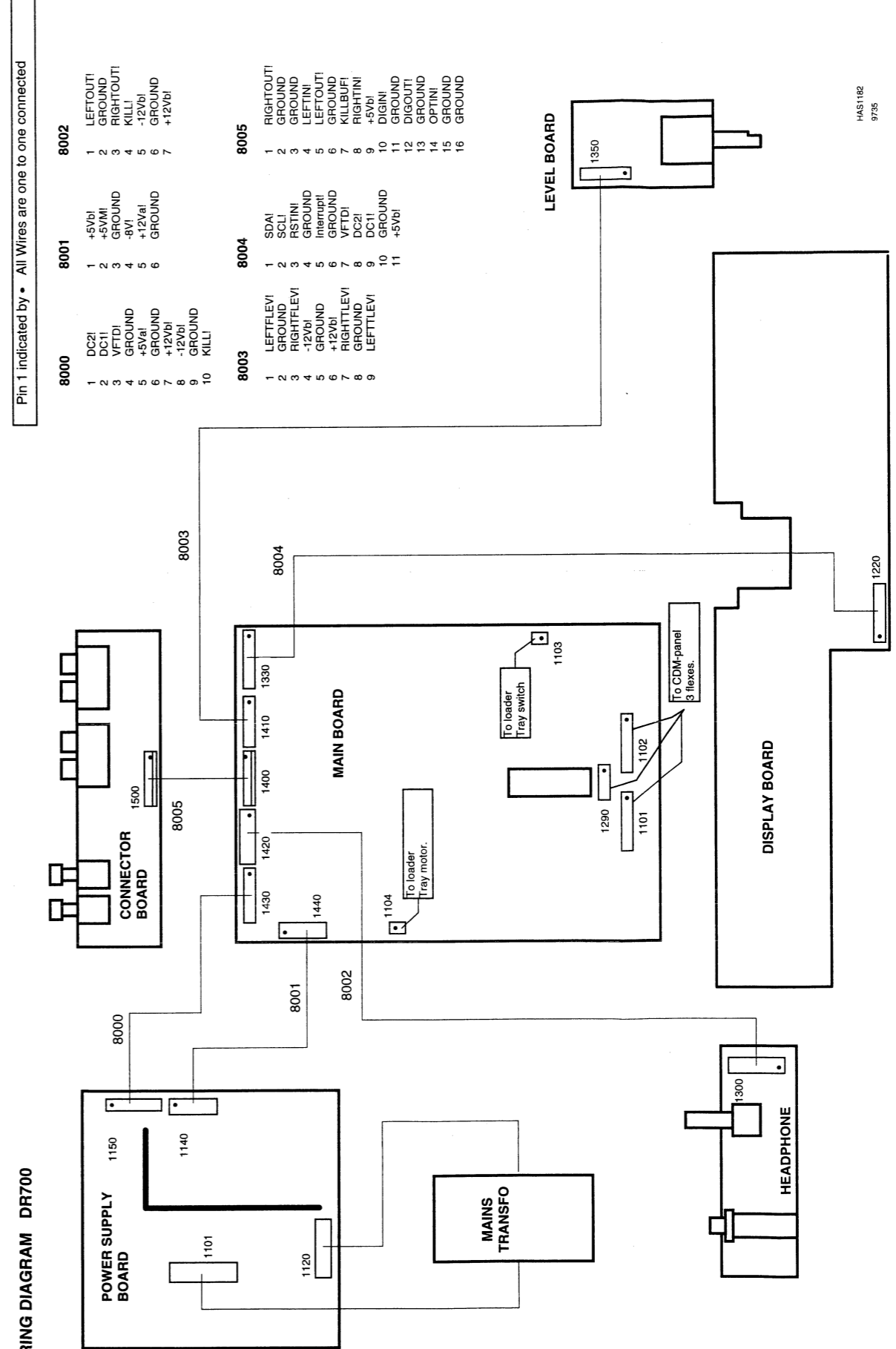
# 1.9 WIRING DIAGRAM

WIRING DIAGRAM CDR630



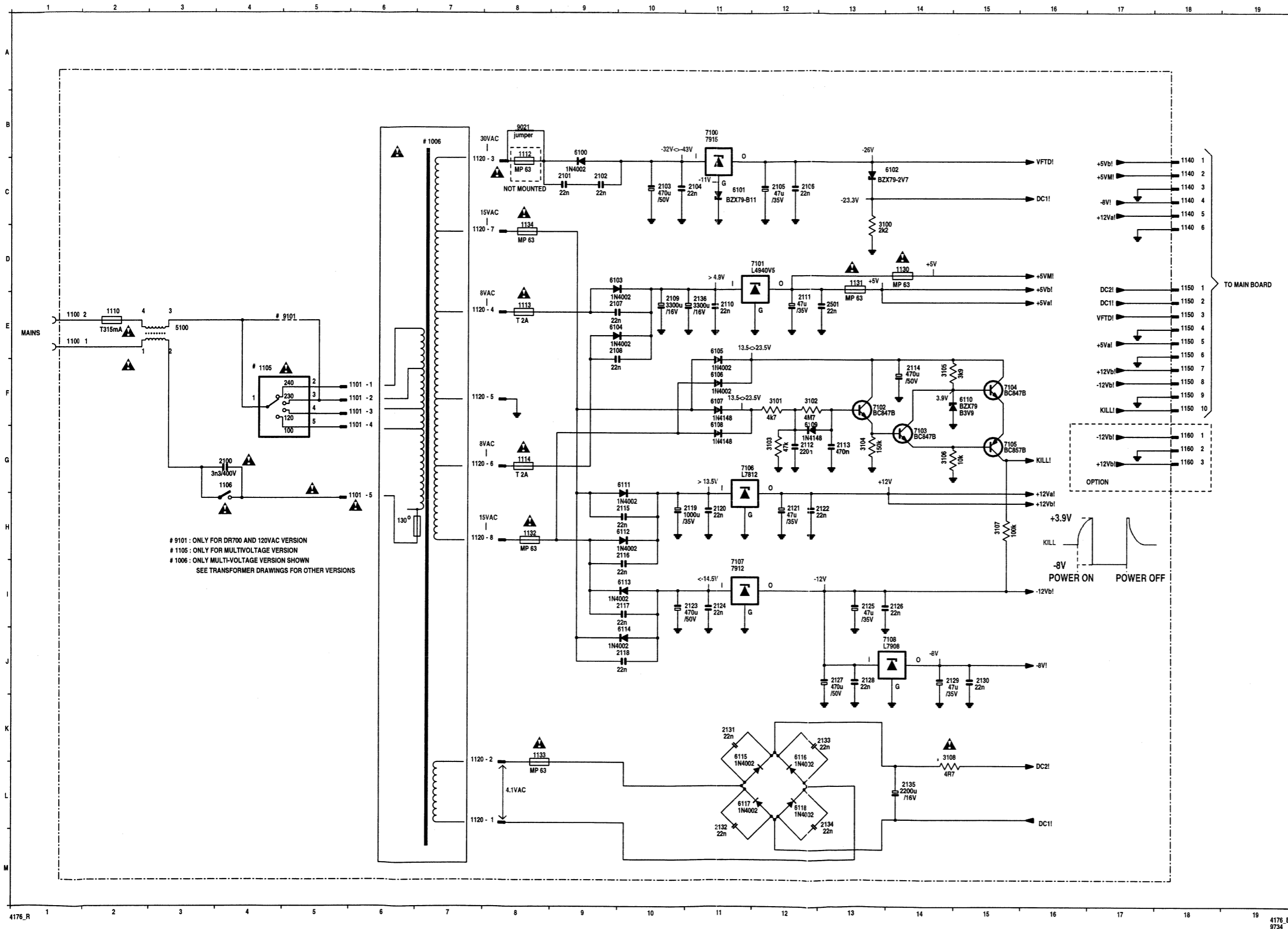
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WIRING DIAGRAM DR700



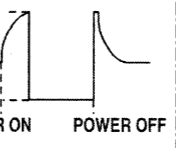
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9735

1.10 SCHEMATIC DIAGRAM AND PARTS LOCATION  
POWER SUPPLY



1100 E 1  
1100 E 1  
1101 F 5  
1101 F 5  
1101 F 5  
1101 F 5  
1101 G 5  
1101 H 5  
1105 F 4  
1106 G 4  
1110 E 2  
1112 B 8  
1113 E 8  
1114 G 8  
1120 L 8  
1120 K 8  
1120 C 8  
1120 D 8  
1120 E 8  
1120 F 8  
1120 G 8  
1120 H 8  
1120 J 4  
1131 D 13  
1132 H 8  
1133 E 8  
1134 D 8  
1140 C 8  
1140 C 8  
1140 C 8  
1140 C 8  
1140 C 8  
1150 D 18  
1150 E 18  
1150 E 18  
1150 E 18  
1150 F 18  
1150 F 18  
1150 F 18  
1150 F 18  
1150 F 18  
1150 F 18  
1150 F 18  
1160 G 18  
1160 G 18  
1160 G 18  
2100 G 4  
2101 C 9  
2102 C 9  
2103 C 10  
2104 C 11  
2105 C 12  
2106 C 12  
2107 E 9  
2108 E 9  
2108 E 10  
2110 E 11  
2111 E 12  
2112 G 12  
2113 G 13  
2114 F 14  
2114 H 10  
2114 H 10  
2117 H 10  
2118 J 10  
2119 H 11  
2120 H 11  
2121 H 12  
2122 H 13  
2123 H 11  
2124 H 11  
2125 H 13  
2126 H 14  
2127 J 13  
2128 J 13  
2129 J 15  
2130 J 15  
2131 K 11  
2132 L 11  
2133 K 13  
2134 L 13  
2135 L 14  
2138 E 11  
2501 E 13  
3100 D 14  
3101 F 12  
3102 F 12  
3103 G 12  
3104 G 13  
3105 F 14  
3106 G 14  
3107 H 15  
3108 K 14  
5100 E 3  
6100 B 9  
6101 C 11  
6102 C 14  
6103 D 9  
6104 E 9  
6105 E 11  
6106 F 11  
6107 F 11  
6108 F 11  
6109 F 12  
6110 F 15  
6111 G 10  
6112 H 10  
6113 H 10  
6114 H 10  
6115 K 11  
6116 K 12  
6117 L 11  
6118 L 12  
7100 B 11  
7101 D 11  
7102 F 13  
7103 G 14  
7104 F 15  
7105 G 15  
7106 G 11  
7107 H 11  
7108 J 13  
9021 B 8  
9101 E 5

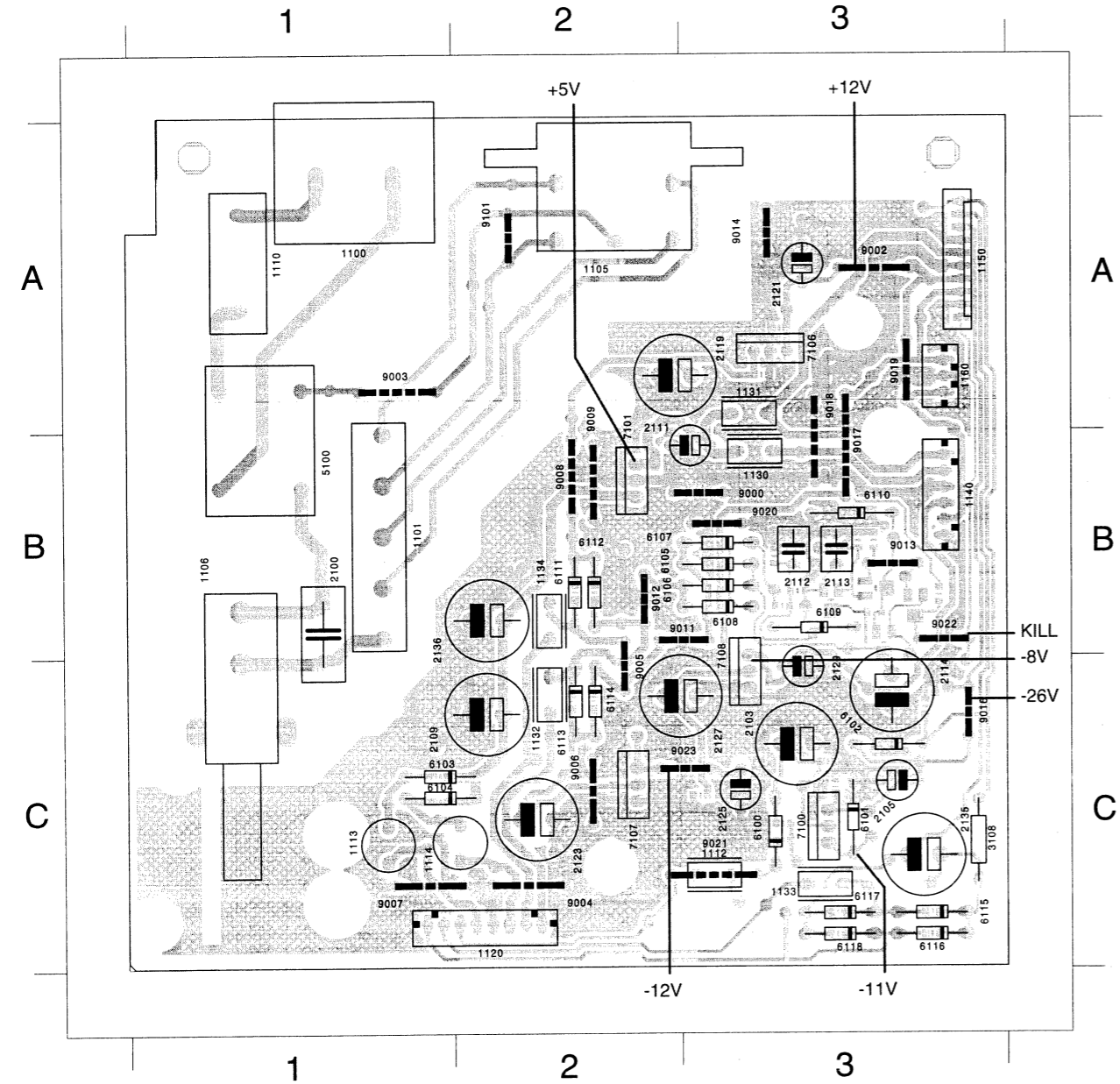
# 9101 : ONLY FOR DR700 AND 120VAC VERSION  
# 1106 : ONLY FOR MULTIVOLTAGE VERSION  
# 1006 : ONLY MULTI-VOLTAGE VERSION SHOWN  
SEE TRANSFORMER DRAWINGS FOR OTHER VERSIONS



**POWER SUPPLY BOARD**

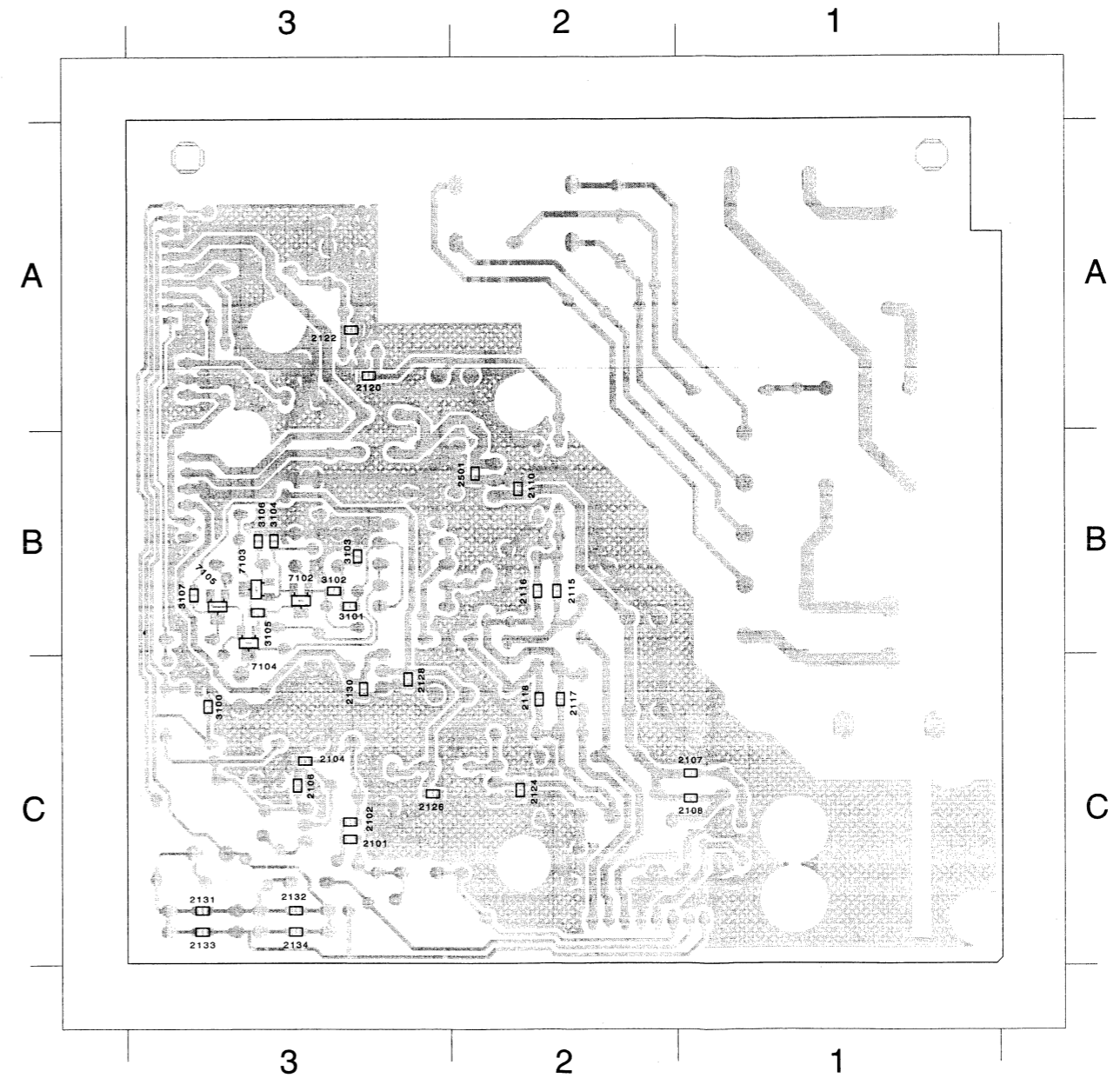
**COMPONENT SIDE**

|          |          |          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 1100 A 1 | 1114 C 2 | 1140 B 3 | 2111 B 3 | 2125 C 3 | 6100 C 3 | 6107 B 3 | 6114 C 2 | 7106 A 3 | 9005 C 2 | 9013 B 3 | 9021 C 3 |
| 1101 B 1 | 1120 C 2 | 1150 A 3 | 2112 B 3 | 2127 C 2 | 6101 C 3 | 6108 B 3 | 6115 C 3 | 7107 C 2 | 9006 C 2 | 9014 A 3 | 9022 B 3 |
| 1105 A 2 | 1130 B 3 | 1160 A 3 | 2113 B 3 | 2129 C 3 | 6102 C 3 | 6109 B 3 | 6116 C 3 | 7108 C 3 | 9007 C 1 | 9016 C 3 | 9023 C 3 |
| 1106 C 1 | 1131 A 3 | 2100 B 1 | 2114 C 3 | 2135 C 3 | 6103 C 1 | 6110 B 3 | 6117 C 3 | 9000 B 3 | 9008 B 2 | 9017 B 3 | 9101 A 2 |
| 1110 A 1 | 1132 C 2 | 2103 C 3 | 2119 A 2 | 2136 B 2 | 6104 C 1 | 6111 B 2 | 6118 C 3 | 9002 A 3 | 9009 B 2 | 9018 B 3 |          |
| 1112 C 3 | 1133 C 3 | 2105 C 3 | 2121 A 3 | 3108 C 3 | 6105 B 3 | 6112 B 2 | 7100 C 3 | 9003 A 1 | 9011 B 3 | 9019 A 3 |          |
| 1113 C 1 | 1134 B 2 | 2109 C 2 | 2123 C 2 | 5100 B 1 | 6106 B 3 | 6113 C 2 | 7101 B 2 | 9004 C 2 | 9012 B 2 | 9020 B 3 |          |

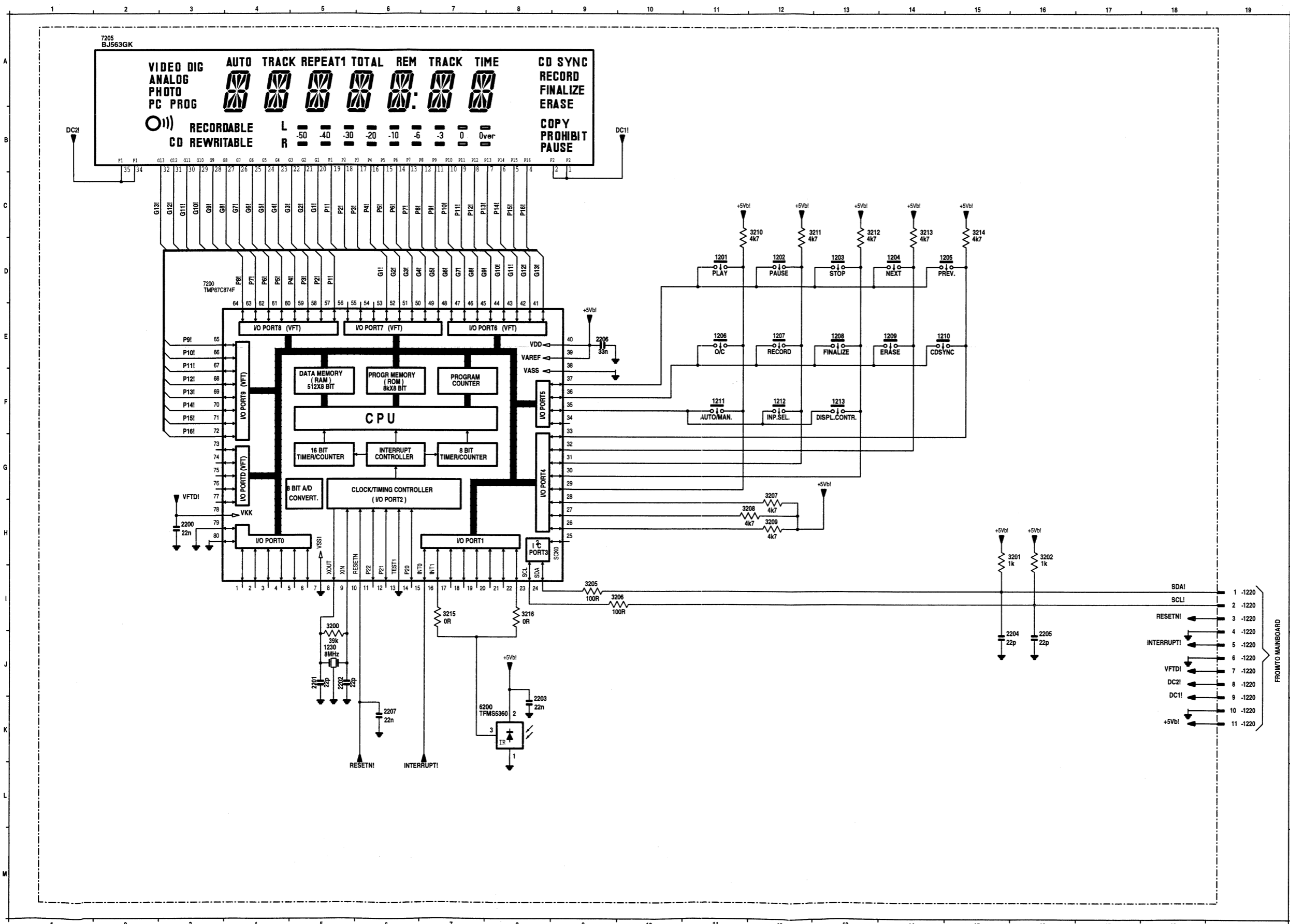


**SOLDER SIDE**

|          |          |          |          |          |          |          |          |          |          |          |          |
|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 2101 C 3 | 2106 C 3 | 2110 B 2 | 2117 C 2 | 2122 A 3 | 2128 C 3 | 2132 C 3 | 2501 B 2 | 3102 B 3 | 3105 B 3 | 7102 B 3 | 7105 B 3 |
| 2102 C 3 | 2107 C 1 | 2115 B 2 | 2118 C 2 | 2124 C 2 | 2130 C 3 | 2133 C 3 | 3100 C 3 | 3103 B 3 | 3106 B 3 | 7103 B 3 |          |
| 2104 C 3 | 2108 C 1 | 2116 B 2 | 2120 A 3 | 2126 C 3 | 2131 C 3 | 2134 C 3 | 3101 B 3 | 3104 B 3 | 3107 B 3 | 7104 B 3 |          |



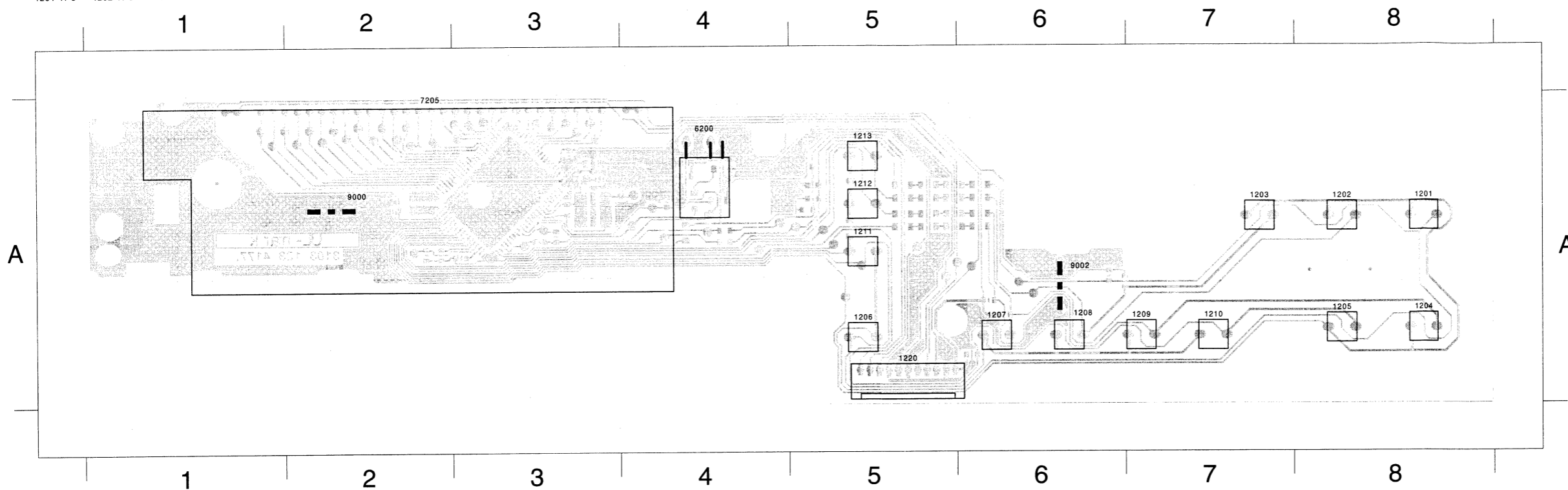
DISPLAY & CONTROL



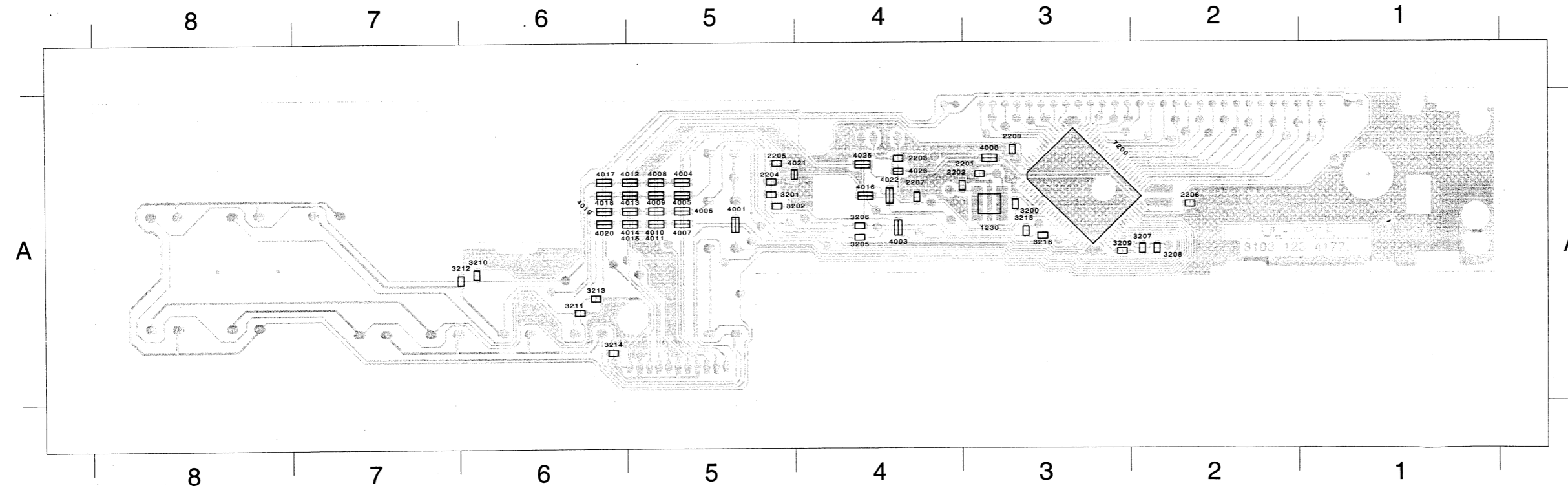
|      |     |
|------|-----|
| 1201 | D11 |
| 1202 | D12 |
| 1203 | D13 |
| 1204 | D14 |
| 1205 | D15 |
| 1206 | E11 |
| 1207 | E12 |
| 1208 | E13 |
| 1209 | E14 |
| 1210 | E14 |
| 1211 | F11 |
| 1212 | F12 |
| 1213 | F13 |
| 1220 | J19 |
| 1220 | J19 |
| 1220 | J19 |
| 1220 | J19 |
| 1220 | J19 |
| 1220 | J19 |
| 1220 | J19 |
| 1220 | J19 |
| 1220 | J19 |
| 1220 | K19 |
| 1220 | K19 |
| 1230 | J5  |
| 2200 | H3  |
| 2201 | J5  |
| 2202 | J5  |
| 2203 | K6  |
| 2204 | J16 |
| 2205 | J16 |
| 2206 | E5  |
| 2207 | K6  |
| 3200 | L5  |
| 3201 | H16 |
| 3202 | H16 |
| 3205 | L9  |
| 3206 | I10 |
| 3207 | G12 |
| 3208 | H12 |
| 3209 | H12 |
| 3210 | C12 |
| 3211 | C13 |
| 3212 | C13 |
| 3213 | C15 |
| 3214 | C15 |
| 3215 | L7  |
| 3216 | L9  |
| 6200 | K7  |
| 7200 | D3  |
| 7205 | A2  |

DISPLAY BOARD

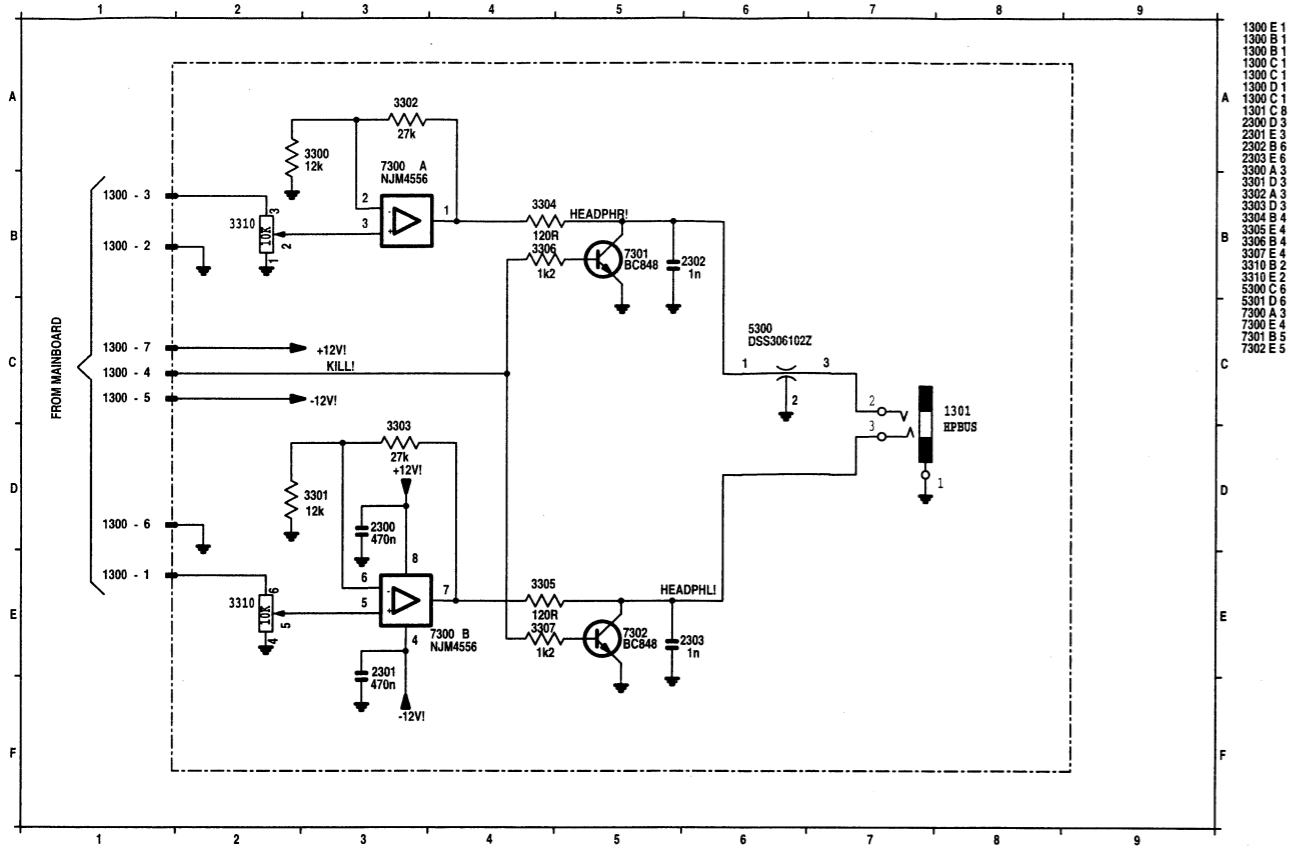
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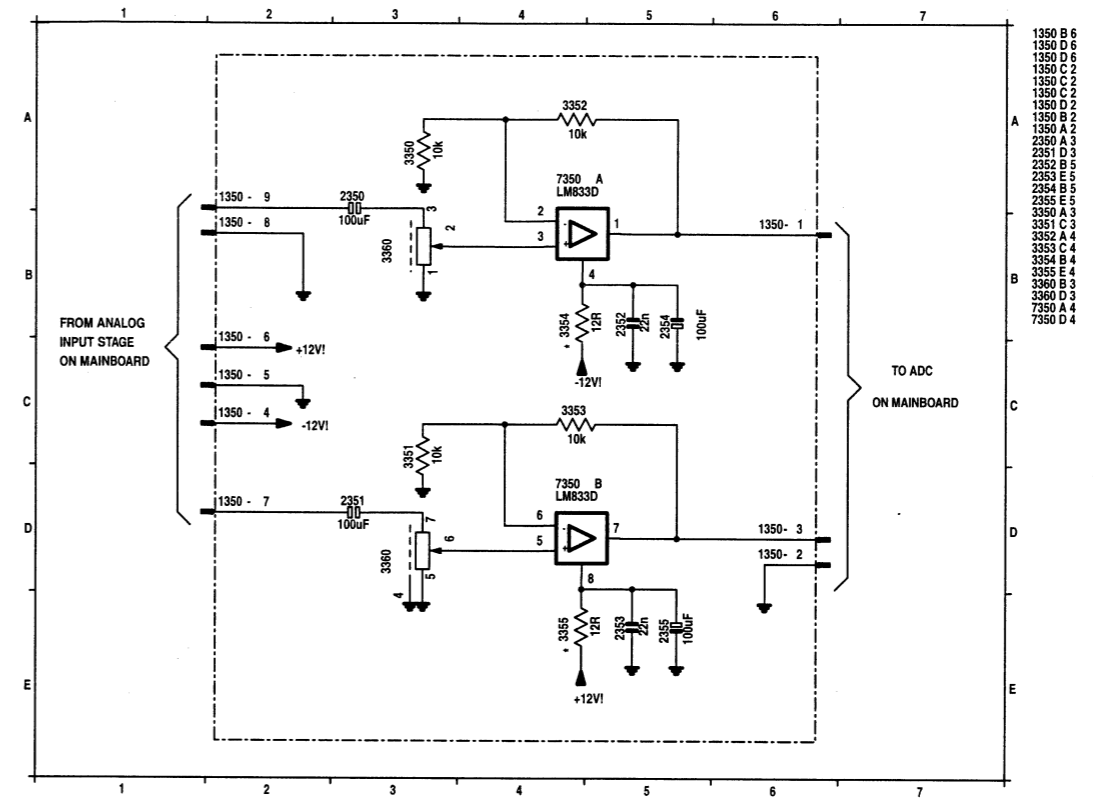
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### HEADPHONE



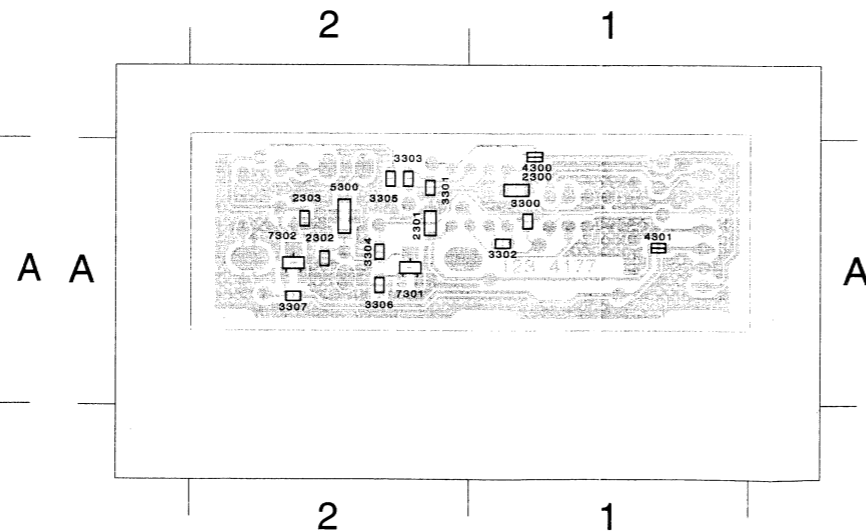
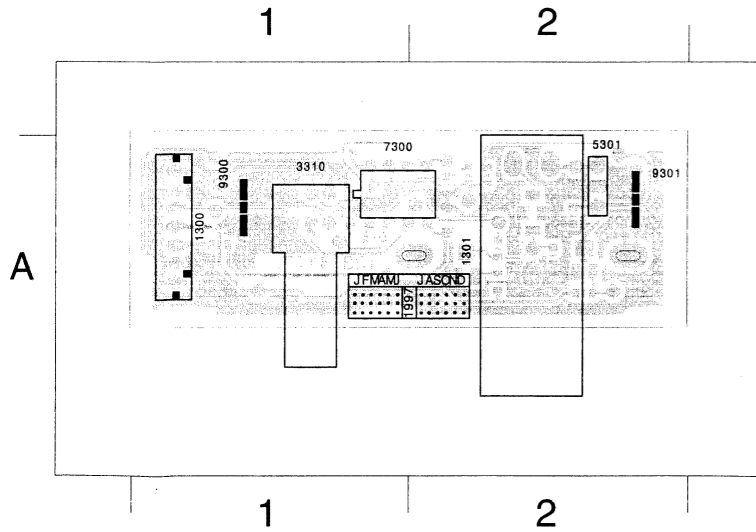
### LEVEL



### HEADPHONE BOARD

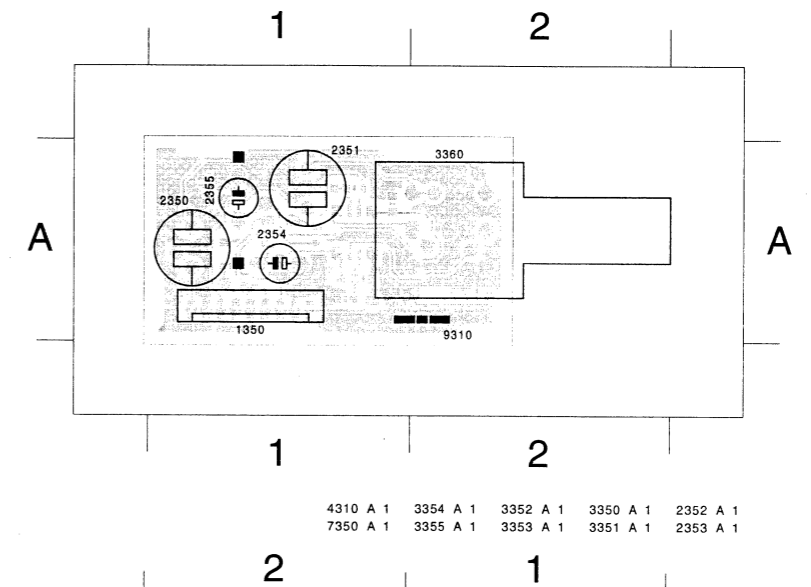
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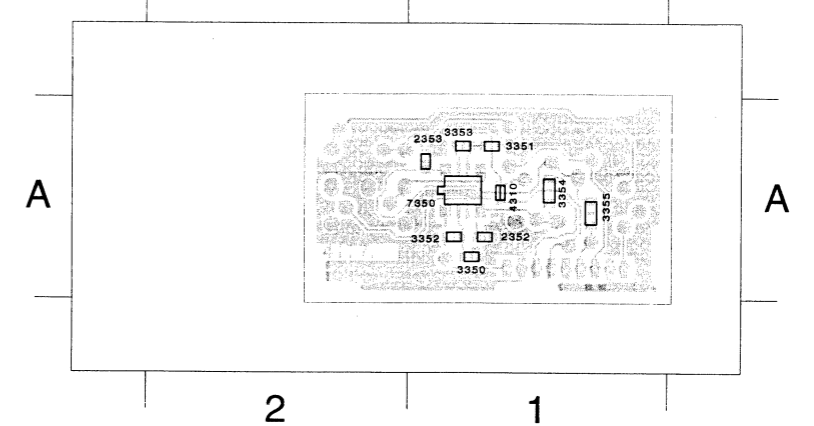


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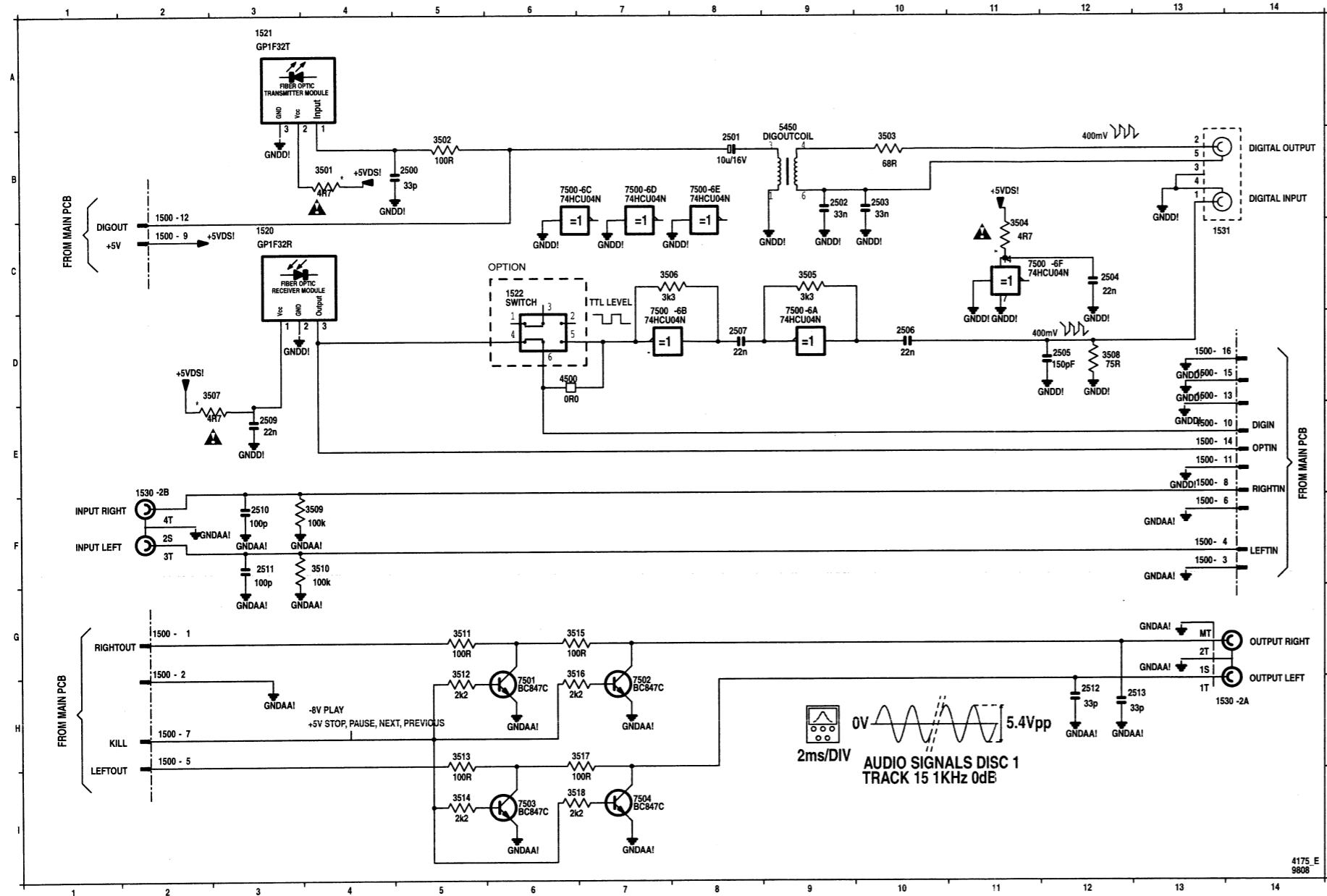


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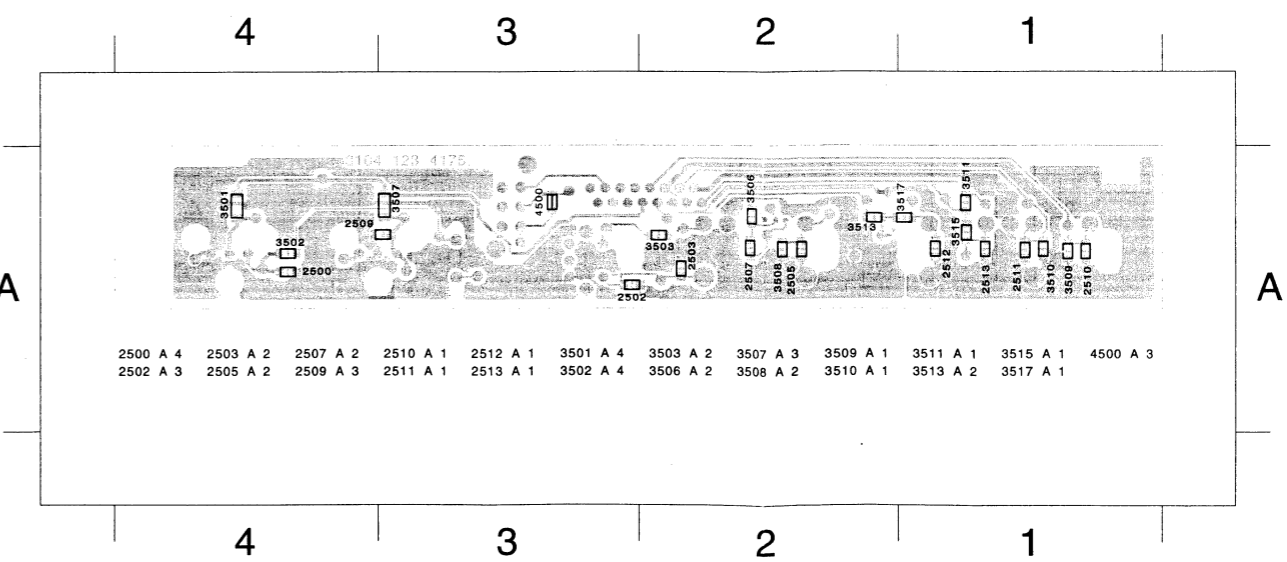
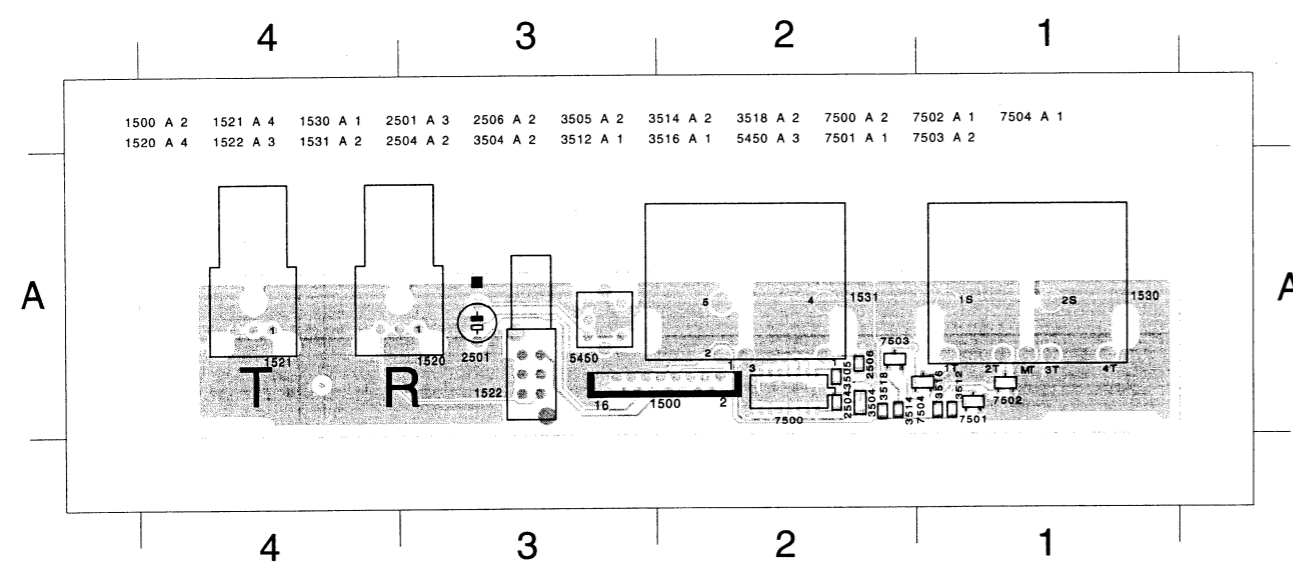


CONNECTOR ( DR700 only )

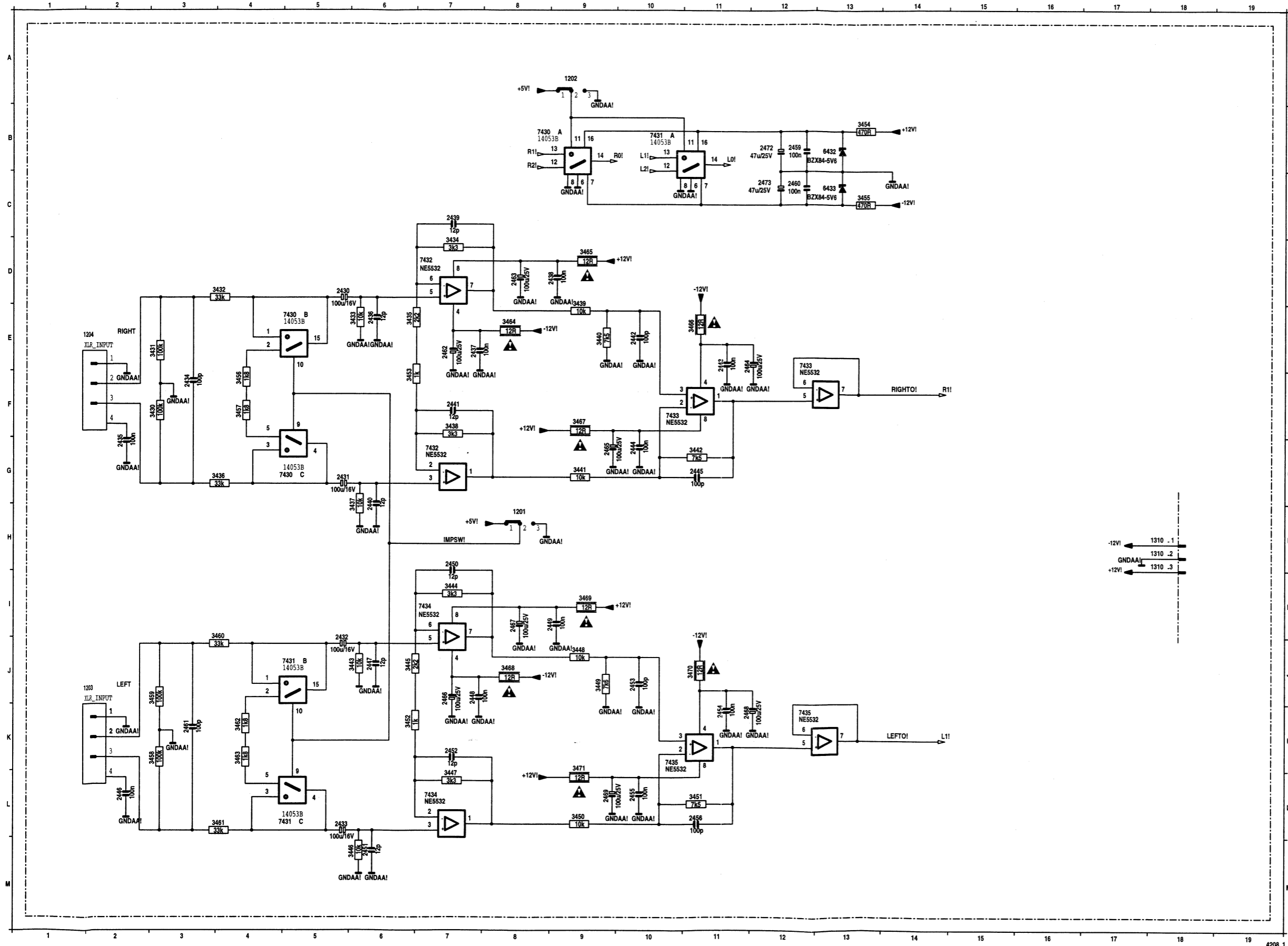


- 1500 G 2
- 1500 G 2
- 1500 F13
- 1500 F13
- 1500 H 2
- 1500 H 2
- 1500 F13
- 1500 E13
- 1500 C 2
- 1500 C 2
- 1500 E13
- 1500 E13
- 1500 B 2
- 1500 B 2
- 1500 D13
- 1500 D13
- 1500 D13
- 1500 D13
- 1500 D13
- 1521 A 3
- 1522 C 6
- 1530 H13
- 1530 E 2
- 1531 C13
- 2500 B 5
- 2501 B 5
- 2502 B 9
- 2503 B10
- 2504 C12
- 2505 D12
- 2506 D10
- 2507 D 8
- 2508 E 3
- 2510 F 3
- 2511 F 3
- 2512 H12
- 2513 H13
- 3501 B 4
- 3502 B 5
- 3503 B10
- 3504 C11
- 3505 C 9
- 3506 C 8
- 3507 D 3
- 3508 D12
- 3509 F 4
- 3510 F 4
- 3511 G 5
- 3512 G 5
- 3513 H 5
- 3514 F 5
- 3515 G 6
- 3516 G 6
- 3517 H 7
- 3518 I 6
- 4500 D 6
- 5450 B 9
- 7500 D 9
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- 7500 B 6
- 7500 B 7
- 7500 B 8
- 7500 C11
- 7501 H 6
- 7502 H 7
- 7503 I 6
- 7504 I 7

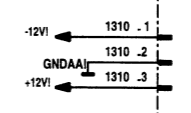
CONNECTOR BOARD ( DR700 only )



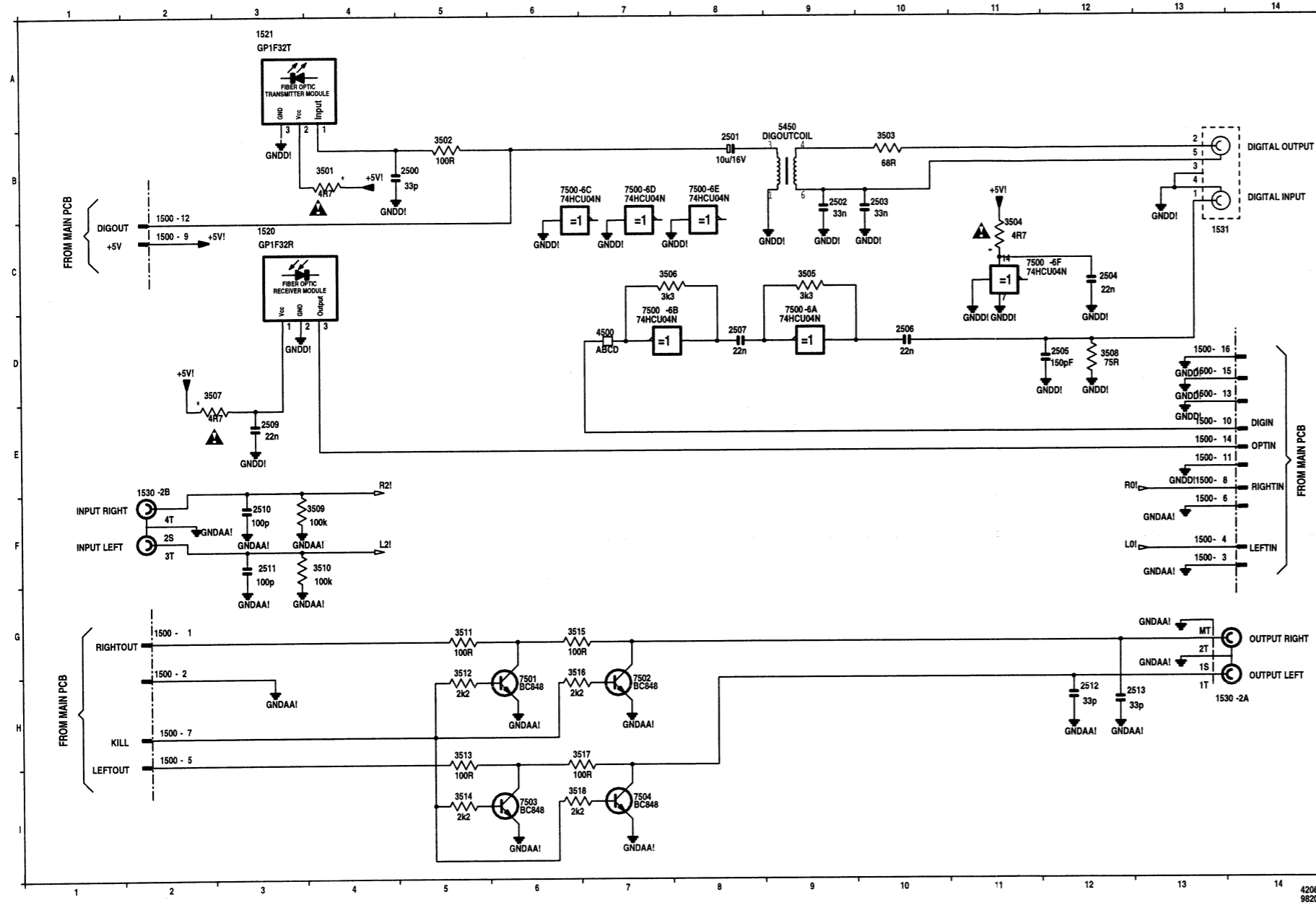
CONNECTOR BOARD XLR PART ( CDR630 only )



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- 2433 L 5
- 2434 F 3
- 2435 G 2
- 2436 E 2
- 2437 E 2
- 2438 D 9
- 2439 C 7
- 2440 G 6
- 2441 F 7
- 2442 E 10
- 2443 E 11
- 2444 G 10
- 2445 G 11
- 2446 L 2
- 2447 E 6
- 2448 J 7
- 2449 I 9
- 2450 H 7
- 2451 M 6
- 2452 K 7
- 2453 J 10
- 2454 K 11
- 2455 L 10
- 2456 L 11
- 2459 B 12
- 2460 C 12
- 2461 K 3
- 2462 E 7
- 2463 D 8
- 2464 E 11
- 2465 G 9
- 2466 J 7
- 2467 I 8
- 2468 K 11
- 2469 I 9
- 2472 B 12
- 2473 C 12
- 3430 F 3
- 3431 E 3
- 3432 D 4
- 3433 E 4
- 3434 D 7
- 3435 E 6
- 3436 G 6
- 3437 G 6
- 3438 F 7
- 3439 E 9
- 3440 E 9
- 3441 G 9
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- 3443 I 6
- 3444 I 7
- 3445 I 6
- 3446 M 6
- 3447 L 7
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- 3451 L 11
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- 3455 C 13
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- 3463 K 4
- 3464 E 8
- 3465 D 9
- 3466 E 11
- 3467 F 9
- 3468 J 8
- 3469 I 9
- 3470 J 11
- 3471 K 9
- 3472 F 7
- 3473 K 7
- 6432 B 13
- 6433 C 13
- 7430 B 8
- 7430 G 4
- 7431 B 10
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- 7434 I 7
- 7435 K 10
- 7435 K 12



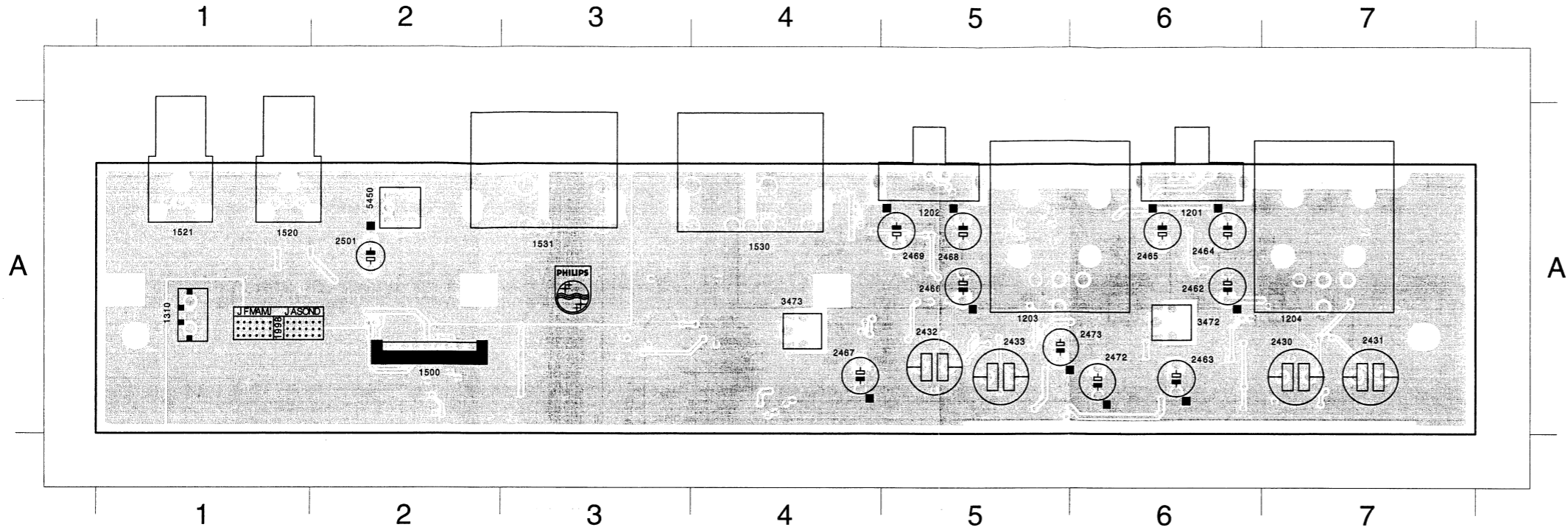
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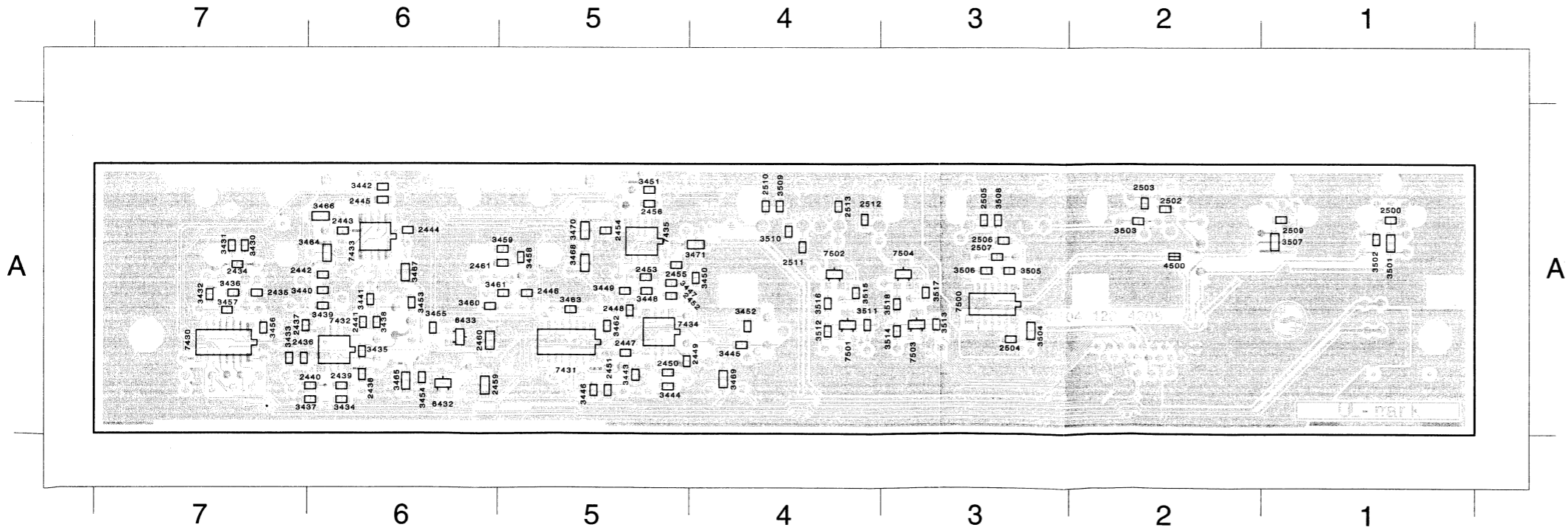
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- 1500 G
- 1500 F13
- 1500 F13
- 1500 H 2
- 1500 E13
- 1500 C 2
- 1500 E13
- 1500 E13
- 1500 B 2
- 1500 D13
- 1500 E13
- 1500 D13
- 1520 C 3
- 1521 A 3
- 1530 H13
- 1530 E 2
- 1531 C13
- 2500 B 6
- 2501 B 8
- 2502 B 9
- 2503 B10
- 2504 C12
- 2505 D12
- 2506 D10
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- 2510 F 3
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- 3505 C 9
- 3506 C 7
- 3507 D 3
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- 3509 F 4
- 3510 F 4
- 3511 G 5
- 3512 G 5
- 3513 H 5
- 3514 I 5
- 3515 G 6
- 3516 G 6
- 3517 H 7
- 3518 I 6
- 4500 D 6
- 5450 B 9
- 7500 D 9
- 7500 D 7
- 7500 B 6
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- 7500 C11
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- 7502 H 7
- 7503 I 6
- 7504 I 7

CONNECTOR BOARD ( CDR630 only )

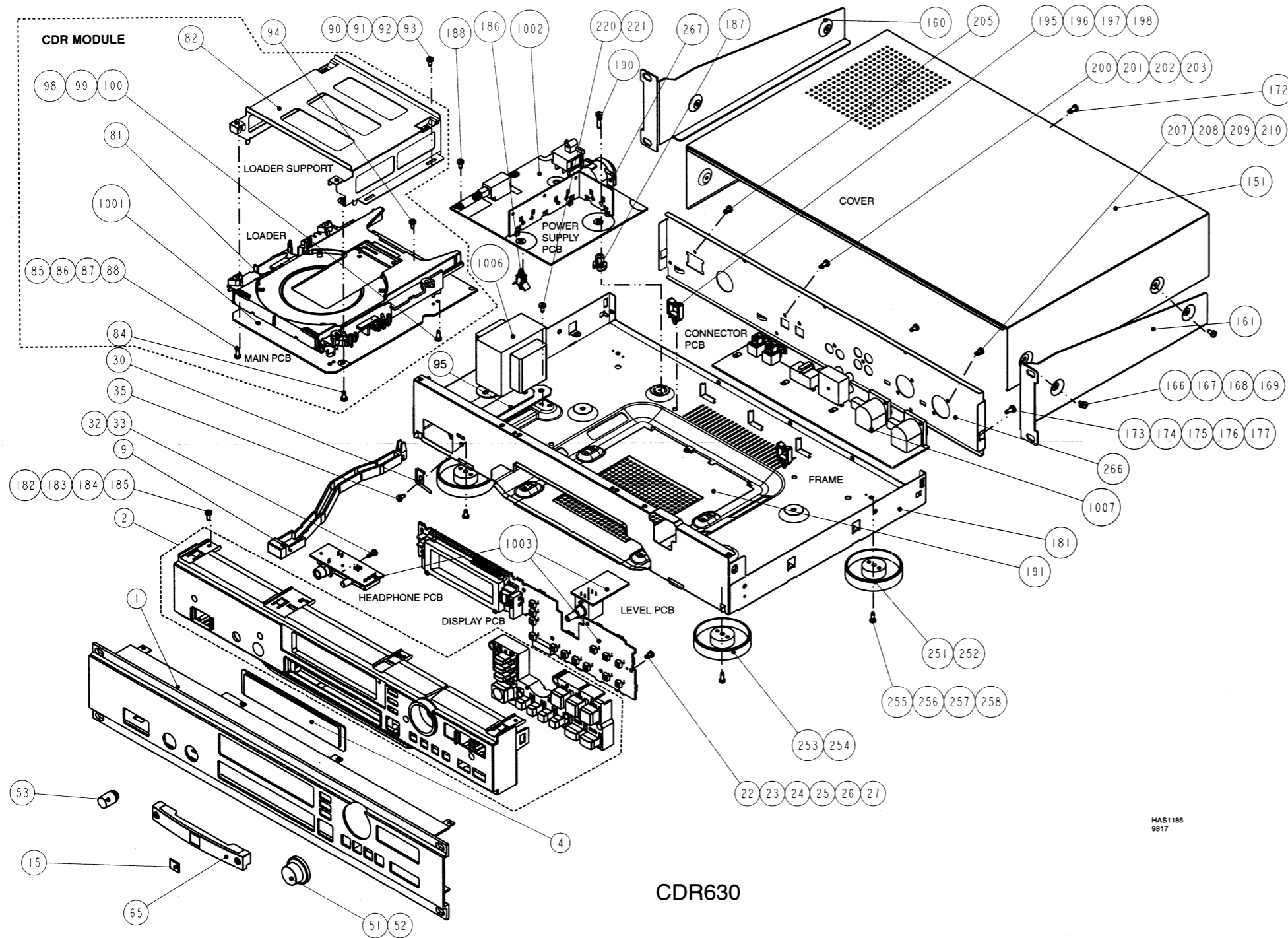
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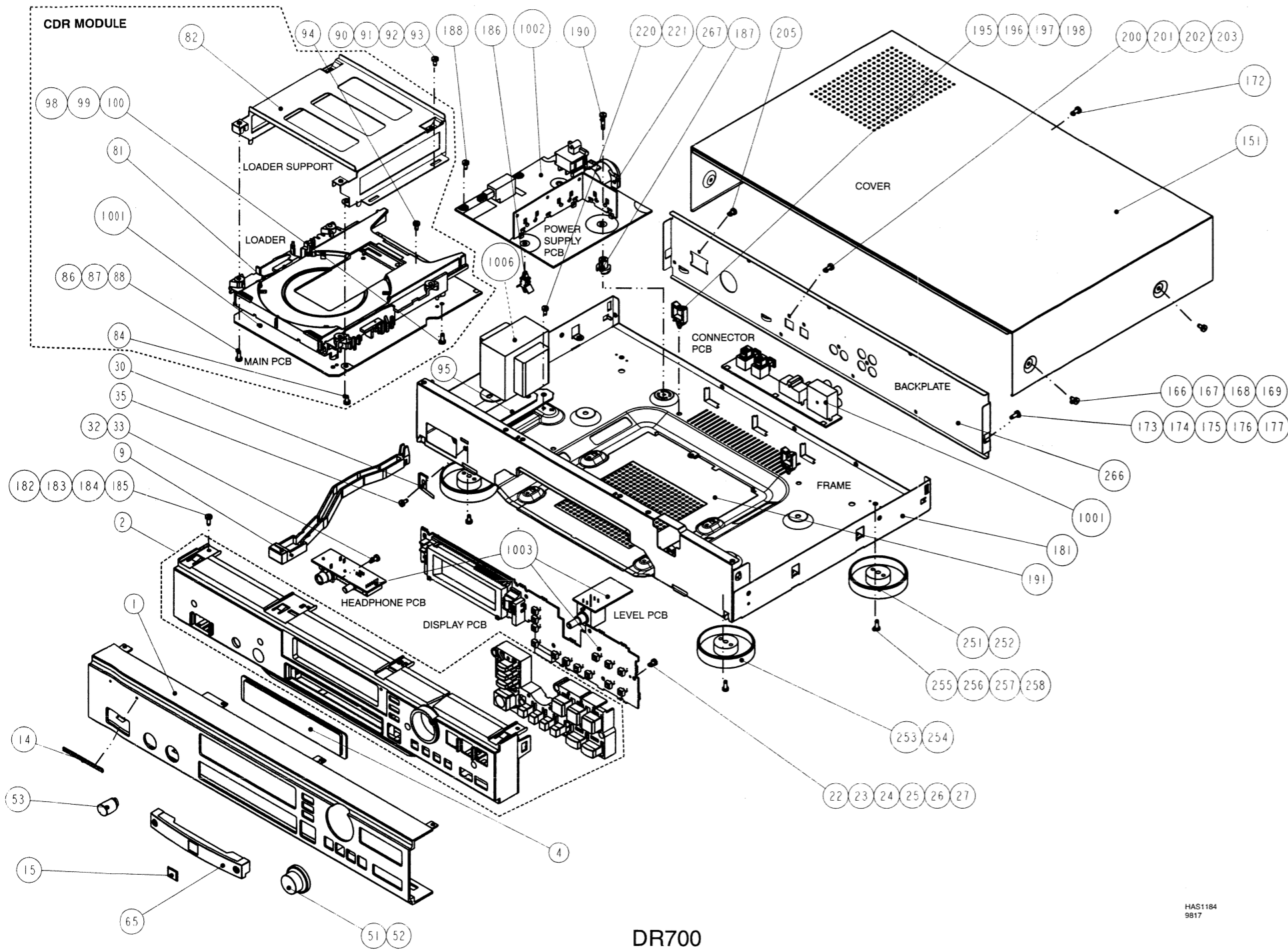
1.11 EXPLODED VIEW AND PARTS LIST



(VERS. :VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, \*:EUROPE)

| POS. NO | VERS. COLOR | PART NO. (FOR PCS) | DESCRIPTION                   | PART NO. (MJI) |
|---------|-------------|--------------------|-------------------------------|----------------|
| 1       | F/02M       | 4822 459 05024     | FRONT ALUMINIUM (WHITE)       | QP45905024     |
| 1       | U           | 4822 459 05026     | FRONT ALUMINIUM (BLACK)       | QP45905026     |
| 2       | F/02M       | 4822 459 05025     | FRONT PANEL PLASTIC (WHITE)   | QP45905025     |
| 2       | U           | 4822 459 05134     | FRONT PANEL PLASTIC (BLACK)   | QP45905134     |
| 4       |             | 4822 450 10547     | WINDOW ASSY                   | QP45010547     |
| 9       | F/02M       | 4822 402 11122     | POWER ROD (GREY)              | QP40211122     |
| 9       | U           | 4822 402 11123     | POWER ROD (BLACK)             | QP40211123     |
| 15      |             | 4822 454 13357     | CDRW-MARK                     | QP45413357     |
| 51      | F/02M       | 4822 410 11897     | LEVEL KNOB (GREY)             | QP41011897     |
| 51      | U           | 4822 410 11902     | LEVEL KNOB (BLACK)            | QP41011902     |
| 52      |             | 4822 492 51374     | SPRING                        | QP49251374     |
| 53      | F/02M       | 4822 410 11898     | VOLUME KNOB (GREY)            | QP41011898     |
| 53      | U           | 4822 410 11903     | VOLUME KNOB (BLACK)           | QP41011903     |
| 65      | F/02M       | 4822 418 10356     | TRAY FRONT (GREY)             | QP41810356     |
| 65      | U           | 4822 418 10357     | TRAY FRONT (BLACK)            | QP41810357     |
| 151     | U           | 4822 442 01095     | TOP COVER NSP                 |                |
| 251     |             | 4822 462 42158     | FOOT BLACK                    | QP46242158     |
| 252     |             | 4822 462 42158     | FOOT BLACK                    | QP46242158     |
| 253     |             | 4822 462 42158     | FOOT BLACK                    | QP46242158     |
| 254     |             | 4822 462 42158     | FOOT BLACK                    | QP46242158     |
| ▲ 1006  | F/02M       | 4822 146 10872     | MAINS TRANSFORMER (4 voltage) | QP14610872     |
| ▲ 1006  | U           | 4822 146 10873     | MAINS TRANSFORMER (120V)      | QP14610873     |
| ▲ 301   | /02M        | 4822 321 10249     | MAINS CABLE (SBC1201)         | QP32110249     |
| ▲ 301   | F           | 4822 321 10445     | MAINS CORD JAPAN              | QP32110445     |
| ▲ 301   | U           | 4822 321 10939     | MAINS CORD USA                | QP32110939     |
| 309     | /02M        | 4822 736 16239     | USER GUIDE (E-F-G-I-D-S-P-SW) | QP73616239     |
| 309     | F           | 4822 736 16241     | USER GUIDE JPN                | QP73616241     |
| 309     | U           | 4822 736 16242     | USER GUIDE USA (E-F-S-P)      | QP73616242     |
| 312     |             | 4822 321 11357     | AUDIO CORD SET                | QP32111357     |
| 317     |             | 4822 321 61452     | DIG OUT CABLE (RCA)           | QP32161452     |
| 318     |             | 4822 219 10574     | REMOTE CONTROL RC7925/02      | QP21910574     |
| ▲ 62    |             | 4822 492 63076     | SPRING CLIP                   | QP49263076     |
| ▲ 63    |             | 4822 492 63076     | SPRING CLIP                   | QP49263076     |
| ▲ 64    |             | 4822 492 63076     | SPRING CLIP                   | QP49263076     |

HAS1185  
9817



DR700

HAS1184  
9817

(VERS.:VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, ---:EUROPE)

| POS. NO | VERS. COLOR | PART NO. (FOR PCS) | DESCRIPTION                 | PART NO. (MJI) |
|---------|-------------|--------------------|-----------------------------|----------------|
| 1       | /02B, U     | 4822 459 05027     | FRONT ALUMINIUM (BLACK)     | QP45905027     |
| 1       | F           | 4822 459 05181     | FRONT ALUMINIUM (GOLD)      | QP45905181     |
| 2       | /02B, U     | 4822 459 05028     | FRONT PANEL PLASTIC (BLACK) | QP45905028     |
| 2       | F           | 4822 459 05182     | FRONT PANEL PLASTIC (GOLD)  | QP45905182     |
| 4       | /02B, U     | 4822 450 10547     | WINDOW ASSY (BLACK)         | QP45010547     |
| 4       | F           | 4822 450 10589     | WINDOW ASSY (GOLD)          | QP45010589     |
| 9       | /02B, U     | 4822 402 11123     | POWER ROD (BLACK)           | QP40211123     |
| 9       | F           | 4822 402 11217     | POWER ROD (GOLD)            | QP40211217     |
| 14      | /02B, U     | 4822 454 11825     | BADGE MARANTZ (BLACK)       | QP45411825     |
| 14      | F           | 4822 454 13409     | BADGE MARANTZ (GOLD)        | QP45413409     |
| 15      |             | 4822 454 13339     | CDRW-LOGO                   | QP45413339     |
| 51      | /02B, U     | 4822 410 11902     | LEVEL KNOB (BLACK)          | QP41011902     |
| 51      | F           | 4822 410 12154     | LEVEL KNOB (GOLD)           | QP41012154     |
| 52      |             | 4822 492 51374     | SPRING                      | QP49251374     |
| 53      | /02B, U     | 4822 410 11903     | VOLUME KNOB (BLACK)         | QP41011903     |
| 53      | F           | 4822 410 12155     | VOLUME KNOB (GOLD)          | QP41012155     |
| 65      | /02B, U     | 4822 418 10357     | TRAY FRONT (BLACK)          | QP41810357     |
| 65      | F           | 4822 418 10396     | TRAY FRONT (GOLD)           | QP41810396     |
| 151     | /02B, U     | 4822 442 01095     | TOP COVER (BLACK)           | NSP            |
| 151     | F           | 4822 442 01625     | TOP COVER (GOLD)            | NSP            |
| 251     |             | 4822 462 42129     | FOOT GOLD FRONT             | QP46242129     |
| 252     |             | 4822 462 42129     | FOOT GOLD FRONT             | QP46242129     |
| 253     |             | 4822 462 42129     | FOOT GOLD FRONT             | QP46242129     |
| 254     |             | 4822 462 42129     | FOOT GOLD FRONT             | QP46242129     |
| ▲ 1006  | /02B        | 4822 146 10871     | MAINS TRANSFORMER (230V)    | QP14610871     |
| ▲ 1006  | U           | 4822 146 10873     | MAINS TRANSFORMER (120V)    | QP14610873     |
| ▲ 1006  | F           | 4822 146 10977     | MAINS TRANSFORMER (100V)    | QP14610977     |
| ▲ 301   | /02B        | 4822 321 10249     | MAINS CORD (SBC1201)        | QP32110249     |
| ▲ 301   | U           | 4822 321 10882     | MAINS CORD USA              | QP32110882     |
| ▲ 301   | F           | 4822 321 10445     | MAINS CORD JAPAN            | QP32110445     |
| 309     | /02B        | 4822 736 16243     | USER MANUAL EU              | QP73616243     |
| 309     | U           | 4822 736 16244     | USER MANUAL USA             | QP73616244     |
| 309     | F           | 4822 736 16582     | USER MANUAL JAPAN           | QP73616582     |
| 312     |             | 4822 321 11357     | AUDIO CORD SET              | QP32111357     |
| 317     |             | 4822 321 61452     | DIG OUT CABLE (RCA)         | QP32161452     |
| 318     |             | 4822 219 10574     | REMOTE CONTROL RC7925/02    | QP21910574     |
| ▲ 62    |             | 4822 492 63076     | SPRING CLIP                 | QP49263076     |
| ▲ 63    |             | 4822 492 63076     | SPRING CLIP                 | QP49263076     |
| ▲ 64    |             | 4822 492 63076     | SPRING CLIP                 | QP49263076     |

# 1.12 ELECTRICAL PARTSLIST

(VERS.:VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, \*:EUROPE)

| POS. NO | VERS. COLOR | PART NO. (FOR PCS) | DESCRIPTION                 | PART NO. (MJI) | POS. NO | VERS. COLOR | PART NO. (FOR PCS) | DESCRIPTION                 | PART NO. (MJI) |
|---------|-------------|--------------------|-----------------------------|----------------|---------|-------------|--------------------|-----------------------------|----------------|
|         |             |                    | <b>DISPLAY BOARD</b>        |                |         |             |                    |                             |                |
| 1003    |             | 4822 256 10401     | FTD-HOLDER                  | NSP            | ▲ 4019  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     |
| 1201    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     | ▲ 4020  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     |
| 1202    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     | ▲ 4021  |             | 4822 051 20008     | OR00 JUMP. (0805)           | QP05120008     |
| 1203    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     | ▲ 4022  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     |
| 1204    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     | ▲ 4023  |             | 4822 051 20008     | OR00 JUMP. (0805)           | QP05120008     |
| 1205    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     | ▲ 4025  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     |
| 1206    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     | 6200    |             | 4822 212 30842     | TSOP1736SB1                 | QP21230842     |
| 1207    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     | 7200    |             | 4822 209 16055     | TMP87PM74ZF                 | QP20916055     |
| 1208    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     | 7205    |             | 4822 135 00149     | BJ563GK                     | QP13500149     |
| 1209    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     |         |             |                    | <b>HEAD PHONE BOARD</b>     |                |
| 1210    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     | 1301    |             | 4822 267 31453     | CON BM PHONE H 1P F 6.3 STB | QP26731453     |
| 1211    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     | 2300    |             | 4822 122 33325     | 470nF 16V                   | QP12233325     |
| 1212    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     | 2301    |             | 4822 122 33325     | 470nF 16V                   | QP12233325     |
| 1213    |             | 4822 276 13114     | SWI TACT 1P 20MA 15V EVQ21A | QP27613114     | ▲ 2302  |             | 5322 122 34123     | 1nF 10% X7R 50V             | QQ12234123     |
| 1230    |             | 4822 242 10753     | CSTCS8.00MT-TC              | QP24210753     | ▲ 2303  |             | 5322 122 34123     | 1nF 10% X7R 50V             | QQ12234123     |
| ▲ 2200  |             | 5322 122 32654     | 22nF 10% X7R 63V            | QQ12232654     | 3300    |             | 4822 117 11383     | 12k 1% 0.1W                 | QP11711383     |
| 2201    |             | 5322 122 32658     | 22pF 5% 50V                 | QQ12232658     | 3301    |             | 4822 117 11383     | 12k 1% 0.1W                 | QP11711383     |
| 2202    |             | 5322 122 32658     | 22pF 5% 50V                 | QQ12232658     | 3302    |             | 4822 051 20273     | 27K00 5% 0.1W               | QP05120273     |
| ▲ 2203  |             | 5322 122 32654     | 22nF 10% X7R 63V            | QQ12232654     | 3303    |             | 4822 051 20273     | 27K00 5% 0.1W               | QP05120273     |
| 2204    |             | 5322 122 32658     | 22pF 5% 50V                 | QQ12232658     | ▲ 3304  |             | 4822 051 20121     | 120R00 5% 0.1W              | QP05120121     |
| 2205    |             | 5322 122 32658     | 22pF 5% 50V                 | QQ12232658     | ▲ 3305  |             | 4822 051 20121     | 120R00 5% 0.1W              | QP05120121     |
| 2206    |             | 4822 126 12105     | 33nF 5% X7R 63V             | QP12612105     | 3306    |             | 4822 051 20122     | 1K20 5% 0.1W                | QP05120122     |
| ▲ 2207  |             | 5322 122 32654     | 22nF 10% X7R 63V            | QQ12232654     | 3307    |             | 4822 051 20122     | 1K20 5% 0.1W                | QP05120122     |
| 3200    |             | 4822 051 20393     | 39K00 5% 0.1W               | QP05120393     | 3310    |             | 4822 101 21199     | 10k X2 20% 0.025W           | QP10121199     |
| 3201    |             | 4822 051 10102     | 1K00 2% 0.25W               | QP05110102     | ▲ 4300  |             | 4822 051 20008     | OR00 JUMP. (0805)           | QP05120008     |
| 3202    |             | 4822 051 10102     | 1K00 2% 0.25W               | QP05110102     | ▲ 4301  |             | 4822 051 20008     | OR00 JUMP. (0805)           | QP05120008     |
| ▲ 3205  |             | 4822 051 20101     | 100R00 5% 0.1W              | QP05120101     | 5300    |             | 4822 242 10805     | NF M41R10C102T3             | QP24210805     |
| ▲ 3206  |             | 4822 051 20101     | 100R00 5% 0.1W              | QP05120101     | 5301    |             | 4822 157 11402     | 100V 1N 20%                 | QP15711402     |
| ▲ 3207  |             | 4822 051 20472     | 4K70 5% 0.1W                | QP05120472     | 7300    |             | 4822 209 82362     | NJM4556D                    | QP20982362     |
| ▲ 3208  |             | 4822 051 20472     | 4K70 5% 0.1W                | QP05120472     | 7301    |             | 5322 130 42755     | BC847C                      | QQ13042755     |
| ▲ 3209  |             | 4822 051 20472     | 4K70 5% 0.1W                | QP05120472     | 7302    |             | 5322 130 42755     | BC847C                      | QQ13042755     |
| ▲ 3210  |             | 4822 051 20472     | 4K70 5% 0.1W                | QP05120472     |         |             |                    | <b>LEVEL BOARD</b>          |                |
| ▲ 3211  |             | 4822 051 20472     | 4K70 5% 0.1W                | QP05120472     | 2350    |             | 4822 124 22339     | 100UE 16V                   | QP12422339     |
| ▲ 3212  |             | 4822 051 20472     | 4K70 5% 0.1W                | QP05120472     | 2351    |             | 4822 124 22339     | 100UE 16V                   | QP12422339     |
| ▲ 3213  |             | 4822 051 20472     | 4K70 5% 0.1W                | QP05120472     | ▲ 2352  |             | 5322 122 32654     | 22nF 10% X7R 63V            | QQ12232654     |
| ▲ 3214  |             | 4822 051 20472     | 4K70 5% 0.1W                | QP05120472     | ▲ 2353  |             | 5322 122 32654     | 22nF 10% X7R 63V            | QQ12232654     |
| ▲ 3215  |             | 4822 051 20008     | OR00 JUMP. (0805)           | QP05120008     | 2354    |             | 4822 124 81029     | 100µF 20% 25V               | QP12481029     |
| ▲ 3216  |             | 4822 051 20008     | OR00 JUMP. (0805)           | QP05120008     | 2355    |             | 4822 124 81029     | 100µF 20% 25V               | QP12481029     |
| ▲ 4000  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | 3350    |             | 4822 117 10833     | 10k 1% 0.1W                 | QP11710833     |
| ▲ 4001  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | 3351    |             | 4822 117 10833     | 10k 1% 0.1W                 | QP11710833     |
| ▲ 4003  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | 3352    |             | 4822 117 10833     | 10k 1% 0.1W                 | QP11710833     |
| ▲ 4004  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | 3353    |             | 4822 117 10833     | 10k 1% 0.1W                 | QP11710833     |
| ▲ 4005  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | ▲ 3354  |             | 4822 117 11747     | 12R 1206 5% FUSE            | QP11711747     |
| ▲ 4006  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | ▲ 3355  |             | 4822 117 11747     | 12R 1206 5% FUSE            | QP11711747     |
| ▲ 4007  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | 3360    |             | 4822 101 11821     | 20Kx2 RK18112AO             | QP10111821     |
| ▲ 4008  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | ▲ 4310  |             | 4822 051 20008     | OR00 JUMP. (0805)           | QP05120008     |
| ▲ 4009  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | 7350    |             | 4822 209 30095     | LM833D                      | QP20930095     |
| ▲ 4010  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     |         |             |                    | <b>POWER SUPPLY BOARD</b>   |                |
| ▲ 4011  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | ▲ 1100  | F/02M       | 4822 265 31015     | MAINS INLET                 | QP26531015     |
| ▲ 4012  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | ▲ 1100  | /06B        | 4822 265 31016     | MAINS INLET                 | QP26531016     |
| ▲ 4013  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | ▲ 1105  | F/02M (630) | 4822 277 11483     | VOLTAGE SELECTOR            | QP27711483     |
| ▲ 4014  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | ▲ 1106  |             | 4822 276 13224     | MAINS SWITCH                | QP27613224     |
| ▲ 4015  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | ▲ 1109  |             | 4822 256 30274     | FUSE HOLDER                 | QP25630274     |
| ▲ 4016  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | ▲ 1110  |             | 4822 070 33151     | FUSE 218.315(315MA)         | QP07033151     |
| ▲ 4017  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | ▲ 1113  |             | 4822 071 52002     | FUSE 19372(2A)              | QP07152002     |
| ▲ 4018  |             | 4822 051 10008     | OR00 5% 0.25W               | QP05110008     | ▲ 1114  |             | 4822 071 52002     | FUSE 19372(2A)              | QP07152002     |
|         |             |                    |                             |                | ▲ 1130  |             | 4822 252 51185     | FUSE 19398E1(0.630A)        | QP25251185     |
|         |             |                    |                             |                | ▲ 1131  |             | 4822 252 51185     | FUSE 19398E1(0.630A)        | QP25251185     |
|         |             |                    |                             |                | ▲ 1132  |             | 4822 252 51185     | FUSE 19398E1(0.630A)        | QP25251185     |
|         |             |                    |                             |                | ▲ 1133  |             | 4822 252 51185     | FUSE 19398E1(0.630A)        | QP25251185     |
|         |             |                    |                             |                | ▲ 1134  |             | 4822 252 51185     | FUSE 19398E1(0.630A)        | QP25251185     |
|         |             |                    |                             |                | ▲ 2100  |             | 4822 126 10454     | 3.3nF 20% 400V              | QP12610454     |
|         |             |                    |                             |                | ▲ 2101  |             | 5322 122 32654     | 22nF 10% X7R 63V            | QQ12232654     |
|         |             |                    |                             |                | ▲ 2102  |             | 5322 122 32654     | 22nF 10% X7R 63V            | QQ12232654     |
|         |             |                    |                             |                | 2103    |             | 4822 124 23172     | 470µF 20% 50V               | QP12423172     |





| POS. NO | VERS. COLOR | PART NO. (FOR PCS) | DESCRIPTION        | PART NO. (MJI) |
|---------|-------------|--------------------|--------------------|----------------|
| 3431    | 630         | 4822 117 10837     | 100k 1% 0.1W       | QP11710837     |
| 3432    | 630         | 4822 117 12367     | 33k 1% 0.10W       | QP11712367     |
| 3433    | 630         | 4822 117 10833     | 10k 1% 0.1W        | QP11710833     |
| ▲ 3434  | /02M (630)  | 4822 051 20332     | 3K30 5% 0.1W       | QP05120332     |
| 3435    | 630         | 4822 117 11449     | 2K2 1% 0.1W        | QP11711449     |
| 3436    | 630         | 4822 117 12367     | 33k 1% 0.10W       | QP11712367     |
| 3437    | 630         | 4822 117 10833     | 10k 1% 0.1W        | QP11710833     |
| ▲ 3438  | /02M (630)  | 4822 051 20332     | 3K30 5% 0.1W       | QP05120332     |
| 3439    | 630         | 4822 117 10833     | 10k 1% 0.1W        | QP11710833     |
| 3440    | 630         | 4822 117 10362     | 7K5 1% 0.1W        | QP11710362     |
| 3441    | 630         | 4822 117 10833     | 10k 1% 0.1W        | QP11710833     |
| 3442    | 630         | 4822 117 10362     | 7K5 1% 0.1W        | QP11710362     |
| 3443    | 630         | 4822 117 10833     | 10k 1% 0.1W        | QP11710833     |
| ▲ 3444  | /02M (630)  | 4822 051 20332     | 3K30 5% 0.1W       | QP05120332     |
| 3445    | 630         | 4822 117 11449     | 2K2 1% 0.1W        | QP11711449     |
| 3446    | 630         | 4822 117 10833     | 10k 1% 0.1W        | QP11710833     |
| ▲ 3447  | 630         | 4822 051 20332     | 3K30 5% 0.1W       | QP05120332     |
| 3448    | 630         | 4822 117 10833     | 10k 1% 0.1W        | QP11710833     |
| 3449    | 630         | 4822 117 10362     | 7K5 1% 0.1W        | QP11710362     |
| 3450    | 630         | 4822 117 10833     | 10k 1% 0.1W        | QP11710833     |
| 3451    | 630         | 4822 117 10362     | 7K5 1% 0.1W        | QP11710362     |
| 3452    | 630         | 5322 117 12487     | 1k RC12G 1% 0.125W | QQ11712487     |
| 3453    | 630         | 5322 117 12487     | 1k RC12G 1% 0.125W | QQ11712487     |
| ▲ 3454  | 630         | 4822 051 20471     | 470R00 5% 0.1W     | QP05120471     |
| ▲ 3455  | 630         | 4822 051 20471     | 470R00 5% 0.1W     | QP05120471     |
| 3456    | 630         | 4822 117 11141     | 1K80 1% 0.1W       | QP11711141     |
| 3457    | 630         | 4822 117 11141     | 1K80 1% 0.1W       | QP11711141     |
| 3458    | 630         | 4822 117 10837     | 100k 1% 0.1W       | QP11710837     |
| 3459    | 630         | 4822 117 10837     | 100k 1% 0.1W       | QP11710837     |
| 3460    | 630         | 4822 117 12367     | 33k 1% 0.10W       | QP11712367     |
| 3461    | 630         | 4822 117 12367     | 33k 1% 0.10W       | QP11712367     |
| 3462    | 630         | 4822 117 11141     | 1K80 1% 0.1W       | QP11711141     |
| 3463    | 630         | 4822 117 11141     | 1K80 1% 0.1W       | QP11711141     |
| ▲ 3464  | 630         | 4822 117 11747     | 12R 1206 5% FUSE   | QP11711747     |
| ▲ 3465  | 630         | 4822 117 11747     | 12R 1206 5% FUSE   | QP11711747     |
| ▲ 3466  | 630         | 4822 117 11747     | 12R 1206 5% FUSE   | QP11711747     |
| ▲ 3467  | 630         | 4822 117 11747     | 12R 1206 5% FUSE   | QP11711747     |
| ▲ 3468  | 630         | 4822 117 11747     | 12R 1206 5% FUSE   | QP11711747     |
| ▲ 3469  | 630         | 4822 117 11747     | 12R 1206 5% FUSE   | QP11711747     |
| ▲ 3470  | 630         | 4822 117 11747     | 12R 1206 5% FUSE   | QP11711747     |
| ▲ 3471  | 630         | 4822 117 11747     | 12R 1206 5% FUSE   | QP11711747     |
| ▲ 3501  |             | 4822 117 11152     | 4R7 5%             | QP11711152     |
| ▲ 3502  |             | 4822 051 20101     | 100R00 5% 0.1W     | QP05120101     |
| 3503    |             | 4822 051 20689     | 68R00 5% 0.1W      | QP05120689     |
| ▲ 3504  |             | 4822 117 11152     | 4R7 5%             | QP11711152     |
| ▲ 3505  |             | 4822 051 20332     | 3K30 5% 0.1W       | QP05120332     |
| ▲ 3506  |             | 4822 051 20332     | 3K30 5% 0.1W       | QP05120332     |
| ▲ 3507  |             | 4822 117 11152     | 4R7 5%             | QP11711152     |
| 3508    |             | 4822 051 20759     | 75R00 5% 0.1W      | QP05120759     |
| 3509    |             | 4822 051 20104     | 100K00 5% 0.1W     | QP05120104     |
| 3510    |             | 4822 051 20104     | 100K00 5% 0.1W     | QP05120104     |
| 3511    |             | 4822 117 11373     | 100R 1% RC12H 0805 | QP11711373     |
| 3512    |             | 4822 117 11449     | 2K2 1% 0.1W        | QP11711449     |
| 3513    |             | 4822 117 11373     | 100R 1% RC12H 0805 | QP11711373     |
| 3514    |             | 4822 117 11449     | 2K2 1% 0.1W        | QP11711449     |
| 3515    |             | 4822 117 11373     | 100R 1% RC12H 0805 | QP11711373     |
| 3516    |             | 4822 117 11449     | 2K2 1% 0.1W        | QP11711449     |
| 3517    |             | 4822 117 11373     | 100R 1% RC12H 0805 | QP11711373     |
| 3518    |             | 4822 117 11449     | 2K2 1% 0.1W        | QP11711449     |
| ▲ 4500  |             | 4822 051 10008     | 0R00 5% 0.25W      | QP05110008     |
| 6432    | 630         | 4822 130 80125     | BZX84-C5V6         | QP13080125     |
| 6433    | 630         | 4822 130 80125     | BZX84-C5V6         | QP13080125     |
| 7430    | 630         | 4822 209 60792     | 74HC4053D          | QP20960792     |
| 7431    | 630         | 4822 209 60792     | 74HC4053D          | QP20960792     |
| 7432    | 630         | 4822 209 32002     | NJM5532MD          | QP20932002     |
| 7433    | 630         | 4822 209 32002     | NJM5532MD          | QP20932002     |
| 7434    | 630         | 4822 209 32002     | NJM5532MD          | QP20932002     |

| POS. NO | VERS. COLOR | PART NO. (FOR PCS) | DESCRIPTION | PART NO. (MJI) |
|---------|-------------|--------------------|-------------|----------------|
| 7435    | 630         | 4822 209 32002     | NJM5532MD   | QP20932002     |
| 7500    |             | 5322 209 11517     | PC74HCU04T  | QQ20911517     |
| 7501    |             | 4822 130 60511     | BC847B      | QP13060511     |
| 7502    |             | 4822 130 60511     | BC847B      | QP13060511     |
| 7503    |             | 4822 130 60511     | BC847B      | QP13060511     |
| 7504    |             | 4822 130 60511     | BC847B      | QP13060511     |

**NOTE ON SAFETY :**

Symbol ▲ Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol ▲. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

**安全上の注意 :**

▲ がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

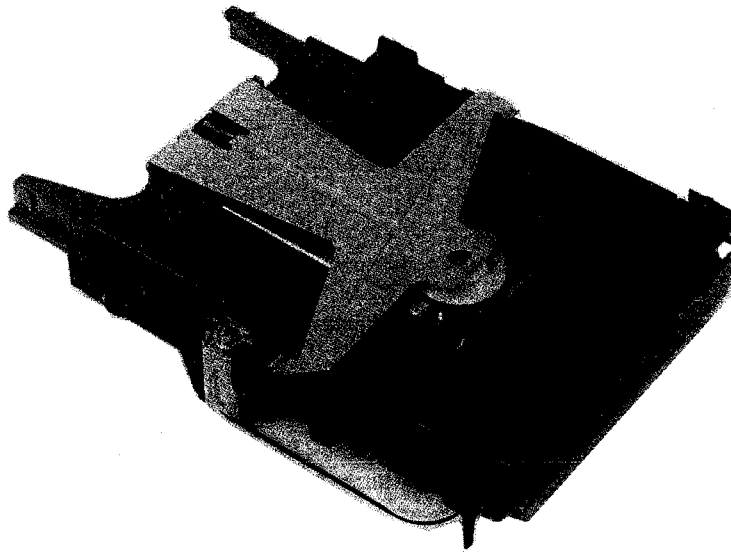


# Service Manual

CDL3610 /01

CDR Module

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**CAUTION :** This part is instruction for Central repair center only.

Do not repair at local Service agent.

Please contact to MARANTZ JAPAN INC., MARANTZ EUROPE B.V.,  
MARANTZ AMERICA,INC. or SUPERSCOPE TECHNOLOGIES,INC.  
FOR Central repair procedure.

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# marantz®

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model CDL3610

**[ REMARK ]**

CDL3610/01 unit ( CDR Module ) and CDM3610' are not standard spare parts. The repairing of component level for those units is not allowed at local service agents also, except loader mechanical parts and EPROM ( 7322 ).

Rejected CDL3610/01 unit ( CDR Module ) should replace by Central Repair Procedure. Please contact to following MARANTZ regional office or your local MARANTZ national organization about the Central Repair Procedure.

**USA**  
**MARANTZ AMERICA, INC.**  
440 MEDINAH ROAD  
ROSELLE, ILLINOIS 60172  
USA  
PHONE : 630 - 307 - 3100  
FAX : 630 - 307 - 2687

**EUROPE / TRADING**  
**MARANTZ EUROPE B. V.**  
P.O.BOX 80002  
BUILDING SFF2  
5600 JB EINDHOVEN  
THE NETHERLANDS  
PHONE : +31 - 40 - 2732241  
FAX : +31 - 40 - 2735578

**JAPAN Technical**  
**MARANTZ JAPAN, INC.**  
35-1, 7- CHOME, SAGAMIONO  
SAGAMIHARA - SHI, KANAGAWA  
JAPAN 228-8505  
PHONE : +81 427 48 1013  
FAX : +81 427 41 9190

**PROFESSIONAL USA**  
**SUPERSCOPE TECHNOLOGIES, INC.**  
MARANTZ PROFESSIONAL PRODUCTS  
2640 WHITE OAK CIRCLE, SUITE A  
AURORA, ILLINOIS 60504 USA  
PHONE : 630 - 820 - 4800  
FAX : 630 - 820 - 8103

**EPROM ( 7322 )**

This USER SOFTWARE has been stored in EPROM ( 7322 ) . This EPROM, situated on the upper side of the Main Board of the CDR module, is in easy reach, once the tray is open. On the EPROM, you will find a sticker with the following indications:

**MAIN CDR880**  
**V.1.xx**  
**7322**

**DR700**

**MAIN CDR680**  
**V.1.xx**  
**7322**

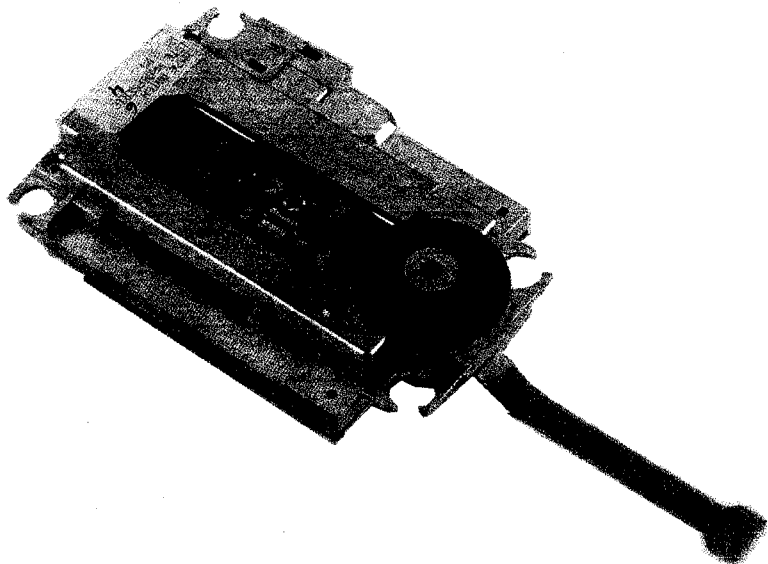
**CDR630**

V. 1.xx is the software version.

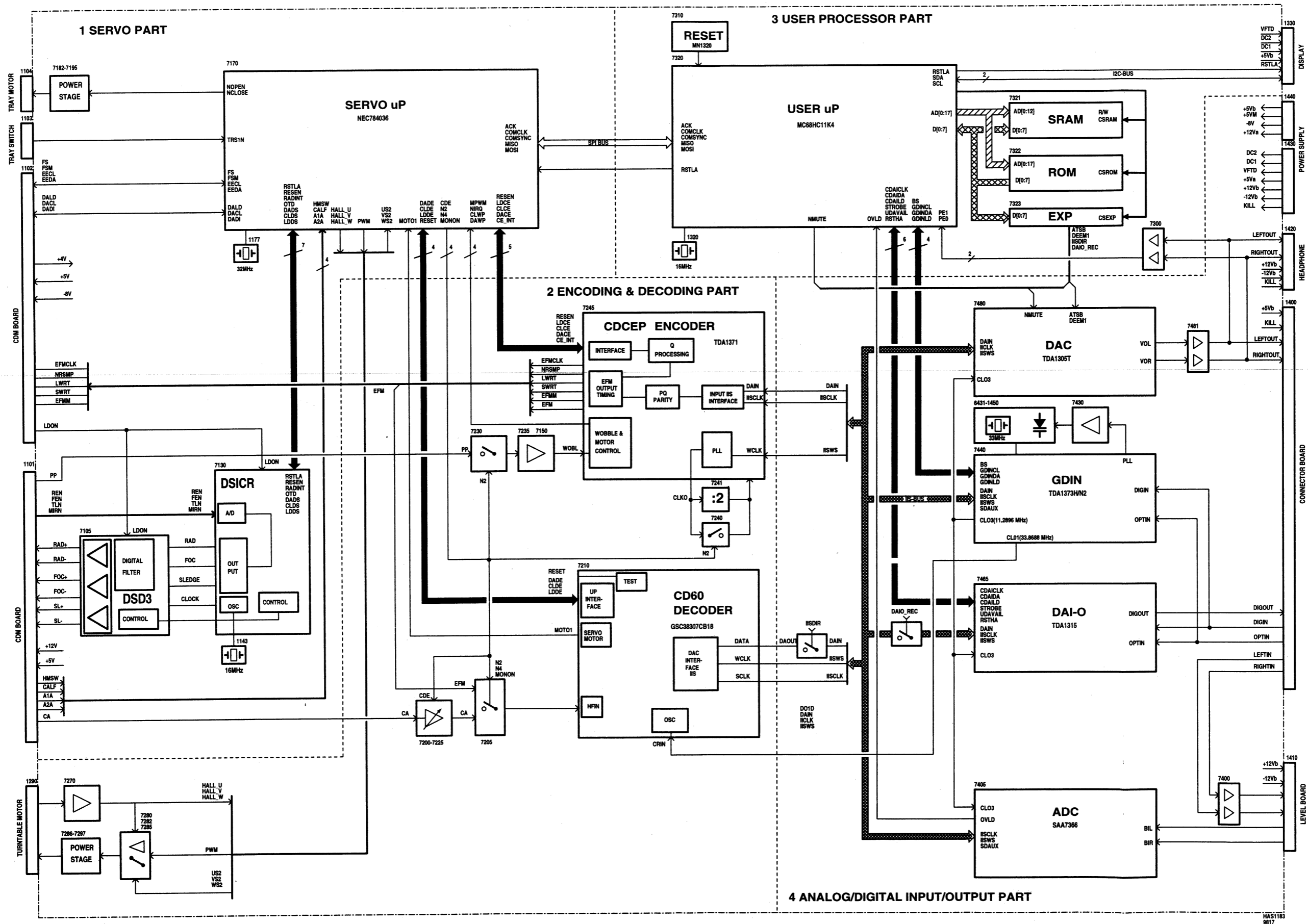
As this IC is mounted on a socket, it can easily be replaced an EPROM containing the last software version. This EPROM can be ordered with service code number ;

**DR700 : 4822 900 11271**  
**CDR630 : 4822 900 11272**

The latest software update information will be reported by the **SERVICE BULLETIN**.  
(latest version EPROM will be supplied with same service code number always)

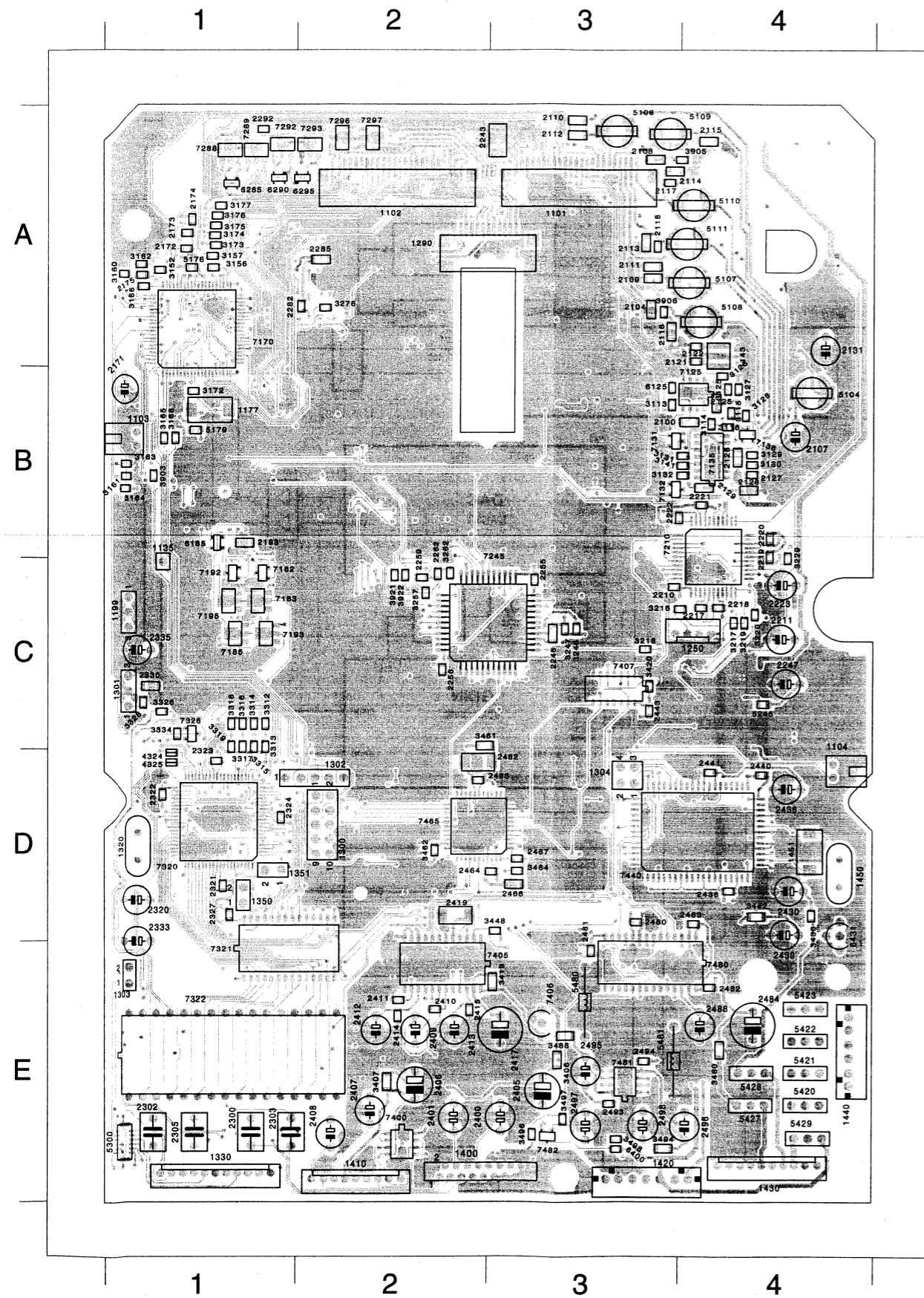


## 2.1 BLOCK DIAGRAM MAIN BOARD



## 2.2 PARTS LOCATION ( MAIN BOARD )

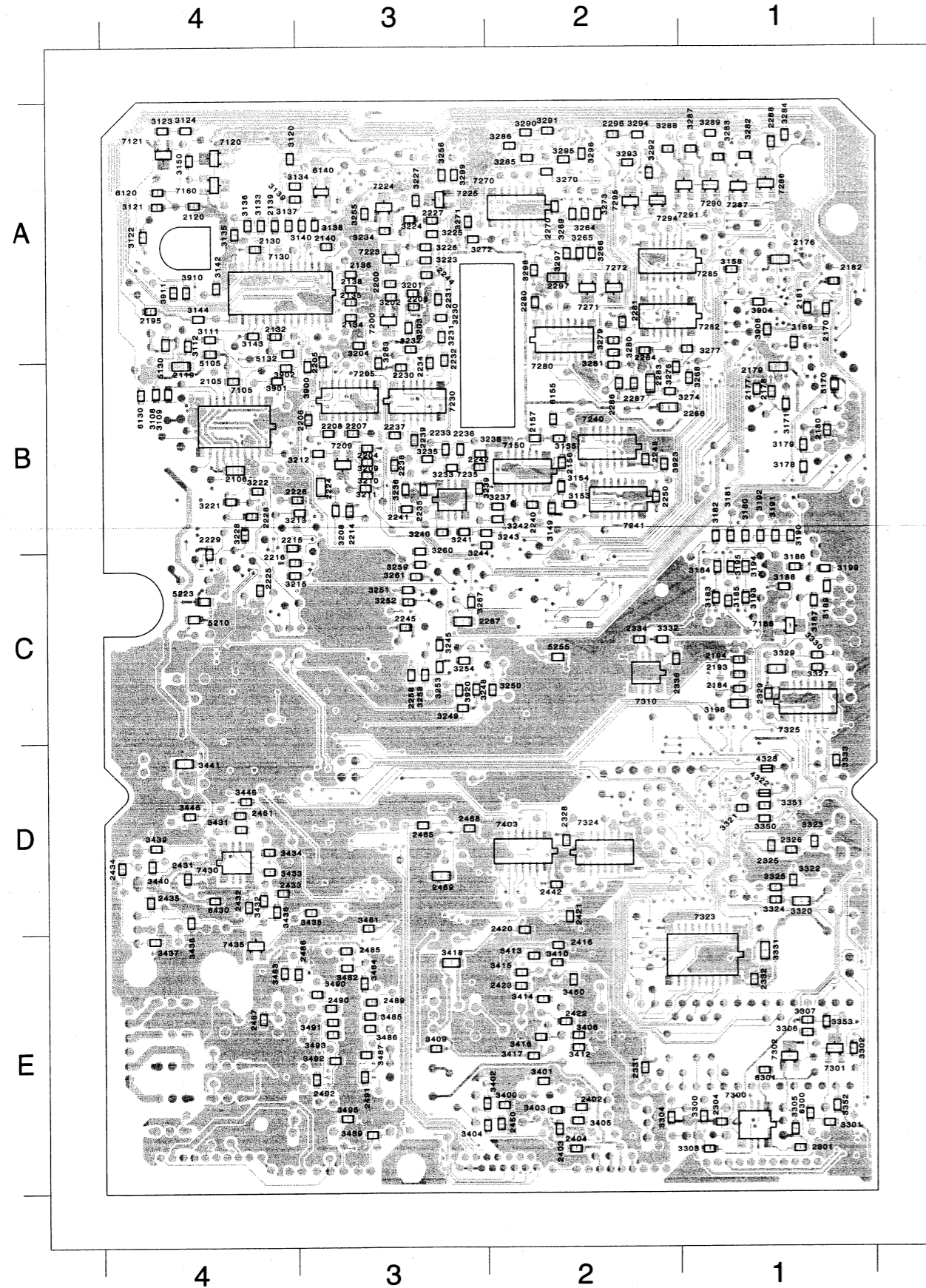
COMPONENT SIDE



|          |          |          |
|----------|----------|----------|
| 1101 A 3 | 2409 E 2 | 3461 C 2 |
| 1102 A 2 | 2410 E 2 | 3462 D 2 |
| 1103 B 1 | 2411 E 2 | 3464 D 3 |
| 1104 D 4 | 2412 E 2 | 3480 E 4 |
| 1135 C 1 | 2413 E 2 | 3488 E 3 |
| 1143 A 4 | 2414 E 2 | 3494 E 3 |
| 1177 B 1 | 2415 E 2 | 3496 E 3 |
| 1199 C 1 | 2417 E 3 | 3497 E 3 |
| 1250 C 4 | 2419 D 2 | 3498 E 3 |
| 1290 A 2 | 2430 D 4 | 3903 B 1 |
| 1300 D 2 | 2436 D 4 | 3905 A 4 |
| 1301 C 1 | 2438 D 4 | 3906 A 3 |
| 1302 D 1 | 2439 D 4 | 3921 C 2 |
| 1303 E 1 | 2440 D 4 | 3922 C 2 |
| 1304 D 3 | 2441 D 4 | 4324 D 1 |
| 1320 D 1 | 2443 C 3 | 4325 D 1 |
| 1330 E 1 | 2462 D 2 | 5104 B 4 |
| 1350 D 1 | 2463 D 2 | 5106 A 3 |
| 1351 D 1 | 2464 D 3 | 5107 A 4 |
| 1400 E 2 | 2466 D 3 | 5108 A 4 |
| 1410 E 2 | 2467 D 3 | 5109 A 3 |
| 1420 E 3 | 2480 D 3 | 5110 A 4 |
| 1430 E 4 | 2481 E 3 | 5111 A 4 |
| 1440 E 4 | 2482 E 4 | 5176 A 1 |
| 1450 D 4 | 2483 D 4 | 5179 B 1 |
| 1451 D 4 | 2484 E 4 | 5245 C 4 |
| 2100 B 4 | 2488 E 4 | 5300 E 1 |
| 2104 A 3 | 2493 E 3 | 5420 E 4 |
| 2107 B 4 | 2494 E 3 | 5421 E 4 |
| 2108 A 3 | 2495 E 3 | 5422 E 4 |
| 2109 A 3 | 2496 E 4 | 5423 E 4 |
| 2110 A 3 | 2497 E 3 | 5427 E 4 |
| 2111 A 3 | 2498 E 3 | 5428 E 4 |
| 2112 A 3 | 3113 B 3 | 5429 E 4 |
| 2113 A 3 | 3114 B 4 | 5480 E 3 |
| 2114 A 3 | 3115 B 4 | 5481 E 3 |
| 2115 A 4 | 3116 B 4 | 6125 B 3 |
| 2116 A 3 | 3125 B 4 | 6185 B 1 |
| 2117 A 3 | 3126 B 4 | 6285 A 1 |
| 2118 A 3 | 3127 B 4 | 6290 A 1 |
| 2121 A 4 | 3128 B 4 | 6295 A 2 |
| 2122 A 4 | 3129 B 4 | 6400 E 3 |
| 2125 B 4 | 3130 B 4 | 6431 D 4 |
| 2126 B 4 | 3131 B 4 | 7125 B 4 |
| 2127 B 4 | 3132 B 4 | 7131 B 3 |
| 2128 B 4 | 3141 B 4 | 7132 B 3 |
| 2129 B 4 | 3152 A 1 | 7135 B 4 |
| 2131 A 4 | 3156 A 1 | 7136 B 4 |
| 2171 B 1 | 3157 A 1 | 7170 A 1 |
| 2172 A 1 | 3160 A 1 | 7182 C 1 |
| 2173 A 1 | 3161 B 1 | 7183 C 1 |
| 2174 A 1 | 3162 A 1 | 7185 C 1 |
| 2175 A 1 | 3163 B 1 | 7192 C 1 |
| 2183 B 1 | 3164 B 1 | 7193 C 1 |
| 2210 C 3 | 3165 B 1 | 7195 C 1 |
| 2211 C 4 | 3166 A 1 | 7210 B 4 |
| 2217 C 4 | 3168 B 1 | 7245 C 3 |
| 2218 C 4 | 3172 B 1 | 7288 A 1 |
| 2219 B 4 | 3173 A 1 | 7289 A 1 |
| 2220 B 4 | 3174 A 1 | 7292 A 1 |
| 2221 B 4 | 3175 A 1 | 7293 A 2 |
| 2222 B 3 | 3176 A 1 | 7296 A 2 |
| 2223 C 4 | 3177 A 1 | 7297 A 2 |
| 2243 A 3 | 3216 C 4 | 7320 D 1 |
| 2246 C 3 | 3217 C 4 | 7321 E 1 |
| 2247 C 4 | 3218 C 3 | 7322 E 1 |
| 2255 C 3 | 3219 C 4 | 7326 C 1 |
| 2256 C 2 | 3220 C 4 | 7400 E 2 |
| 2259 C 2 | 3229 C 4 | 7405 E 2 |
| 2262 C 2 | 3246 C 3 | 7406 E 3 |
| 2282 A 2 | 3247 C 3 | 7407 C 3 |
| 2285 A 2 | 3257 C 2 | 7440 D 4 |
| 2292 A 1 | 3262 C 2 | 7465 D 2 |
| 2300 E 1 | 3276 A 2 | 7480 E 3 |
| 2302 E 1 | 3312 C 1 | 7481 E 3 |
| 2303 E 1 | 3313 C 1 | 7482 E 3 |
| 2305 E 1 | 3314 C 1 |          |
| 2320 D 1 | 3315 C 1 |          |
| 2321 D 1 | 3316 C 1 |          |
| 2322 D 1 | 3317 C 1 |          |
| 2323 D 1 | 3318 C 1 |          |
| 2324 D 1 | 3319 C 1 |          |
| 2327 D 1 | 3326 C 1 |          |
| 2330 C 1 | 3328 C 1 |          |
| 2333 E 1 | 3334 C 1 |          |
| 2335 C 1 | 3406 E 3 |          |
| 2400 E 3 | 3407 E 2 |          |
| 2401 E 2 | 3419 E 3 |          |
| 2405 E 3 | 3420 C 3 |          |
| 2406 E 2 | 3430 D 4 |          |
| 2407 E 2 | 3442 D 4 |          |
| 2408 E 2 | 3448 D 3 |          |

MAIN BOARD

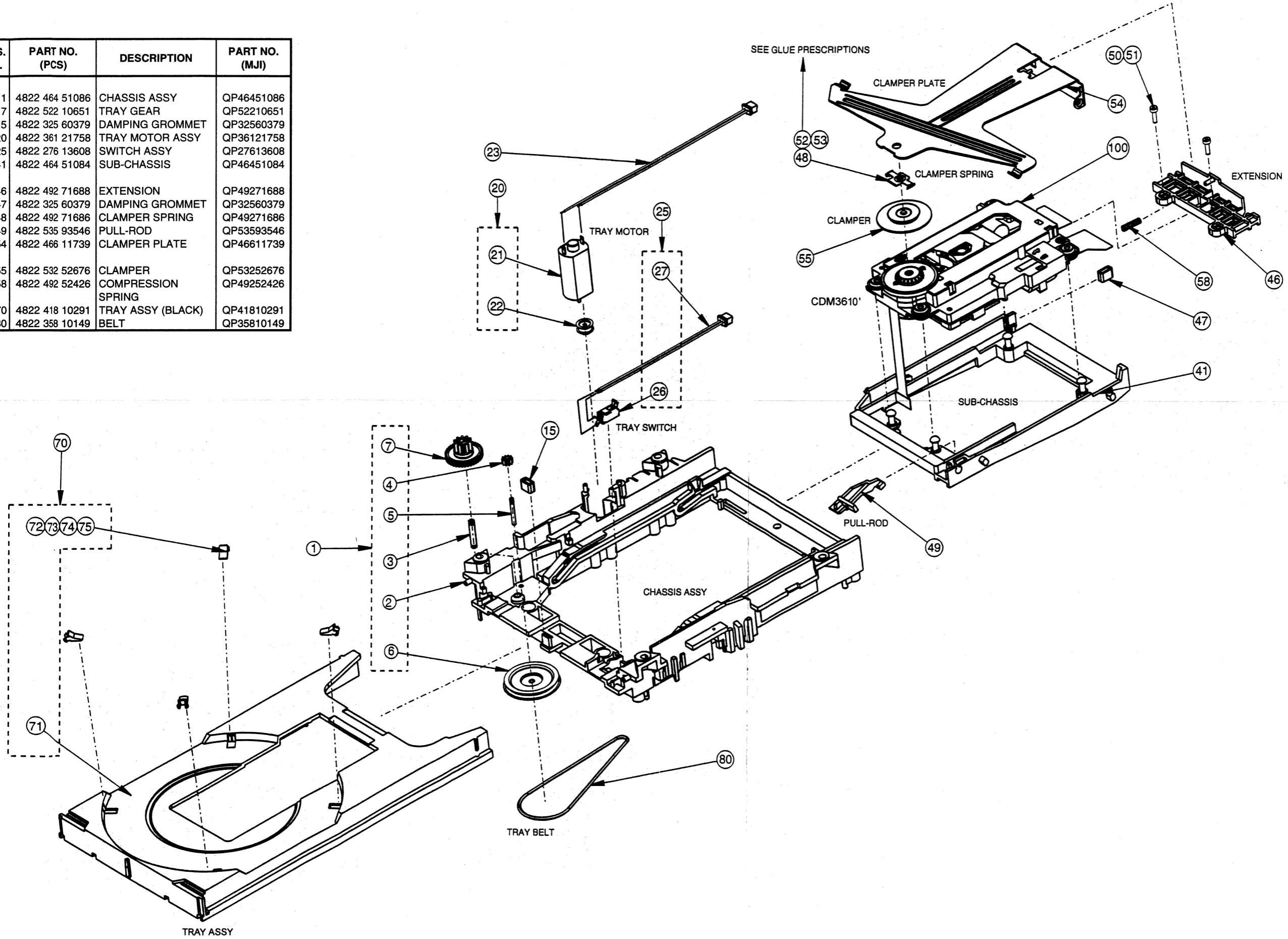
SOLDER SIDE



|          |          |          |          |          |
|----------|----------|----------|----------|----------|
| 2105 B 4 | 2433 D 4 | 3239 B 3 | 3416 E 2 | 7430 D 4 |
| 2106 B 4 | 2434 D 4 | 3240 B 3 | 3417 E 2 | 7435 E 4 |
| 2119 B 4 | 2435 D 4 | 3241 B 3 | 3418 E 3 |          |
| 2120 A 4 | 2442 D 2 | 3242 B 2 | 3431 D 4 |          |
| 2130 A 4 | 2450 E 2 | 3243 B 3 | 3432 D 4 |          |
| 2132 A 4 | 2451 D 4 | 3244 B 3 | 3433 D 4 |          |
| 2134 A 3 | 2465 D 3 | 3245 C 3 | 3434 D 4 |          |
| 2135 A 3 | 2468 D 3 | 3248 C 3 | 3435 D 3 |          |
| 2136 A 3 | 2469 D 3 | 3249 C 3 | 3436 D 4 |          |
| 2138 A 3 | 2485 E 3 | 3250 C 2 | 3437 E 4 |          |
| 2139 A 4 | 2486 E 4 | 3251 C 3 | 3438 D 4 |          |
| 2140 A 3 | 2487 E 4 | 3252 C 3 | 3439 D 4 |          |
| 2156 B 2 | 2489 E 3 | 3253 C 3 | 3440 D 4 |          |
| 2157 B 2 | 2490 E 3 | 3254 C 3 | 3441 D 4 |          |
| 2170 A 1 | 2491 E 3 | 3255 A 3 | 3445 D 4 |          |
| 2176 A 1 | 2492 E 3 | 3256 A 3 | 3446 D 4 |          |
| 2177 B 1 | 3108 B 4 | 3258 C 3 | 3450 E 2 |          |
| 2178 B 1 | 3109 B 4 | 3259 C 3 | 3481 D 3 |          |
| 2179 B 1 | 3111 A 4 | 3260 B 3 | 3482 E 3 |          |
| 2180 B 1 | 3112 A 4 | 3261 C 3 | 3483 E 4 |          |
| 2181 A 1 | 3120 A 4 | 3263 B 3 | 3484 E 3 |          |
| 2182 A 1 | 3121 A 4 | 3264 A 2 | 3485 E 3 |          |
| 2184 C 1 | 3122 A 4 | 3265 A 2 | 3486 E 3 |          |
| 2193 C 1 | 3123 A 4 | 3266 A 2 | 3487 E 3 |          |
| 2194 C 1 | 3124 A 4 | 3267 C 3 | 3489 E 3 |          |
| 2195 A 4 | 3133 A 4 | 3268 B 1 | 3490 E 3 |          |
| 2200 A 3 | 3134 A 4 | 3269 A 2 | 3491 E 3 |          |
| 2203 A 3 | 3135 A 4 | 3270 A 2 | 3492 E 3 |          |
| 2204 B 3 | 3136 A 4 | 3271 A 3 | 3493 E 3 |          |
| 2205 B 3 | 3137 A 4 | 3272 A 3 | 3495 E 3 |          |
| 2206 B 3 | 3138 A 4 | 3273 A 2 | 3900 B 3 |          |
| 2207 B 3 | 3139 A 4 | 3274 B 2 | 3901 B 4 |          |
| 2208 B 3 | 3140 A 3 | 3275 B 2 | 3902 B 4 |          |
| 2214 B 3 | 3142 A 4 | 3277 A 1 | 3904 A 1 |          |
| 2215 B 4 | 3143 A 4 | 3279 A 2 | 3908 A 1 |          |
| 2216 C 4 | 3144 A 4 | 3280 A 2 | 3910 A 4 |          |
| 2224 B 3 | 3149 B 2 | 3281 B 2 | 3911 A 4 |          |
| 2225 C 4 | 3150 A 4 | 3282 A 1 | 3920 C 3 |          |
| 2226 B 3 | 3153 B 2 | 3283 A 1 | 3923 B 2 |          |
| 2227 A 3 | 3154 B 2 | 3284 A 1 | 4322 D 1 |          |
| 2228 B 4 | 3155 B 2 | 3285 A 2 | 4323 D 1 |          |
| 2229 C 4 | 3158 A 1 | 3286 A 2 | 5105 A 4 |          |
| 2230 B 3 | 3169 A 1 | 3287 A 1 | 5130 A 4 |          |
| 2231 A 3 | 3171 B 1 | 3288 A 2 | 5132 A 4 |          |
| 2232 A 3 | 3178 B 1 | 3289 A 1 | 5170 B 1 |          |
| 2233 B 3 | 3179 B 1 | 3290 A 2 | 5210 C 4 |          |
| 2234 B 3 | 3180 B 1 | 3291 A 2 | 5223 C 4 |          |
| 2235 B 3 | 3181 B 1 | 3292 A 2 | 5255 C 2 |          |
| 2236 B 3 | 3182 B 1 | 3293 A 2 | 6120 A 4 |          |
| 2237 B 3 | 3183 C 1 | 3294 A 2 | 6130 B 4 |          |
| 2238 B 3 | 3184 C 1 | 3295 A 2 | 6140 A 3 |          |
| 2239 B 3 | 3185 C 1 | 3296 A 2 | 6155 B 2 |          |
| 2240 B 2 | 3186 C 1 | 3297 A 2 | 6300 E 1 |          |
| 2241 B 3 | 3187 C 1 | 3298 A 2 | 6301 E 1 |          |
| 2242 B 3 | 3188 C 1 | 3299 A 3 | 6430 D 4 |          |
| 2244 A 3 | 3189 C 1 | 3300 E 1 | 7105 B 4 |          |
| 2245 C 3 | 3190 B 1 | 3301 E 1 | 7120 A 4 |          |
| 2248 B 2 | 3191 B 1 | 3302 E 1 | 7121 A 4 |          |
| 2250 B 2 | 3192 B 1 | 3303 E 1 | 7130 A 4 |          |
| 2258 C 3 | 3193 C 1 | 3304 E 2 | 7150 B 2 |          |
| 2267 C 3 | 3194 C 1 | 3305 E 1 | 7160 A 4 |          |
| 2268 B 2 | 3195 C 1 | 3306 E 1 | 7186 C 1 |          |
| 2270 A 2 | 3196 C 1 | 3307 E 1 | 7200 A 3 |          |
| 2280 A 2 | 3199 C 1 | 3320 D 1 | 7205 B 3 |          |
| 2281 A 2 | 3201 A 3 | 3321 D 1 | 7209 B 3 |          |
| 2283 B 2 | 3202 A 3 | 3322 D 1 | 7223 A 3 |          |
| 2284 A 2 | 3203 A 3 | 3323 D 1 | 7224 A 3 |          |
| 2286 B 2 | 3204 A 3 | 3324 D 1 | 7225 A 3 |          |
| 2287 B 2 | 3208 B 3 | 3325 D 1 | 7230 B 3 |          |
| 2288 A 1 | 3209 B 3 | 3327 C 1 | 7235 B 3 |          |
| 2296 A 2 | 3210 B 3 | 3329 C 1 | 7240 B 2 |          |
| 2297 A 2 | 3211 B 3 | 3330 C 1 | 7241 B 2 |          |
| 2301 E 1 | 3212 B 3 | 3331 E 1 | 7270 A 2 |          |
| 2304 E 1 | 3213 B 3 | 3332 C 2 | 7271 A 2 |          |
| 2325 D 1 | 3215 C 4 | 3333 D 1 | 7272 A 2 |          |
| 2326 D 1 | 3221 B 4 | 3350 D 1 | 7280 A 2 |          |
| 2328 D 2 | 3222 B 4 | 3351 D 1 | 7282 A 2 |          |
| 2329 C 1 | 3223 A 3 | 3352 E 1 | 7285 A 2 |          |
| 2331 E 2 | 3224 A 3 | 3353 E 1 | 7286 A 1 |          |
| 2332 E 1 | 3225 A 3 | 3400 E 2 | 7287 A 1 |          |
| 2334 C 2 | 3226 A 3 | 3401 E 2 | 7290 A 1 |          |
| 2336 C 2 | 3227 A 3 | 3402 E 3 | 7291 A 1 |          |
| 2402 E 2 | 3228 B 4 | 3403 E 2 | 7294 A 2 |          |
| 2403 E 2 | 3230 A 3 | 3404 E 3 | 7295 A 2 |          |
| 2404 E 2 | 3231 A 3 | 3405 E 2 | 7300 E 1 |          |
| 2416 E 2 | 3232 A 3 | 3408 E 2 | 7301 E 1 |          |
| 2420 D 2 | 3233 B 3 | 3409 E 3 | 7302 E 1 |          |
| 2421 D 2 | 3234 A 3 | 3410 E 2 | 7310 C 2 |          |
| 2422 E 2 | 3235 B 3 | 3412 E 2 | 7323 E 1 |          |
| 2423 E 2 | 3236 B 3 | 3413 E 2 | 7324 D 2 |          |
| 2431 D 4 | 3237 B 2 | 3414 E 2 | 7325 C 1 |          |
| 2432 D 4 | 3238 B 3 | 3415 E 2 | 7403 D 2 |          |

2.3 EXPLODED VIEW AND PARTS LIST

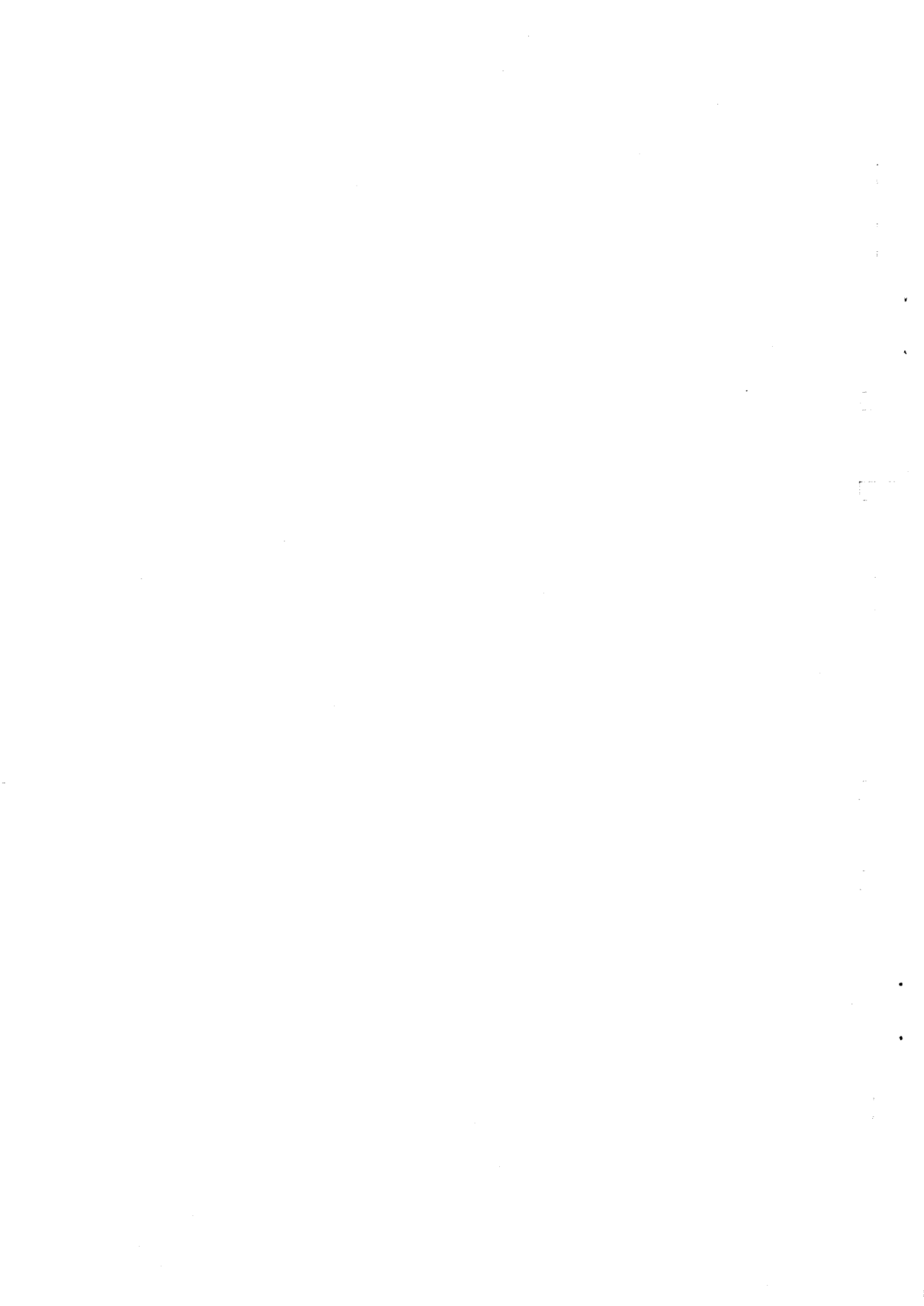
| POS. NO. | PART NO. (PCS) | DESCRIPTION        | PART NO. (MJI) |
|----------|----------------|--------------------|----------------|
| 1        | 4822 464 51086 | CHASSIS ASSY       | QP46451086     |
| 7        | 4822 522 10651 | TRAY GEAR          | QP52210651     |
| 15       | 4822 325 60379 | DAMPING GROMMET    | QP32560379     |
| 20       | 4822 361 21758 | TRAY MOTOR ASSY    | QP36121758     |
| 25       | 4822 276 13608 | SWITCH ASSY        | QP27613608     |
| 41       | 4822 464 51084 | SUB-CHASSIS        | QP46451084     |
| 46       | 4822 492 71688 | EXTENSION          | QP49271688     |
| 47       | 4822 325 60379 | DAMPING GROMMET    | QP32560379     |
| 48       | 4822 492 71686 | CLAMPER SPRING     | QP49271686     |
| 49       | 4822 535 93546 | PULL-ROD           | QP53593546     |
| 54       | 4822 466 11739 | CLAMPER PLATE      | QP46611739     |
| 55       | 4822 532 52676 | CLAMPER            | QP53252676     |
| 58       | 4822 492 52426 | COMPRESSION SPRING | QP49252426     |
| 70       | 4822 418 10291 | TRAY ASSY (BLACK)  | QP41810291     |
| 80       | 4822 358 10149 | BELT               | QP35810149     |





## **Repair Procedure**

When you return the reject complete CDR loader for **Central Repair Procedure** (module exchange procedure). Please make a copy of attached sheet "**GUIDANCE FORM REPAIRABLE UNIT**" and fill in required contents. It is necessary to attach the sheet "**GUIDANCE FORM REPAIRABLE UNIT**" with each reject CDR loaders one by one.



**GUIDANCE FORM**  
**REPAIRABLE UNIT 4822 691 10749 (CDR630)**  
**4822 691 10751 (DR700)**

Please fill in this form and return it with the defective unit.

**Typenumber** (unit demounted from set) :  **CDR630**/.....  
 or :  **DR700**/.....  
**Serial number** : .....  
**Unit serial number** (CDR Module) : **CDL3610/01; ...VO**.....

**WARNING: Dismantling of the CDR Module is not allowed.**  
**Guarantee will be invalidated.**

**INFORMATION GATHERED VIA SERVICE TEST MODE**

Switch POWER ON,  
 OPEN/CLOSE,  
 Insert test disc SBC444A, or any other CD-Digital Audio disc;  
 switch POWER OFF,  
 <PLAY>+<NEXT>+<POWER ON>  
 During test:  
 Blinking 'D' on display;  
 Blinking 'B' on display.

**ERROR INDICATION (on display) according to table below: Y / N**

|                                 | ON DISPLAY    | IRIS SYMPTOM CODE | YES *) |
|---------------------------------|---------------|-------------------|--------|
| <b>DISPLAY TEST RESULT</b>      |               |                   |        |
| RAM error                       | <b>DERR 1</b> | 15....            |        |
| ROM error                       | <b>DERR 2</b> | 16....            |        |
| EEPROM error                    | <b>DERR 3</b> | 16....            |        |
| DAIO error                      | <b>DERR 4</b> | 15....            |        |
| GDIN error                      | <b>DERR 5</b> | 15....            |        |
| <b>BASIC ENGINE TEST RESULT</b> |               |                   |        |
| Communication bus error         | <b>BERR 1</b> | 15....            |        |
| Basic Engine error              | <b>BERR 2</b> | 15....            |        |
| Disc test error                 | <b>BERR 3</b> | 16....            |        |

\*) insert cross at seen display result.

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**OTHER COMPLAINT DESCRIPTION :  
( IRIS SYMPTOM CODE: ..... )**

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**Return the defective unit complete assembled in original package to:**

Invoice to:  
Philips Consumer Electronics B.V. 670005  
Philips Consumer Service - F&A Reporting  
Glaslaan 2  
Building SBP5  
5616 LW Eindhoven  
The Netherlands

Ship to:  
Philips Consumer Electronics B.V. 676723  
LO PCS WAREHOUSING  
Glaslaan 2,  
Building SBI p  
5616 LW Eindhoven  
The Netherlands  
ATT: Mr. C. Lieberwirth

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**CORRECTIVE ACTION/SOLUTION**

(to be filled in at central repair workshop):

Report number:.....

Iris repair code:.....

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