

TASCAM
TEAC Professional Division

SERVICE MANUAL

CD-RW2000

Professional
CD Rewritable Recorder

CONTENTS

| | |
|---------------------------------------|----|
| 1. SAFETY INFORMATION | 2 |
| 2. SPECIFICATIONS | 3 |
| 3. TEST MODE | 5 |
| 4. AUDIO CHECKS | 6 |
| 5. EXPLODED VIEW AND PARTS LIST | 9 |
| 6. PC BOARDS AND PARTS LIST | 12 |

目次

| | |
|-----------------------------|----|
| 1. SAFETY INFORMATION | 2 |
| 2. 仕様 | 3 |
| 3. テストモード | 5 |
| 4. オーディオ確認 | 6 |
| 5. 分解図とパーツリスト | 9 |
| 6. 基板図とパーツリスト | 12 |

INSTRUCTIONS FOR SERVICE PERSONNEL

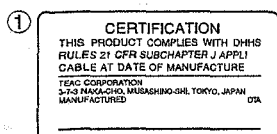
BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

1. SAFETY INFORMATION

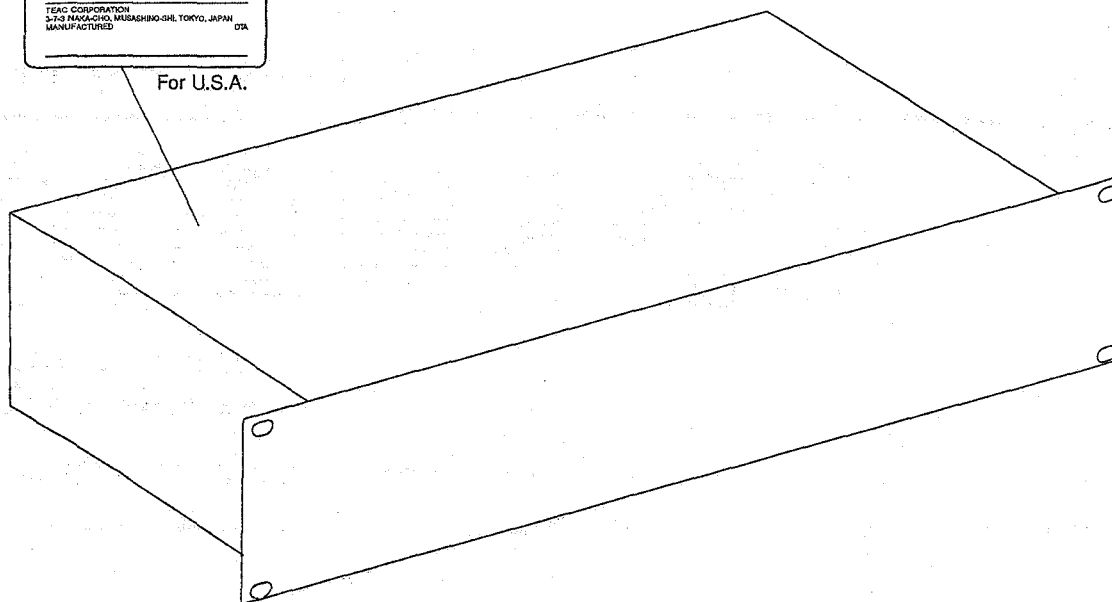
This product has been designed and manufactured according to FDA regulations "title 21, CFR, chapter 1, subchapter J, based on the Radiation Control for Health and Safety Act of 1968", and is classified as a class 1 laser product. There is no hazardous invisible laser radiation during operation because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

● **CAUTION**

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



For U.S.A.



| |
|------------------------------------------------------------------------------------|
| Optical pickup: Type : KRS-202A or KRS-220B |
| Manufacturer : SONY Corporation |
| Laser output : Less than 0.1 mW (Play) and 32 mW (Record) on the objective lens |
| Wavelength : 777-787 nm |

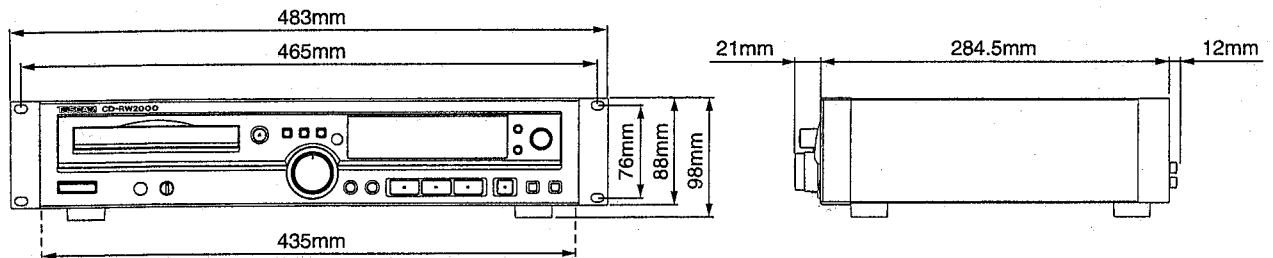
2. SPECIFICATIONS

仕様

| | | | |
|-------------------------------|---------------------------------------------------------|---------------|-----------------------------------------------|
| Recording media type: | CD-R, CD-R-DA CD-RW, CD-RW-DA | 記録ディスク: | CD-R, CD-R-DA CD-RW, CD-RW-DA |
| Recording resolution: | 16-bit linear | 量子化ビット数: | 16 bit リニア |
| Recording sampling frequency: | 44.1 kHz | サンプリング周波数: | 44.1 kHz |
| Frequency converter input: | 32 kHz - 48 kHz | 再生周波数特性: | 20 Hz ~ 20 kHz ±0.5 dB (再生時)、±1.0 dB (記録時) |
| Frequency response: | 20 Hz - 20 kHz (playback ±0.5 dB, recording ±1.0 dB) | S/N 比: | 98 dB (再生時)、92 dB (記録時) |
| S/N ratio: | 98 dB (playback), 92 dB (recording) | ダイナミックレンジ: | 94 dB (再生時)、92 dB (記録時) |
| Dynamic range: | 94 dB (playback), 92 dB (recording) | 歪率: | 0.004 % (再生時)、0.005 % (記録時) |
| Total harmonic distortion: | 0.004 % (playback), 0.005 % (recording) | チャンネルセパレーション: | 90 dB (再生時、1 kHz) 80 dB (記録時、1 kHz) |
| Channel separation: | 90 dB (playback : 1 kHz), 80 dB (recording : 1 kHz) | ワウフラッター: | 測定限界以下 (0.001% 以下) |
| Wow & flutter: | Unmeasurable (< 0.001 %) | アナログ入力 | |
| Analog inputs: | Balanced XLR-type | バランス入力: | XLR-3-31 相当 |
| Nominal input level: | +4 dBu (FS-16dB) | 基準入力レベル: | +4 dBu (FS - 16 dB) |
| Maximum input level: | +20 dBu | 最大入力レベル: | +20 dBu |
| Input impedance: | 10 kΩ (balanced) | 入力インピーダンス: | 10 kΩ (平衡) |
| Analog inputs: | Unbalanced RCA | アンバランス入力: | RCA ピン |
| Nominal input level: | -10 dBV (FS-16dB) | 基準入力レベル: | -10 dBV (FS - 16 dB) |
| Maximum input level: | +6 dBV | 最大入力レベル: | +6 dBV |
| Input impedance: | 33 kΩ (unbalanced) | 入力インピーダンス: | 33 kΩ (不平衡) |
| Analog outputs: | Balanced XLR-type | アナログ出力 | |
| Nominal output level: | +4 dBu (FS-16dB) | バランス出力: | XLR-3-32 相当 |
| Maximum output level: | +20 dBV | 基準出力レベル: | +4 dBu (FS - 16 dB) |
| Output impedance: | 75 Ω (balanced) | 最大出力レベル: | +20 dBu |
| Analog outputs: | Unbalanced RCA | 出カインピーダンス: | 75 Ω (平衡) |
| Nominal output level: | -10 dBV (FS-16dB) | アンバランス出力: | RCA ピン |
| Maximum output level: | +6 dBV | 基準出力レベル: | -10 dBV (FS - 16 dB) |
| Output impedance: | 800 Ω (unbalanced) | 最大出力レベル: | +6 dBV |
| Headphone output: | 6 mm (1/4") stereo | 出カインピーダンス: | 800 Ω (不平衡) |
| Output level: | 35 mW + 35 mW (into 32 Ω) | ヘッドホン出力: | 6 φ ステレオ 35 mW+35 mW (32 Ω 負荷) |
| Digital input: | | デジタル入力 | |
| AES/EBU: | XLR-type, AES3-1992 | AES/EBU: | XLR-3-31 相当、AES3-1992 |
| COAXIAL: | RCA pin, IEC60958 TYPE II | COAXIAL: | RCA ピン、IEC60958 TYPE II |
| OPTICAL: | TOSLINK, IEC60958 TYPE II | OPTICAL: | TOSLINK、IEC60958 TYPE II |
| Digital output: | | デジタル出力 | |
| AES/EBU: | XLR-type, AES3-1992 | AES/EBU: | XLR-3-32 相当、AES3-1992 |
| COAXIAL: | RCA pin, IEC60958 TYPE II | COAXIAL: | RCA ピン、IEC60958 TYPE II |
| OPTICAL: | TOSLINK, IEC60958 TYPE II | OPTICAL: | TOSLINK、IEC60958 TYPE II |

Voltage requirements: USA/Canada 120 VAC, 60 Hz
 U.K./Europe 230 VAC, 50 Hz
 Australia 240 VAC, 50 Hz
Power consumption: 30 W
Applicable electromagnetic environment: E4
Peak inrush current: 1.8 A
Dimensions w x h x d: 483 x 98 x 317.5 (mm)
 19 x 3.9 x 12.5 (in)
Weight: 7 kg (15.4 lbs)
Operating temperature: 5°C to 35°C (41°F to 95°F)
Supplied accessories: RC-RW2000 remote control unit
 2 m (6 ft.) AC cord
 Rack mount screw kit

電源: 100 VAC, 50-60 Hz
消費電力: 30 W
重量: 7.0 kg
外形寸法 (W×H×D): 483×98×317.5 mm
付属品: RC-RW2000 リモコン
 電源コード (2m)
 ラックマウントビスキット



3. TEST MODE

テストモード

3-1. How to enter test mode

1. Turn power on while pressing and holding the MENU and CALL keys simultaneously. The display will show the model name and the system controller's version number, and the test mode is initiated.
2. Press the STOP key to exit from the test mode and return to the normal mode.

3-2. Operations in test mode

3-2-1. Front key check

1. Press the PLAY key to enter the front key check mode.
2. The display shows the name of each key to be checked; press the corresponding key.
When the check result of the key is OK, the display shows another key name. When the result is No Good, the display continues to show the same key name.
3. The display finally shows "dial". Check the MULTI DIAL so that the displayed figure increases when the dial is rotated clockwise and decreases when it is rotated counterclockwise.
4. Press the PLAY key to exit from the front key check mode and return to the Version number display mode.

3-2-2. Display check

1. Press the DISPLAY key to enter the display check mode.
2. Press DISPLAY key a few times and ensure that each press lights the display blocks one after another.
3. When all the indicators are lit, press the DISPLAY key to exit from the display check mode and return to the Version number display mode.

3-2-3. EEPROM default setting

The following operation writes the default values in the EEPROM and checks the write data automatically.

1. Press the ERASE key.
When the default data is written correctly, the display shows "EEPROM OK !!". If not, it shows "EEPROM NG !!".
2. Press the ERASE key again to return to the Version number display mode.

3-2-4. Converter MPU Version No. display

1. When the PAUSE key is pressed, the display shows the converter MPU version number.
2. Press the PAUSE key again to return the system controller's version number display mode.

3-2-5. Total recording time display

1. When the REC key is pressed, the display shows the time in which the pickup outputs the recording power (in the unit of hour).
2. Press the REC key again to return to the Version number display mode.

3-1. テストモードに入る方法

1. MENUキーとCALLキー押しながらPOWER ONすると、表示部に機種名とシスコンのVersion No. が表示されテストモードに入る。
2. STOPキーを押すと、テストモードは終了し通常モードに戻る。

3-2. テストモードにおける動作

3-2-1. フロントキーチェック

1. PLAYキーを押し、フロントキーチェックモードに入る。
2. 表示部にチェックするキーの名称が表示されるので、そのキーを押す。
チェックOKなら次のキーの名称が表示され、NGなら表示は変化しない。
3. 最後に、“dial”の表示が出るので、MULTI DIALを回して確認する。表示の数字が、右回しで増加、左回しで減少すること。
4. PLAYキーを押すと、フロントキーチェックモードを終了しVersion No. 表示に戻る。

3-2-2. ディスプレイチェック

1. DISPLAYキーを押し、ディスプレイチェックモードに入る。
2. DISPLAYキーを押すたびに、表示部がブロックごとに点灯して行くことを確認する。
3. 表示部が全点灯した状態からDISPLAYキーを押すと、ディスプレイチェックモードを終了しVersion No. 表示に戻る。

3-2-3. EEPROM デフォルト設定

EEPROMにデフォルト値を書き込み、自動的に書き込みチェックを行う。

1. ERASEキーを押す。
このとき、正しく書き込めていれば、表示部に“EEPROM OK !!”と表示され、不良の場合は“EEPROM NG !!”と表示される。
2. 再度ERASEキーを押すと、Version No. 表示に戻る。

3-2-4. コンバータマイコン Version No. 表示

1. PAUSEキーを押すと、コンバータマイコンのVersion No.を表示する。
2. 再度PAUSEキーを押すと、シスコンVersion No. 表示に戻る。

3-2-5. 記録積算時間表示

1. RECキーを押すと、ピックアップが記録パワーを出力した時間を表示する。(単位: hour)
2. 再度RECキーを押すと、Version No. 表示に戻る。

4. AUDIO CHECKS

オーディオ確認

4-1. Playback performance 再生系

Mode: Play

Measurement point: ANALOG OUTPUT (UNBALANCED) [unless otherwise specified 特に指示のある場合を除く]

| ITEM 項目 | TEST DISC/ TRACK No. | PLAYBACK SIGNAL | SPECIFICATIONS 規格 | REMARKS 備考 |
|---------------------------------------------------------|----------------------------------------------------|-----------------------|---------------------------------|-------------------------------------------------|
| 1. Playback level 再生レベル (BALANCE) | MCD-111 : Tr. No. 2 | 1 kHz, 0 dB | +20 dBu ± 2 dB | Output terminal: ANALOG OUTPUT (BALANCED) |
| 2. Playback level 再生レベル (UNBALANCE) | MCD-111 : Tr. No. 2 | 1 kHz, 0 dB | +6 dBV ± 2 dB | |
| 3. Playback distortion 再生歪率 | MCD-111 : Tr. No. 2 | 1 kHz, 0 dB | 0.005 % or less | 400 Hz HPF in 22 kHz LPF in |
| 4. Playback frequency response 再生周波数特性 | MCD-111 : Tr. No. 3~6 | 20 Hz~20 kHz, 0 dB | 0 ± 1 dB | Reference level: 1 kHz |
| 5. SN ratio SN比 | MCD-111 : Tr. No. 7 | | 94 dB or better | 22 kHz LPF in IEC-A |
| 6. Playback channel separation 再生チャンネル セパレーション | MCD-111 : Tr. No. 8 (L→R) , Tr. No. 10 (R→L) | 1 kHz, 0 dB | 80 dB or better | 22 kHz LPF in IEC-A |
| 7. Emphasis effect エンファシス効果 | MCD-111 : Tr. No. 13 | 16 kHz, -20 dB | -20 dB ± 1 dB | |
| 8. Interruption インタラプション | MCD-131 : Tr. No. 3 | | No sound skipping. 音飛びが無いこと。 | Interruption 700 μm |
| 9. Black band ブラックバンド | MCD-131 : Tr. No. 10 | | No sound skipping. 音飛びが無いこと。 | Black band 600 μm |
| 10. Finger print フィンガー プリント | MCD-131 : Tr. No. 13 | | No sound skipping. 音飛びが無いこと。 | |

4-2. Recording performance 録音系

Mode: REC Monitor

INPUT SELECT: Un Bal [unless otherwise specified 特に指示のある場合を除く]

Input terminal: ANALOG INPUT (UNBALANCED) [unless otherwise specified 特に指示のある場合を除く]

Measurement point: ANALOG OUTPUT (UNBALANCED) [unless otherwise specified 特に指示のある場合を除く]

| ITEM 項目 | INPUT SIGNAL 入力信号 | SPECIFICATIONS 規格 | REMARKS 備考 |
|------------------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 1. Record level 録音レベル (BALANCE) | ANALOG INPUT (BALANCED): 1 kHz, +20 dBu | Rotate the INPUT (L, R) controls to positions at which the "OVER" segments of the level meter is just about to light. AT this time, the output level should be +20 dBu \pm 2 dB. INPUT (L,R)つまみを回して、レベルメータの“OVER”が点灯する直前になるようにセットする。 このとき、出力は +20 dBu \pm 2 dBであること。 | INPUT SELECT: Balance Output terminal: ANALOG OUTPUT (BALANCED) |
| 2. Record level 録音レベル (UNBALANCE) | 1 kHz, +6 dBV | Rotate the INPUT (L, R) controls to positions at which the "OVER" segments of the level meter is just about to light. AT this time, the output level should be +6 dBV \pm 2 dB. INPUT (L,R)つまみを回して、レベルメータの“OVER”が点灯する直前になるようにセットする。 このとき、出力は +6 dBV \pm 2 dBであること。 | Do not vary the INPUT control positions after the adjustment. (These are their specified positions.) 調整後、INPUTつまみは動かさないこと。(規定位置) |
| 3. Total harmonic distortion 総合歪率 | 1 kHz, +6 dBV | 0.01 % or less | 22 kHz LPF in 400 Hz HPF in |
| 4. Overall frequency response 録再周波数特性 | 20 Hz-20 kHz, +6 dBV | 0 \pm 1 dB | Reference level: 1 kHz |
| 5. Overall SN ratio 録再SN比 | | 88 dB min. | 22 kHz LPF in IEC-A |
| 6. Channel separation チャンネルセパレーション | Lch: 1 kHz, +6 dBV Rch: No signal | Ratio between the L CH and R CH outputs: 75 dB min. Also check the channel separation of L CH from R CH. Lchの出力とRchの出力の比: 75 dB 以上 Rch→Lchも同様に確認すること。 | 22 kHz LPF in IEC-A |
| 7. PHONES output level PHONES出力レベル | 1 kHz, +6 dBV | Phones output level when the PHONE level control is set to the maximum position: 1.1 V or more. PHONESレベルつまみを最大にしたときのPHONES出力: 1.1 V 以上 | 32 Ω load |

PARTS LIST SECTION

NOTES

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

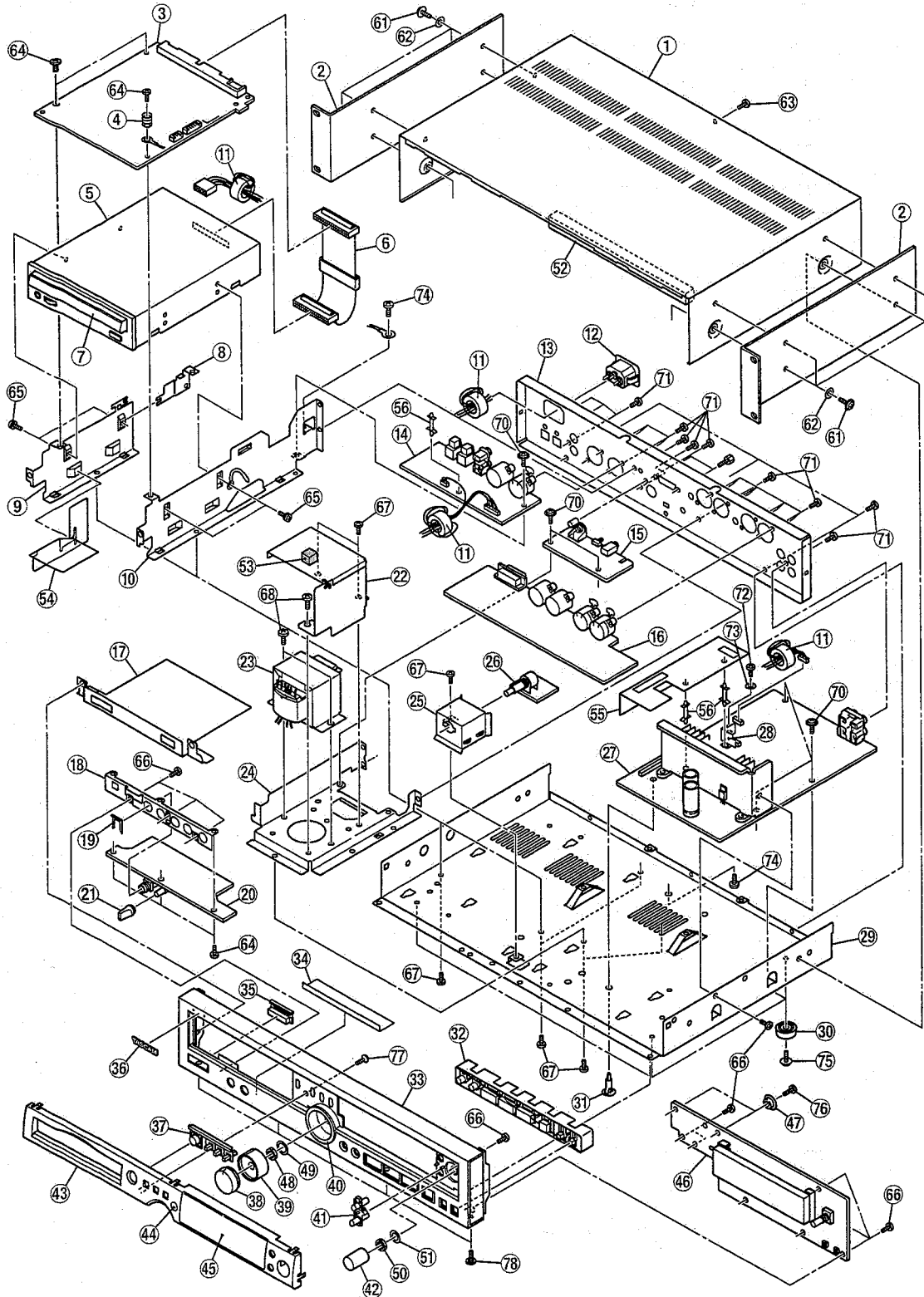
注意

- プリント基板は部品面が示されています。
- *印の部品は納期が若干かかります。
あらかじめご了承ください。
- 分解図に部番のない部品及び品番のない部品は供給しません。
- 標準の抵抗、コンデンサーは省略してあります。
回路図を参照してください。
- Δ は安全重要部品です。
交換する時は必ずティアック指定の部品を使用してください。
- 仕向先
[J]: JAPAN [US/C]: U.S.A./CANADA [K]: KOREA [E]: EUROPE
[UK]: U.K. [A]: AUSTRALIA

5. EXPLODED VIEW AND PARTS LIST

分解図とパーツリスト

EXPLODED VIEW-1



EXPLODED VIEW-1

| REF. NO. | PARTS NO. | DESCRIPTION | REMARKS |
|----------|--------------|-----------------------------|-----------------------------|
| 1- 1 | *3M0058120A | BONNET | |
| 1- 2 | *3M0073210B | RACK MOUNT ANGLE, N64 | |
| 1- 3 | *3E9524720B | PCB ASSY, CONVERTER | |
| 1- 4 | *3M0101500A | SPRING, EARTH BONNET | |
| 1- 5 | V00089500A | CD-W54E-A90 | |
| 1- 6 | *3E0117100A | WIRE, DRIVE-CONVERT 40P | |
| 1- 7 | *3M0089930B | PANEL, TRAY 700 | |
| 1- 8 | *3M0101300A | BRACKET, EARTH CVT PCB | |
| 1- 9 | *3M0088400A | BRACKET MECHA SIDE(L) | |
| 1-10 | *3M0088500C | BRACKET MECHA SIDE(R) | |
| 1-11 | *3E010000 | FERRITE CORE, B18T 25X12X15 | |
| 1-12 | △ 5332030400 | AC INLET, M1816 | |
| 1-13 | *3M0111000A | PANEL, REAR | |
| 1-14 | | PCB ASSY, DIGITAL I/O | GATHER DIGITAL I/O PCB ASSY |
| 1-15 | | PCB ASSY, CONTROL I/O | GATHER DIGITAL I/O PCB ASSY |
| 1-16 | | PCB ASSY, BAL I/O | GATHER BAL I/O PCB ASSY |
| 1-17 | *3M0100410A | SHEET, SHILD PH PCB | |
| 1-18 | *3M0088600C | BRACKET, JACK | |
| 1-19 | *3E011630 | MOUNT PLATE, JACK | |
| 1-20 | | PCB ASSY, PSW/HP | GATHER AUDIO PCB ASSY |
| 1-21 | 3M0024830A | KNOB, PHONE VOLUM N66 | |
| 1-22 | *3M0112300A | CASE, TRANS SHIELD | |
| 1-23 | △ 3E0117710A | TRANS | |
| 1-24 | *3M0110900A | BRACKET, TRANS | |
| 1-25 | *3M0096600A | CASE, SHIELD VR | |
| 1-26 | | PCB ASSY, VR | GATHER FRONT PCB ASSY |
| 1-27 | | PCB ASSY, AUDIO | GATHER AUDIO PCB ASSY |
| 1-28 | *3M0101600B | SHEET, BARRIER CONECT | |
| 1-29 | *3M0057910B | CHASSIS, MAIN | |
| 1-30 | 3M001950 | FOOT, 21MM | |
| 1-31 | *3M0062600A | SUPPORT, PCB SCD-12 | |
| 1-32 | 3M0089430A | BUTTON, UNT OPE N63 | |
| 1-33 | 3M0088730B | PANEL, FRONT N64 | |
| 1-34 | *3M0100500B | SHEET, EARTH | |
| 1-35 | 3M0111200A | BUTTON, POWER N66 | |
| 1-36 | 5720254101 | NAME PLATE, TASCAM(S) | |
| 1-37 | 3M0089330A | BUTTON, UNT O/C N63 | |
| 1-38 | 3M0090130A | KNOB, REC(R) N66 | |
| 1-39 | 3M0089730A | KNOB, REC(L) N66 | |
| 1-40 | 3M0089130A | RING, REC KNOB N66 | |
| 1-41 | 3M0089230A | BUTTON, MENU N66 | |
| 1-42 | 3M0089830A | KNOB, D15 JOG N66 | |
| 1-43 | *3M0088830A | ESCUTCHEON F, N66 | |
| 1-44 | *3M0089010B | LENS, LED | |
| 1-45 | *3M0088910B | WINDOW, FL | |
| 1-46 | | PCB ASSY, FRONT | GATHER FRONT PCB ASSY |
| 1-47 | *3M0097400B | STOPPER, BONNET | |
| 1-48 | *3M001340 | NUT, VR M9 | |
| 1-49 | *3M001350 | WASHER, PLAIN VR M9.1 | |
| 1-50 | *3M0096900A | NUT, M7 | |
| 1-51 | *3M0096800A | WASHER, PLAIN M7 | |

EXPLODED VIEW-1

| REF. NO. | PARTS NO. | DESCRIPTION | REMARKS |
|----------|--------------|-------------------------------------|---------|
| 1-52 | * 3M0112800A | CUSHION, WIRE PROTECT | |
| 1-53 | * 3M0112500A | CUSHION, SHIELD CASE | |
| 1-54 | * 3M0110800A | SHEET, BARRIER PSW | |
| 1-55 | * 3M0099200B | SHEET, BARRIER E. PWR [K, E, UK, A] | |
| 1-56 | * 3M0099100A | SUPPORT, PCB CBS-15 | |
| 1-61 | * 3B0001812A | SCREW, J, S M3X12 (BLK) | |
| 1-62 | 3M002020 | WASHER, FIBER 3X8X0.3T BLK | |
| 1-63 | * 3B0003808A | SCREW, VPC M3X8 BLK | |
| 1-64 | * 3B0005305A | SCREW, BPB M3X5 | |
| 1-65 | 3B0007400A | SCREW, BPAA M3X6 | |
| 1-66 | * 3B0000808A | SCREW, BPP M3X8 | |
| 1-67 | * 3B0005708A | SCREW, BPB M3X8 (BLK) | |
| 1-68 | * 3B0001908A | SCREW, J, S M4X8 (BLK) | |
| 1-69 | Vacant | | |
| 1-70 | * 3B0001306A | SCREW, J, S M3X6 | |
| 1-71 | * 3B0005708A | SCREW, BPB M3X8 (BLK) | |
| 1-72 | * 3B0000106A | SCREW, BPS M3X6 | |
| 1-73 | * 3M0102400A | PLAIN WASHER, 3.5X10X1 | |
| 1-74 | * 3B0005408A | SCREW, BPB M4X8 | |
| 1-75 | * 3B0001308A | SCREW, J, S M3X8 | |
| 1-76 | * 3B0000810A | SCREW, BPP M3X10 | |
| 1-77 | * 3B0007008A | SCREW, FPP M3X8 | |
| 1-78 | * 3B0007300A | SCREW, FPS TITE M3X6 | |

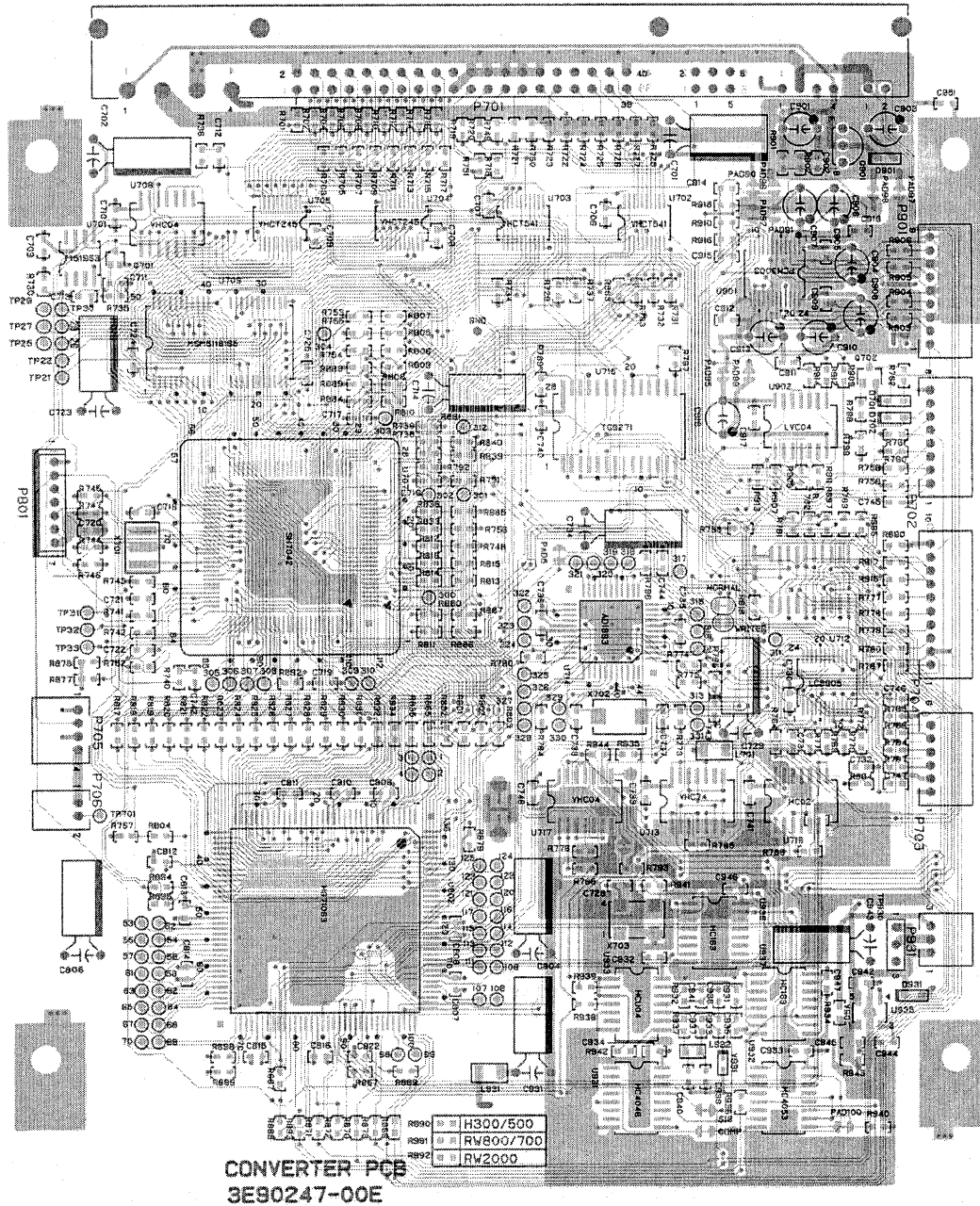
INCLUDED ACCESSORIES

| REF. NO. | PARTS NO. | DESCRIPTION | REMARKS |
|----------|--------------|------------------------------------|---------|
| | * 3D0038700A | OWNER'S MANUAL, JAPANESE [J] | |
| | * 3D0038800A | OWNER'S MANUAL, ENGLISH [EXCEPT J] | |
| | * 3E0137100A | REMOTE CONTROL UNIT, RC-RW2000 | |
| | * 3M0028300A | RACK MOUNT SCREW KIT | |
| | △ * 3E014140 | POWER CORD [J] | |
| | △ * 3E014150 | POWER CORD [US/C] | |
| | △ * 3E014160 | POWER CORD [E] | |
| | △ * 3E014170 | POWER CORD [UK] | |
| | △ * 3E014180 | POWER CORD [A] | |

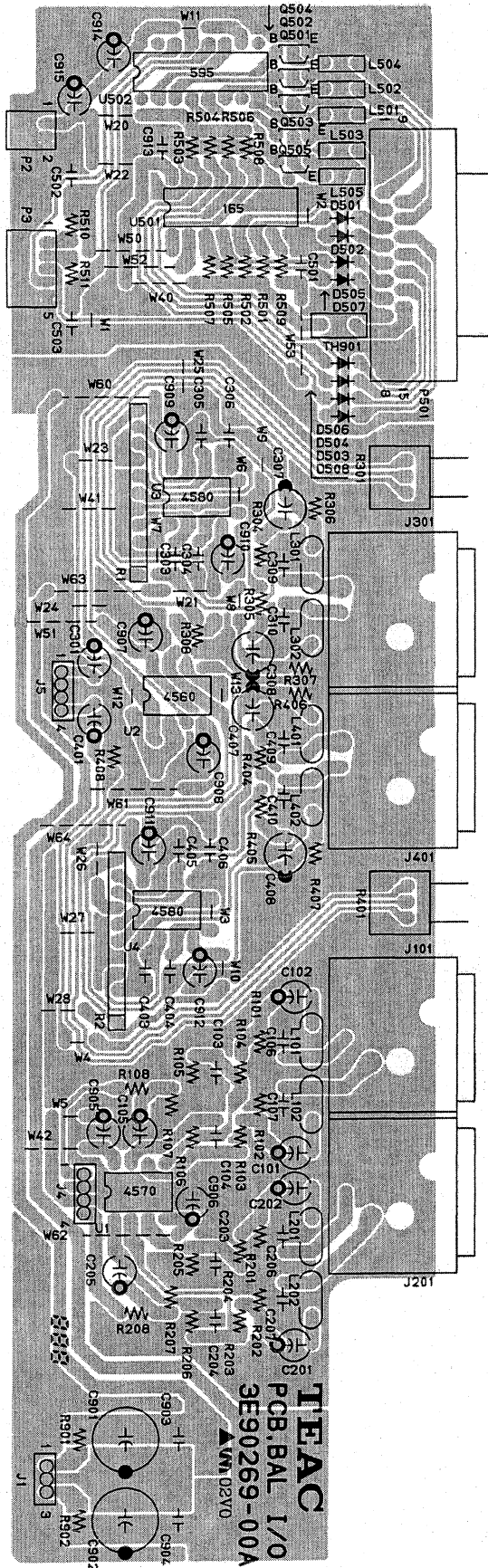
6. PC BOARDS AND PARTS LIST

基板図とパーツリスト

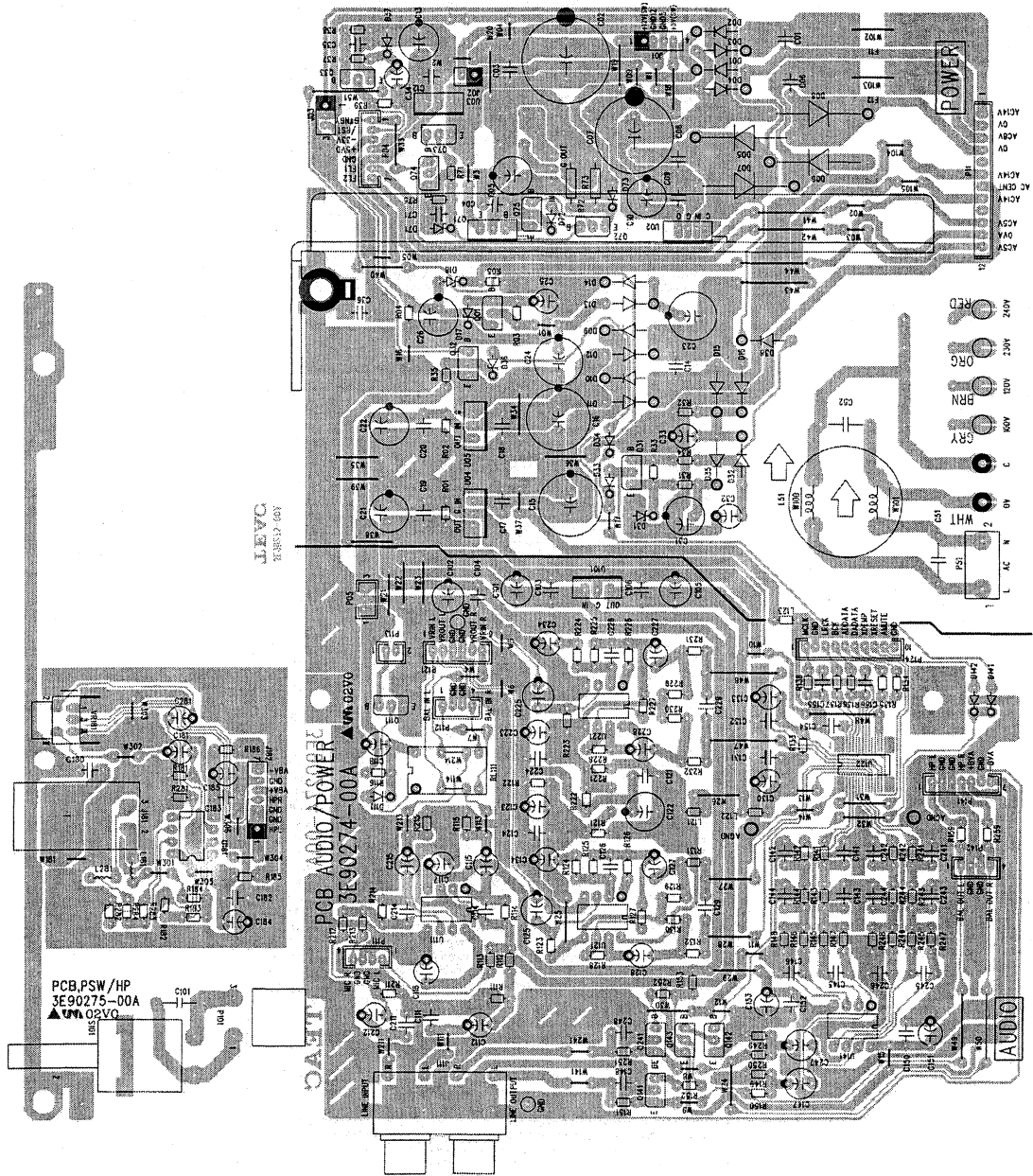
CONVERTER PCB



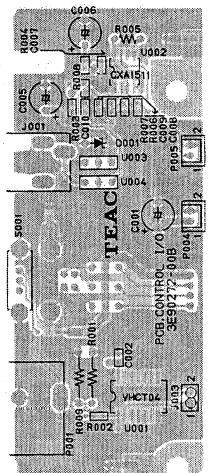
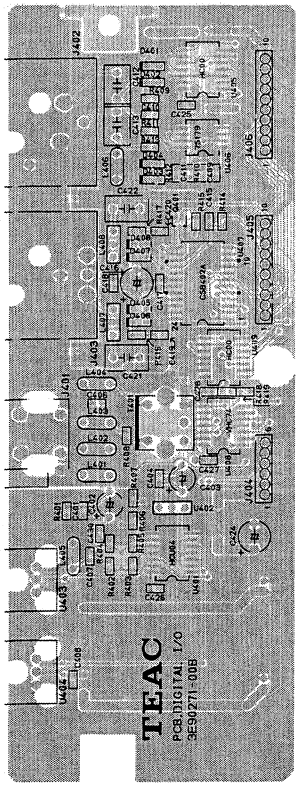
BAL I/O PCB



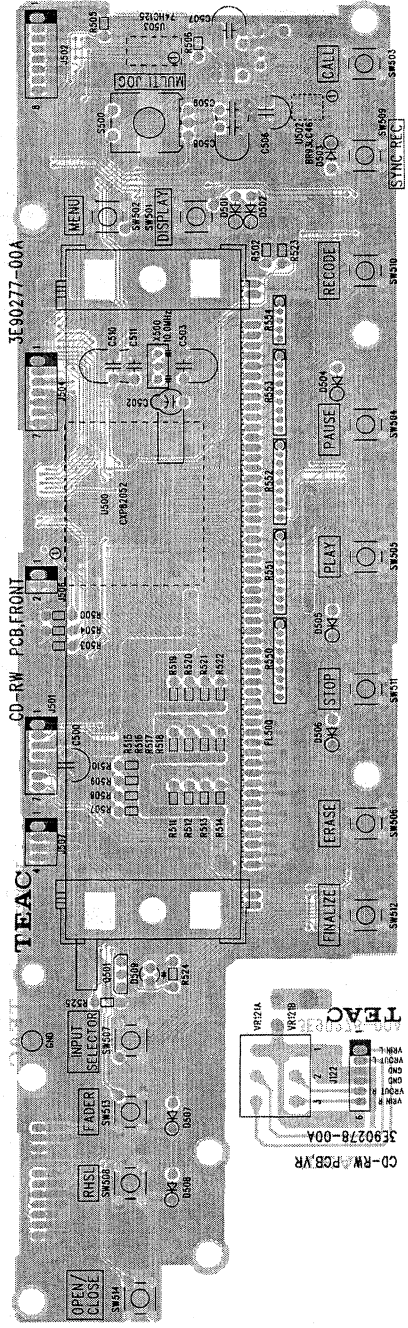
GATHER AUDIO PCB (AUDIO/POWER PCB, PSW/HP PCB)



GATHER DIGITAL I/O PCB (DIGITAL I/O PCB, CONTROL I/O PCB)



GATHER FRONT PCB (FRONT PCB, VR PCB)



CONVERTER PCB ASSY

| REF. NO. | PARTS NO. | DESCRIPTION |
|-----------|-------------|-----------------------------|
| | *3E9524720B | PCB ASSY, CONVERTER |
| D701, 702 | 3S002984 | DIODE, 1SS355 |
| D931 | 3S002984 | DIODE, 1SS355 |
| L701, 931 | 3E014354 | COIL, LQH3N 4. 7UH |
| L932 | 3E014354 | COIL, 4. 7UHLK2125 |
| P701 | 3E011730 | CONNECT, NS-TECH CD-51 CDRW |
| P702 | 3E001340 | PLUG, CONN. 8P S8B-PH-K |
| P703 | 3E001320 | PLUG, CONN. S 6B-PH-K-S |
| P704 | 3E006020 | PLUG, CONN. S10B-PHK (RED) |
| P801 | 3E010390 | PLUG, CONN. B 7B-PH-K-S |
| P931 | 3E001290 | PLUG, CONN. S 3B-PH-K-S |
| Q701 | 3S002994 | TR, DTC124EUA |
| Q702 | 3S003004 | TR, 2SA1037AK |
| U702, 703 | S0037164 | IC, TC74VHCT541AFT (EL) |
| U704, 705 | S0037174 | IC, TC74VHCT245AFT (EL) |
| U706 | 3S002924 | IC, TC74VHC04F (EL) SMT. TA |
| U707 | S00386800A | IC, HD64F7044 CONVERT3 |
| U709 | S0036813 | IC, MSM5118165D |
| U712 | 3S002954 | IC, LC8905V |
| U713 | 3S002914 | IC, TC74VHC74F (EL) SMT. TA |
| U714 | 3S002963 | IC, AD1893JST |
| U715 | 3S002944 | IC, TC9271F (ELP) SMT. TA |
| U716 | 3S002934 | IC, TC74HC02AF (EL) SMT. TA |
| U717 | 3S002924 | IC, TC74VHC04F (EL) SMT. TA |
| U802 | S00361900A | IC, AUDIO CONVERTE CDRW |
| U931 | 3S003414 | IC, TC74HC163AF (EL) |
| U932 | 3S003394 | IC, TC74HC4053AF (EL) |
| U933 | 3S001344 | IC, 74HCU04AF |
| U935 | 3S003424 | IC, NJM2370U05 |
| U936 U937 | 3S003434 | IC, TC74HC163AF (EL) |
| X701 | 3E011994 | RES, CSTCC 7. 17MGOH6-TC |
| X702 | 3E011984 | X' TAL, LIM55A 16MHZ |
| X703 | 3E011974 | X' TAL, 11. 289MHZ |

GATHER BAL I/O PCB ASSY (BAL I/O PCB ASSY)

| REF. NO. | PARTS NO. | DESCRIPTION |
|-----------|-------------|--------------------------|
| | *3E9526800A | PCB ASSY, GATHER BAL I/O |
| | | PCB ASSY, BAL I/O |
| D501-507 | 3S000241 | DIODE, 1SS133 T-77 |
| J1 | 3E0141100A | WIREA, POWER |
| J4, 5 | 3E0141000A | WIREA, BAL I/O |
| J101, 201 | 3E010320 | JACK, XLR NC3FAH1 |
| J301, 401 | 3E010330 | PLUG, XLR NC3MAH |
| L101, 201 | 3E011820 | FB, FBRO7HA850SB-00 |
| L102, 202 | 3E011820 | FB, FBRO7HA850SB-00 |
| L301, 401 | 3E011820 | FB, FBRO7HA850SB-00 |
| L302, 402 | 3E011820 | FB, FBRO7HA850SB-00 |
| L501-505 | 3E013130 | FILTER, EMT103BT |
| P2 | 3E014250 | PLUG, CONN. S 8B-PH-K-S |
| P3 | 3E010370 | PLUG, CONN. B 5B-PH-K-S |
| P501 | 3E010920 | CONNECTOR, D-SUB 15P |
| Q501-505 | 3S000291 | TR, DTC124ES TP |
| R1, 2 | 3R0053000A | RES ARRAY, EXBF11L668FP |
| R301, 401 | 3R007430 | VAR RES, RK09K1110-20KB |
| U1 | 3S000280 | IC, UPC4570C |
| U2 | 3S000840 | IC, BA4560 |
| U3, 4 | 3S001700 | IC, NJM4580D |
| U501 | 3S003340 | IC, TC74HC165AP |
| U502 | 3S003350 | IC, TC74HC595AP |

**GATHER AUDIO PCB ASSY
(AUDIO/POWER PCB ASSY, PSW/HP PCB)**

| REF. NO. | PARTS NO. | DESCRIPTION |
|-----------|--------------|-----------------------------|
| | * 3E9527300A | PCB ASSY, GATHER AUDIO |
| | | PCB ASSY, AUDIO/POWER |
| | * 3M0097300B | HEAT SINK |
| | * 3M0112400A | HEAT SINK ADD |
| | * 3E0043200A | TERMINAL, EARTH PLATE B |
| | * 3M0101600B | SHEET, BARRIER CONNECT |
| | * 3B0005308A | SCREW, BPB M3X8 |
| C01 | △ 3C011640 | CC, YF 50V 0.1UF Z |
| C02 | △ 3C012790 | CE, 35V 4700UF GS |
| C04 | △ 3C011640 | CC, YF 50V 0.1UF Z |
| C06 | △ 3C011640 | CC, YF 50V 0.1UF Z |
| C10 | △ 3C009700 | CE, 35V 100UF GS |
| C13 | △ 3C009700 | CE, 35V 100UF GS |
| C14 | △ 3C011640 | CC, YF 50V 0.1UF Z |
| C15, 16 | △ 3C009820 | CE, 25V 470PF GS |
| C23, 24 | △ 3C009750 | CE, 50V 220UF GS |
| C31 | △ 3C009730 | CE, 25V 220UF GS |
| C32 | △ 3C000270 | CE, 50V 4.7UF M |
| C33 | △ 3C009640 | CE, 50V 22UF GS |
| C51, 52 | △ 3E004300 | S. KILLER, CS12-F2GA472MYAS |
| D01-04 | △ 3S000031 | DIODE, 1N4003-TR |
| D05-08 | △ 3S003540 | DIODE, 1N5404 |
| D09-16 | △ 3S000031 | DIODE, 1N4003-TR |
| D17 | 3S001750 | ZDI, MTZJ33B T-77 |
| D18 | 3S000681 | ZDI, MTZJ5.1B T-77 |
| D31 | 3S002060 | ZDI, MTZJ6.8B T-77 |
| D32, 35 | △ 3S000031 | DIODE, 1N4003-TR |
| D33, 34 | 3S000241 | DIODE, 1SS133 T-77 |
| D36 | 3S000681 | ZDI, MTZJ5.1B T-77 |
| D37 | 3S000241 | DIODE, 1SS133 T-77 |
| D38 | 3S000031 | DIODE, 1N4003-TR |
| D71 | 3S003201 | ZDI, MTZJ12B T-77 |
| D72, 73 | 3S000241 | DIODE, 1SS133 T-77 |
| D111 | 3S000241 | DIODE, 1SS133 T-77 |
| D141, 142 | 3S000241 | DIODE, 1SS133 T-77 |
| J01 | 3E0118600A | WIREA, POWER-DRIVE 4P |
| J02 | 3E0118700A | WIREA, POWER-CONVERT 4P |
| J03 | 3E0141200A | WIREA, WORD POWER |
| J111 | 3E010590 | JACK, RJ-1073B-09-0320A |
| L51 | △ 3E004290 | COIL, 1MH/1.5A FK0B160MH16 |
| L121 | 3E011800 | COIL, 1.0 UH K |
| L122 | 3E011810 | COIL, 47UH K |
| L123 | 3E011820 | FB, FBRO7HA850SB-00 |
| P04 | 3E000710 | PLUG, CONN. 7P B7B-PH-K |
| P05 | 3E000670 | PLUG, CONN. 3P B3B-PH-K |
| P11 | 3E001240 | PLUG, CONN. 12P B12B-EH-A |

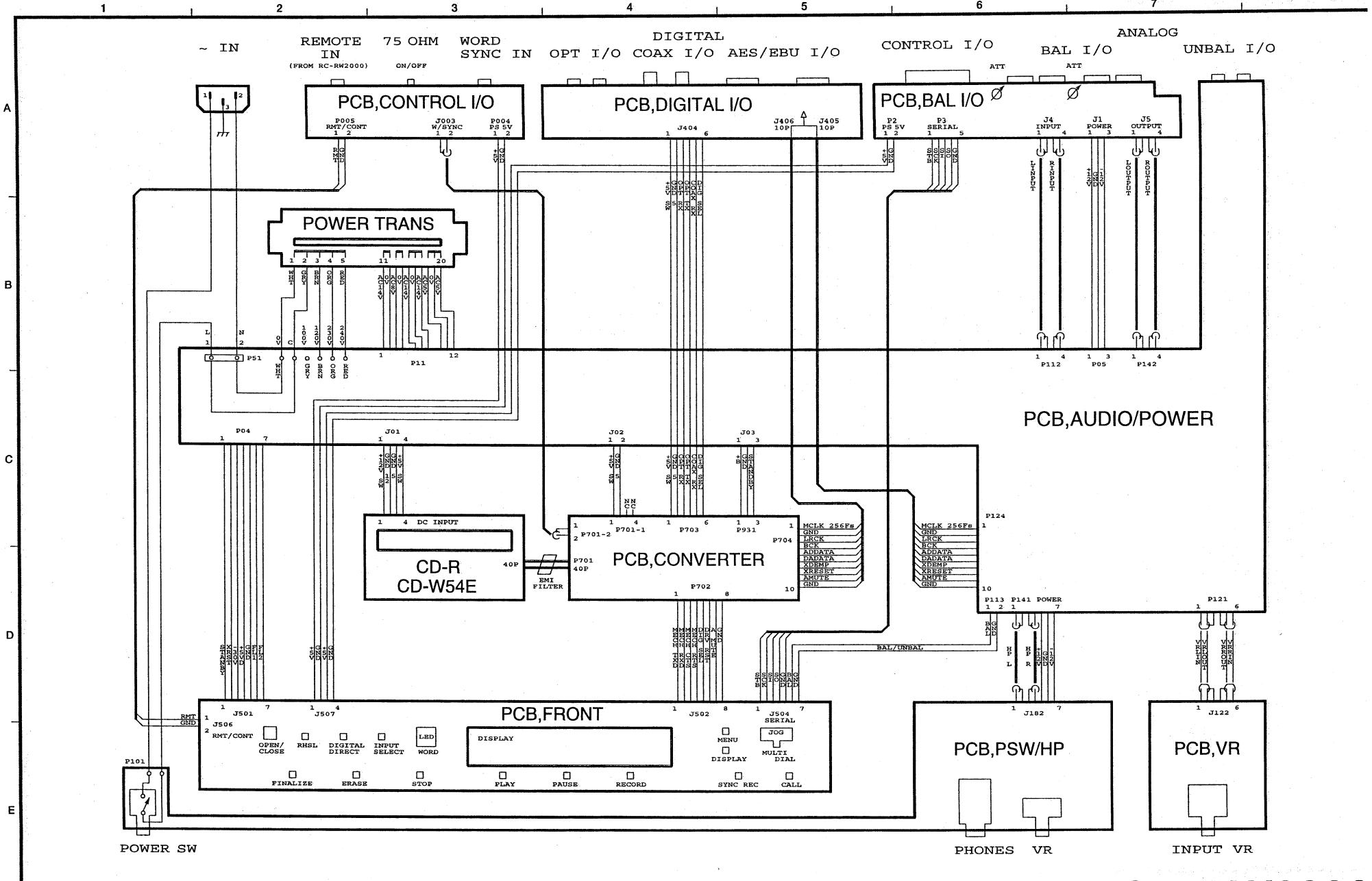
| REF. NO. | PARTS NO. | DESCRIPTION |
|-----------|------------|-----------------------------|
| P51 | 3E002170 | PIN, TERMINAL LAPPING 2P |
| P112 | 3E000680 | PLUG, CONN. 4P B4B-PH-K |
| P113 | 3E014250 | PLUG, CONN. S 8B-PH-K-S |
| P121 | 3E010380 | PLUG, CONN. B 6B-PH-K-S |
| P124 | 3E010420 | PLUG, CONN. B10B-PH-K-S |
| P141 | 3E010390 | PLUG, CONN. B 7B-PH-K-S |
| P142 | 3E000680 | PLUG, CONN. 4P B4B-PH-K |
| Q01, 31 | △ 3S002300 | TR, KSA733C-GTA |
| Q32 | 3S002450 | TR, DTC114ESTP |
| Q33 | 3S002310 | TR, KSC945C-GTA |
| Q71 | △ 3S000400 | TR, 2SB1015Y |
| Q72 | 3S002310 | TR, KSC945C-GTA |
| Q73 | 3S000301 | TR, DTA124ES TP |
| Q74 | 3S000291 | TR, DTC124ES TP |
| Q75 | 3S002300 | TR, KSA733C-GTA |
| Q111 | 3S000291 | TR, DTC124ES TP |
| Q141, 241 | 3S000731 | TR, 2SD2144S TP |
| Q142 | 3S000291 | TR, DTC124ES TP |
| Q143 | 3S000301 | TR, DTA124ES TP |
| R72, 73 | △ 3R007100 | RD, 1/2W 470 OHM J |
| U02 | △ 3S003040 | IC, BA05ST |
| U03 | △ 3S000650 | IC, NJM7805FA |
| U04 | △ 3S002170 | IC, NJM7812FA |
| U03, 04 | 3M0016000A | HEAT SINK |
| U05 | △ 3S003030 | IC, NJM7912FA |
| U101 | 3S000650 | IC, NJM7805FA |
| U111 | 3S001700 | IC, NJM4580D |
| U121, 221 | 3S003010 | IC, NJM2100D |
| U122 | S0035883 | IC, CS4223-KS |
| U141 | 3S001700 | IC, NJM4580D |
| | | PCB ASSY, PSW/HP |
| C101 | △ 3E004300 | S. KILLER, CS12-F2GA472MYAS |
| J181 | 3E002160 | JACK, JY-6313-01-030 |
| J182 | 3E0116900A | WIREA, AUDIO HP 7P |
| L181, 281 | 3E011800 | COIL, 1.0 UH K |
| P101 | 3E013990 | CONNECTOR, B 3PS-VH |
| S101 | △ 3E013970 | SW, SDKLA1-BP1 |
| U181 | 3S000850 | IC, NJM4560D |
| VR181 | 3R005560 | VAR RES, RK09K12A-20KA |

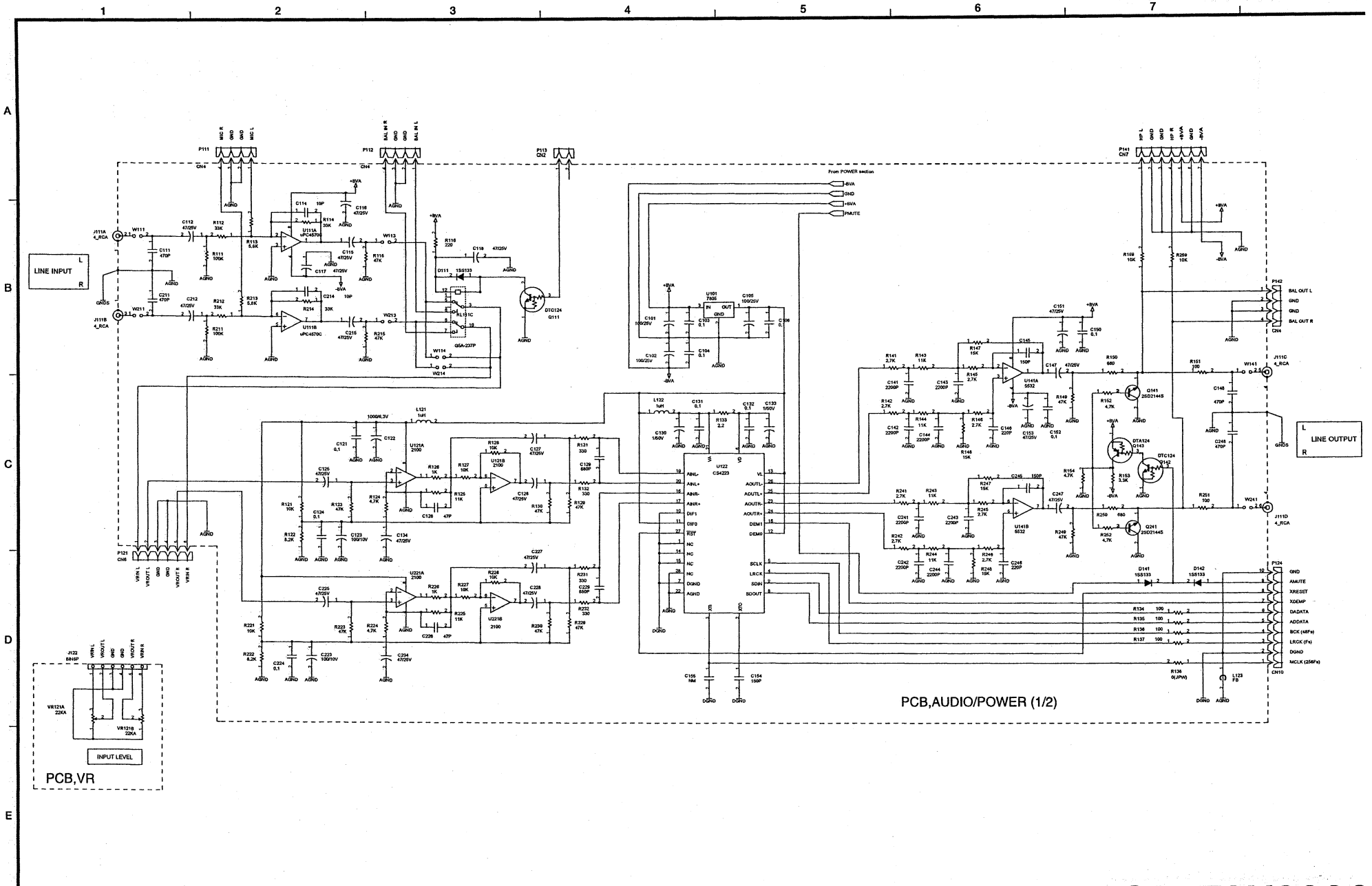
**GATHER DIGITAL I/O PCB ASSY
(DIGITAL I/O PCB ASSY, CONTROL I/O PCB ASSY)**

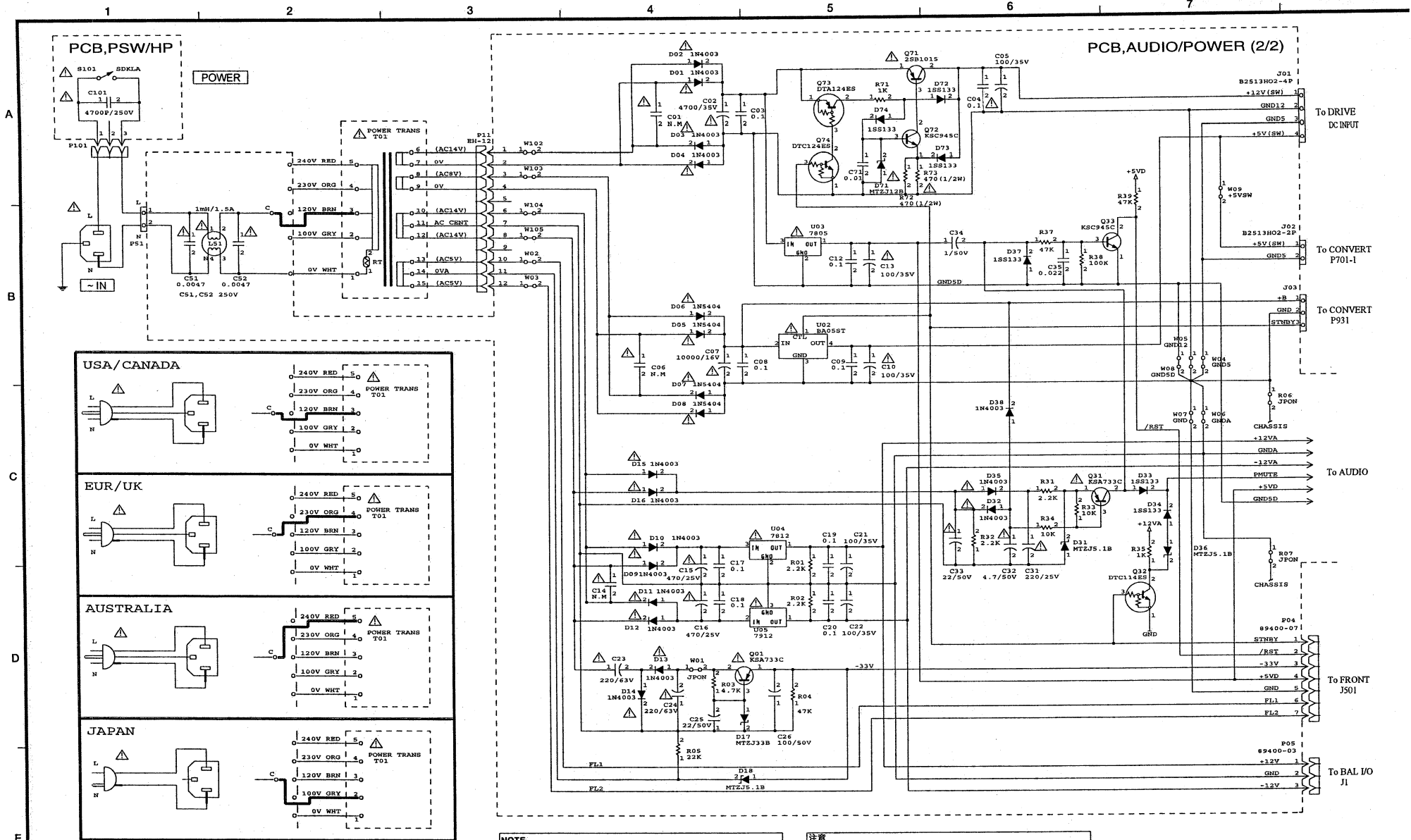
| REF. NO. | PARTS NO. | DESCRIPTION |
|-----------|-------------|------------------------------|
| | *3E9527000A | PCB ASSY, GATHER DIGITAL I/O |
| | | PCB ASSY, DIGITAL I/O |
| D401-408 | 3S002984 | DIODE, 1SS355 |
| J401 | 3E011850 | JACK, RJ-1060A-31-0541A |
| J402 | 3E010320 | JACK, XLR NC3FAH1 |
| J403 | 3E010330 | PLUG, XLR NC3MAH |
| J404 | 3E0140800A | WIREA, D I/O |
| J405 | 3E0141300A | WIREA, AUDIO-CON 10P |
| J406 | 3E0141310A | WIREA, AUDIO-CON |
| L401-L404 | 3E011820 | FB, FBR07HA850SB-00 |
| L405 | 3E011810 | COIL, 47UH K |
| L406 | 3E011820 | COIL, FBR07HA850SB-00 |
| L407, 408 | 3E013950 | FILTER, EMT102BT |
| Q401 | 3S002994 | TR, DTC124EUA |
| T401 | 3E0132300A | PULS TRANS, S-701-001 |
| U401 | 3S001344 | IC, 74HCU04AF |
| U402 | 3E011830 | FILTER, EMT 47BT |
| U403 | 3S001680 | IC, GP1F32R |
| U404 | 3S002290 | IC, GP1F32T |
| U405 | 3S001624 | IC, 74HC00 SOP |
| U406 | 3S003364 | IC, SN75179BPS |
| U407 | 3S003374 | IC, CS8402A |
| U408 | 3S002914 | IC, TC74VHC74F(EL)SMT. TA |
| | | PCB ASSY, CONTROL I/O |
| D001 | 3S003451 | ZDI, MTZJ2.7B T-77 |
| J001 | 3E002130 | JACK, MINI JY-3550A-010 |
| J003 | 3E0140600A | WIREA, W/SYNC |
| P001 | 5334079700 | PLUG, CONN. BNC 1P |
| P004 | 3E003810 | PLUG, CONN. B2B-PH (RED) |
| P005 | 3E014250 | PLUG, CONN. S 8B-PH-K-S |
| U001 | 3S003464 | IC, TC74VHCT04A(EL) |
| U002 | 3S003384 | IC, CXA1511M |
| U003 | 3E013130 | FILTER, EMT103BT |
| U004 | 3E011830 | FILTER, EMT 47BT |
| S001 | 3E013980 | SW, SSSS912N-4C2-1 |

**GATHER FRONT PCB ASSY
(FRONT PCB ASSY, VR PCB ASSY)**

| REF. NO. | PARTS NO. | DESCRIPTION |
|-----------|-------------|----------------------------|
| | *3E9527600A | PCB ASSY, GATHER FRONT |
| | | PCB ASSY, FRONT |
| | *3M0090000B | HOLDER, FL |
| D501-508 | 3S000241 | DIODE, 1SS133 T-77 |
| FL500 | 3E0117500A | DISPLAY, HNA-16MM23 RW(L) |
| J501 | 3E0118800A | WIREA, POWER-FRONT 7P |
| J502 | 3E0119000B | WIREA, FRONT-CONVERT 8P |
| J504 | 3E0140900A | WIREA, FRONT |
| J506 | 3E0140500A | WIREA, RMT/CONT |
| Q501 | 3S002450 | TR, DTC114ESTP |
| SW501-514 | 3E002070 | SW, TACT SKQ5AB HMR-187 |
| S500 | 3E007320 | SW, ENCODER EC11B15244 |
| U500 | 3S0035000A | IC, CXP82040-R00FR |
| U502 | 3S003254 | IC, BR93LC46RF-WE2 SMT TAP |
| U503 | 3S003074 | IC, TC74HC125AF(EL)SMT. TA |
| X500 | 3E011740 | RESONATOR, CST 10.00MTW |
| | | PCB ASSY, VR |
| J122 | 3E0119200A | WIREA, AUDIO VR 6P |
| VR121 | 3R005550 | VAR RES, RK1612220-20KA |

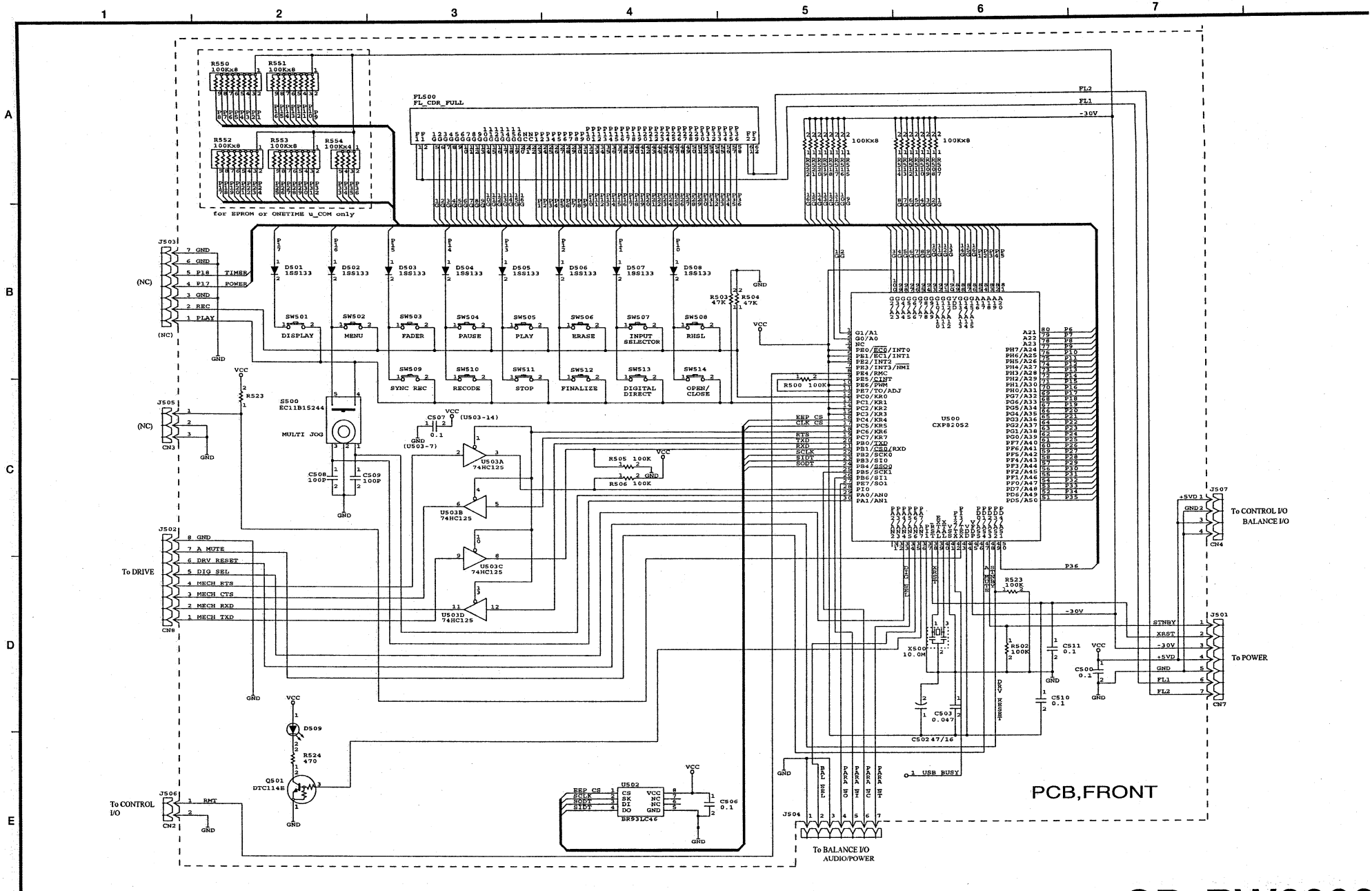


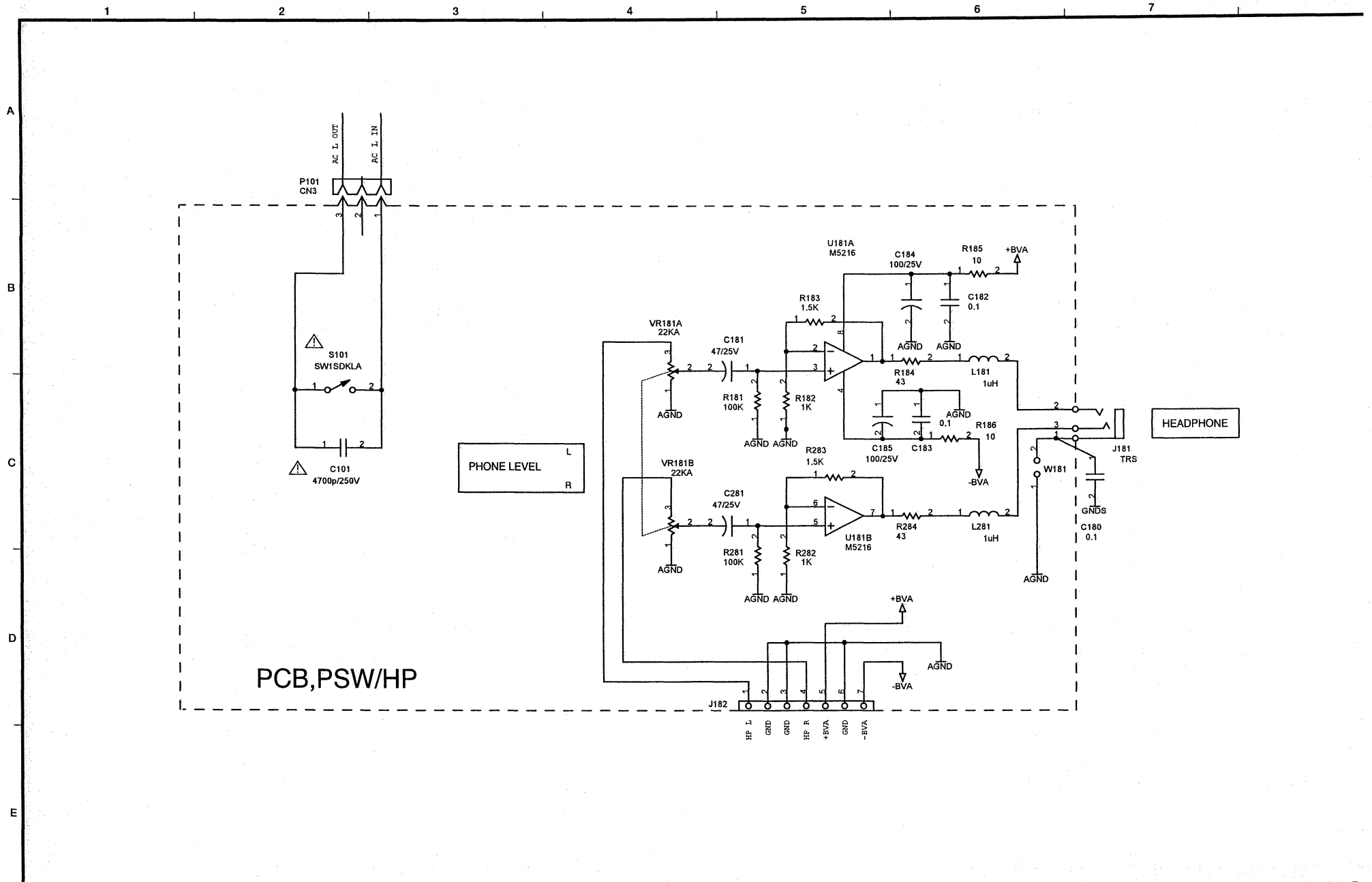


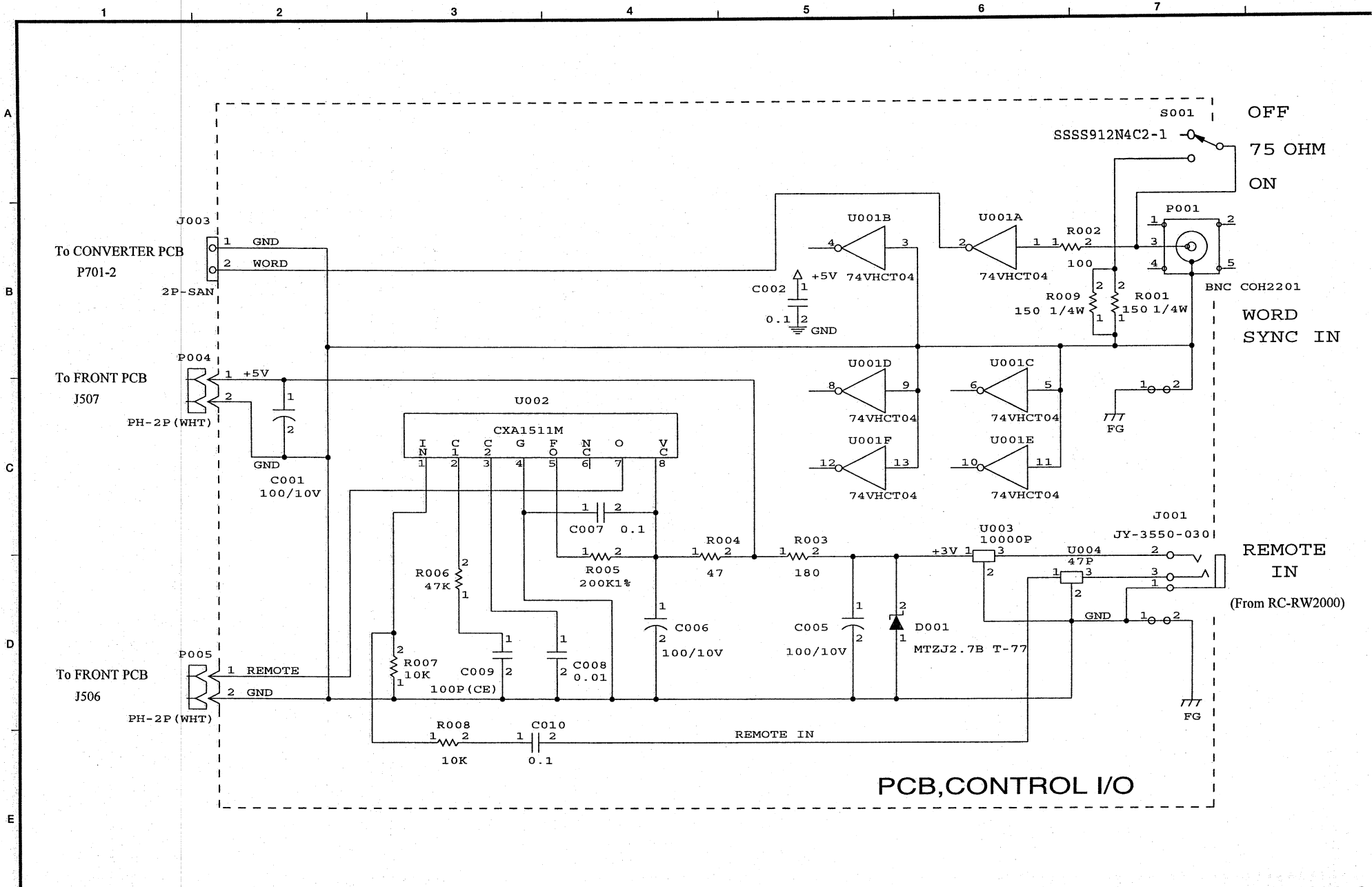


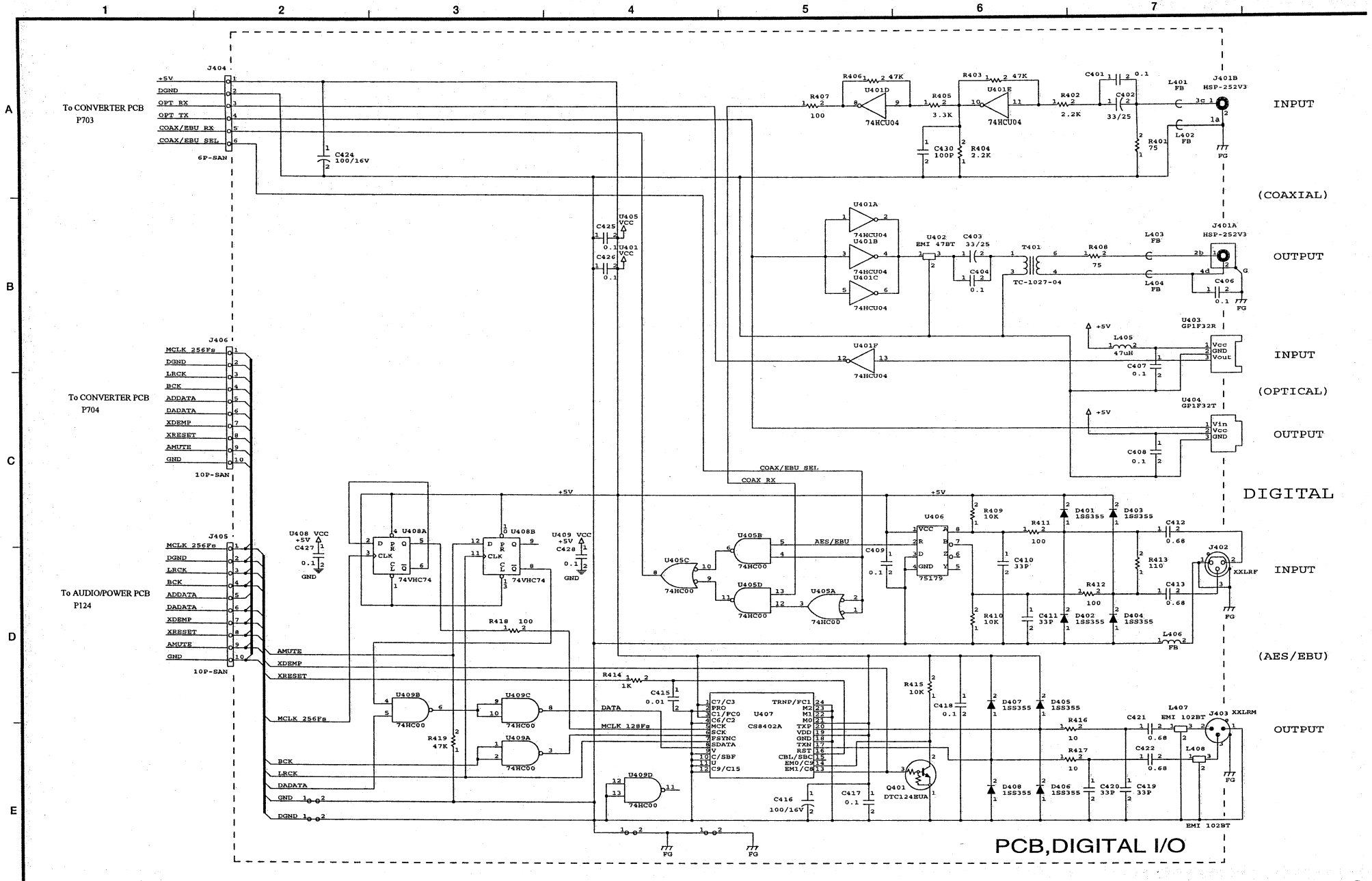
NOTE
 ▲ Parts marked with this sign are safety critical components.
 They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.

注意
 ▲ マークのある部品は安全重要部品です。
 交換するときは必ずテック指定の部品を使用してください。

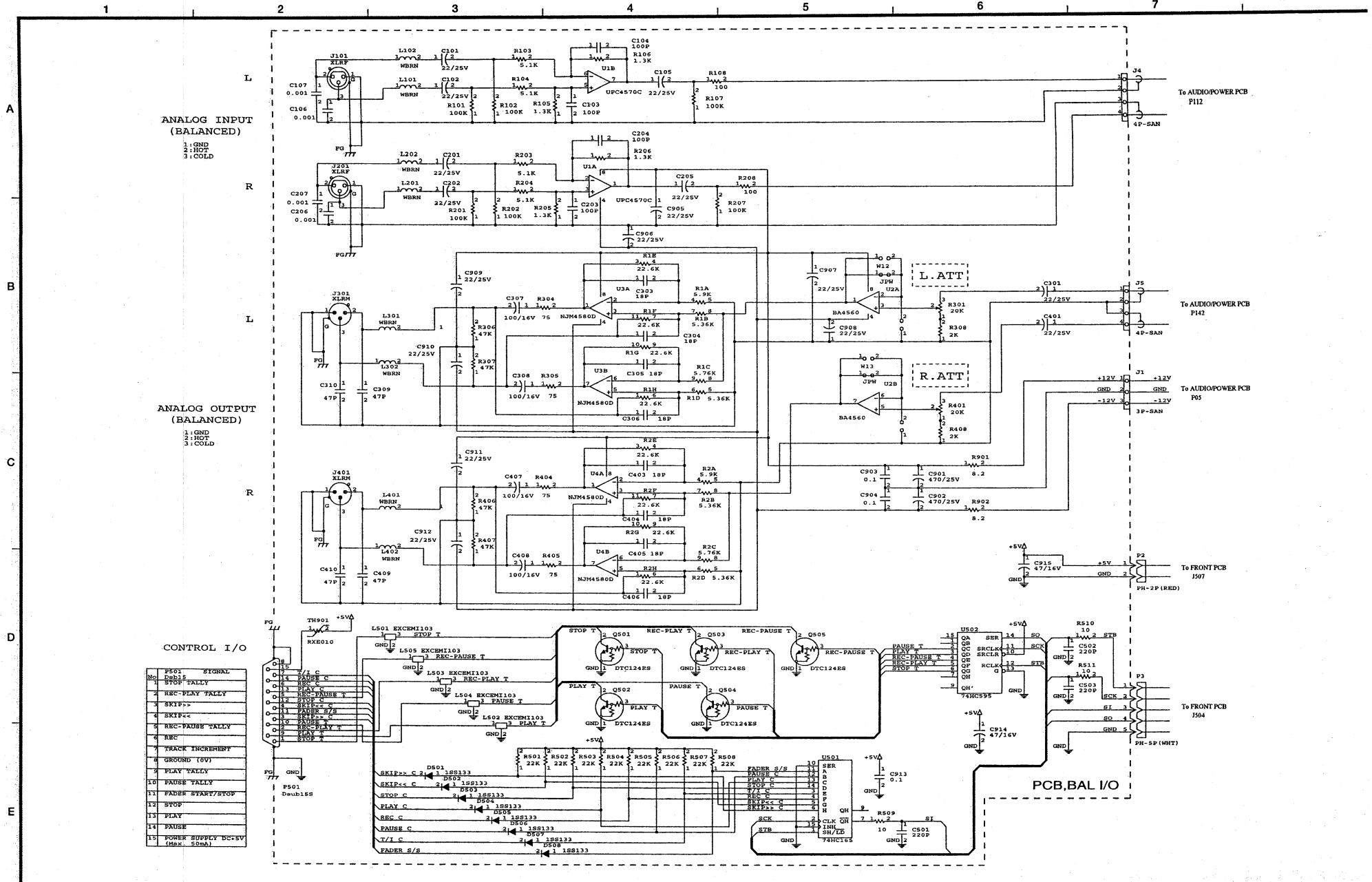








PCB, DIGITAL I/O

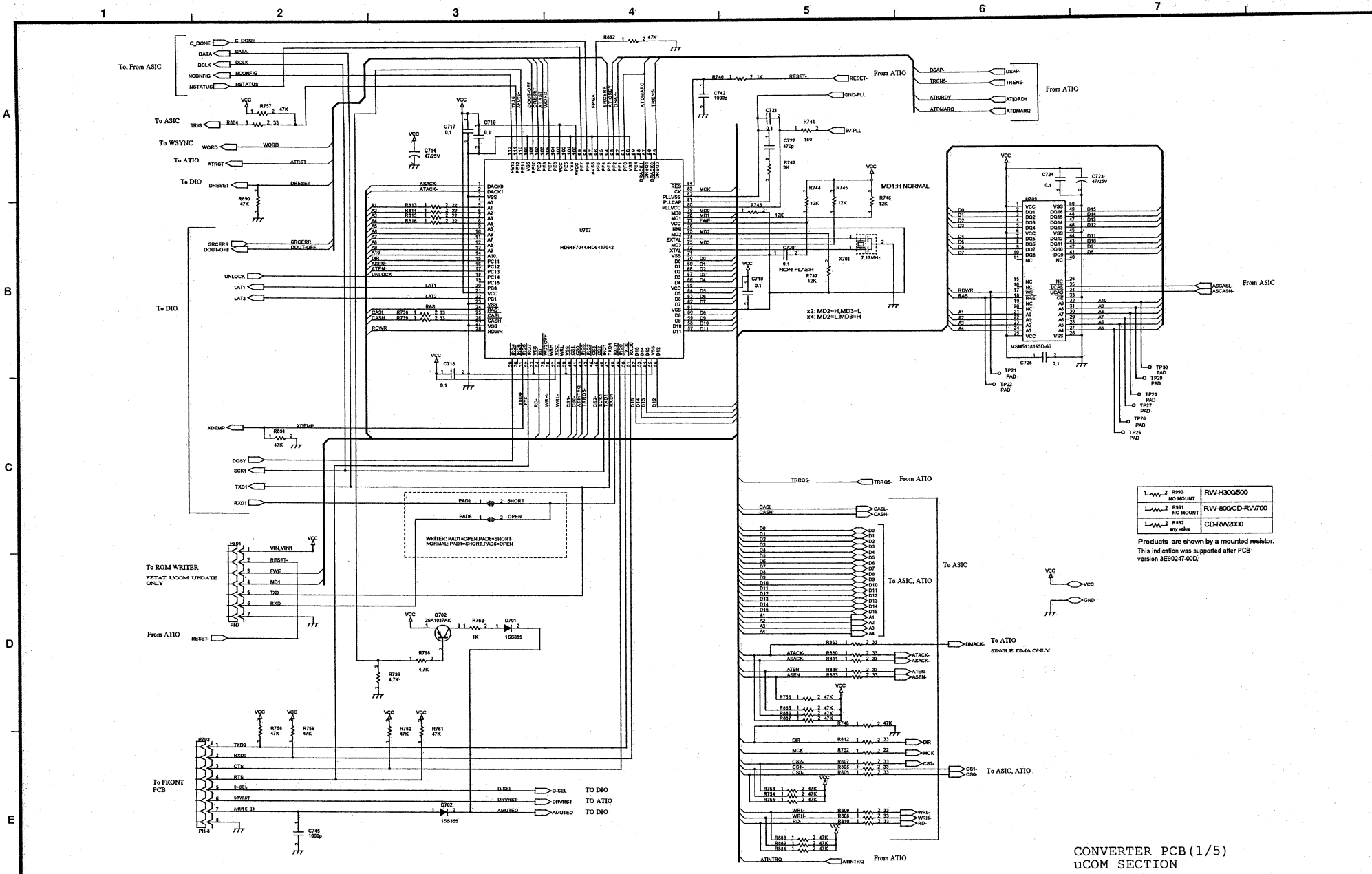


ANALOG INPUT
(BALANCED)

ANALOG OUTPUT
(BALANCED)

CONTROL I/O

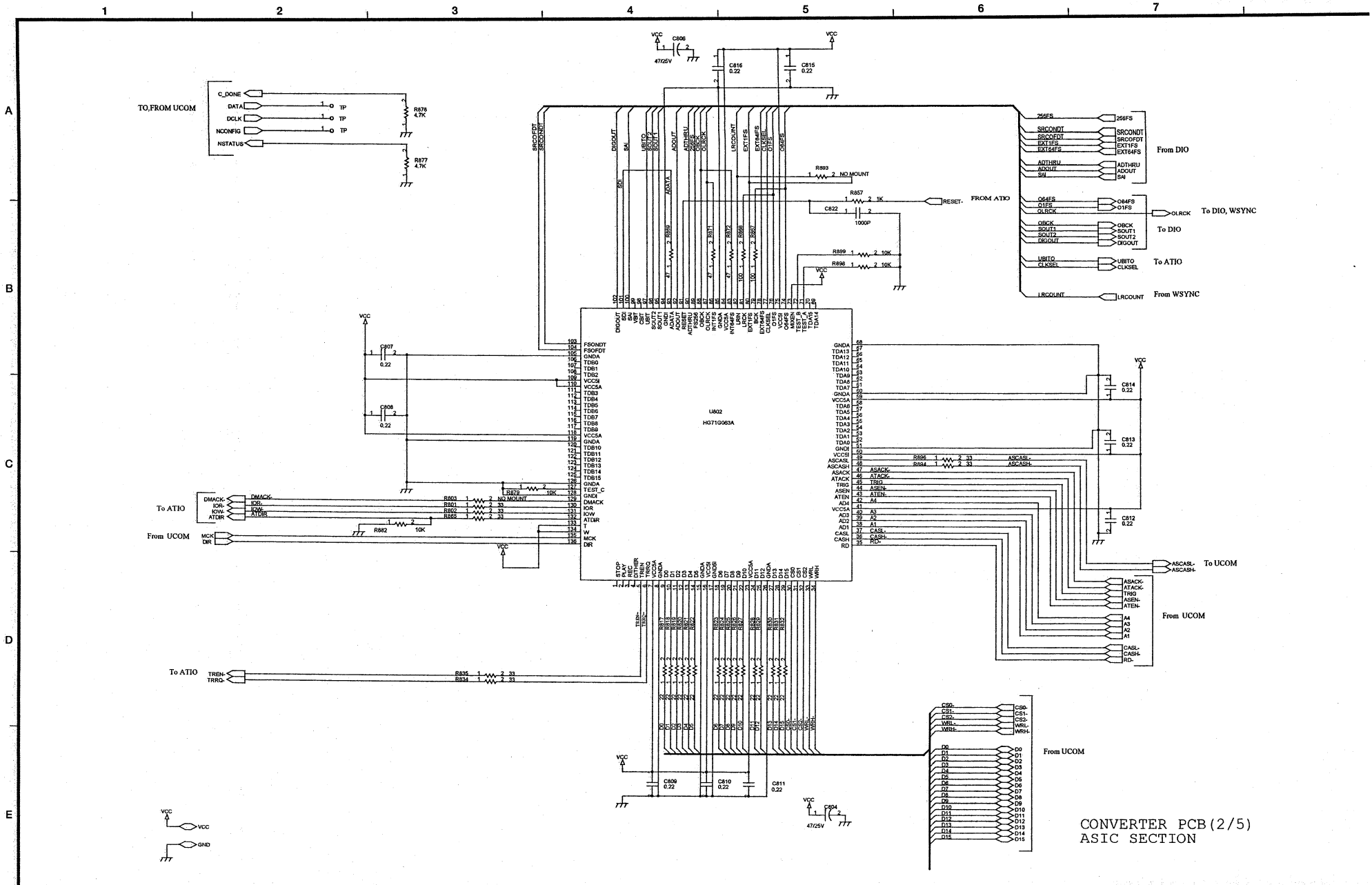
| No. | Signal |
|-----|---------------------------------|
| 1 | PGND |
| 2 | STOP TALLY |
| 3 | REC-PLAY TALLY |
| 4 | SKIP>> |
| 5 | SKIP<< |
| 6 | REC-PAUSE TALLY |
| 7 | REC |
| 8 | TRACK INCREMENT |
| 9 | GROUND (0V) |
| 10 | PLAY TALLY |
| 11 | PAUSE TALLY |
| 12 | FADER START/STOP |
| 13 | STOP |
| 14 | PLAY |
| 15 | PAUSE |
| 16 | POWER SUPPLY DC+5V (MAX. 500mA) |



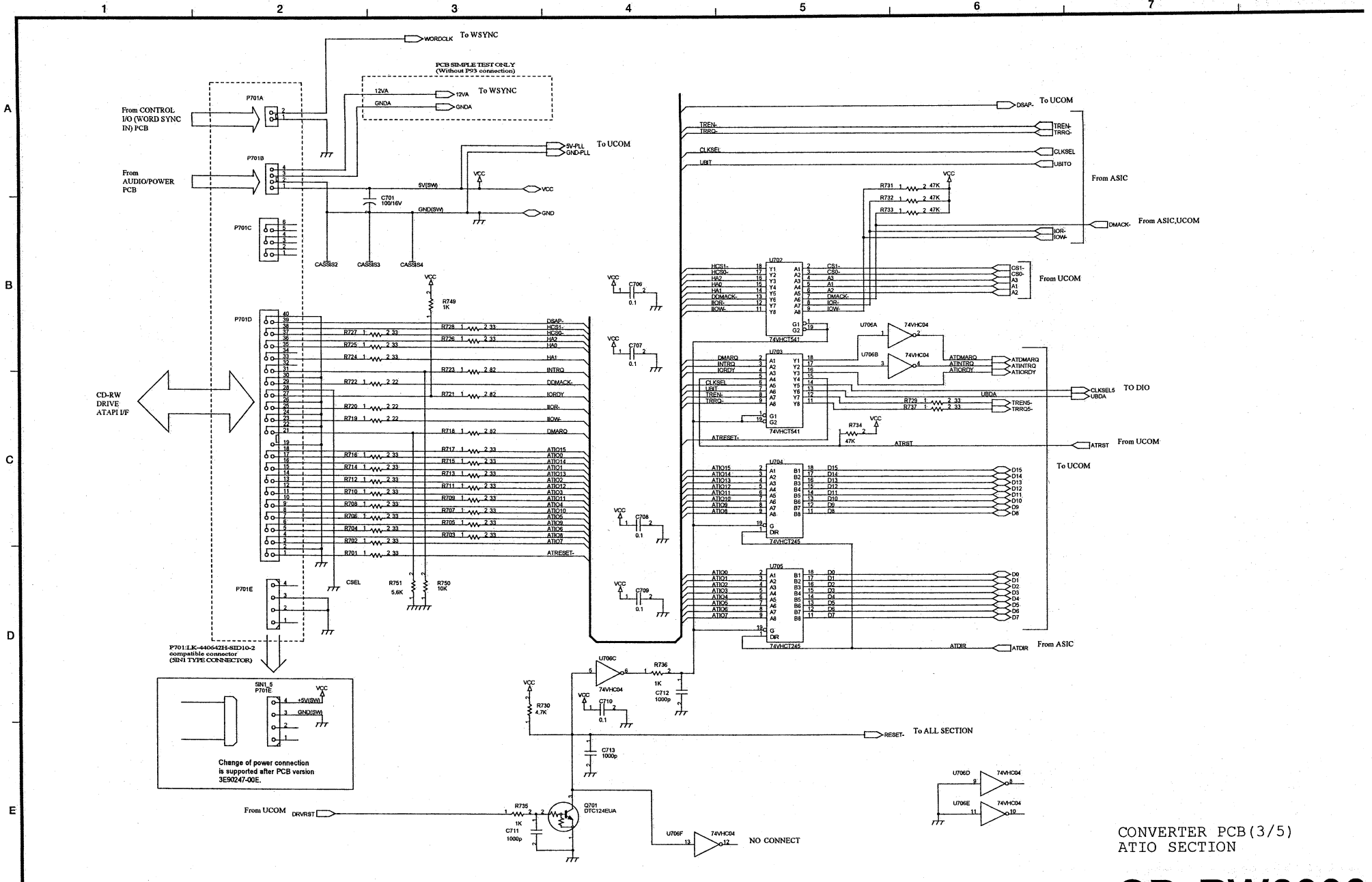
| | | |
|------------|----------|-----------------|
| L-W-2 R890 | NO MOUNT | RW4-300500 |
| L-W-2 R891 | NO MOUNT | RW-800CD-RW/700 |
| L-W-2 R892 | 892 Y888 | CD-RW2000 |

Products are shown by a mounted resistor.
This indication was supported after PCB version 3E90247.00D.

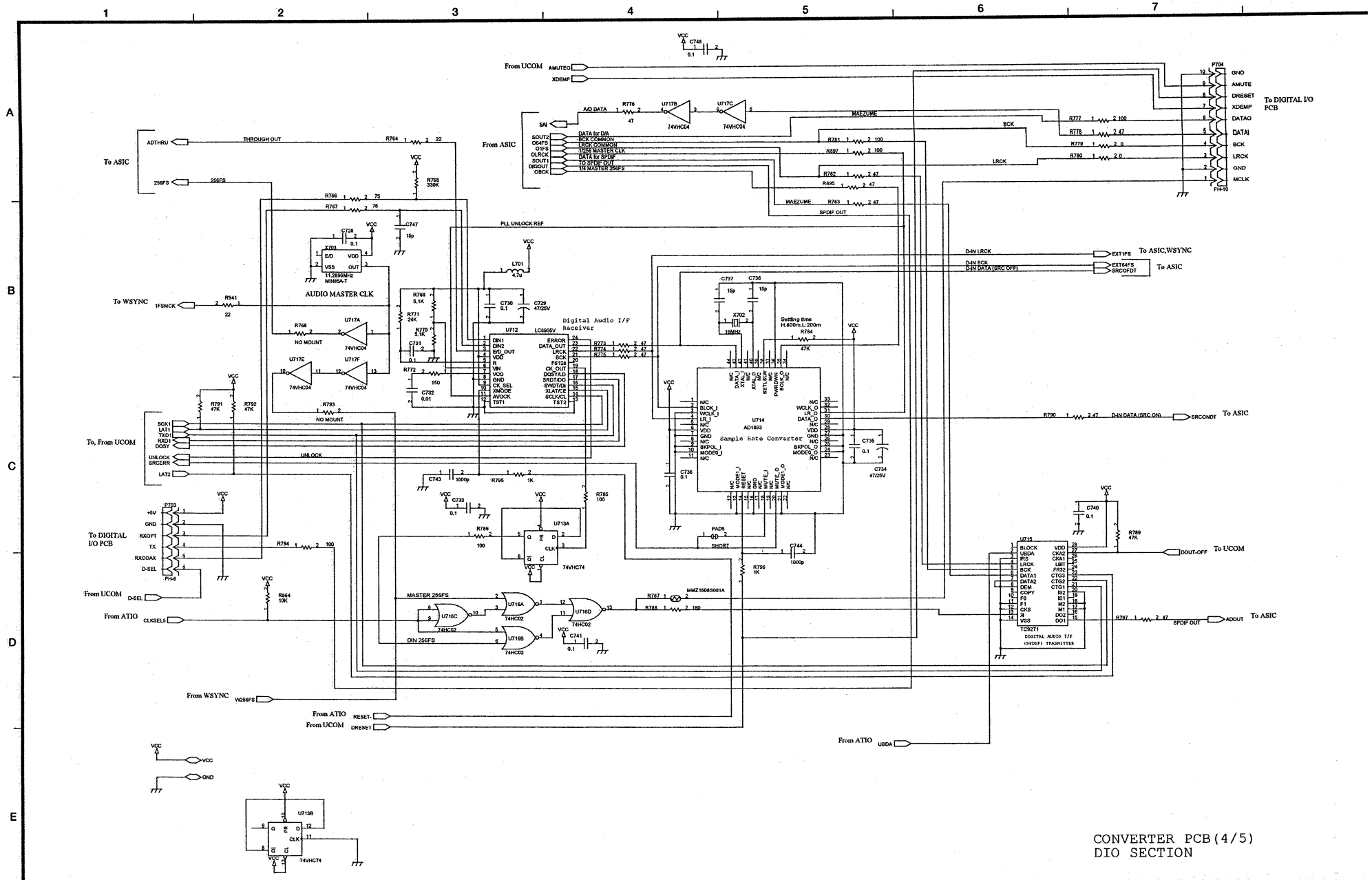
CONVERTER PCB (1/5)
uCOM SECTION



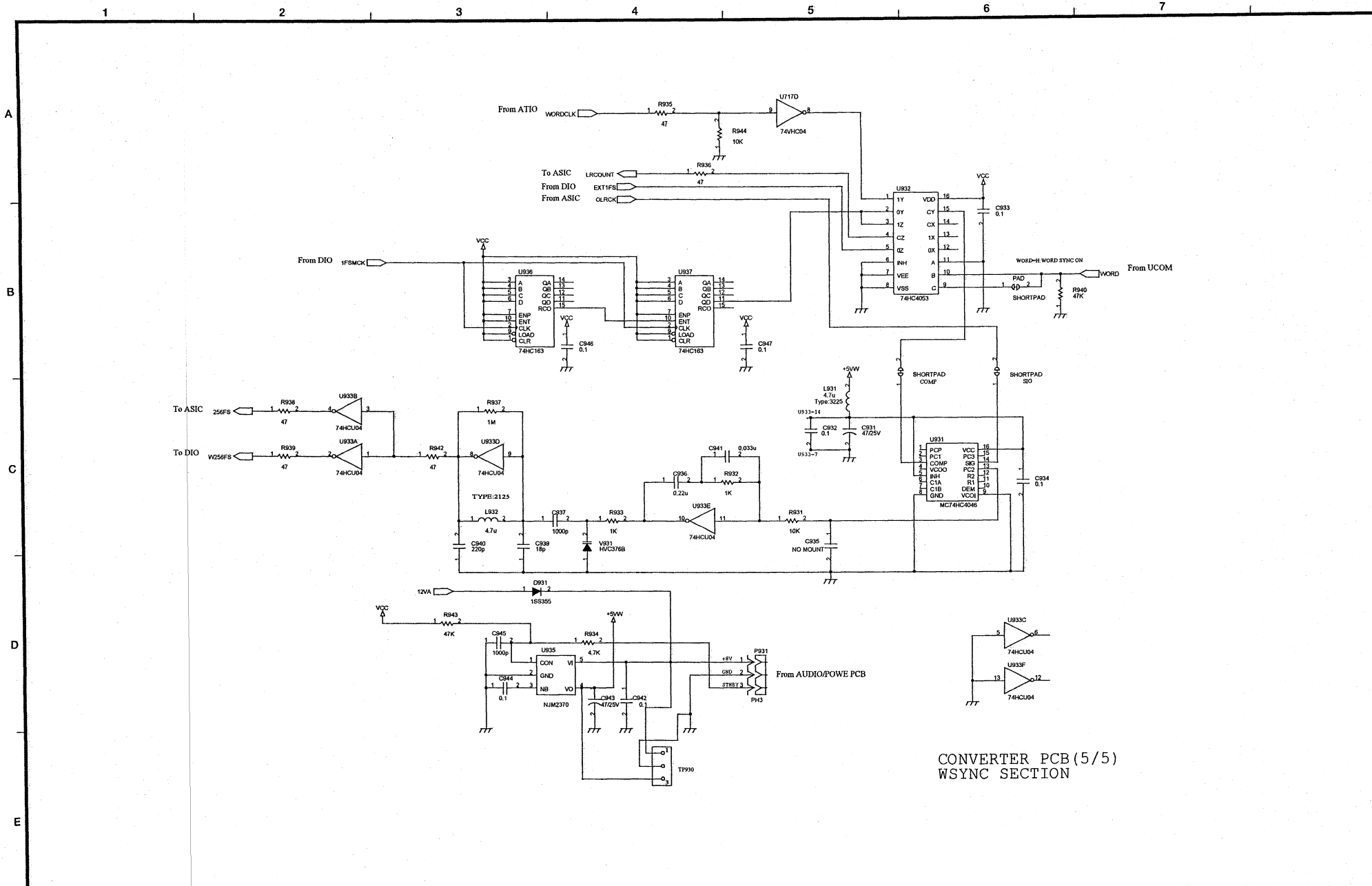
CONVERTER PCB (2/5)
ASIC SECTION



CONVERTER PCB (3/5) ATIO SECTION



CONVERTER PCB (4/5)
DIO SECTION



CONVERTER PCB (5/5)
WSYNC SECTION

TASCAM

TEAC Professional Division

CD-RW2000V3

SERVICE MANUAL

SUPPLEMENT

追補版

The circuit diagrams here are applicable for CD-RW2000 S/No. 0390001 and higher.
Use this with the original CD-RW2000 Service Manual, Effective: June, 2000.

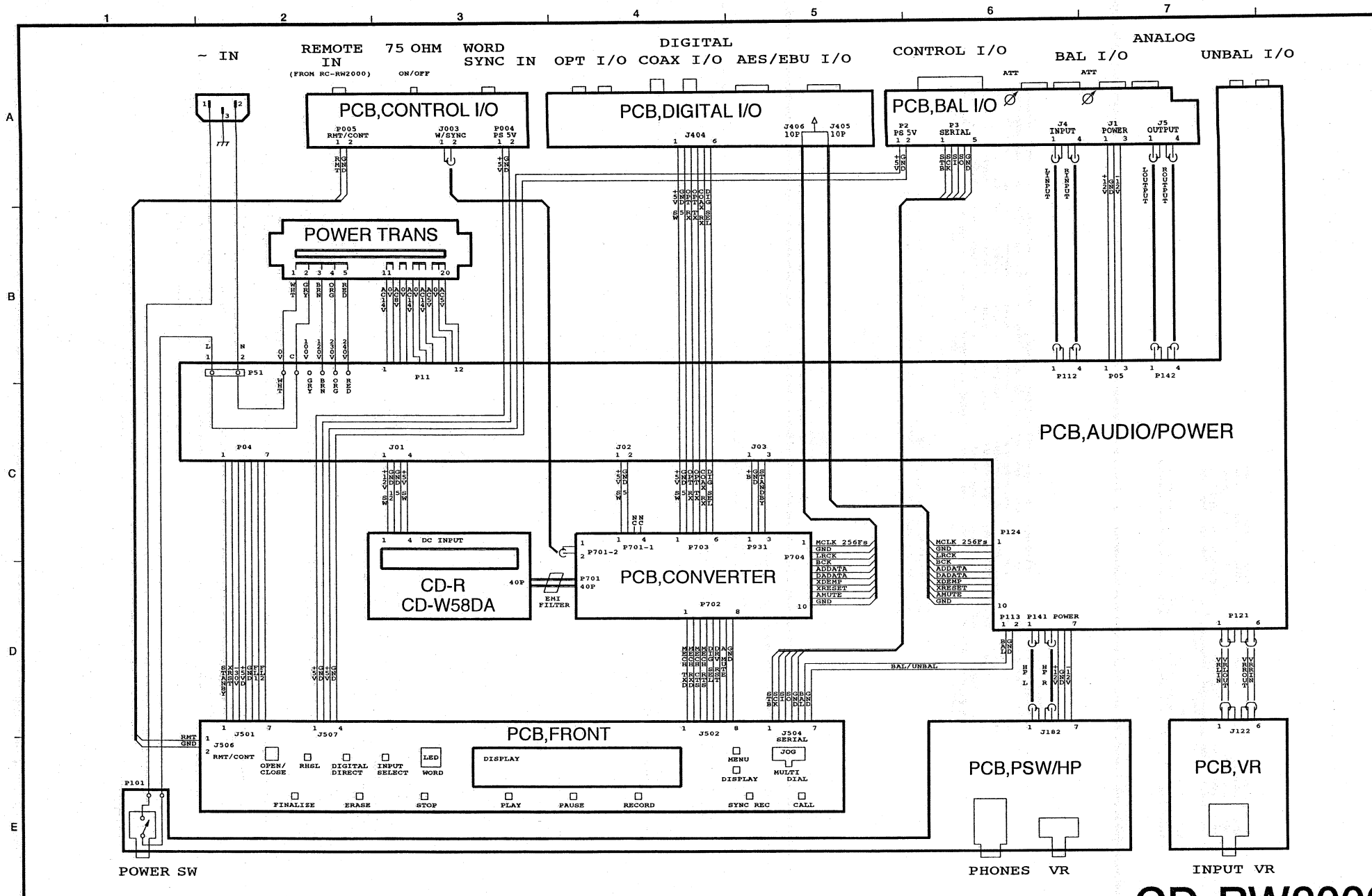
ここに記載されている回路図は、シリアル No. 0390001 以降の CD-RW2000 に適用されます。
CD-RW2000 のオリジナルサービスマニュアル、Effective: June, 2002 と共に使用してください。

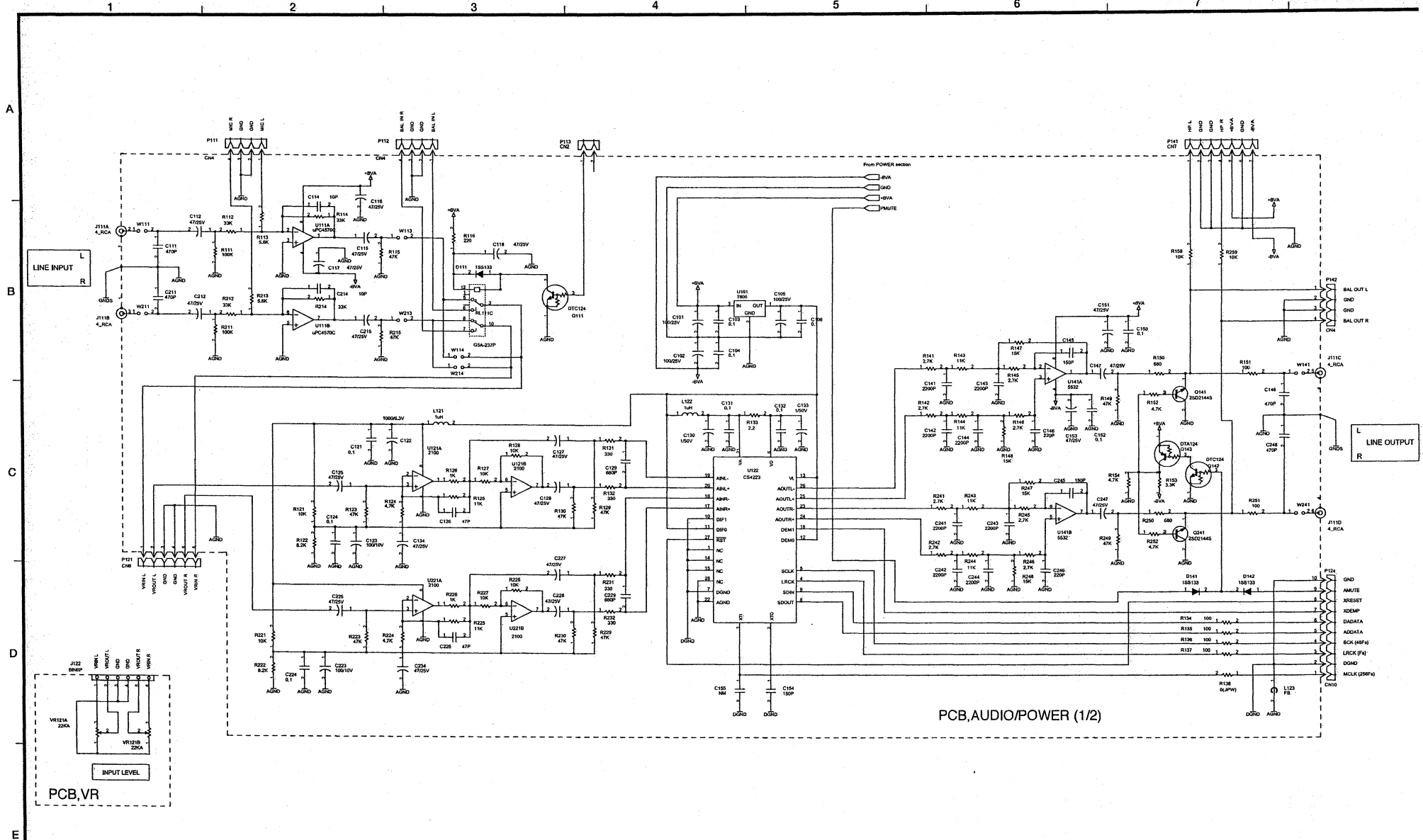
Changes (変更内容)

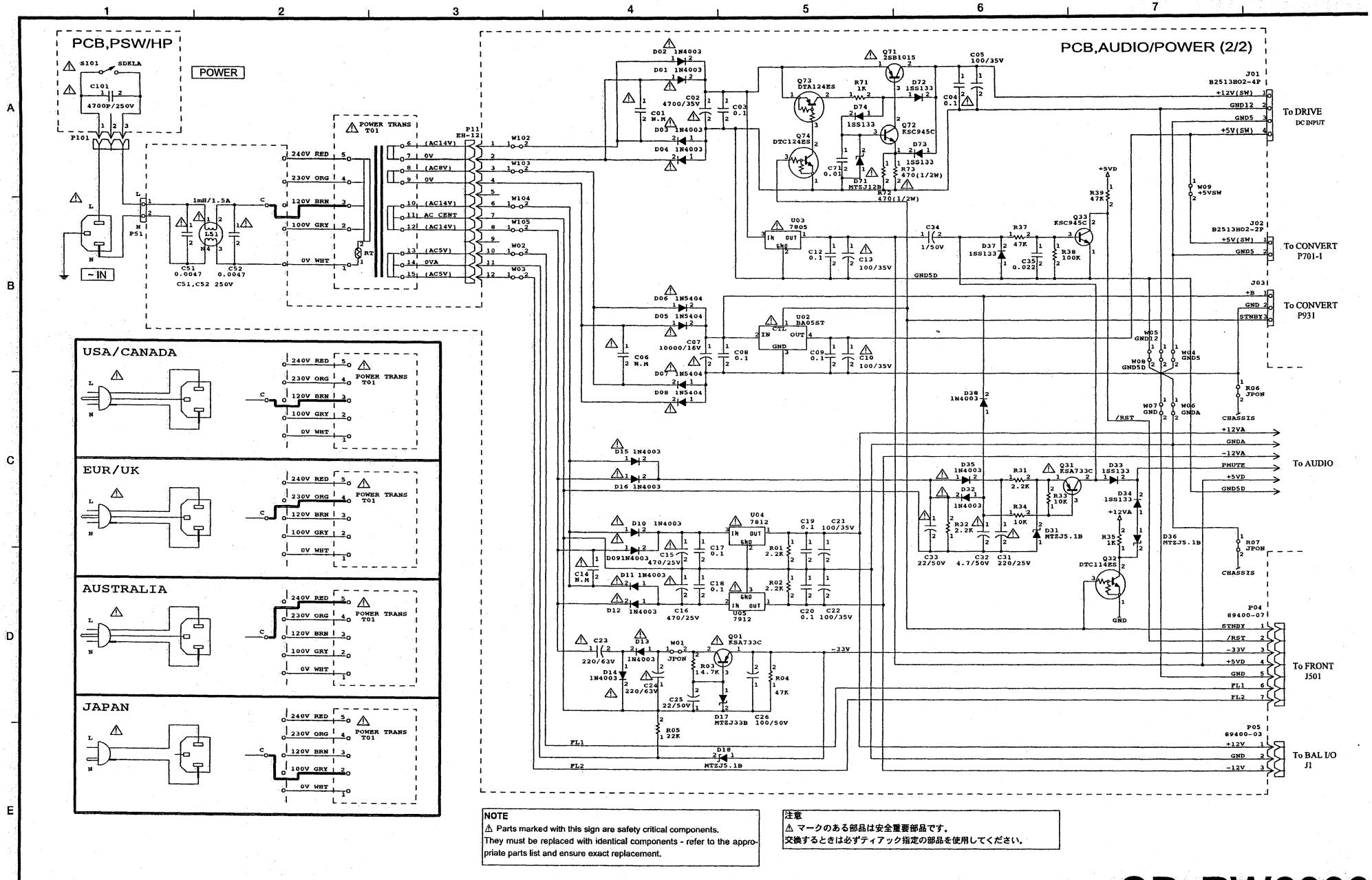
- To adopt a new CD-RW DRIVE, related components have been changed with renewal of Converter MPU and Front MPU accordingly.
DRAM on Converter PCB Assy has been changed due to its availability.
CD-RW DRIVEを変更するとともに、関連部品を変更しました。
DRAM入手難の為にPCBA, CONVERTER RW2 U709を変更しました。
- To cope with above, the major difference of parts are as follows:
上記による主要な差異部品は以下の通りです。

| | | | | | | |
|------|-------------|------------------------|---|------------|-----------------------------|-------------|
| 1- 5 | V00089500A | DRIVE ASSY,CD-W54E-A90 | → | V00140000A | CD-W58DA-T00 | |
| 1- 7 | 3M0089930B | PANEL,TRAY 700 | → | M02038200A | PANEL,TRAY RW2000 (ASS) | |
| 1- 9 | 3M0088400A | BRACKET MECH SIDE(L) | → | M02038600A | BRACKET MECH (L) RW2000 | |
| 1-10 | 3M0088500C | BRACKET MECH SIDE(R) | → | M02038700A | BRACKET MECH (R) RW2000 | |
| 1-43 | 3M0088830A | ESCUTCHEON F,N66 | → | M02038400A | ESCUTCHEON,FRONT, RW2000 | |
| 1- 3 | *V00140600A | PCB ASSY,CONVERTER | → | 3E9527600A | PCB ASSY,CONVERTER 2000V3 | |
| | S00386800A | HD64F7044-CONVT3 | → | 3S0048510A | UCOM Assy,HD64F7044 402V3IC | U707 MPU |
| | S0036813 | IC,MSM5118165D | → | S0060813 | IC,T2316162A-50SIC | U709 DRAM |
| 1-46 | 3E9527600A | PCB ASSY GATHER,FRONT | → | 3E9527600A | PCB ASSY GATHER,FRONT | (No change) |
| | 3S0035000A | IC,CXP82040-ROQFR | → | S00598300A | IC,CXP82040-160Q Front3 G | IC, U500 |

- * This is newly registered P/N since CD-RW2000V3 is produced with an identical P/N.
Ensure the P/N by confirming the S/No. of the unit being repaired upon ordering it.
* CD-RW-2000V3は旧機と同一品番で生産されているため、新規に登録した品番です。
修理機の機番を確認のうえ、正しい品番で発注してください。

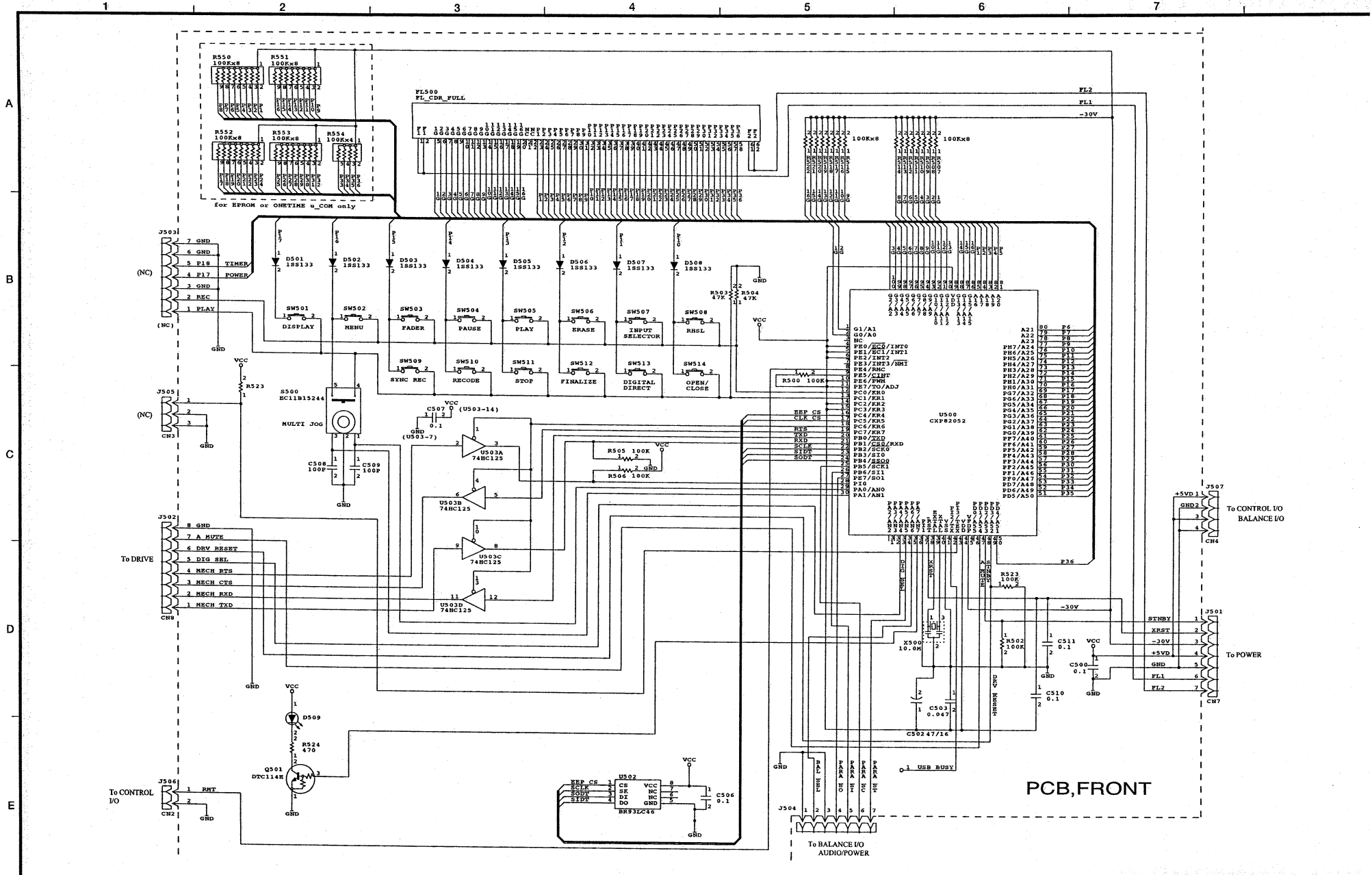




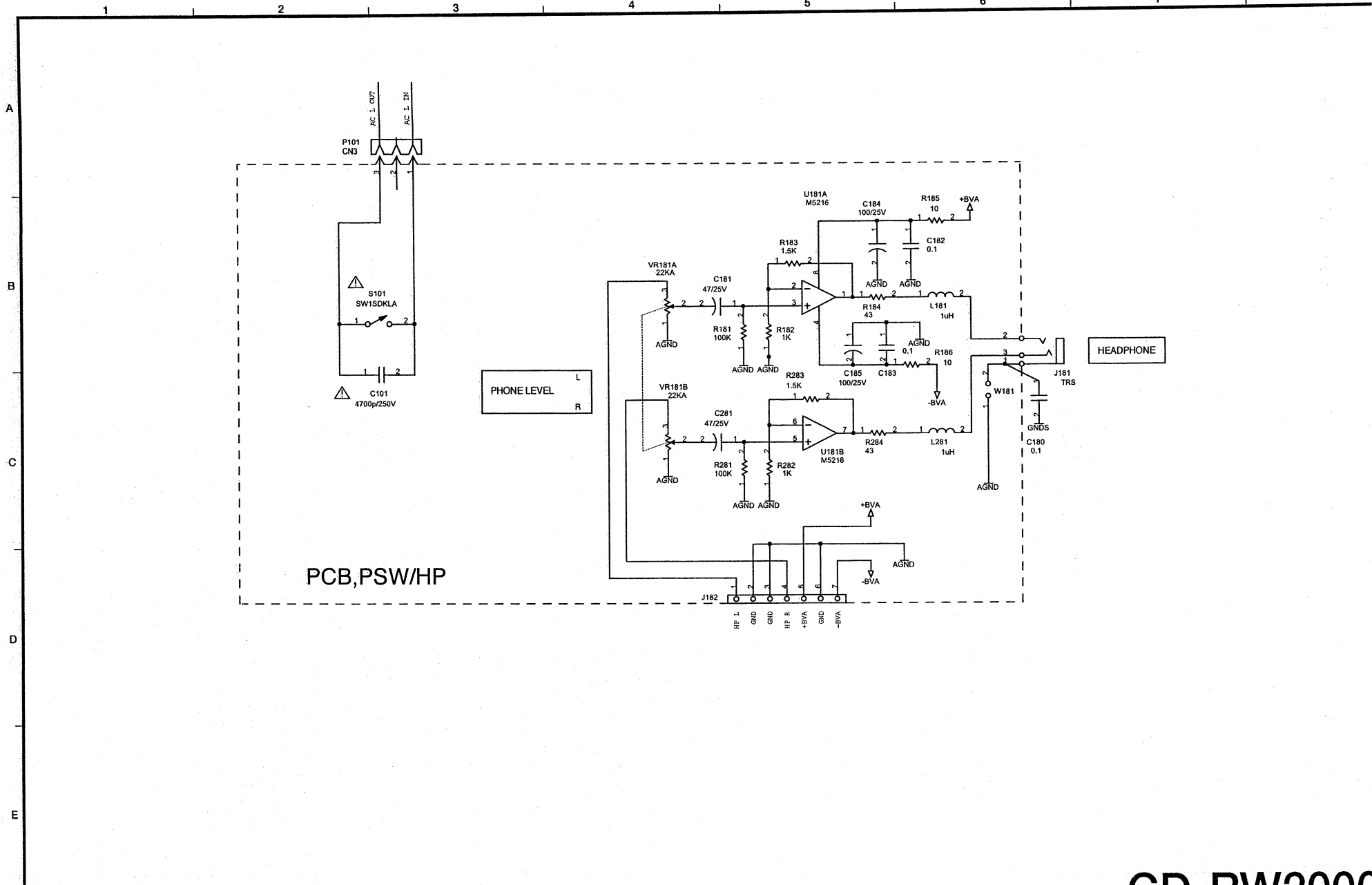


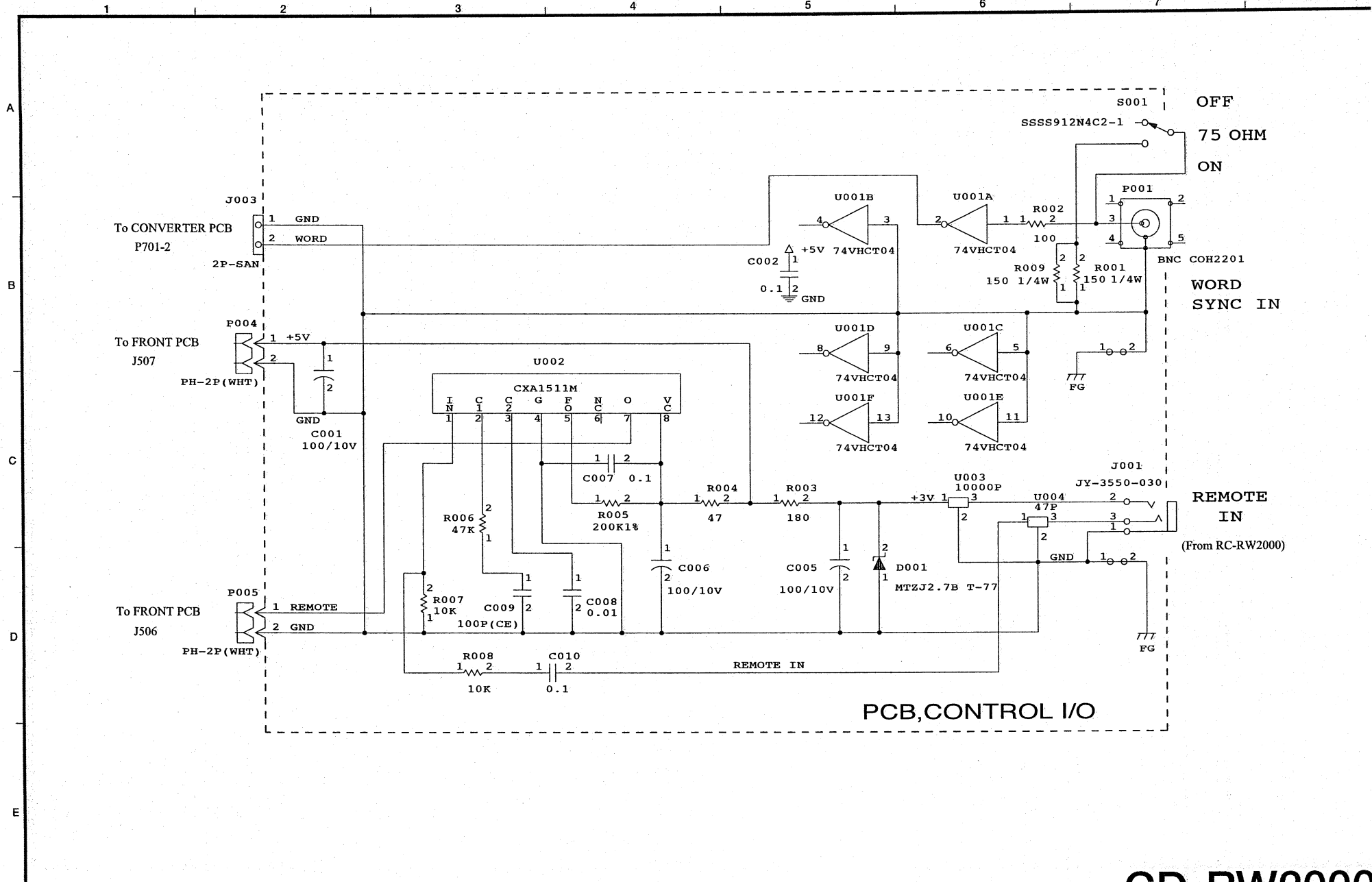
NOTE
 ▲ Parts marked with this sign are safety critical components.
 They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.

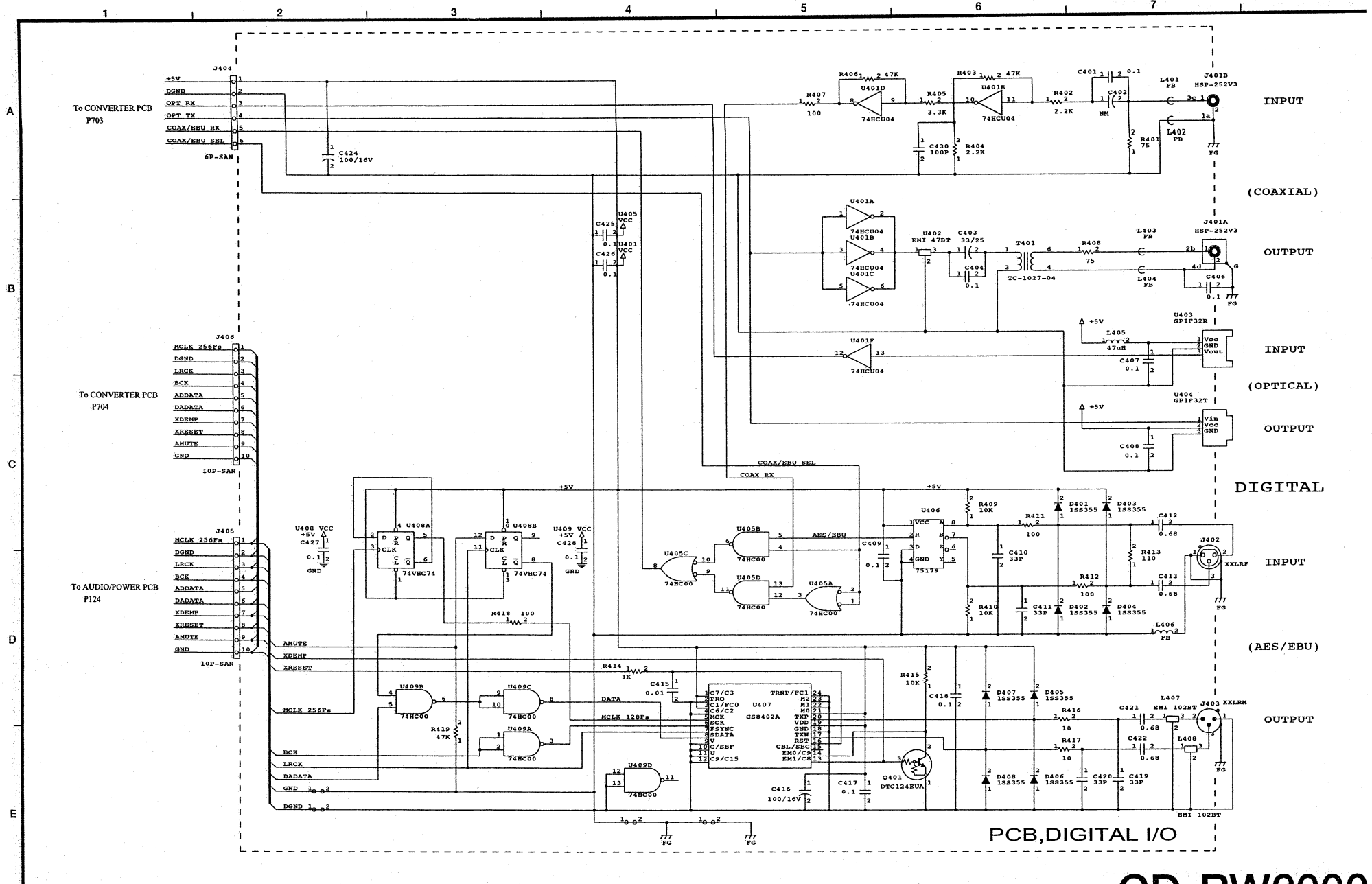
注意
 ▲ マークのある部品は安全重要部品です。
 交換するときは必ずティファック指定の部品を使用してください。



PCB,FRONT

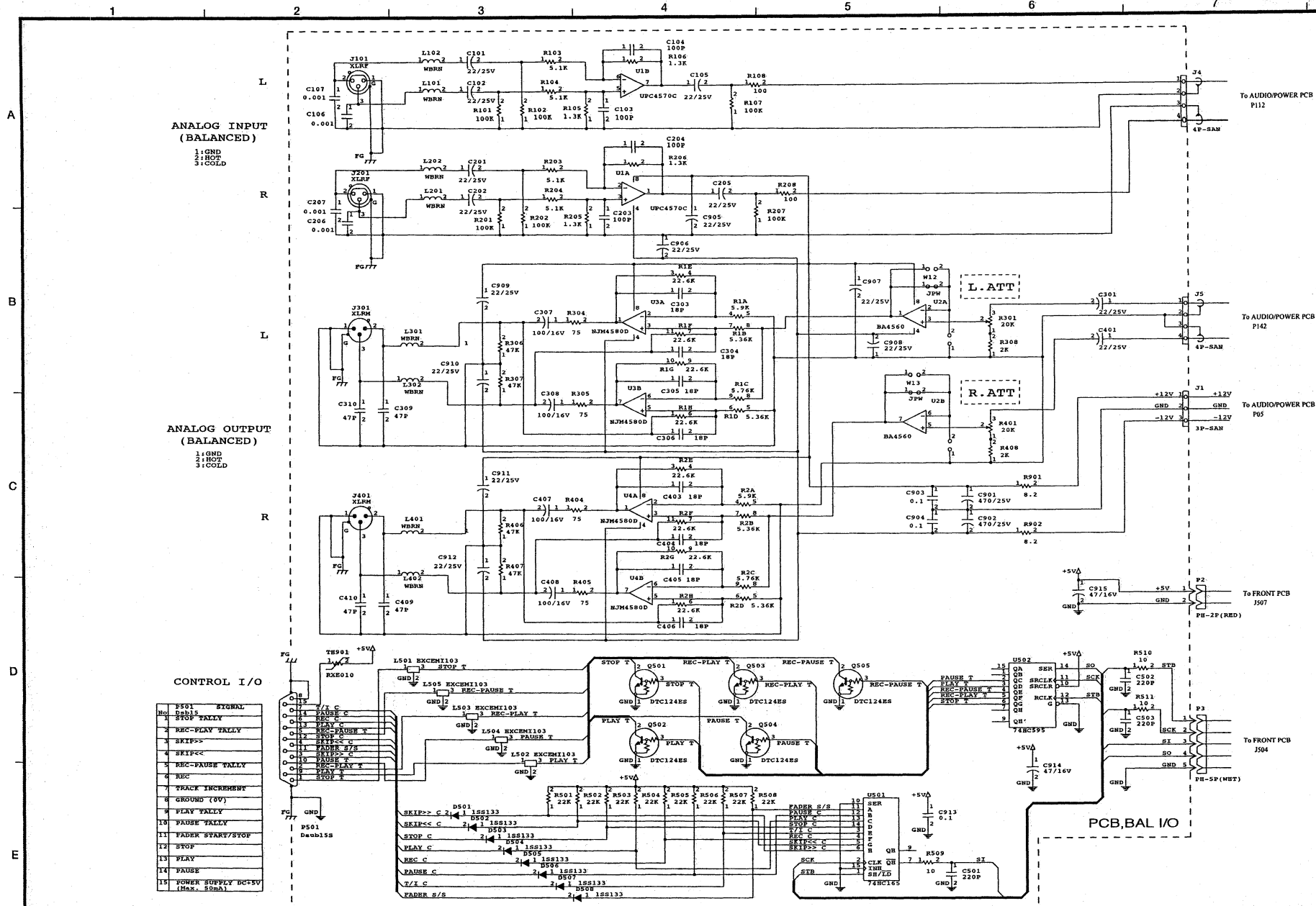


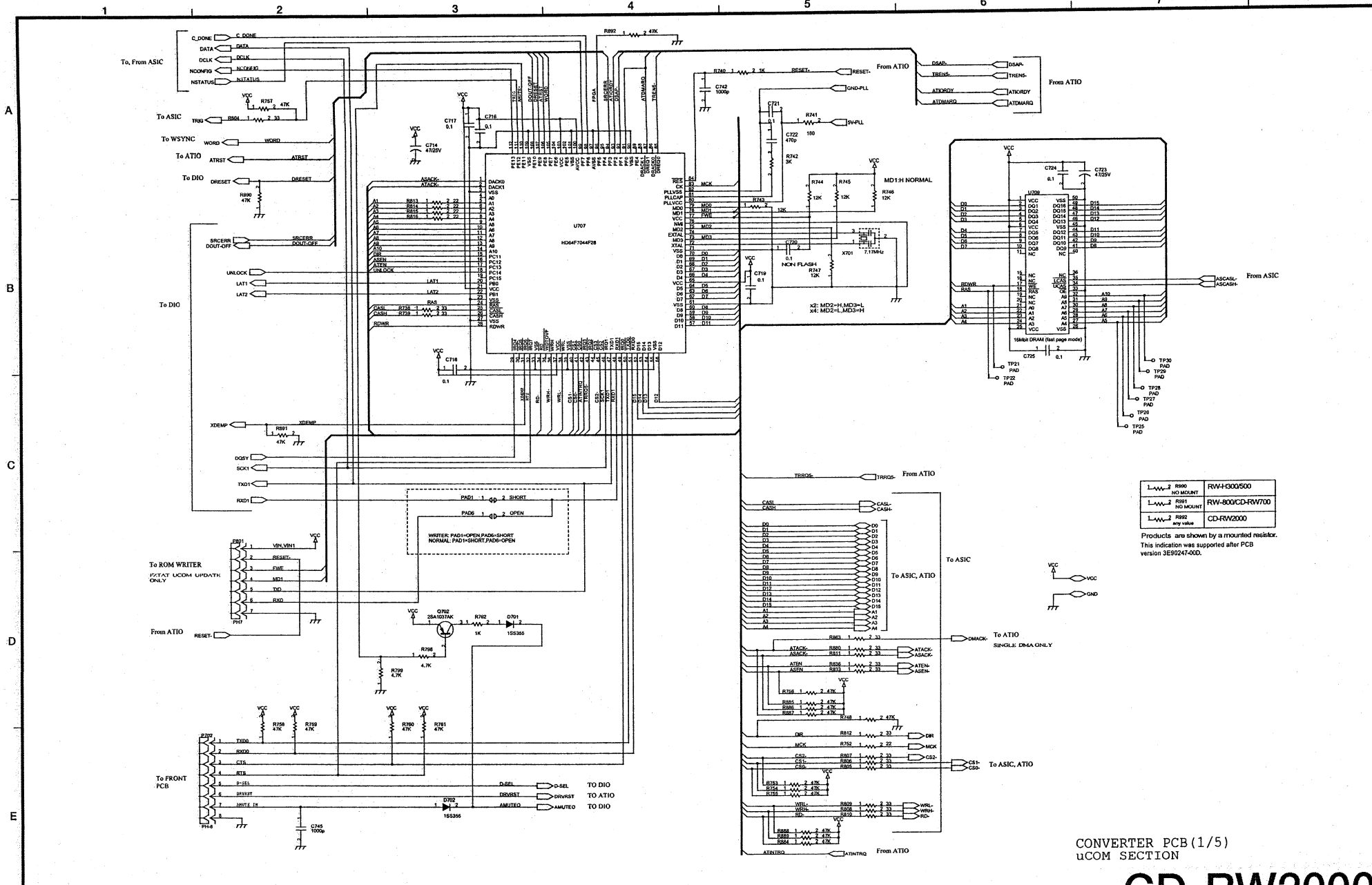




PCB, DIGITAL I/O

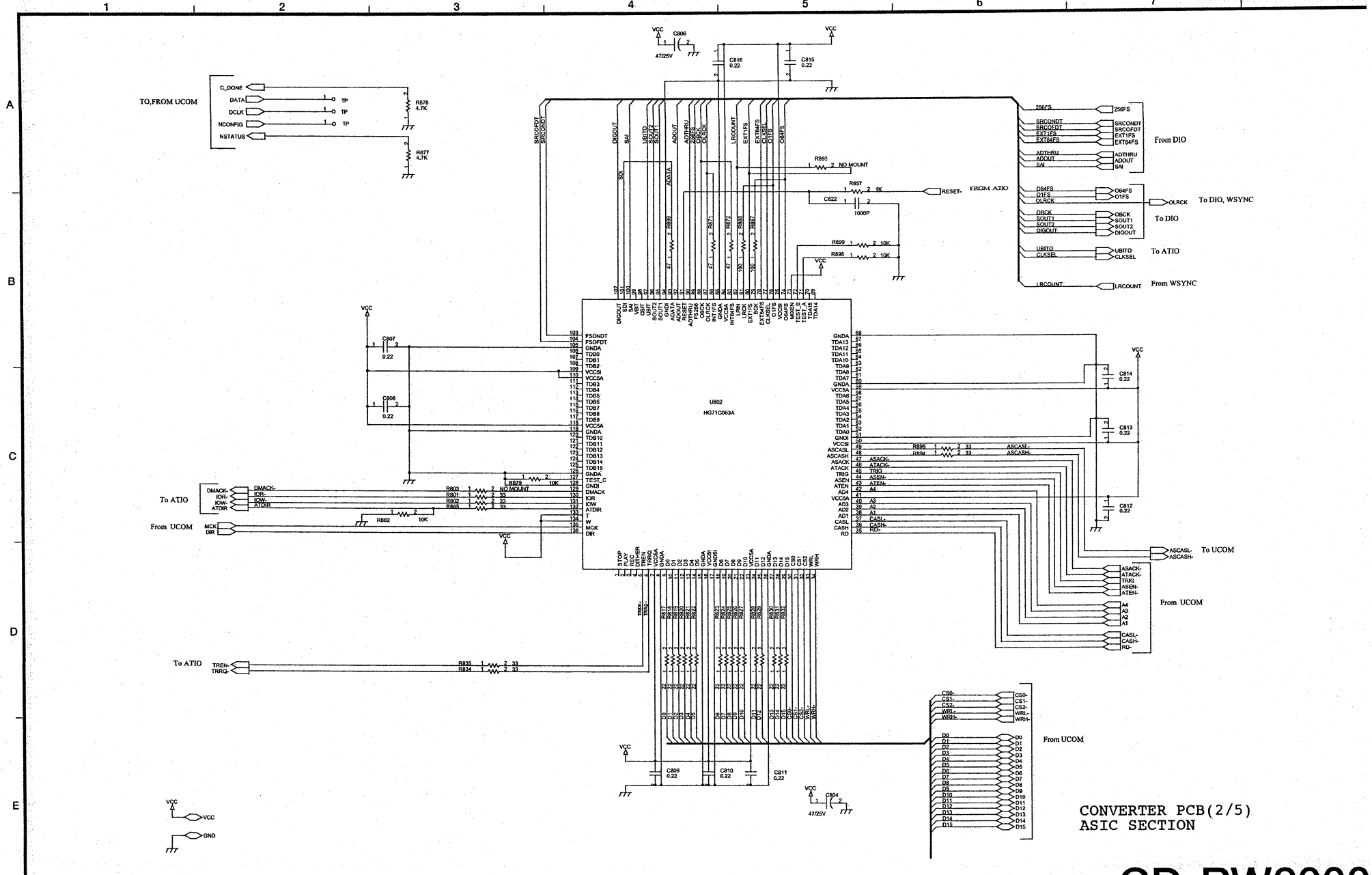
CD Rewritable Recorder CD-RW2000



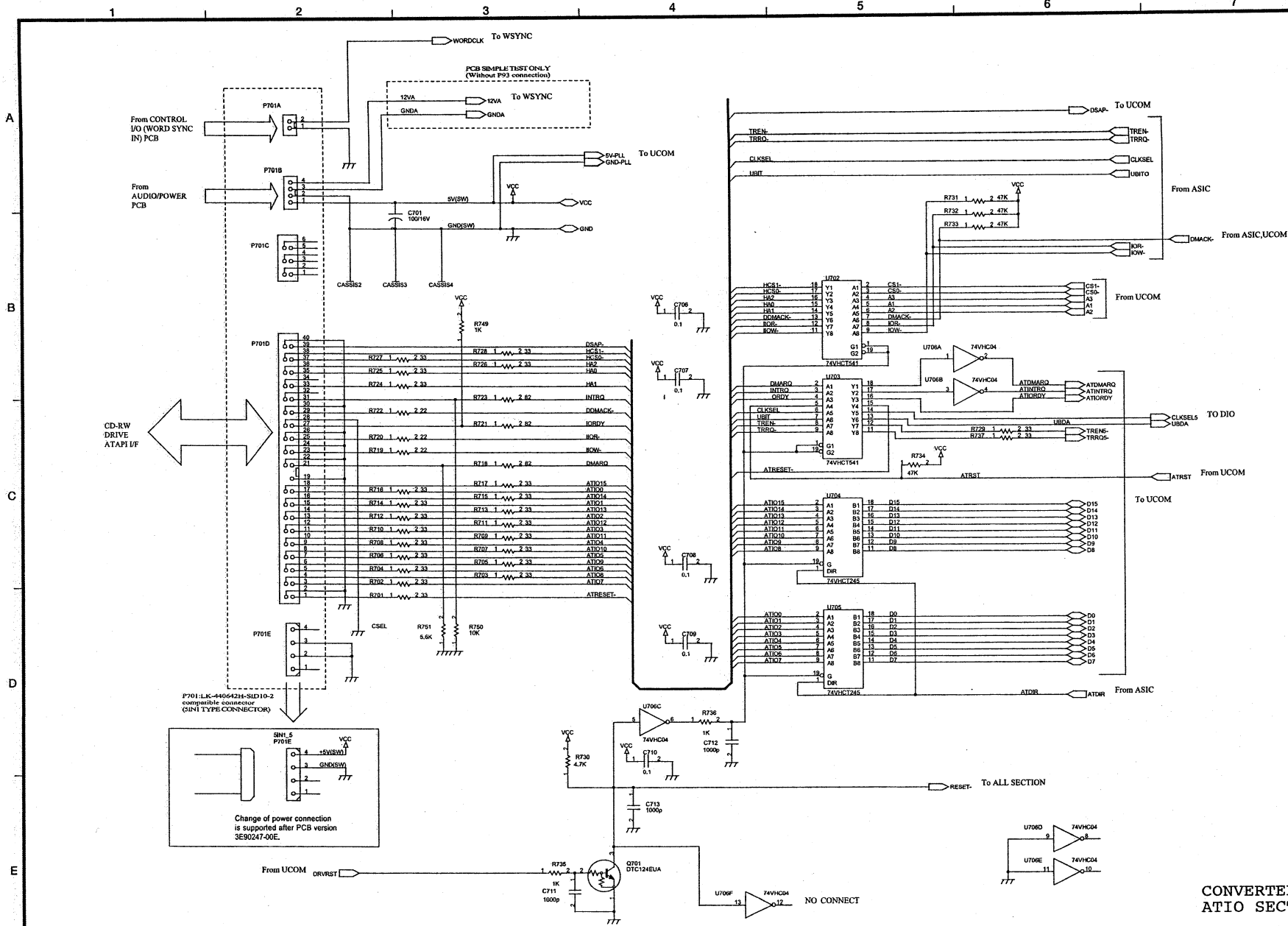


CONVERTER PCB(1/5)
uCOM SECTION

CD Rewritable Recorder **CD-RW2000**

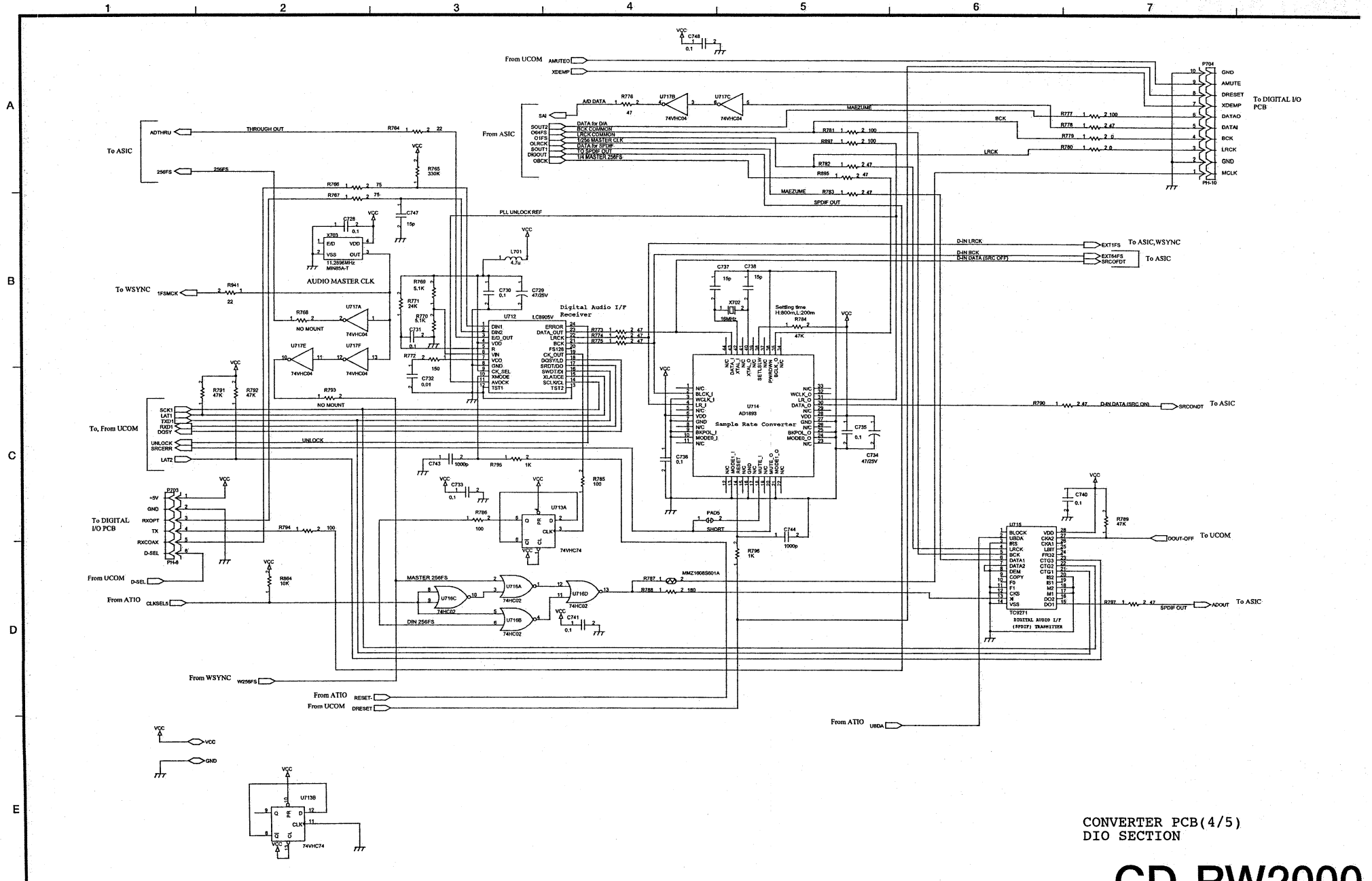


CONVERTER PCB(2/5)
ASIC SECTION



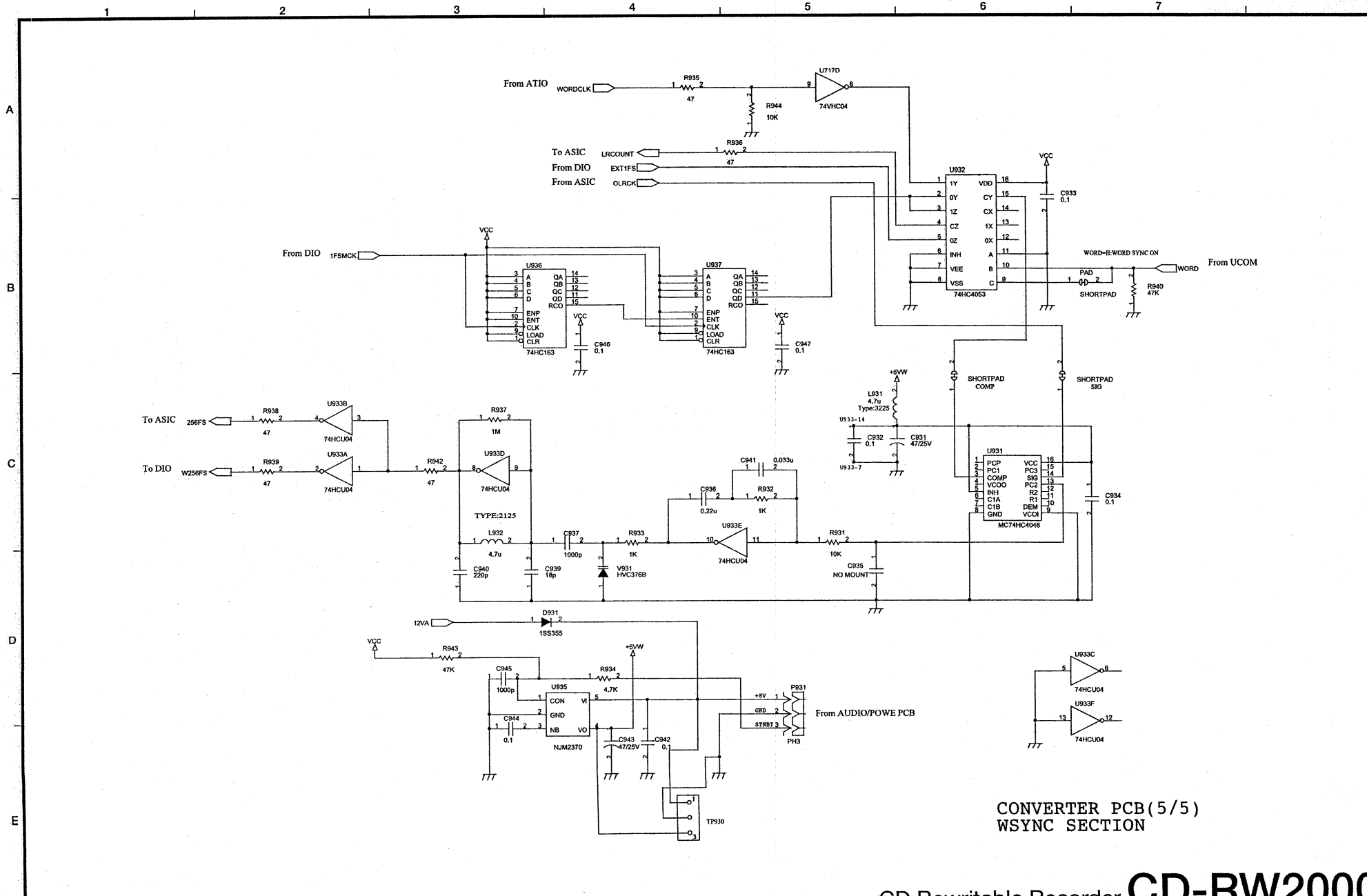
**CONVERTER PCB(3/5)
ATIO SECTION**

CD Rewritable Recorder CD-RW2000



CONVERTER PCB(4/5)
DIO SECTION

CD Rewritable Recorder **CD-RW2000**



**CONVERTER PCB(5/5)
WSYNC SECTION**

CD Rewritable Recorder CD-RW2000

TEAC**TECHNICAL INFORMATION****CD-RW402(V3)/CD-RW2000(V3), Substitution of the Drive**No. **0701**

DATE 16th February 2007

This information relates to previous Tech-Info No. 0505R, 0506R, 0510 and 0511R.

The Drive (CD-W58DA) introduced in both info has been replaced with a RoHS conformity Drive (CD-W58DB) on the V3 products with the following S/Nos (month started production):

CD-RW402V3: S/N 0350001 and after (Nov/2005)

CD-RW2000V3: S/N 0500001 and after (Mar/2006)

Exception: T/C - S/N 0470076 to 047125 (Nov/2005)

All - S/N 0490116 to 049215 (Feb/2006)

Parts required

| Item | Qty | P/No. | Description |
|-------------------------|-----|------------|------------------------|
| New bare drive | 1 | V00141900A | CD-W58DB-T00 G |
| Drive update on CD-R | | | "W58db1td.abf" written |
| Drive update on Windows | | | "W58db1td.exe" |

Visit the **ROM Data Library** on the SVHP to download the both firmware data and follow the update procedure on the previous Tech Info to read the following change:

"T58V1tf.abf" of CD-W58DA Drive => "W58db1td.abf" for CD-W58DB Drive.

"CDW58da1tf.exe" of CD-W58DA Drive => "W58db1td.exe" of CD-W58DB Drive.

Notice:

Do not attempt to write the former CD-W58DA firmware, "T58V1tf.abf" or "CDW58da1tf.exe" onto new CD-W58DB Drive otherwise new Drive becomes totally no response since type of Flash Rom fitted is quite different by the RoHS requirement. These firmware have no capability to identify type of Drive on which targeted to update therefore.



TECHNICAL INFORMATION

CD-RW2000V3, Service Manual Supplement Correction

No. **0705**
 DATE 20th March 2007

Correction is required on the service manual as shown below.

CD-RW2000V3, page 1 at right column of the parts list

| Ref. No. | X | O |
|----------|-----------------------------------------------------|--------------------------------------------------|
| 1- 3 | 3E9527600A PCB ASSY, CONVERTER 2000V3 | 3E9524720B PCB ASSY, CONVERTER 2000V3 |
| | 3S0048510A UCOM Assy, HD64F7044 402V3IC U707 MPU | 3S0048510B UCOM ASSY HD64F7044 402V3 U707 MPU |

The service manual on the SVHP have been corrected on 14th/March/2007.

TEAC**TECHNICAL INFORMATION****TASCAM CD-RW2000, Substitution of the Drive**No. **0505**

DATE 3rd August 2005

Original drive (CD-W54E) has discontinued then new drive (CD-W58DA) for CD-RW2000 V3 is used for substitution. This info introduces how to mount CD-W58DA to original CD-RW2000.

Outline of work

- Replace Converter MPU
- Replace Front MPU
- Remove C402 on Digital I/O PCB
- Replace drive
- Update drive firmware
- Mount new tray panel
- Add an insertion owner's manual for CD-RW2000 V3

Note:

The production of CD-RW2000 V3 has been started from S/No. 0390001 and up.

Parts required

| Item | Qty | P/No. | Description |
|------------------------------|-----|--------------|----------------------------|
| Converter MPU | 1 | 3S0048510A | UCOM Assy, HD64F7044 402C3 |
| Front MPU | 1 | S00598300A | IC, CXP82040-160Q Front3 G |
| New drive | 1 | V00140000A | CD-W58DA-T00 |
| New tray panel | 1 | M02038200A | Panel, Tray G RW2000 ASS |
| Insertion owner's manual (E) | 1 | (3D0046200A) | Sheet, ISKRC V3 CD-RW2000 |
| Drive update CD-R | | | "T58V1td.abf" written |

Actual work

1. Replace Converter MPU (U707 on Converter PCB A) with new.
2. Replace Front MPU (U500 on Front PCB A) with new.
3. Just remove C402 (Electrolytic Capacitor) on Digital I/O PCB.
4. Replace drive with new.
Note that new tray panel cannot be mounted at this stage as tray cannot be opened.
5. Update drive firmware
By replacing Converter MPU and Front MPU in the step 4 above, update capability of drive is added now. As new drive is supplied with basic PC condition, drive firmware should be updated. Refer to "Drive firmware update procedure".
6. Turn the power of unit on, open the tray then turn the power off. Mount new tray panel.
7. Add an insertion sheet for Version 3.0.

Drive firmware update procedure

There are two ways for drive update.

1. Update on CD-RW2000.
2. Update on Windows.

1. Update on CD-RW2000

Prepare update drive CD-R that has "T58V1td.abf" written in it.

Preparation:

1. Have a blank CD-R data disc available, as well as a system capable of creating data CDs.
2. Visit the **ROM Data Library** of the TASCAM Service HP website to download the firmware data image and write the firmware file on PC to the blank CD-R disc. (Use the "Disc at once" method that complies with ISO9660 Level 1: MS-DOS compatible)

Notice:

Be careful that the power supply to the unit is not interrupted during the update process otherwise firmware data of drive could be damaged and physical replacement of drive becomes unavoidable

Procedure:

1. Turn the power on while holding **CALL** and **MENU**.
2. Load update drive CD-R while display shows "RW2000 03.00"
If version above is less than 03.00, drive update function does not work.
Then replace Front MPU.
3. Confirm "CD" in display blinks. Then press **CALL** to check current version of drive.
Existing version is "V1.TA" and "V1.TB" (the latest) as of May/2005.
4. Press **MENU**. Then the display shows current version and new version to be updated.
5. Press **ENTER** then update will start.
"NOW UPDATE" is displayed and "." at the right most corner blinks.
6. "COMPLETE" is displayed to inform the update finished successfully.
7. Turn the power off.

2. Update on Windows

Prepare "CDW58DA_1TD.exe" data file.

Visit the **ROM Data Library** in the TASCAM Service HP website to download firmware data image of "CDW58DA_1TD.exe" into PC.

1. While PC is powered off, connect the CD-W58DA to PC and reboot.
No need to consider Primary/Secondary and Master/Slave.
2. Double-click on "CDW58DA_1TD.exe" to run.
3. Follow the messages that will appear.



TECHNICAL INFORMATION

TASCAM CD-RW2000V3, Converter MPU Upgrade

No. **0510**

DATE 20th October 2005

ROM of the Converter MPU, U707 on the Converter PCB Assy has been upgraded from Ver 3.01 to Ver 3.02 on the products of S/N 0440001 and up.

| Item | P/No. | Description |
|--------------------|----------------------|----------------------|
| Converter MPU U707 | 3S0048510A (Ver3.01) | 3S0048510B (Ver3.02) |

Problem corrected by V3.02

1. "COPY PROHIBIT" has been resulted at the first track of recorded CD even "COPY ID" was selected to "FREE" regardless of the input source.
2. LCD shows "NO DISC" when UNFINALIZE was operated against CD-RW media on that exactly 99 tracks have been recorded. Once open and close the Tray has been required to recover the 99 tracks read out.
3. "REC ERROR" has been occurred when a particular CD was tried to Copy from Drive 1.

Note: Drive firmware has been updated from Ver 1.TD to Ver 1.TF to solve the problems however updating the Converter firmware is recommended to be done at the same time for a future provision.

Converter MPU and Drive firmware update procedure

Prepare a "Converter update CD-R" that has "conv0302mot" written on it.
Prepare a "Drive update CD-R" that has "T58V1tf.abf" written on it.

Preparation:

1. Have two blank CD-R data discs available, as well as a system capable of creating data CDs.
2. Visit the **ROM Data Library** in the TASCAM Service HP website to download both firmware data images and write the firmware file on PC to the blank CD-R discs respectively.
(Use the "Disc at once" method that complies with ISO9660 Level 1: MS-DOS compatible)

Notice:

Be careful that the power supply to the unit is not interrupted during the update process otherwise firmware data of the Converter MPU or the drive could be damaged and physical replacement of related part becomes unavoidable.

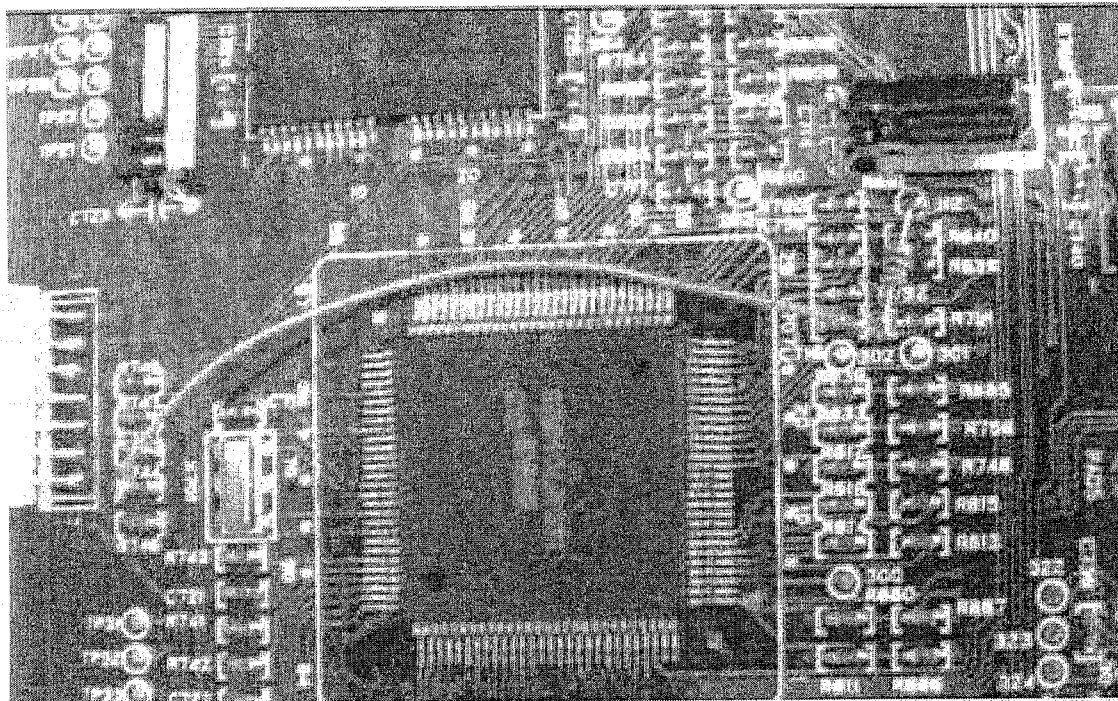
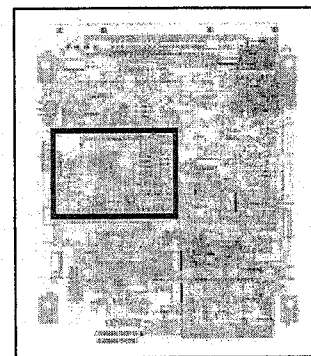
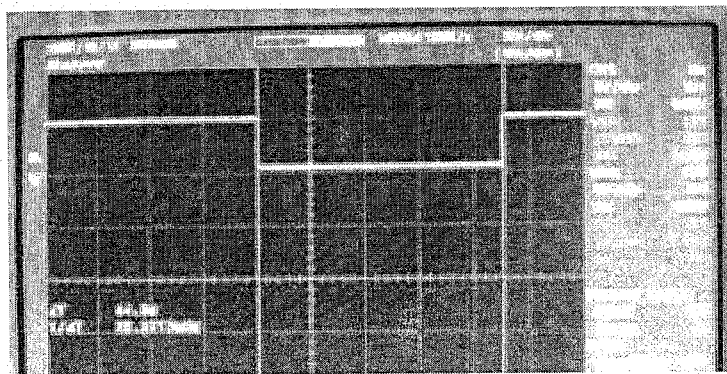
Converter MPU firmware update

Procedure:

1. Turn on power of the unit while holding **CALL** and **MENU**.
2. Load the "Converter update CD-R" while display shows "RW2000 03.00" that is version of the Front MPU.
3. Confirm "CD" in display blinks. Then press **CALL** to check current version of drive. Existing version is "V1.TA", "V1.TB" (May/2005) and "V1.TD" as of August/2005.

4. Press **MENU** then the display shows current version and new version to be updated as "C03.0X→03.02".
5. Press **ENTER** then update will start.
6. Wait approximately 45 seconds or more to finish the update.
7. Turn off power of the unit.

A temporary work on the Converter PCB Assy to connect an oscilloscope is required to realize a successful completion. This is since the Converter PCB Assy of CD-RW2000V3 does not have necessary hardware to continue to show update sequence further. The waveform becomes Low when the **ENTER** key is pressed and goes to High approximately 45 seconds later upon end up the update as shown below:



The point to observe the waveform is a junction of additional 1kohm resistor and 60 mm wire that is connected across pin 30 (TP312) and pin 77 (R744) of the MPU (U707) as shown above.

Drive firmware update on CD-RW2000V3

1. Turn on power of the unit while holding **CALL** and **MENU**.
2. Load the "Drive update CD-R" while display shows "RW2000 03.00" that is version of the Front MPU.
3. Confirm "CD" in display blinks. Then press **CALL** to check current version of drive. Existing version is "V1.TA", "V1.TB" (May/2005) and "V1.TD" as of August/2005.
4. Press **MENU** then the display shows current version and new version to be updated as "D 1.TA→1.TF" for example.
5. Press **ENTER** then update will start. "NOW UPDATE" is displayed and "." at the right most corner blinks.
6. "COMPLETE" appears to show end up of the update successfully.
7. Turn off power of the unit.

Drive firmware update on Windows

There is another way to update the drive firmware only by using PC.
Visit the **ROM Data Library** in the TASCAM Service HP website to download firmware data image of "CDW58DA_1TF.exe" into PC.

1. While PC is powered off, connect the CD-W58DA to PC and reboot.
No need to consider Primary/Secondary and Master/Slave.
2. Double-click on "CDW58DA_1TF.exe" to run.
3. Follow the messages that will appear.