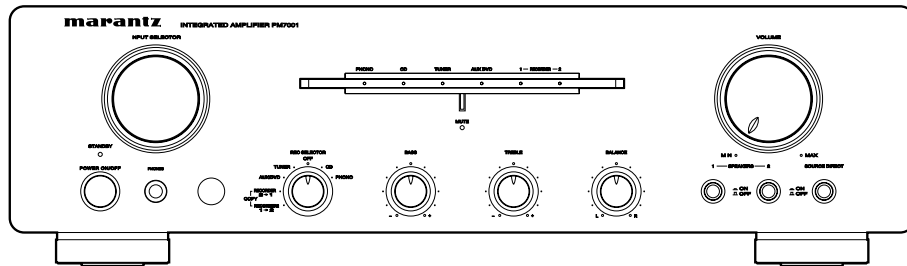


# Service Manual

PM7001 /N1B/N1G/N1S

Integrated Amplifier



PM7001

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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®

## PM7001

## MARANTZ DESIGN AND SERVICE

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

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

### ORDERING PARTS :

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

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

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

#### USA

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

#### EUROPE / TRADING

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

#### CANADA

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

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MT. WAVERLEY VIC 3149  
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#### THAILAND

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BANGKOK, 10200 THAILAND  
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#### SINGAPORE

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

#### NEW ZEALAND

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

#### TAIWAN

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

#### MALAYSIA

**WO KEE HONG ELECTRONICS SDN. BHD.**  
2ND FLOOR BANGUNAN INFINITE CENTRE  
LOT 1, JALAN 13/6, 46200 PETALING JAYA  
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#### JAPAN *Technical*

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本 社 〒228-8505  
神奈川県相模原市相模大野7-35-1

#### KOREA

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

### SHOCK, FIRE HAZARD SERVICE TEST :

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

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

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

# 1. TECHNICAL SPECIFICATIONS

Power output (20 Hz ~ 20 kHz simultaneous drive of both channels)  
 ..... 70 W x 2 (8 Ω load)  
 ..... 100 W x 2 (4 Ω load)

Total harmonic distortion (20 Hz ~ 20 kHz simultaneous drive of both channels, 8 Ω load) ..... 0.02 %

Power band width (8 Ω load, 0.05 %) ..... 5 Hz ~ 60 kHz

Frequency response (CD, 1 W, 8 Ω load) ..... 5 Hz ~ 100 kHz ± 3 dB

Damping factor (8 Ω load, 20 Hz ~ 20 kHz) ..... 100

Input sensitivity/Input impedance

PHONO (MM) ..... 2.5 mV/47 kΩ

CD, LINE, TUNER, AUX/DVD, RECORDER ..... 200 mV/20 kΩ

MAIN IN ..... 1.6 V/20 kΩ

Output voltage/Output impedance

PRE OUT ..... 16 V/560 Ω

Maximum allowed PHONO input (1 kHz)

MM ..... 130 mV

RIAA deviation (20 Hz ~ 20 kHz) ..... ± 0.5 dB

S/N (IHF-A, 1 W, 8 Ω load)

PHONO (MM) ..... 85 dB (5 mV input)

CD, LINE, TUNER, AUX/DVD, RECORDER  
 ..... 88 dB (500 mV input)

MAIN IN ..... 107 dB

Tone control

Bass (50 Hz) ..... ± 10 dB

Treble (20 kHz) ..... ± 10 dB

Power requirement ..... AC 230 V 50 Hz [N]

Power consumption

(EN60065) ..... 250 W

(4 Ω, 100 W x 2 output) ..... 470 W

Accessories

Remote controller ..... 1

AA batteries ..... 2

Detachable AC power cable ..... 1

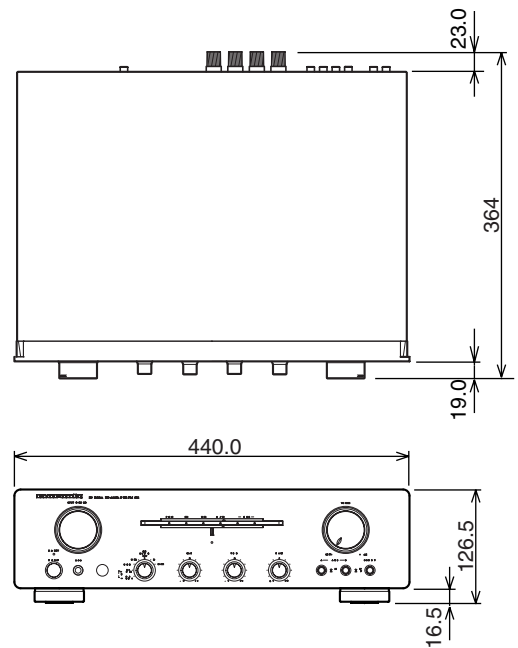
Maximum outer dimensions (Amplifier)

Width ..... 440 mm

Height ..... 126.5 mm

Depth ..... 364 mm

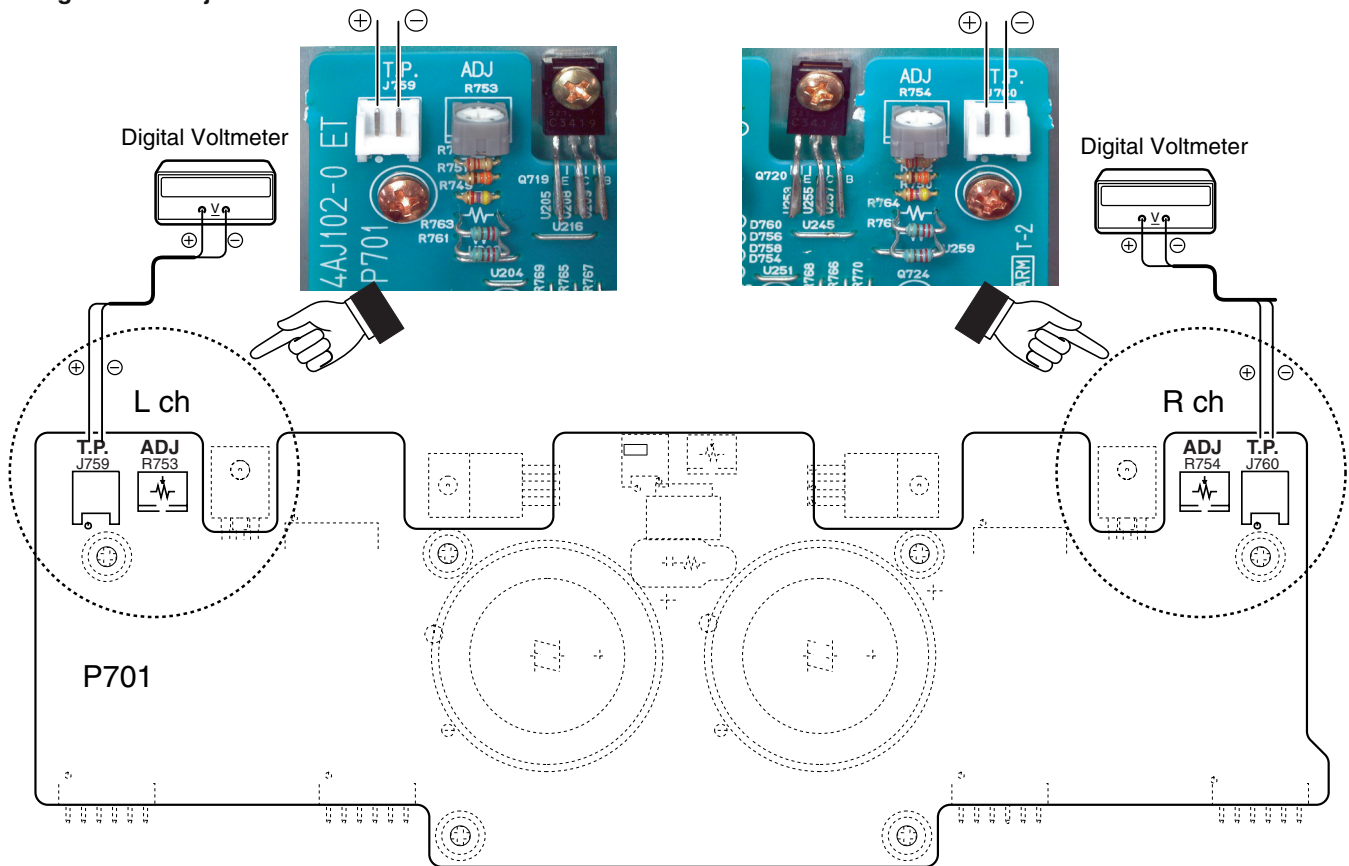
Weight (Amplifier) ..... 10.5 kg



## 2. ALIGNMENTS

### Idling Current Adjustment

### アイドルリング電流調整



#### Adjustment Procedure

Set the power voltage to rated voltage for this adjustment.

1. Adjust the Idling Current with the variable resistor **R753** and **R754** on the PWB P701.
2. Turn off the power.
3. "+" of Connect Digital Voltage is connected to the **No. 1 pin** and connected "-" to **No. 2 pin** of **J759**.
4. "+" of Connect Digital Voltage is connected to the **No. 1 pin** and connected "-" to **No. 2 pin** of **J760**.
5. Before turning on the power, **R753** and **R754** have been counter clockwise turned with the adjustment driver.
6. Turn on the power, **VOLUME** is set as  $-\infty$ .
7. After 2 minutes.

With seeing the digital voltage meter turn the variable resistor clockwise slowly to adjust the idling current. Idling adjustment with **R753** (**R754**).

- Turn **R753** (**R754**) clockwise to increase the idling current.
  - The adjustment value of idling current is **4 mV(20 mA)  $\pm$  0.5 mV(2.5 mA) each.**
8. After 7 minutes.  
Repeat the same procedure as 7.
  - The adjustment value of idling current is **12 mV(60 mA)  $\pm$  0.5 mV(2.5 mA) each.**

#### 調整手順

調整時は必ず電源電圧を定格電圧に合わせてください。

1. P701 基板上の半固定抵抗 **R753** と **R754** でアイドルリング電流を調整します。
2. 電源を OFF します。
3. P701 基板の **J759** にデジタルポルトメーターを接続します。デジタルポルトメーターは **J759** の **1** 番ピン (丸印側) を "+"、2 番ピンを "-" に接続します。
4. P701 基板の **J760** にデジタルポルトメーターを接続します。デジタルポルトメーターは **J760** の **1** 番ピン (丸印側) を "+"、2 番ピンを "-" に接続します。
5. 電源を投入する前に半固定抵抗 **R753** と **R754** を、調整ドライバーで反時計方向に回しきってください。
6. 電源を投入しボリュームを  $-\infty$  にしてください。
7. 電源を投入後 2 分経過後。

P701 基板の **J759** (**J760**) に接続したデジタルポルトメーターの電圧値を監視しながら、半固定抵抗 **R753** (**R754**) をゆっくりと時計方向に回してください。

- **R753** と **R754** を時計方向に回すとアイドルリング電流が増加します。
  - アイドリング電流の調整値はそれぞれ **"4 mV(20 mA)  $\pm$  0.5 mV(2.5 mA)"** にします。
8. さらに "7 分" 経過後。  
上記 7. の手順でもう一度調整します。
  - アイドリング電流の調整値はそれぞれ **"12 mV(60 mA)  $\pm$  0.5 mV(2.5 mA)"** にします。

Adjustment is completed.

9. Remove connection cable, attach the top cover.

(Idling current decreases with the temperature rise inside the unit, and it is set to 10 mV (50 mA) of setting value in about 30 minutes after turn on the power.)

以上で調整は完了です。

9. デジタルボルトメーターの接続を外し、トップカバーを取付けます。

(調整終了後トップカバーを取付けるとセット内部の温度上昇に伴いアイドリング電流が減少し、電源投入後約30分で設定値の "10 mV(50 mA)" になります)。

### 3. SERVICE MODE

#### Microprocessor (Q201) version check

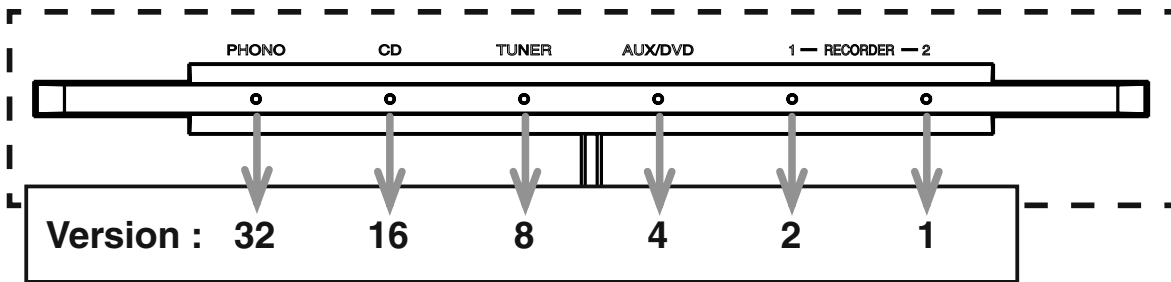
Operate by using [Remote controller RC4001PM]

1. Press the **POWER** button to turn on the unit.
2. Press **RECORDER 2 (TAPE)** button and press **7, 6, 0, 0** button on the remote controller.  
( Please each button within 3 seconds)
3. All LED light up then each LED light up then the firmware version is displayed on the front LED

#### Microprocessor (Q201) VERSION 確認

操作はリモコン (RC4001PM) を使用します。

- 1) **POWER** ボタンを押し、本体の電源をいれます。
- 2) リモコンの **RECORDER 2 (TAPE)**、**7**、**6**、**0**、**0** ボタンを順に押します。  
(各ボタンは 3 秒以内に押してください)
- 3) フロントパネルの LED が全点灯後、**FIRMWARE** のバージョンが LED にて表示されます。



The firmware version is displayed in the lighting position of LED.

Ex. :

- Light up RECORDER-2(1), **Version: 1**
- Light up RECORDER-2(1) and AUX/DVD (4), **Version: 5**
- Light up RECORDER-2(1) and TUNER (8), **Version: 9**

LED が点灯している箇所がバージョン表示です

表示例 :

- 点灯 RECORDER-2(1), **Version: 1**
- 点灯 RECORDER-2(1) and AUX/DVD (4), **Version: 5**
- 点灯 RECORDER-2(1) and TUNER (8), **Version: 9**

4. Turn off the power to quit Service Mode.  
(The unit to the default status)

- 4) 電源を切ると SERVICE モードが解除されます。  
(本機は、各種設定された内容が初期化され、工場出荷時の状態に戻ります)

## 4. WRITING MAIN MICROPROCESSOR (Q201) PROCEDURE

Microprocessor needs writing software, when a microprocessor (Q201) is replaced.

### NECESSARY EQUIPMENT

- Windows PC (OS : Windows2000 or WindowsXP) with Serial Port
- RS-232C Cable straight type (9 Pin female - 9 Pin female)
- Connection JIG (90M-PM11S1JIG)
- Writing Tool and some files (FlashProg.exe, etc... in TM86FH47pass folder)
- Writing data (PM7001\_xxxx.h16)  
NOTE: xx is a revision number.

### WRITING PROCEDURE

Disconnect the mains cord from the unit.

Connect RS-232C on the connection JIG and Serial Port of windows PC with RS-232C cable.

Connect FPC (upside contact) to the rear panel of the unit from connection JIG.

メインマイコン Q201 を交換したときは、Q201 ヘプログラムを書き込む必要があります。下記手順に従って書き込みをしてください。

### 必要機器

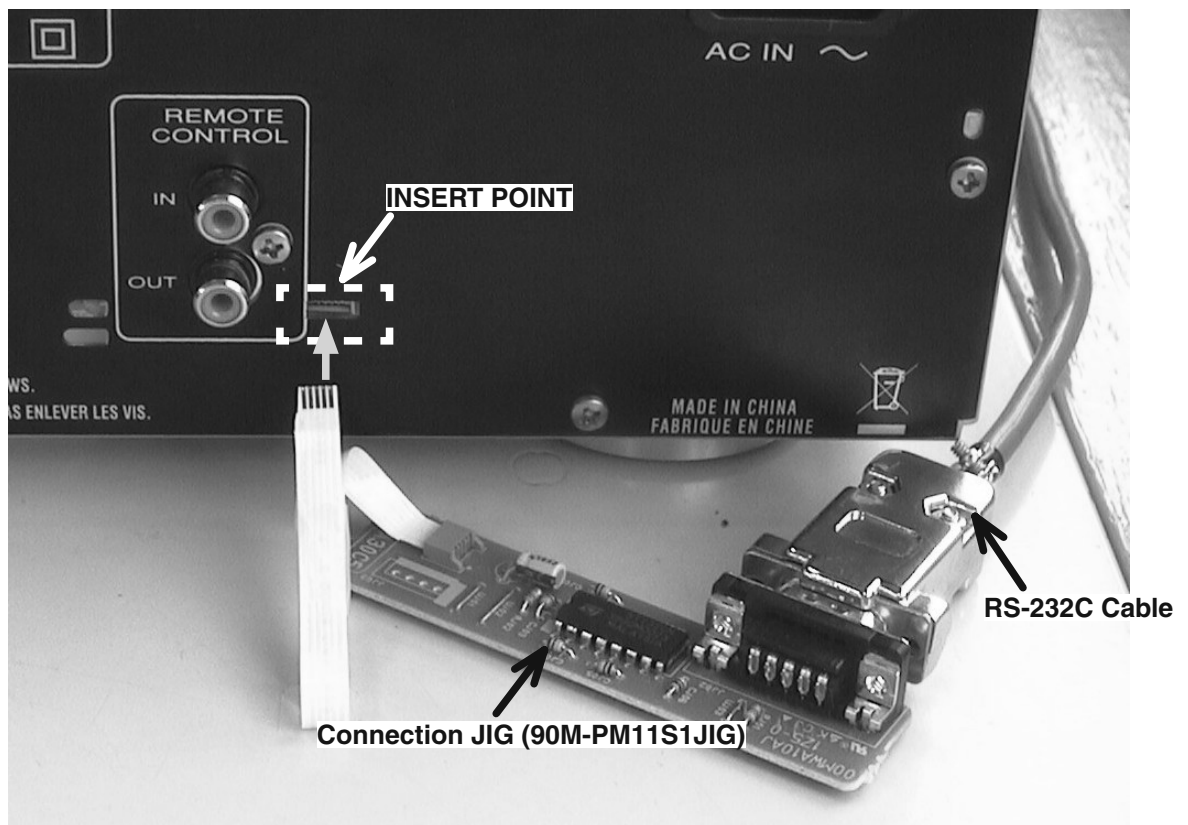
- Windows PC (OS : Windows2000 または WindowsXP) で Serial ポートのあるもの
- RS-232C ストレートケーブル (9Pin メス -9Pin メス)
- 接続治具 (90M-PM11S1JIG)
- 書き込み用ソフトウェア一式 (M86FH47pass フォルダ内 FlashProg.exe、他)
- 書き込み用データ (PM7001\_xxxx.h16)

### 書き込み手順

本機の電源ケーブルを抜きます。

Windows PC の Serial Port と接続治具を RS-232C ケーブルで接続します。

本機のリアパネルに接続治具の FPC をコンタクト面を上にして差し込みます。



Reconnect the mains cord to the unit.

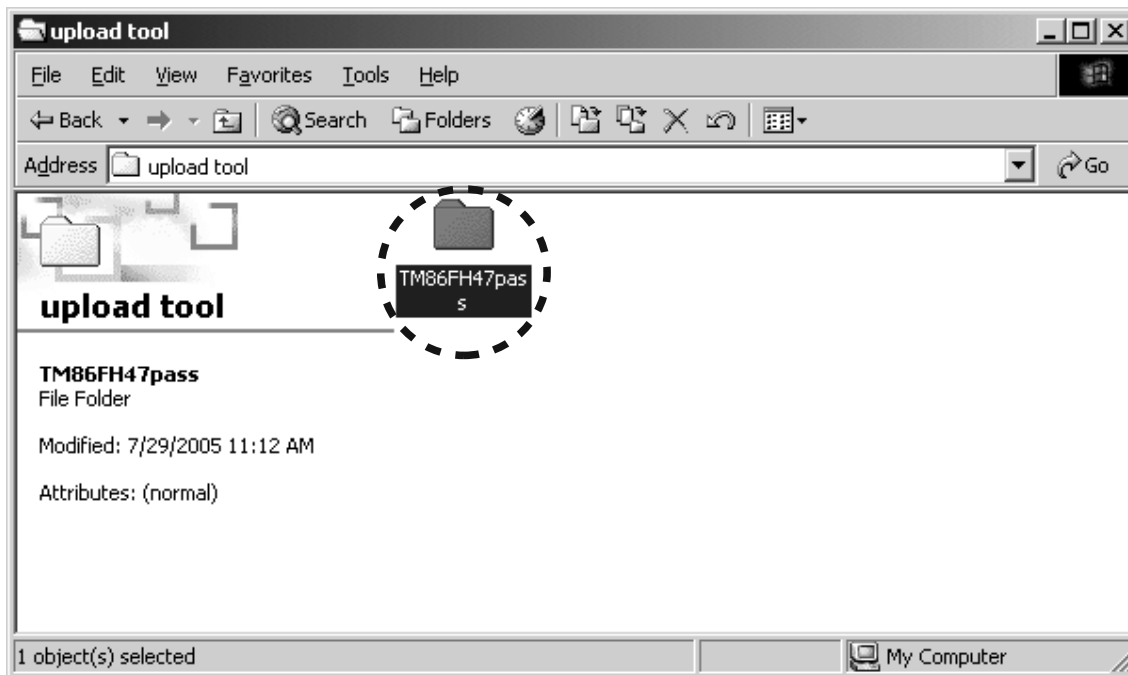
Put the "TM86FH47pass" folder into anywhere on your PC's hard disc.

本機の電源ケーブルを差し込みます。

TM86FH47pass フォルダを Windows PC の任意のフォルダにコピーします。

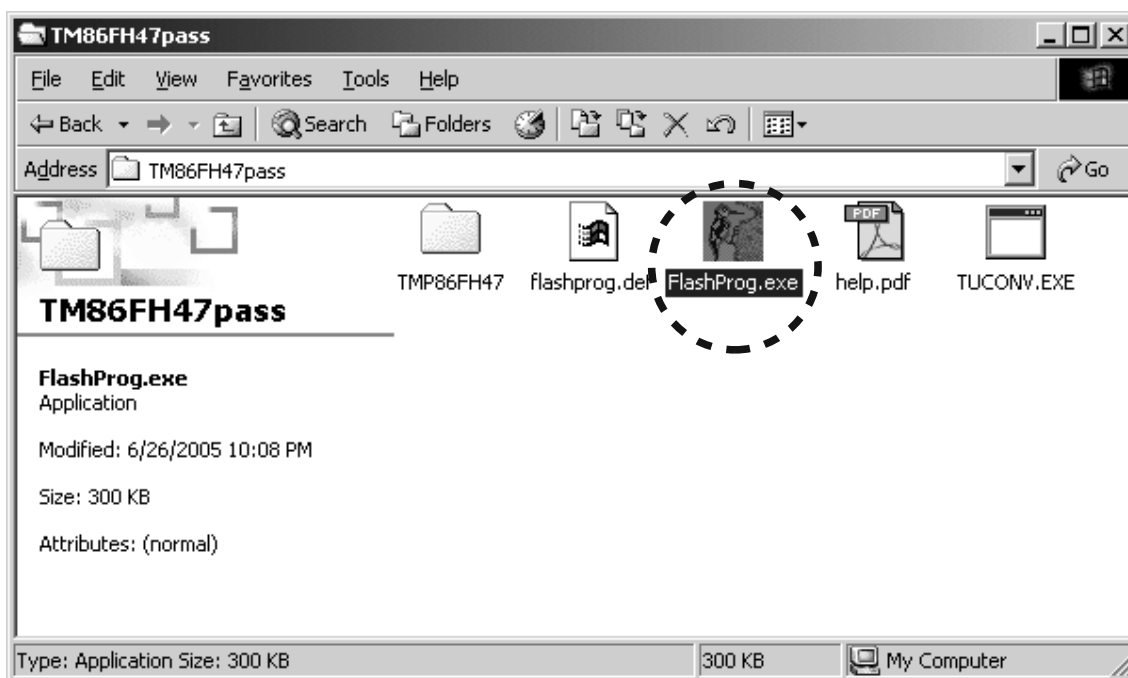
Double click the **TM86FH47pass** folder.

**TM86FH47pass** フォルダをダブルクリックして開きます。



Double click **FlashProg.exe**.

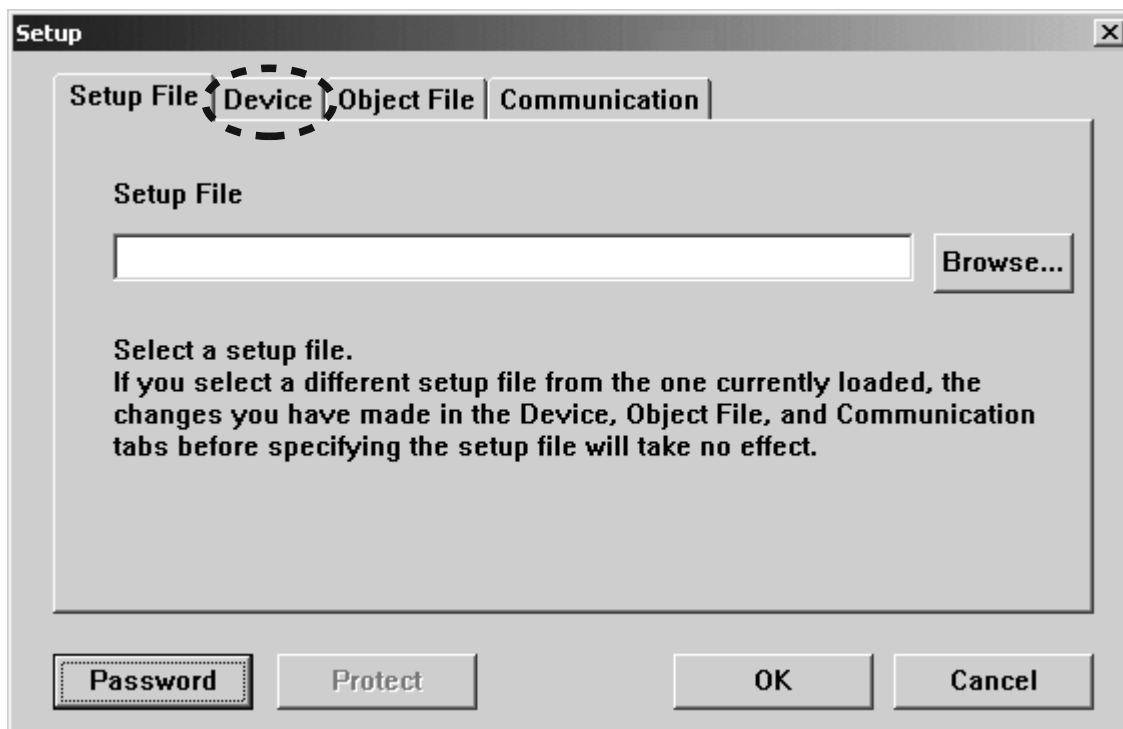
**FlashProg.exe** をダブルクリックします。





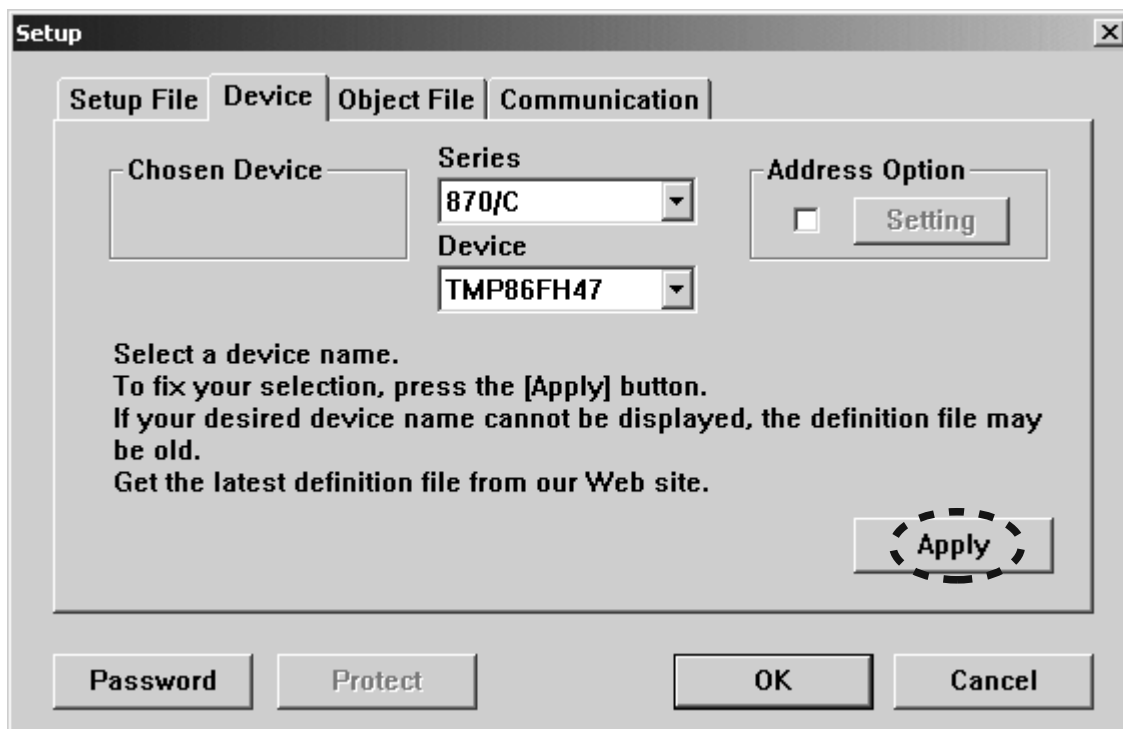
Click **Device**.

**Device** をクリックします。



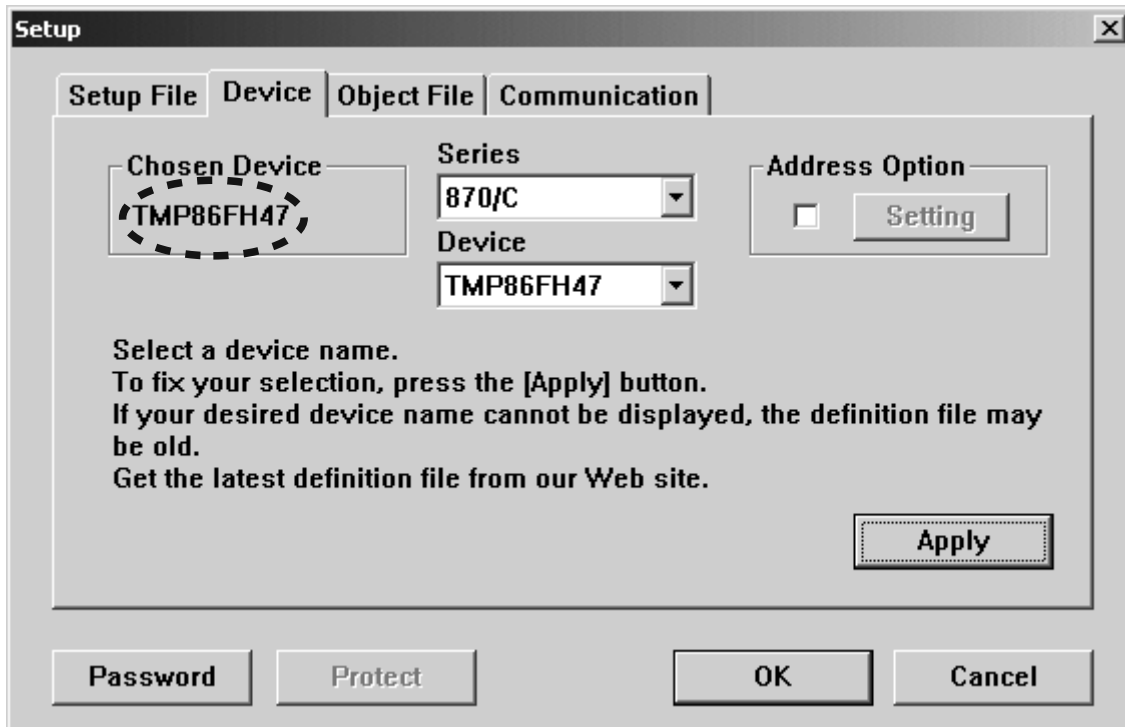
Click **Apply**.

**Apply** をクリックします。



TMP86FH47 appear in Chosen Device.

Chosen Device に TMP86FH47 が入力されます。



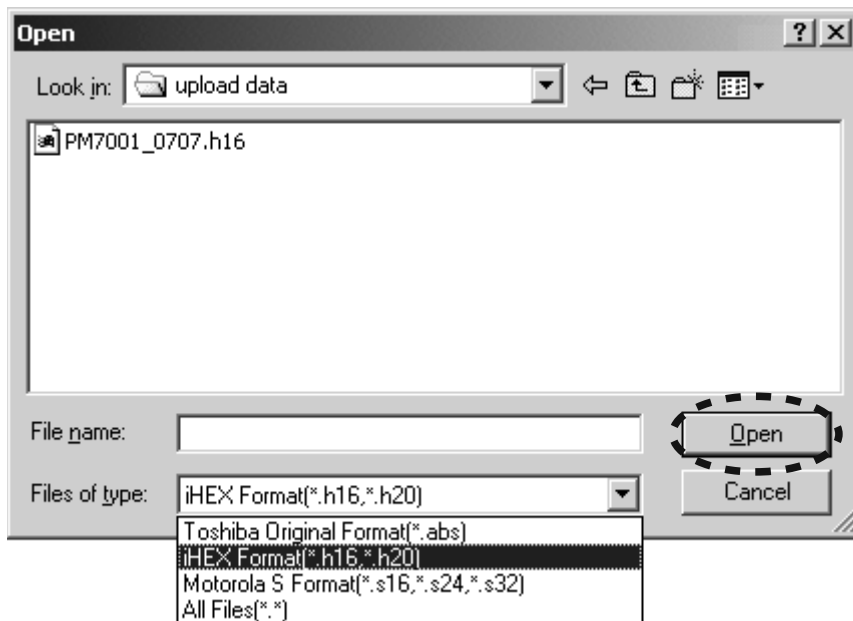
Click **Object File**, and click **Browse...**

**Object File** をクリックし、**Browse...** をクリックします。



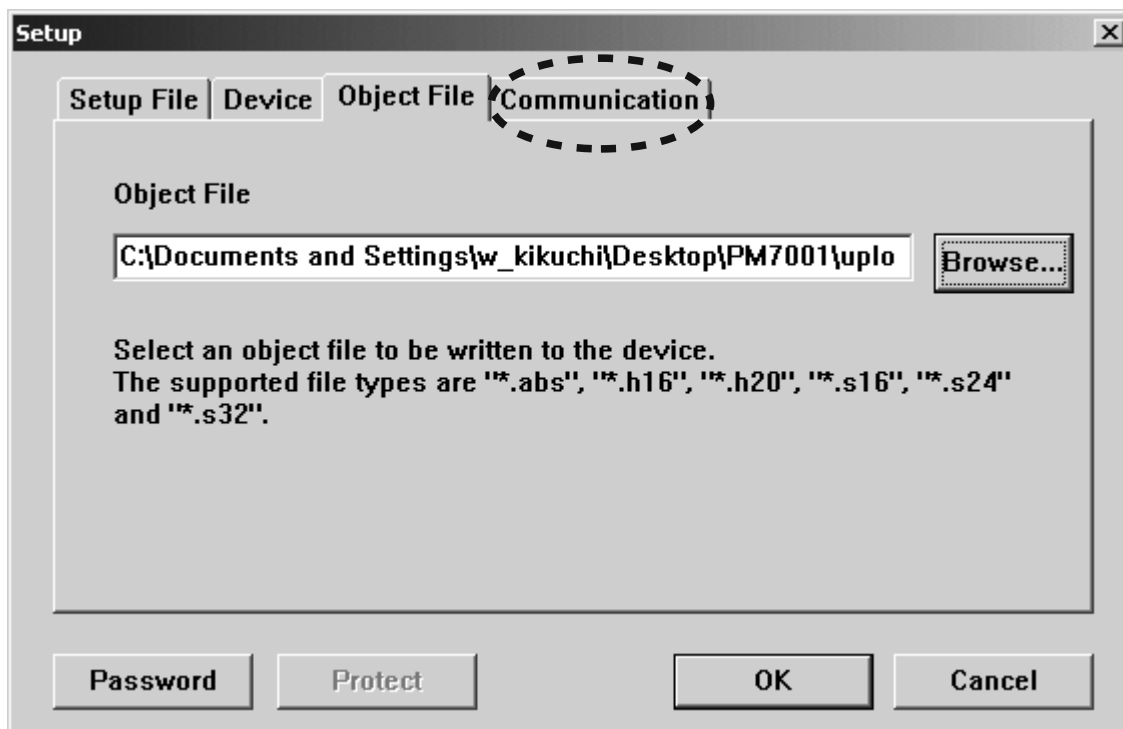
Choose **iHEX Fomat[\* .h16,\* .h20]** in Files of type.  
Choose writing data, and click **Open**.

Files of type から **iHEX Fomat[\* .h16,\* .h20]** を選び、書き込み用データファイルを選択して **Open** をクリックします。(書き込むファイル名は変わることがあります。)



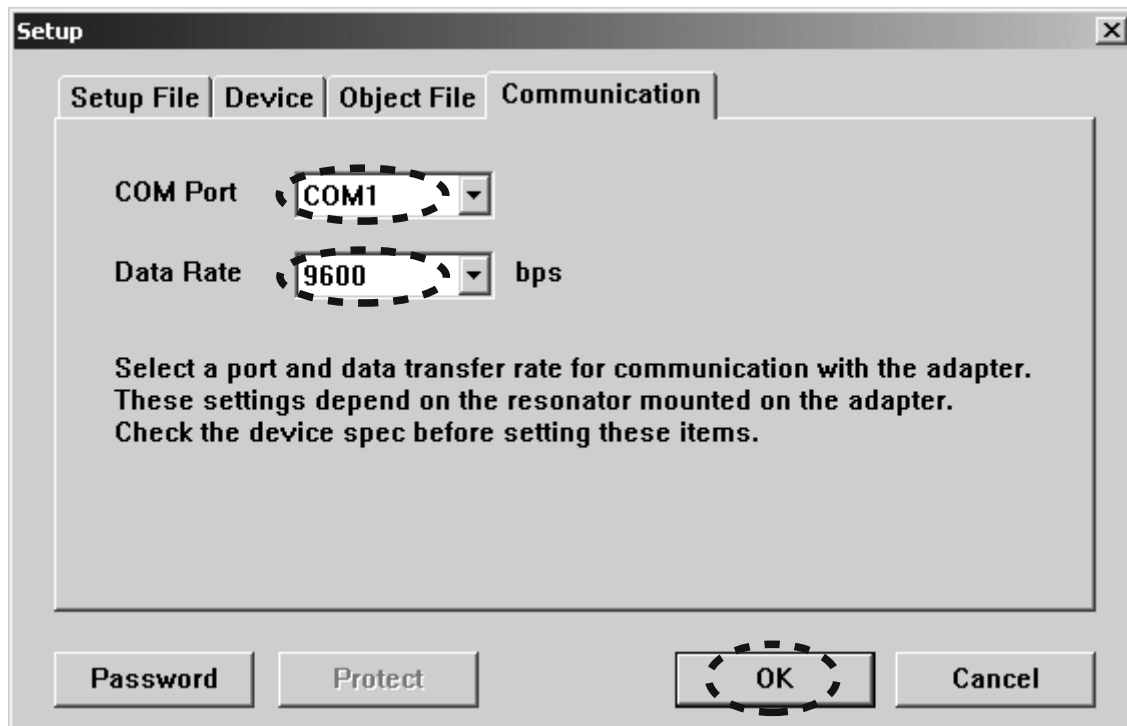
Click **Communication**.

**Communication** をクリックします。



Choose **COM port number** in COM port.  
Choose **9600** in Data Rate.  
Click **OK**.

COM Port から接続する **COM Port 番号** を選びます。  
Data Rate から **9600** を選択します。  
**OK** をクリックします。

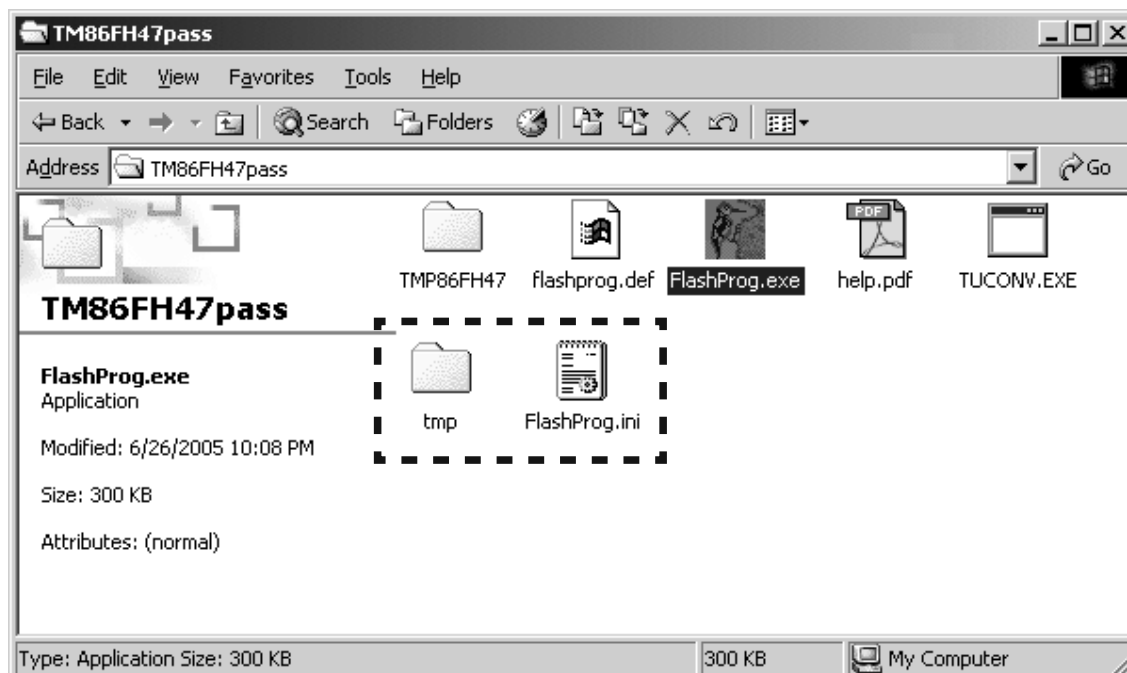


When Setup window is closed, the tmp folder and FlashProg.ini file are created simultaneously.

**REMARK :** These are the original set-up configuration files for that PC. If these files moved to another PC, you do not operate. When you make it operate with other PC, delete the tmp folder and the FlashProg.ini file and redo a setup.

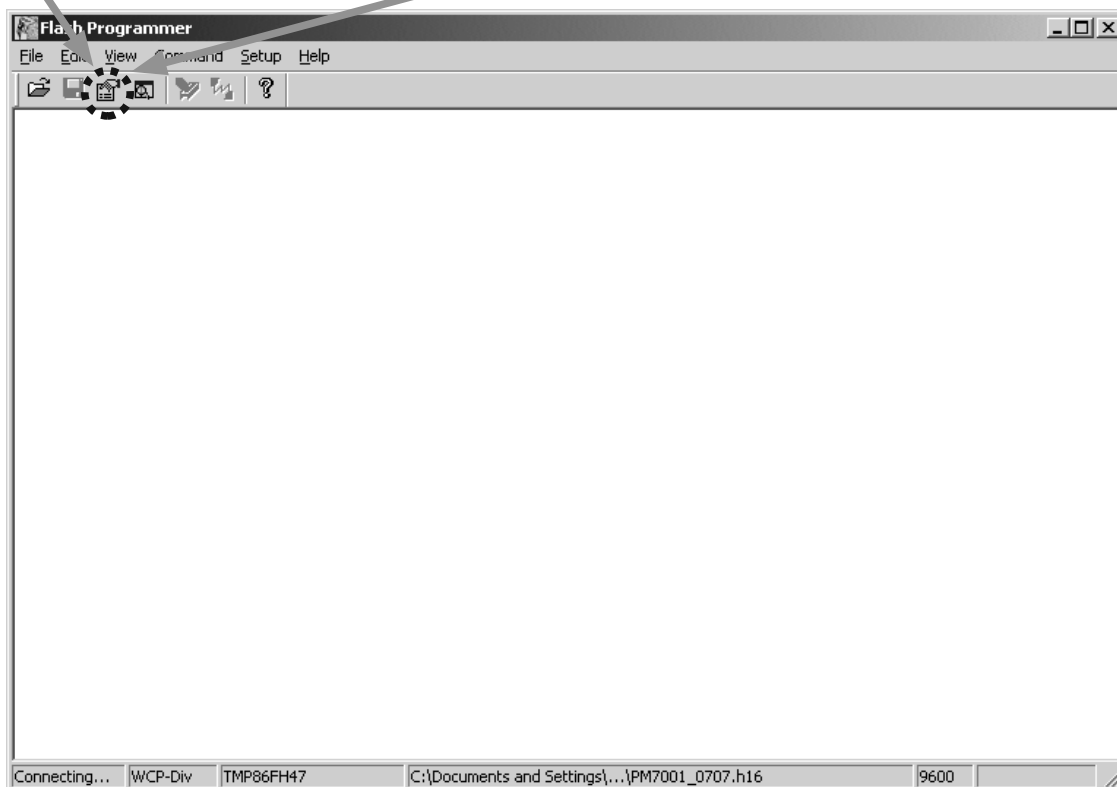
この時 TMP86FH47pass フォルダに tmp フォルダと FlashProg.ini ファイルが作成されます。

**注意 :** これらは今設定した Windows PC 独自の設定ファイルになります。他の PC にこれらのファイルをコピーしても正しく動作しません。もし他の PC で動作させる場合は tmp フォルダと FlashProg.ini ファイルは削除して設定をやり直してください。



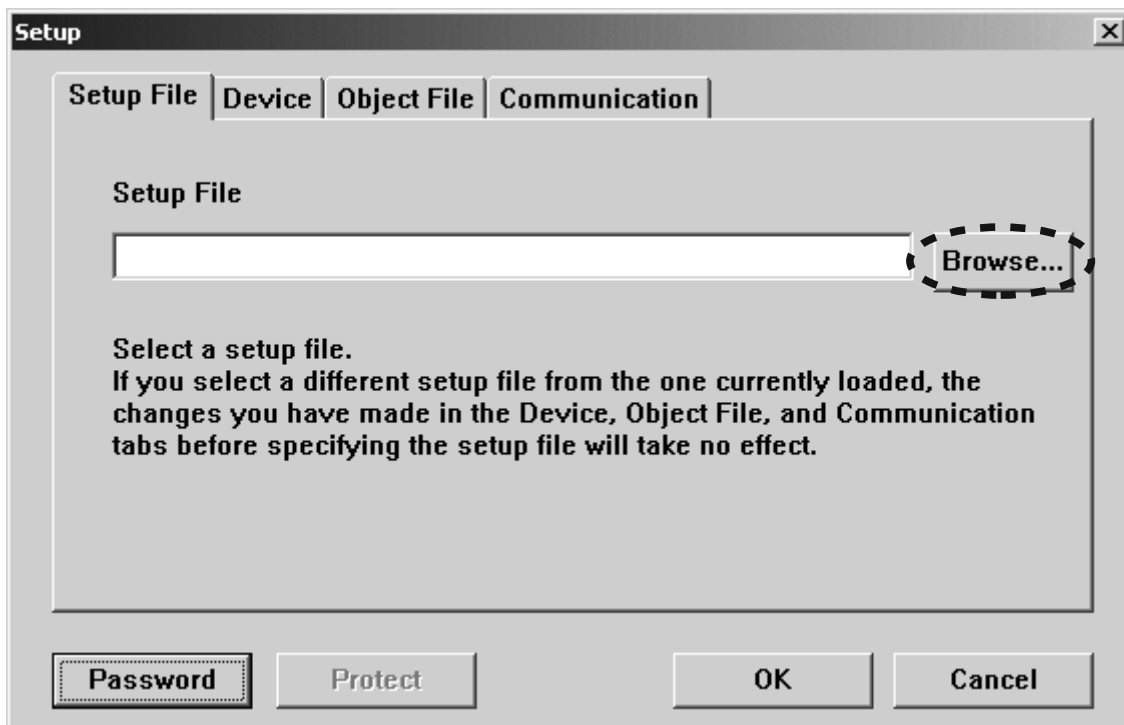
The Flash Programmer is launched.  
Click **setup** icon.

setup が閉じ、Flash Programmer が立ち上がります。  
setup アイコンをクリックします。



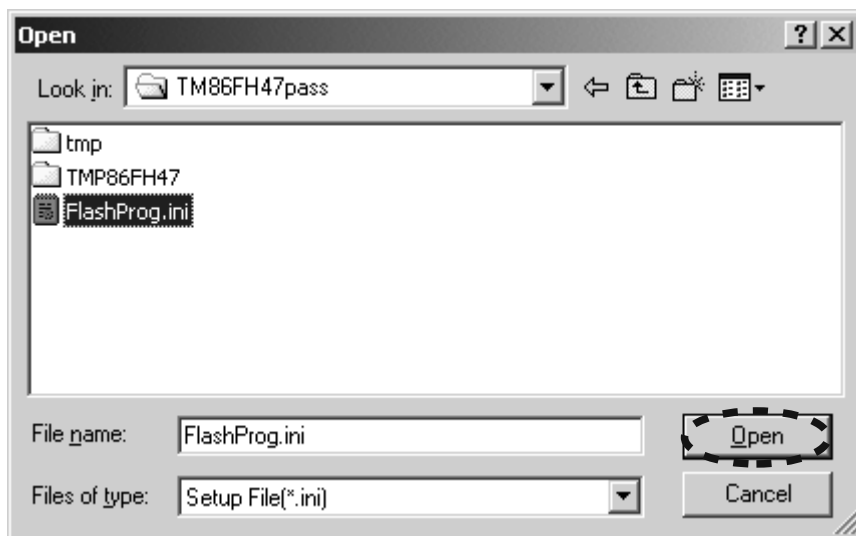
Click **Browse...**

**Browse...** をクリックします。



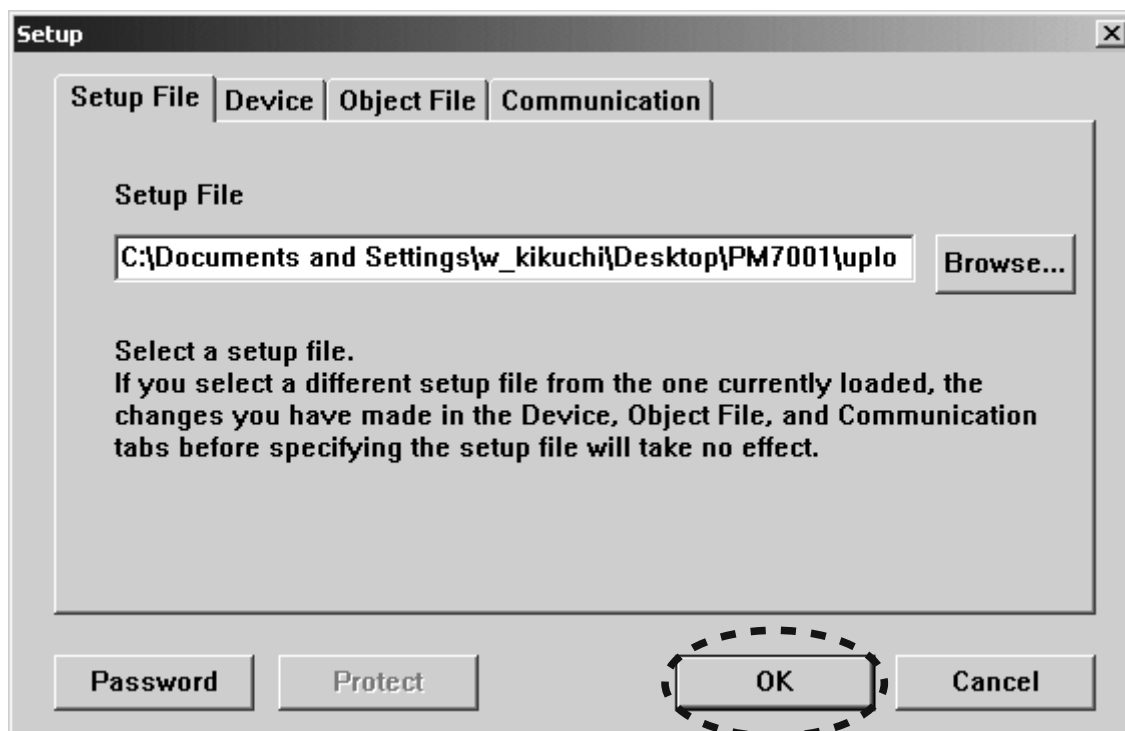
Choose **FlashProg.ini** in TM86FH47pass folder, and click **Open**.

TM86FH47pass フォルダから **FlashProg.ini** を選び、**Open** をクリックします。



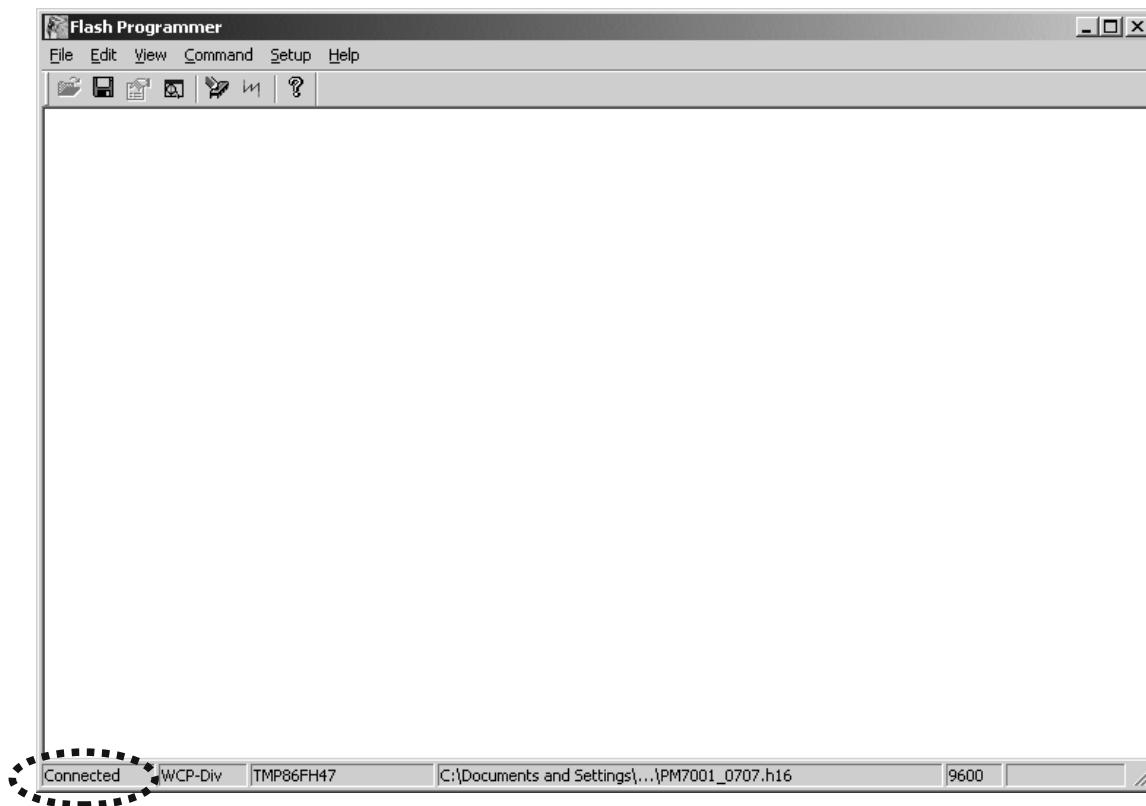
Click **OK**.

**OK** をクリックします。



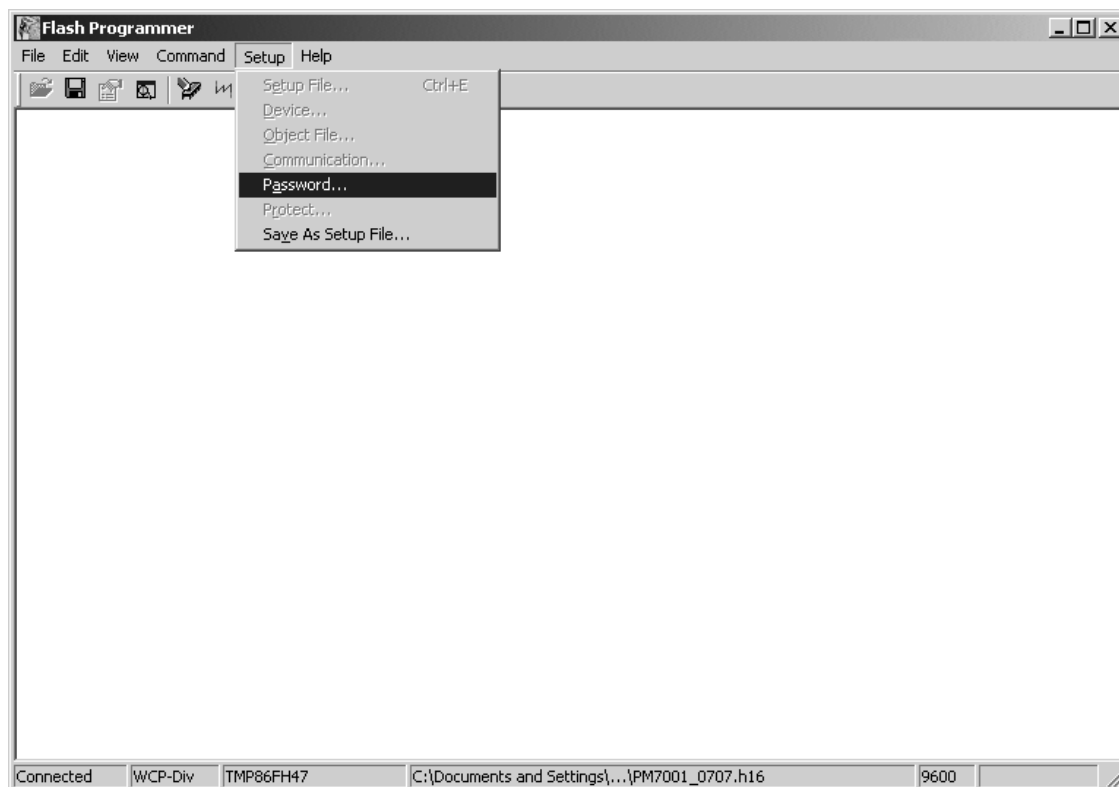
Press the **POWER ON/OFF** button, and turn on the unit.  
Status indication at lower left in Flash Programming window is changed to "Connected" from "Connecting".  
When it did not changed, check the connection of FPC or RS-232C cable.

本機の電源スイッチをオンにします。  
Flash Programming ウィンドウの左下のステータスが Connecting から Connected に変わります。もし Connected に変わらないときは接続を確認してください。



Select **Password** in **Setup**.

**Setup** から **Password** を選びます。





Setup Password opens.

Setup Password 画面が開きます。

**Setup Password**

**Address Mode**

Single Chip Mode     Single Boot Mode

**Device Password**

Device is BLANK

**Input Type**     Ascii     Hex

**Password** [ ]

**Password Character Number Address** [ ]

**Password Compare Start Address** [ ]

**Object File Password**

Use Device Password

BLANK Password

**Input Type**     Ascii     Hex

**Password** [\*\*\*\*\*]

**Password Character Number Address** [0xFF00]

**Password Compare Start Address** [0xFF01]

Help    OK    Cancel

- When writing in a blank microprocessor  
Refer to 16 page
- When writing (update) in the already written-in microcomputer  
Refer to 17 page

- ブランクマイコンに書き込む場合は、次のページへ
- 既書き込まれたマイコンに書き込む場合 (アップデート) は、17 ページへ

**[When writing in a blank microprocessor]**

Check **Single Boot Mode** in Address Mode.

Setting in Device Password

Check **Device is BLANK**.

Check **Hex** in input type.

Password are inputted automatically, please do not change text box of "Password", "Password Character Number Address" and "Password Compare Start Address".

Setting in Object File Password

Do not check **BLANK password**.

Check **Hex** in Input Type.

Type **0102030405060708** into Password.

Type **0xFF00** into Password Character Number Address.

Type **0xFF01** into Password Compare Start Address.

Click **OK**.

**[ ブランクマイコンに書き込む場合 ]**

Address Mode から **Single Boot Mode** にチェックを入れます。

Device Password 内の設定

**Device is BLANK** のチェックボックスにチェックを入れます。

input type から **Hex** にチェックを入れます。

Password、Password Character Number Address、Password Compare Start Address は自動的に入力されますので変更しないでください。

Object File Password 内の設定

**BLANK Password** にはチェックを 入れない てください。

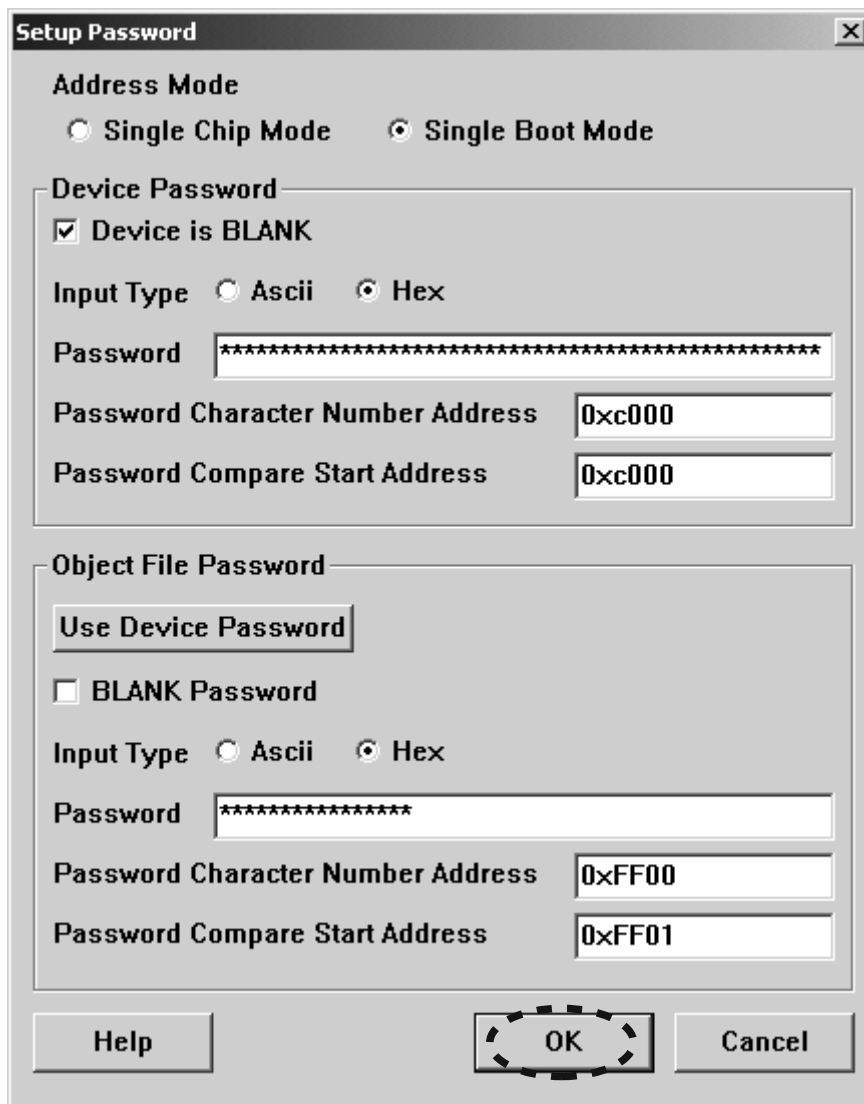
Input Type から **Hex** にチェックを入れてください。

Password に **0102030405060708** を入力します。

Password Character Number Address に **0xFF00** を入力します。

Password Compare Start Address に **0xFF01** を入力します。

**OK** をクリックします。



[When writing (update) in the already written-in microcomputer]

Check **Single Boot Mode** in Address Mode.

Setting in Device Password

Do not check **Device is BLANK**.

Check **Hex** in input type.

Type **0102030405060708** into Password.

Type **0xFF00** into Password Character Number Address.

Type **0xFF01** into Password Compare Start Address.

Setting in Object File Password

Do not check **BLANK password**.

Check **Hex** in Input Type.

Type **0102030405060708** into Password.

Type **0xFF00** into Password Character Number Address.

Type **0xFF01** into Password Compare Start Address.

Click **OK**.

[既に書き込まれたマイコンに書き込む場合 (アップデート)]

Address Mode から **Single Boot Mode** にチェックを入れます。

Device Password 内の設定

**Device is BLANK** のチェックボックスにチェックを 入れない てください。

input type から **Hex** にチェックを入れます。

Password に **0102030405060708** を入力します。

Password Character Number Address に **0xFF00** を入力します。

Password Compare Start Address に **0xFF01** を入力します。

Object File Password 内の設定

**BLANK Password** にはチェックを 入れない てください。

Input Type から **Hex** にチェックを入れてください。

Password に **0102030405060708** を入力します。

Password Character Number Address に **0xFF00** を入力します。

Password Compare Start Address に **0xFF01** を入力します。

**OK** をクリックします。

Setup Password

Address Mode

Single Chip Mode  Single Boot Mode

Device Password

Device is BLANK

Input Type  Ascii  Hex

Password \*\*\*\*\*

Password Character Number Address 0xFF00

Password Compare Start Address 0xFF01

Object File Password

Use Device Password

BLANK Password

Input Type  Ascii  Hex

Password \*\*\*\*\*

Password Character Number Address 0xFF00

Password Compare Start Address 0xFF01

Help OK Cancel

Auto Programming opens.

Auto Programming の設定画面が開きます。

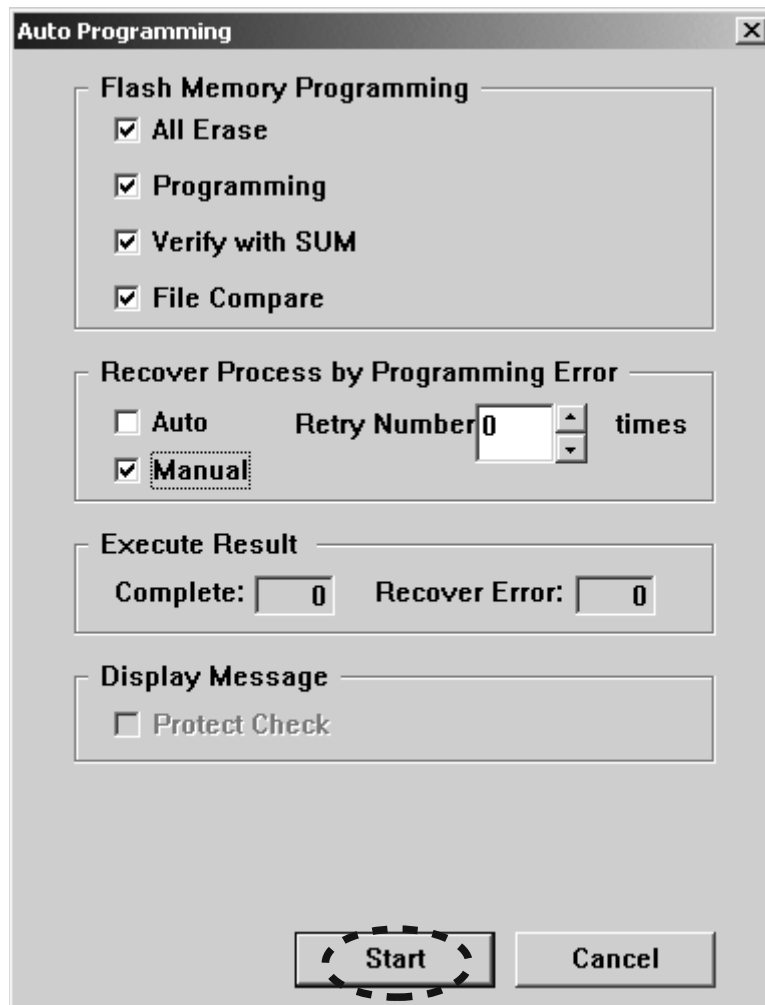
The image shows a dialog box titled "Auto Programming" with a close button (X) in the top right corner. The dialog is organized into four main sections, each enclosed in a rounded rectangle:

- Flash Memory Programming**: Contains four unchecked checkboxes: "All Erase", "Programming", "Verify with SUM", and "File Compare".
- Recover Process by Programming Error**: Contains two unchecked checkboxes: "Auto" and "Manual". To the right of the "Auto" checkbox is a "Retry Number" field with a spinner control showing the value "0" and the text "times".
- Execute Result**: Contains two numeric input fields. The first is labeled "Complete:" and has the value "0". The second is labeled "Recover Error:" and has the value "0".
- Display Message**: Contains one unchecked checkbox labeled "Protect Check".

At the bottom of the dialog, there are two buttons: "Start" and "Cancel". The "Start" button is highlighted with a dashed border.

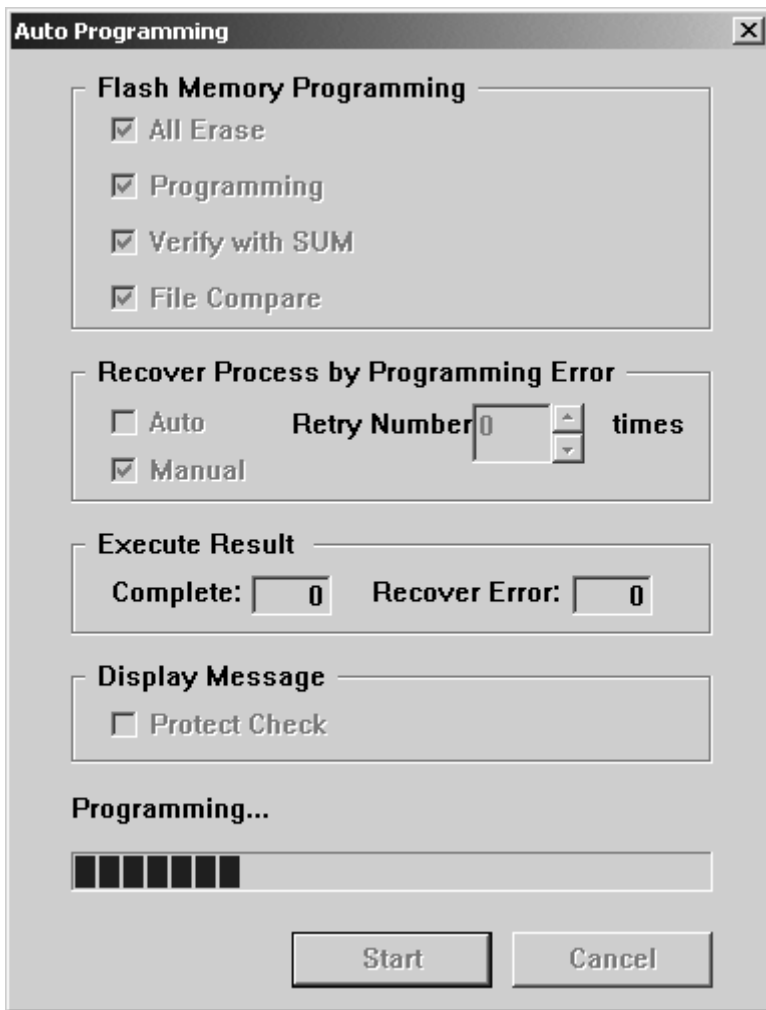
Check **All Erase**, **Programming**, **Verify with SUM** and **File Compare** in Flash Memory Programming.  
Check **Manual** in Recover Process by Programming Error.  
Click **Start**.

Flash Memory Programming 内の設定は **All Erase**、**Programming**、**Verify with SUM**、**File Compare** にチェックを入れます。  
Recover Process by Programming Error 内の設定は **Manual** にチェックを入れます。  
**Start** をクリックします。



Writing data is written into the microprocessor (Q201).

Microprocessor (Q201) への書き込みが行われます。



Click **Yes**, when writing is successful.

書き込みが成功すると下記のような画面が出ますので **Yes** をクリックします。



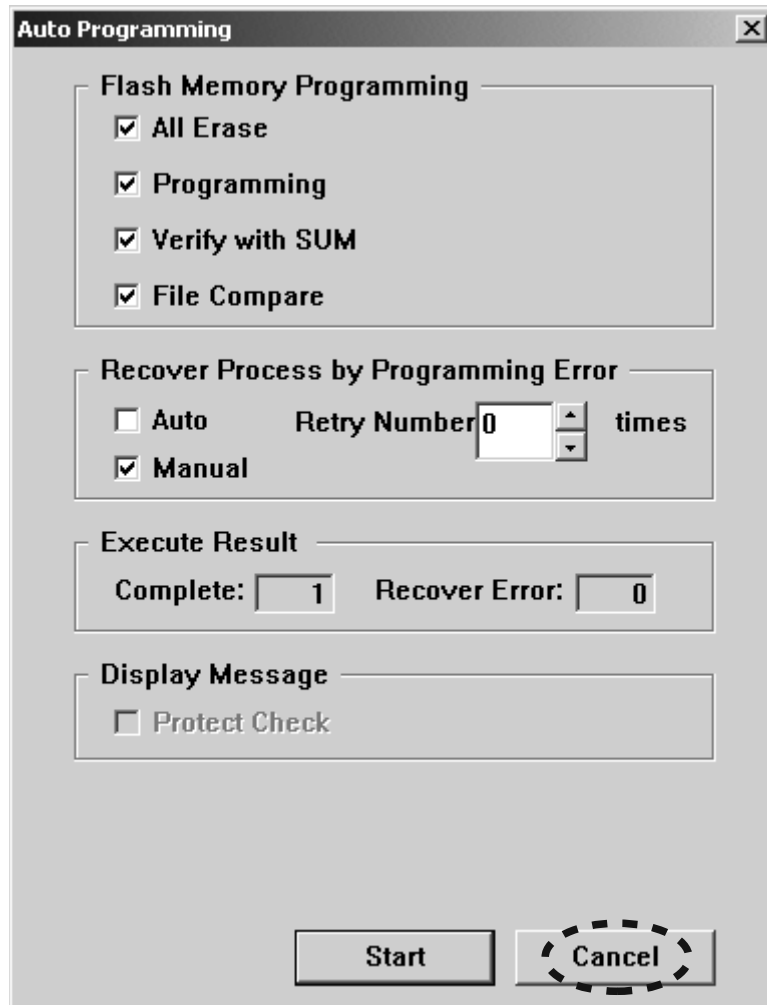
Click **Cancel**.

**Cancel** をクリックし終了します。



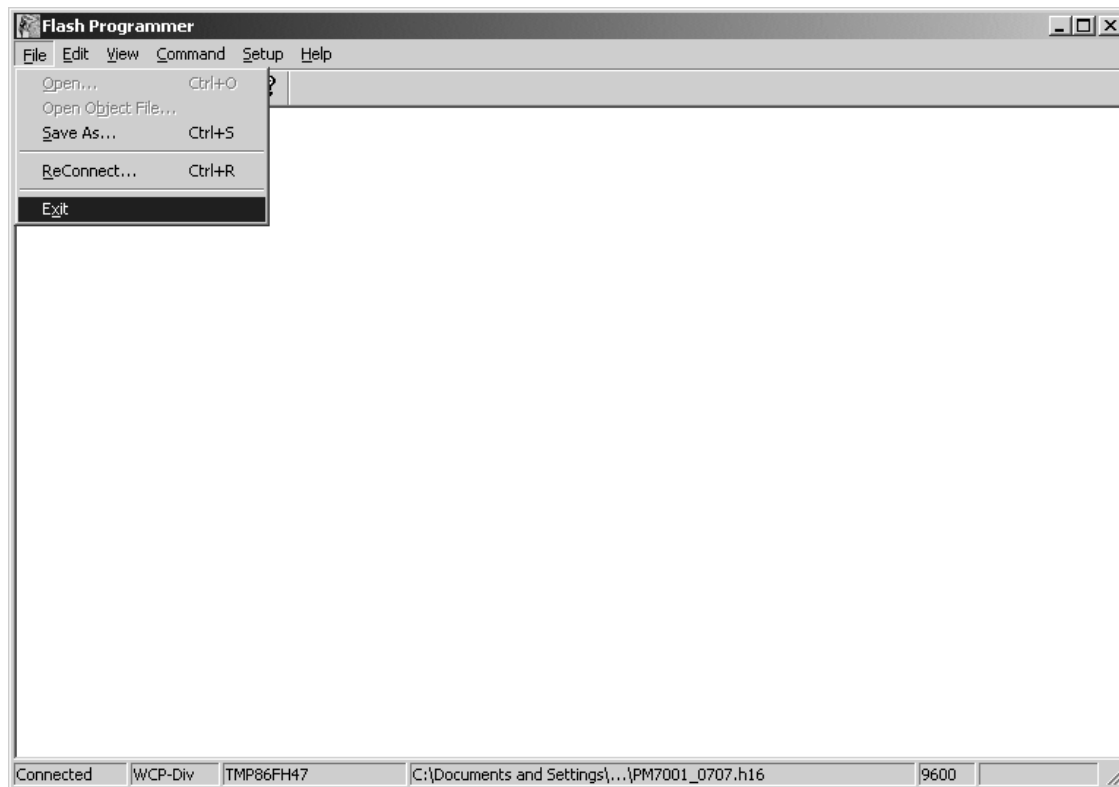
Click **Cancel**.

**Cancel** をクリックします。



Select the **Exit** in **File**, and finish.

**File** から **Exit** を選び、終了します。



Press the **POWER ON/OFF** button, and turn off the unit.

Disconnect each cable.

Check the software version.

Refer to "**3. SERVICE MODE**" on page 4.

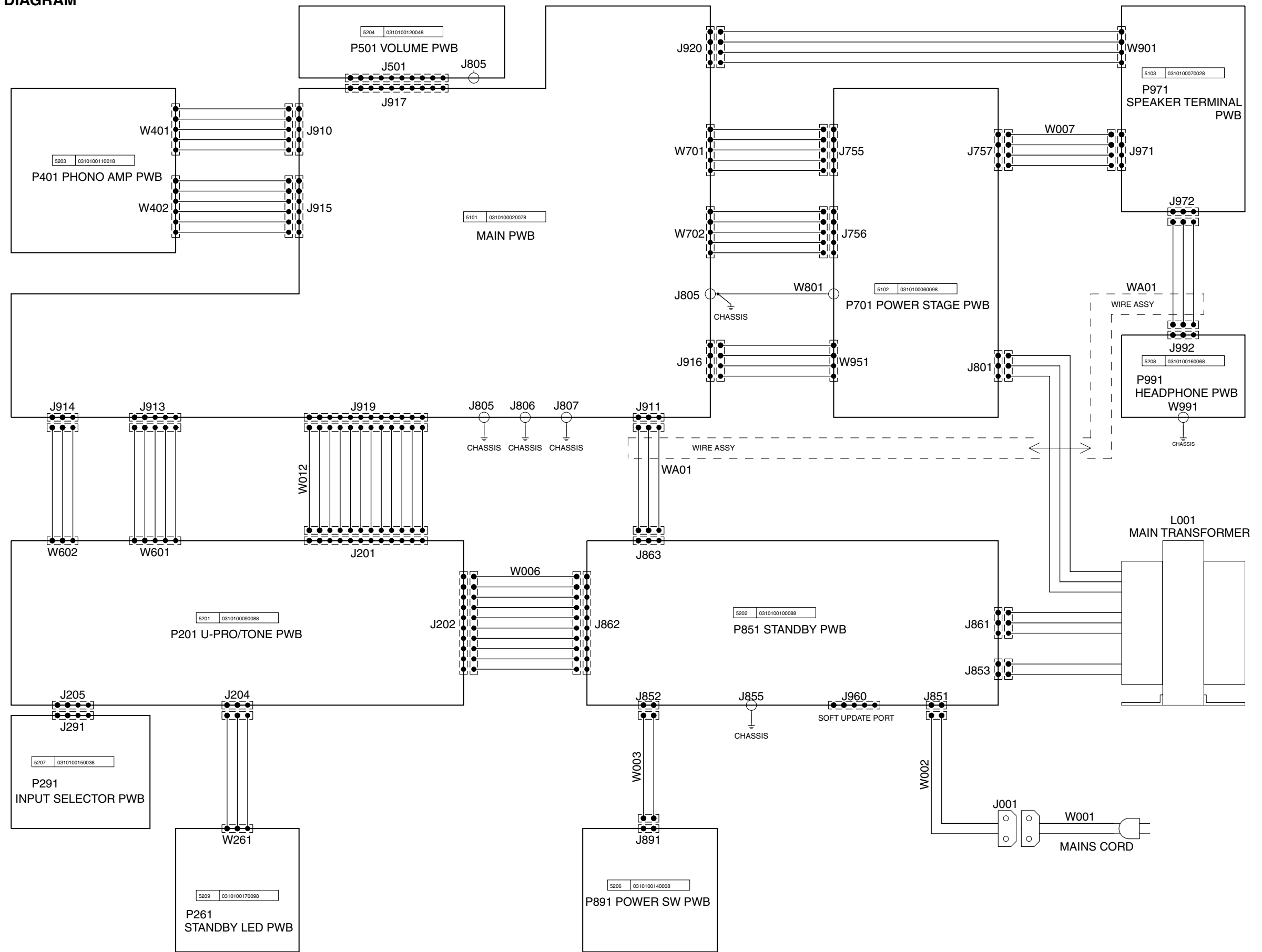
本機の電源スイッチを切り、ケーブルを外します。

Software の Version 確認をしてくださ

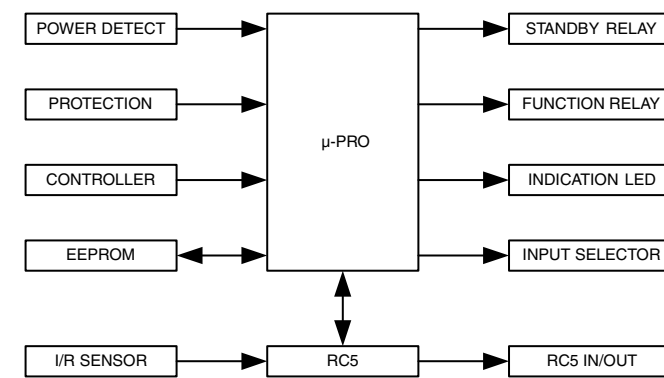
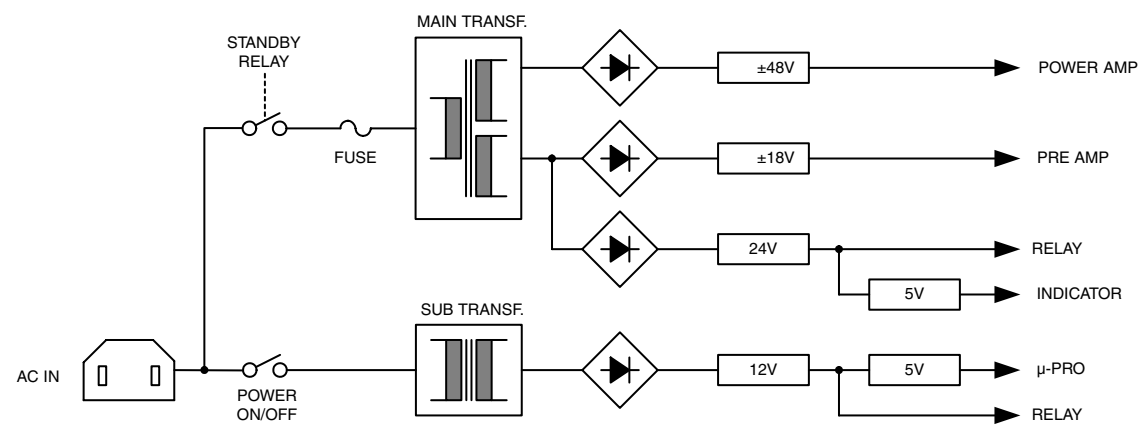
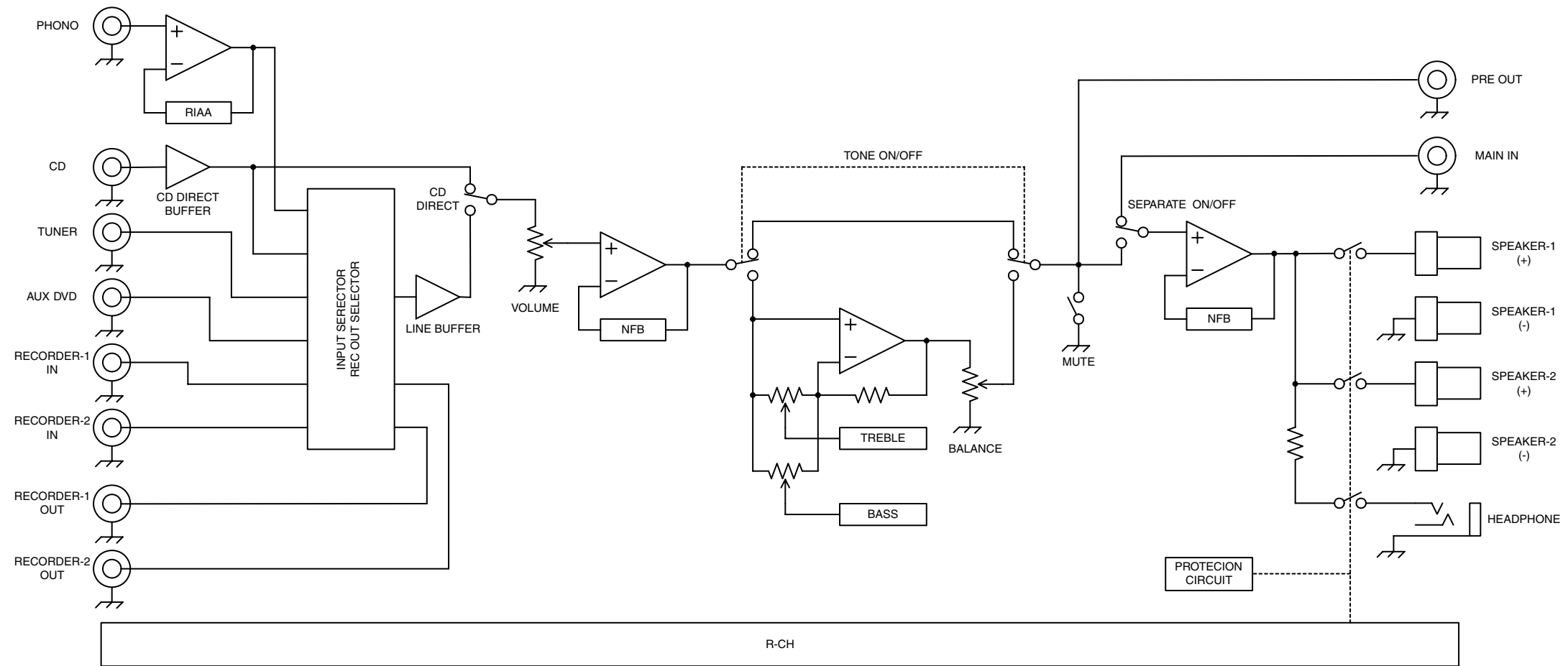
4 ページの "**3. SERVICE MODE**" で確認します。



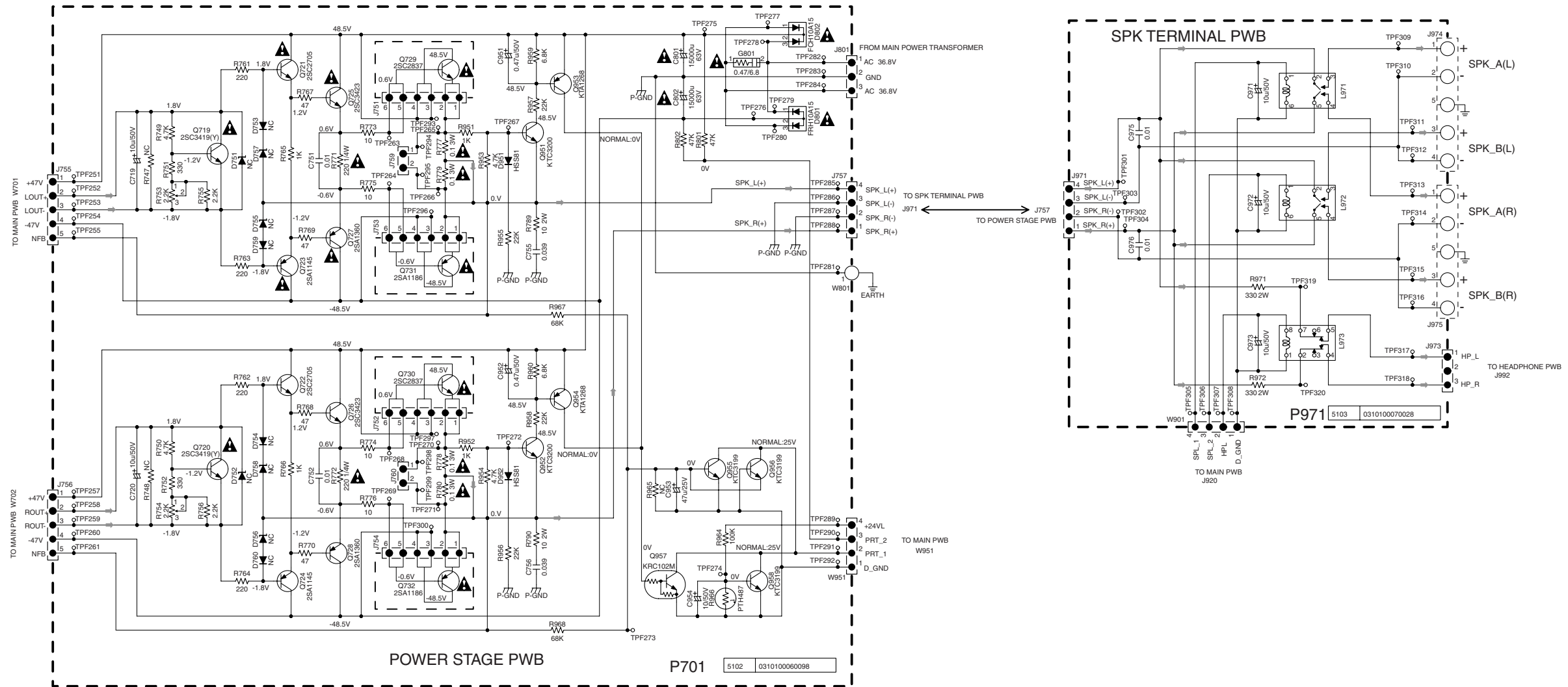
5. WIRING DIAGRAM

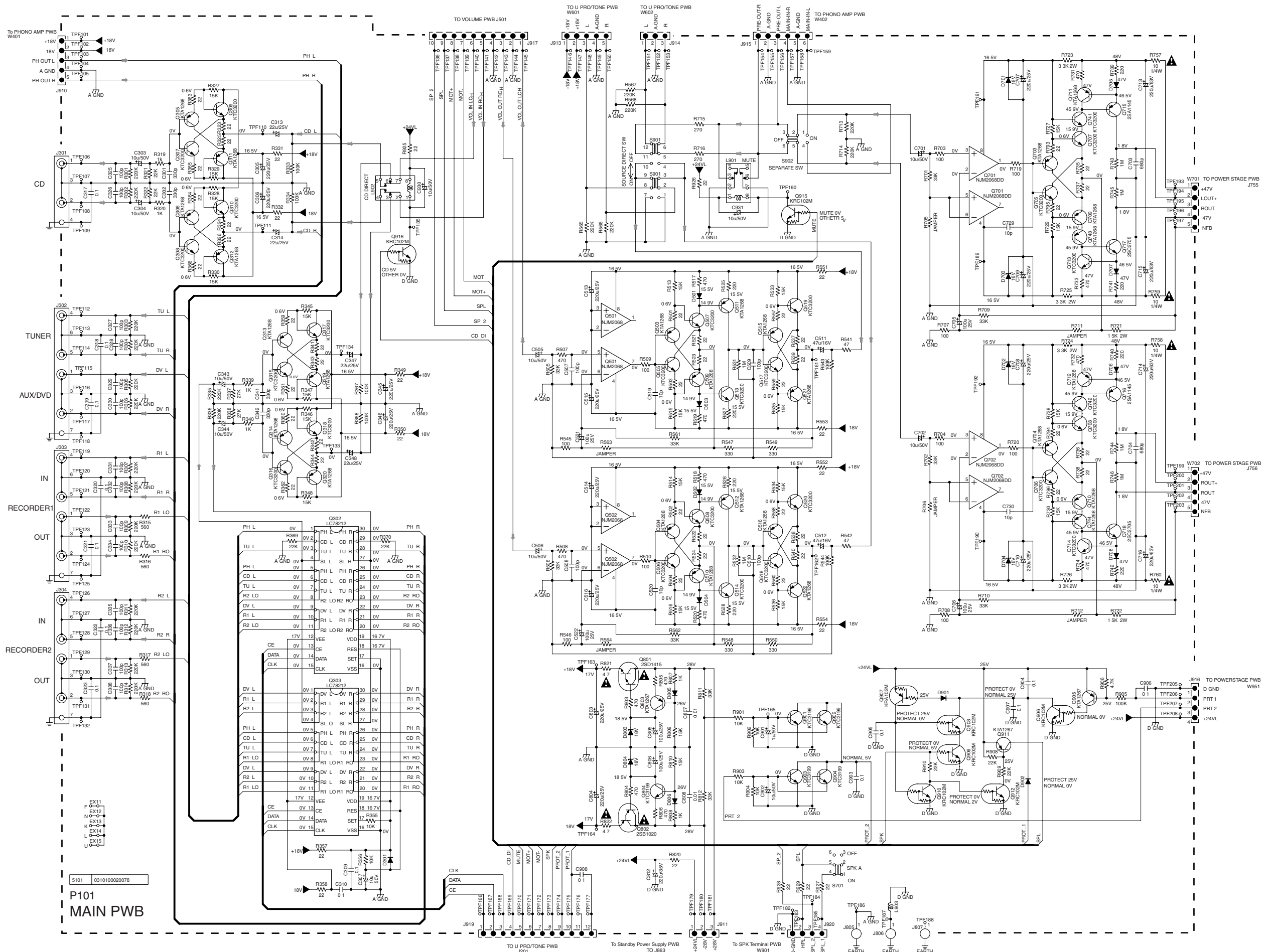


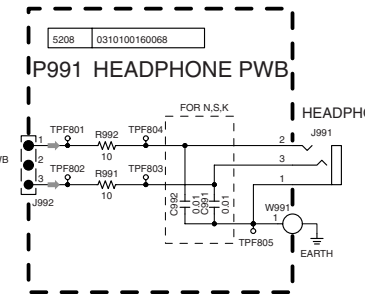
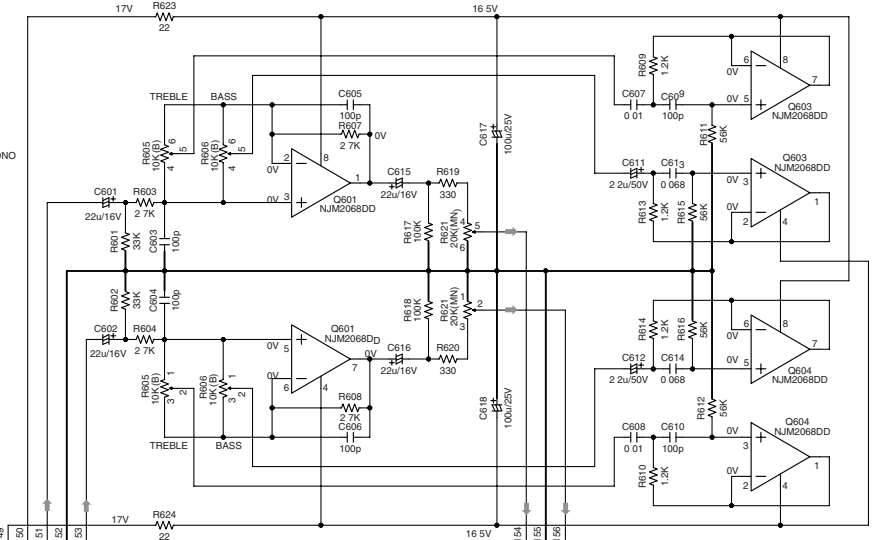
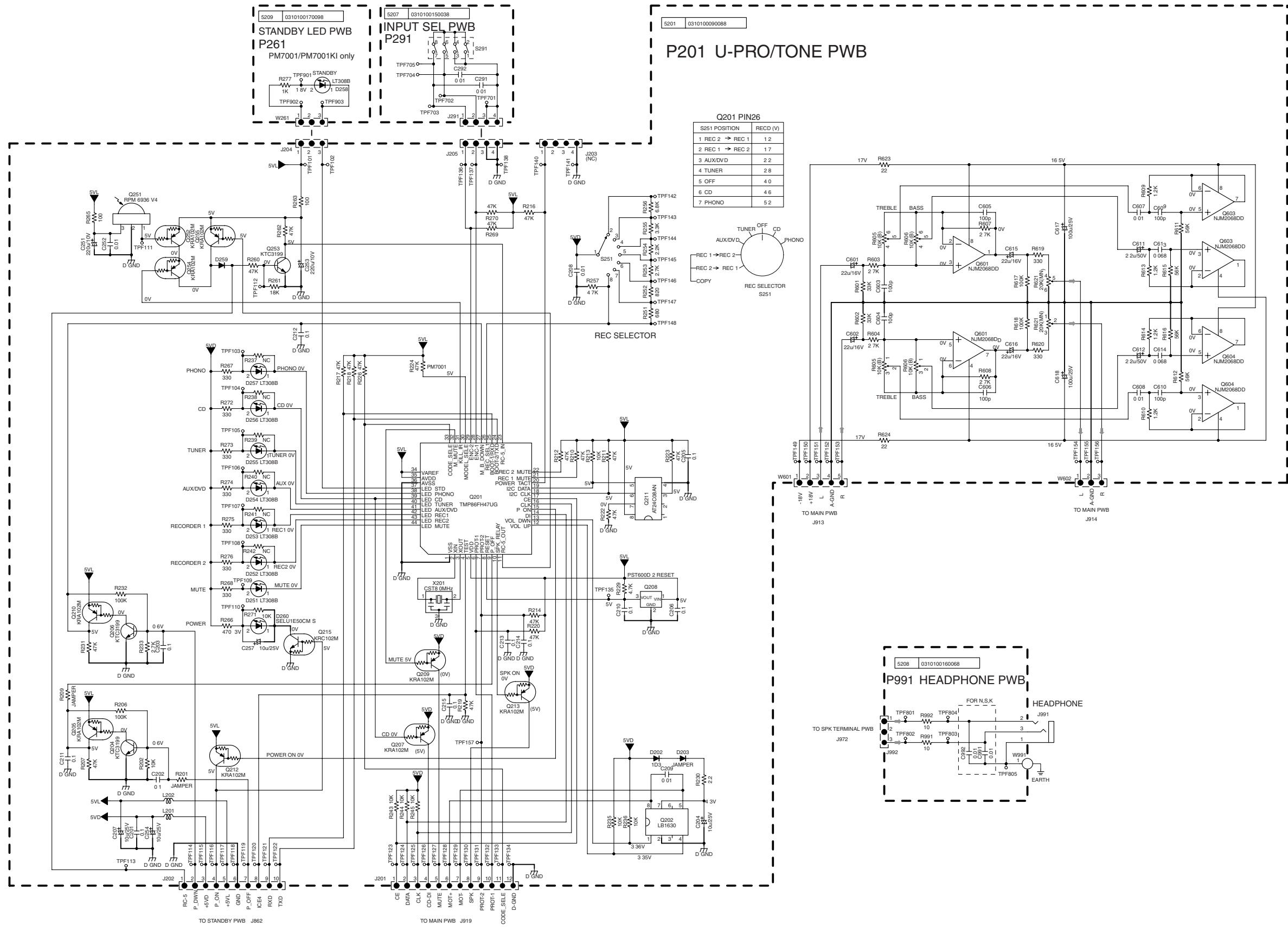
## 6. BLOCK DIAGRAM

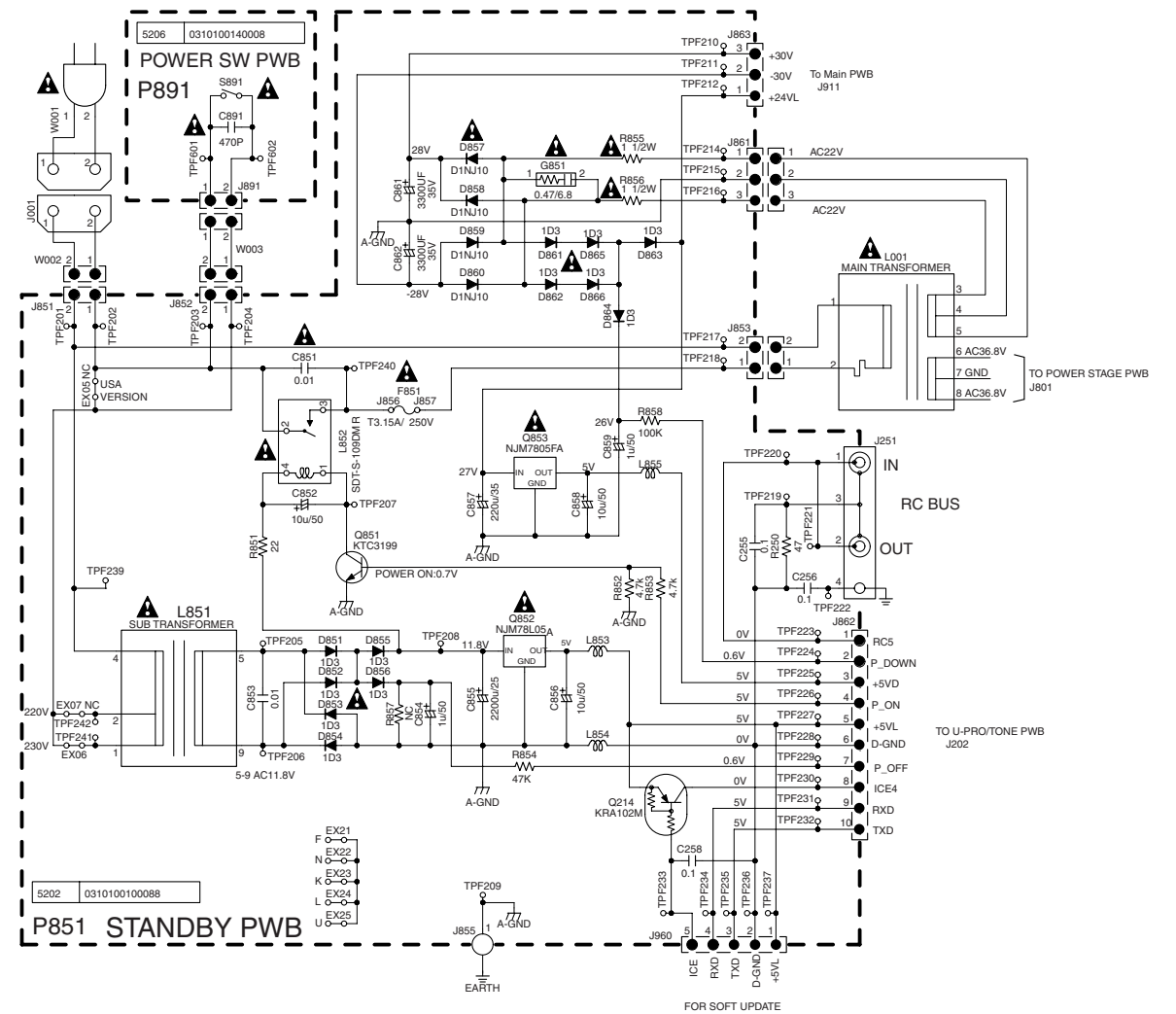
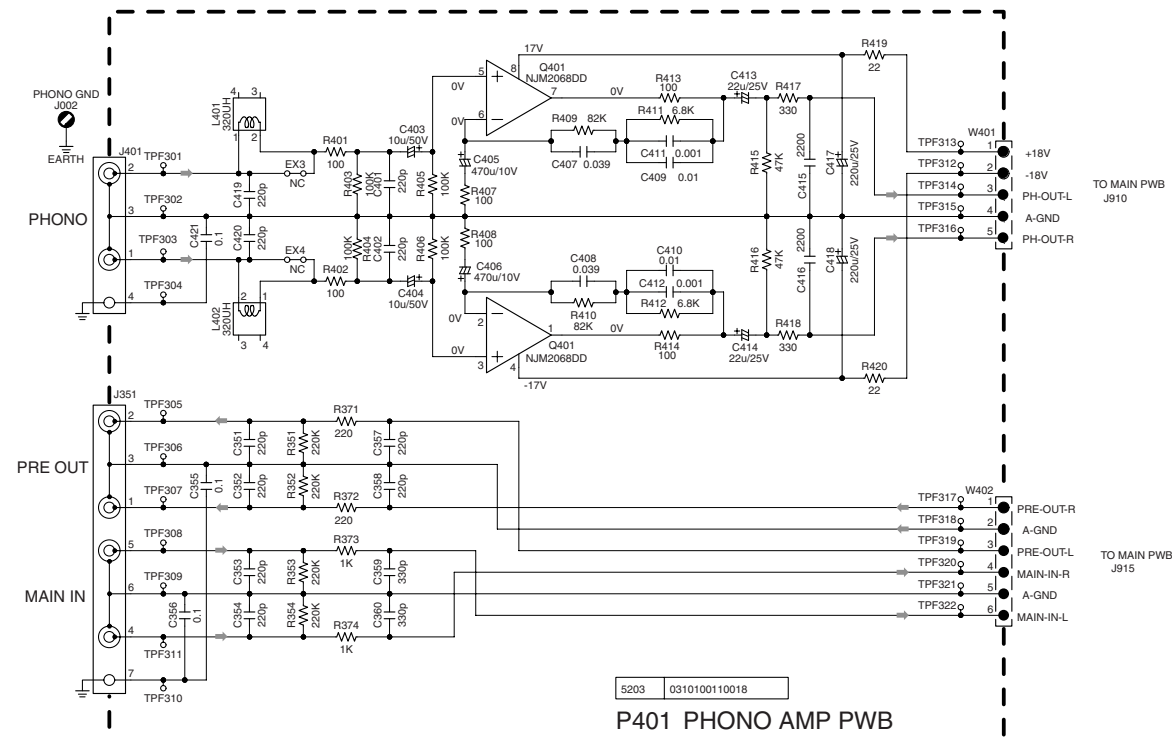
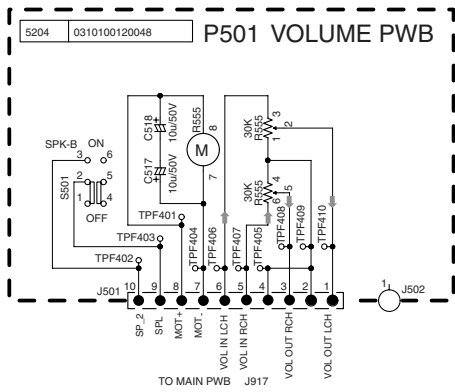


# 7. SCHEMATIC DIAGRAM

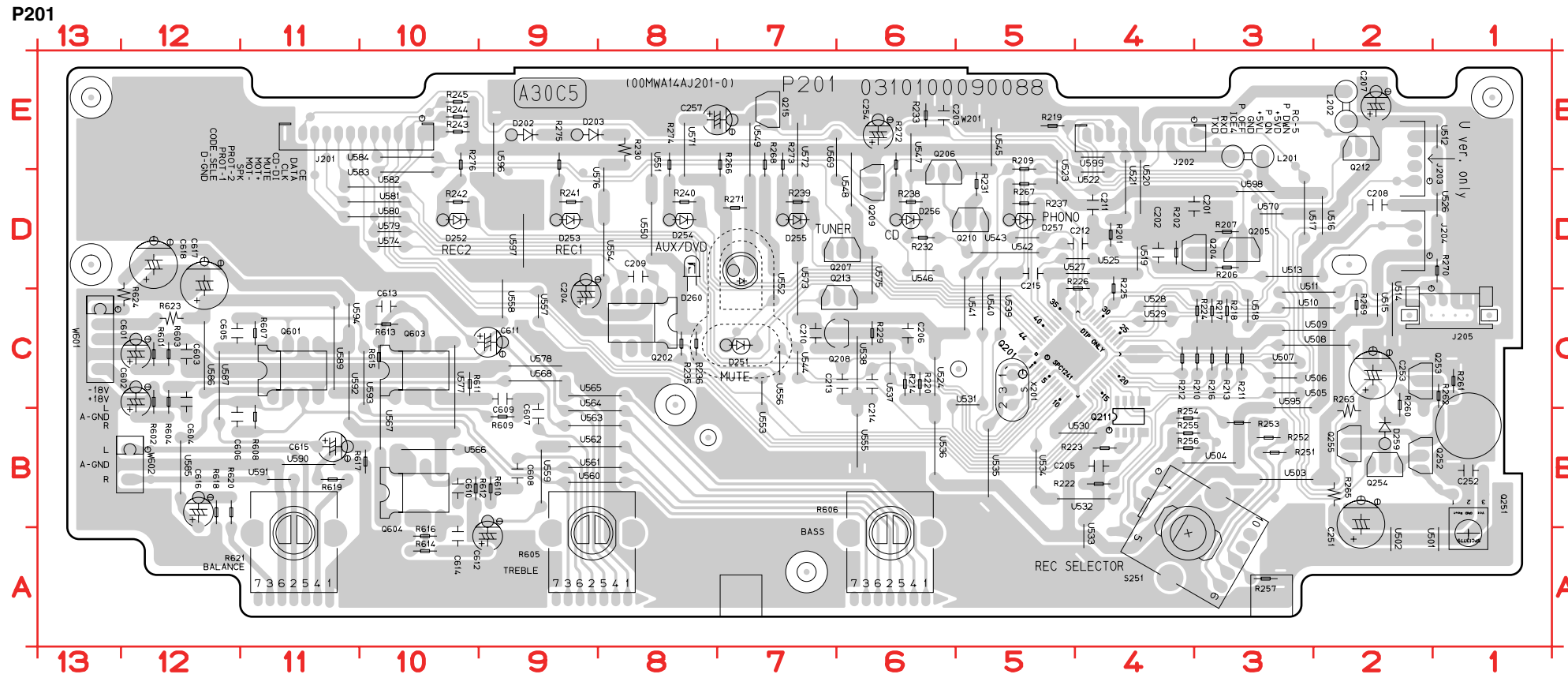




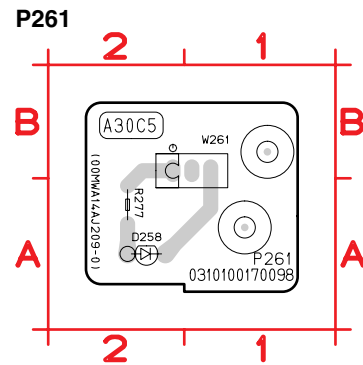




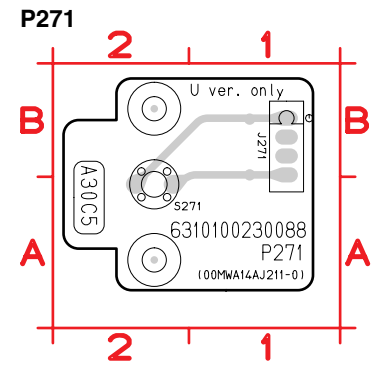
# 8. PARTS LOCATION



C201	D4	D257	D5	R222	B4	R603	C12	U525	D4	U571	D8
C202	D4	D259	B2	R223	B4	R604	B12	U526	D1	U572	D7
C203	E6	D260	D7	R224	C3	R605	A9	U527	D4	U573	C7
C204	C9	J201	E10	R225	D4	R606	A6	U528	C4	U574	D10
C205	B4	J202	F4	R226	D4	R607	C11	U529	C4	U575	C6
C206	C6	J203	D2	R229	C6	R608	B11	U530	B4	U576	D8
C207	E2	J204	D2	R230	E8	R609	B9	U531	C5	U577	B10
C208	D2	J205	C1	R231	D5	R610	B9	U532	B4	U578	C9
C209	D8	L201	E3	R232	D6	R611	C10	U533	A4	U579	D10
C210	C7	L202	E2	R233	E6	R612	B10	U534	B5	U580	D10
C211	D4	Q201	C4	R235	C8	R613	C10	U535	B5	U581	D10
C212	D4	Q202	C8	R236	C8	R614	A10	U536	B6	U582	D10
C213	C6	Q204	D4	R237	D5	R615	C10	U537	C6	U583	D10
C214	C6	Q205	D3	R238	D6	R616	A10	U538	C6	U584	E10
C215	D5	Q206	D6	R239	D7	R617	B10	U539	C5	U585	B12
C251	A2	Q207	D6	R240	D8	R618	B12	U540	C5	U586	C12
C252	B1	Q208	C6	R241	D9	R619	B11	U541	C5	U587	B12
C253	C2	Q209	D6	R242	D10	R620	B12	U542	D5	U589	C11
C254	E6	Q210	D5	R243	E10	R621	A11	U543	D5	U590	B11
C257	E8	Q211	B4	R244	E10	R623	C12	U544	C7	U591	B11
C601	C12	Q212	E2	R245	E10	R624	C12	U545	E5	U592	B11
C602	B12	Q213	C6	R251	B3	S251	A4	U546	D6	U593	C10
C603	C12	Q215	E7	R252	B3	U501	A1	U547	D6	U594	C11
C604	B12	Q251	A1	R253	B3	U502	A2	U548	D6	U595	C2
C605	C12	Q252	B2	R254	B3	U503	B2	U549	D7	U596	D9
C606	B12	Q253	C2	R255	B3	U504	B3	U550	D8	U597	D9
C607	B9	Q254	B2	R256	B3	U505	C3	U551	D8	U598	D3
C608	B9	Q255	B2	R257	A3	U506	C3	U552	C7	U599	E4
C609	C9	Q601	C11	R260	B2	U507	C3	U553	C7	W201	E5
C610	B10	Q603	C10	R261	C1	U508	C2	U554	D8	W601	C13
C611	C10	Q604	B10	R262	B1	U509	C2	U555	B6	W602	B12
C612	A9	R201	D4	R263	B2	U510	C2	U556	C7	X201	C5
C613	C10	R202	D4	R265	B2	U511	C2	U557	C9		
C614	A10	R206	D3	R266	E7	U512	E1	U558	C9		
C615	B11	R207	D3	R267	D5	U513	D2	U559	B9		
C616	B12	R209	E5	R268	E7	U514	C2	U560	B8		
C617	C12	R210	C3	R269	C2	U515	C2	U561	B8		
C618	D12	R211	C3	R270	D1	U516	D2	U562	B8		
D202	E9	R212	C4	R271	D7	U517	D3	U563	B8		
D203	E9	R213	C3	R272	E6	U518	C3	U564	B8		
D251	C7	R214	C6	R273	E7	U519	D4	U565	C8		
D252	D10	R216	C3	R274	E8	U520	D4	U566	B10		
D253	D9	R217	C3	R275	E9	U521	D4	U567	B10		
D254	D8	R218	C3	R276	E10	U522	D4	U568	C9		
D255	D7	R219	E5	R601	C12	U523	D5	U569	D7		
D256	D6	R220	C6	R602	B12	U524	C6	U570	D3		



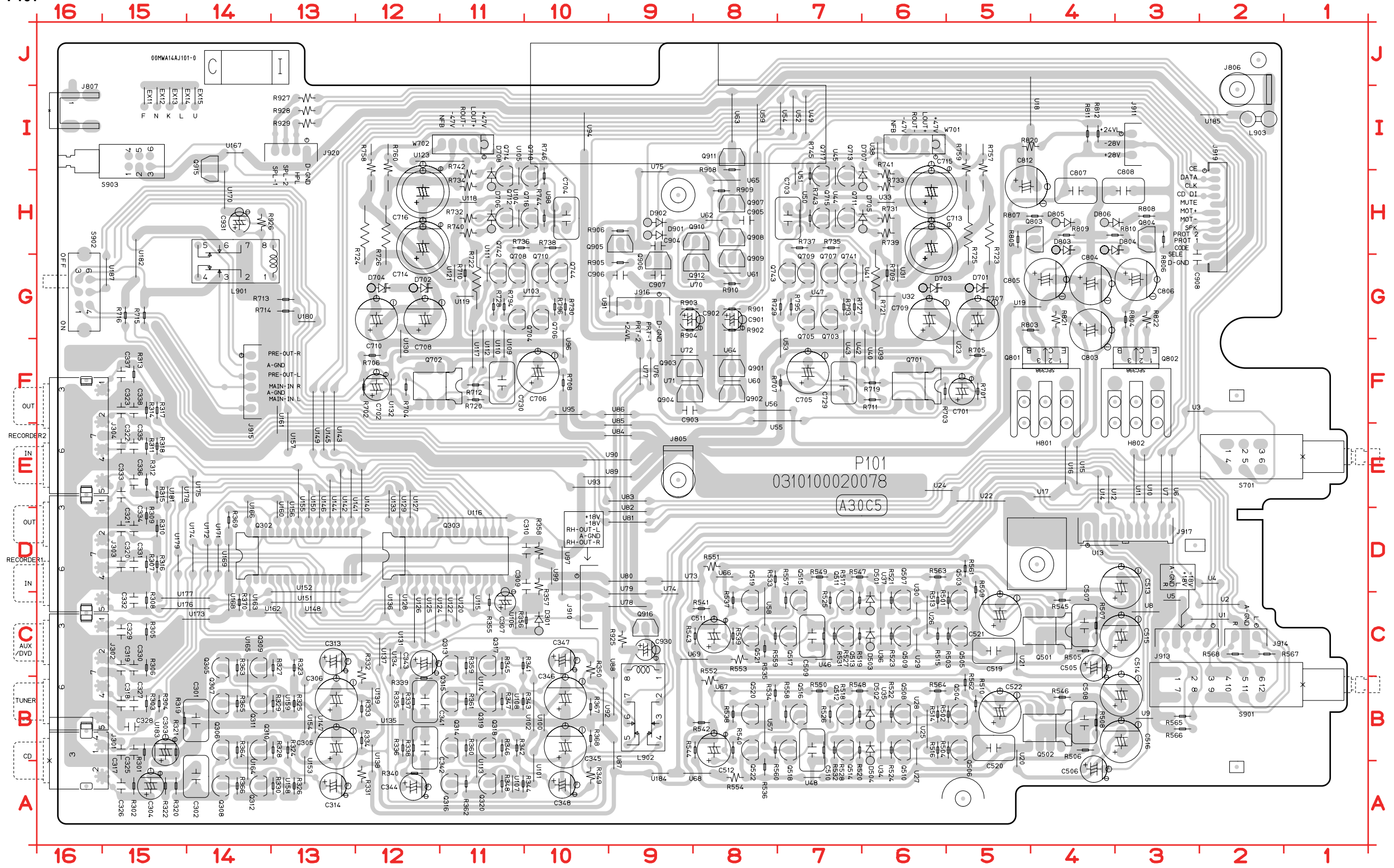
- D258 A2
- R277 A2
- W261 B2



- J271 B1
- S271 A2

**鉛フリー半田**  
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

**Lead-free Solder**  
When soldering, use the Lead-free Solder (Sn-Ag-Cu).



**鉛フリー半田**  
 半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

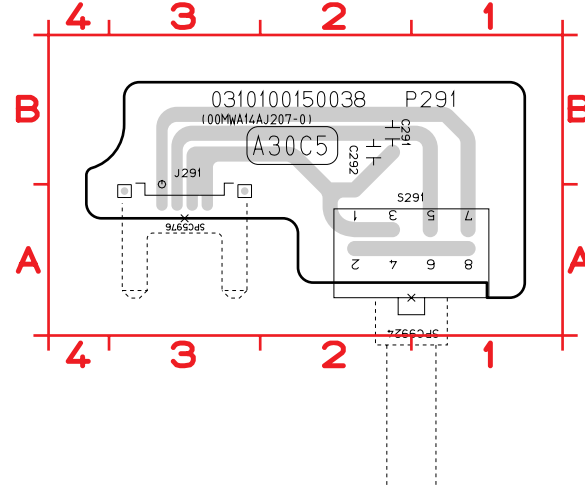
**Lead-free Solder**  
 When soldering, use the Lead-free Solder (Sn-Ag-Cu).



**P101**

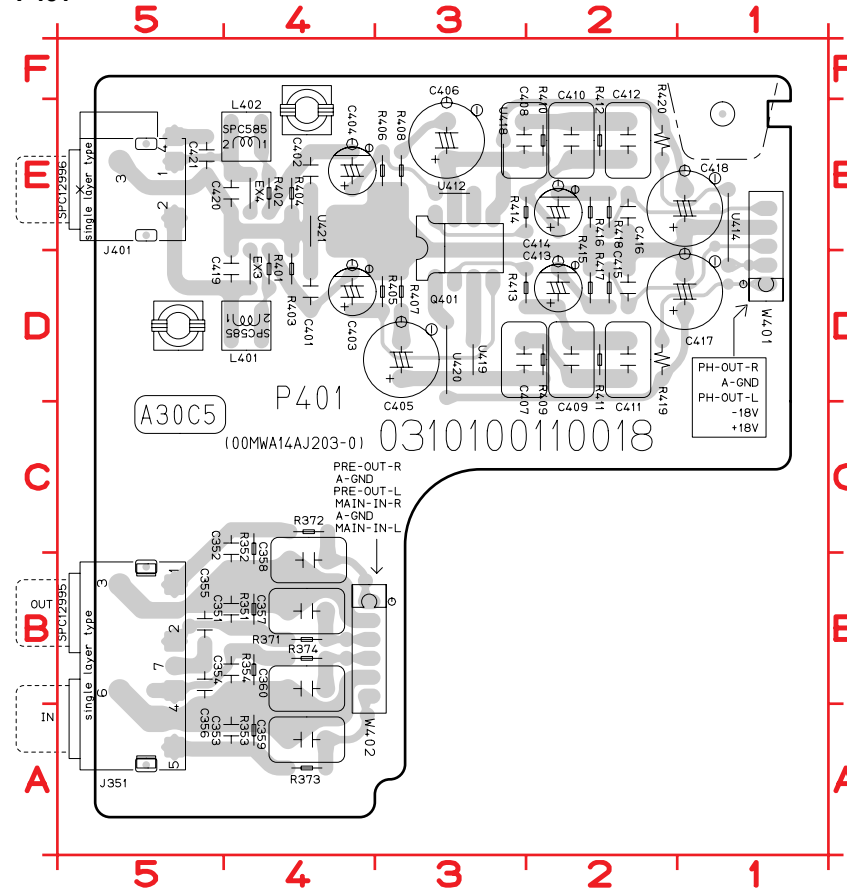
C301	B14	D803	H4	Q907	H8	R533	D8	R904	G8	U178	E15
C302	A14	D804	H4	Q908	H8	R534	B8	R905	G9	U179	D15
C303	A15	D805	H4	Q909	G8	R535	C8	R906	H9	U18	I5
C304	A15	D806	H4	Q910	H8	R536	A8	R908	I8	U180	G13
C305	B13	D901	H9	Q911	I8	R537	C8	R909	H8	U181	E15
C306	B13	D902	H9	Q912	G8	R538	B8	R910	G8	U182	G15
C307	C11	EX11	I15	Q915	I14	R539	C8	R925	C9	U183	A15
C309	C10	EX12	I15	Q916	C9	R540	B8	R926	H14	U184	A9
C310	D10	EX13	I15	R301	A15	R541	C8	R927	I13	U185	I2
C313	C13	EX14	I15	R302	A15	R542	B8	R928	I13	U187	G15
C314	A13	EX15	I14	R303	B15	R543	C8	R929	I13	U19	G4
C317	A15	J301	B16	R304	B15	R544	B8	S701	E1	U2	C2
C318	B15	J302	C16	R305	C15	R545	C4	S901	B1	U20	A5
C319	B15	J303	D16	R306	B15	R546	B4	S902	G16	U21	C5
C320	D15	J304	E16	R307	D15	R547	D6	S903	I16	U22	E5
C321	D15	J805	E9	R308	C15	R548	B6	U1	C2	U23	F5
C322	E15	J806	I2	R309	D15	R549	D7	U10	E3	U24	E5
C323	F15	J807	I16	R310	D15	R550	B7	U100	B10	U25	B6
C325	A15	J910	D10	R311	E15	R551	D8	U101	A10	U26	C6
C326	A15	J911	I3	R312	E15	R552	B8	U102	B10	U27	A6
C327	B15	J913	C2	R313	F15	R553	C8	U103	G10	U28	B6
C328	B15	J914	C2	R314	F15	R554	A8	U104	H11	U29	C6
C329	C15	J915	F14	R315	E15	R557	C7	U105	H11	U3	F2
C330	B15	J916	G9	R316	D15	R558	B7	U106	C11	U30	C6
C331	D15	J917	D3	R317	F15	R559	C8	U107	A11	U31	G6
C332	C15	J919	H2	R318	E15	R560	B8	U108	B11	U32	G6
C333	E15	J920	I13	R319	B15	R561	D5	U109	F11	U33	H6
C334	D15	L901	G13	R320	A15	R562	B5	U11	E3	U34	B6
C335	E15	L902	C9	R321	A15	R563	D5	U110	F11	U35	B6
C336	E15	L903	I2	R322	A15	R564	B5	U111	G11	U36	C6
C337	F15	Q302	D14	R323	B13	R565	B3	U112	F11	U37	C6
C338	F15	Q303	D12	R324	B13	R566	B3	U113	A11	U38	I6
C341	B12	Q305	C14	R325	B13	R567	C2	U114	B11	U39	F6
C342	B12	Q306	B14	R326	A13	R568	C2	U115	C11	U4	D2
C343	C12	Q307	B14	R327	B13	R701	F5	U116	D11	U40	F6
C344	A12	Q308	A14	R328	B13	R702	F12	U117	F11	U41	G6
C345	B10	Q309	C14	R329	B13	R703	F6	U118	H11	U42	F7
C346	B10	Q310	B14	R330	A13	R704	F12	U119	G11	U43	F7
C347	C10	Q311	B14	R331	A12	R705	F5	U12	E4	U44	H7
C348	A10	Q312	A14	R332	B12	R706	F12	U120	C11	U45	H7
C505	C4	Q313	C11	R333	B12	R707	F7	U121	G11	U46	C7
C506	A4	Q314	B11	R334	B12	R708	F10	U122	C11	U47	G7
C507	C4	Q315	B11	R335	B12	R709	G6	U123	I11	U48	A7
C508	B4	Q316	A11	R336	B12	R710	G11	U124	C12	U49	I7
C509	C7	Q317	C11	R337	B12	R711	F6	U125	C12	U5	C3
C510	B7	Q318	B11	R338	B12	R712	F11	U126	C12	U50	H7
C511	C8	Q319	B11	R339	B12	R713	G13	U127	D12	U51	H7
C512	B8	Q320	A11	R340	A12	R714	G13	U128	C12	U52	I7
C513	C3	Q501	C4	R341	C11	R715	G15	U129	D12	U53	F7
C514	B3	Q502	B4	R342	B11	R716	G15	U13	D3	U54	I7
C515	C3	Q503	C5	R343	B11	R719	F6	U130	F12	U55	F7
C516	B3	Q504	B5	R344	A11	R720	F11	U131	C12	U56	F7
C519	C5	Q505	C5	R345	C11	R721	G6	U132	F12	U57	B8
C520	B5	Q506	B5	R346	B11	R722	G11	U133	D12	U58	C8
C521	C5	Q507	C6	R347	B11	R723	G5	U134	B12	U59	I8
C522	B5	Q508	B6	R348	A11	R724	G12	U135	B12	U6	E3
C701	F5	Q509	C6	R349	A10	R725	G5	U136	C12	U60	F8
C702	F12	Q510	B6	R350	B10	R726	G12	U137	C12	U61	G8
C703	H7	Q511	C7	R355	C11	R727	G7	U138	A12	U62	H8
C704	H10	Q512	B7	R356	C10	R728	G11	U139	B12	U63	I8
C705	F7	Q513	C7	R357	C10	R729	G7	U14	E4	U64	F8
C706	F10	Q514	B7	R358	D10	R730	G10	U140	D12	U65	H8
C707	G5	Q515	C7	R359	C11	R731	H6	U141	D13	U66	D8
C708	G12	Q516	B7	R360	B11	R732	H11	U142	D13	U67	B8
C709	G6	Q517	C7	R361	B11	R733	H6	U143	E13	U68	A8
C710	G12	Q518	B7	R362	A11	R734	H11	U144	D13	U69	C8
C713	G6	Q519	C8	R363	B14	R735	H7	U145	E13	U7	E3
C714	G12	Q520	B8	R364	B14	R736	H10	U146	D13	U70	G8
C715	H6	Q521	C8	R365	B14	R737	H7	U147	B13	U71	F8
C716	H12	Q522	B8	R366	A14	R738	H10	U148	C13	U72	F8
C729	F7	Q701	F6	R367	B10	R739	H6	U149	E13	U73	D8
C730	F11	Q702	F11	R368	B10	R740	H11	U15	E4	U74	C9
C803	G4	Q703	G7	R369	D14	R741	H6	U150	D13	U75	H9
C804	G4	Q704	G11	R370	C14	R742	H11	U151	C13	U76	F9
C805	G4	Q705	G7	R501	C5	R743	H7	U152	D13	U77	F9
C806	G3	Q706	G10	R502	B5	R744	H10	U153	A13	U78	C9
C807	H4	Q707	G7	R503	C5	R745	H7	U154	B13	U79	C9
C808	H4	Q708	G11	R504	B5	R746	H10	U155	D13	U8	C3
C812	H5	Q709	G7	R505	C4	R757	H5	U156	D13	U80	D9
C901	G8	Q710	G10	R506	B4	R758	H12	U157	E13	U81	D9
C902	G9	Q711	H7	R507	C4	R759	H5	U158	A13	U82	D9
C903	F8	Q712	H11	R508	B4	R760	H12	U159	B13	U83	E9
C904	H9	Q713	H7	R509	C5	R793	G7	U16	E4	U84	E9
C905	H8	Q714	H11	R510	B5	R794	G11	U160	D13	U85	E9
C906	G9	Q715	H7	R513	C6	R795	G7	U161	E13	U86	F9
C907	G9	Q716	H10	R514	B6	R796	G10	U162	C13	U87	A9
C908	G3	Q717	H7	R515	C6	R803	G4	U163	C14	U88	B9
C930	C9	Q718	H10	R516	B6	R804	G3	U164	A14	U89	E9
C931	H14	Q741	G7	R517	C7	R805	H5	U165	B14	U9	B3
D301	C10	Q742	G11	R518	B7	R806	H3	U166	D14	U90	E9
D501	C6	Q743	G7	R519	C7	R807	H4	U167	I14	U91	G9
D502	B6	Q744	G10	R520	B7	R808	H3	U168	C14	U92	B10
D503	C6	Q801	F4	R521	C6	R809	H4	U169	D14	U93	E9
D504	B6	Q802	F3	R522	B6	R810	H3	U17	E4	U94	I10
D701	G5	Q803	H4	R523	C6	R811	I4	U170	H14	U95	F10
D702	G12	Q804	H3	R524	B6	R812	I4	U171	D14	U96	F10
D703	G6	Q901	F8	R525	C7	R820	I4	U172	D14	U97	C10
D704	G12	Q902	F8	R526	B7	R821	G4	U173	C14	U98	H10
D705	H6	Q903	F9	R527	C7	R822	G3	U174	D14	U99	D10
D706	H11	Q904	F9	R528	B7	R901	G8	U175	E14	W701	I6
D707	H6	Q905	H9	R531	C7	R902	G8	U176	C14	W702	I11
D708	H11	Q906	G9	R532	B7	R903	G8	U177	C14		

**P291**



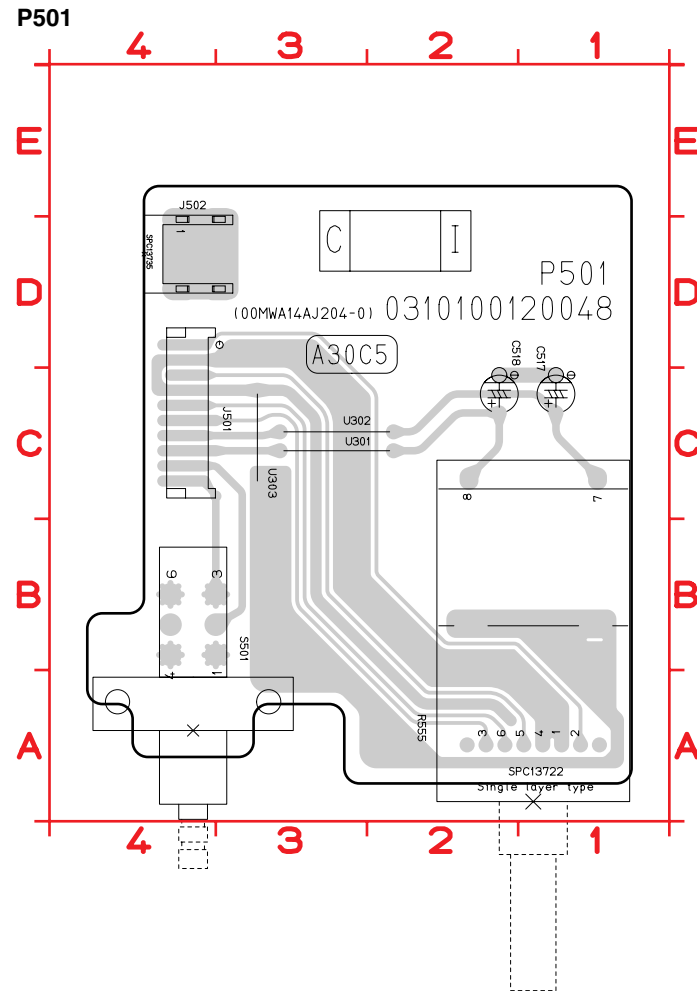
- C291 B2
- C292 B2
- J291 A3
- S291 A2

**P401**

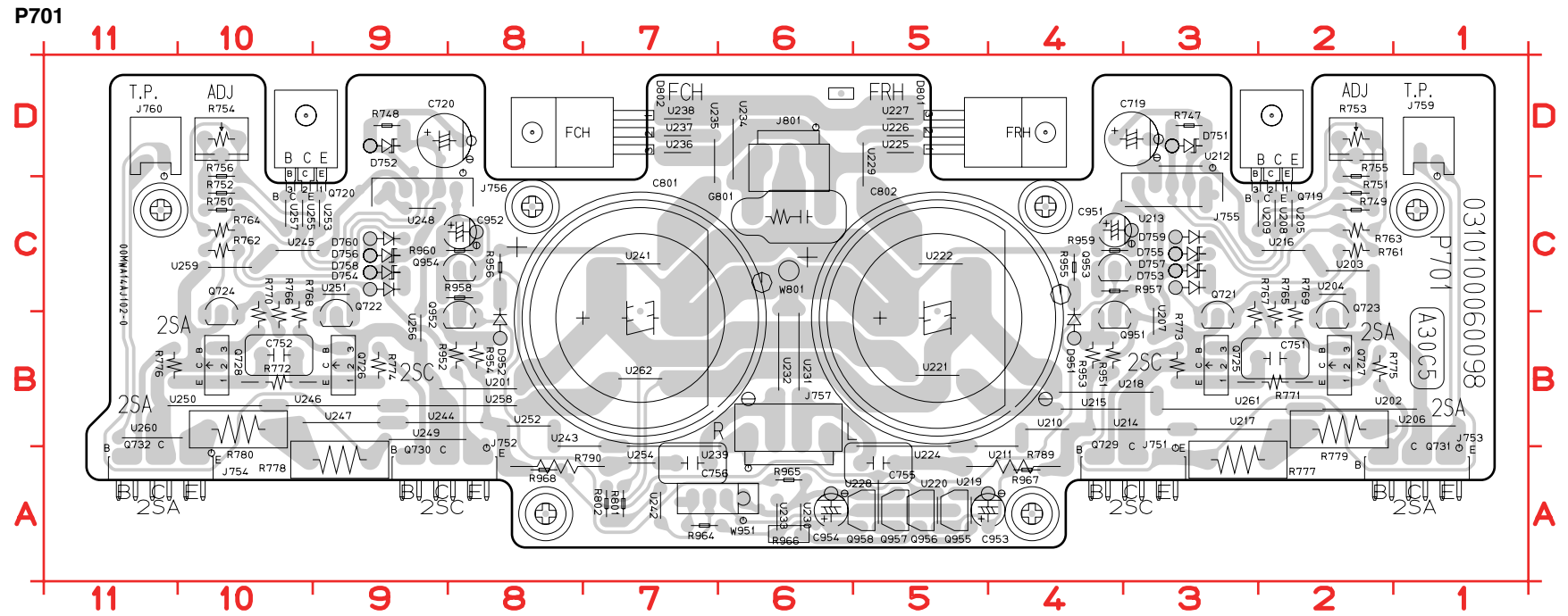


- C351 B4
- C352 B4
- C353 A4
- C354 B4
- C355 B5
- C356 B5
- C357 B4
- C358 B4
- C359 A4
- C360 B4
- C401 D4
- C402 E4
- C403 D4
- C404 E4
- C405 D3
- C406 E3
- C407 D3
- C408 E3
- C409 D2
- C410 E2
- C411 D2
- C412 E2
- C413 D2
- C414 E2
- C415 D2
- C416 E2
- C417 D1
- C418 E1
- C419 D4
- C420 E4
- C421 E5
- EX3 D4
- EX4 E4
- J351 B5
- J401 E5
- L401 D4
- L402 E4
- Q401 E3
- R351 B4
- R352 B4
- R353 A4
- R354 B4
- R371 B4
- R372 C4
- R373 A4
- R374 B4
- R401 D4
- R402 E4
- R403 D4
- R404 E4
- R405 D3
- R406 E3
- R407 D3
- R408 E3
- R409 D2
- R410 E2
- R411 D2
- R412 E2
- R413 D3
- R414 E2
- R415 D2
- R416 E2
- R417 D2
- R418 E2
- R419 D2
- R420 E2
- U412 E3
- U414 D1
- U418 E3
- U419 D3
- U420 D3
- U421 E4
- W401 D1
- W402 B4

鉛フリー半田  
 半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。  
**Lead-free Solder**  
 When soldering, use the Lead-free Solder (Sn-Ag-Cu).



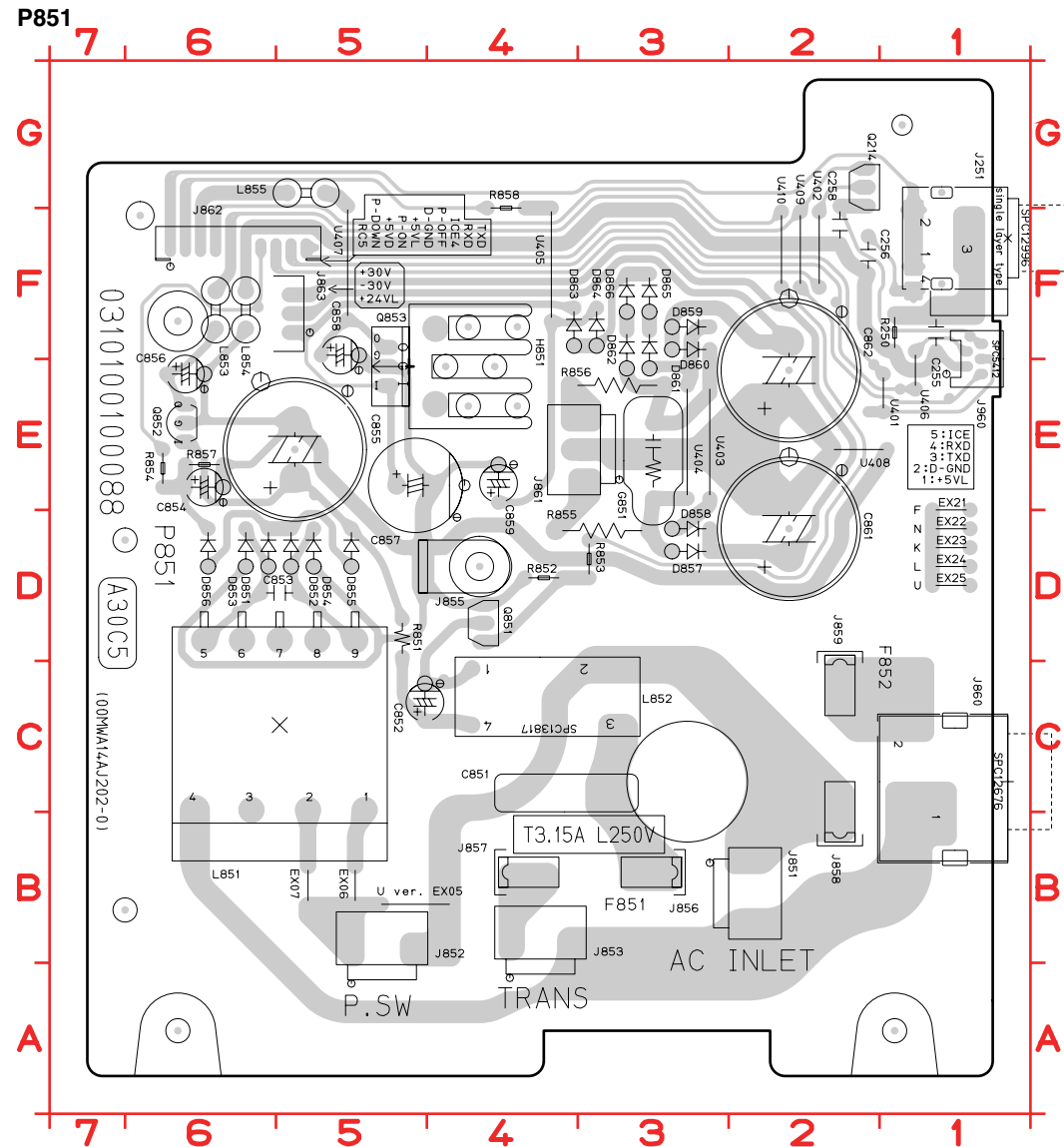
- C517 C1
- C518 C2
- J501 D4
- J502 D4
- R555 A1
- S501 A4
- U301 C2
- U302 C2
- U303 C3



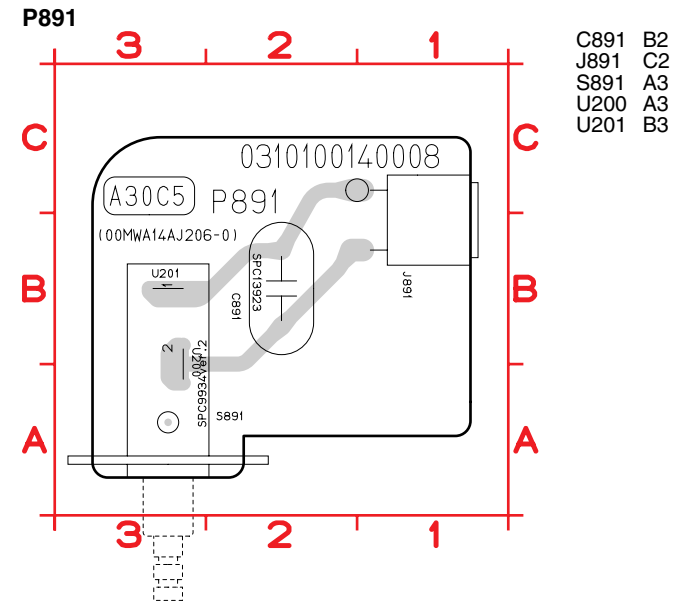
- |          |          |          |         |         |          |
|----------|----------|----------|---------|---------|----------|
| C719 D4  | J753 A1  | R750 C10 | R801 A7 | U213 C3 | U244 B8  |
| C720 D9  | J754 A10 | R751 C2  | R802 A7 | U214 B3 | U245 C9  |
| C751 B2  | J755 C3  | R752 C10 | R951 B4 | U215 B3 | U246 B9  |
| C752 B10 | J756 C8  | R753 D2  | R952 B8 | U216 C2 | U247 B9  |
| C755 A5  | J757 B6  | R754 D10 | R953 B4 | U217 B2 | U248 C9  |
| C756 A7  | J759 D1  | R755 D2  | R954 B8 | U218 B3 | U249 B8  |
| C801 B7  | J760 D11 | R756 D10 | R955 C4 | U219 A5 | U250 B10 |
| C802 B5  | J801 D6  | R761 C2  | R956 C8 | U220 A5 | U251 C9  |
| C951 C4  | Q719 C2  | R762 C10 | R957 C3 | U221 B5 | U252 B8  |
| C952 C9  | Q720 C10 | R763 C2  | R958 C8 | U222 C5 | U253 C9  |
| C953 A5  | Q721 B3  | R764 C10 | R959 C3 | U224 B5 | U254 A7  |
| C954 A6  | Q722 B9  | R765 B2  | R960 C8 | U225 D5 | U255 C10 |
| D751 D3  | Q723 B2  | R766 B10 | R964 A6 | U226 D5 | U256 B9  |
| D752 D9  | Q724 B10 | R767 B3  | R965 A6 | U227 D5 | U257 C10 |
| D753 C3  | Q725 B3  | R768 B10 | R966 A6 | U228 A5 | U258 B8  |
| D754 C9  | Q726 B9  | R769 B2  | R967 A4 | U229 C5 | U259 C10 |
| D755 C3  | Q727 B2  | R770 B10 | R968 A8 | U230 A6 | U260 B10 |
| D756 C9  | Q728 B10 | R771 B2  | U201 B8 | U231 B6 | U261 B2  |
| D757 C3  | Q951 B4  | R772 B10 | U202 B1 | U232 B6 | U262 B7  |
| D758 C9  | Q952 B8  | R773 B3  | U203 C2 | U233 A6 | W801 C6  |
| D759 C3  | Q953 C4  | R774 B9  | U204 C2 | U234 C6 | W951 A6  |
| D760 C9  | Q954 C8  | R775 B2  | U205 C2 | U235 C7 |          |
| D801 D5  | Q955 A5  | R776 B11 | U206 B1 | U236 D7 |          |
| D802 D7  | Q956 A5  | R777 A2  | U207 B3 | U237 D7 |          |
| D951 B4  | Q957 A5  | R778 A9  | U208 C2 | U238 D7 |          |
| D952 B8  | Q958 A5  | R779 B2  | U209 C3 | U239 B6 |          |
| G801 C6  | R747 D3  | R780 B10 | U210 B4 | U241 C7 |          |
| J751 A3  | R748 D9  | R789 A4  | U211 B4 | U242 A7 |          |
| J752 A8  | R749 C2  | R790 A7  | U212 D3 | U243 B7 |          |

**鉛フリー半田**  
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

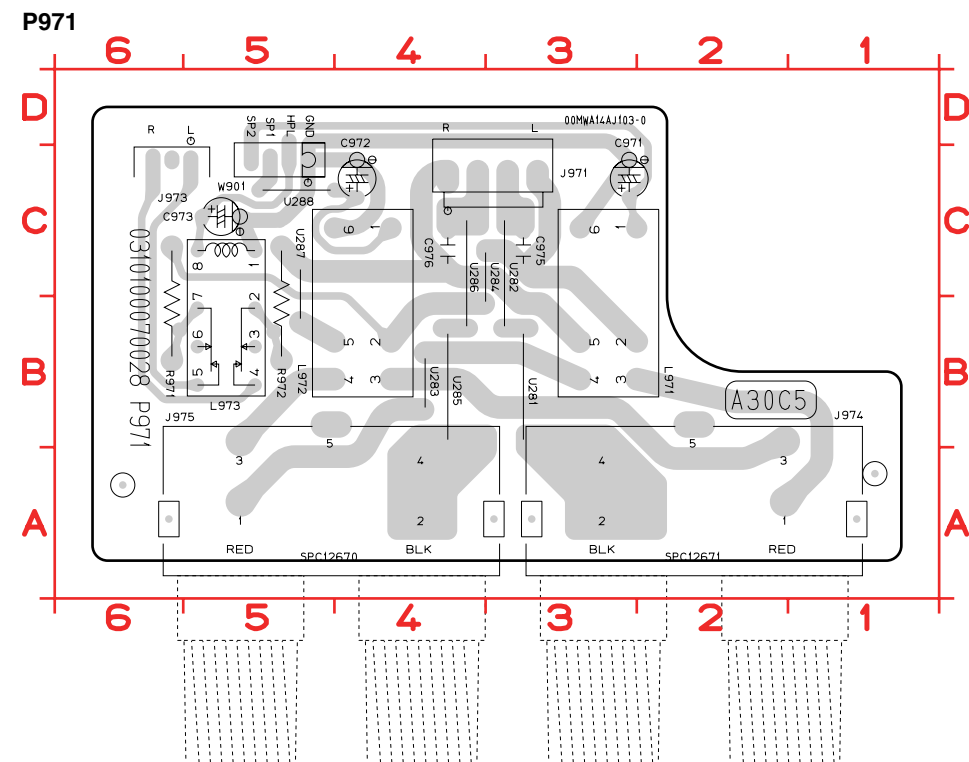
**Lead-free Solder**  
When soldering, use the Lead-free Solder (Sn-Ag-Cu).



C255	F1	D866	F3	Q214	G2
C256	F2	EX05	B4	Q851	D4
C258	F2	EX06	B5	Q852	E6
C851	C3	EX07	B5	Q853	E5
C852	C5	EX21	E1	R250	F1
C853	D5	EX22	D1	R851	D5
C854	E6	EX23	D1	R852	D4
C855	E5	EX24	D1	R853	D3
C856	E6	EX25	D1	R854	E6
C857	E5	G851	E3	R855	D3
C858	F5	J251	F1	R856	E3
C859	E4	J851	B2	R857	E6
C861	D2	J852	B5	R858	G4
C862	E2	J853	B4	U401	E1
D851	D6	J855	D4	U402	F2
D852	D5	J856	B3	U403	E3
D853	D6	J857	B4	U404	E3
D854	D5	J858	B2	U405	F4
D855	D5	J859	C2	U406	E1
D856	D6	J860	C1	U407	F5
D857	D3	J861	E3	U408	E1
D858	D3	J862	F6	U409	F2
D859	F3	J863	F5	U410	F2
D860	F3	J960	E1		
D861	E3	L851	C5		
D862	E3	L852	C4		
D863	F4	L853	F6		
D864	F3	L854	F6		
D865	F3	L855	G5		



C891	B2
J891	C2
S891	A3
U200	A3
U201	B3



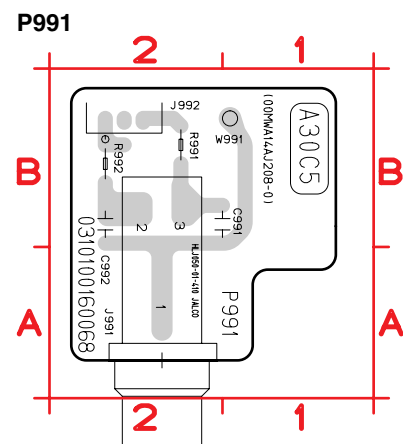
C971	C3
C972	C3
C973	C5
C975	C3
C976	C4
J971	C4
J973	C5
J974	A2
J975	A5
L971	C3
L972	C4
L973	C5
R971	B6
R972	B5
U281	B3
U282	B3
U283	B4
U284	B4
U285	B4
U286	B4
U287	B5
U288	C5
W901	C5

**鉛フリー半田**  
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。  
**Lead-free Solder**  
When soldering, use the Lead-free Solder (Sn-Ag-Cu).

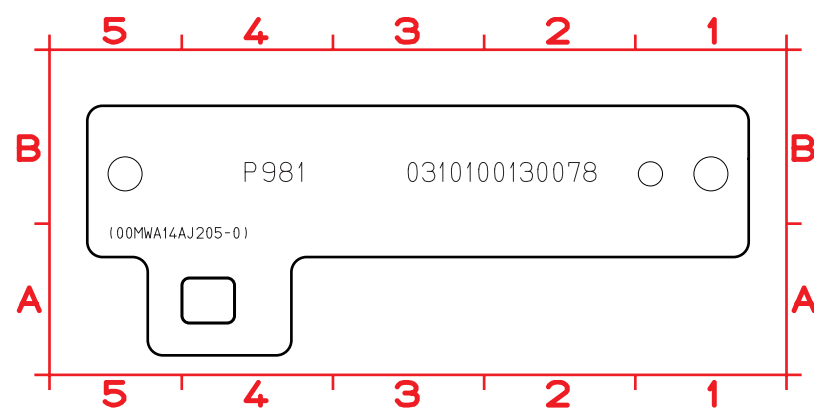
## 9. MICROPROCESSOR AND IC DATA

### Q201 : TMP86FH47UG

Pin No.	Port name	I/O	use	Port Setting				Note
				Name	Act.	Init.	STBY	
1	VSS	-	-	VSS	-	-	-	0 V
2	XIN	I	I		-	-	-	8M Clock in
3	XOUT	O	O		-	-	-	8M Clock out
4	TEST	I	I		H	L	L	L->H : PROM Mode
5	VDD	-	-	VDD	-	-	-	
6	P21 (XTIN)	I/O	I	PROTECT_1	L	H	H	DC Vol/Over Current
7	P22 (XTOUT)	I/O	I	PROTECT_2	L	H	H	Vol. Abnormal Detect
8	RESET	I/O	I		L	-	H	u-com Reset port
9	P20 (STOP/INT5)	I/O	I	P_OFF	L	H	L	Detect Power Off
10	P00 (INT0)	I/O	O	SPK	L	H	H	Spk Relay ON
11	P01 (TC4/PD04/PPG4/PWM4)	I/O	O	RC-5_OUT	L	H	H	RC-5 Output
12	P02 (RXD)	I/O	O	VOL_UP	L	H	H	Volume up
13	P03 (TXD)	I/O	O	VOL_DOWN	L	H	H	Volume down
14	P04 (SO)	I/O	O	DI	-	L	L	Data (LC78212)
15	P05 (SI)	I/O	O	P_ON	L	H	H	Primary Relay ON
16	P06 (SCK)	I/O	O	CLK	-	-	L	Clock (LC78212)
17	P07 (INT4)	I/O	O	CE	H	L	L	CE (LC78212)
18	P17	I/O	O	IIC_CLOCK	-	L	L	I2C (EEPROM) (Pull up)
19	P16	I/O	I/O	IIC_DATA	-	L	L	I2C (EEPROM) (Pull up)
20	P15 (INT3)	I/O	I	POWER_TACT	L	H	H	U ver. Power SW
21	P14 (PPG)	I/O	O	REC1_MUTE	L	H	L	Not USE (Pull Up)
22	P13 (DVO)	I/O	O	REC2_MUTE	L	H	L	Not USE (Pull Up)
23	P12 (INT/TC1)	I/O	I	RC-5_IN	L	H	H	RC-5 Input
24	P11 (INT1)(BOOT2)	I/O	I/O	Boot2/TXD	-	-	-	Communication (Pull Up)
25	P10 (PWM3/TC3/PD03)(BOOT1)	I/O	I/O	Boot1/RXD	-	-	-	Communication (Pull Up)
26	P30 (AIN0)	I/O	I	REC_SEL_1	-	-	-	Rec out sel A/D
27	P31 (AIN1)	I/O	I	M_B_DOWN	L	H	H	Main B Down
28	P32 (AIN2)	I/O	I	ENC_1	L	H	H	Input Sel. Rotary Enc.
29	P33 (AIN3)	I/O	I	ENC_2	L	H	H	Input Sel. Rotary Enc.
30	P34 (AIN4/STOP2)	I/O	I	MODEL_SELE	-	-	-	PM7001:H/PM8001:L
31	P35 (AIN5/STOP3)	I/O	O	KILL IR	H	L	L	RC-5 Kill
32	P36 (AIN6/STOP4)	I/O	O	M_MUTE	H	L	L	Manual Mute
33	P37 (AIN7/STOP5)	I/O	I	CODE_SEL	L	H	L	Code Sele. H : 16/L : ?
34	VAREF	-	-	VAREF	-	-	-	A/D Reference
35	AVDD	-	-	AVDD	-	-	-	
36	AVSS	-	-	AVSS	-	-	-	0 V
37	P40	I/O	O	LED_STANDBY	L	H	L	Standby LED
38	P41	I/O	O	LED_PHONO	L	H	H	Phono LED
39	P42	I/O	O	LED_CD	L	H	H	CD LED
40	P43	I/O	O	LED_TUNER	L	H	H	Tuner LED
41	P44	I/O	O	LED_AUX/DVD	L	H	H	AUX/DVD LED
42	P45	I/O	O	LED_REC1	L	H	H	Rec 1 LED
43	P46	I/O	O	LED_REC2	L	H	H	Rec 2 LED
44	P47	I/O	O	LED_MUTE	L	H	H	Mute LED

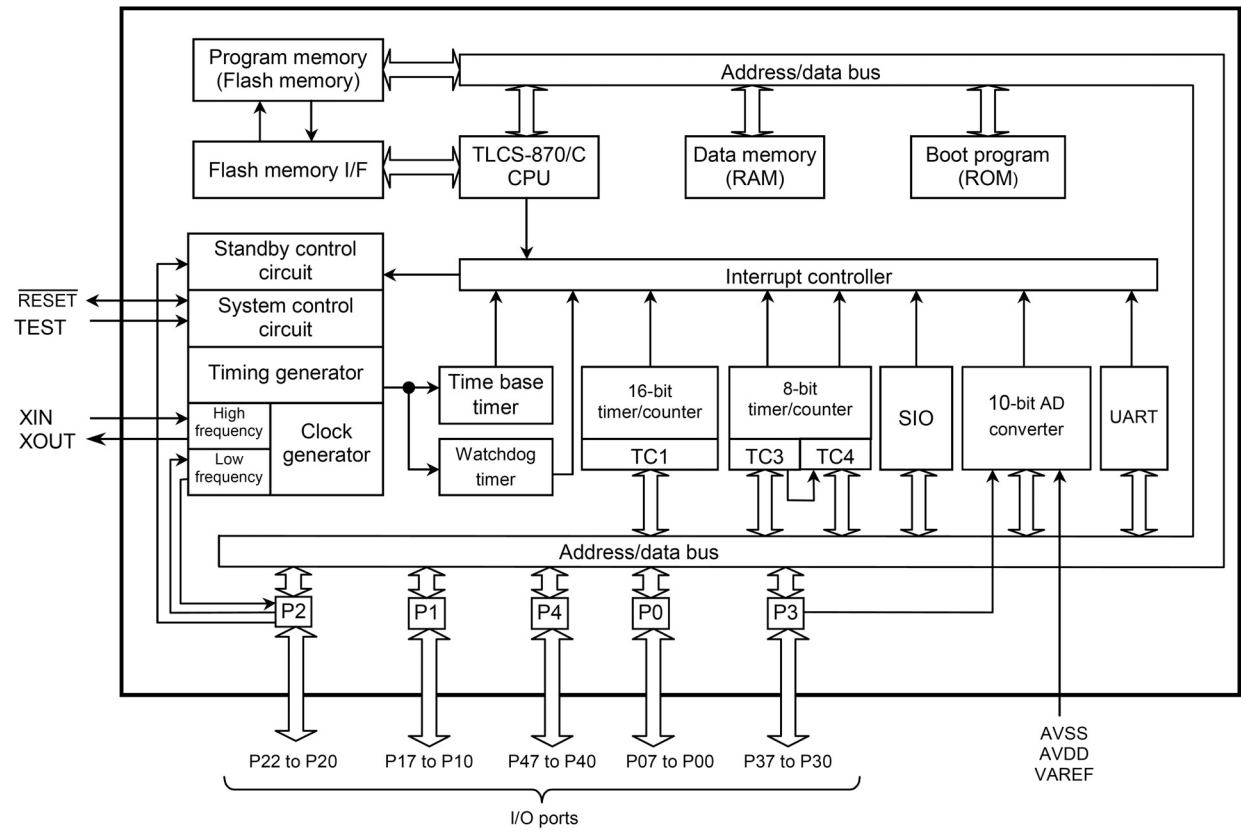
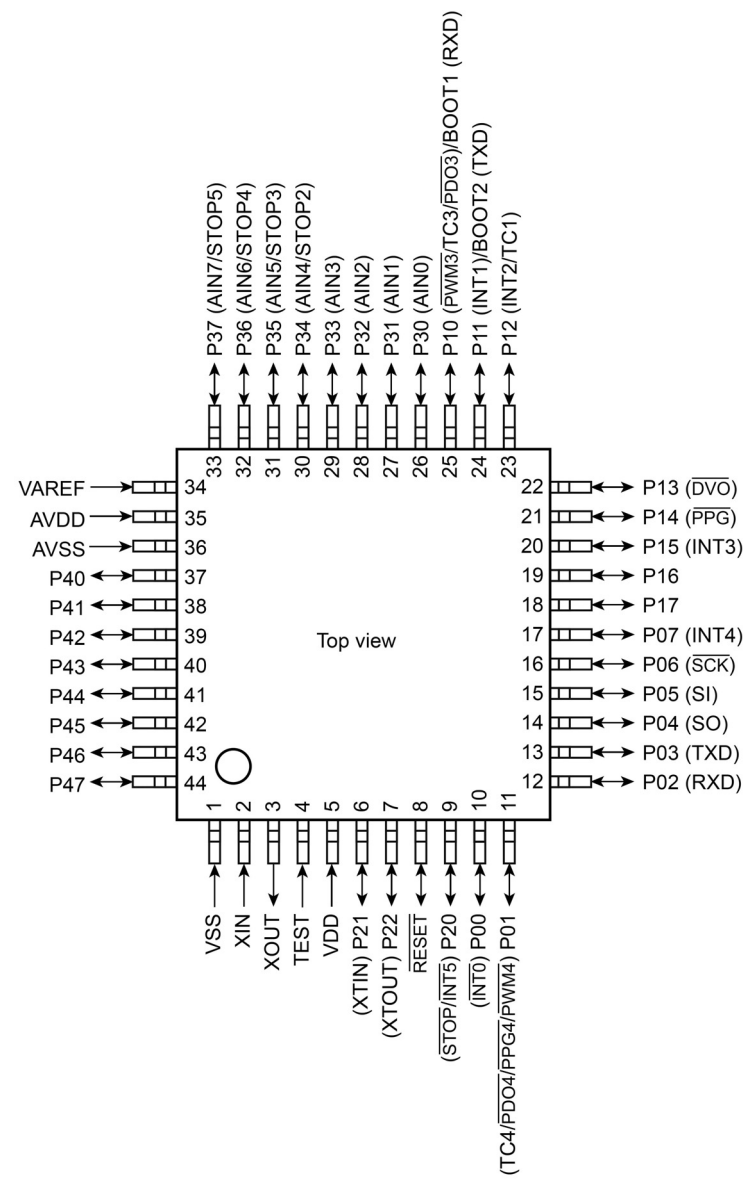


C991 B2  
C992 B2  
J991 A2  
J992 B2  
R991 B2  
R992 B2  
W991 B1

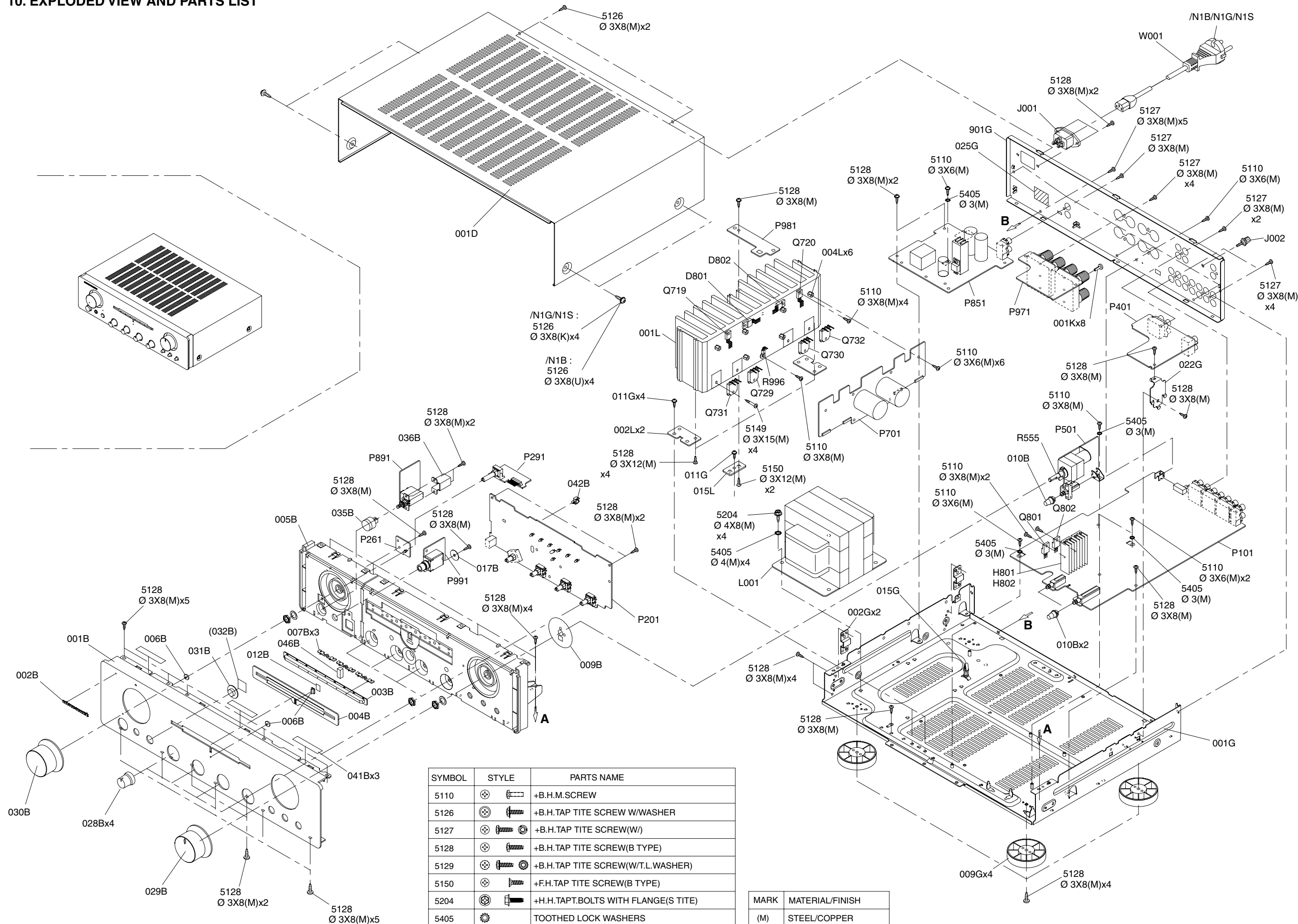


**鉛フリー半田**  
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。  
**Lead-free Solder**  
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Q201 : TMP86FH47UG



# 10. EXPLODED VIEW AND PARTS LIST



SYMBOL	STYLE	PARTS NAME
5110		+B.H.M.SCREW
5126		+B.H.TAP TITE SCREW W/WASHER
5127		+B.H.TAP TITE SCREW(W/)
5128		+B.H.TAP TITE SCREW(B TYPE)
5129		+B.H.TAP TITE SCREW(W/T.L. WASHER)
5150		+F.H.TAP TITE SCREW(B TYPE)
5204		+H.H.TAPT.BOLTS WITH FLANGE(S TITE)
5405		TOOTHED LOCK WASHERS

MARK	MATERIAL/FINISH
(M)	STEEL/COPPER

PWB NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
	001B	/N1B	00M14AJ248010	00M14AJ248010	FRONT PANEL	FRONT AL PANEL BL PM7001
	001B	/N1G	00M14AJ248110	00M14AJ248110	FRONT PANEL	FRONT AL PANEL GL PM7001
	001B	/N1S	00M14AJ248210	00M14AJ248210	FRONT PANEL	FRONT AL PANEL SL PM7001
	002B	/N1B	00M14AJ251010	00M14AJ251010	BADGE	MZ BADGE GL
	002B	/N1G	00M14AJ251010	00M14AJ251010	BADGE	MZ BADGE GL
	002B	/N1S	00M14AJ251020	00M14AJ251020	BADGE	MZ BADGE SL
	003B	/N1B	00M14AJ063110	00M14AJ063110	ESCUTCHEON	CENTER ESC GL
	003B	/N1G	00M14AJ063110	00M14AJ063110	ESCUTCHEON	CENTER ESC GL
	003B	/N1S	00M14AJ063210	00M14AJ063210	ESCUTCHEON	CENTER ESC SL
	004B	/N1B	00M14AJ259010	00M14AJ259010	BUSHING	CENTER BUSH BL
	004B	/N1G	00M14AJ259110	00M14AJ259110	BUSHING	CENTER BUSH GL
	004B	/N1S	00M14AJ259210	00M14AJ259210	BUSHING	CENTER BUSH SL
	005B	/N1B	00M14AJ105020	00M14AJ105020	CHASSIS	FRONT MOLD CHASSIS BL
	005B	/N1G	00M14AJ105120	00M14AJ105120	CHASSIS	FRONT MOLD CHASSIS GL
	005B	/N1S	00M14AJ105220	00M14AJ105220	CHASSIS	FRONT MOLD CHASSIS SL
	006B		00M14AJ355010	00M14AJ355010	LENS	INDICATOR LENS
	007B		00M14AJ355020	00M14AJ355020	LENS	CENTER ESC LENS
	010B	/N1B	00M14AJ270020	00M14AJ270020	BUTTON	FUNCTION BUTTON BL
	010B	/N1G	00M14AJ270120	00M14AJ270120	BUTTON	FUNCTION BUTTON GL
	010B	/N1S	00M14AJ270220	00M14AJ270220	BUTTON	FUNCTION BUTTON SL
	028B	/N1B	00M14AJ154500	00M14AJ154500	KNOB	TONE KNOB BL
	028B	/N1G	00M14AJ154510	00M14AJ154510	KNOB	TONE KNOB GL
	028B	/N1S	00M14AJ154520	00M14AJ154520	KNOB	TONE KNOB SL
	029B	/N1B	00M14AJ154010	00M14AJ154010	KNOB	MASTER VOLUME KNOB POINTER BL
	029B	/N1G	00M14AJ154110	00M14AJ154110	KNOB	MASTER VOLUME KNOB POINTER GL
	029B	/N1S	00M14AJ154210	00M14AJ154210	KNOB	MASTER VOLUME KNOB POINTER SL
	030B	/N1B	00M14AJ154020	00M14AJ154020	KNOB	INPUT SELECTOR KNOB BL
	030B	/N1G	00M14AJ154120	00M14AJ154120	KNOB	INPUT SELECTOR KNOB GL
	030B	/N1S	00M14AJ154220	00M14AJ154220	KNOB	INPUT SELECTOR KNOB SL
	031B	/N1B	00M14AJ355030	00M14AJ355030	LENS	IR LENS BL
	031B	/N1G	00M14AJ355130	00M14AJ355130	LENS	IR LENS WHITE
	031B	/N1S	00M14AJ355130	00M14AJ355130	LENS	IR LENS WHITE
	035B	/N1B	00M14AJ270010	00M14AJ270010	BUTTON	POWER BUTTON BL
	035B	/N1G	00M14AJ270110	00M14AJ270110	BUTTON	POWER BUTTON GL
	035B	/N1S	00M14AJ270210	00M14AJ270210	BUTTON	POWER BUTTON SL
	009G	/N1B	00M14AJ057110	00M14AJ057110	LEG	LEGS GL
	009G	/N1G	00M14AJ057110	00M14AJ057110	LEG	LEGS GL
	009G	/N1S	00M14AJ057210	00M14AJ057210	LEG	LEGS SL
	J001		0410500010090	0410500010090	TERMINAL	MC991874 MAINS INLET
	J002		0460100070040	0460100070040	TERMINAL	T12-159-N001
	▲ L001		1013100010098	1013100010098	TRANSF.	# POWER TRANSFORMER FOR 230V
	P101		nsp	nsp	PWB ASSY	MAIN PWB (P101)
	P201		nsp	nsp	PWB ASSY	U-PRO/TONE PWB (P201)
	P261		nsp	nsp	PWB ASSY	STANDBY LED PWB (P261)
	P291		nsp	nsp	PWB ASSY	INPUT SEL PWB (P291)
	P401		nsp	nsp	PWB ASSY	PHONO AMP PWB (P401)
	P501		nsp	nsp	PWB ASSY	VOLUME PWB (P501)
	P701		nsp	nsp	PWB ASSY	POWER STAGE PWB (P701)
	P851	/N1B	nsp	nsp	PWB ASSY	STANDBY PWB (P851)
	P851	/N1G	nsp	nsp	PWB ASSY	STANDBY PWB (P851)
	P851	/N1S	nsp	nsp	PWB ASSY	STANDBY PWB (P851)
	P891		nsp	nsp	PWB ASSY	POWER SW PWB (P891)
	P971		nsp	nsp	PWB ASSY	SPK TERMINAL PWB (P971)
	P981		nsp	nsp	PWB ASSY	CLAMP PWB (P981)
	P991	/N1B	nsp	nsp	PWB ASSY	HEADPHONE PWB (P991)
	P991	/N1G	nsp	nsp	PWB ASSY	HEADPHONE PWB (P991)
	P991	/N1S	nsp	nsp	PWB ASSY	HEADPHONE PWB (P991)
<b>PACKING</b>						
	001T		00M14AJ851310	00M14AJ851310	USER GUIDE	USER GUIDE N
	Z001		3070100010088	3070100010088	UNIT KIT	REMOTE CONTROLLER RC4001PM
	▲ W001		0110500020010	0110500020010	MAINS CORD	# 2P MAINS CORD 10A 250V CLASS2
<b>NOT STANDARD SPARE PART</b>						
	001S		nsp	00M14AJ801010	PACKING CASE	PACKING CASE PM7001
	002S		nsp	00M14AJ809010	CUSHION	CUSHION(L/R)
	001D	/N1B	nsp	00M14AJ257010	LID	TOP COVER BL
	001D	/N1G	nsp	00M14AJ257110	LID	TOP COVER GL
	001D	/N1S	nsp	00M14AJ257210	LID	TOP COVER SL

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

# 11. ELECTRICAL PARTS LIST

## PARTS INFORMATION

### RESISTORS

- 1) 00MGD05 × × × 140, Carbon film fixed resistor, ±5% 1/4W
- 2) 00MGD05 × × × 160, Carbon film fixed resistor, ±5% 1/6W

① Resistance value

Examples ;

- ① Resistance value
- 0.1 Ω .... 001    10 Ω .... 100    1 kΩ .... 102    100 kΩ .... 104
- 0.5 Ω .... 005    18 Ω .... 180    2.7 kΩ .... 272    680 kΩ .... 684
- 1 Ω .... 010    100 Ω .... 101    10 kΩ .... 103    1 MΩ .... 105
- 6.8 Ω .... 068    390 Ω .... 391    22 kΩ .... 223    4.7 MΩ .... 475

**Note :** Please distinguish 1/4W from 1/6W by the shape of parts used actually.

### CAPACITORS

#### CERAMIC CAP.

- 3) 00MDD1 × × × × 370 Ceramic capacitor
- Disc type
- Temp. coeff. P350 ~ N1000, 50V
- ② Capacity value
- ③ Tolerance

Examples ;

- ② Tolerance (Capacity deviation)
- ±0.25 pF .... 0
- ±0.5 pF .... 1
- ±5% .... 5

\* Tolerance of COMMON PARTS handled here are as follows :

- 0.5 pF ~ 5 pF .... ±0.25 pF
- 6 pF ~ 10 pF .... ±0.5 pF
- 12 pF ~ 560 pF .... ±5%

③ Capacity value

- 0.5 pF .... 005    3 pF .... 030    100 pF .... 101
- 1 pF .... 010    10 pF .... 100    220 pF .... 221
- 1.5 pF .... 015    47 pF .... 470    560 pF .... 561

#### CERAMIC CAP.

- 4) 00MDK16 × × × 300, High dielectric constant ceramic capacitor
- Disc type
- Temp. chara. 2B4, 50V
- ④ Capacity value

Examples ;

- ④ Capacity value
- 100 pF .... 101    1000 pF .... 102    10000 pF .... 103
- 470 pF .... 471    2200 pF .... 222

#### ELECTROLY CAP. ( $\text{Z}$ )

- 5) 00MEA × × × × × 10, Electrolytic capacitor
- One-way lead type, Tolerance ±20%
- ⑤ Capacity value
- ⑥ Working voltage

Examples ;

- ⑤ Capacity value
- 0.1 μF .... 104    4.7 μF .... 475    100 μF .... 107
- 0.33 μF .... 334    10 μF .... 106    330 μF .... 337
- 1 μF .... 105    22 μF .... 226    1100 μF .... 118
- 2200 μF .... 228
- ⑥ Working voltage
- 6.3V .... 006    25V .... 025
- 10V .... 010    35V .... 035
- 16V .... 016    50V .... 050

#### FILM CAP. ( $\text{F}$ )

- 6) 00MDF15 × × × 350 Plastic film capacitor
- 00MDF15 × × × 310 One-way type, Mylar ±5% 50V
- 00MDF16 × × × 310 Plastic film capacitor
- One-way type, Mylar ±10% 50V
- ⑦ Capacity value

Examples ;

- ⑦ Capacity value
- 0.001 μF (1000 pF) ..... 102    0.1 μF .... 104
- 0.0018 μF ..... 182    0.56 μF .... 564
- 0.01 μF ..... 103    1 μF .... 105
- 0.015 μF ..... 153

## NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows;

### 1. KOA Corporation

Part No. (MJI)	Type No. (KOA)	Description
00MNH05 × × × 140	RF25S × × × × ΩJ	(±5% 1/4W)
00MNH05 × × × 120	RF50S × × × × ΩJ	(±5% 1/2W)
00MNH85 × × × 110	RF73B2A × × × × ΩJ	(±5% 1/10W)
00MNH95 × × × 140	RF73B2E × × × × ΩJ	(±5% 1/4W)

\* Resistance value      Resistance value (0.1 Ω – 10 kΩ)

### 2. Matsushita Electronic Components Co., Ltd

Part No. (MJI)	Type No. (MEC)	Description
00MNF05 × × × 140	ERD-2FCJ × × ×	(±5% 1/4W)
00MRF05 × × × 140		
00MNF02 × × × 140	ERD-2FCG × × ×	(±2% 1/4W)
00MRF02 × × × 140		

\* Resistance value      \* Resistance value

Examples ;

- \* Resistance value
- 0.1 Ω .... 001    10 Ω .... 100    1 kΩ .... 102    100 kΩ .... 104
- 0.5 Ω .... 005    18 Ω .... 180    2.7 kΩ .... 272    680 kΩ .... 684
- 1 Ω .... 010    100 Ω .... 101    10 kΩ .... 103    1 MΩ .... 105
- 6.8 Ω .... 068    390 Ω .... 391    22 kΩ .... 223    4.7 MΩ .... 475



## ABBREVIATION AND MARKS

ANT. : ANTENNA	BATT. : BATTERY
CAP. : CAPACITOR	CER. : CERAMIC
CONN. : CONNECTING	DIG. : DIGITAL
HP : HEADPHONE	MIC. : MICROPHONE
μ-PRO : MICROPROCESSOR	REC. : RECORDING
RES. : RESISTOR	SPK : SPEAKER
SW : SWITCH	TRANSF. : TRANSFORMER
TRIM. : TRIMMING	TRS. : TRANSISTOR
VAR. : VARIABLE	X'TAL : CRYSTAL


## NOTE ON FUSE :

Regarding to all parts of parts code **00MFS20xxx2xx**, replace only with Wickmann-Werke GmbH, Type 372 non glass type fuse.

## 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。



PWB NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
					MAIN PWB(P101)	
P101	C303		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C304		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C305		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C306		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C307		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C313		nsp	1340100425080	ELECT. CAP.	RA2-25V220ME3#8-T2
P101	C314		nsp	1340100425080	ELECT. CAP.	RA2-25V220ME3#8-T2
P101	C343		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C344		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C345		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C346		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C347		nsp	1340100425080	ELECT. CAP.	RA2-25V220ME3#8-T2
P101	C348		nsp	1340100425080	ELECT. CAP.	RA2-25V220ME3#8-T2
P101	C505		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C506		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C511		nsp	1340500084070	ELECT. CAP.	47UF M 16V ARS-TYPE ELNA
P101	C512		nsp	1340500084070	ELECT. CAP.	47UF M 16V ARS-TYPE ELNA
P101	C513		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C514		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C515		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C516		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C521		nsp	1340100455070	ELECT. CAP.	RA2-25V101MF3#8-T2
P101	C522		nsp	1340100455070	ELECT. CAP.	RA2-25V101MF3#8-T2
P101	C701		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C702		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C705		nsp	1340100455070	ELECT. CAP.	RA2-25V101MF3#8-T2
P101	C706		nsp	1340100455070	ELECT. CAP.	RA2-25V101MF3#8-T2
P101	C707		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C708		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C709		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C710		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C713		nsp	1340100865080	ELECT. CAP.	RA2-63V221MH5#8-S1
P101	C714		nsp	1340100865080	ELECT. CAP.	RA2-63V221MH5#8-S1
P101	C715		nsp	1340100865080	ELECT. CAP.	RA2-63V221MH5#8-S1
P101	C716		nsp	1340100865080	ELECT. CAP.	RA2-63V221MH5#8-S1
P101	C803		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C804		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C805		nsp	1340100455070	ELECT. CAP.	RA2-25V101MF3#8-T2
P101	C806		nsp	1340100455070	ELECT. CAP.	RA2-25V101MF3#8-T2
P101	C812		nsp	1340100595060	ELECT. CAP.	RA2-35V221MH3#8-T2
P101	C901		nsp	1340100665040	ELECT. CAP.	RA2-50V010ME3E#8-T2
P101	C902		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C930		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C931		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	D301		nsp	00D2760401905	DIODE	1SS133T77
P101	D501		nsp	00D2760401905	DIODE	1SS133T77
P101	D502		nsp	00D2760401905	DIODE	1SS133T77
P101	D503		nsp	00D2760401905	DIODE	1SS133T77
P101	D504		nsp	00D2760401905	DIODE	1SS133T77
P101	D701		nsp	00D2760645907	DIODE	MTZJ18A T77
P101	D702		nsp	00D2760645907	DIODE	MTZJ18A T77
P101	D703		nsp	00D2760645907	DIODE	MTZJ18A T77
P101	D704		nsp	00D2760645907	DIODE	MTZJ18A T77
P101	D705		nsp	00D2760401905	DIODE	1SS133T77
P101	D706		nsp	00D2760401905	DIODE	1SS133T77
P101	D707		nsp	00D2760401905	DIODE	1SS133T77
P101	D708		nsp	00D2760401905	DIODE	1SS133T77
P101	D803		nsp	00D2760645910	DIODE	MTZJ20A T77
P101	D804		nsp	00D2760645910	DIODE	MTZJ20A T77
P101	D805		nsp	00D2760401905	DIODE	1SS133T77
P101	D806		nsp	00D2760401905	DIODE	1SS133T77
P101	D901		nsp	00D2760401905	DIODE	1SS133T77
P101	D902		nsp	00D2760401905	DIODE	1SS133T77
P101	J301		0460100020090	0460100020090	TERMINAL	YKC21-3446 14X14 RA 2L2P
P101	J302		0460100030020	0460100030020	TERMINAL	YKC21-3077
P101	J303		0460100030020	0460100030020	TERMINAL	YKC21-3077

NOTE : \*nsp\* PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

PWB NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P101	J304		0460100030020	0460100030020	TERMINAL	YKC21-3077
P101	J917		0450100010030	0450100010030	CONN.	B10P-MQ-C
P101	L901		0820100020050	0820100020050	RELAY	MR82-24USR
P101	L902		0820100020050	0820100020050	RELAY	MR82-24USR
P101	L903		1190100014090	1190100014090	COIL	BL02RN2-R62T2 FERRITE BEAD
P101	Q302		2340100017040	2340100017040	IC	LC78212
P101	Q303		2340100017040	2340100017040	IC	LC78212
P101	Q305		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q306		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q307		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q308		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q309		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q310		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q311		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q312		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q313		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q314		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q315		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q316		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q317		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q318		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q319		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q320		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q501		00D2630609002	00D2630609002	IC	NJM2068DDC +T
P101	Q502		00D2630609002	00D2630609002	IC	NJM2068DDC +T
P101	Q503		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q504		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q505		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q506		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q507		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q508		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q509		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q510		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q511		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q512		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q513		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q514		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q515		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q516		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q517		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q518		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q519		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q520		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q521		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q522		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q701		00D2630609002	00D2630609002	IC	NJM2068DDC +T
P101	Q702		00D2630609002	00D2630609002	IC	NJM2068DDC +T
P101	Q703		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q704		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q705		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q706		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q707		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q708		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q709		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q710		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q711		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q712		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q713		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q714		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q715		00D2710168900	00D2710168900	TRS.	2SA1145 (O/Y)
P101	Q716		00D2710168900	00D2710168900	TRS.	2SA1145 (O/Y)
P101	Q717		00D2730281906	00D2730281906	TRS.	2SC2705 (O/Y)
P101	Q718		00D2730281906	00D2730281906	TRS.	2SC2705 (O/Y)
P101	Q741		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q742		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q743		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q744		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR

NOTE : \*nsp\* PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

PWB NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P101	▲ Q801		2140500010050	2140500010050	TRS.	! 2SD1415A
P101	▲ Q802		2120500010090	2120500010090	TRS.	! 2SB1020A
P101	Q803		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P101	Q804		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	Q901		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	Q902		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	Q903		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	Q904		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	Q905		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P101	Q906		00D2690206908	00D2690206908	TRS.	KRC102M-AT(10K-10K)
P101	Q907		00D2690204900	00D2690204900	TRS.	KRA102M-AT(10K-10K)
P101	Q908		00D2690206908	00D2690206908	TRS.	KRC102M-AT(10K-10K)
P101	Q909		00D2690206908	00D2690206908	TRS.	KRC102M-AT(10K-10K)
P101	Q910		00D2690206908	00D2690206908	TRS.	KRC102M-AT(10K-10K)
P101	Q911		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P101	Q912		00D2690206908	00D2690206908	TRS.	KRC102M-AT(10K-10K)
P101	Q915		00D2690206908	00D2690206908	TRS.	KRC102M-AT(10K-10K)
P101	Q916		00D2690206908	00D2690206908	TRS.	KRC102M-AT(10K-10K)
P101	▲ R821		1210100054040	1210100054040	RES.	! 4.7 OHM +-5% 1/6W
P101	▲ R822		1210100054040	1210100054040	RES.	! 4.7 OHM +-5% 1/6W
P101	▲ R757		1210500024030	1210500024030	RES.	! 10 OHM +-5% 1/4W
P101	▲ R758		1210500024030	1210500024030	RES.	! 10 OHM +-5% 1/4W
P101	▲ R759		1210500024030	1210500024030	RES.	! 10 OHM +-5% 1/4W
P101	▲ R760		1210500024030	1210500024030	RES.	! 10 OHM +-5% 1/4W
P101	S701		0650100030030	0650100030030	SW	SPUN19
P101	S901		0650100020000	0650100020000	SW	SPUN194900
P101	S902		0640100010040	0640100010040	SW	SSSU122P09N-1
					<b>U-PRO/TONE PWB (P201)</b>	
P201	C204		nsp	1340101274090	ELECT. CAP.	RC2-25V100ME1#-T2
P201	C207		nsp	1340101274090	ELECT. CAP.	RC2-25V100ME1#-T2
P201	C251		nsp	1340101184050	ELECT. CAP.	RC2-10V221MG1#-T2
P201	C253		nsp	1340101184050	ELECT. CAP.	RC2-10V221MG1#-T2
P201	C254		nsp	1340101274090	ELECT. CAP.	RC2-25V100ME1#-T2
P201	C257		nsp	1340101274090	ELECT. CAP.	RC2-25V100ME1#-T2
P201	C601		nsp	1340101204080	ELECT. CAP.	RC2-16V220ME1#-T2
P201	C602		nsp	1340101204080	ELECT. CAP.	RC2-16V220ME1#-T2
P201	C611		nsp	1340101434010	ELECT. CAP.	RC2-50V2R2MD1#-T2
P201	C612		nsp	1340101434010	ELECT. CAP.	RC2-50V2R2MD1#-T2
P201	C615		nsp	1340101204080	ELECT. CAP.	RC2-16V220ME1#-T2
P201	C616		nsp	1340101204080	ELECT. CAP.	RC2-16V220ME1#-T2
P201	C617		nsp	1340101314080	ELECT. CAP.	RC2-25V101MG1
P201	C618		nsp	1340101314080	ELECT. CAP.	RC2-25V101MG1
P201	D202		2030500013020	2030500013020	DIODE	1D3 1A/200V
P201	D251		2630100010090	2630100010090	LED.	LT3D8B RED LED
P201	D252		2630100010090	2630100010090	LED.	LT3D8B RED LED
P201	D253		2630100010090	2630100010090	LED.	LT3D8B RED LED
P201	D254		2630100010090	2630100010090	LED.	LT3D8B RED LED
P201	D255		2630100010090	2630100010090	LED.	LT3D8B RED LED
P201	D256		2630100010090	2630100010090	LED.	LT3D8B RED LED
P201	D257		2630100010090	2630100010090	LED.	LT3D8B RED LED
P201	D259		nsp	00D2760401905	DIODE	1SS133T77
P201	▲ D260		00D3939576903	00D3939576903	LED.	! SELU1E10CXM BLUE LED
P201	J205		0440100450000	0440100450000	CONN.	TSK-B04X-A1
P201	L201		1190100014090	1190100014090	COIL	BL02RN2-R62T2 FERRITE BEAD
P201	L202		1190100014090	1190100014090	COIL	BL02RN2-R62T2 FERRITE BEAD
P201	Q201		2439100016008	2439100016008	U-PRO	TMP86FH47UG WITHOUT SOFTWARE
P201	Q202		2350100037030	2350100037030	IC	LB1630 MOTOR DRIVE IC
P201	Q204		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P201	Q205		00D2690204900	00D2690204900	TRS.	KRA102M-AT(10K-10K)
P201	Q206		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P201	Q207		00D2690204900	00D2690204900	TRS.	KRA102M-AT(10K-10K)
P201	Q208		2350100024030	2350100024030	IC	PST600D-2 RESET IC
P201	Q209		00D2690204900	00D2690204900	TRS.	KRA102M-AT(10K-10K)
P201	Q210		00D2690204900	00D2690204900	TRS.	KRA102M-AT(10K-10K)
P201	Q211		2469100015000	2469100015000	IC	AT24C08AN-10SI-2.7 EEPROM
P201	Q212		00D2690204900	00D2690204900	TRS.	KRA102M-AT(10K-10K)
P201	Q213		00D2690204900	00D2690204900	TRS.	KRA102M-AT(10K-10K)

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PWB NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P201	Q215		00D2690206908	00D2690206908	TRS.	KRC102M-AT(10K-10K)
P201	Q251		2620100010060	2620100010060	PHOTO UNIT	RPM6936-V4 (IR SENSOR)
P201	Q252		00D2690204900	00D2690204900	TRS.	KRA102M-AT(10K-10K)
P201	Q253		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P201	Q254		00D2690204900	00D2690204900	TRS.	KRA102M-AT(10K-10K)
P201	Q255		00D2690204900	00D2690204900	TRS.	KRA102M-AT(10K-10K)
P201	Q601		00D2630609002	00D2630609002	IC	NJM2068DDC +T
P201	Q603		00D2630609002	00D2630609002	IC	NJM2068DDC +T
P201	Q604		00D2630609002	00D2630609002	IC	NJM2068DDC +T
P201	R605		0750100020070	0750100020070	VAR. RES.	RK14K124003J
P201	R606		0750100020070	0750100020070	VAR. RES.	RK14K124003J
P201	R621		0750100030000	0750100030000	VAR. RES.	RK14K1240D0P
P201	S251		0630100010010	0630100010010	ROTARY SW	SRBV17-F0020-11
P201	X201		1420100014090	1420100014090	FILTER	CST8.00MT-TF01
					<b>STANDBY LED PWB (P261)</b>	
P261	D258		2630100010090	2630100010090	LED.	LT3D8B RED LED
					<b>INPUT SEL PWB (P291)</b>	
P291	J291		0440100470060	0440100470060	CONN.	TSK-B04P-A1
P291	S291		0630100020040	0630100020040	ROTARY SW	SRRSIC
					<b>PHONO AMP PWB (P401)</b>	
P401	C403		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P401	C404		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P401	C405		nsp	1340100235070	ELECT. CAP.	RA2-10V471MG3#8-T2
P401	C406		nsp	1340100235070	ELECT. CAP.	RA2-10V471MG3#8-T2
P401	C413		nsp	1340100425080	ELECT. CAP.	RA2-25V220ME3#8-T2
P401	C414		nsp	1340100425080	ELECT. CAP.	RA2-25V220ME3#8-T2
P401	C417		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P401	C418		nsp	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P401	J351		0460100030020	0460100030020	TERMINAL	YKC21-3077
P401	J401		0460100050080	0460100050080	TERMINAL	YKC21-3082 14X14 RA 2L2P
P401	L401		1150100010018	1150100010018	COIL	320 MH CHOKE COIL (TOROIDAL)
P401	L402		1150100010018	1150100010018	COIL	320 MH CHOKE COIL (TOROIDAL)
P401	Q401		00D2630609002	00D2630609002	IC	NJM2068DDC +T
					<b>VOLUME PWB (P501)</b>	
P501	C517		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P501	C518		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P501	J501		0450100030090	0450100030090	CONN.	10MQ-ST-L
P501	R555		0753100010018	0753100010018	VAR. RES.	RK16812MG
P501	S501		0650100010070	0650100010070	SW	PUSH SWITCH ALPS SPUN12
					<b>POWER STAGE PWB (P701)</b>	
P701	C719		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P701	C720		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P701	▲ C801		1340500010008	1340500010008	ELECT. CAP.	! 15000UF 63V(MARANTZ ORIGINAL)
P701	▲ C802		1340500010008	1340500010008	ELECT. CAP.	! 15000UF 63V(MARANTZ ORIGINAL)
P701	C951		nsp	1340100655010	ELECT. CAP.	RA2-50VR47ME3#8-T2
P701	C952		nsp	1340100655010	ELECT. CAP.	RA2-50VR47ME3#8-T2
P701	C953		nsp	1340100445040	ELECT. CAP.	RA2-25V470ME3#8-T2
P701	C954		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P701	▲ D801		2040500030040	2040500030040	DIODE	!FRH10A15
P701	▲ D802		2040500020010	2040500020010	DIODE	!FCH10A15
P701	D951		nsp	2010500013060	DIODE	HSS81 150V 150MA
P701	D952		nsp	2010500013060	DIODE	HSS81 150V 150MA
P701	▲ G801		1890100010020	1890100010020	CAP.COMP.	! RFD2B474K 0.47UF+6.8OHM
P701	J751		0450100020060	0450100020060	CONN.	IMSA-1068-06Z042 6P
P701	J752		0450100020060	0450100020060	CONN.	IMSA-1068-06Z042 6P
P701	J753		0450100020060	0450100020060	CONN.	IMSA-1068-06Z042 6P
P701	J754		0450100020060	0450100020060	CONN.	IMSA-1068-06Z042 6P
P701	▲ KT01		2170500010040	2170500010040	TRS.	! 2SA1186/2SC2837 PAIR (Q729/Q731, Q730/Q732)
P701	▲ Q719		2130500040010	2130500040010	TRS.	! C3419 Y 40V 0.8A PC=1.2W (5W)
P701	▲ Q720		2130500040010	2130500040010	TRS.	! C3419 Y 40V 0.8A PC=1.2W (5W)
P701	▲ Q721		00D2730281906	00D2730281906	TRS.	! 2SC2705 (O/Y)
P701	▲ Q722		00D2730281906	00D2730281906	TRS.	! 2SC2705 (O/Y)
P701	▲ Q723		00D2710168900	00D2710168900	TRS.	! 2SA1145 (O/Y)
P701	▲ Q724		00D2710168900	00D2710168900	TRS.	! 2SA1145 (O/Y)
P701	▲ Q725		00D2730333003	00D2730333003	TRS.	! 2SC3423 (O/Y)
P701	▲ Q726		00D2730333003	00D2730333003	TRS.	! 2SC3423 (O/Y)
P701	▲ Q727		00D2710202002	00D2710202002	TRS.	! 2SA1360 (O/Y)

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PWB NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P701	▲ Q728		00D2710202002	00D2710202002	TRS.	! 2SA1360 (O/Y)
P701	▲ Q729		nsp	nsp	TRS.	! 2SC2837(R/O) PAIR WITH Q731
P701	▲ Q730		nsp	nsp	TRS.	! 2SC2837(R/O) PAIR WITH Q732
P701	▲ Q731		nsp	nsp	TRS.	! 2SA1186(R/O) PAIR WITH Q729
P701	▲ Q732		nsp	nsp	TRS.	! 2SA1186(R/O) PAIR WITH Q730
P701	Q951		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P701	Q952		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P701	Q953		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P701	Q954		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P701	Q955		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P701	Q956		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P701	Q957		00D2690206908	00D2690206908	TRS.	KRC102M-AT(10K-10K)
P701	Q958		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P701	▲ R771		1210500034060	1210500034060	RES.	! 220 OHM +-5% 1/4W
P701	▲ R772		1210500034060	1210500034060	RES.	! 220 OHM +-5% 1/4W
P701	R753		1610100010040	1610100010040	TRIM RES.	RH063LCJ3R 2.2K OHM
P701	R754		1610100010040	1610100010040	TRIM RES.	RH063LCJ3R 2.2K OHM
P701	R966		00D2790034054	00D2790034054	VARISTOR	PTH9M04BC222TS2F333
					<b>STANDBY PWB (P851)</b>	
P851	C852		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P851	C854		nsp	1340100665040	ELECT. CAP.	RA2-50V010ME3E#8-T2
P851	▲ C855		1340100505090	1340100505090	ELECT. CAP.	! RA2-25V222M
P851	C856		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P851	C857		nsp	1340100595060	ELECT. CAP.	RA2-35V221MH3#8-T2
P851	C858		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P851	C859		nsp	1340100665040	ELECT. CAP.	RA2-50V010ME3E#8-T2
P851	▲ C861		1340100645080	1340100645080	ELECT. CAP.	! RA2-35V332MK7#8-T2
P851	▲ C862		1340100645080	1340100645080	ELECT. CAP.	! RA2-35V332MK7#8-T2
P851	▲ D851		2030500013020	2030500013020	DIODE	! 1D3 1A/200V
P851	▲ D852		2030500013020	2030500013020	DIODE	! 1D3 1A/200V
P851	▲ D853		2030500013020	2030500013020	DIODE	! 1D3 1A/200V
P851	▲ D854		2030500013020	2030500013020	DIODE	! 1D3 1A/200V
P851	▲ D855		2030500013020	2030500013020	DIODE	! 1D3 1A/200V
P851	▲ D856		2030500013020	2030500013020	DIODE	! 1D3 1A/200V
P851	▲ D857		2040500043040	2040500043040	DIODE	! D1NJ10 100V 1A SBD
P851	▲ D858		2040500043040	2040500043040	DIODE	! D1NJ10 100V 1A SBD
P851	▲ D859		2040500043040	2040500043040	DIODE	! D1NJ10 100V 1A SBD
P851	▲ D860		2040500043040	2040500043040	DIODE	! D1NJ10 100V 1A SBD
P851	▲ D861		2030500013020	2030500013020	DIODE	! 1D3 1A/200V
P851	▲ D862		2030500013020	2030500013020	DIODE	! 1D3 1A/200V
P851	▲ D863		2030500013020	2030500013020	DIODE	! 1D3 1A/200V
P851	▲ D864		2030500013020	2030500013020	DIODE	! 1D3 1A/200V
P851	▲ D865		2030500013020	2030500013020	DIODE	! 1D3 1A/200V
P851	▲ D866		2030500013020	2030500013020	DIODE	! 1D3 1A/200V
P851	▲ F851		0520100150000	0520100150000	FUSE	# 3.15 A 250V BS LISTED
P851	▲ G851		1890100010020	1890100010020	CAP.COMP.	! RFD2B474K 0.47UF+6.8OHM
P851	J251		0460100040050	0460100040050	TERMINAL	YKC21-3046 2P CINCHI
P851	▲ L851		1013100020028	1013100020028	TRANSF.	# STANDBY TRANSFORMER FOR 230V
P851	▲ L852		0820100017050	0820100017050	RELAY	# SDT-S-109DMR TV-8 10A RELAY
P851	L853		1190100014090	1190100014090	COIL	BL02RN2-R62T2 FERRITE BEAD
P851	L854		1190100014090	1190100014090	COIL	BL02RN2-R62T2 FERRITE BEAD
P851	L855		1190100014090	1190100014090	COIL	BL02RN2-R62T2 FERRITE BEAD
P851	Q214		00D2690204900	00D2690204900	TRS.	KRA102M-AT(10K-10K)
P851	Q851		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P851	▲ Q852		2310100014080	2310100014080	IC	! NJM78L05A
P851	▲ Q853		2310100020050	2310100020050	IC	! NJM7805FA +5V
P851	▲ R855		1210500010040	1210500010040	RES.	! 1 OHM +-5% 1/2W
P851	▲ R856		1210500010040	1210500010040	RES.	! 1 OHM +-5% 1/2W
					<b>POWER SW PWB (P891)</b>	
P891	▲ S891		0610500020060	0610500020060	SW	# ESB92S17B TV-5 STROKE=1.5MM
					<b>SPK TERMINAL PWB (P971)</b>	
P971	C971		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P971	C972		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P971	C973		nsp	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P971	J974		0460100010060	0460100010060	TERMINAL	T6549-D SPEAKER TERMINAL
P971	J975		0460100060010	0460100060010	TERMINAL	T6549-E SPEAKER TERMINAL
P971	L971		0820100030080	0820100030080	RELAY	G5PA-28 5A/250VAC OMRON

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PWB NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P971	L972		0820100030080	0820100030080	RELAY	G5PA-28 5A/250VAC OMRON
P971	L973		0820100020050	0820100020050	RELAY	MR82-24USR
					<b>HEADPHONE PWB (P991)</b>	
P991	J991	/N1B	6430100030070	6430100030070	TERMINAL	YKB21-5807 HP JACK(GOLD)
P991	J991	/N1G	6430100030070	6430100030070	TERMINAL	YKB21-5807 HP JACK(GOLD)
P991	J991	/N1S	6430100020040	6430100020040	TERMINAL	YKB21-5805 HP JACK(SILVER)

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