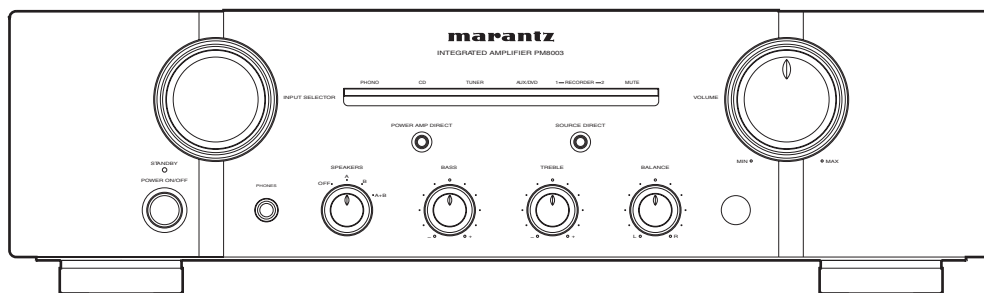


Service Manual

PM8003 /F N/N1SG

/N1B/U1B

Integrated Amplifier



PM8003

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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。

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PM8003

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.

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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ものを使用して下さい。

SHOCK, FIRE HAZARD SERVICE TEST :

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

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

Ref. UL Standard No. 60065.

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)

8 Ω load 70 W x 2

4 Ω load 100 W x 2)

Total harmonic distortion

(20 Hz – 20 kHz simultaneous drive of both channels, 8 Ω load)

..... 0.02 %

Output 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

Dumping factor (8 Ω load, 20 Hz – 20 kHz) 100

Input sensitivity/Input impedance

PHONO (MM) 2 mV/47 k Ω

CD, LINE, TUNER, AUX/DVD, RECORDER

..... 200 mV/20 k Ω

MAIN IN 1.6 V/20 k Ω

Output voltage/Output impedance

PRE OUT 1.6 V/600 Ω

Maximum allowable PHONO input level (1 kHz)

MM 100 mV

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

S/N (IHF-A, 1 W, 8 Ω load)

PHONO (MM)) 87 dB

CD, LINE, TUNER, AUX/DVD, RECORDER 90 dB

POWER AMP DIRECT IN 106 dB

Tone control

Bass (50 Hz) ± 10 dB

Treble (20 kHz) ± 10 dB

Power requirement

[F] AC 100 V, 50/60 Hz

[N] AC 230 V, 50 Hz

[U] AC 120 V, 60 Hz

Power consumption

EN60065/J60065/UL60065 200 W

Standby power consumption 0.3 W

Accessories

Remote controller (RC003PM) 1

AAA batteries 2

Detachable AC power cable 1

Maximum outer dimensions (Amplifier)

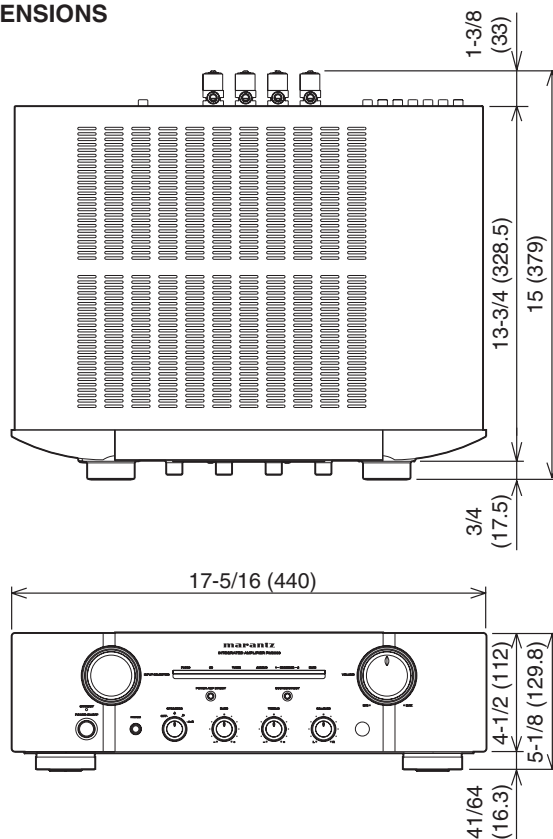
Width 17-5/16 inch (440mm)

Height 5-1/8 inch (129.8mm)

Depth 15 inch (379mm)

Weight (Amplifier) 26.5 lbs (12.0kg)

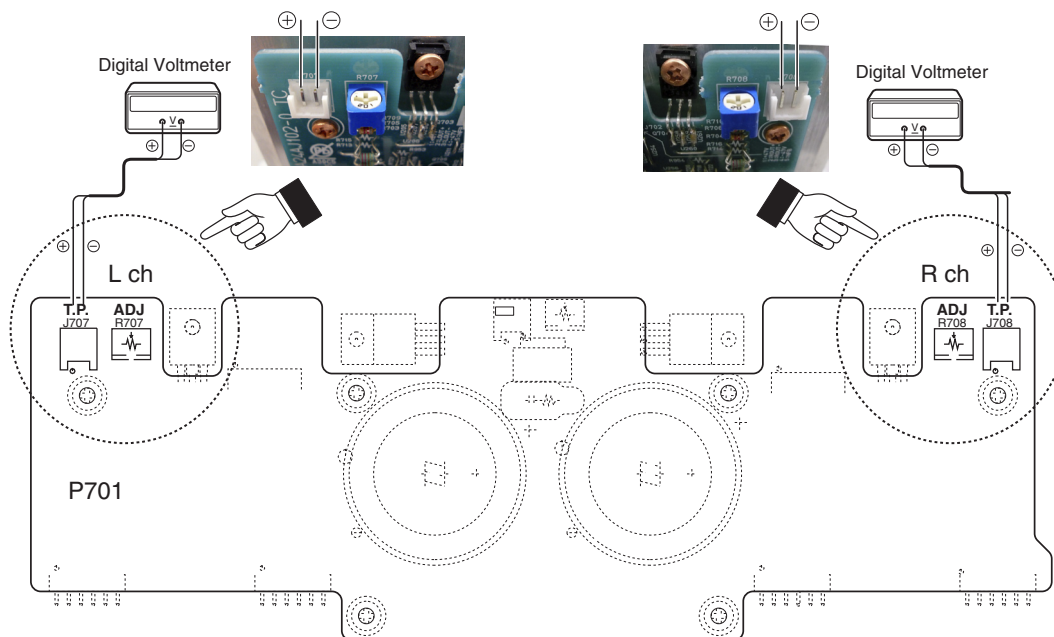
DIMENSIONS



(unit : inch (mm))

2. ALIGNMENTS

1. Idling Current Alignment



Adjustment Procedure

Set the power voltage to rated voltage for this adjustment.

1. Adjust the Idling Current with the variable resistor R707 and R708 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 J707.
4. "+" of Connect Digital Voltage is connected to the No. 1 pin and connected "-" to No. 2 pin of J708.
5. Before turning on the power, R707 and R708 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 R707 (R708).

- Turn R707 (R708) clockwise to increase the idling current.
 - The adjustment value of idling current is $5 \text{ mV}(25 \text{ mA}) \pm 0.5 \text{ mV}(2.5 \text{ mA})$ each.
8. After 8 minutes.

Repeat the same procedure as 7.

- The adjustment value of idling current is $13.4 \text{ mV}(67 \text{ mA}) \pm 0.5 \text{ mV}(2.5 \text{ mA})$ each.

Adjustment is completed.

9. Remove connection cable, attach the top cover.

NOTE : 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.

2. ALIGNMENTS

1. アイドリング電流調整

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R707とR708でアイドリング電流を調整します。
2. 電源をOFFします。
3. P701基板のJ707にデジタルボルトメーターを接続します。デジタルボルトメーターはJ707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J708にデジタルボルトメーターを接続します。デジタルボルトメーターはJ708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R707とR708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J707 (J708) に接続したデジタルボルトメーターの電圧値を監視しながら、半固定抵抗R707 (R708) をゆっくりと時計方向に回してください。
- R707と R708を時計方向に回すとアイド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 $"5 \text{ mV}(25 \text{ mA}) \pm 0.5 \text{ mV}(2.5 \text{ mA})"$ にします。
8. さらに8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 $"13.4 \text{ mV}(67 \text{ mA}) \pm 0.5 \text{ mV}(2.5 \text{ mA})"$ にします。

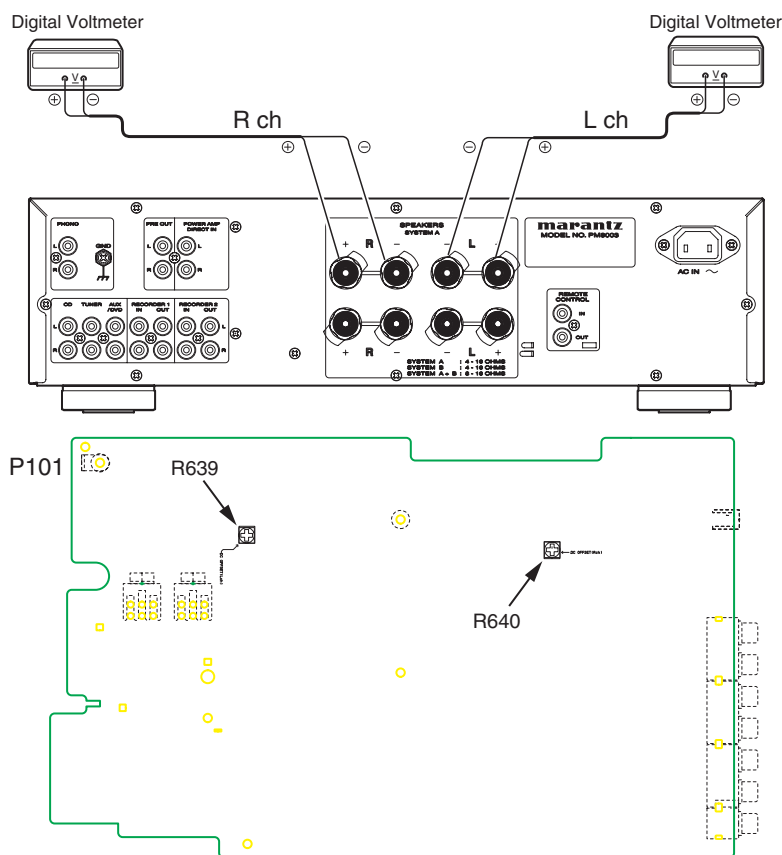
以上で調整は完了です。

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。

注意 : 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 $"10 \text{ mV}(50 \text{ mA})"$ になります。

2. DC Offset Voltage Adjustment

2. DC Offset Voltage Adjustment



Adjustment Procedure

Set the power voltage to rated voltage for this adjustment.

- Before turning on the power, Insert Digital Voltage Meter between the SPEAKERS SYSTEM A (L CH) "+" and "-". Insert Digital Voltage Meter between the SPEAKERS SYSTEM A (R CH) "+" and "-".
- Adjust the VOLUME to MIN.
- Turn on the power. Then turn the SPAKERS knob to A. Adjustment is started immediately after a speaker relay turns on.
- First L CH is adjusted.
The variable resistor R639 on P101 is turned with adjustment driver, and the Digital Voltage Meter is adjusted to "0 mV $\pm$ 3 mV".
- Then, R CH is adjusted.
The variable resistor R640 on P101 is turned with adjustment driver, and the Digital Voltage Meter is adjusted to "0 mV $\pm$ 3 mV".

NOTE : DC offset voltage drops when turn the semi-fixed resistor (R639 and R640) clockwise. DC offset voltage rises when turn the semi-fixed resistor unclockwise. Please turn it slowly, because value of Digital Voltage Meter changes slowly.

6. Although after-adjustment DC offset voltage has some change, Please check that the range of DC offset voltage between L ch (R ch) "+" and L ch (R ch) "-" terminal of SPEAKERS SYSTEM A is "0 mV $\pm$ 20 mV". CHART OF FACTORY MODE

調整手順

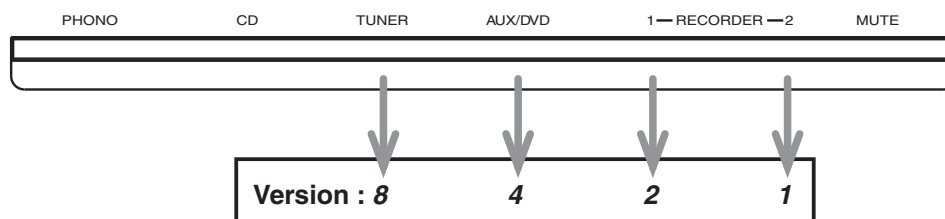
調整時は必ず電源電圧を定格電圧に合わせてください。

- 電源をONする前にリアパネルのSPEAKERS SYSTEM A のL CHおよび、R CHそれぞれの"+"端子と "-"端子間にデジタルボルトメーターを接続します。
 - ボリュームをMINにセットします。
 - 電源を投入し本体前面のSPEAKERSノブを回し、Aにします。
スピーカーリレーがONした後に調整を開始します。
 - 最初にL CHを調整します。
P101基板の半固定抵抗R639を調整ドライバーで回し、L CHスピーカー出力端子に接続したデジタルボルトメーターの電圧が"0 mV $\pm$ 3 mV"以内になるように調整します。
 - 次にR CHを調整します。
P101基板の半固定抵抗R640を調整ドライバーで回し、R CHスピーカー出力端子に接続したデジタルボルトメーターの電圧が"0 mV $\pm$ 3 mV"以内になるように調整します。
- 注意 :** 半固定抵抗(R639、R640)を時計回りに回すと、DCオフセット電圧は減少し、反時計回りに回すと増加します。DCオフセット電圧の値は非常にゆっくりと増減しますので、半固定抵抗はゆっくりと回してください。
6. 調整後DCオフセット電圧は多少の変動がありますが、SPEAKERS SYSTEM AのL CHおよび、R CHそれぞれの"+"端子と "-"端子間のDCオフセット電圧は"0 mV $\pm$ 20 mV"の範囲であることを確認してください。

3. SERVICE MODE

Microprocessor (QU01) version check

1. Connect the mains cord into the unit.
2. Press the **POWER** button with pressing the **SOURCE DIRECT** button on the Unit.
3. The firmware version is displayed on the front LED.
(Display time is only for 3 seconds.)



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**
4. Each LED light up then all LED light up.
 5. Turn off the power to quit Service Mode.
(The unit to the default status)

3. SERVICE MODE

Microprocessor (QU01) version 確認

1. 本機に電源ケーブルを接続します。
2. **SOURCE DIRECT**ボタンを押しながら、**POWER**ボタンを押します。
3. **FIRMWARE**のバージョンがLEDにて表示されます。
(表示は3秒間のみです)

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. フロントパネルのLEDが順次点灯し、その後全点灯します。
 5. 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. PROTECTION MODE

Explanation of microprocessor (QU01) [PROT-1 (pin6) and PROT-2 (pin7)].

[A] The PROT-1 (pin6) is the port to detect the following abnormalities of the Power AMP

1. Detection of an abnormality in the DC offset voltage from the Speaker Output terminal.
If the voltage from the Speaker Output terminal exceeds approximately 1.2V (DC), Q955 or Q956 will turn on and the signal from the PROT-1 terminal will change to L from H.
2. Detection of an abnormal current from the power transistors (Q713 ~ Q716).
If an electric current of over 7A flows in Q713 or Q715, Q951, Q953 and Q957 turn on, and the signal from the PROT-1 terminal will change to L from H.
If an electric current of over 7A flows in Q714 or Q716, Q952, Q954 and Q957 turn on, and the signal from the PROT-1 terminal will change to L from H.
3. Detection of an abnormal temperature of the Heat Sink.
If the temperature of the Heat Sink exceeds approximately +110 degrees C, the posistor (R969) will turn on Q958 and the signal from the PROT-1 terminal will change to L from H.

If any of the above three abnormalities is detected, the signal from the PROT-1 terminal will change to L from H, and the protection circuit will be activated, the signal from the SPK_OUT (pin10) changing to H from L and the speaker relays L751, L752 and L753 immediately turned off.

What this protection operation results in after this depends on how long the signal from the PROT-1 has to remain L.

- If the PROT-1 (pin6) recovers to "H" within as short a period of time as one second or less.
The MUTE indicator starts flickering, thereby indicates that the protection circuit has come into operation and automatically turns down the volume. The protection circuit is deactivated after approximately 15 seconds, so that readjusting the volume will allow normal use of the unit again. This protection operation is intended for the situation wherein the user has misused the unit temporarily and automatically resets the unit while the amp circuit is functioning properly.
- If the PROT-1 (pin6) remains L for more than one second.
The amp will be powered off by the P_ON (pin15) changing to H from L and Power relay L852 turned off. Then, the STANDBY indicator flickers, thereby indicating that an error has occurred. This protection operation is intended for a failure in the amp circuit and immediately turns the power off to avoid the risk of any damage. Depending on how the user is handling the unit, this operation may be performed no matter if the amp is functioning properly.

4. PROTECTION動作について

マイコン(QU01)のPROT-1 (pin6)とPROT-2 (pin7)の説明。

[A] PROT-1 (pin6)は、パワーアンプの下記の異常動作を検出するポートです

1. スピーカー出力端子のDCオフセット電圧の異常電圧を検出。
スピーカー出力端子が約1.2V (DC) を超えるとQ955もしくはQ956がONして、PROT-1端子が "H→L" になる。
2. パワートランジスタ(Q713～Q716)の異常電流を検出。
Q713もしくはQ715に約7Aを超える電流が流れるとQ951, Q953, Q957がONして、PROT-1端子が "H→L" になる。
Q714もしくはQ716に約7Aを超える電流が流れるとQ952, Q954, Q957がONして、PROT-1端子が "H→L" になる。
3. ヒートシンクの異常温度を検出。
ヒートシンクの温度が約110℃を超えると、ポジスター (R969)によってQ958がONして、PROT-1端子が "H→L" になる。

1～3.のいずれかの異常検出でPROT-1端子が "H→L" になると保護回路が動作して、SPK_OUT (pin10) を "L→H" にして、即座にスピーカーリレー L751, L752, L753をOFFにします。

このPROTECTION動作はPROT-1端子が "L" になっている時間によって、その後の動作が異なります。

- PROT-1 (pin6)が1秒以内の短時間の間に "H" に復帰した場合。
MUTEインジケータが点滅しPROTECTION動作になったことを知らせ、自動的にボリュームを下げます。
約15秒後に保護回路が解除しますのでボリュームを再調整すればそのまま使用することができます。
これは、ユーザーが一時的に使用法を誤った場合を想定したPROTECTION動作で、アンプ回路は故障していない場合に自動復帰する動作です。
- PROT-1 (pin6)が1秒以上 "L" になっている場合。
P_ON (pin15) を "L→H" にして電源リレー L852 をOFFし、アンプの電源をシャットダウンします。
このときSTANDBYインジケータが点滅し、異常が起きたことを表示します。
これは、アンプ回路の故障を想定したPROTECTION動作で、危険回避のため即座に電源を切る動作です。
ユーザーの使用状況によっては、アンプが故障していてもこの状態になる可能性もあります。

アンプが故障しているかどうかを確認するには、一旦電源SWを切り1分ほど待ってから電源SWを再投入します。
この操作でPROTECTION動作が解除します。
電源SWを再投入してもPROT-1 (pin6)が "L" の異常状態の場合は、約3秒後に再びシャットダウンしてSTANDBYインジケータが点滅します。
電源を再投入してもPROTECTION動作が解除されない場合は、アンプ回路が故障していると考えられます。

To check if the amp is in order, switch off the unit and switch it on again one minute later. This action will deactivate the protection operation. If the PROT-1 (pin6) remains "L", which constitutes an abnormality, the unit shuts down approximately 3 seconds later and the STANDBY indicator starts flickering.

If the protection operation will not be deactivated after the power is turned on again, the amp circuit may be broken.

[B] The PROT-2 (pin7) is the port to detect abnormalities of the power supply circuit.

1. Detection of an abnormality in the power amp power supply circuit.
This port monitors the midpoint voltage of the power amp power supply between +48V and -48V. If the voltage at the connection point of R801 and R802 exceeds DC $\pm 1.2V$, Q903 or Q904 will turn on to change the signal from the PROT-2 (pin7) to L from H.
2. Detection of an abnormality in the preamp power supply circuit.
Q901 and Q902 monitor the midpoint voltage between +28V and -28V. If the voltage at the connection point of R905 and R906 exceeds DC $\pm 1.2V$, Q901 or Q902 will turn on to change the signal from the PROT-2 (pin7) to L from H.
3. Detection of an abnormality in the function relay power supply circuit.
If the +24VL of the relay power supply receives an electric current of over 80 mA, Q815 and Q901 will turn on to change the signal from the PORT-2 (pin7) to L from H.

If any of the above three abnormalities is detected, the signal from the P_ON (pin15) terminal will be changed to L from H, the power relay L852 will be turned off and the unit will be shut down. Then, the STANDBY indicator flickers and indicates that an abnormality has occurred.

This protection operation is intended for a breakdown of the AMP circuit or the power supply circuit and immediately shuts off the power in order to avoid the risk of damage.

To check if the amp circuit or the power supply circuit is broken, switch off the power and then switch it on again one minute later. This action will deactivate the protection operation.

If the PROT-2 (pin7) remains L after the power is switched on again, the unit will be shut down again three seconds later with the STANDBY indicator flickering.

If the unit is powered on again and yet cannot get the protection operation deactivated, the amp circuit or the power supply circuit may be broken.

[B] PROT-2 (pin7)は、電源回路の異常を検出するポートです

1. パワーアンプ用電源回路の異常を検出。
パワーアンプ用電源の+48V と -48Vの中点電圧を監視し、R801とR802の接続点の電圧が約 $\pm 1.2V(DC)$ を超えると、Q903もしくはQ904がONしてPROT-2 (pin7)が "H→L" になる。
2. プリアンプ用電源回路の異常を検出。
Q901 とQ902 はプリアンプ用電源の +28V と -28V の中点電圧を監視し、R905とR906の接続点の電圧が約 $\pm 1.2V(DC)$ を超えると、Q901もしくはQ902がONしてPROT-2 (pin7)が "H→L" になる。
3. ファンクションリレー用電源回路の異常を検出。
リレー用電源の+24VL に約80 mAを超える電流が流れると、Q815, Q901がONしてPROT-2 (pin7)が "H→L" になる。

1.～ 3. のいずれかの異常を検出すると、P_ON (pin15) を "L→H" にして、電源リレー L852 をOFFしシャットダウンします。このときSTANDBYインジケータが点滅し、異常が起きたことを表示します。
これは、アンプ回路もしくは電源回路の故障を想定したPROTECTION動作で、危険回避のため即座に電源を切る動作です。

アンプ回路もしくは電源回路が故障しているかどうかを確認するには、一旦電源SWを切り1分ほど待ってから電源SWを再投入します。

この操作でPROTECTION動作が解除します。

電源SWを再投入してもPROT-2 (pin7)が "L" の異常状態の場合は、約3秒後に再びシャットダウンしてSTANDBYインジケータが点滅します。

電源を再投入してもPROTECTION動作が解除されない場合は、アンプ回路もしくは電源回路が故障していると考えられます。

5. WRITING MAIN MICROPROCESSOR PROCEDURE

Microprocessor needs writing software, when a microprocessor (QU01) is replaced.

NECESSARY EQUIPMENT

- Windows PC (2000 or XP, 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 (PM7003_xxxx.h16)

WRITING PROCEDURE

1. Disconnect the mains cord from the unit.
2. Connect RS-232C on the connection JIG and Serial Port of windows PC with RS-232C cable.
3. Connect FPC (upside contact) to the rear panel of the unit from connection JIG.

5. WRITING MAIN MICROPROCESSOR PROCEDURE

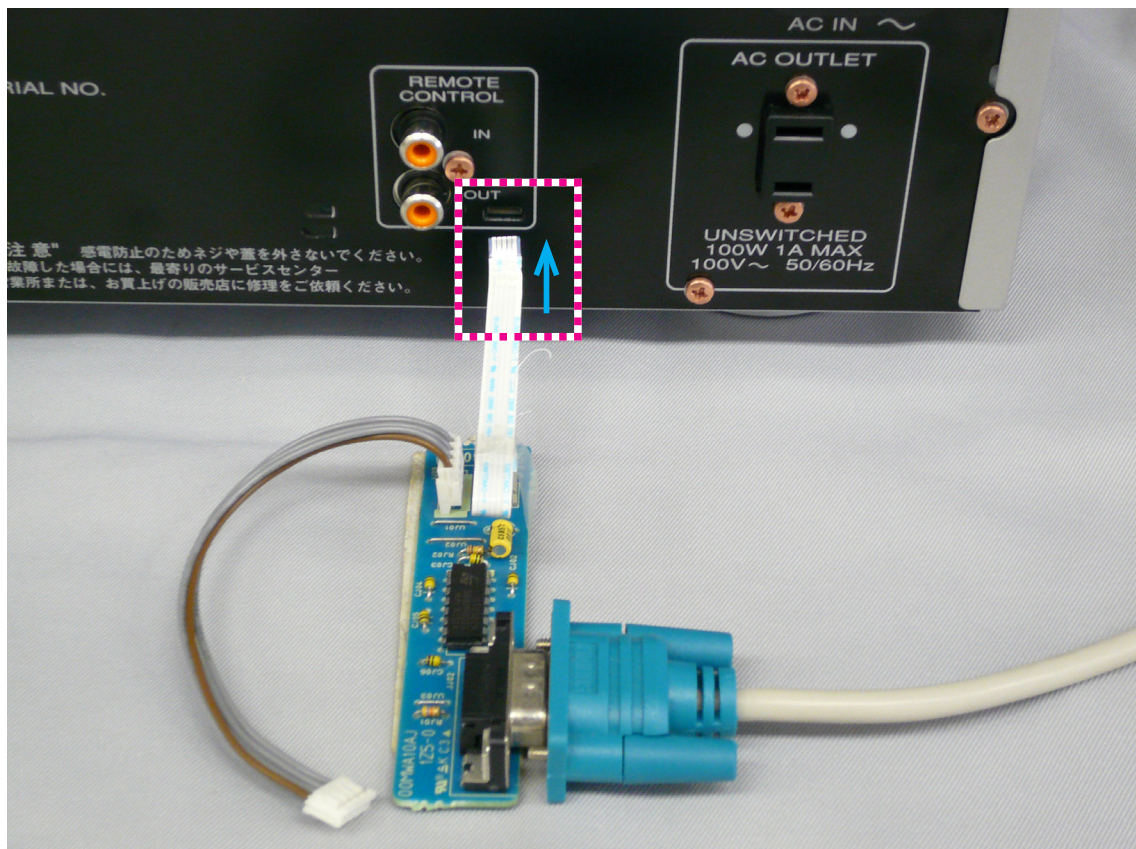
QU01を交換したときはQU01へプログラムを書き込む必要があります。下記手順に沿って書き込みをしてください。

必要機器

- Windows PC (2000またはXP、Serialポートつき)
- 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(FlashProg.exe、他)
- 書き込み用データ(PM7003_xxxx.h16)

書き込み手順

1. 本機の電源ケーブルを抜きます。
2. Windows PCのSerial Portと接続治具をRS-232Cケーブルで接続します。
3. 本機のリアパネルに接続治具のFPCをコンタクト面に上にして差し込みます。

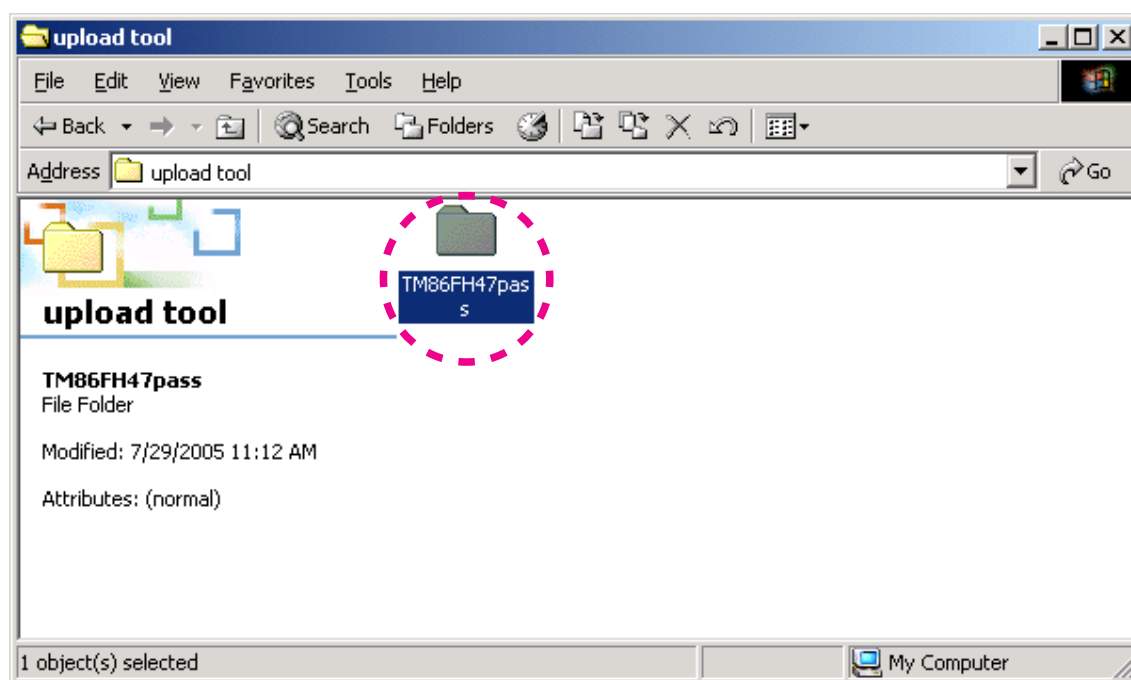


4. Reconnect the mains cord to the unit.
5. Put the "TM86FH47pass" folder into anywhere on your PC's hard disc.

4. 本機の電源ケーブルを差し込みます。
5. TM86FH47passフォルダをWindows PCの任意のフォルダにコピーします。

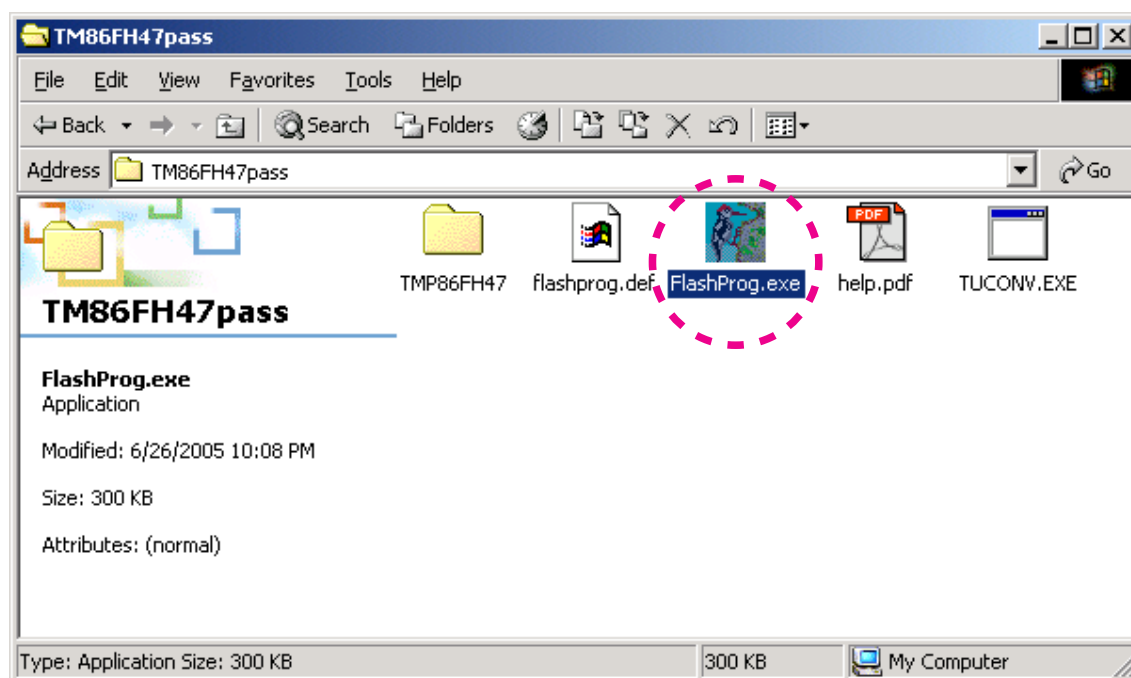
6. Double click the **TM86FH47pass** folder.

6. **TM86FH47pass**フォルダをダブルクリックして開きます。



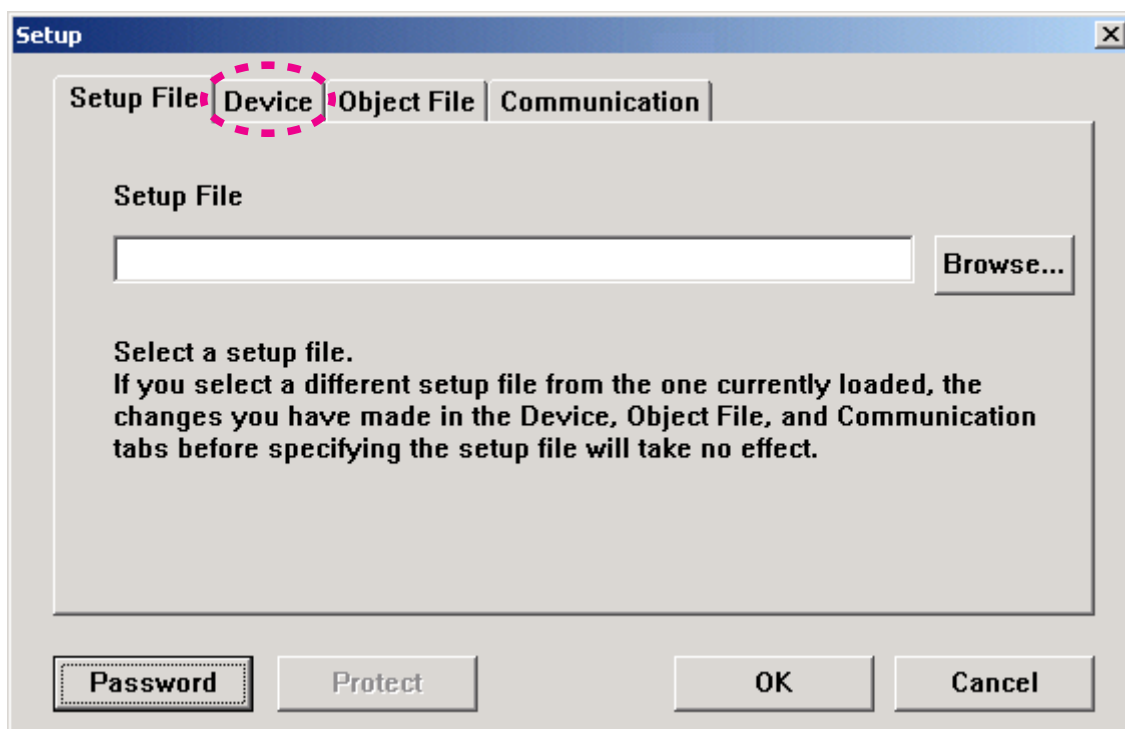
7. Double click **FlashProg.exe**.

7. **FlashProg.exe**をダブルクリックします。



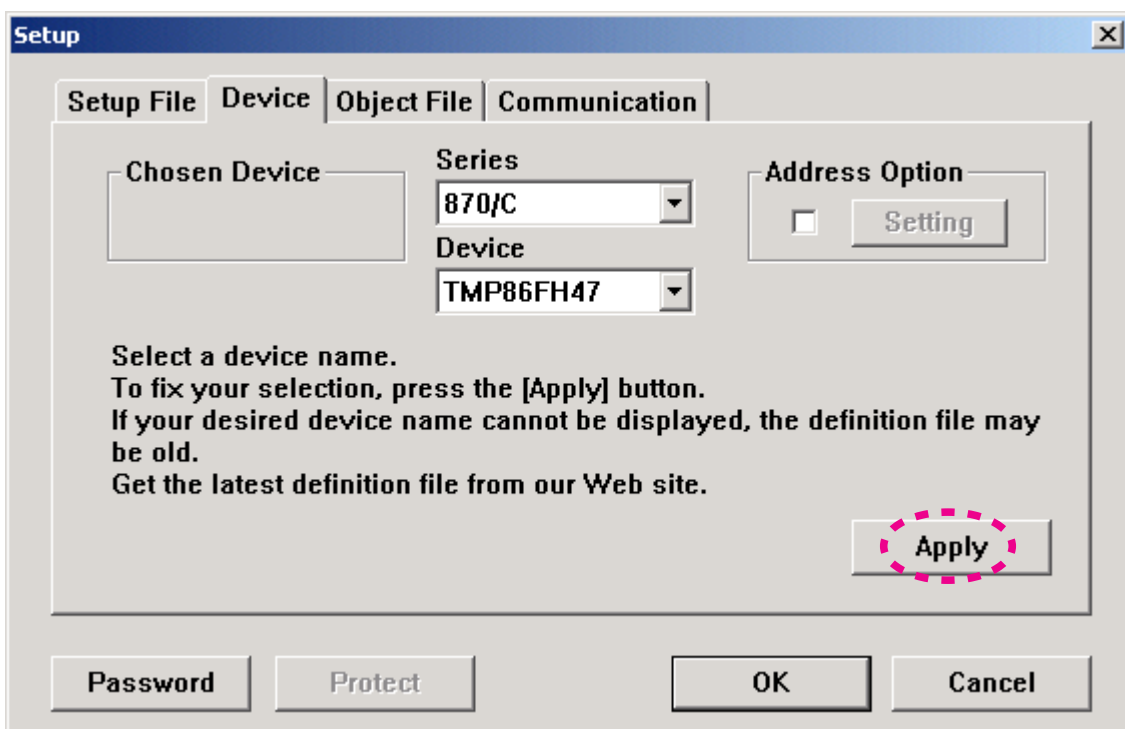
8. Click **Device**.

8. **Device**をクリックします。



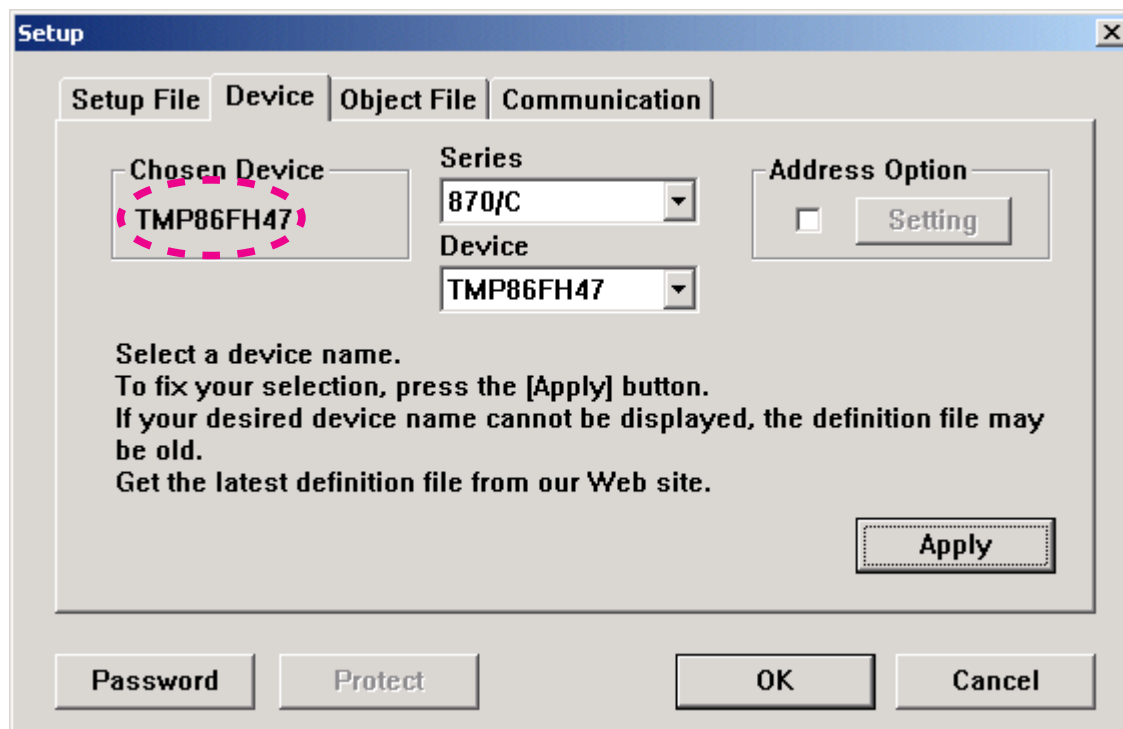
9. Click **Apply**.

9. **Apply**をクリックします。



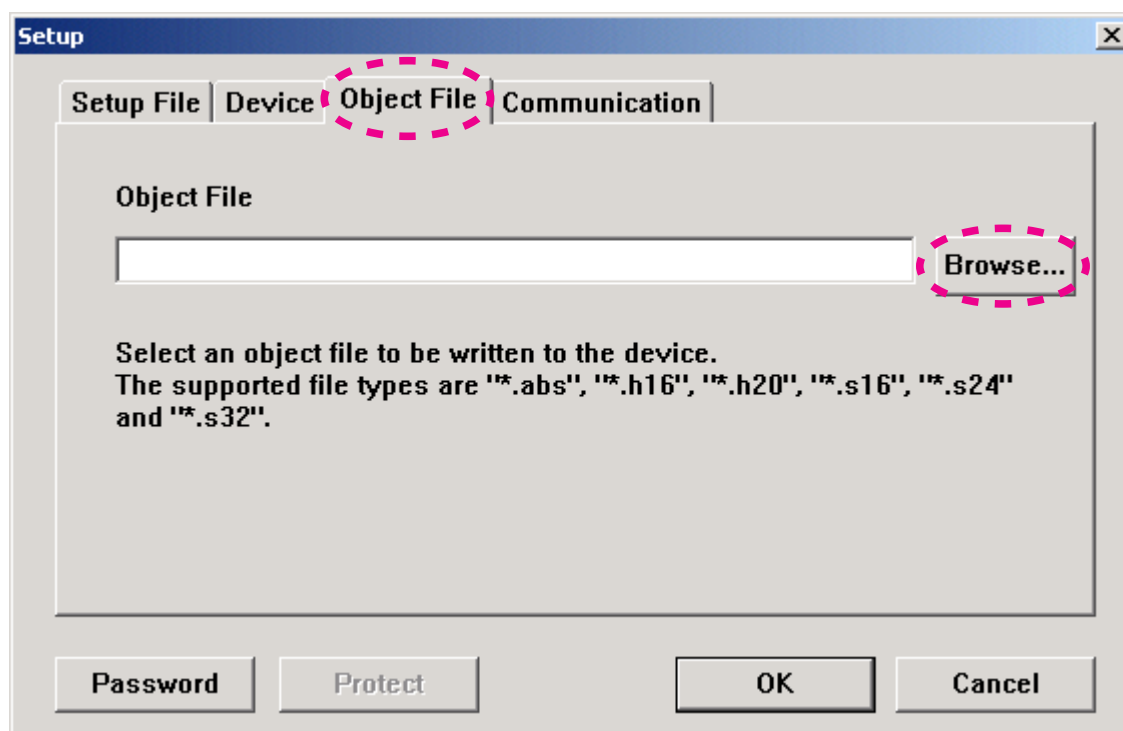
10. TMP86FH47 appear in Chosen Device.

10. Chosen DeviceにTMP86FH47が入力されます。



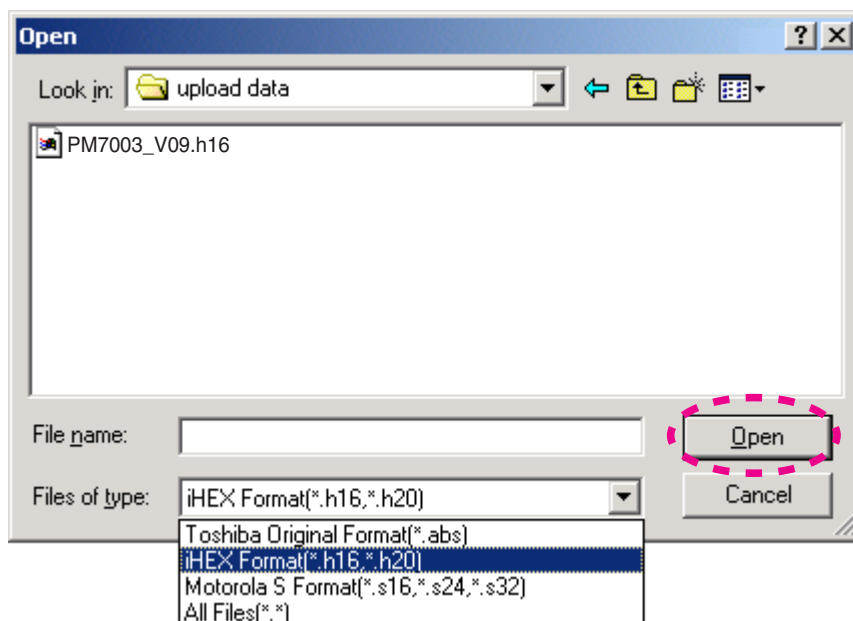
11. Click **Object File**, and click **Browse...**

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



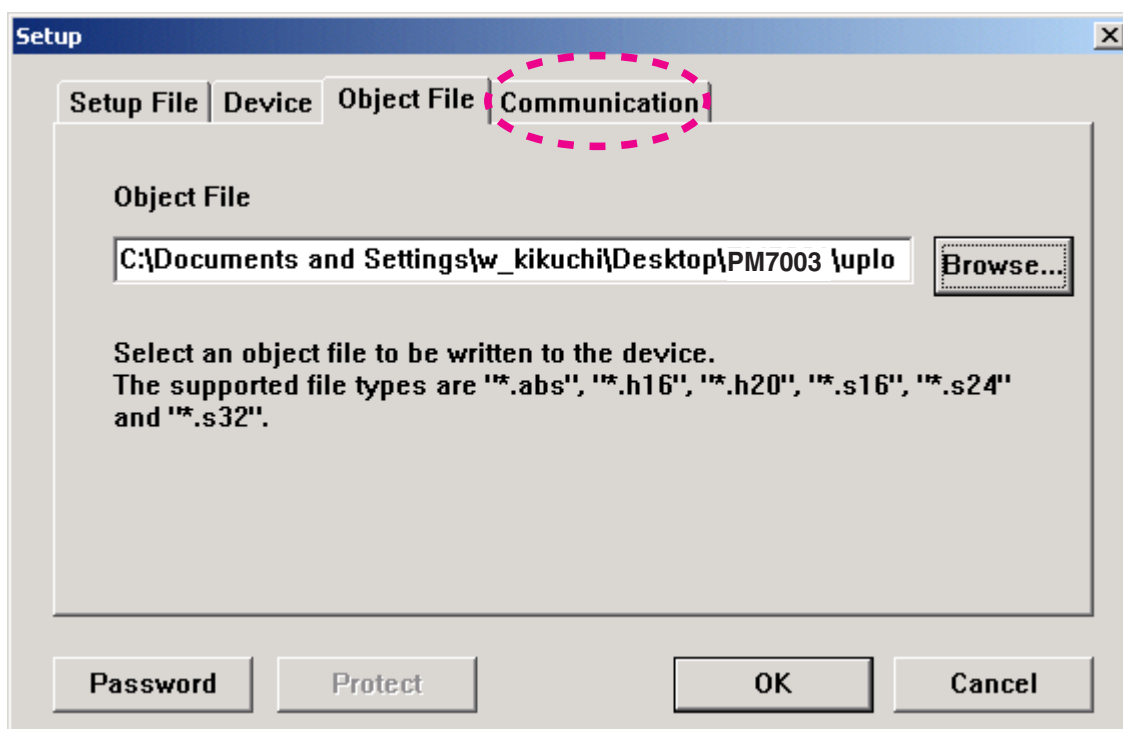
12. Choose **iHEX Fomat[* .h16,* .h20]** in Files of type.
Choose writing data, and click **Open**.

12. 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。)



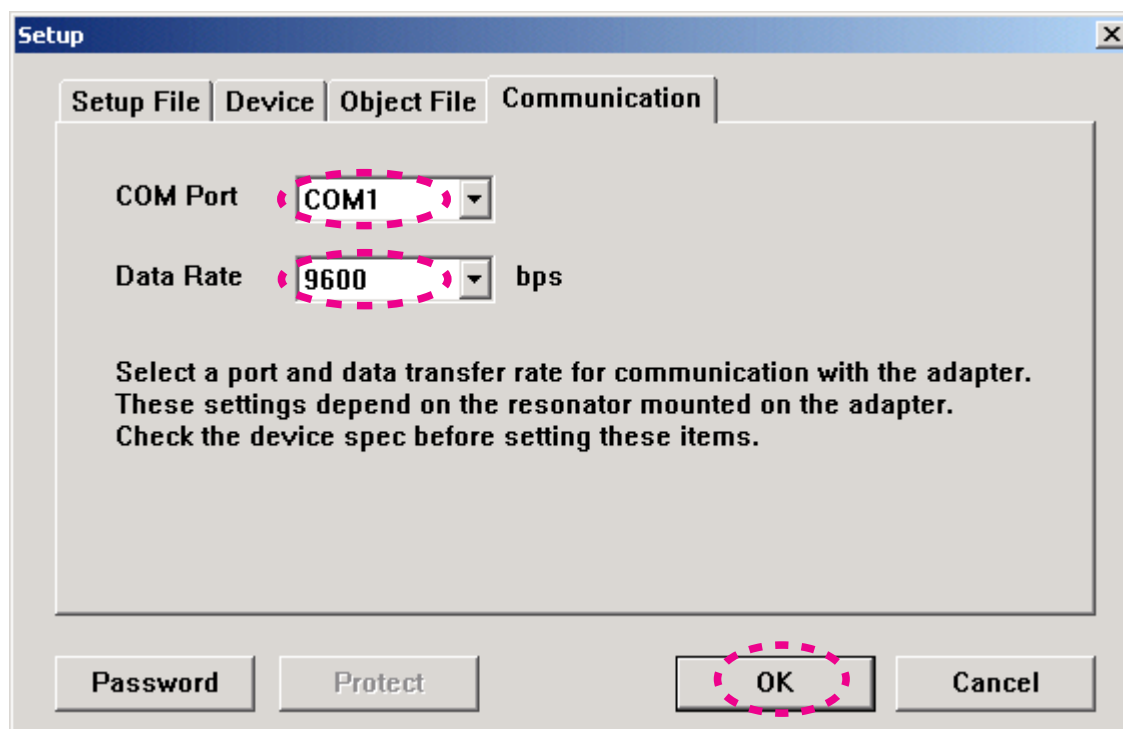
13. Click **Communication**.

13. **Communication** をクリックします。



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

- 14.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。

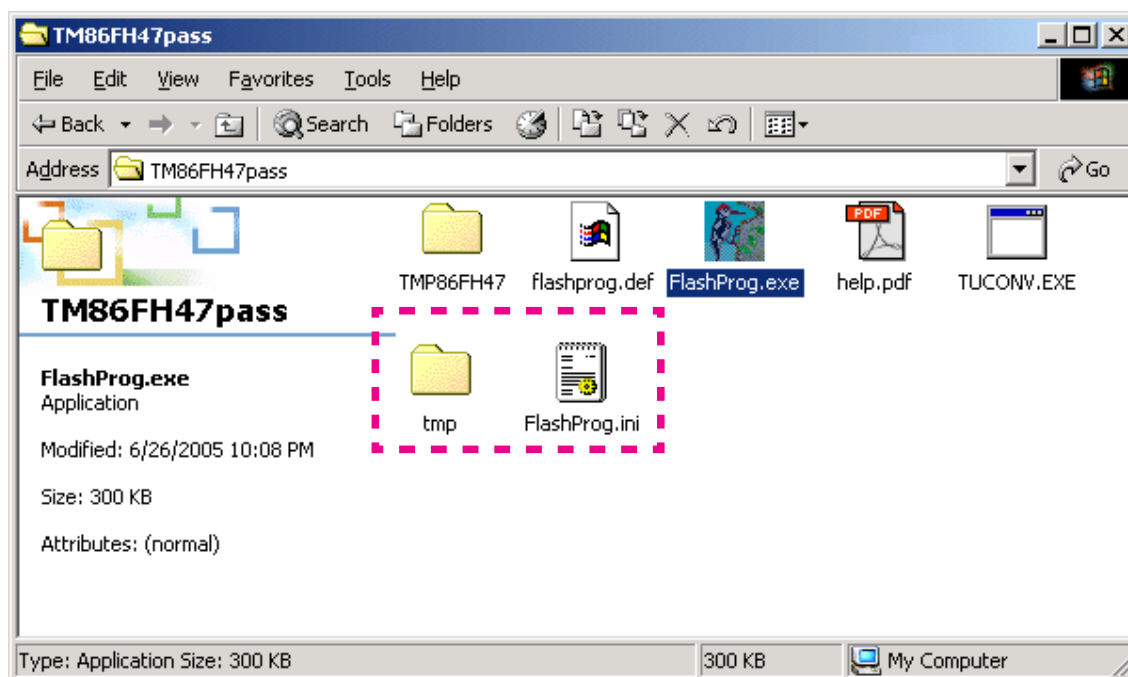


15. When Setup window is closed, the tmp folder and FlashProg.ini file are created simultaneously.

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

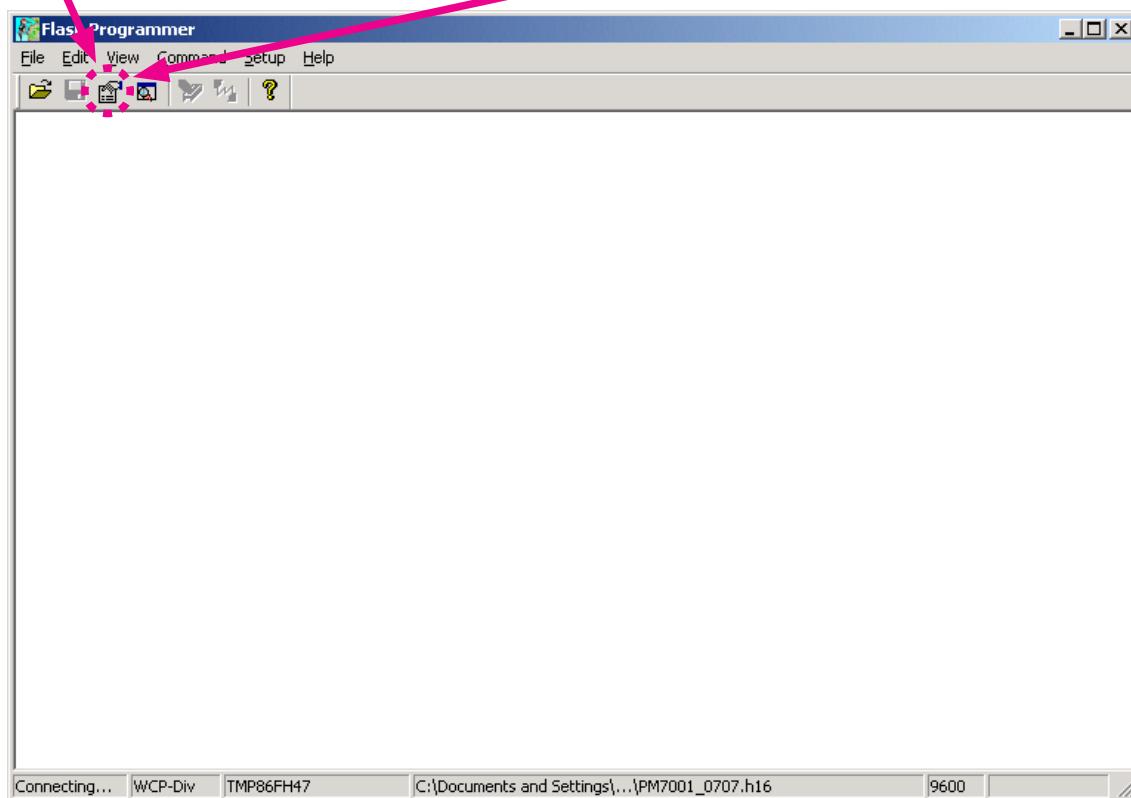
15. この時TMP86FH47passフォルダにtmpフォルダとFlashProg.iniファイルが作成されます。

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。



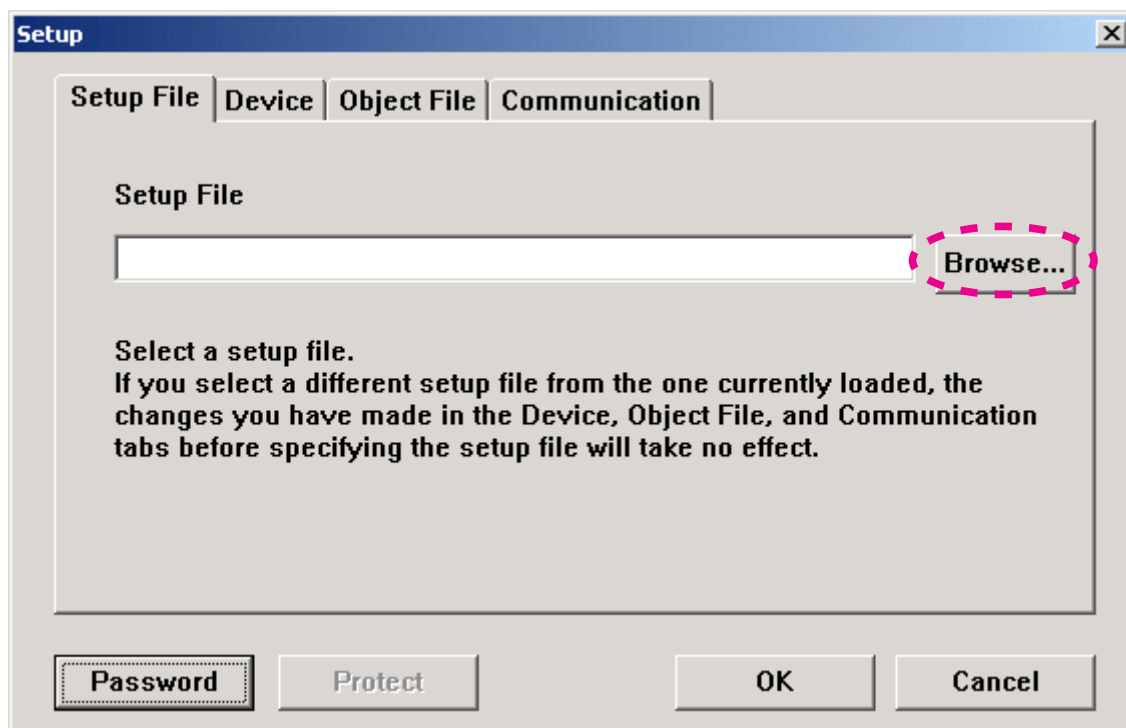
16. The Flash Programmer is launched.
Click **setup** icon.

16. 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。



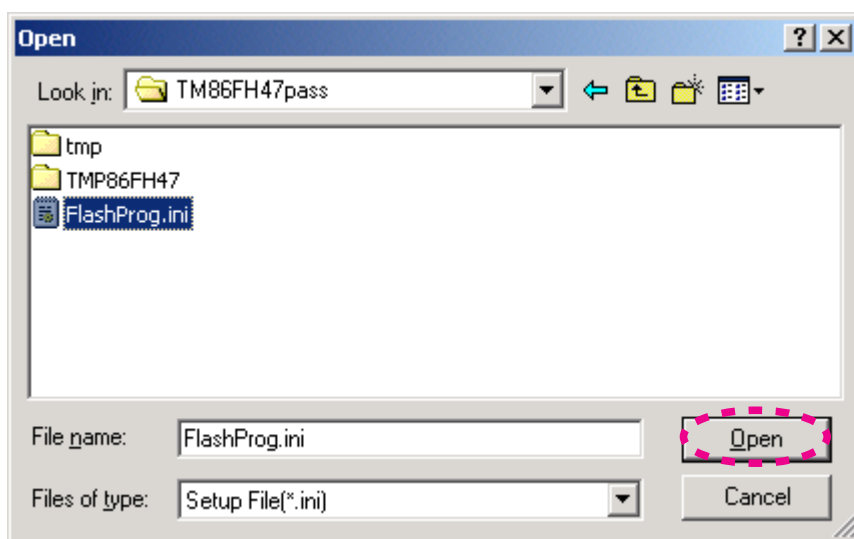
17. Click **Browse...**

17. **Browse...**をクリックします。



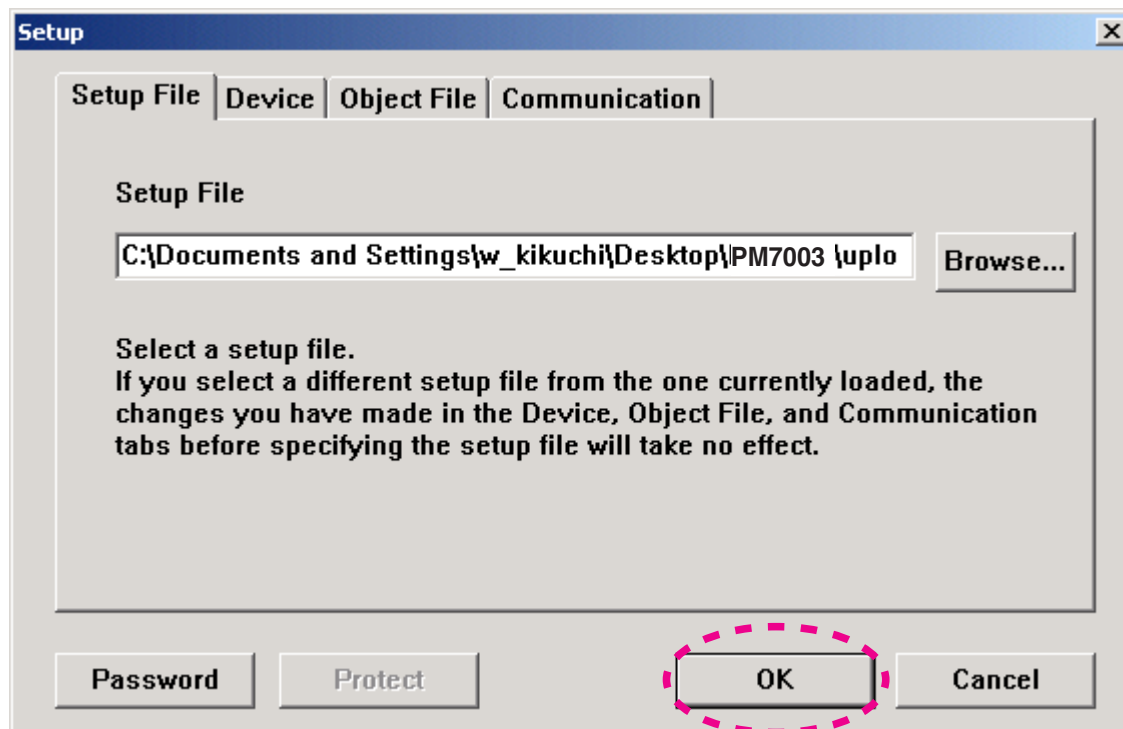
18. Choose **FlashProg.ini** in TM86FH47pass folder, and click **Open**.

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



19. Click **OK**.

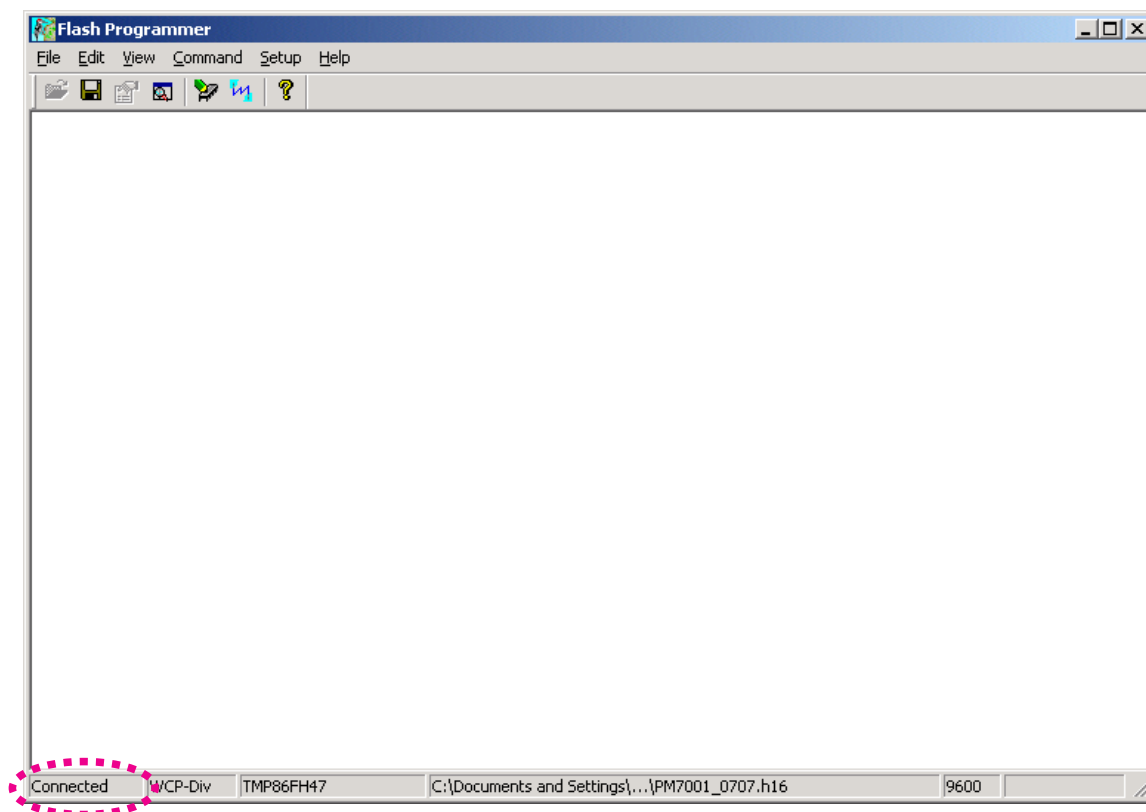
19. **OK**をクリックします。



20. 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.

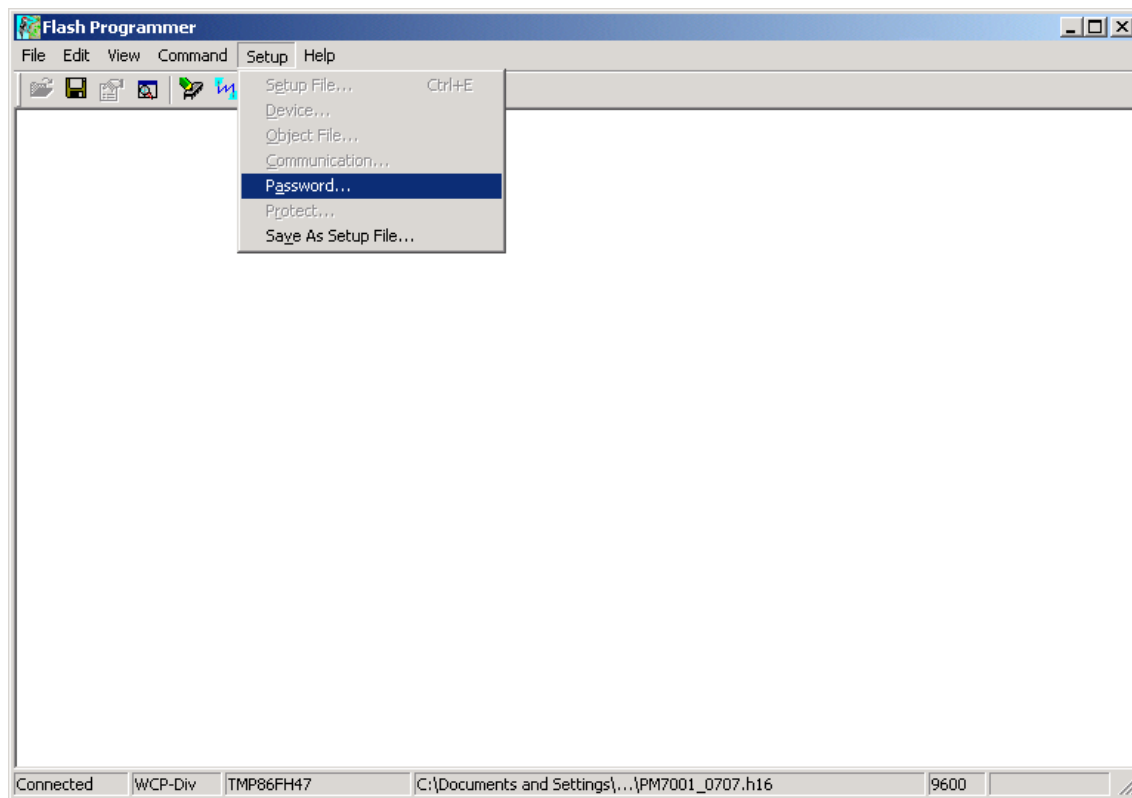
20. 本機の電源スイッチをオンにします。

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。



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

21. **Setup**から**Password**を選びます。



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

☐ BLANK Password

Input Type ☒ Ascii ☐ Hex

Password

Password Character Number Address

Password Compare Start Address

- **When writing in a blank microprocessor**
Refer to next page
- **When writing (update) in the already written-in microprocessor**
Refer to 19 page

- ブランクマイコンに書き込む場合は、次のページへ
- 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)は 19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.

Since they 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でください。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 0xc000

Password Compare Start Address 0xc000

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 the already written-in microcomputer (update)

- 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にはチェックを入れないでください。
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でください。
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**

23.Auto Programming opens.

23.Auto Programmingの設定画面が開きます。

Auto Programming

Flash Memory Programming

- ☐ All Erase
- ☐ Programming
- ☐ Verify with SUM
- ☐ File Compare

Recover Process by Programming Error

- ☐ Auto Retry Number times
- ☐ Manual

Execute Result

Complete: Recover Error:

Display Message

- ☐ Protect Check

Start **Cancel**

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

24. Flash Memory Programmingから**All Erase**, **Programming**, **Verify with SUM**, **File Compare**にチェックを入れます。
Recover Process by Programming Errorから**Manual**にチェックを入れます。
Startをクリックします。

Auto Programming

Flash Memory Programming

- ☒ All Erase
- ☒ Programming
- ☒ Verify with SUM
- ☒ File Compare

Recover Process by Programming Error

☐ Auto Retry Number times

☒ **Manual**

Execute Result

Complete: Recover Error:

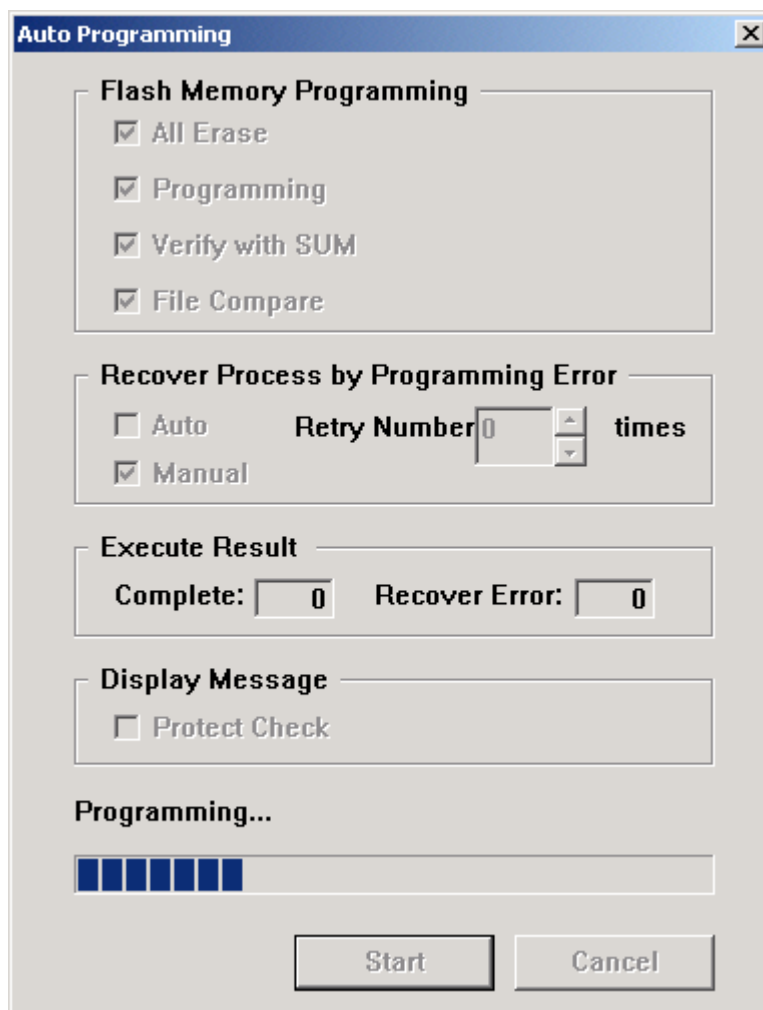
Display Message

☐ Protect Check

Start **Cancel**

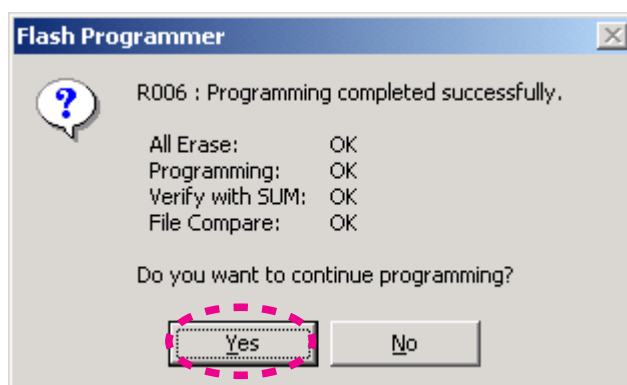
25. Writing data is written into the microprocessor (QU01).

25. メインマイコン(QU01)への書き込みが行われます。



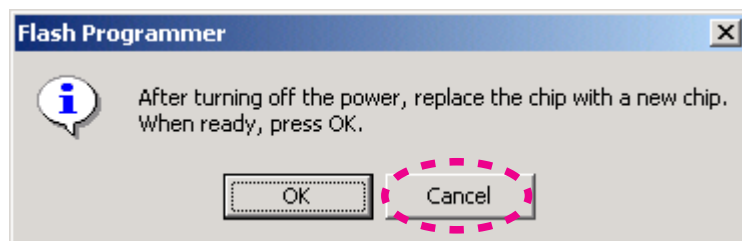
26. Click **Yes**, when writing is successful.

26. 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。



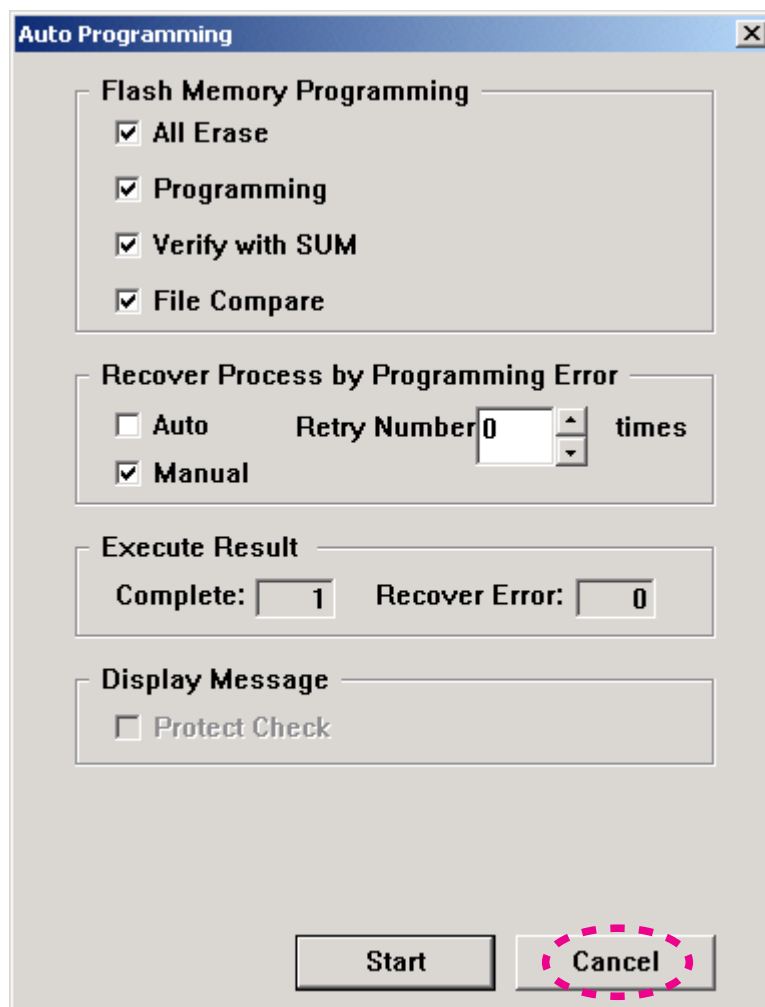
27. Click **Cancel**.

27. **Cancel**をクリックし終了します。



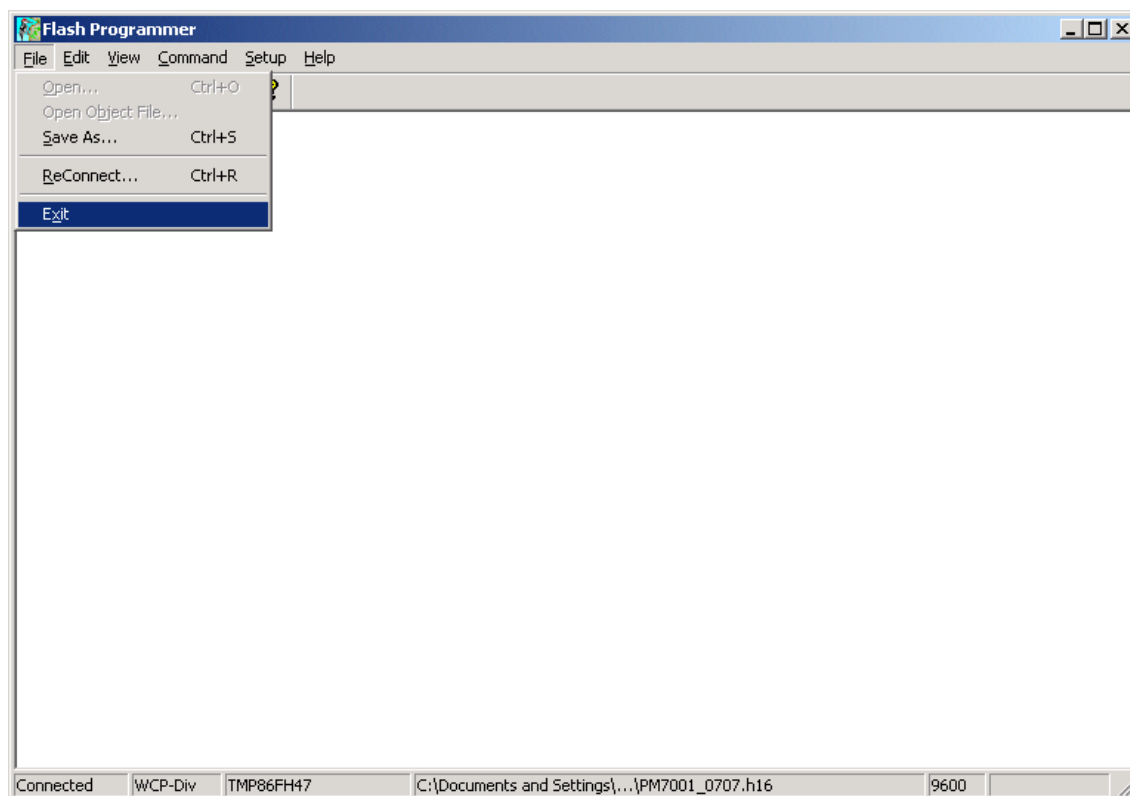
28. Click **Cancel**.

28. **Cancel**をクリックします。



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

29. **File**から**Exit**を選び終了します。



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

Disconnect each cable.

31. Check the software version.

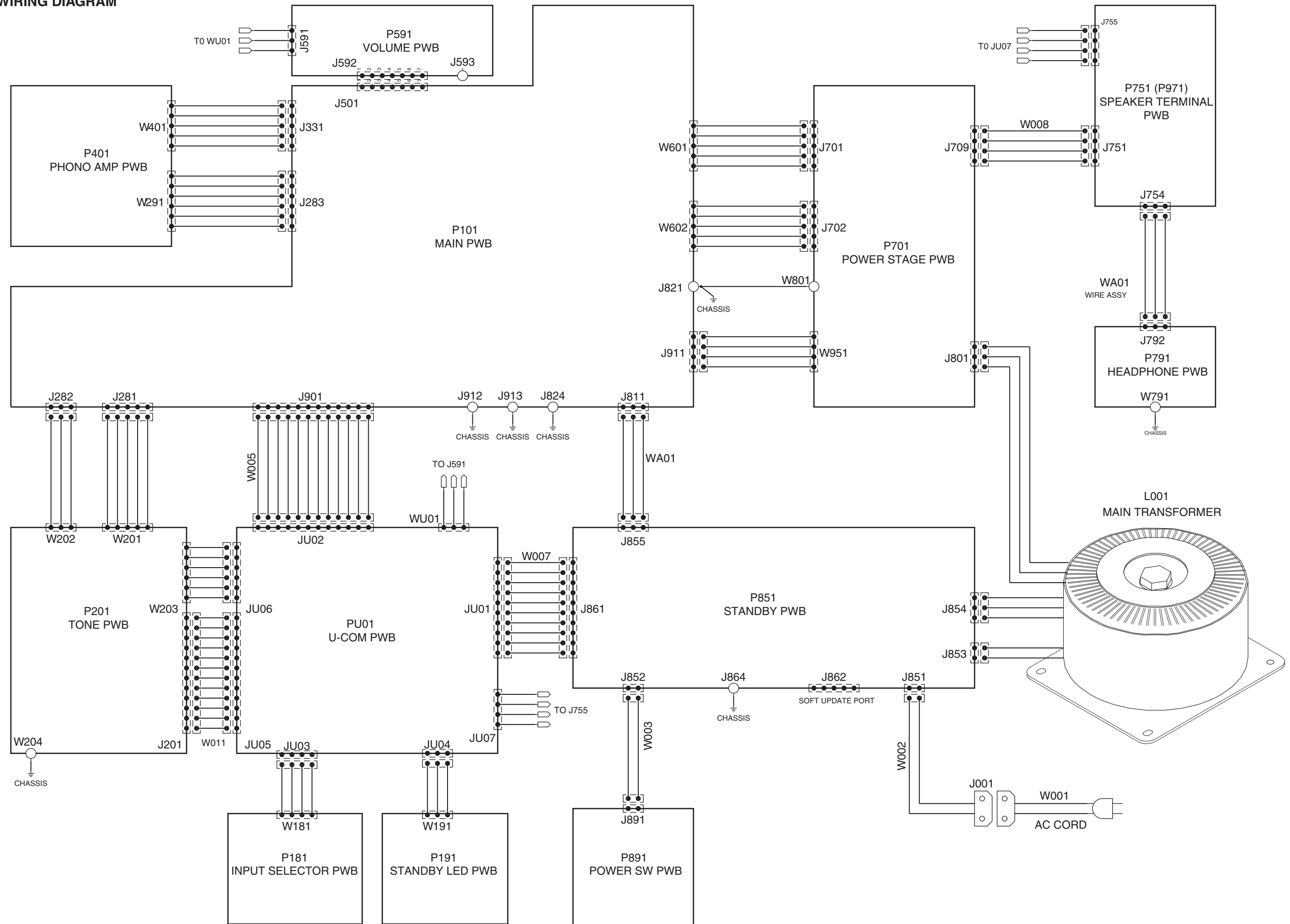
Refer to "**3. SERVICE MODE**" on page 4.

30. 本機の電源スイッチを切りケーブルを外します。

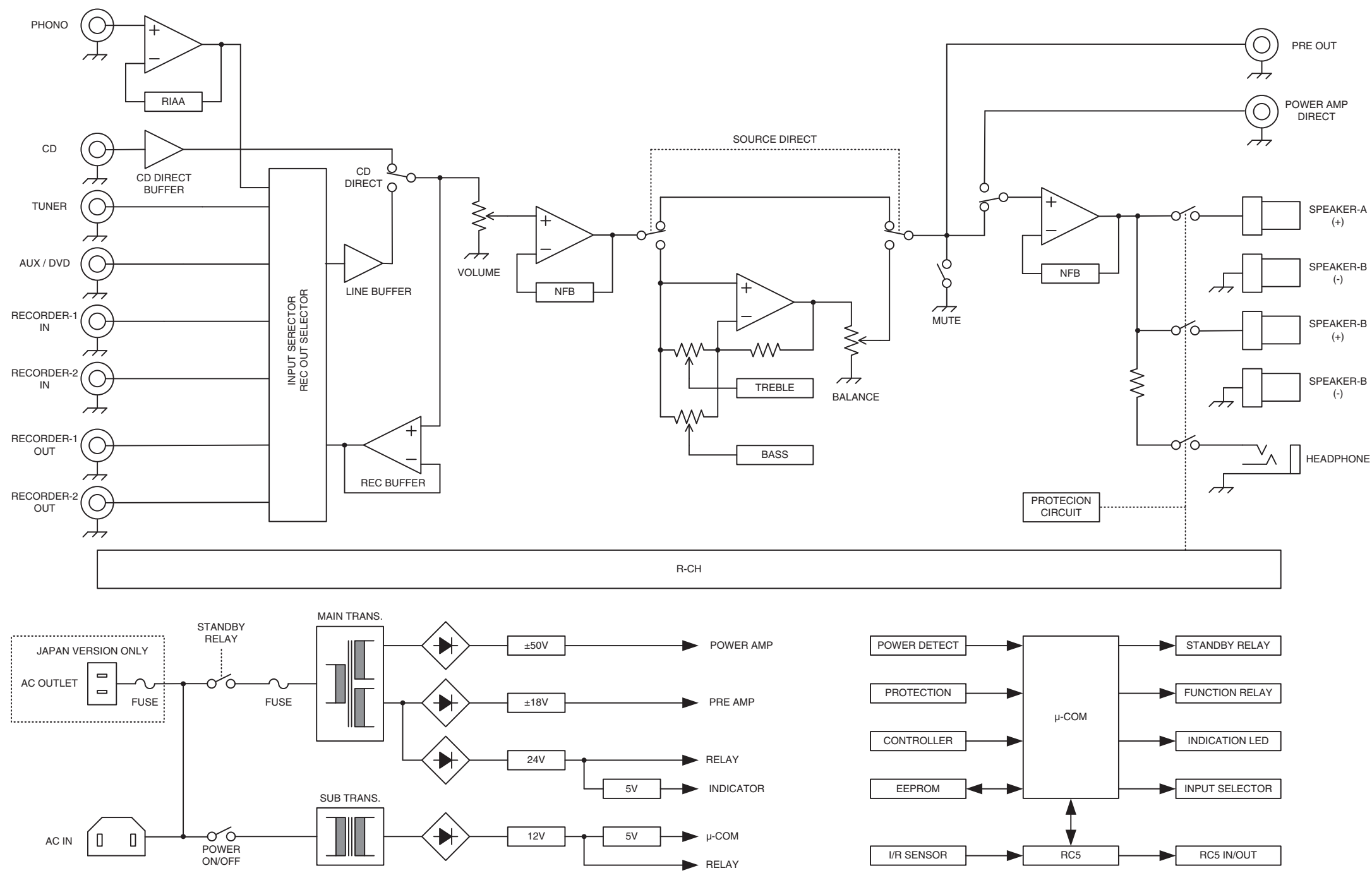
31. SoftwareのVersion確認をしてください。

4ページの"**3.SERVICE MODE**"で確認します。

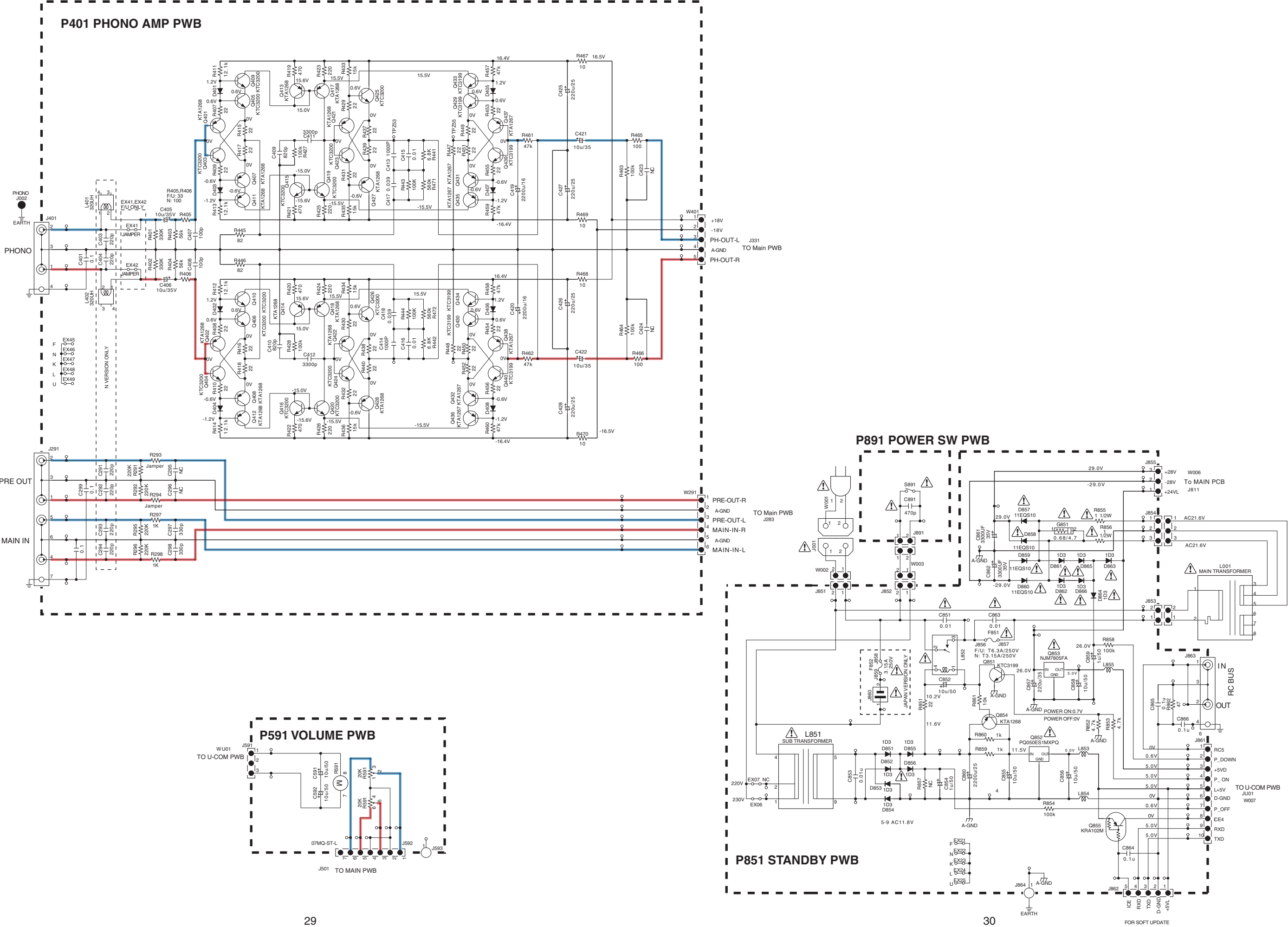
6. WIRING DIAGRAM

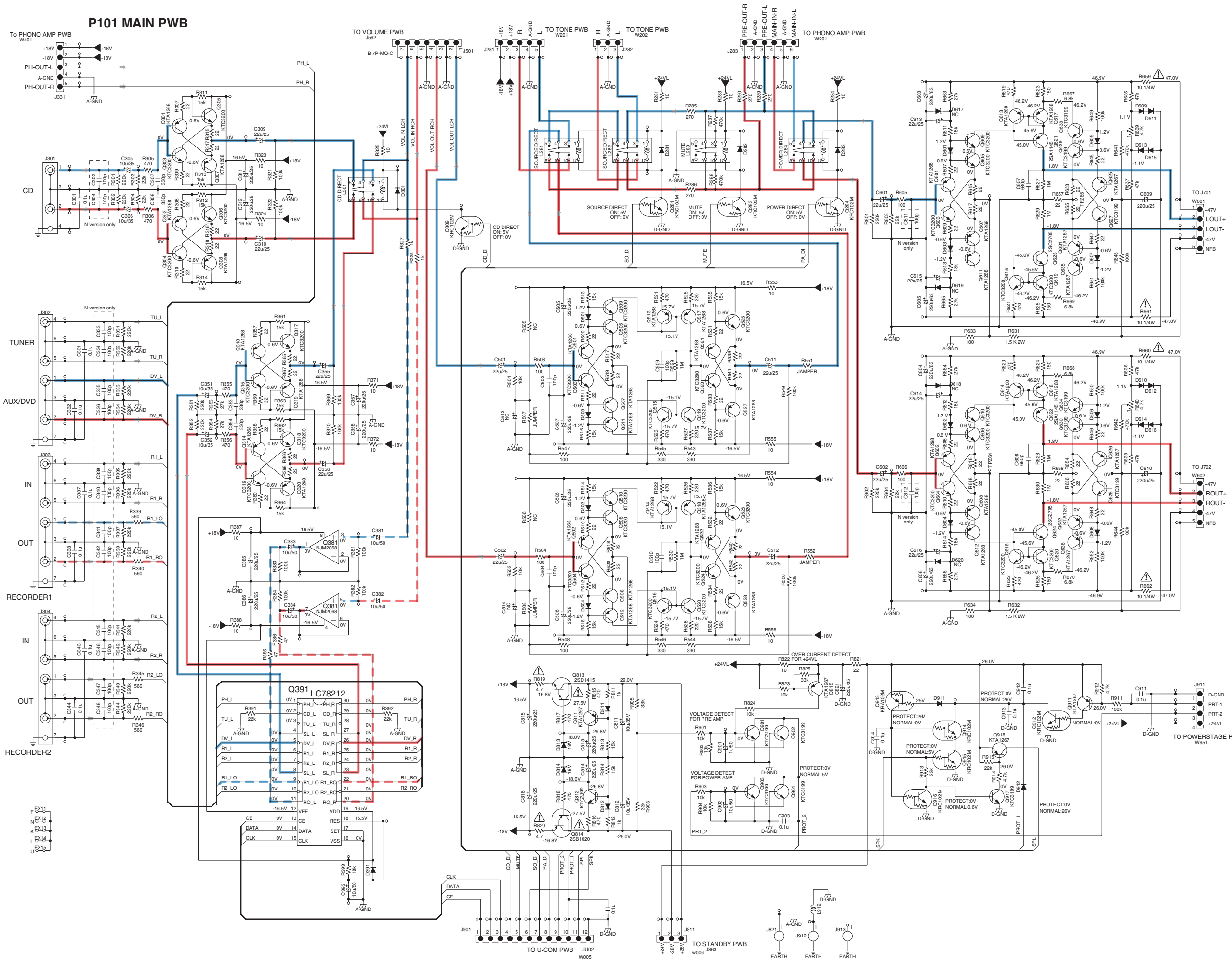


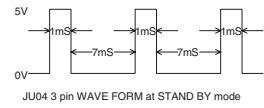
7. BLOCK DIAGRAM



8. SCHEMATIC DIAGRAM

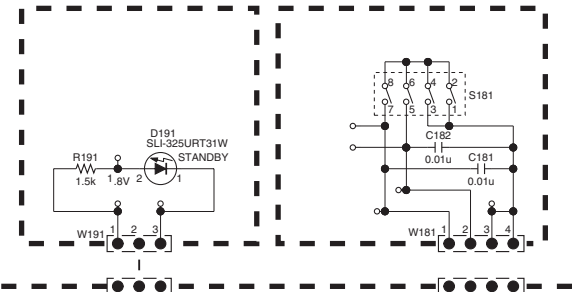




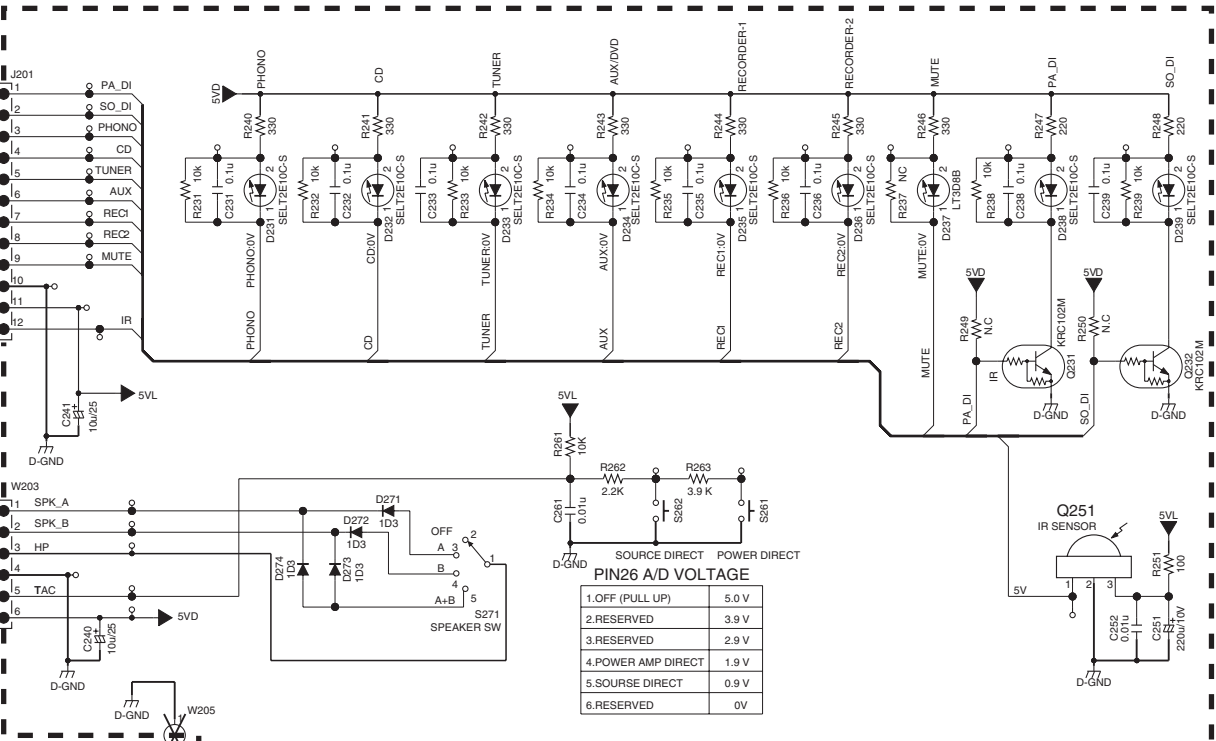
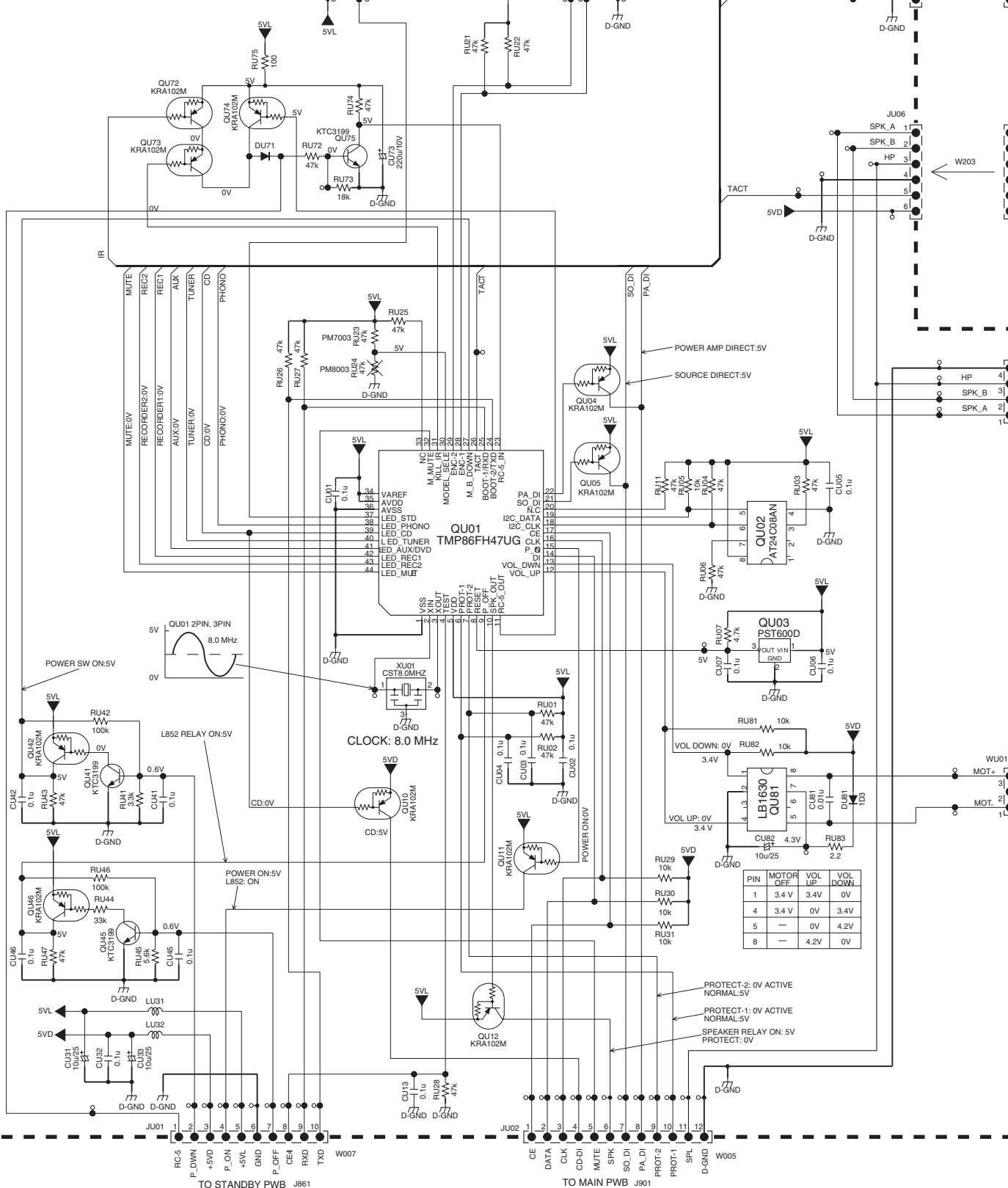


P191 STANDBY LED PWB

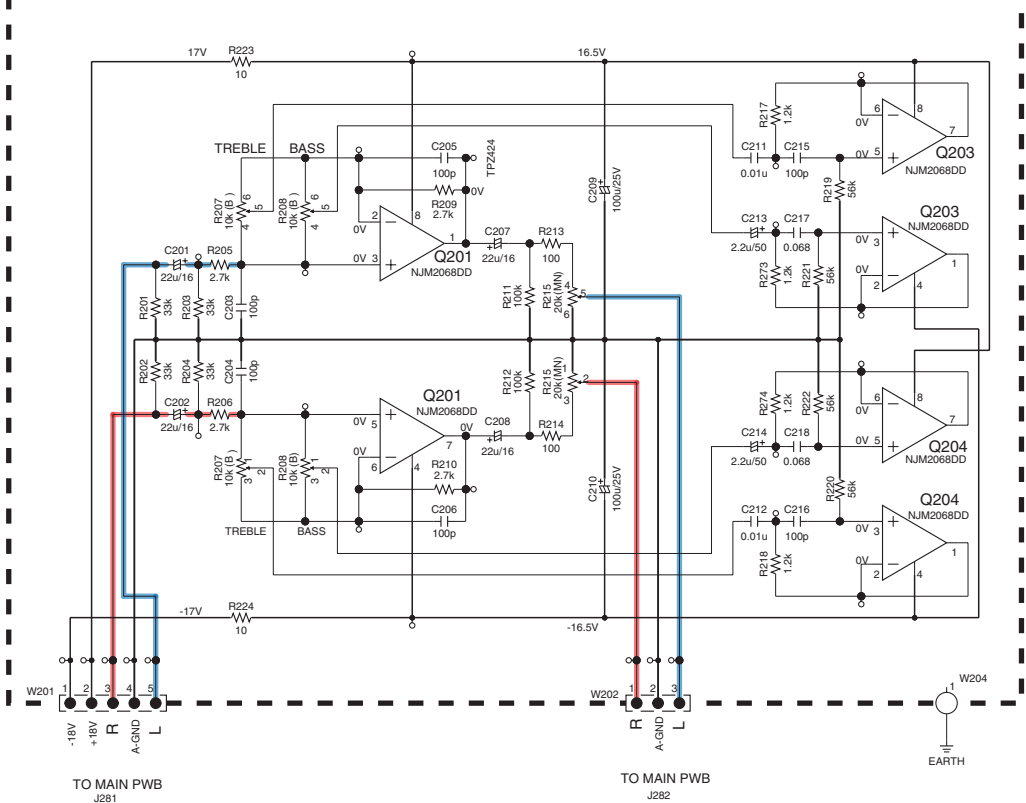
P181 INPUT SELECTOR PWB



PU01 U-COM PWB

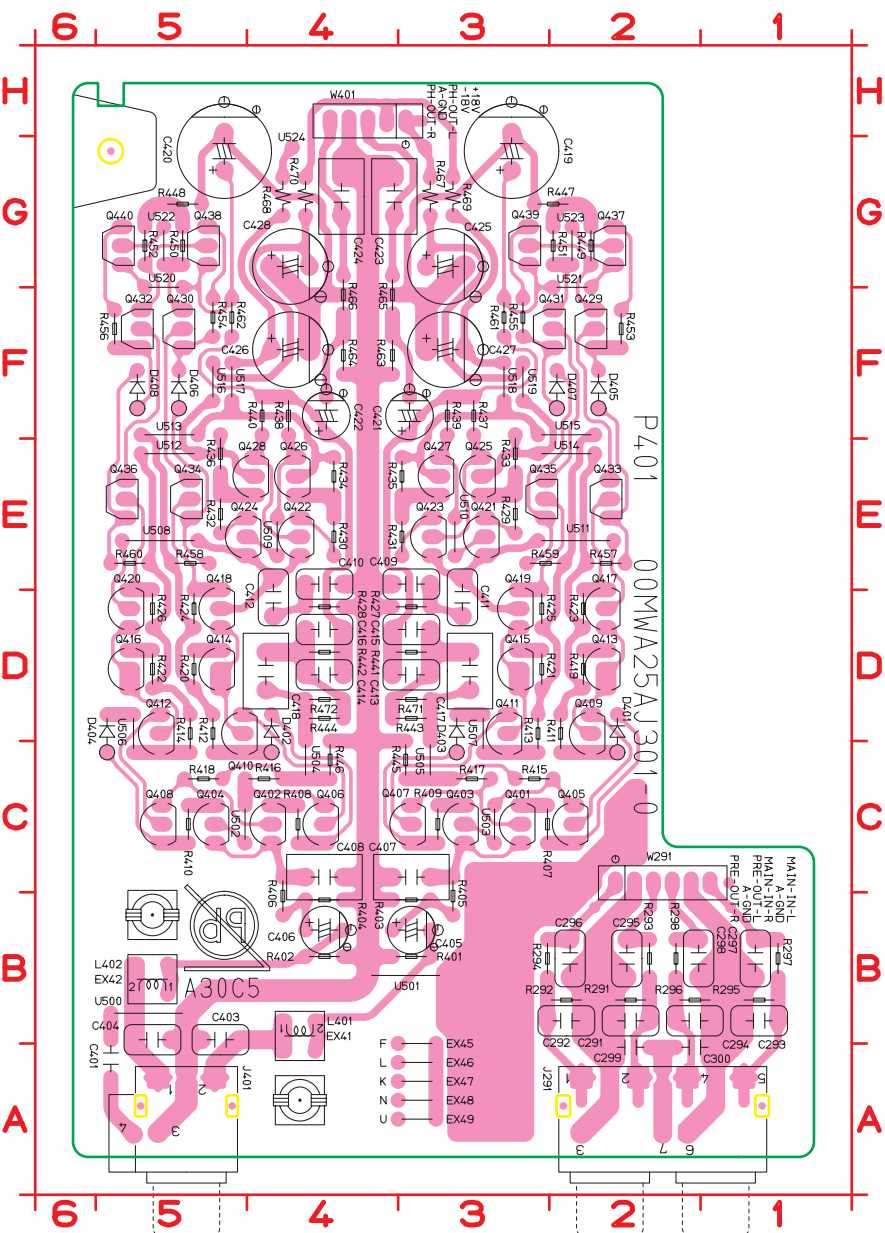


P201 TONE PWB



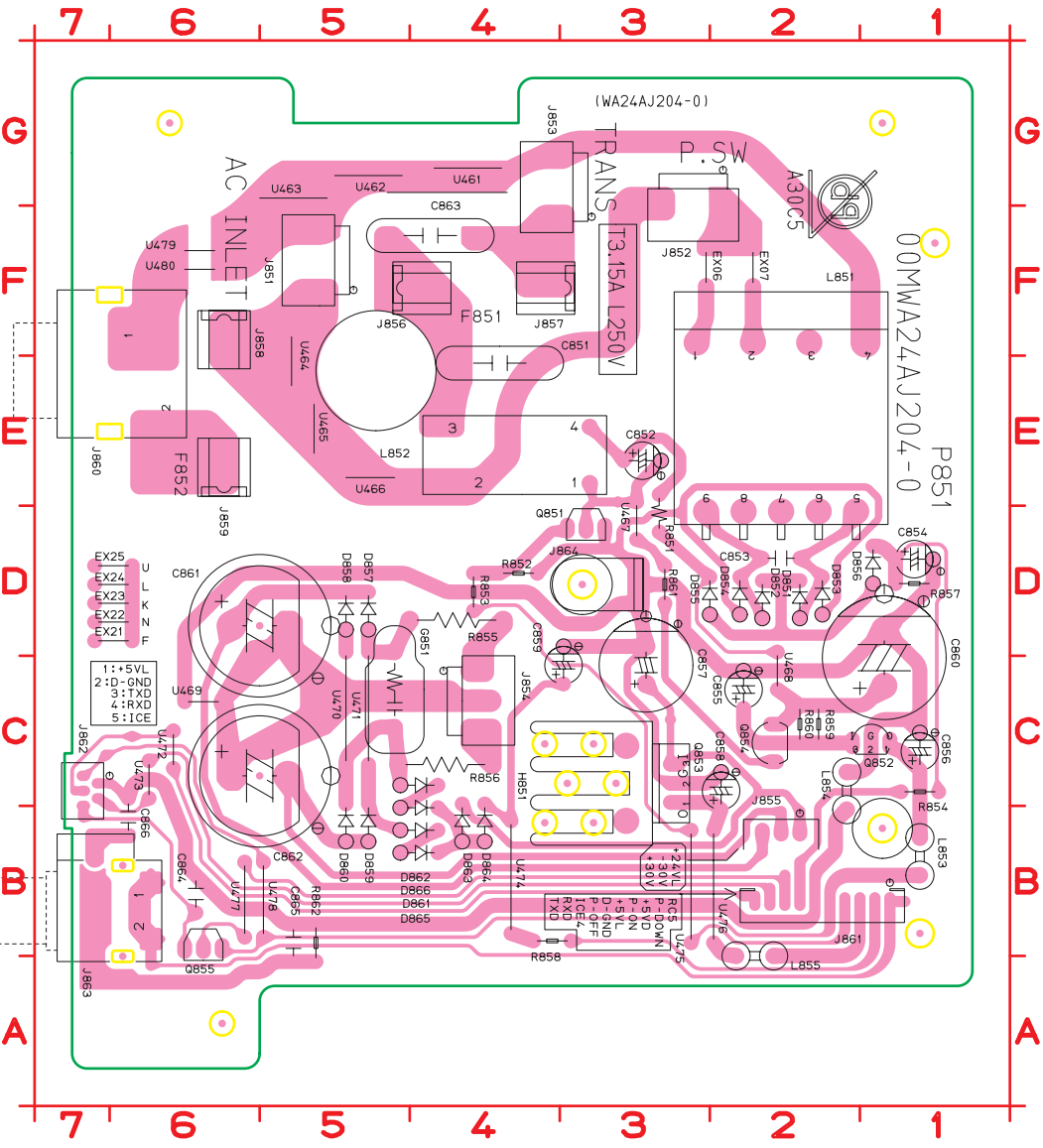
9. PARTS LOCATION

P401 B PWB



C291	B2	Q401	C3	R409	C3	R465	F4
C292	B3	Q402	C4	R410	C5	R466	F4
C293	B1	Q403	C3	R411	C2	R467	G3
C294	B2	Q404	C5	R412	C5	R468	G4
C295	B2	Q405	C2	R413	D3	R469	G3
C296	B2	Q406	C4	R414	D5	R470	G4
C297	B1	Q407	C3	R415	C3	R471	D4
C298	B2	Q408	C5	R416	C4	R472	D4
C299	A2	Q409	D2	R417	C3	U500	B5
C300	A2	Q410	D5	R418	C5	U501	B3
C401	A5	Q411	D3	R419	D2	U502	C5
C403	B5	Q412	D5	R420	D5	U503	C3
C404	B5	Q413	D2	R421	D3	U504	C4
C405	B4	Q414	D5	R422	D5	U505	C3
C406	B4	Q415	D3	R423	E2	U506	C5
C407	C4	Q416	D5	R424	E5	U507	C3
C408	C4	Q417	D2	R425	D3	U508	E5
C409	E4	Q418	D5	R426	D5	U509	E4
C410	E4	Q419	D3	R427	D4	U510	E3
C411	D3	Q420	D5	R428	D4	U511	E2
C412	D4	Q421	E3	R429	E3	U512	E5
C413	D4	Q422	E4	R430	E4	U513	F5
C414	D4	Q423	E3	R431	E3	U514	E2
C415	D4	Q424	E5	R432	E5	U515	F2
C416	D4	Q425	E3	R433	E3	U516	F5
C417	D3	Q426	E4	R434	E4	U517	F5
C418	D4	Q427	E3	R435	E3	U518	F3
C419	G3	Q428	E4	R436	F5	U519	F3
C420	G5	Q429	F2	R437	F3	U520	G5
C421	F3	Q430	F5	R438	F4	U521	G2
C422	F4	Q431	F2	R439	F3	U522	G5
C423	G4	Q432	F5	R440	F4	U523	G2
C424	G4	Q433	E2	R441	D4	U524	G3
C425	G3	Q434	E5	R442	D4	W291	C2
C426	F4	Q435	E3	R443	D4	W401	H3
C427	F3	Q436	E5	R444	D4		
C428	G4	Q437	G2	R445	D3		
D401	C2	Q438	G5	R446	D4		
D402	C4	Q439	G3	R447	G2		
D403	C3	Q440	G5	R448	G5		
D404	C5	R291	B2	R449	G2		
D405	F2	R292	B3	R450	G5		
D406	F5	R293	B2	R451	G2		
D407	F2	R294	B3	R452	G5		
D408	F5	R295	B1	R453	F2		
EX41	B4	R296	B2	R454	F5		
EX42	B5	R297	B1	R455	F3		
EX45	B3	R298	B2	R456	F5		
EX46	A3	R401	B4	R457	E2		
EX47	A3	R402	B4	R458	E5		
EX48	A3	R403	B4	R459	E2		
EX49	A3	R404	B4	R460	E5		
J291	A2	R405	B3	R461	F3		
J401	A5	R406	B4	R462	F5		
L401	B4	R407	C3	R463	F4		
L402	B5	R408	C4	R464	F4		

P851 B PWB

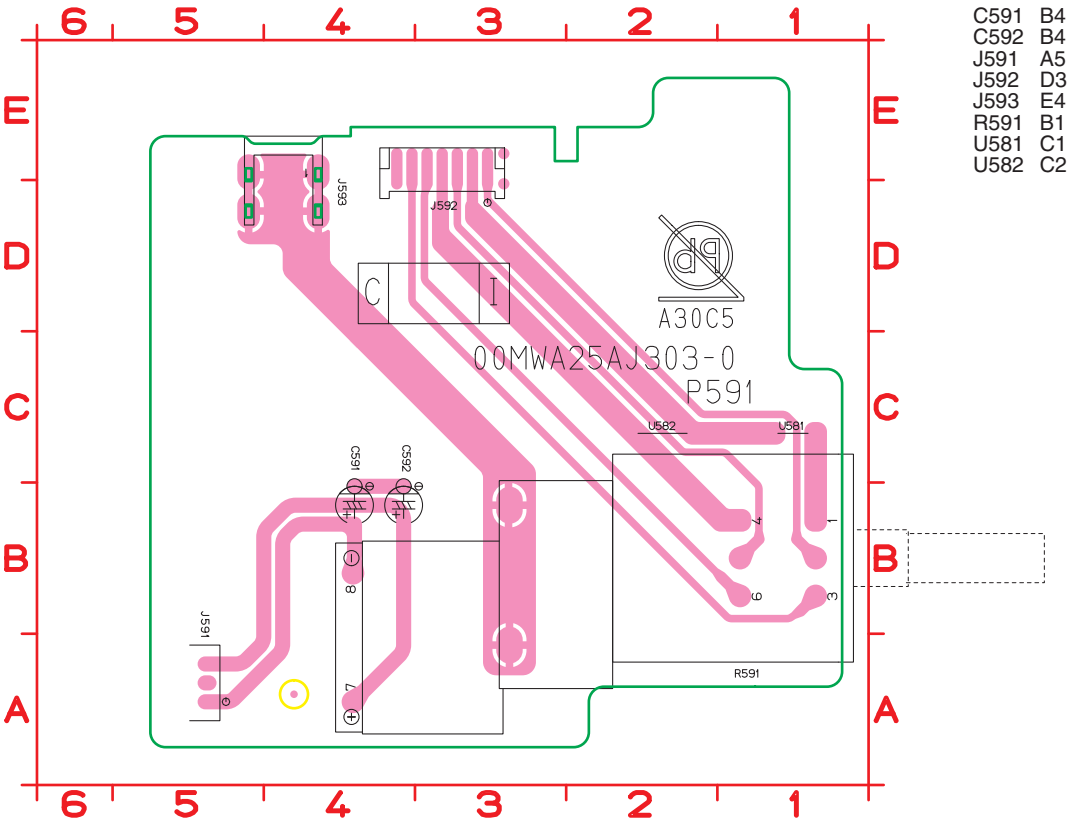


C851	E4	D852	D2	EX21	D7	J862	C7	R855	D5	U470	C5
C852	E3	D853	D2	EX22	D7	J863	B7	R856	C5	U471	C5
C853	D2	D854	D2	EX23	D7	J864	D3	R857	D1	U472	C6
C854	D1	D855	D3	EX24	D7	L851	E2	R858	B4	U473	C6
C855	C2	D856	D1	EX25	D7	L852	E3	R859	C2	U474	B4
C856	C1	D857	D5	G851	D5	L853	B1	R860	C2	U475	B3
C857	C3	D858	D5	J851	F5	L854	C2	R861	D3	U476	B2
C858	B2	D859	B5	J852	G2	L855	B2	R862	B5	U477	B6
C859	C3	D860	B5	J853	F4	Q851	D3	U461	G4	U478	B5
C860	C1	D861	B5	J854	C4	Q852	C1	U462	G5	U479	F6
C861	D6	D862	C5	J855	B2	Q853	C3	U463	G5	U480	F6
C862	C6	D863	B4	J856	F5	Q854	C2	U464	E5		
C863	F5	D864	B4	J857	F3	Q855	B6	U465	E5		
C864	B6	D865	B5	J858	F6	R851	D3	U466	E5		
C865	B5	D866	B5	J859	E6	R852	D4	U467	D3		
C866	C6	EX06	F3	J860	E7	R853	D4	U468	C2		
D851	D2	EX07	F2	J861	B1	R854	C1	U469	C6		

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).

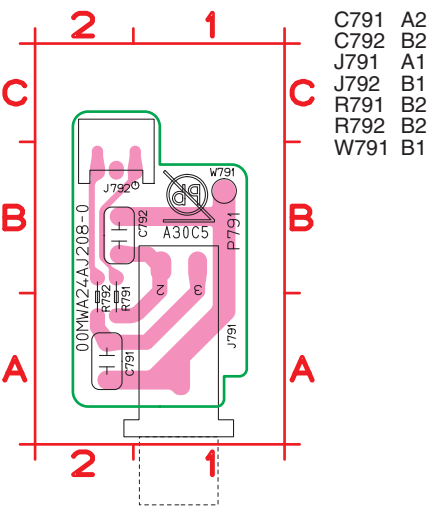
P591 B PWB



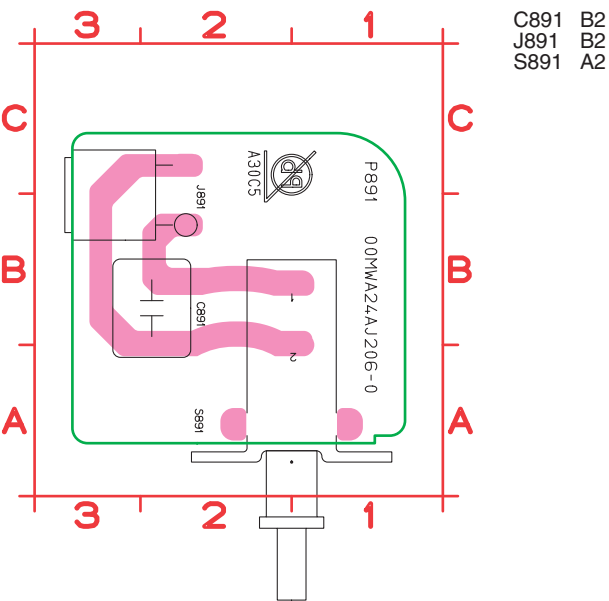
P101 B PWB

C301 B15	C903 F8	Q317 C11	Q915 G8	R388 D10	R624 G10	U109 F13	U31 C5
C303 A15	C911 G9	Q318 B11	Q916 H8	R391 D14	R625 G6	U11 D3	U32 D5
C304 A15	C912 H9	Q319 B11	Q917 G8	R392 C13	R626 G10	U110 F13	U33 C6
C305 A14	C913 G9	Q320 A11	Q918 I8	R393 C12	R627 H7	U111 F13	U34 A7
C306 A15	C914 H8	Q381 D11	R281 C1	R501 C4	R628 H10	U112 F14	U35 B7
C307 B14	C916 H2	Q391 D14	R283 G14	R502 B4	R629 I7	U113 F14	U36 C7
C308 A14	D281 C1	Q501 C5	R284 G15	R503 C4	R630 I10	U114 G13	U37 C7
C309 C13	D282 G14	Q502 B5	R285 G13	R504 B4	R631 F7	U115 G14	U38 B8
C310 A13	D283 G15	Q503 C5	R286 G13	R505 C4	R632 F10	U116 G14	U39 C8
C311 B12	D301 B9	Q504 B5	R287 G13	R506 B4	R633 F7	U117 G14	U4 C1
C312 B12	D391 C12	Q505 C5	R288 G14	R507 C4	R634 F9	U118 E13	U40 C8
C331 C15	D501 C6	Q506 B5	R289 F14	R508 B4	R635 G5	U119 G15	U41 D8
C332 C15	D502 B6	Q507 C5	R290 F14	R509 C5	R636 G11	U12 D3	U42 A9
C333 B15	D503 C5	Q508 B5	R301 A15	R510 B5	R637 G5	U120 G15	U43 B9
C334 B15	D504 B5	Q509 C6	R302 A15	R511 C5	R638 H12	U121 I4	U44 B9
C335 C15	D601 F7	Q510 B6	R303 A14	R512 B5	R639 H5	U122 H6	U45 C9
C336 C15	D602 F10	Q511 C6	R304 A14	R513 C6	R640 H12	U123 H6	U46 C9
C337 D15	D603 F6	Q512 B6	R305 B14	R514 B6	R641 H5	U124 H7	U47 C9
C338 D15	D604 F11	Q513 C6	R306 A14	R515 C6	R642 H11	U125 H6	U48 D9
C339 C15	D605 G6	Q514 B6	R307 C14	R516 B6	R643 H6	U127 G5	U49 D9
C340 C15	D606 G11	Q515 C6	R308 B14	R517 C5	R644 H11	U128 F6	U5 C2
C341 D15	D607 G6	Q516 B6	R309 B14	R518 B5	R645 H5	U129 F7	U50 D9
C342 D15	D608 G11	Q517 C6	R310 A14	R519 C5	R646 H11	U13 D2	U51 D9
C343 E15	D609 G5	Q518 B6	R311 B13	R520 B5	R647 H6	U130 I5	U52 D9
C344 E15	D610 G11	Q519 C6	R312 B13	R521 D6	R648 H11	U132 I9	U53 C10
C345 E15	D611 G5	Q520 B6	R313 B13	R522 B6	R649 G6	U133 E6	U54 B10
C346 E15	D612 G11	Q521 C7	R314 A13	R523 C6	R650 G11	U134 E11	U55 A10
C347 F15	D613 H5	Q522 B7	R315 B13	R524 B6	R651 G6	U135 F7	U56 B10
C348 F15	D614 H12	Q523 C7	R316 B13	R525 D7	R652 G10	U136 I7	U57 B10
C351 C12	D615 G5	Q524 B7	R317 B13	R526 B7	R653 G6	U137 I7	U58 A10
C352 A12	D616 H12	Q525 C8	R318 A13	R527 C7	R654 G11	U138 I7	U59 A11
C353 B11	D617 F5	Q526 B8	R321 B12	R528 B7	R655 H6	U139 I8	U6 C3
C354 B11	D618 F12	Q527 C8	R322 B12	R529 C7	R656 H11	U14 E2	U60 B11
C355 C10	D619 F5	Q528 B8	R323 A12	R530 B7	R657 G6	U140 I8	U61 C12
C356 A10	D620 F12	Q601 F7	R324 C12	R531 D7	R658 G11	U141 H8	U62 C12
C357 B10	D811 H4	Q602 F10	R325 C9	R532 B7	R659 H5	U142 H8	U63 B12
C358 B10	D812 H3	Q603 F6	R327 D10	R533 C7	R660 I12	U143 H8	U64 B12
C381 E11	D813 H4	Q604 F11	R328 D10	R534 B7	R661 H5	U144 G8	U65 A12
C382 C11	D814 H3	Q605 F6	R331 B15	R535 C7	R662 I12	U145 G8	U66 B13
C383 E11	D911 H9	Q606 F10	R332 B15	R536 B7	R663 F5	U146 G9	U67 A13
C384 C11	D912 H9	Q607 F6	R333 C15	R537 C7	R664 F12	U147 F8	U68 B13
C385 D10	EX11 I15	Q608 F11	R334 C15	R538 A7	R665 F5	U148 F8	U69 A13
C386 D10	EX12 I15	Q609 F7	R335 C15	R539 C8	R666 F12	U149 F8	U7 C3
C393 C12	EX13 I15	Q610 F10	R336 C15	R540 B8	R667 G7	U15 F3	U70 B13
C501 C4	EX14 I14	Q611 F6	R337 D15	R541 C8	R668 G10	U150 F8	U71 A13
C502 B4	EX15 I14	Q612 F11	R338 D15	R542 B8	R669 G6	U151 F9	U72 B13
C503 C4	J281 C2	Q613 H7	R339 E15	R543 D8	R670 G11	U152 H11	U73 A15
C504 B4	J282 C2	Q614 H10	R340 D15	R544 B8	R811 H4	U153 H11	U74 B15
C505 C3	J283 F14	Q615 H7	R341 E15	R545 D7	R812 H3	U154 I11	U75 B15
C506 B3	J301 B16	Q616 H10	R342 E15	R546 B7	R813 H4	U155 H10	U76 D15
C507 C3	J302 C16	Q617 H7	R343 F15	R547 B5	R814 H3	U156 H11	U77 E15
C508 B3	J303 D16	Q618 H10	R344 F15	R548 A5	R815 H4	U158 F10	U78 E3
C509 C7	J304 E16	Q619 H6	R345 F14	R549 C8	R816 H3	U159 F11	U79 E2
C510 B7	J331 D10	Q620 H10	R346 F14	R550 B8	R817 G4	U16 E2	U8 C3
C511 C8	J501 D3	Q621 H7	R351 B12	R551 C8	R818 G3	U160 E10	U80 D8
C512 B8	J811 I3	Q622 H10	R352 B12	R552 B8	R819 F4	U161 E10	U81 D3
C513 C4	J821 E8	Q623 H6	R353 B12	R553 D8	R820 F3	U162 E10	U82 E7
C514 B4	J901 I2	Q624 H10	R354 B12	R554 C8	R821 I4	U163 E13	U84 F9
C601 F13	J911 G9	Q625 H6	R355 B12	R555 C8	R822 I9	U164 G13	U85 E9
C602 E13	J912 I2	Q626 H11	R356 A12	R556 A8	R823 I9	U165 G11	U86 E9
C603 G5	J913 H16	Q627 H6	R357 C11	R601 F13	R824 I9	U166 E11	U87 E9
C604 F12	L281 B2	Q628 H11	R358 B11	R602 E13	R825 I9	U167 E11	U88 E9
C605 F5	L282 B1	Q629 H6	R359 B11	R603 F7	R901 G8	U168 F13	U89 E9
C606 G12	L283 G14	Q630 H11	R360 A11	R604 F10	R902 G8	U169 I4	U9 C3
C607 H7	L284 G15	Q631 H6	R361 B10	R605 E7	R903 G8	U17 E3	U90 D9
C608 H10	L301 B9	Q632 H11	R362 B10	R606 E10	R904 G8	U170 I5	U91 D9
C609 H5	L912 I1	Q633 G6	R363 B10	R607 F7	R905 I4	U171 I8	U92 D12
C610 H12	Q281 E2	Q634 G11	R364 A10	R608 F10	R906 I4	U172 I8	U93 D12
C611 F7	Q283 G14	Q635 G6	R365 B10	R609 E6	R911 G9	U173 F9	U94 D12
C612 F10	Q284 G15	Q636 G11	R366 B10	R610 E11	R912 H9	U18 D4	U95 D12
C613 E5	Q301 C14	Q811 H4	R367 B10	R611 F7	R913 G8	U19 B2	U97 E13
C614 E12	Q302 B14	Q812 H3	R368 A10	R612 F11	R914 H8	U20 A5	U98 D13
C615 E5	Q303 B14	Q813 G4	R369 B9	R613 F6	R915 I8	U21 B5	U99 C13
C616 E12	Q304 A14	Q814 G3	R370 B9	R614 F11	U10 D3	U22 B5	W601 I5
C811 H4	Q305 C13	Q815 I9	R371 A9	R615 F6	U100 D14	U23 B5	W602 I11
C812 H3	Q306 B13	Q901 F8	R372 C9	R616 F11	U101 D14	U24 B5	
C813 G4	Q307 B13	Q902 F8	R381 D11	R617 F6	U102 D14	U25 B6	
C814 G3	Q308 A13	Q903 F8	R382 D11	R618 F11	U103 D14	U26 B5	
C815 F4	Q309 C9	Q904 F8	R383 D12	R619 G7	U104 E14	U27 B4	
C816 F3	Q313 C11	Q911 H9	R384 D12	R620 G10	U105 D14	U28 C5	
C821 H4	Q314 B11	Q912 G9	R385 D12	R621 G7	U106 C12	U29 C5	
C901 G8	Q315 B11	Q913 H8	R386 C12	R622 G10	U107 E12	U3 C1	
C902 G8	Q316 A11	Q914 H8	R387 D10	R623 G7	U108 E12	U30 C5	

P791 B PWB

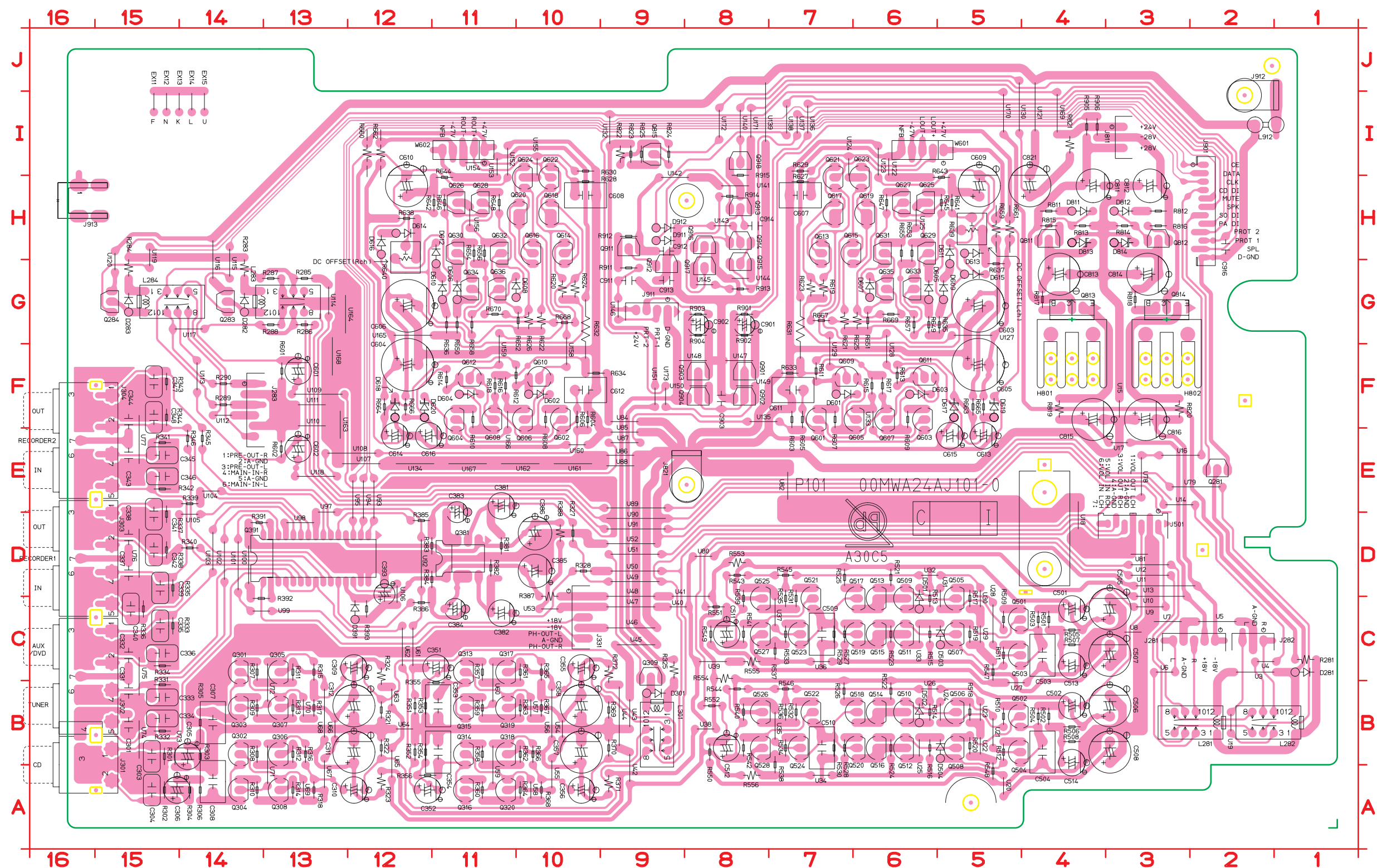


P891 B PWB



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).



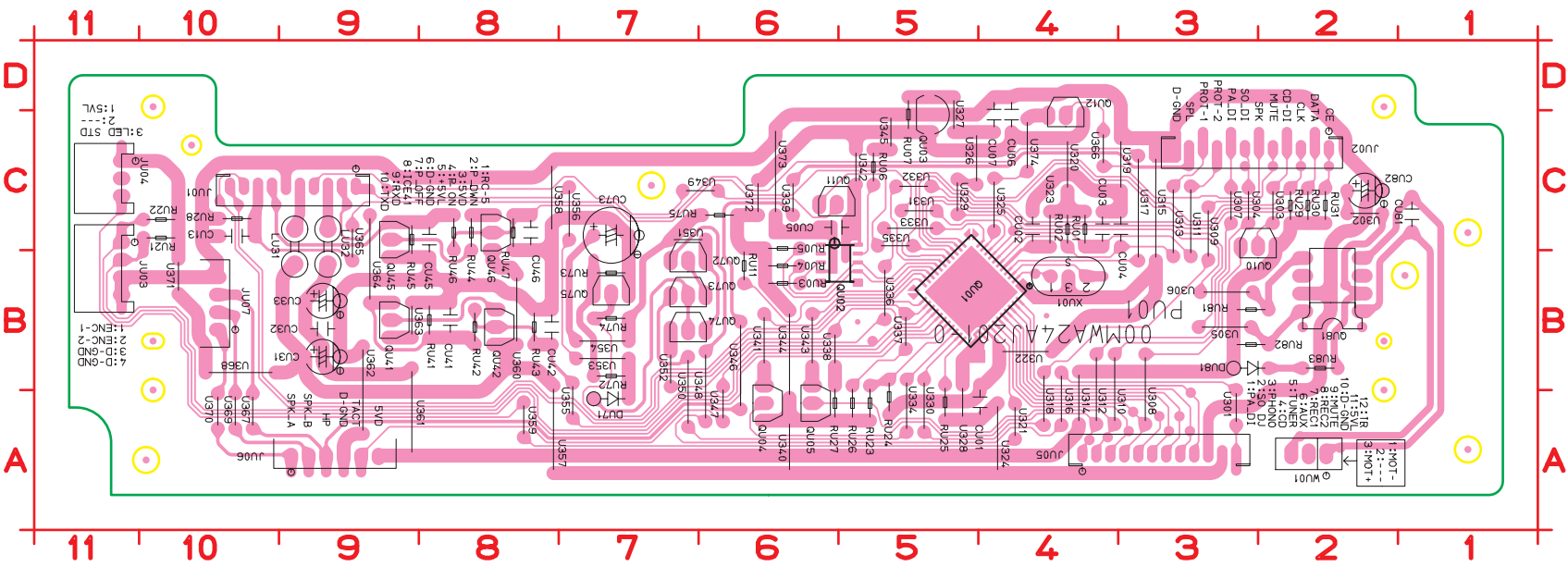
鉛フリー半田

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

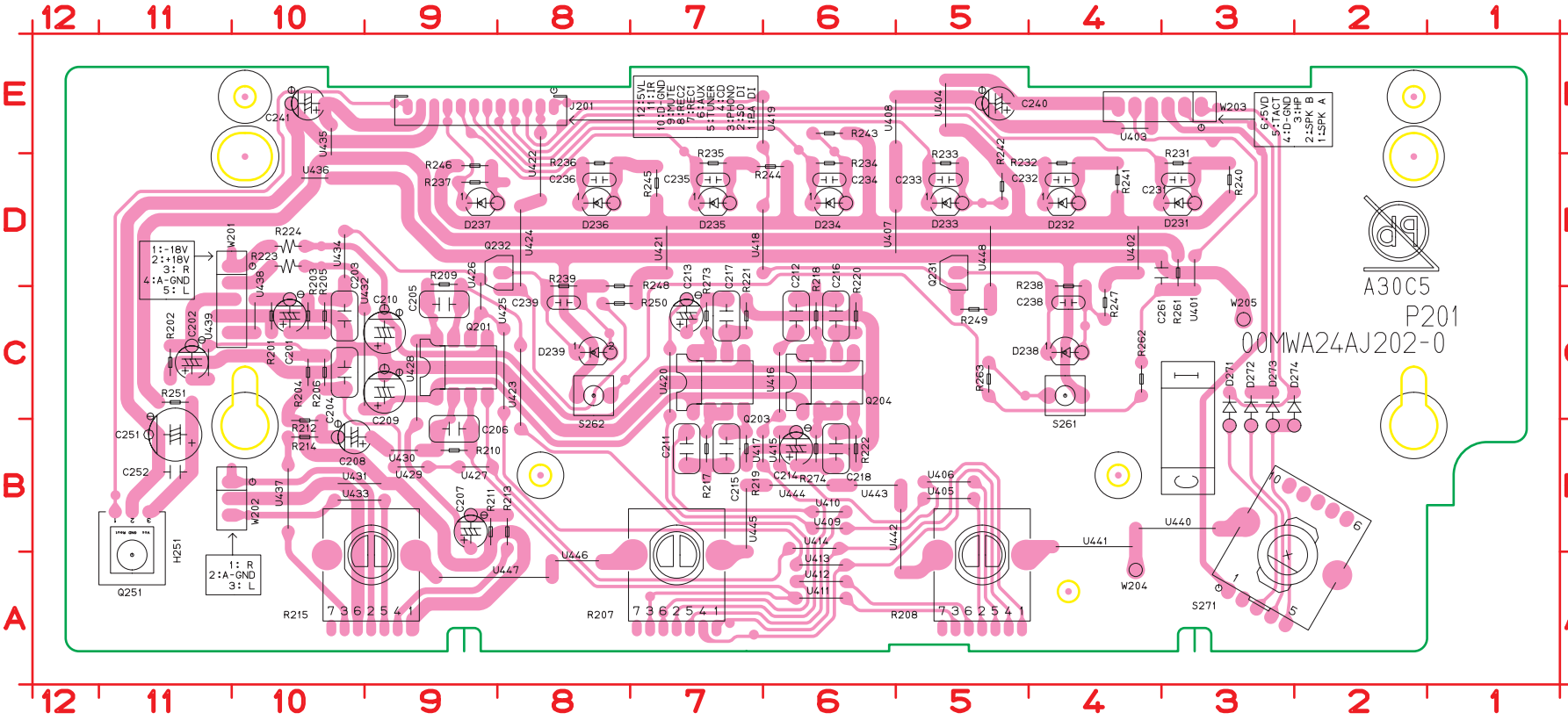
When soldering, use the Lead-free Solder (Sn-Ag-Cu).

PU01 B PWB



CU01 B4	LU32 B9	RU23 B5	U306 B3	U334 A5	U362 A9
CU02 C4	QU01 B5	RU24 A5	U307 C3	U335 C5	U363 B9
CU03 C4	QU02 B5	RU25 B5	U308 A3	U336 B5	U364 B9
CU04 C3	QU03 C5	RU26 B5	U309 C3	U337 B5	U365 B9
CU05 C6	QU04 A6	RU27 B6	U310 A4	U338 B6	U366 C4
CU06 D4	QU05 A6	RU28 C10	U311 C3	U339 C6	U367 A10
CU07 D4	QU10 C3	RU29 C2	U312 B4	U340 A6	U368 B10
CU13 C10	QU11 C6	RU30 C2	U313 C3	U341 B6	U369 A10
CU31 B9	QU12 C4	RU31 C2	U314 A4	U342 C5	U370 A10
CU32 B9	QU41 B9	RU41 B8	U315 C3	U343 B6	U371 B10
CU33 B9	QU42 B8	RU42 B8	U316 B4	U344 A6	U372 C6
CU41 B8	QU45 C9	RU43 B8	U317 B3	U345 C5	U373 C6
CU42 B8	QU46 C8	RU44 C8	U318 A4	U346 A6	U374 C4
CU45 B8	QU72 B7	RU45 B9	U319 C3	U347 A6	WU01 A2
CU46 C8	QU73 B7	RU46 C8	U320 C4	U348 A6	XU01 B4
CU73 C7	QU74 B7	RU47 C8	U321 A4	U349 C6	
DU81 C1	QU75 B7	RU72 B7	U322 B4	U350 A7	
CU82 C2	QU81 B2	RU73 B7	U323 C4	U351 C6	
DU71 A7	RU01 C4	RU74 B7	U324 A4	U352 B7	
DU81 B3	RU02 C4	RU75 C6	U325 C4	U353 B7	
JU01 C9	RU03 B6	RU81 B3	U326 C5	U354 B7	
JU02 C2	RU04 B6	RU82 B3	U327 C5	U355 A7	
JU03 C11	RU05 C6	RU83 B2	U328 A5	U356 C7	
JU04 C11	RU06 C5	U301 A3	U329 C5	U357 A8	
JU05 A4	RU07 D5	U302 C2	U330 A5	U358 C8	
JU06 A9	RU11 B6	U303 C2	U331 C5	U359 A8	
JU07 B10	RU21 C10	U304 C3	U332 C5	U360 B8	
LU31 B9	RU22 C10	U305 B3	U333 C5	U361 A9	

P201 B PWB



C201 C10	D236 D8	R223 D10	U406 B5	U442 A5
C202 C11	D237 D9	R224 D10	U407 D6	U443 B5
C203 C10	D238 C4	R231 D3	U408 E6	U444 B6
C204 C10	D239 C8	R232 D4	U409 B6	U445 B7
C205 C9	D271 B3	R233 D5	U410 B6	U446 A8
C206 B9	D272 B3	R234 D6	U411 A6	U447 A8
C207 B9	D273 B3	R235 D7	U412 A6	U448 C5
C208 B9	D274 B3	R236 D8	U413 A6	W201 D11
C209 C9	J201 E8	R237 D9	U414 B6	W202 B11
C210 C9	Q201 C9	R238 D4	U415 B6	W203 E3
C211 B7	Q203 C7	R239 D8	U416 C6	W205 C3
C212 C6	Q204 C6	R240 D3	U417 B7	
C213 C7	Q231 D5	R241 D4	U418 D7	
C214 B6	Q232 D8	R242 D5	U419 E7	
C215 B7	Q251 A11	R243 E6	U420 C7	
C216 C6	R201 C10	R244 D6	U421 D7	
C217 C7	R202 C11	R245 D7	U422 D8	
C218 B6	R203 C10	R246 D9	U423 B8	
C231 D3	R204 C10	R247 D4	U424 C8	
C232 D4	R205 C10	R248 D7	U425 C8	
C233 D5	R206 C10	R249 C5	U426 C9	
C234 D6	R207 A7	R250 C7	U427 B9	
C235 D7	R208 A5	R251 C11	U428 B9	
C236 D8	R209 D9	R261 C3	U429 B9	
C238 C4	R210 B9	R262 C4	U430 B9	
C239 C8	R211 B9	R263 C5	U431 B9	
C240 E5	R212 B10	R273 C7	U432 C10	
C241 E10	R213 B8	R274 B6	U433 B9	
C251 B11	R214 B10	S261 C4	U434 D10	
C252 B11	R215 A9	S262 C8	U435 D10	
C261 D4	R217 B7	S271 A3	U436 D10	
D231 D3	R218 C6	U401 C3	U437 B10	
D232 D4	R219 B7	U402 D4	U438 C10	
D233 D5	R220 C6	U403 E4	U439 C11	
D234 D6	R221 C7	U404 E5	U440 B3	
D235 D7	R222 B6	U405 B5	U441 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).

C701	D3	J709	B6	R710	D10	R955	C4	U215	C3	U244	C7
C702	D9	J801	D6	R713	C2	R956	C8	U216	B3	U245	B7
C705	B2	Q703	C2	R714	C10	R957	C4	U217	B3	U246	B8
C706	B10	Q704	C10	R715	C2	R958	C8	U218	B3	U247	B8
C707	A5	Q705	B3	R716	C10	R959	C4	U219	B4	U248	B8
C708	A7	Q706	B9	R717	C2	R960	C8	U220	B4	U249	C8
C801	B7	Q707	B2	R718	B10	R961	C3	U221	A5	U250	B8
C802	B5	Q708	B10	R719	C2	R962	C9	U222	C5	U251	B8
C951	C4	Q709	B3	R720	C10	R963	C3	U223	A5	U252	B9
C952	C9	Q710	B9	R721	C2	R964	C8	U224	B5	U253	C9
C953	A5	Q711	B2	R722	C10	R965	A4	U225	B5	U254	C9
C954	A6	Q712	B10	R723	B2	R966	A8	U226	D5	U255	B9
D701	D3	Q951	C3	R724	B10	R967	A6	U227	D5	U256	C9
D702	D9	Q952	C9	R725	B3	R968	A6	U228	D5	U257	B9
D801	D5	Q953	C3	R726	B9	R969	A6	U229	A5	U258	C9
D802	D7	Q954	C9	R727	B2	U201	B1	U230	C5	U259	C10
D951	B4	Q955	A5	R728	B11	U202	B1	U231	A6	U260	C9
D952	B8	Q956	A5	R729	A2	U203	C1	U232	B6	U261	C10
D953	B4	Q957	A5	R730	A10	U204	C2	U233	B6	U262	B10
D954	B8	Q958	A5	R731	B2	U205	C2	U234	A6	U263	C10
G801	C6	R701	D3	R732	B10	U206	C2	U235	C6	U264	B10
J701	C3	R702	D8	R733	A5	U207	C2	U236	C7	W801	C6
J702	C8	R703	C2	R734	A7	U208	C3	U237	D7	W951	A6
J703	A3	R704	C10	R801	A7	U209	B2	U238	D7		
J704	A8	R705	C2	R802	A7	U210	B2	U239	D7		
J705	A1	R706	C10	R951	B3	U211	C3	U240	B6		
J706	A10	R707	D2	R952	B8	U212	B3	U241	A7		
J707	D1	R708	D10	R953	C2	U213	C3	U242	A7		
J708	D11	R709	D2	R954	C10	U214	D3	U243	B7		

C751	C9	J017	B7	R751	C10	U557	D3	U568	B9	U579	A6
C752	C9	J018	B5	R752	C10	U558	D3	U569	C6	U580	A7
C753	D9	J751	B8	R753	D9	U559	D4	U570	C7		
C754	B9	J754	D10	R754	B9	U560	D5	U571	C7		
D751	D10	J755	E9	R755	D10	U561	D6	U572	C6		
J011	C2	J756	E8	U551	C7	U562	D7	U573	C7		
J012	C4	J757	E5	U552	B9	U563	C8	U574	B7		
J013	B2	J758	E2	U553	B8	U564	D9	U575	A3		
J014	B4	L751	D9	U554	C6	U565	C9	U576	A3		
J015	C7	L752	B9	U555	C5	U566	C9	U577	A4		
J016	C5	L753	D10	U556	C4	U567	B9	U578	A5		

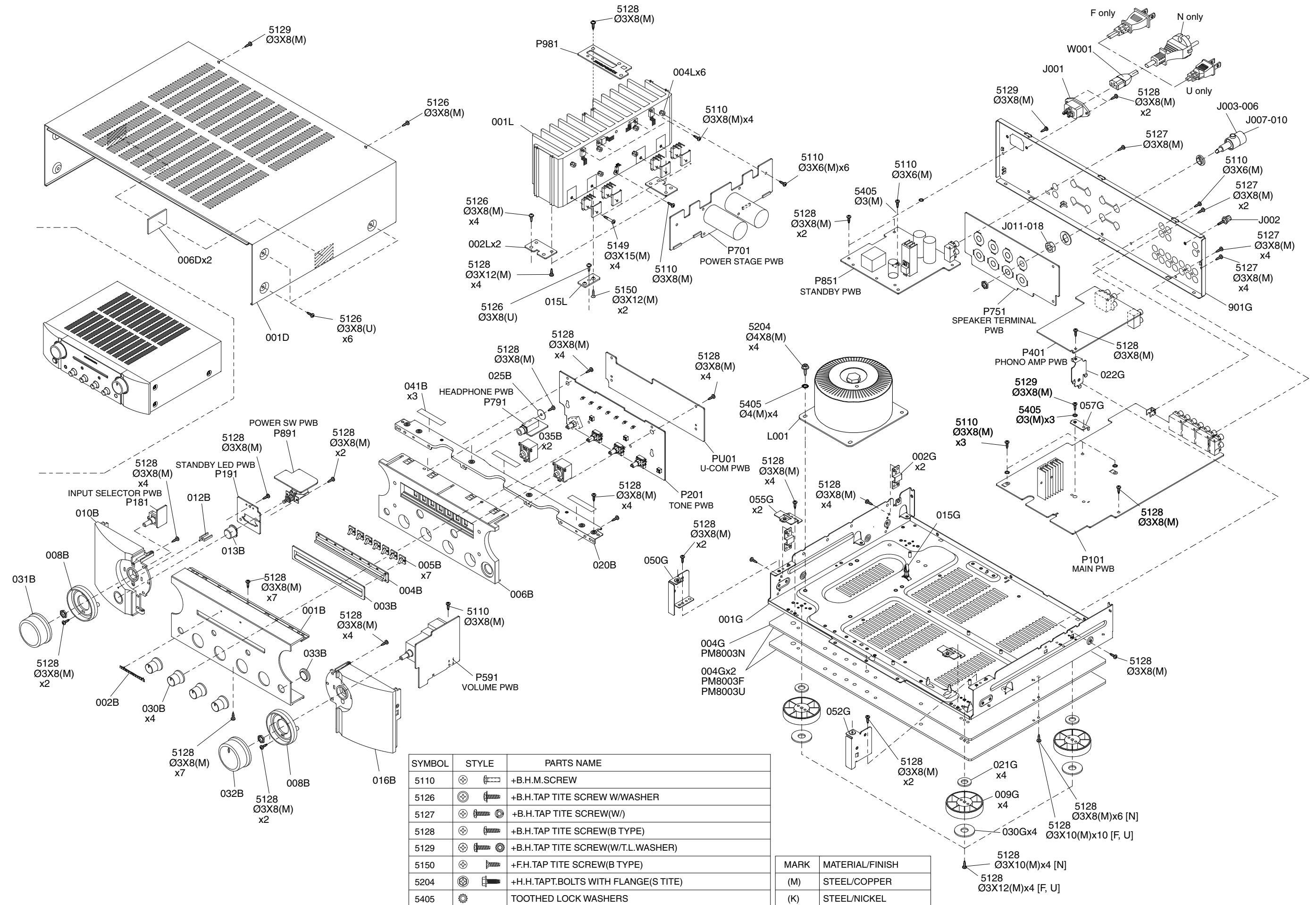
Figure 1: Schematic diagram of the experimental setup. The diagram shows a pink mouse on a platform labeled '207-0'. The platform is surrounded by a green rectangular area. The mouse is facing a wall with a grid of numbered squares (1-9). The wall is labeled 'P181' and 'C181'. The mouse is also labeled 'W181'. The platform is labeled '00MWA24AJ'. The diagram is divided into four quadrants by a vertical line labeled '1' and '2' at the top, and a horizontal line labeled 'A' and 'B' on the sides. A dashed line indicates the mouse's path from the platform to the wall.

[illegible]

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).

10. EXPLODED VIEW AND PARTS LIST



P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
	001B	F N	nsp	402410030037M	PANEL	FRONT AL PANEL SG
	001B	/N1B	402410030006M	402410030006M	PANEL	FRONT AL PANEL BL
	001B	/N1SG	402410030037M	402410030037M	PANEL	FRONT AL PANEL SG
	001B	/U1B	nsp	402410030006M	PANEL	FRONT AL PANEL BL
	002B		421410006004M	421410006004M	BADGE	MARANTZ BADGE (AL) FOR M1 MODEL
	003B		422410012002M	422410012002M	ESCUTCHEON	ESCUTCHEON CENTER
	004B	F N	nsp	422410013036M	ESCUTCHEON	ESCUTCHEON CENTER BASE SG
	004B	/N1B	422410013005M	422410013005M	ESCUTCHEON	ESCUTCHEON CENTER BASE BL
	004B	/N1SG	422410013036M	422410013036M	ESCUTCHEON	ESCUTCHEON CENTER BASE SG
	004B	/U1B	nsp	422410013005M	ESCUTCHEON	ESCUTCHEON CENTER BASE BL
	005B		423410006000M	423410006000M	LENS	LENS FUNCTION
	006B	F N	nsp	443410006035M	CHASSIS	FRONT CENTER MOLD SG
	006B	/N1B	443410006004M	443410006004M	CHASSIS	FRONT CENTER MOLD BL
	006B	/N1SG	443410006035M	443410006035M	CHASSIS	FRONT CENTER MOLD SG
	006B	/U1B	nsp	443410006004M	CHASSIS	FRONT CENTER MOLD BL
	008B	F N	nsp	424510004037M	RING	RING VOLUME SG
	008B	/N1B	424510004006M	424510004006M	RING	RING VOLUME BL
	008B	/N1SG	424510004037M	424510004037M	RING	RING VOLUME SG
	008B	/U1B	nsp	424510004006M	RING	RING VOLUME BL
	010B	F N	nsp	402410032033M	PANEL	ESCUTCHEON L SG
	010B	/N1B	402410032002M	402410032002M	PANEL	ESCUTCHEON L BL
	010B	/N1SG	402410032033M	402410032033M	PANEL	ESCUTCHEON L SG
	010B	/U1B	nsp	402410032002M	PANEL	ESCUTCHEON L BL
	012B		481510003006M	481510003006M	LENS	LENS POWER LED
	013B	F N	nsp	411510027034M	BUTTON	BUTTON PUSH SG
	013B	/N1B	411510027003M	411510027003M	BUTTON	BUTTON PUSH BL
	013B	/N1SG	411510027034M	411510027034M	BUTTON	BUTTON PUSH SG
	013B	/U1B	nsp	411510027003M	BUTTON	BUTTON PUSH BL
	016B	F N	nsp	402410034039M	PANEL	ESCUTCHEON R SG
	016B	/N1B	402410034008M	402410034008M	PANEL	ESCUTCHEON R BL
	016B	/N1SG	402410034039M	402410034039M	PANEL	ESCUTCHEON R SG
	016B	/U1B	nsp	402410034008M	PANEL	ESCUTCHEON R BL
	030B	F N	nsp	412410010030M	KNOB	KNOB AL TONE/REC SELCTOR S SG
	030B	/N1B	412410010009M	412410010009M	KNOB	KNOB AL TONE/REC SELCTOR S BL
	030B	/N1SG	412410010030M	412410010030M	KNOB	KNOB AL TONE/REC SELCTOR S SG
	030B	/U1B	nsp	412410010009M	KNOB	KNOB AL TONE/REC SELCTOR S BL
	031B	F N	nsp	412410006031M	KNOB	KNOB AL INPUT SELECTOR SG
	031B	/N1B	412410006000M	412410006000M	KNOB	KNOB AL INPUT SELECTOR BL
	031B	/N1SG	412410006031M	412410006031M	KNOB	KNOB AL INPUT SELECTOR SG
	031B	/U1B	nsp	412410006000M	KNOB	KNOB AL INPUT SELECTOR BL
	032B	F N	nsp	412410008037M	KNOB	KNOB AL MASTER VOLUME POINTER SG
	032B	/N1B	412410008006M	412410008006M	KNOB	KNOB AL MASTER VOLUME POINTER BL
	032B	/N1SG	412410008037M	412410008037M	KNOB	KNOB AL MASTER VOLUME POINTER SG
	032B	/U1B	nsp	412410008006M	KNOB	KNOB AL MASTER VOLUME POINTER BL
	033B	F N	nsp	481510004047M	LENS	LENS IR WH
	033B	/N1B	481510004009M	481510004009M	LENS	LENS IR BL
	033B	/N1SG	481510004047M	481510004047M	LENS	LENS IR WH
	033B	/U1B	nsp	481510004009M	LENS	LENS IR BL
	035B	F N	nsp	411510028037M	BUTTON	BUTTON SG
	035B	/N1B	411510028006M	411510028006M	BUTTON	BUTTON BL
	035B	/N1SG	411510028037M	411510028037M	BUTTON	BUTTON SG
	035B	/U1B	nsp	411510028006M	BUTTON	BUTTON BL
	009G		00M14AJ057210	00M14AJ057210	LEG	LEGS SL
	021G		00M227J056010	00M227J056010	BUFFER	LEG PEFU SHEET
	030G		00M14AJ056110	00M14AJ056110	BUFFER	LEGS CUSHION
	▲J001		00MYJ04002640	00MYJ04002640	JACK	! R-301(21) AC INLET
	J003		646710024006M	646710024006M	TERMINAL	SPKT-1 RED
	J004		646710024006M	646710024006M	TERMINAL	SPKT-1 RED
	J005		646710024006M	646710024006M	TERMINAL	SPKT-1 RED
	J006		646710024006M	646710024006M	TERMINAL	SPKT-1 RED
	J007		646710025009M	646710025009M	TERMINAL	SPKT-1 WHITE
	J008		646710025009M	646710025009M	TERMINAL	SPKT-1 WHITE
	J009		646710025009M	646710025009M	TERMINAL	SPKT-1 WHITE
	J010		646710025009M	646710025009M	TERMINAL	SPKT-1 WHITE
	▲L001	F N	nsp	1010100040018	TRANSF.	# POWER TRANSFORMER 100V
	▲L001	/N1B	1010100030088	1010100030088	TRANSF.	# POWER TRANSFORMER 230V
	▲L001	/N1SG	1010100030088	1010100030088	TRANSF.	# POWER TRANSFORMER 230V

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

P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
	▲ L001	/U1B	nsp	101010024005M	TRANSF.	# POWER TRANSFORMER FOR 120V
	L002		1170100010070	1170100010070	FERRITE CORE	FERRITE CORE TFCK-16813
	P101		nsp	nsp	PWB ASSY	MAIN PWB (P101)
	P104		nsp	nsp	PWB ASSY	WIRE PROTECTION PWB
	P181		nsp	nsp	PWB ASSY	INPUT SEL PWB (P181)
	P191		nsp	nsp	PWB ASSY	STANDBY LED PWB (P191)
	P201		nsp	nsp	PWB ASSY	TONE PWB (P201)
	P401		nsp	nsp	PWB ASSY	PHONO AMP PWB (P401)
	P591		nsp	nsp	PWB ASSY	VOLUME PWB (P591)
	P701		nsp	nsp	PWB ASSY	POWER STAGE PWB
	P751		nsp	nsp	PWB ASSY	SPK TERMINAL PWB(P751)FOR F U
	P791		nsp	nsp	PWB ASSY	HEAD PHONE PWB (P791)
	P851		nsp	nsp	PWB ASSY	STANDBY PWB (P851)
	P891		nsp	nsp	PWB ASSY	POWER SW PWB (P891)
	P981		nsp	nsp	PWB ASSY	CLAMP PWB (P981)
	PU01		nsp	nsp	PWB ASSY	U-COM PWB (PU01)
PACKING						
	001T	F N	nsp	541110081018M	USER GUIDE	USER GUIDE PM7003/PM8003(F)
	001T	/N1B	541110081032M	541110081032M	USER GUIDE	USER GUIDE PM7003/PM8003(N)
	001T	/N1SG	541110081032M	541110081032M	USER GUIDE	USER GUIDE PM7003/PM8003(N)
	001T	/U1B	nsp	541110099026M	USER GUIDE	USER GUIDE PM8003 (U)
	▲ W001	F N	nsp	00D2062223001	MAINS CORD	# MAINS CORD SET(J) D7.4
	▲ W001	/N1B	0110500020010	0110500020010	MAINS CORD	# 970304/1 EUROPEAN MAINS CODESET
	▲ W001	/N1SG	0110500020010	0110500020010	MAINS CORD	# 970304/1 EUROPEAN MAINS CODESET
	▲ W001	/U1B	nsp	611050010006S	MAINS CORD	# MAINSC CORD UL/CSA 10A 125V
	Z001		307010030006M	307010030006M	UNIT KIT	REMOTE CONTROLLER RC003PM
NOT STANDARD SPARE PART						
	001S		nsp	531210029005M	PACKING CASE	PACKING CASE PM8003
	002S		nsp	533610024019M	CUSHION	CUSHION L/R PM8003(25AJ)
	001D	F N	nsp	00M14AJ257310	LID	TOP COVER SG
	001D	/N1B	nsp	00M14AJ257320	LID	TOP COVER BL
	001D	/N1SG	nsp	00M14AJ257310	LID	TOP COVER SG
	001D	/U1B	nsp	00M14AJ257320	LID	TOP COVER BL

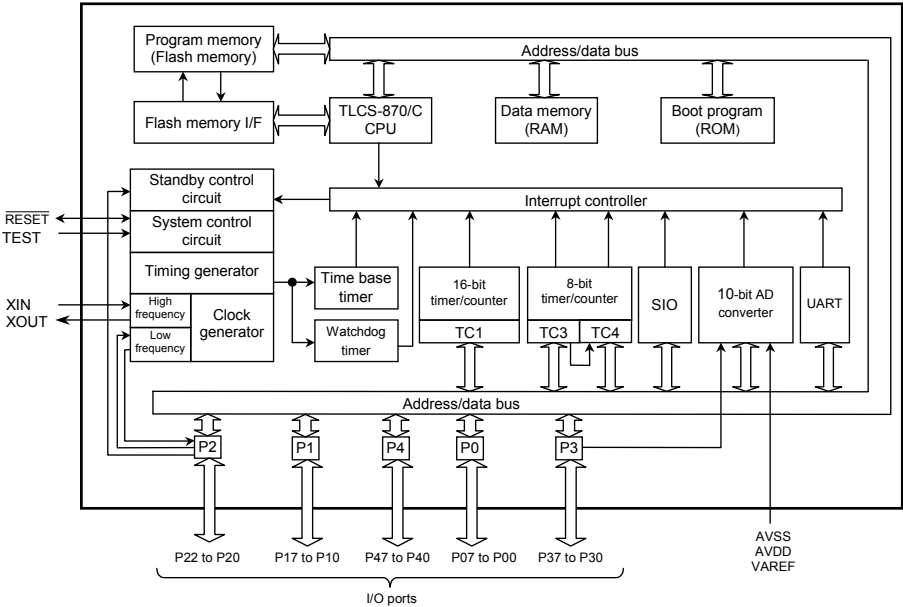
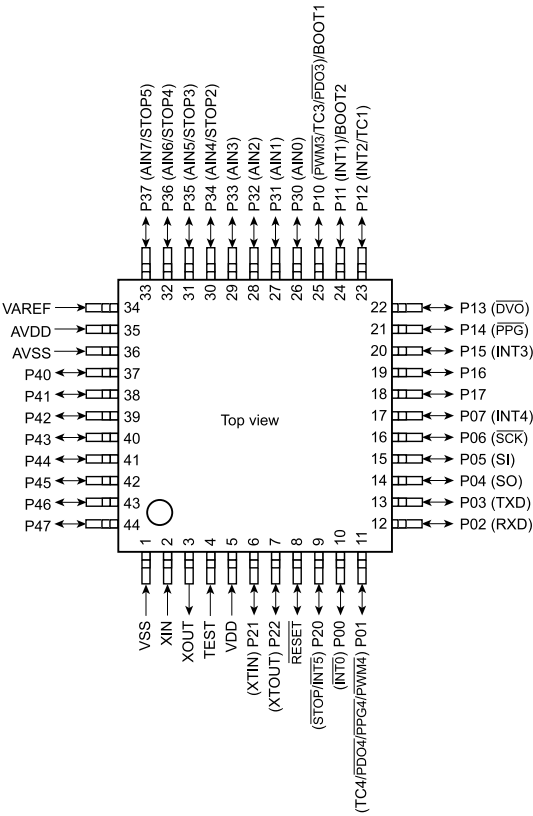
NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

11. MICROPROCESSOR AND IC DATA

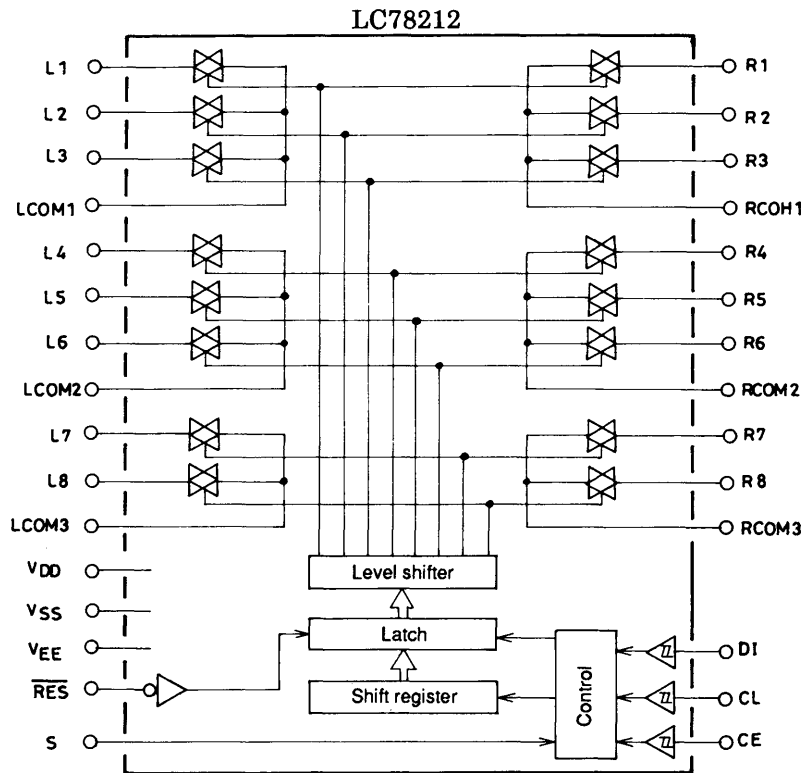
QU01 : TMP86FH47UG

Pin No.	Port name	I/O	use	Port Setting				Note
				Name	Act.	Init	STBY	
1	VSS	-	-	VSS	-	-	-	0 V
2	XIN	I	I	XIN	-	-	-	8M Clock in
3	XOUT	O	O	XOUT	-	-	-	8M Clock out
4	TEST	I	I	TEST	H	L	L	L->H : PROM Mode
5	VDD	-	-	VDD	-	-	-	u-com power supply
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	RESET	L	-	H	u-com Reset connector
9	P20 (STOP/INT5)	I/O	I	P_OFF	L	H	L	Detect Power Down(primary power supply ON/OFF detection)
10	P00 (INT0)	I/O	O	SPK	L	H	H	Speaker Relay On (Audio Out)
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	-	H	H	I2C (EEPROM) (Pull up)
19	P16	I/O	I/O	IIC_DATA	-	H	H	I2C (EEPROM) (Pull up)
20	P15 (INT3)	I/O	I	NC.	-	-	-	-
21	P14 (PPG)	I/O	O	SO_DI	L	H	H	Source Direct Relay
22	P13 (DVO)	I/O	O	PA_DI	L	H	H	Power Amp Direct Relay
23	P12 (INT2/TC1)	I/O	I	RC-5_IN	L	H	H	RC-5 Input
24	P11 (INT1)(BOOT2)	I/O	I/O	Boot2/TXD	-	-	-	Pull Up
25	P10 (PWM3/TC3/PD03)(BOOT1)	I/O	I/O	Boot1/RXD	-	-	-	Pull Up
26	P30 (AIN0)	I/O	I	TACT	-	-	-	Tact sw A/D
27	P31 (AIN1)	I/O	I	M_B_DOWN	L	H	H	Amp power supply OFF
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	NC.	-	-	-	-
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 / warning, and SPK OFF
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	REC1 LED
43	P46	I/O	O	LED_REC2	L	H	H	REC2 LED
44	P47	I/O	O	LED_MUTE	L	H	H	MUTE LED

The contents of Port Setting (Act. : ACTIVE, Stand : STANDBY, Back : BACKUP)



Q391 : LC78212



LAPT

2SC2837

Silicon NPN Epitaxial Planar Transistor (Complement to type 2SA1186)

Application : Audio and General Purpose

Absolute maximum ratings (Ta=25°C)

Symbol	2SC2837	Unit
V _{CB0}	150	V
V _{CE0}	150	V
V _{EB0}	5	V
I _c	10	A
I _B	2	A
P _c	100(T _c =25°C)	W
T _J	150	°C
T _{stg}	-55 to +150	°C

Electrical Characteristics (Ta=25°C)

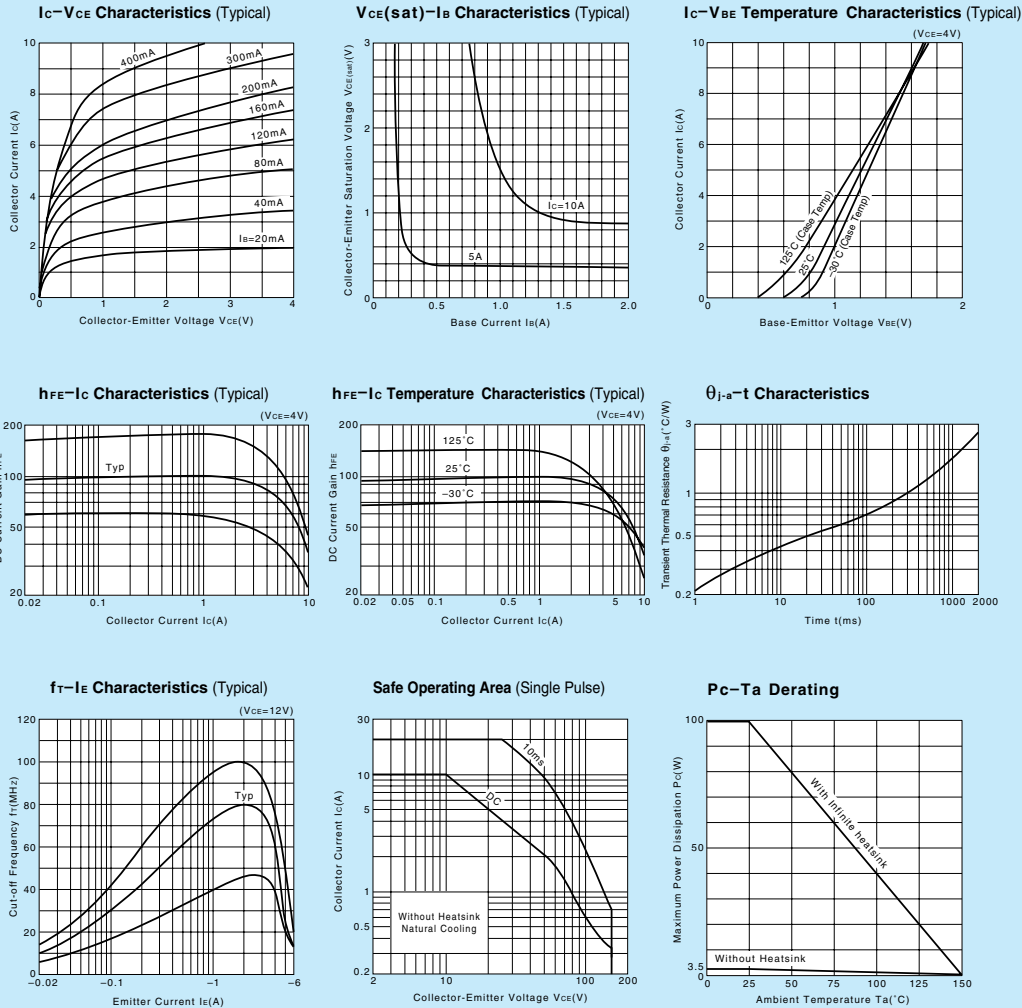
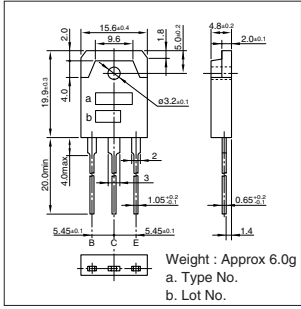
Symbol	Conditions	2SC2837	Unit
I _{CB0}	V _{CB} =150V	100max	μA
I _{EB0}	V _{EB} =5V	100max	μA
V _{(BR)CEO}	I _c =25mA	150min	V
h _{FE}	V _{CE} =4V, I _c =3V	50min*	
V _{CE(sat)}	I _c =5A, I _B =0.5A	2.0max	V
f _T	V _{CE} =12V, I _E =-1A	70typ	MHz
C _{OB}	V _{CE} =80V, f=1MHz	60typ	pF

*h_{FE} Rank O(50 to 100), P(70 to 140), Y(90 to 180)

Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _C (A)	V _{BE2} (V)	I _{B1} (mA)	I _{B2} (mA)	t _{on} (μs)	t _{stg} (μs)	t _f (μs)
60	12	5	-5	500	-500	0.2typ	1.4typ	0.35typ

External Dimensions MT-100(TO3P)



LAPT 2SA1186

Silicon PNP Epitaxial Planar Transistor (Complement to type 2SC2837)

Application : Audio and General Purpose

■ Absolute maximum ratings (Ta=25°C)

Symbol	2SA1186	Unit
V _{CB0}	-150	V
V _{CE0}	-150	V
V _{EB0}	-5	V
I _C	-10	A
I _B	-2	A
P _C	100(Ta=25°C)	W
T _J	150	°C
Tstg	-55 to +150	°C

■ Electrical Characteristics (Ta=25°C)

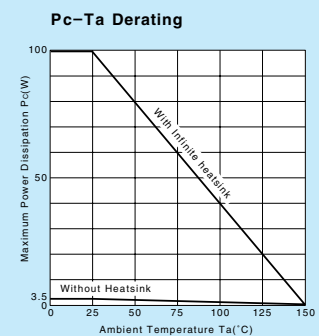
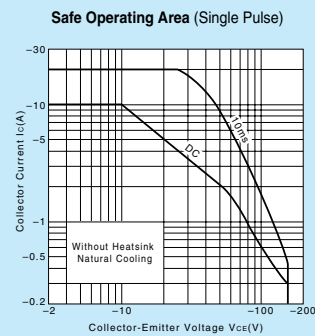
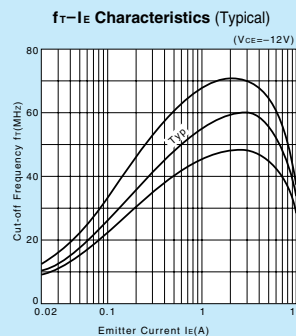
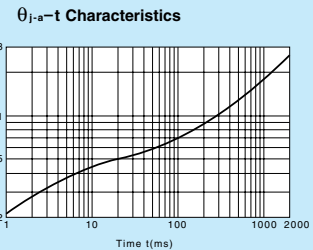
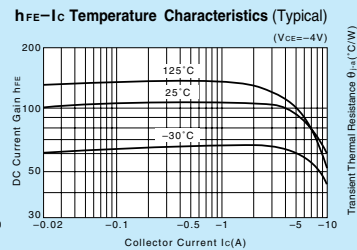
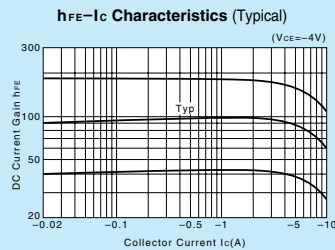
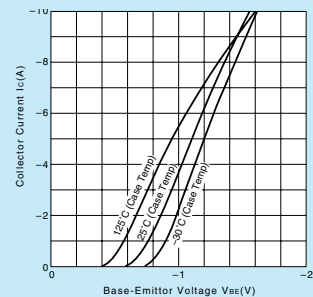
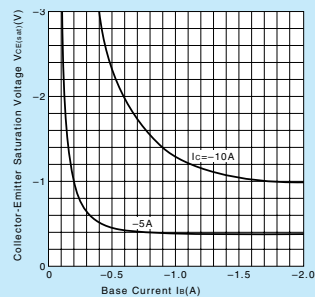
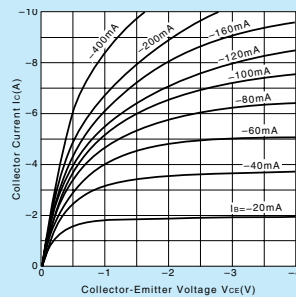
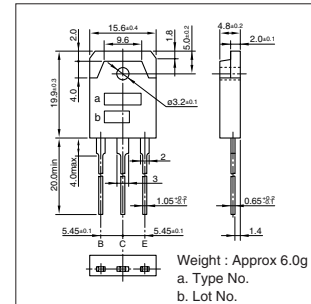
Symbol	Conditions	2SA1186	Unit
I _{CB0}	V _{CB} =-150V	-100max	μA
I _{EB0}	V _{EB} =-5V	-100max	μA
V _{(BR)CEO}	I _C =-25mA	-150min	V
h _{FE}	V _{CE} =-4V, I _C =-3A	50min*	
V _{CE(sat)}	I _C =-5A, I _B =-0.5A	-2.0max	V
f _T	V _{CE} =-12V, I _E =1A	60typ	MHz
C _{OB}	V _{CB} =-80V, f=1MHz	110typ	pF

*h_{FE} Rank: O(50 to 100), P(70 to 140), Y(90 to 180)

■ Typical Switching Characteristics (Common Emitter)

V _{CC} (V)	R _L (Ω)	I _C (A)	V _{BE} (V)	I _{B1} (mA)	I _{B2} (mA)	t _{on} (μs)	t _{stg} (μs)	t _f (μs)
-60	12	-5	5	-500	500	0.25typ	0.8typ	0.2typ

External Dimensions MT-100(TO3P)



12. 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

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

±0.25pF.....0
±0.5pF.....1
±5%.....5

* Tolerance of COMMON PARTS handled here are as follows :

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

③ Capacity value

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

CERAMIC CAP.

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

Examples ;

④ Capacity value

100pF 101	1000pF 102	10000pF 103
470pF 471	2200pF 222	

ELECTROLY CAP. (∇)

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

Examples ;

⑤ Capacity value

0.1μF.....104	4.7μF475	100μF ... 107
0.33μF.....334	10μF 106	330μF ... 337
1μF.....105	22μF226	1100μF ... 118
		2200μF ... 228

⑥ Working voltage

6.3V.....006	25V025
10V.....010	35V035
16V.....016	50V050

FILM CAP. ($\pm$)

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

Examples ;

⑦ Capacity value

0.001μF (1000pF) 102	0.1μF 104
0.0018μF.....182	0.56μF 564
0.01μF.....103	1μF 105
0.015μF.....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 – 10kΩ)

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

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

P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
					MAIN PWB (P101) (00MWA24AJ101-)	
P101	C303	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C303	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C304	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C304	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C305		1340500024090	1340500024090	ELECT. CAP.	10 UF 35V ARS
P101	C306		1340500024090	1340500024090	ELECT. CAP.	10 UF 35V ARS
P101	C307		1330500434070	1330500434070	FILM CAP.	DTG-100VDC-331J-TP
P101	C308		1330500434070	1330500434070	FILM CAP.	DTG-100VDC-331J-TP
P101	C309		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C310		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C311		1340500114030	1340500114030	ELECT. CAP.	220UF M 25 V ARA
P101	C312		1340500114030	1340500114030	ELECT. CAP.	220UF M 25 V ARA
P101	C333	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C333	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C334	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C334	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C335	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C335	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C336	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C336	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C339	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C339	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C340	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C340	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C341	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C341	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C342	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C342	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C345	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C345	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C346	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C346	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C347	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C347	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C348	/N1B	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C348	/N1SG	1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P101	C351		1340500024090	1340500024090	ELECT. CAP.	10 UF 35V ARS
P101	C352		1340500024090	1340500024090	ELECT. CAP.	10 UF 35V ARS
P101	C353		1330500434070	1330500434070	FILM CAP.	DTG-100VDC-331J-TP
P101	C354		1330500434070	1330500434070	FILM CAP.	DTG-100VDC-331J-TP
P101	C355		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C356		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C357		1340500114030	1340500114030	ELECT. CAP.	220UF M 25 V ARA
P101	C358		1340500114030	1340500114030	ELECT. CAP.	220UF M 25 V ARA
P101	C381		1340500024090	1340500024090	ELECT. CAP.	10 UF 35V ARS
P101	C382		1340500024090	1340500024090	ELECT. CAP.	10 UF 35V ARS
P101	C383		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C384		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C385		1340100465000	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C386		1340100465000	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C393		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	C501		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C502		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C503		1330500424040	1330500424040	FILM CAP.	DAMG-630VDC-101J-TP
P101	C504		1330500424040	1330500424040	FILM CAP.	DAMG-630VDC-101J-TP
P101	C505		1340500114030	1340500114030	ELECT. CAP.	220UF M 25 V ARA
P101	C506		1340500114030	1340500114030	ELECT. CAP.	220UF M 25 V ARA
P101	C507		1340500114030	1340500114030	ELECT. CAP.	220UF M 25 V ARA
P101	C508		1340500114030	1340500114030	ELECT. CAP.	220UF M 25 V ARA
P101	C509		1330500424040	1330500424040	FILM CAP.	DAMG-630VDC-101J-TP
P101	C510		1330500424040	1330500424040	FILM CAP.	DAMG-630VDC-101J-TP
P101	C511		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C512		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C601		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C602		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C603		1340100865080	1340100865080	ELECT. CAP.	RA2-63V221MH5#8-S1

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

P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P101	C604		1340100865080	1340100865080	ELECT. CAP.	RA2-63V221MH5#8-S1
P101	C605		1340100865080	1340100865080	ELECT. CAP.	RA2-63V221MH5#8-S1
P101	C606		1340100865080	1340100865080	ELECT. CAP.	RA2-63V221MH5#8-S1
P101	C607		1330500444000	1330500444000	FILM CAP.	DTG-100VDC-681J-TP
P101	C608		1330500444000	1330500444000	FILM CAP.	DTG-100VDC-681J-TP
P101	C609		1340100465000	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C610		1340100465000	1340100465000	ELECT. CAP.	RA2-25V221MG3#8-T2
P101	C611	/N1B	1330500424040	1330500424040	FILM CAP.	DAMG-630VDC-101J-TP
P101	C611	/N1SG	1330500424040	1330500424040	FILM CAP.	DAMG-630VDC-101J-TP
P101	C612	/N1B	1330500424040	1330500424040	FILM CAP.	DAMG-630VDC-101J-TP
P101	C612	/N1SG	1330500424040	1330500424040	FILM CAP.	DAMG-630VDC-101J-TP
P101	C613		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C614		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C615		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C616		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P101	C811		1340500024090	1340500024090	ELECT. CAP.	10 UF 35V ARS
P101	C812		1340500024090	1340500024090	ELECT. CAP.	10 UF 35V ARS
P101	C813		1340500114030	1340500114030	ELECT. CAP.	220UF M 25 V ARA
P101	C814		1340500114030	1340500114030	ELECT. CAP.	220UF M 25 V ARA
P101	C815		1340500114030	1340500114030	ELECT. CAP.	220UF M 25 V ARA
P101	C816		1340500114030	1340500114030	ELECT. CAP.	220UF M 25 V ARA
P101	C821		1340100595060	1340100595060	ELECT. CAP.	RA2-35V221MH3#8-T2
P101	C901		1340100665040	1340100665040	ELECT. CAP.	RA2-50V010ME3E#8-T2
P101	C902		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P101	D281		nsp	00D2760401905	DIODE	1SS133T77
P101	D282		nsp	00D2760401905	DIODE	1SS133T77
P101	D283		nsp	00D2760401905	DIODE	1SS133T77
P101	D301		nsp	00D2760401905	DIODE	1SS133T77
P101	D391		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	D601		nsp	00D2760401905	DIODE	1SS133T77
P101	D602		nsp	00D2760401905	DIODE	1SS133T77
P101	D603		nsp	00D2760401905	DIODE	1SS133T77
P101	D604		nsp	00D2760401905	DIODE	1SS133T77
P101	D605		nsp	00D2760401905	DIODE	1SS133T77
P101	D606		nsp	00D2760401905	DIODE	1SS133T77
P101	D607		nsp	00D2760401905	DIODE	1SS133T77
P101	D608		nsp	00D2760401905	DIODE	1SS133T77
P101	D609		nsp	00D2760401905	DIODE	1SS133T77
P101	D610		nsp	00D2760401905	DIODE	1SS133T77
P101	D611		nsp	00D2760401905	DIODE	1SS133T77
P101	D612		nsp	00D2760401905	DIODE	1SS133T77
P101	D613		nsp	00D2760401905	DIODE	1SS133T77
P101	D614		nsp	00D2760401905	DIODE	1SS133T77
P101	D615		nsp	00D2760401905	DIODE	1SS133T77
P101	D616		nsp	00D2760401905	DIODE	1SS133T77
P101	D811		nsp	00D2760401905	DIODE	1SS133T77
P101	D812		nsp	00D2760401905	DIODE	1SS133T77
P101	D813		nsp	00D2760645910	DIODE	MTZJ20A T77
P101	D814		nsp	00D2760645910	DIODE	MTZJ20A T77
P101	D911		nsp	00D2760401905	DIODE	1SS133T77
P101	D912		nsp	00D2760401905	DIODE	1SS133T77
P101	J301		643810029001S	643810029001S	TERMINAL	CINCH JACK 2P AU MSP-242V3-12 GILT LF
P101	J302		643810028008S	643810028008S	TERMINAL	CINCH JACK 4P AU MSP-244V4-17 GILT LF
P101	J303		643810028008S	643810028008S	TERMINAL	CINCH JACK 4P AU MSP-244V4-17 GILT LF
P101	J304		643810028008S	643810028008S	TERMINAL	CINCH JACK 4P AU MSP-244V4-17 GILT LF
P101	L281		00D2140208003	00D2140208003	RELAY	RELAY(NA24W-K)
P101	L282		00D2140208003	00D2140208003	RELAY	RELAY(NA24W-K)
P101	L283		00D2140208003	00D2140208003	RELAY	RELAY(NA24W-K)
P101	L284		00D2140208003	00D2140208003	RELAY	RELAY(NA24W-K)
P101	L301		00D2140208003	00D2140208003	RELAY	RELAY(NA24W-K)
P101	L912		1190100014090	1190100014090	FERRITE CORE	BL02RN2R1N1A FERRITE BEAD
P101	Q281		00D2690206908	00D2690206908	TRS.	KRC102M-AT/P (10K-10K)
P101	Q283		00D2690206908	00D2690206908	TRS.	KRC102M-AT/P (10K-10K)

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

P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P101	Q284		00D2690206908	00D2690206908	TRS.	KRC102M-AT/P (10K-10K)
P101	Q301		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q302		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q303		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q304		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q305		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q306		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q307		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q308		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q309		00D2690206908	00D2690206908	TRS.	KRC102M-AT/P (10K-10K)
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	Q381		00D2630609002	00D2630609002	IC	NJM2068DDC +T
P101	Q391		2340100017040	2340100017040	IC	LC78212
P101	Q501		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q502		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q503		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q504		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q505		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q506		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q507		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q508		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q509		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q510		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q511		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q512		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q513		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q514		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q515		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q516		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q517		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q518		2110500020090	2110500020090	TRS.	KTA1268 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	Q523		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q524		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q525		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q526		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q527		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q528		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q601		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q602		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q603		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q604		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q605		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q606		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q607		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q608		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q609		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q610		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q611		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q612		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q613		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q614		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q615		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q616		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q617		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q618		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P101	Q619		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR

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

P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P101	Q620		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P101	Q621		00D2710168900	00D2710168900	TRS.	2SA1145 (O)/(Y)TPE6
P101	Q622		00D2710168900	00D2710168900	TRS.	2SA1145 (O)/(Y)TPE6
P101	Q623		00D2730281906	00D2730281906	TRS.	2SC2705 (O)/(Y)TPE6
P101	Q624		00D2730281906	00D2730281906	TRS.	2SC2705 (O)/(Y)TPE6
P101	Q625		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P101	Q626		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P101	Q627		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	Q628		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	Q629		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	Q630		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	Q631		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P101	Q632		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P101	Q633		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	Q634		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	Q635		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P101	Q636		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P101	Q811		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P101	Q812		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	▲ Q813		2140500010050	2140500010050	TRS.	! 2SD1415A
P101	▲ Q814		2120500010090	2120500010090	TRS.	! 2SB1020A
P101	Q815		2110500010060	2110500010060	TRS.	KTA1267 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	Q911		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P101	Q912		00D2690206908	00D2690206908	TRS.	KRC102M-AT/P (10K-10K)
P101	Q913		00D2690204900	00D2690204900	TRS.	KRA102M-AT/P (10K-10K)
P101	Q914		00D2690206908	00D2690206908	TRS.	KRC102M-AT/P (10K-10K)
P101	Q915		00D2690206908	00D2690206908	TRS.	KRC102M-AT/P (10K-10K)
P101	Q916		00D2690206908	00D2690206908	TRS.	KRC102M-AT/P (10K-10K)
P101	Q917		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P101	Q918		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P101	▲ R281		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	▲ R283		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	▲ R284		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	R285		nsp	00D2412397927	RES.	RD14B2E271JT(5)
P101	R286		nsp	00D2412397927	RES.	RD14B2E271JT(5)
P101	R287		nsp	00D2412404991	RES.	RD14B2E474JT(5)
P101	R288		nsp	00D2412404991	RES.	RD14B2E474JT(5)
P101	R289		nsp	00D2412397927	RES.	RD14B2E271JT(5)
P101	R290		nsp	00D2412397927	RES.	RD14B2E271JT(5)
P101	R301		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R302		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R303		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P101	R304		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P101	R305		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P101	R306		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P101	R307		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R308		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R309		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R310		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R311		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R312		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R313		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R314		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R315		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R316		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R317		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R318		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R321		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R322		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	▲ R323		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	▲ R324		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	▲ R325		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	R327		nsp	00D2412398955	RES.	RD14B2E102JT(5)

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

P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P101	R328		nsp	00D2412398955	RES.	RD14B2E102JT(5)
P101	R331		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R332		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R333		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R334		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R335		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R336		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R337		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R338		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R339		nsp	00D2412397998	RES.	RD14B2E561JT(5)
P101	R340		nsp	00D2412397998	RES.	RD14B2E561JT(5)
P101	R341		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R342		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R343		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R344		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R345		nsp	00D2412397998	RES.	RD14B2E561JT(5)
P101	R346		nsp	00D2412397998	RES.	RD14B2E561JT(5)
P101	R351		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R352		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R353		nsp	00D2412401994	RES.	RD14B2E273JT(5)
P101	R354		nsp	00D2412401994	RES.	RD14B2E273JT(5)
P101	R355		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P101	R356		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P101	R357		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R358		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R359		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R360		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R361		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R362		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R363		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R364		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R365		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R366		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R367		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R368		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R369		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R370		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	▲ R371		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	▲ R372		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	R381		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R382		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R383		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R384		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R385		nsp	00D2412395945	RES.	RD14B2E470JT(5)
P101	R386		nsp	00D2412395945	RES.	RD14B2E470JT(5)
P101	▲ R387		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	▲ R388		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	R391		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P101	R392		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P101	R393		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P101	R501		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P101	R502		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P101	R503		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P101	R504		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P101	R509		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R510		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R511		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R512		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R513		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R514		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R515		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R516		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R517		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R518		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R519		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R520		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R521		nsp	00D2412397972	RES.	RD14B2E471JT(5)

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P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P101	R522		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P101	R523		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P101	R524		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P101	R525		nsp	00D2412397901	RES.	RD14B2E221JT(5)
P101	R526		nsp	00D2412397901	RES.	RD14B2E221JT(5)
P101	R527		nsp	00D2412397901	RES.	RD14B2E221JT(5)
P101	R528		nsp	00D2412397901	RES.	RD14B2E221JT(5)
P101	R529		nsp	00D2412405974	RES.	RD14B2E105JT(5)
P101	R530		nsp	00D2412405974	RES.	RD14B2E105JT(5)
P101	R531		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R532		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R533		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R534		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R535		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R536		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R537		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R538		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R539		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R540		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R541		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R542		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R543		nsp	00D2412397943	RES.	RD14B2E331JT(5)
P101	R544		nsp	00D2412397943	RES.	RD14B2E331JT(5)
P101	R545		nsp	00D2412397943	RES.	RD14B2E331JT(5)
P101	R546		nsp	00D2412397943	RES.	RD14B2E331JT(5)
P101	R547		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P101	R548		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P101	R549		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R550		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	▲ R553		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	▲ R554		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	▲ R555		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	▲ R556		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	R601		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R602		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P101	R603		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P101	R604		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P101	R605		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P101	R606		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P101	R607		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R608		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R609		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R610		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R611		nsp	00D2412401952	RES.	RD14B2E183JT(5)
P101	R612		nsp	00D2412401952	RES.	RD14B2E183JT(5)
P101	R613		nsp	00D2412401952	RES.	RD14B2E183JT(5)
P101	R614		nsp	00D2412401952	RES.	RD14B2E183JT(5)
P101	R615		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R616		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R617		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R618		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R619		nsp	1210100294000	RES.	CFPS1/4CMHTA471J
P101	R620		nsp	1210100294000	RES.	CFPS1/4CMHTA471J
P101	R621		nsp	1210100294000	RES.	CFPS1/4CMHTA471J
P101	R622		nsp	1210100294000	RES.	CFPS1/4CMHTA471J
P101	R623		nsp	1210100234020	RES.	CFPS1/4CMHTA151J
P101	R624		nsp	1210100234020	RES.	CFPS1/4CMHTA151J
P101	R625		nsp	1210100234020	RES.	CFPS1/4CMHTA151J
P101	R626		nsp	1210100234020	RES.	CFPS1/4CMHTA151J
P101	R627		nsp	00D2412405974	RES.	RD14B2E105JT(5)
P101	R628		nsp	00D2412405974	RES.	RD14B2E105JT(5)
P101	R629		nsp	00D2412405974	RES.	RD14B2E105JT(5)
P101	R630		nsp	00D2412405974	RES.	RD14B2E105JT(5)
P101	R633		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P101	R634		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P101	R635		nsp	00D2412402951	RES.	RD14B2E473JT(5)
P101	R636		nsp	00D2412402951	RES.	RD14B2E473JT(5)

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

P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P101	R637		nsp	00D2412402951	RES.	RD14B2E473JT(5)
P101	R638		nsp	00D2412402951	RES.	RD14B2E473JT(5)
P101	R639		00MRA04720780	00MRA04720780	TRIM. RES.	4.7KOHM KVSF637TC472
P101	R640		00MRA04720780	00MRA04720780	TRIM. RES.	4.7KOHM KVSF637TC472
P101	R641		nsp	00D2412404991	RES.	RD14B2E474JT(5)
P101	R642		nsp	00D2412404991	RES.	RD14B2E474JT(5)
P101	R643		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R644		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R645		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R646		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R647		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R648		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R649		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R650		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R651		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R652		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R653		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R654		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R655		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R656		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R657		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	R658		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P101	▲ R659		1210500024030	1210500024030	RES.	! CFP1/4CGTA100J
P101	▲ R660		1210500024030	1210500024030	RES.	! CFP1/4CGTA100J
P101	▲ R661		1210500024030	1210500024030	RES.	! CFP1/4CGTA100J
P101	▲ R662		1210500024030	1210500024030	RES.	! CFP1/4CGTA100J
P101	R663		nsp	00D2412401994	RES.	RD14B2E273JT(5)
P101	R664		nsp	00D2412401994	RES.	RD14B2E273JT(5)
P101	R665		nsp	00D2412401994	RES.	RD14B2E273JT(5)
P101	R666		nsp	00D2412401994	RES.	RD14B2E273JT(5)
P101	R667		nsp	00D2412400953	RES.	RD14B2E682JT(5)
P101	R668		nsp	00D2412400953	RES.	RD14B2E682JT(5)
P101	R669		nsp	00D2412400953	RES.	RD14B2E682JT(5)
P101	R670		nsp	00D2412400953	RES.	RD14B2E682JT(5)
P101	R811		nsp	00D2412398955	RES.	RD14B2E102JT(5)
P101	R812		nsp	00D2412398955	RES.	RD14B2E102JT(5)
P101	R813		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R814		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P101	R815		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P101	R816		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P101	R817		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P101	R818		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P101	▲ R819		nsp	1210100054040	RES.	! CFPS1/4CMHTA-4R7J
P101	▲ R820		nsp	1210100054040	RES.	! CFPS1/4CMHTA-4R7J
P101	▲ R821		1210100134050	1210100134050	RES.	! CFPS1/4CMHTA220J
P101	▲ R822		1210100094060	1210100094060	RES.	! CFPS1/4CMHTA100J
P101	R823		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P101	R824		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P101	R825		nsp	00D2412402919	RES.	RD14B2E333JT(5)
P101	R901		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P101	R902		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P101	R903		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P101	R904		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P101	R905		nsp	00D2412402919	RES.	RD14B2E333JT(5)
P101	R906		nsp	00D2412402919	RES.	RD14B2E333JT(5)
P101	R911		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P101	R912		nsp	00D2412400911	RES.	RD14B2E472JT(5)
P101	R913		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P101	R914		nsp	00D2412400911	RES.	RD14B2E472JT(5)
P101	R915		nsp	00D2412401978	RES.	RD14B2E223JT(5)
SEL PWB(P181) (00MWA24AJ207-)						
P181	S181		0630100020040	0630100020040	ROTARY SW	SRRSIC
STANBY LED PWB(P191) (00MWA24AJ209-)						
P191	D191		263710016400S	263710016400S	L.E.D.	SLI-325URT31W TP
P191	R191		nsp	00D2412398997	RES.	RD14B2E152JT(5)
TONE AMP PWB (P201) (00MWA24AJ202-)						
P201	C201		1340101204080	1340101204080	ELECT. CAP.	RC2-16V220ME1#-T2

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

P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P201	C202		1340101204080	1340101204080	ELECT. CAP.	RC2-16V220ME1#-T2
P201	C203		1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P201	C204		1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P201	C205		1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P201	C206		1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P201	C207		1340101204080	1340101204080	ELECT. CAP.	RC2-16V220ME1#-T2
P201	C208		1340101204080	1340101204080	ELECT. CAP.	RC2-16V220ME1#-T2
P201	C209		1340101314080	1340101314080	ELECT. CAP.	RC2-25V101MG1#-T2
P201	C210		1340101314080	1340101314080	ELECT. CAP.	RC2-25V101MG1#-T2
P201	C211		1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P201	C212		1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P201	C213		1340101434010	1340101434010	ELECT. CAP.	RC2-50V2R2MD1#-T2
P201	C214		1340101434010	1340101434010	ELECT. CAP.	RC2-50V2R2MD1#-T2
P201	C215		1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P201	C216		1330100015040	1330100015040	FILM CAP.	APSV 0100 J 101 0000 0200
P201	C217		1330500364090	1330500364090	FILM CAP.	AMCV0050J68300000200
P201	C218		1330500364090	1330500364090	FILM CAP.	AMCV0050J68300000200
P201	C240		1340101274090	1340101274090	ELECT. CAP.	RC2-25V100ME1#-T2
P201	C241		1340101274090	1340101274090	ELECT. CAP.	RC2-25V100ME1#-T2
P201	C251		1340101184050	1340101184050	ELECT. CAP.	RC2-10V221MG1#-T2
P201	D231		263710014404S	263710014404S	L.E.D.	SELT2E10C-S TP6 F/G RANK
P201	D232		263710014404S	263710014404S	L.E.D.	SELT2E10C-S TP6 F/G RANK
P201	D233		263710014404S	263710014404S	L.E.D.	SELT2E10C-S TP6 F/G RANK
P201	D234		263710014404S	263710014404S	L.E.D.	SELT2E10C-S TP6 F/G RANK
P201	D235		263710014404S	263710014404S	L.E.D.	SELT2E10C-S TP6 F/G RANK
P201	D236		263710014404S	263710014404S	L.E.D.	SELT2E10C-S TP6 F/G RANK
P201	D237		176010004401S	176010004401S	DISPLAY	SELU2610C-S TP6
P201	D238		2630100024080	2630100024080	L.E.D.	BLUE LED 3MM SEL2E10C
P201	D239		2630100024080	2630100024080	L.E.D.	BLUE LED 3MM SEL2E10C
P201	D271		2030500013020	2030500013020	DIODE	1D3 1A/200V
P201	D272		2030500013020	2030500013020	DIODE	1D3 1A/200V
P201	D273		2030500013020	2030500013020	DIODE	1D3 1A/200V
P201	D274		2030500013020	2030500013020	DIODE	1D3 1A/200V
P201	Q201		00D2630609002	00D2630609002	IC	NJM2068DDC +T
P201	Q203		00D2630609002	00D2630609002	IC	NJM2068DDC +T
P201	Q204		00D2630609002	00D2630609002	IC	NJM2068DDC +T
P201	Q231		00D2690206908	00D2690206908	TRS.	KRC102M-AT/P (10K-10K)
P201	Q232		00D2690206908	00D2690206908	TRS.	KRC102M-AT/P (10K-10K)
P201	Q251		2620100010060	2620100010060	PHOTO UNIT	RPM6936-V4 (IR SENSOR)
P201	R201		nsp	00D2412402919	RES.	RD14B2E333JT(5)
P201	R202		nsp	00D2412402919	RES.	RD14B2E333JT(5)
P201	R203		nsp	00D2412402919	RES.	RD14B2E333JT(5)
P201	R204		nsp	00D2412402919	RES.	RD14B2E333JT(5)
P201	R205		nsp	00D2412399954	RES.	RD14B2E272JT(5)
P201	R206		nsp	00D2412399954	RES.	RD14B2E272JT(5)
P201	R207		0750100020070	0750100020070	VAR. RES.	4K14K124003J
P201	R208		0750100020070	0750100020070	VAR. RES.	4K14K124003J
P201	R209		nsp	00D2412399954	RES.	RD14B2E272JT(5)
P201	R210		nsp	00D2412399954	RES.	RD14B2E272JT(5)
P201	R211		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P201	R212		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P201	R213		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P201	R214		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P201	R215		0750100030000	0750100030000	VAR. RES.	RK14K1240D0P
P201	R217		nsp	00D2412398971	RES.	RD14B2E122JT(5)
P201	R218		nsp	00D2412398971	RES.	RD14B2E122JT(5)
P201	R219		nsp	00D2412402977	RES.	RD14B2E563JT(5)
P201	R220		nsp	00D2412402977	RES.	RD14B2E563JT(5)
P201	R221		nsp	00D2412402977	RES.	RD14B2E563JT(5)
P201	R222		nsp	00D2412402977	RES.	RD14B2E563JT(5)
P201	R223		nsp	1210100094060	RES.	CFPS1/4CMHTA100J
P201	R224		nsp	1210100094060	RES.	CFPS1/4CMHTA100J
P201	R231		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P201	R232		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P201	R233		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P201	R234		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P201	R235		nsp	00D2412400995	RES.	RD14B2E103JT(5)

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P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P201	R236		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P201	R238		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P201	R239		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P201	R240		nsp	00D2412397943	RES.	RD14B2E331JT(5)
P201	R241		nsp	00D2412397943	RES.	RD14B2E331JT(5)
P201	R242		nsp	00D2412397943	RES.	RD14B2E331JT(5)
P201	R243		nsp	00D2412397943	RES.	RD14B2E331JT(5)
P201	R244		nsp	00D2412397943	RES.	RD14B2E331JT(5)
P201	R245		nsp	00D2412397943	RES.	RD14B2E331JT(5)
P201	R246		nsp	00D2412397943	RES.	RD14B2E331JT(5)
P201	R247		nsp	00D2412397901	RES.	RD14B2E221JT(5)
P201	R248		nsp	00D2412397901	RES.	RD14B2E221JT(5)
P201	R251		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P201	R261		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P201	R262		nsp	00D2412399938	RES.	RD14B2E222JT(5)
P201	R263		nsp	00D2412399996	RES.	RD14B2E392JT(5)
P201	R273		nsp	00D2412398971	RES.	RD14B2E122JT(5)
P201	R274		nsp	00D2412398971	RES.	RD14B2E122JT(5)
P201	S261		00MSP01012030	00MSP01012030	PUSH SW	SKHVBF 260GF RED
P201	S262		00MSP01012030	00MSP01012030	PUSH SW	SKHVBF 260GF RED
P201	S271		00MSR01040150	00MSR01040150	ROTARY SW	SRBV141200 NON-SHORTING L=20
					PHONO AMP PWB(P401) (00MWA25AJ301-)	
P401	C291	/N1B	1330100055060	1330100055060	FILM CAP.	APSV 0100 J 221 0000 0200
P401	C291	/N1SG	1330100055060	1330100055060	FILM CAP.	APSV 0100 J 221 0000 0200
P401	C292	/N1B	1330100055060	1330100055060	FILM CAP.	APSV 0100 J 221 0000 0200
P401	C292	/N1SG	1330100055060	1330100055060	FILM CAP.	APSV 0100 J 221 0000 0200
P401	C293	/N1B	1330100055060	1330100055060	FILM CAP.	APSV 0100 J 221 0000 0200
P401	C293	/N1SG	1330100055060	1330100055060	FILM CAP.	APSV 0100 J 221 0000 0200
P401	C294	/N1B	1330100055060	1330100055060	FILM CAP.	APSV 0100 J 221 0000 0200
P401	C294	/N1SG	1330100055060	1330100055060	FILM CAP.	APSV 0100 J 221 0000 0200
P401	C297		1330100075020	1330100075020	FILM CAP.	APSV 0100 J 331 0000 0200
P401	C298		1330100075020	1330100075020	FILM CAP.	APSV 0100 J 331 0000 0200
P401	C403	/N1B	1330100055060	1330100055060	FILM CAP.	APSV 0100 J 221 0000 0200
P401	C403	/N1SG	1330100055060	1330100055060	FILM CAP.	APSV 0100 J 221 0000 0200
P401	C404	/N1B	1330100055060	1330100055060	FILM CAP.	APSV 0100 J 221 0000 0200
P401	C404	/N1SG	1330100055060	1330100055060	FILM CAP.	APSV 0100 J 221 0000 0200
P401	C405		1340500024090	1340500024090	ELECT. CAP.	ROS-35V100M-F3#PE-T2
P401	C406		1340500024090	1340500024090	ELECT. CAP.	ROS-35V100M-F3#PE-T2
P401	C407		1330500424040	1330500424040	FILM CAP.	DAMG-630VDC-101J-TP
P401	C408		1330500424040	1330500424040	FILM CAP.	DAMG-630VDC-101J-TP
P401	C409		1330100125040	1330100125040	FILM CAP.	APSV 0100 J821 0000 0200
P401	C410		1330100125040	1330100125040	FILM CAP.	APSV 0100 J821 0000 0200
P401	C411		1330100195050	1330100195050	FILM CAP.	APSV 0100 J332 0000 0200
P401	C412		1330100195050	1330100195050	FILM CAP.	APSV 0100 J332 0000 0200
P401	C413		1330100135070	1330100135070	FILM CAP.	APSV 0100 J 102 0000 0200
P401	C414		1330100135070	1330100135070	FILM CAP.	APSV 0100 J 102 0000 0200
P401	C415		1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P401	C416		1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P401	C417		133050050405S	133050050405S	FILM CAP.	APSV 0100 J 3930000 D200
P401	C418		133050050405S	133050050405S	FILM CAP.	APSV 0100 J 3930000 D200
P401	C419		1340100385090	1340100385090	ELECT. CAP.	RA2-16V222M16#8
P401	C420		1340100385090	1340100385090	ELECT. CAP.	RA2-16V222M16#8
P401	C421		1340500024090	1340500024090	ELECT. CAP.	ROS-35V100M-F3#PE-T2
P401	C422		1340500024090	1340500024090	ELECT. CAP.	ROS-35V100M-F3#PE-T2
P401	C425		1340500114030	1340500114030	ELECT. CAP.	ROA-25V221M-H5#PE-T2
P401	C426		1340500114030	1340500114030	ELECT. CAP.	ROA-25V221M-H5#PE-T2
P401	C427		1340500114030	1340500114030	ELECT. CAP.	ROA-25V221M-H5#PE-T2
P401	C428		1340500114030	1340500114030	ELECT. CAP.	ROA-25V221M-H5#PE-T2
P401	D401		nsp	00D2760401905	DIODE	1SS133T77
P401	D402		nsp	00D2760401905	DIODE	1SS133T77
P401	D403		nsp	00D2760401905	DIODE	1SS133T77
P401	D404		nsp	00D2760401905	DIODE	1SS133T77
P401	D405		nsp	00D2760401905	DIODE	1SS133T77
P401	D406		nsp	00D2760401905	DIODE	1SS133T77
P401	D407		nsp	00D2760401905	DIODE	1SS133T77
P401	D408		nsp	00D2760401905	DIODE	1SS133T77
P401	J291		643810028008S	643810028008S	TERMINAL	CINCH JACK 4P AU MSP-244V4-17 GILT LF

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P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P401	J401		643810029001S	643810029001S	TERMINAL	CINCH JACK 2P AU MSP-242V3-12 GILT LF
P401	L401	/N1B	1150100010018	1150100010018	COIL	320 MH CHOKE COIL (TOROIDAL)
P401	L401	/N1SG	1150100010018	1150100010018	COIL	320 MH CHOKE COIL (TOROIDAL)
P401	L402	/N1B	1150100010018	1150100010018	COIL	320 MH CHOKE COIL (TOROIDAL)
P401	L402	/N1SG	1150100010018	1150100010018	COIL	320 MH CHOKE COIL (TOROIDAL)
P401	Q401		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q402		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q403		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q404		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q405		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q406		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q407		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q408		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q409		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q410		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q411		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q412		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q413		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q414		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q415		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q416		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q417		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q418		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q419		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q420		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q421		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q422		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q423		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q424		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q425		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q426		2130500020050	2130500020050	TRS.	KTC3200 RANK=GR
P401	Q427		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q428		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P401	Q429		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P401	Q430		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P401	Q431		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P401	Q432		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P401	Q433		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P401	Q434		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P401	Q435		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P401	Q436		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P401	Q437		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P401	Q438		2110500010060	2110500010060	TRS.	KTA1267 RANK=Y
P401	Q439		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P401	Q440		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P401	R291		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P401	R292		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P401	R295		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P401	R296		nsp	00D2412404917	RES.	RD14B2E224JT(5)
P401	R297		nsp	00D2412398955	RES.	RD14B2E102JT(5)
P401	R298		nsp	00D2412398955	RES.	RD14B2E102JT(5)
P401	R401		nsp	00D2412404959	RES.	RD14B2E334JT(5)
P401	R402		nsp	00D2412404959	RES.	RD14B2E334JT(5)
P401	R403		nsp	00D2412402977	RES.	RD14B2E563JT(5)
P401	R404		nsp	00D2412402977	RES.	RD14B2E563JT(5)
P401	R405	F N	nsp	00D2412191903	RES.	RD14B2H330JT
P401	R405	/N1B	nsp	00D2412396928	RES.	RD14B2E101JT(5)
P401	R405	/N1SG	nsp	00D2412396928	RES.	RD14B2E101JT(5)
P401	R405	/U1B	nsp	00D2412191903	RES.	RD14B2H330JT
P401	R406	F N	nsp	00D2412191903	RES.	RD14B2H330JT
P401	R406	/N1B	nsp	00D2412396928	RES.	RD14B2E101JT(5)
P401	R406	/N1SG	nsp	00D2412396928	RES.	RD14B2E101JT(5)
P401	R406	/U1B	nsp	00D2412191903	RES.	RD14B2H330JT
P401	R407		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R408		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R409		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R410		nsp	00D2412394962	RES.	RD14B2E220JT(5)

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P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P401	R415		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R416		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R417		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R418		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R419		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P401	R420		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P401	R421		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P401	R422		nsp	00D2412397972	RES.	RD14B2E471JT(5)
P401	R423		nsp	00D2412397901	RES.	RD14B2E221JT(5)
P401	R424		nsp	00D2412397901	RES.	RD14B2E221JT(5)
P401	R425		nsp	00D2412397901	RES.	RD14B2E221JT(5)
P401	R426		nsp	00D2412397901	RES.	RD14B2E221JT(5)
P401	R427		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P401	R428		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P401	R429		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R430		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R431		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R432		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R433		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P401	R434		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P401	R435		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P401	R436		nsp	00D2412401936	RES.	RD14B2E153JT(5)
P401	R437		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R438		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R439		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R440		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R441		nsp	00D2412400953	RES.	RD14B2E682JT(5)
P401	R442		nsp	00D2412400953	RES.	RD14B2E682JT(5)
P401	R443		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P401	R444		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P401	R445		nsp	00D2412396902	RES.	RD14B2E820JT(5)
P401	R446		nsp	00D2412396902	RES.	RD14B2E820JT(5)
P401	R447		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R448		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R449		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R450		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R451		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R452		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R453		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R454		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R455		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R456		nsp	00D2412394962	RES.	RD14B2E220JT(5)
P401	R457		nsp	00D2412402951	RES.	RD14B2E473JT(5)
P401	R458		nsp	00D2412402951	RES.	RD14B2E473JT(5)
P401	R459		nsp	00D2412402951	RES.	RD14B2E473JT(5)
P401	R460		nsp	00D2412402951	RES.	RD14B2E473JT(5)
P401	R461		nsp	00D2412402951	RES.	RD14B2E473JT(5)
P401	R462		nsp	00D2412402951	RES.	RD14B2E473JT(5)
P401	R463		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P401	R464		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P401	R465		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P401	R466		nsp	00D2412396928	RES.	RD14B2E101JT(5)
P401	R467		nsp	1210100094060	RES.	CFPS1/4CMHTA100J
P401	R468		nsp	1210100094060	RES.	CFPS1/4CMHTA100J
P401	R469		nsp	1210100094060	RES.	CFPS1/4CMHTA100J
P401	R470		nsp	1210100094060	RES.	CFPS1/4CMHTA100J
P401	R471		nsp	00D2412405916	RES.	RD14B2E564JT(5)
P401	R472		nsp	00D2412405916	RES.	RD14B2E564JT(5)
VOLUME PWB (P591) (00MWA25AJ303-)						
P591	C591		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P591	C592		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P591	R591		0750100040030	0750100040030	VAR. RES.	RK27112MC
POWER STAGE PWB (P701) (00MWA24AJ102-)						
P701	C701		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P701	C702		1340500044050	1340500044050	ELECT. CAP.	22 UF M 25V ARS
P701	C705		1330100534060	1330100534060	FILM CAP.	FNS(135)-100VDC-103J
P701	C706		1330100534060	1330100534060	FILM CAP.	FNS(135)-100VDC-103J

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

P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P701	C707		133050050405S	133050050405S	FILM CAP.	APSV 0100 J 3930000 D200
P701	C708		133050050405S	133050050405S	FILM CAP.	APSV 0100 J 3930000 D200
P701	▲C801		1340500210040	1340500210040	ELECT. CAP.	! LKG1J183MESCZT
P701	▲C802		1340500210040	1340500210040	ELECT. CAP.	! LKG1J183MESCZT
P701	C951		1340100655010	1340100655010	ELECT. CAP.	RA2-50VR47ME3#8-T2
P701	C952		1340100655010	1340100655010	ELECT. CAP.	RA2-50VR47ME3#8-T2
P701	C953		1340100445040	1340100445040	ELECT. CAP.	RA2-25V470ME3#8-T2
P701	C954		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P701	▲D801		2040500030040	2040500030040	DIODE	! FRH10A15
P701	▲D802		2040500020010	2040500020010	DIODE	! FCH10A15
P701	D951		nsp	2010500013060	DIODE	HSS81150V 150MA
P701	D952		nsp	2010500013060	DIODE	HSS81150V 150MA
P701	D953		nsp	2010500013060	DIODE	HSS81150V 150MA
P701	D954		nsp	2010500013060	DIODE	HSS81150V 150MA
P701	▲G801		00MBF68400010	00MBF68400010	CAP.COMP.	! 0.68UF/4.7OHM
P701	▲KT01		2170500010040	2170500010040	TRS.	! 2SA1186/2SC2837 PAIR FOR Q713/Q715
P701	▲KT02		2170500010040	2170500010040	TRS.	! 2SA1186/2SC2837 PAIR FOR Q714/Q716
P701	▲Q703		2130500040010	2130500040010	TRS.	! C3419 Y 40V 0.8A PC=1.2W (5W)
P701	▲Q704		2130500040010	2130500040010	TRS.	! C3419 Y 40V 0.8A PC=1.2W (5W)
P701	R969		00D2790034054	00D2790034054	THERMISTOR	PTH9M04BC222TS2F333
P701	R970	/U1B	nsp	00D2790034054	THERMISTOR	PTH9M04BC222TS2F333
P701	▲Q705		00D2730281906	00D2730281906	TRS.	! 2SC2705 (O)/(Y)
P701	▲Q706		00D2730281906	00D2730281906	TRS.	! 2SC2705 (O)/(Y)
P701	▲Q707		00D2710168900	00D2710168900	TRS.	! 2SA1145 (O)/(Y)
P701	▲Q708		00D2710168900	00D2710168900	TRS.	! 2SA1145 (O)/(Y)
P701	▲Q709		00D2730333003	00D2730333003	TRS.	! 2SC3423 (O/Y)
P701	▲Q710		00D2730333003	00D2730333003	TRS.	! 2SC3423 (O/Y)
P701	▲Q711		00D2710202002	00D2710202002	TRS.	! 2SA1360 (O/Y)
P701	▲Q712		00D2710202002	00D2710202002	TRS.	! 2SA1360 (O/Y)
P701	▲Q713		nsp	nsp	TRS.	! 2SC2837 RANK Y P PAIR WITH Q715 OF KT01
P701	▲Q714		nsp	nsp	TRS.	! 2SC2837 RANK Y P PAIR WITH Q716 OF KT02
P701	▲Q715		nsp	nsp	TRS.	! 2SA1186 RANK Y P PAIR WITH Q713 OF KT01
P701	▲Q716		nsp	nsp	TRS.	! 2SA1186 RANK Y P PAIR WITH Q714 OF KT02
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/P (10K-10K)
P701	Q958		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P701	R703		nsp	00D2412400979	RES.	RD14B2E822JT(5)
P701	R704		nsp	00D2412400979	RES.	RD14B2E822JT(5)
P701	R705		nsp	00D2412398997	RES.	RD14B2E152JT(5)
P701	R706		nsp	00D2412398997	RES.	RD14B2E152JT(5)
P701	R707		00MRA01020760	00MRA01020760	TRIM. RES.	1K OHM VERTICAL
P701	R708		00MRA01020760	00MRA01020760	TRIM. RES.	1K OHM VERTICAL
P701	R709		nsp	00D2412400911	RES.	RD14B2E472JT(5)
P701	R710		nsp	00D2412400911	RES.	RD14B2E472JT(5)
P701	R713		nsp	1210100294000	RES.	CFPS1/4CMHTA471J
P701	R714		nsp	1210100294000	RES.	CFPS1/4CMHTA471J
P701	R715		nsp	1210100294000	RES.	CFPS1/4CMHTA471J
P701	R716		nsp	1210100294000	RES.	CFPS1/4CMHTA471J
P701	R717		nsp	1210100334090	RES.	CFPS1/4CMHTA102J
P701	R718		nsp	1210100334090	RES.	CFPS1/4CMHTA102J
P701	R719		nsp	1210100174070	RES.	CFPS1/4CMHTA470J
P701	R720		nsp	1210100174070	RES.	CFPS1/4CMHTA470J
P701	R721		nsp	1210100174070	RES.	CFPS1/4CMHTA470J
P701	R722		nsp	1210100174070	RES.	CFPS1/4CMHTA470J
P701	▲R723		nsp	1210500034060	RES.	! CFP1/4CGTA221J
P701	▲R724		nsp	1210500034060	RES.	! CFP1/4CGTA221J
P701	R725		nsp	1210100094060	RES.	CFPS1/4CMHTA100J
P701	R726		nsp	1210100094060	RES.	CFPS1/4CMHTA100J
P701	R727		nsp	1210100094060	RES.	CFPS1/4CMHTA100J
P701	R728		nsp	1210100094060	RES.	CFPS1/4CMHTA100J
P701	▲R729		1290500010080	1290500010080	RES.	! BPR58CFR10J
P701	▲R730		1290500010080	1290500010080	RES.	! BPR58CFR10J

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P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
P701	▲ R731		1290500010080	1290500010080	RES.	! BPR58CFR10J
P701	▲ R732		1290500010080	1290500010080	RES.	! BPR58CFR10J
P701	R801		nsp	00D2412402951	RES.	RD14B2E473JT(5)
P701	R802		nsp	00D2412402951	RES.	RD14B2E473JT(5)
P701	R951		nsp	1210100294000	RES.	CFPS1/4CMHTA471J
P701	R952		nsp	1210100294000	RES.	CFPS1/4CMHTA471J
P701	R953		nsp	1210100294000	RES.	CFPS1/4CMHTA471J
P701	R954		nsp	1210100294000	RES.	CFPS1/4CMHTA471J
P701	R955		nsp	1210100414000	RES.	CFPS1/4CMHTA472J
P701	R956		nsp	1210100414000	RES.	CFPS1/4CMHTA472J
P701	R957		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P701	R958		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P701	R959		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P701	R960		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P701	R961		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P701	R962		nsp	00D2412401978	RES.	RD14B2E223JT(5)
P701	R963		nsp	00D2412400953	RES.	RD14B2E682JT(5)
P701	R964		nsp	00D2412400953	RES.	RD14B2E682JT(5)
P701	R965		nsp	00D2412402993	RES.	RD14B2E683JT(5)
P701	R966		nsp	00D2412402993	RES.	RD14B2E683JT(5)
P701	R968		nsp	00D2412403934	RES.	RD14B2E104JT(5)
SPK TERMINAL PWB (P751) (00MWA25AJ302-)						
P751	C751	/N1B	1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P751	C751	/N1SG	1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P751	C752	/N1B	1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P751	C752	/N1SG	1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P751	C753		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P751	C754		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P751	D751		nsp	00D2760401905	DIODE	1SS133T77
P751	L751		00D2140213001	00D2140213001	RELAY	RELAY(FTR-F4)
P751	L752		00D2140213001	00D2140213001	RELAY	RELAY(FTR-F4)
P751	L753		00D2140208003	00D2140208003	RELAY	RELAY(NA24W-K)
P751	R753		nsp	1210100134050	RES.	CFPS1/4CMHTA220J
P751	R754		nsp	1210100134050	RES.	CFPS1/4CMHTA220J
P751	R755		nsp	1210100134050	RES.	CFPS1/4CMHTA220J
HEADPHONE PWB (P791) (00MWA24AJ208-)						
P791	C791	/N1B	1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P791	C791	/N1SG	1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P791	C792	/N1B	1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P791	C792	/N1SG	1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P791	J791		6430100050030	6430100050030	TERMINAL	YKB26-5009G HP JACK(SILVER)
P791	R791		nsp	1210100094060	RES.	CFPS1/4CMHTA100J
P791	R792		nsp	1210100094060	RES.	CFPS1/4CMHTA100J
STANDBY PWB (P851) (00MWA24AJ204-)						
P851	▲ C851		133750061200S	133750061200S	FILM CAP.	# PHE840MA5100MA01R05
P851	C852		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P851	C853		1330100255000	1330100255000	FILM CAP.	APSV 0100 J 103 0000 0200
P851	C854		1340100665040	1340100665040	ELECT. CAP.	RA2-50V010ME3E#8-T2
P851	C855		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P851	C856		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P851	C857		1340100595060	1340100595060	ELECT. CAP.	RA2-35V221MH3#8-T2
P851	C858		1340100705030	1340100705030	ELECT. CAP.	RA2-50V100ME3E#8-T2
P851	C859		1340100665040	1340100665040	ELECT. CAP.	RA2-50V010ME3E#8-T2
P851	C860		1340100505090	1340100505090	ELECT. CAP.	RA2-25V222MJ6#8
P851	C861		1340500220070	1340500220070	ELECT. CAP.	UFW1V472MHD1AA
P851	C862		1340500220070	1340500220070	ELECT. CAP.	UFW1V472MHD1AA
P851	▲ C863		133750061200S	133750061200S	FILM CAP.	# PHE840MA5100MA01R05
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		2040500013050	2040500013050	DIODE	! SHOTTKY 11EQS10 1A 100V
P851	▲ D858		2040500013050	2040500013050	DIODE	! SHOTTKY 11EQS10 1A 100V
P851	▲ D859		2040500013050	2040500013050	DIODE	! SHOTTKY 11EQS10 1A 100V
P851	▲ D860		2040500013050	2040500013050	DIODE	! SHOTTKY 11EQS10 1A 100V

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P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
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	F N	nsp	0520100180090	FUSE	# 021806.3MXP (FUSE 6.3A 250V)
P851	⚠ F851	/N1B	0520100150000	0520100150000	FUSE	# 02183.15MXP
P851	⚠ F851	/N1SG	0520100150000	0520100150000	FUSE	# 02183.15MXP
P851	⚠ F851	/U1B	nsp	0520100180090	FUSE	# 021806.3MXP (FUSE 6.3A 250V)
P851	⚠ F852	F N	nsp	0520100150000	FUSE	# 02183.15MXP
P851	⚠ G851		00MBF68400010	00MBF68400010	CAP.COMP.	! 0.68UF/4.7OHM
P851	⚠ J860	F N	nsp	6410500020060	TERMINAL	! M7039-A AC OUTLET
P851	J863		643810027005M	643810027005M	TERMINAL	CINCH JACK 2P ORG YKC21-3641N
P851	⚠ L851	F N	nsp	1010100050048	TRANSF.	# POWER TRANSFORMER FOR 110V/100V
P851	⚠ L851	/N1B	1013100020028	1013100020028	TRANSF.	# STANDBY TRANSFORMER FOR 230V
P851	⚠ L851	/N1SG	1013100020028	1013100020028	TRANSF.	# STANDBY TRANSFORMER FOR 230V
P851	⚠ L851	/U1B	nsp	102010001005M	TRANSF.	# STANDBY TRANSFORMER FOR 120V
P851	⚠ L852		682010006001S	682010006001S	RELAY	# FTR-H2AK009T
P851	L853		1190100014090	1190100014090	FERRITE CORE	BL02RN2R1N1A FERRITE BEAD
P851	L854		1190100014090	1190100014090	FERRITE CORE	BL02RN2R1N1A FERRITE BEAD
P851	L855		1190100014090	1190100014090	FERRITE CORE	BL02RN2R1N1A FERRITE BEAD
P851	Q851		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
P851	⚠ Q852		231010022009S	231010022009S	IC	! PQ050ES1MXPQ
P851	⚠ Q853		2310100020050	2310100020050	IC	! NJM7805FA +5V
P851	Q854		2110500020090	2110500020090	TRS.	KTA1268 RANK=GR
P851	Q855		00D2690204900	00D2690204900	TRS.	KRA102M-AT/P (10K-10K)
P851	R851		nsp	1210100134050	RES.	CFPS1/4CMHTA220J
P851	R852		nsp	00D2412400911	RES.	RD14B2E472JT(5)
P851	R853		nsp	00D2412400911	RES.	RD14B2E472JT(5)
P851	R854		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P851	⚠ R855		1210500010040	1210500010040	RES.	! CFPB1/2CL12.5A1R0J
P851	⚠ R856		1210500010040	1210500010040	RES.	! CFPB1/2CL12.5A1R0J
P851	R858		nsp	00D2412403934	RES.	RD14B2E104JT(5)
P851	R859		nsp	00D2412398955	RES.	RD14B2E102JT(5)
P851	R860		nsp	00D2412398955	RES.	RD14B2E102JT(5)
P851	R861		nsp	00D2412400995	RES.	RD14B2E103JT(5)
P851	R862		nsp	00D2412395945	RES.	RD14B2E470JT(5)
POWER SW PWB (P891) (00MWA24AJ206-)						
P891	⚠ C891		1320500030000	1320500030000	CER. CAP.	# DE0910-1B 471 K - KX
P891	⚠ S891		665010008002D	665010008002D	SW	# POWER SWITCH (TV-5)
U-COM PWB(PU01) (00MWA24AJ201-)						
PU01	CU31		1340101314080	1340101314080	ELECT. CAP.	RC2-25V101MG1#-T2
PU01	CU33		1340101314080	1340101314080	ELECT. CAP.	RC2-25V101MG1#-T2
PU01	CU73		1340101184050	1340101184050	ELECT. CAP.	RC2-10V221MG1#-T2
PU01	CU82		1340101314080	1340101314080	ELECT. CAP.	RC2-25V101MG1#-T2
PU01	DU71		nsp	00D2760401905	DIODE	1SS133T77
PU01	DU81		2030500013020	2030500013020	DIODE	1D3 1A/200V
PU01	LU31		1190100014090	1190100014090	FERRITE CORE	BL02RN2R1N1A FERRITE BEAD
PU01	LU32		1190100014090	1190100014090	FERRITE CORE	BL02RN2R1N1A FERRITE BEAD
PU01	QU01		2439100016008	2439100016008	U-PRO	TMP86FH47UG
PU01			00M25AJ499A00	00M25AJ499A00	SOFTWARE	PM8003 SOFTWARE FOR QU01 VER.1
PU01	QU02		2469100015000	2469100015000	IC	AT24C08AN-10SU-2.7 EEPROM
PU01	QU03		2350100024030	2350100024030	IC	PST600D-2 RESET IC
PU01	QU04		00D2690204900	00D2690204900	TRS.	KRA102M-AT/P (10K-10K)
PU01	QU05		00D2690204900	00D2690204900	TRS.	KRA102M-AT/P (10K-10K)
PU01	QU10		00D2690204900	00D2690204900	TRS.	KRA102M-AT/P (10K-10K)
PU01	QU11		00D2690204900	00D2690204900	TRS.	KRA102M-AT/P (10K-10K)
PU01	QU12		00D2690204900	00D2690204900	TRS.	KRA102M-AT/P (10K-10K)
PU01	QU41		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
PU01	QU42		00D2690204900	00D2690204900	TRS.	KRA102M-AT/P (10K-10K)
PU01	QU45		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y
PU01	QU46		00D2690204900	00D2690204900	TRS.	KRA102M-AT/P (10K-10K)
PU01	QU72		00D2690204900	00D2690204900	TRS.	KRA102M-AT/P (10K-10K)
PU01	QU73		00D2690204900	00D2690204900	TRS.	KRA102M-AT/P (10K-10K)
PU01	QU74		00D2690204900	00D2690204900	TRS.	KRA102M-AT/P (10K-10K)
PU01	QU75		2130500010020	2130500010020	TRS.	KTC3199 RANK=Y

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

P.W.B. NAME	POS. NO.	VERS. COLOR	PART NO. (FOR EUR)	PART NO. (MZ)	PART NAME	DESCRIPTION
PU01	QU81		2350100037030	2350100037030	IC	LB1630 MOTOR DRIVE IC
PU01	RU01		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU02		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU03		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU04		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU05		nsp	00D2412400995	RES.	RD14B2E103JT(5)
PU01	RU06		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU07		nsp	00D2412400911	RES.	RD14B2E472JT(5)
PU01	RU11		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU21		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU22		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU23		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU25		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU26		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU27		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU28		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU29		nsp	00D2412400995	RES.	RD14B2E103JT(5)
PU01	RU30		nsp	00D2412400995	RES.	RD14B2E103JT(5)
PU01	RU31		nsp	00D2412400995	RES.	RD14B2E103JT(5)
PU01	RU41		nsp	00D2412399970	RES.	RD14B2E332JT(5)
PU01	RU42		nsp	00D2412403934	RES.	RD14B2E104JT(5)
PU01	RU43		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU44		nsp	00D2412402919	RES.	RD14B2E333JT(5)
PU01	RU45		nsp	00D2412400937	RES.	RD14B2E562JT(5)
PU01	RU46		nsp	00D2412403934	RES.	RD14B2E104JT(5)
PU01	RU47		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU72		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU73		nsp	00D2412401952	RES.	RD14B2E183JT(5)
PU01	RU74		nsp	00D2412402951	RES.	RD14B2E473JT(5)
PU01	RU75		nsp	00D2412396928	RES.	RD14B2E101JT(5)
PU01	RU81		nsp	00D2412400995	RES.	RD14B2E103JT(5)
PU01	RU82		nsp	00D2412400995	RES.	RD14B2E103JT(5)
PU01	RU83		nsp	1210100014020	RES.	CFPS1/4CMHTA-2R2J
PU01	XU01		142010004507S	142010004507S	X'TAL	CSTLS8M00G53

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

13. ABOUT REPLACE THE MICROPROCESSOR WITH A NEW ONE

When replaced of the U-PRO (Microprocessor) or the Flash ROM, confirm contents of the following.

PWB Name	Pos. No.	Description	After replaced	Remark
PU01	QU01	TMP86FH47UG	C	

After replaced

A : Mask ROM (With software). No need write-in of software to the microprocessor.

B : Flash ROM (With software). Usually, no need write-in of software. But, when the software was updated, you should be write-in of the new software to the microprocessor or flash ROM. Please check the software version.

C : Empty Flash ROM (Without software). You should be write-in of the software to the microprocessor or flash ROM. Refer to "Update procedure" or "writing procedure", when you should be write-in the software.

マイコン等を交換した場合の対応について

U-PRO(マイコン)およびFlash ROM等を交換した場合の対応方法を下記の記載します。

PWB Name	Pos. No.	Description	交換時の対応	備考
PU01	QU01	TMP86FH47UG	C	

交換時の対応

A : Mask ROM (ソフトウェア書き込み済み) 交換時にソフトウェアの書き込みは必要ありません。

B : Flash ROM (ソフトウェア書き込み済み) バージョンアップにより交換時にソフトウェアの書き換えが必要な場合があります。バージョンの確認をしてください。

C : 空ROM (Flash ROM) 交換時必ずソフトウェアの書き込みが必要になります。Update、書き込み方法を参照してください。