

COMPACT DISC PLAYER

CD-S700

SERVICE MANUAL

IMPORTANT NOTICE

This manual has been provided for the use of authorized YAMAHA Retailers and their service personnel.

It has been assumed that basic service procedures inherent to the industry, and more specifically YAMAHA Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components, and failure of the product to perform as specified. For these reasons, we advise all YAMAHA product owners that any service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of YAMAHA are continually striving to improve YAMAHA products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

IMPORTANT: Turn the unit OFF during disassembly and part replacement. Recheck all work before you apply power to the unit.

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このサービスマニュアルは、エコマーク認定の再生紙を使用しています。
This Service Manual uses recycled paper.



■ TO SERVICE PERSONNEL

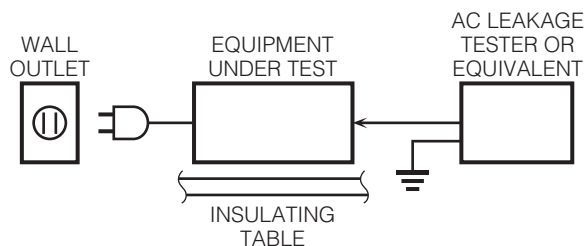
1. Critical Components Information

Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.

2. Leakage Current Measurement (For 120V Models Only)

When service has been completed, it is imperative to verify that all exposed conductive surfaces are properly insulated from supply circuits.

- Meter impedance should be equivalent to 1500 ohms shunted by 0.15 μ F.



- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.

WARNING: CHEMICAL CONTENT NOTICE!

This product contains chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

About lead free solder / 無鉛ハンダについて

All of the P.C.B.s installed in this unit and solder joints are soldered using the lead free solder.

Among some types of lead free solder currently available, it is recommended to use one of the following types for the repair work.

- Sn + Ag + Cu (tin + silver + copper)
- Sn + Cu (tin + copper)
- Sn + Zn + Bi (tin + zinc + bismuth)

Caution:

As the melting point temperature of the lead free solder is about 30°C to 40°C (50°F to 70°F) higher than that of the lead solder, be sure to use a soldering iron suitable to each solder.

本機に搭載されているすべての基板およびハンダ付けによる接合部は無鉛ハンダでハンダ付けされています。

無鉛ハンダにはいくつかの種類がありますが、修理時には下記のような無鉛ハンダの使用を推奨します。

- Sn+Ag+Cu (錫 + 銀 + 銅)
- Sn+Cu (錫 + 銅)
- Sn+Zn+Bi (錫 + 亜鉛 + ビスマス)

注意：

無鉛ハンダの融点温度は通常の鉛入りハンダに比べ 30 ~ 40°C程度高くなっていますので、それぞれのハンダに合ったハンダごてをご使用ください。

WARNING: Laser Safety

This product contains a laser beam component. This component may emit invisible, as well as visible radiation, which may cause eye damage. To protect your eyes and skin from laser radiation, the following precautions must be used during servicing of the unit.

- 1) When testing and/or repairing any component within the product, keep your eyes and skin more than 30 cm/1 feet away from the laser pick-up unit at all times. Do not stare at the laser beam at any time.
- 2) Do not attempt to readjust, disassemble or repair the laser pick-up, unless noted elsewhere in this manual.
- 3) CAUTION: Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser Emitting conditions:

- 1) When the Top Cover is removed, and the STANDBY/ON SW is turned to the "ON" position, the laser component will emit a beam for several seconds to detect if a disc is present. During this time (5-10 sec.) the laser may radiate through the lens of the laser pick-up unit. Do not attempt any servicing during this period!
If no disc is detected, the laser will stop emitting the beam. When a disc is loaded, you will not be exposed to any laser emissions.
- 2) The laser power level can be adjusted with the VR on the pick-up PWB, however, this level has been set by the factory prior to shipping from the factory. Do not adjust this laser level control unless instruction is provided elsewhere in this manual. Adjustment of this control can increase the laser emission level from the device.

Laser Diode Properties

Material: GaAlAs

Wavelength: 790 nm

Laser Output: max. 1.23 μ W *

* This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.

警告：レーザーの安全対策

本機はレーザー光線を放射する部品を搭載しています。この部品が放射するレーザー光線は目に損傷を起こします。このレーザー光線から目及び肌を保護するために、本機の修理作業中は下記の注意を厳守してください。

- 1) テスト時または修理時、目及び肌を光ピックアップから 30 cm 以上離してください。いかなる場合もレーザー光線を見つめないでください。
- 2) 光ピックアップの再調整及び分解はしないでください。
- 3) このマニュアル上で指定されている以外の制御、調整、手順はレーザー光線を照射される結果を招く恐れがあります。

レーザー放射条件

- 1) トップカバーを取り外し STANDBY/ON スイッチを ON にすると、ディスク検知のため 5 ~ 10 秒間、光ピックアップからレーザー光線が放射されます。この間、修理はしないでください。
ディスクが検知されなければ、レーザー光線の放射は停止します。ディスクがセットされている場合、ディスクで遮られるのでレーザー光線は修理担当者に届きません。
- 2) レーザーパワーレベルは光ピックアップ基板上の VR により調整可能ですが、工場出荷前に調整セット済みなので、この VR は廻さないでください。この VR を廻すと装置からのレーザー光線の放射レベルが上がる恐れがあります。

レーザー

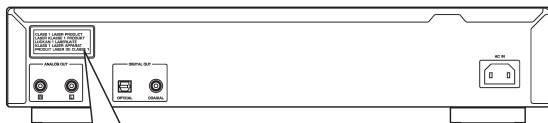
レーザータイプ : GaAlAs

波長 : 790 nm

レーザー出力 : 最大 1.23 μ W

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.



CLASS 1 LASER PRODUCT
LASER KLASSE 1 PRODUKT
LUOKAN 1 LASERLAITE
KLASS 1 LASER APPARAT
PRODUIT LASER DE CLASSE 1

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

LASER SAFETY

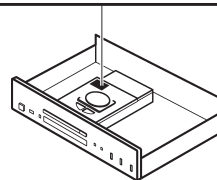
This unit employs a laser. Due to possible eye injury, only a qualified service person should remove the cover or attempt to service this device.

DANGER

This unit emits visible laser radiation when open. Avoid direct eye exposure to beam. When this unit is plugged into the wall outlet, do not place your eyes close to the opening of the disc tray and other openings to look into inside.

The laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

CAUTION - VISIBLE AND / OR INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
 VARNING - SYNLIG OCH / ELLER OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. STRÅLEN ÄR FARLIG.
 VARO ! AVATTAESSA OLET ALTTIINA NÄKYVÄLLE JA / TAI NÄKYMÄTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
 VARNING - SYNLIG OCH / ELLER OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRakta EJ STRÅLEN.
 VORSICHT ! SICHTBARE UND / ODER UNSICHTBARE LASERSTRÄHLUNG WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
 ATTENTION - RADIATION VISIBLE ET / OU INVISIBLE LORSQUE L'APPAREIL EST OUVERT. EVITEZ TOUTE EXPOSITION AU FAISCEAU.



Warning for power supply

The primary side of the power supply carries live mains voltage when the player is connected to the mains even when the player is switched off !

This primary area is not shielded so it is possible to accidentally touch copper tracks and/or components when servicing the player.

Service personnel have to take precautions to prevent touching this area or components in this area.

Note:

The screws on the DVD mechanism may never be touched, removed or re-adjusted.

Handle the DVD mechanism with care when the unit has to be exchanged!

The DVD mechanism is very sensitive for dropping or giving shocks.

■ PREVENTION OF ELECTROSTATIC DISCHARGE

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor “chip” components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as “anti-static (ESD protected)” can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

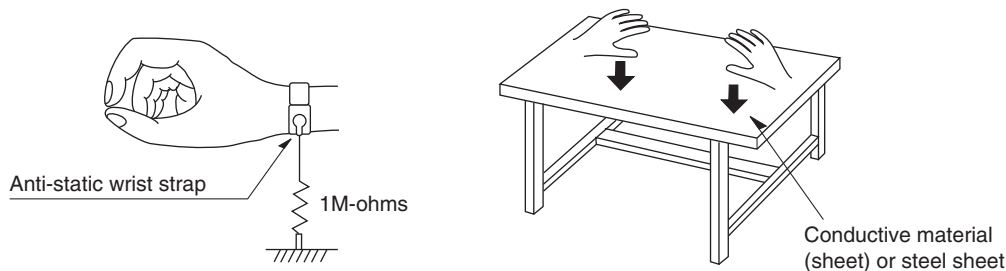
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as brushing together of your fabric clothes or lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

Grounding for electrostatic breakdown prevention

1. Human body grounding.
Use the antistatic wrist strap to discharge the static electricity from your body.
2. Work table grounding.
Put a conductive material (sheet) or steel sheet on the area where the optical pickup is placed and ground the sheet.

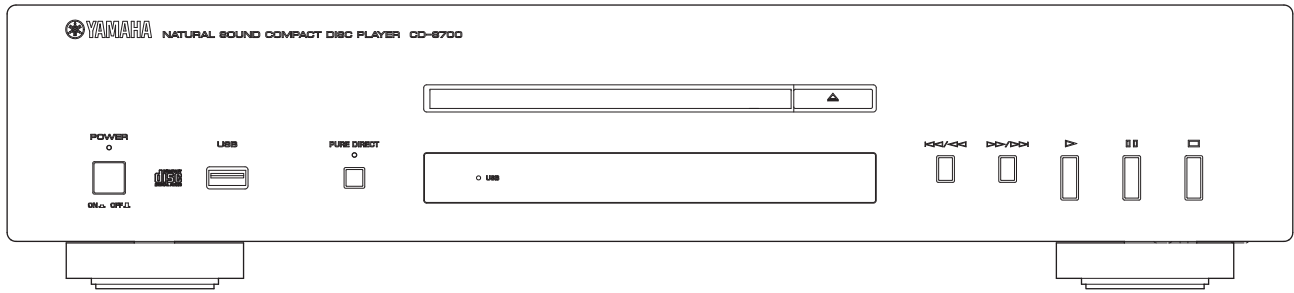
Caution:

The static electricity of your clothes will not be grounded through the wrist strap. So take care not to let your clothes touch the optical pickup.



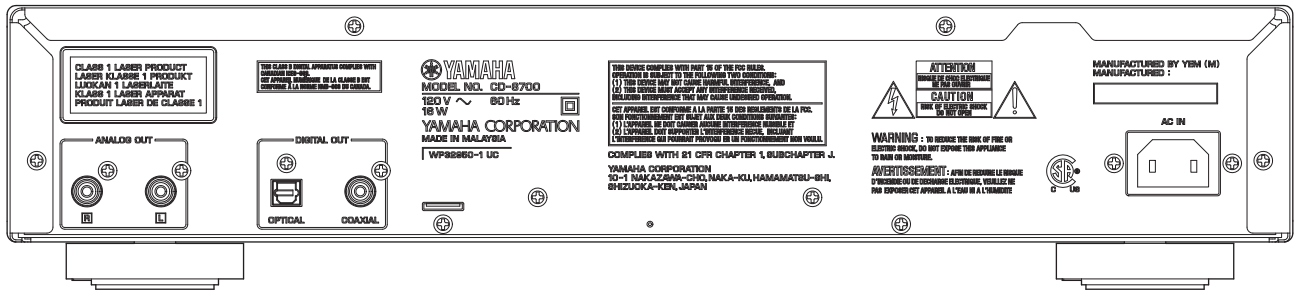
FRONT PANEL

CD-S700 (U, R, T, K, A, B, G, L, J models)

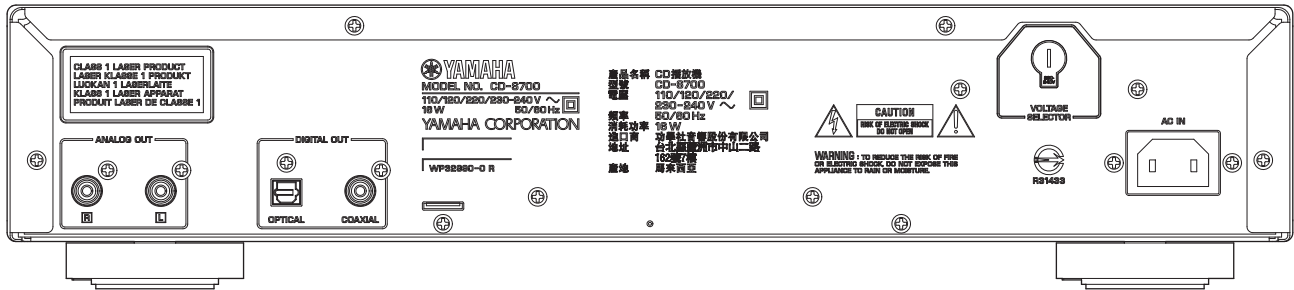


REAR PANELS

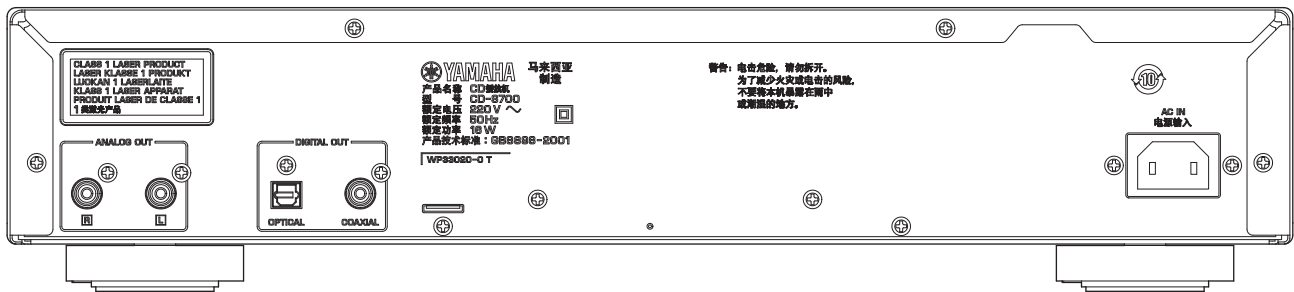
CD-S700 (U model)



CD-S700 (R model)

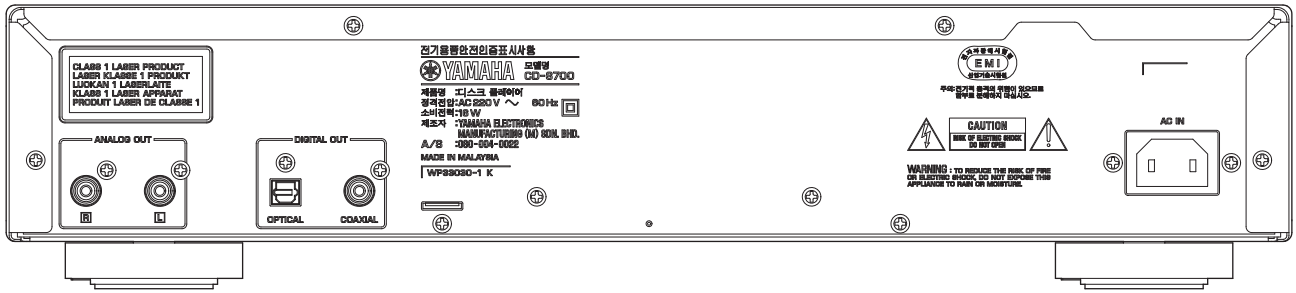


CD-S700 (T model)

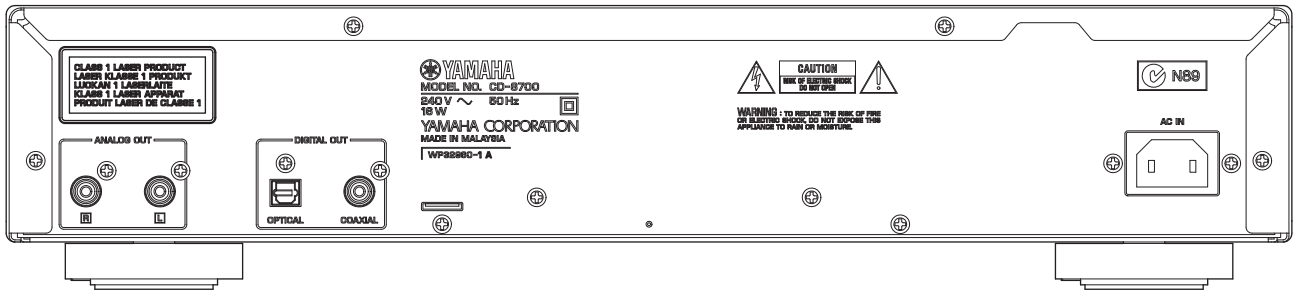


CD-S700

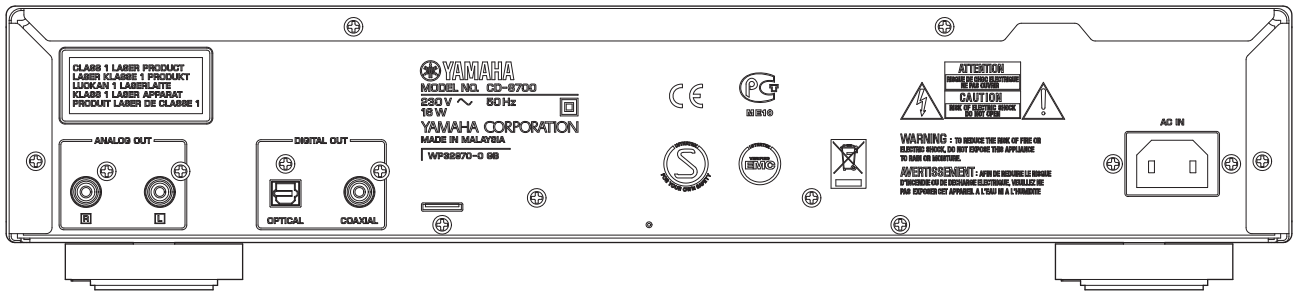
CD-S700 (K model)



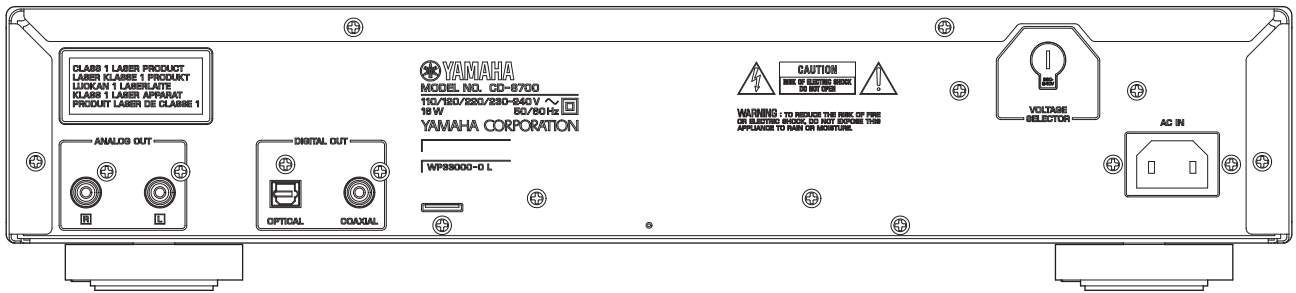
CD-S700 (A model)



CD-S700 (B, G models)

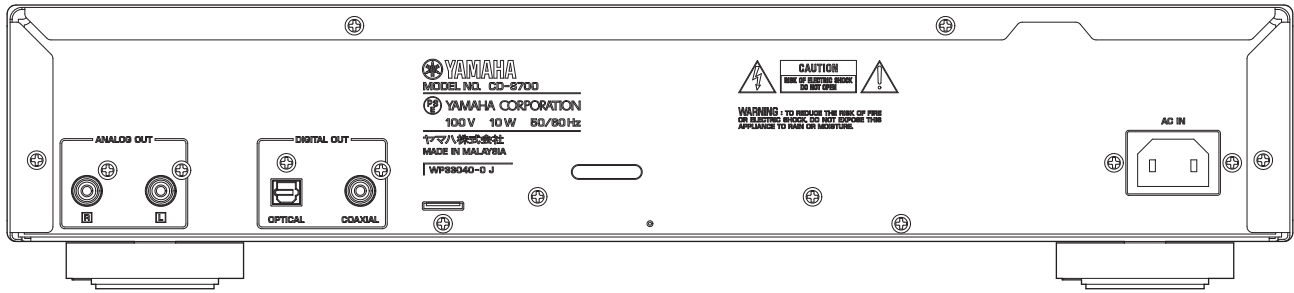


CD-S700 (L model)

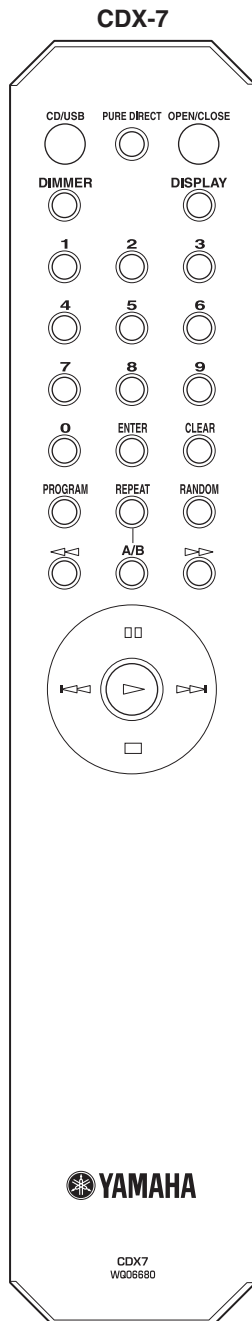


CD-S700

CD-S700 (J model)



■ REMOTE CONTROL PANEL



CD-S700

■ SPECIFICATIONS / 参考仕様

■ Audio Section / オーディオ部

| | |
|---|--------------------------|
| Output Level / 出力レベル (1 kHz, 0 dB) | 2 ±0.3 V |
| Signal to Noise Ratio / 信号対雑音比 | 110 dB or more |
| Dynamic Range / ダイナミックレンジ | 100 dB or more |
| Harmonic Distortion / 歪率 (1 kHz) | 0.002 % or less |
| Frequency Response / 周波数特性 | 2 Hz to 20 kHz |
| Digital Output Terminal / デジタル出力 | Optical x 1, Coaxial x 1 |

■ General / 総合

| | |
|---------------------------------|------------------------------------|
| Power Consumption / 消費電力 | |
| U, R, T, K, A, B, G, L models | 16 W |
| J model | 10 W |
| Power Supply / 電源電圧 | |
| U model | AC 120 V, 60 Hz |
| R, L models | AC 110/120/220/230-240 V, 50/60 Hz |
| T model | AC 220 V, 50 Hz |
| K model | AC 220 V, 60 Hz |
| A model | AC 240 V, 50 Hz |
| B, G models | AC 230 V, 50 Hz |
| J model | AC 100 V, 50/60 Hz |

Dimensions (W x H x D) / 寸法 (幅 × 高さ × 奥行き)
 435 x 96 x 300 mm (17-1/8" x 3-3/4" x 11-3/4")

Weight / 質量
 6.2 kg (13 lbs. 11 oz.)

Finish / 仕上げ
 Black color U, R, T, K, A, B, G, L, J models
 Silver color U, R, T, K, A, B, G, L, J models

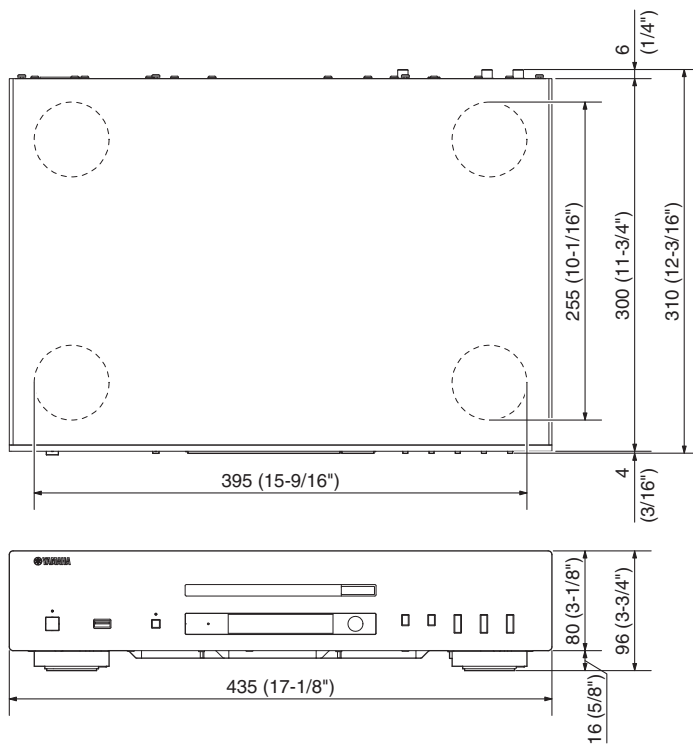
Accessories / 付属品
 Remote control x 1
 Battery (R6, AA, UM-3) x 2
 RCA stereo cable (1.5 m) x 1
 Power cable (2 m) x 1

* Specifications are subject to change without notice due to product improvements.

※ 参考仕様および外観は予告なく変更されることがあります。

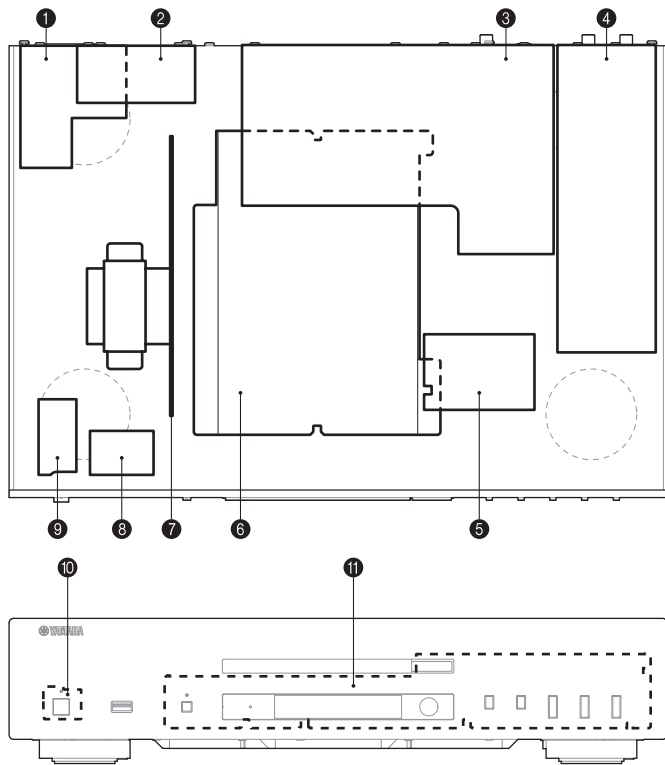
U.....U.S.A. and Canadian models **B**.....British model
R.....General model **G**.....European model
T.....Chinese model **L**.....Singapore model
K.....Korean model **J**.....Japanese model
A.....Australian model

• DIMENSIONS / 寸法図



Unit: mm (inch)
 単位: mm (インチ)

■ INTERNAL VIEW



- ① OPERATION (5) P.C.B.
- ② OPERATION (7) P.C.B. (R, L models)
- ③ DIGITAL P.C.B.
- ④ OPERATION (3) P.C.B.
- ⑤ OPERATION (9) P.C.B.
- ⑥ Loader Mechanism Ass'y
- ⑦ OPERATION (4) P.C.B.
- ⑧ OPERATION (8) P.C.B.
- ⑨ OPERATION (6) P.C.B.
- ⑩ OPERATION (2) P.C.B.
- ⑪ OPERATION (1) P.C.B.

■ DISASSEMBLY PROCEDURES / 分解手順

(Remove parts in the order as numbered.)
Disconnect the power cable from the AC outlet.

(番号順に部品を取り外してください。)
AC電源コンセントから、電源コードを抜いてください。

1. Removal of Top Cover

- a. Remove 4 screws (①) and 4 screws (②). (Fig. 1)
- b. Remove the top cover. (Fig. 1)

1. トップカバーの外し方

- a. ①ネジ4本、②のネジ4本を外します。(Fig. 1)
- b. トップカバーを取り外します。(Fig. 1)

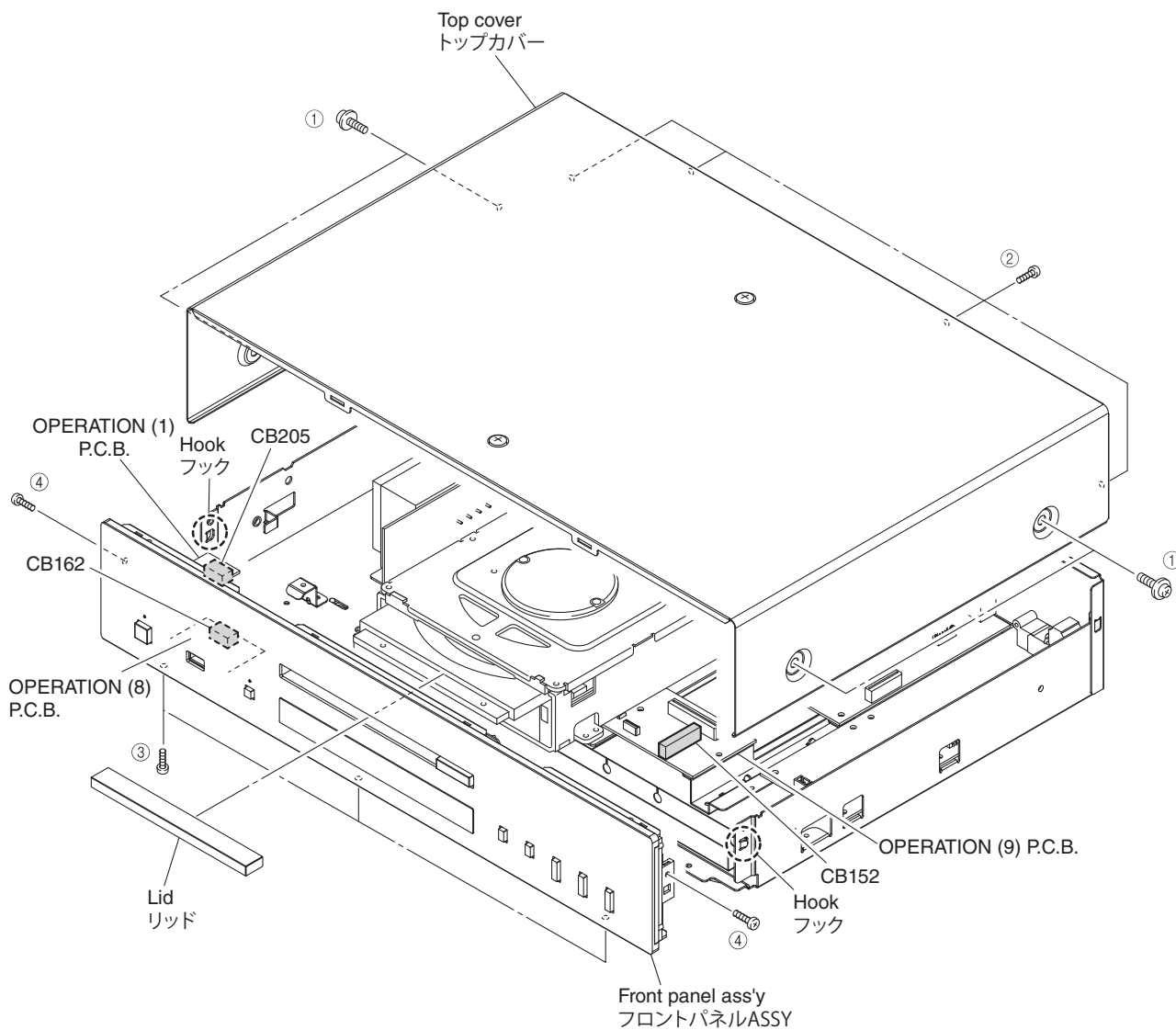


Fig. 1

2. Removal of Front Panel Ass'y

a. Using a flatblade screwdriver, move the slider at the bottom in the direction of the arrow shown below. (Fig. 2)

* The disc tray lock will be released but will not come out.

b. Push out the disc tray by pushing its rear. (Fig. 3)

c. Remove the lid. (Fig. 1)

d. Close the disc tray by pushing its front.

e. Remove 4 screws (③) and 2 screws (④). (Fig. 1)

f. Remove CB152, CB162 and CB205. (Fig. 1)

g. Release 2 hooks and then remove the front panel ass'y. (Fig. 1)

2. フロントパネル ASSY の外し方

a. マイナスドライバーで底面のスライダーを下図の矢印の方向に動かします。(Fig. 2)

※ このとき、ディスクトレイは押し出されません。

b. ディスクトレイの後方を押し、ディスクトレイを押し出します。(Fig. 3)

c. リッドを取り外します。(Fig. 1)

d. ディスクトレイの前方を押し、ディスクトレイを閉じます。

e. ③のネジ 4 本、④のネジ 2 本を外します。(Fig. 1)

f. CB152、CB162、CB205 を外します。(Fig. 1)

g. フック 2 箇所を外し、フロントパネル ASSY を取り外します。(Fig. 1)

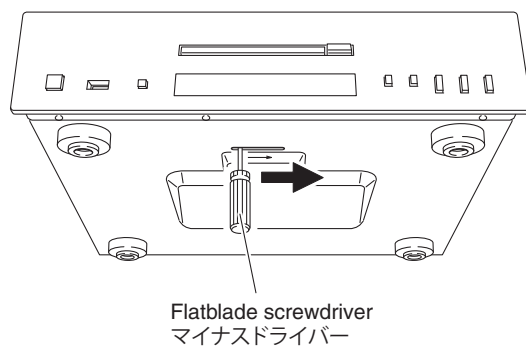


Fig. 2

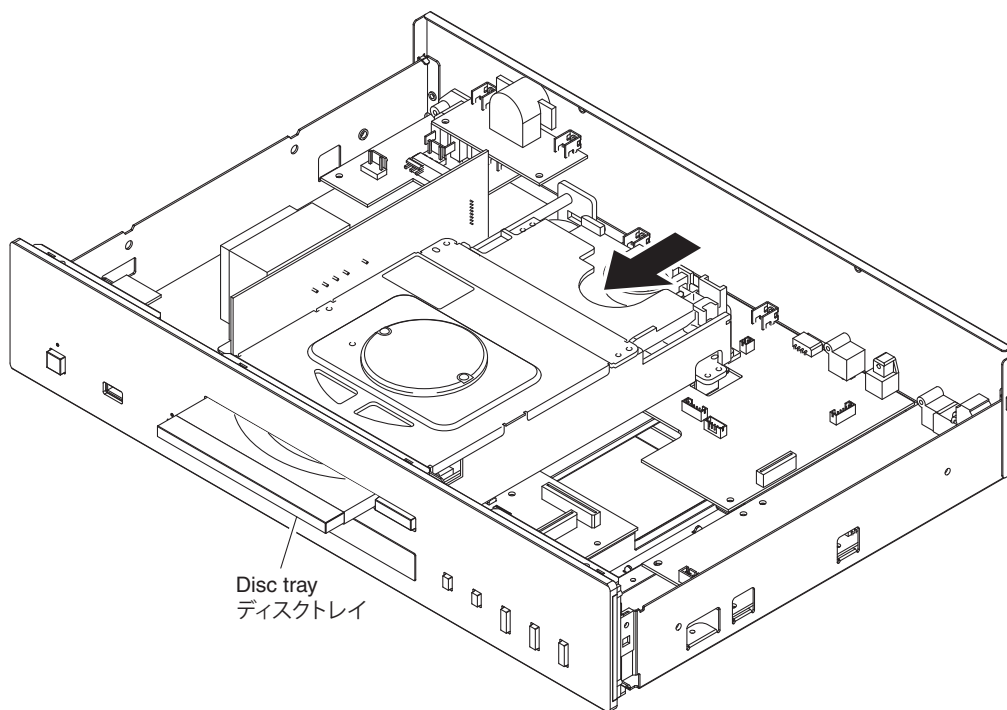


Fig. 3

3. Removal of Loader Mechanism Ass'y

- Remove 4 screws (⑤). (Fig. 4)
- Remove CB153, CB302 and CB602. (Fig. 4)
- Remove CB604 and ground the terminal face of the flexible flat cable with a clip or the like. (Fig. 4)
- Lift loader mechanism ass'y up slightly and move it backward to remove. (Fig. 4)

3. ローダーメカ ASSY の外し方

- (⑤)のネジ4本を外します。(Fig.4)
- CB153、CB302、CB602を外します。(Fig.4)
- CB604を外し、カード電線の端子面をクリップ等でアースします。(Fig.4)
- ローダーメカ ASSYを持ち上げて、後方へ取り外します。(Fig.4)

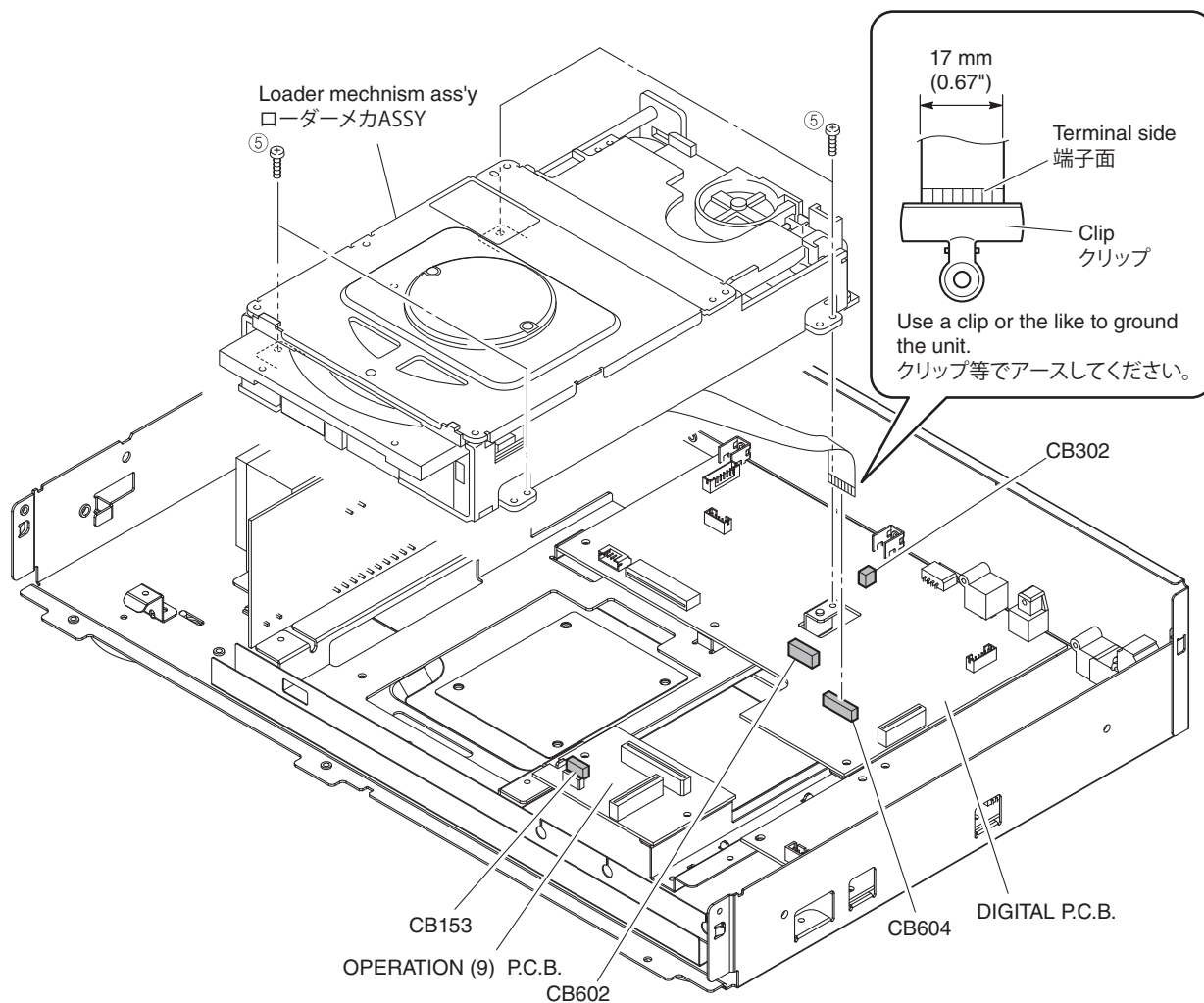


Fig. 4

■ TEST MODE / テストモード

Check the FL display and indicators for display/indication condition.

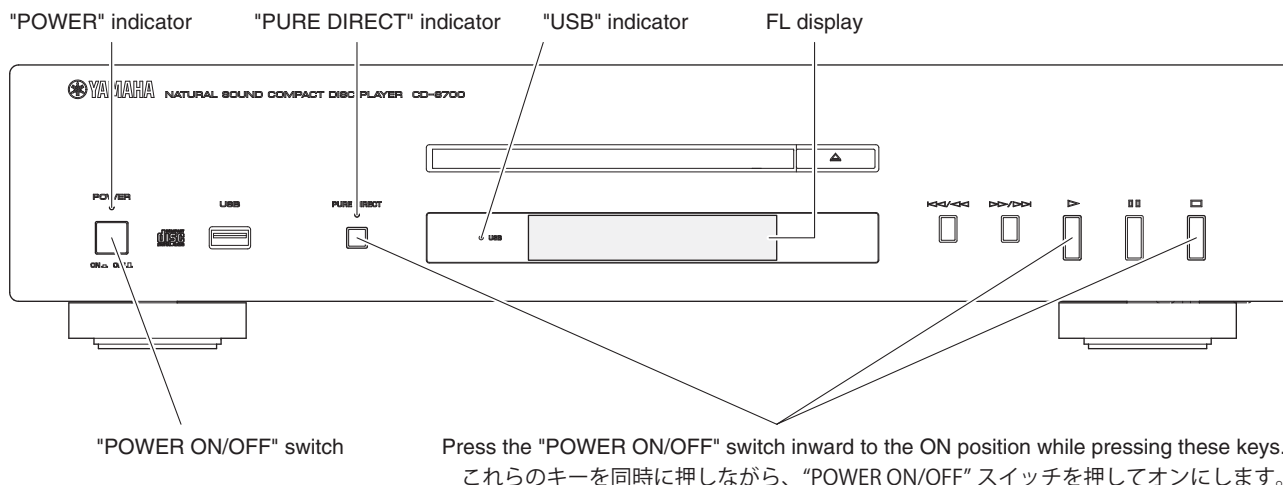
FL ディスプレイとインジケータの表示状態をチェックします。

● Check the FL display and Indicators

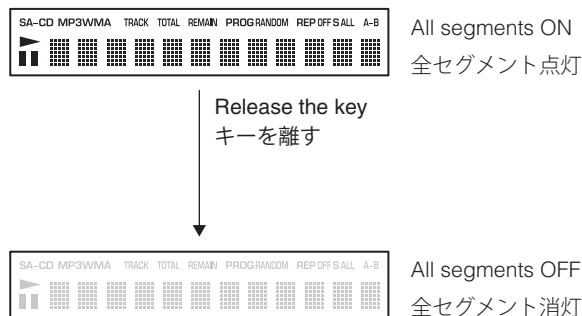
1. Press the "POWER ON/OFF" switch inward to the ON position while simultaneously pressing those 3 keys of this unit as indicated in the figure below, and keep pressing those 3 keys.

● FL ディスプレイとインジケータの確認

1. 本機の下図に示す3つのキーを同時に押しながら"MASTER ON/OFF"スイッチを押してオンにし、3つのキーを押し続けます。



FL display / FL ディスプレイ表示



2. With these 3 keys pressed continuously, check that all indicators (POWER, PURE DIRECT, USB) are lit. At the same time, check that all segments of the FL display are lit.
3. Release these 3 keys. Then check that all indicators (POWER, PURE DIRECT, USB) as well as all segments of the FL display are turned off.
4. The Test Mode is activated.

2. 3つのキーを押したまま、全てのインジケータ（POWER、PURE DIRECT、USB）が点灯していることを確認します。
同時に、FL ディスプレイの全セグメントが点灯していることを確認します。
3. 3つのキーを離します。
全てのインジケータ（POWER、PURE DIRECT、USB）と、FL ディスプレイの全セグメントが消灯していることを確認します。
4. テストモードが起動します。

● Operation Procedure of Test Mode

● テストモード時の操作

Function list of panel keys / テストモード時のパネルキー

| Panel key / パネルキー | Function / 機能 | Display / 表示 |
|-------------------|--|--------------|
| OPEN/CLOSE | Disc tray open/close / ディスクトレイ オープン/クローズ | OPEN / CLOSE |
| PLAY | Trace on / トレース オン | TRACE on |
| STOP | Trace off / トレース オフ | TRACE off |
| PAUSE | — | — |
| SKIP+/SEARCH+ | Trace on / トレース オン | TRACE on |
| SKIP-/SEARCH- | — | — |
| PURE DIRECT | — | — |

Function list of remote control keys / テストモード時のリモコンキー

| Key / キー | Function / 機能 | Display / 表示 | |
|-------------|---|--|-----------|
| CD/USB | — | — | |
| PURE DIRECT | — | — | |
| OPEN/CLOSE | Disc tray open/close / ディスクトレイ オープン/クローズ | OPEN / CLOSE | |
| DIMMER | — | — | |
| DISPLAY | Firmware version is displayed. / ファームウェアバージョン表示 | Yxxx xxxx | |
| 1 | Laser on / レーザー オン | LASER on | |
| 2 | Focus on / フォーカス オン | FOCUS on | |
| 3 | TE measure / TE 測定 | TE measure | |
| 4 | Traverce in / トラバース イン | * Press "5" key to stop traverce. / ※ "5" キーを押してトラバースを停止してください。 | TRV in |
| 5 | Traverce stop / トラバース ストップ | | TRV stop |
| 6 | Traverce out / トラバース アウト | * Press "5" key to stop traverce. / ※ "5" キーを押してトラバースを停止してください。 | TRV out |
| 7 | Spindle reverce / スピンドル リバース | * Press "8" key to stop spindle. / ※ "8" キーを押してスピンドルを停止してください。 | SPDL rev |
| 8 | Spindle off / スピンドル オフ | | SPDL stop |
| 9 | Spindle on / スピンドル オン | * Press "8" key to stop spindle. / ※ "8" キーを押してスピンドルを停止してください。 | SPDL on |
| 0 | — | — | |
| ENTER | — | — | |
| CLEAR | — | — | |
| PROGRAM | — | — | |
| REPEAT | — | — | |
| RANDOM | — | — | |
| SEARCH - | — | — | |
| A-B REPEAT | — | — | |
| SEARCH + | — | — | |
| PAUSE | — | — | |
| SKIP - | — | — | |
| PLAY | Trace on / トレース オン | TRACE on | |
| SKIP + | Trace on / トレース オン | TRACE on | |
| STOP | Trace off / トレース オフ | TRACE off | |

● Canceling Test Mode

Press the "POWER ON/OFF" switch of this unit to release it outward to the OFF position.

● テストモードの解除

本機の"POWER ON/OFF"スイッチを押してオフにします。

■ UPDATING FIRMWARE / ファームウェアの書き込み

After replacing the following parts update the latest firmware according to the following procedure.

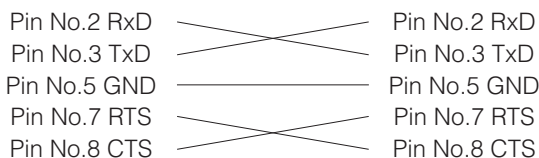
DIGITAL P.C.B.
Microprocessor (IC304) of DIGITAL P.C.B.

下記の部品を交換した場合、下記の手順により最新のファームウェアの書き込みを行ってください。

DIGITAL P.C.B.
DIGITAL P.C.B. のマイコン (IC304)

● Required tools

- Program downloader programs FlashSta.exe
- Firmware CDS700.S
CDS700.id
- RS232C cross cable "D-sub 9 pin female"
(Specifications)



- RS232C conversion jig (Part No.: AAX88050)

● Preparation and precautions before starting the operation

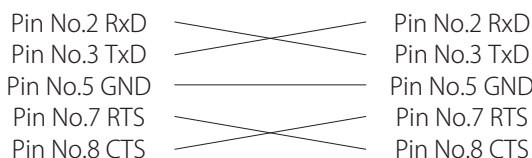
- Download firmware downloader program and firmware from the specified source to the same folder of the PC.
- Prepare the above specified RS232C cross cable.
- While writing, keep the other application software on the PC closed.
It is also recommended to keep the software on the task tray closed as well.

● Connection

Connect the writing port of this unit to the serial port (RS232C) of the PC with RS232C cross cable, RS232C conversion jig and flexible flat cable as shown below. (Fig. 1)

● 必要なツール

- プログラム書き込み用プログラム FlashSta.exe
- ファームウェア CDS700.S
CDS700.id
- RS232C クロスケーブル "D-sub 9pin メス"
(仕様)



- RS232C 変換治具 (部品番号：AAX88050)

● 操作前の準備と注意

- PCへ指定のダウンロード先からファームウェア書き込み用プログラムおよび、ファームウェアを同じフォルダにダウンロードしてください。
- RS232C クロスケーブルは必ず上記仕様のもので用意してください。
- 書き込み時は、PC上の他のアプリケーションソフトは閉じてください。
さらに、タスクトレイ上にあるソフトも閉じておくことを推奨します。

● 接続

本機の書き込み用ポートとPCのシリアルポート (RS232C) を下記のように接続します。(Fig. 1)

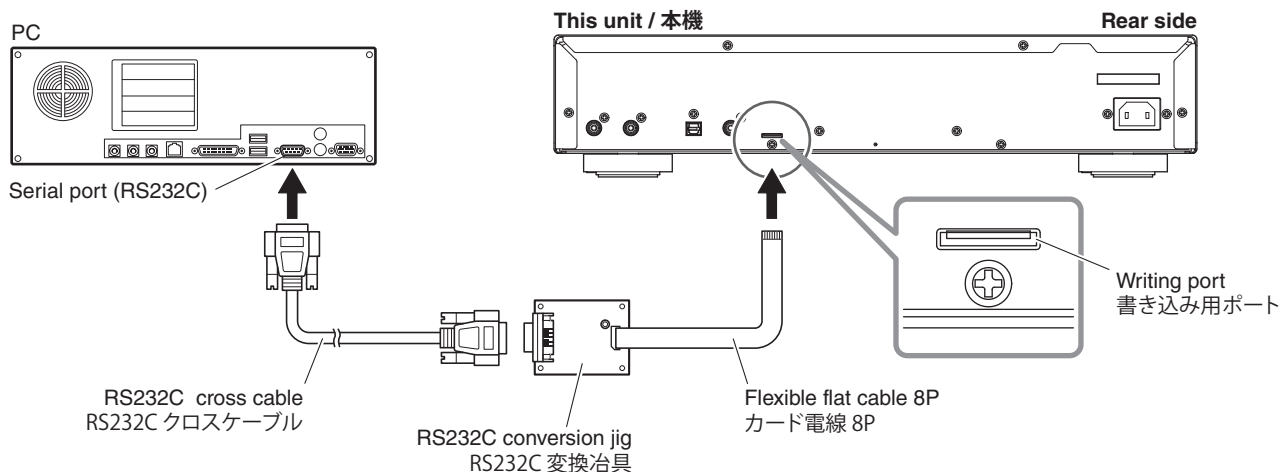


Fig. 1

● Operation Procedures

1. Connect the power cable of this unit to the AC outlet.
2. While pressing the reset switch of RS232C conversion jig, press the "POWER ON/OFF" switch of this unit inward to the ON position. (Fig. 2)

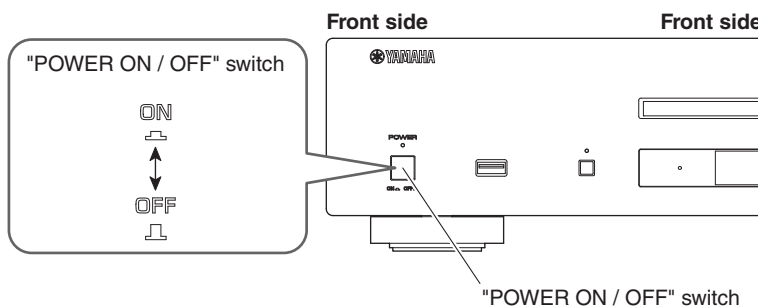
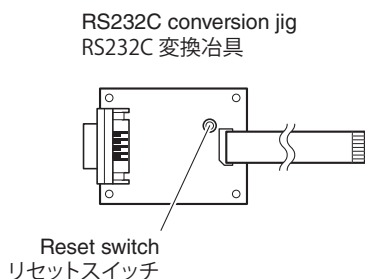


Fig. 2

3. Start up FlashSta.exe, the screen will appear as shown below. (Fig. 3)

3. FlashSta.exe を立ち上げます。
すると下記の画面が表示されます。(Fig.3)

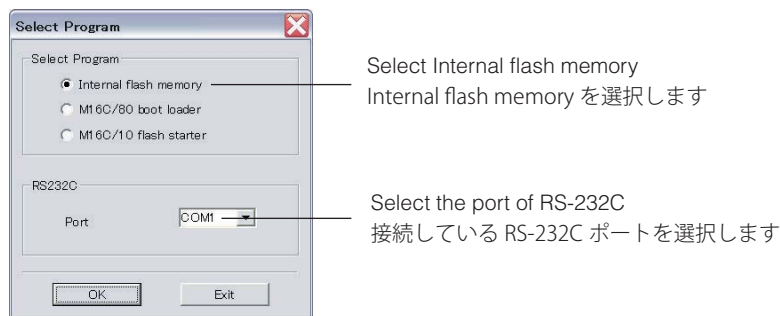


Fig. 3

4. Select the port and data to be transmitted. (Fig. 3)
 - **Select Program**
Select Internal flash memory
 - **RS232C**
Select the port of RS-232C
 - * For selection of the port, COM1 to 4 can be used.
As COM5 or higher port cannot be used, select out of COM 1 to 4 of the setting on the PC side.

4. 送信データ、ポートを選択します。(Fig.3)
 - **Select Program**
Internal flash memory を選択します。
 - **RS232C**
接続している RS-232 C ポートを選択します。
 - ※ ポートの選択は COM1 ～ 4 までが使用できます。
COM5 以上は使用できませんので、PC 側の設定で COM1 ～ 4 を選択してください。

5. Click [Refer...]. And select the firmware name.
(Fig. 4)

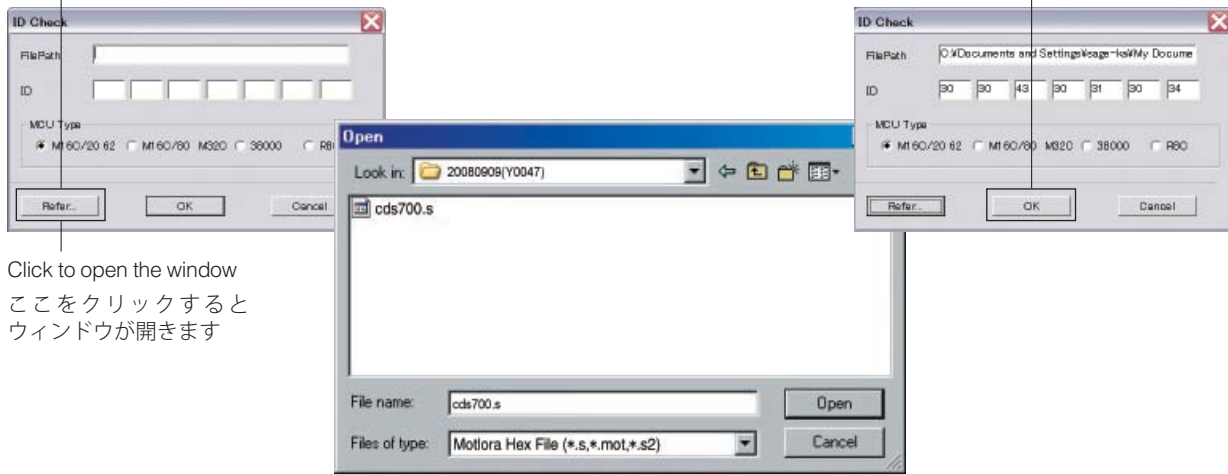
5. [Refer...] をクリックし、書き込むファームウェア
を選択します。(Fig. 4)

* The ID code and MCU type are loaded auto-
matically when the file is selected. (Fig. 4)

※ ID、および MCU Type は書き込みファイル選
択時、自動的に取り込まれます。(Fig. 4)

Click [OK]. (Fig. 4)

[OK] をクリックします。(Fig. 4)



Click to open the window
ここをクリックすると
ウィンドウが開きます

Fig. 4

6. Click [E.P.R.], the screen appears as shown be-
low. (Fig. 5)

6. [E.P.R.] をクリックすると、下記の画面が表示さ
れます。(Fig. 5)

Click [OK] to start writing. (Fig. 5)

[OK] をクリックし、書き込みを開始します。
(Fig. 5)

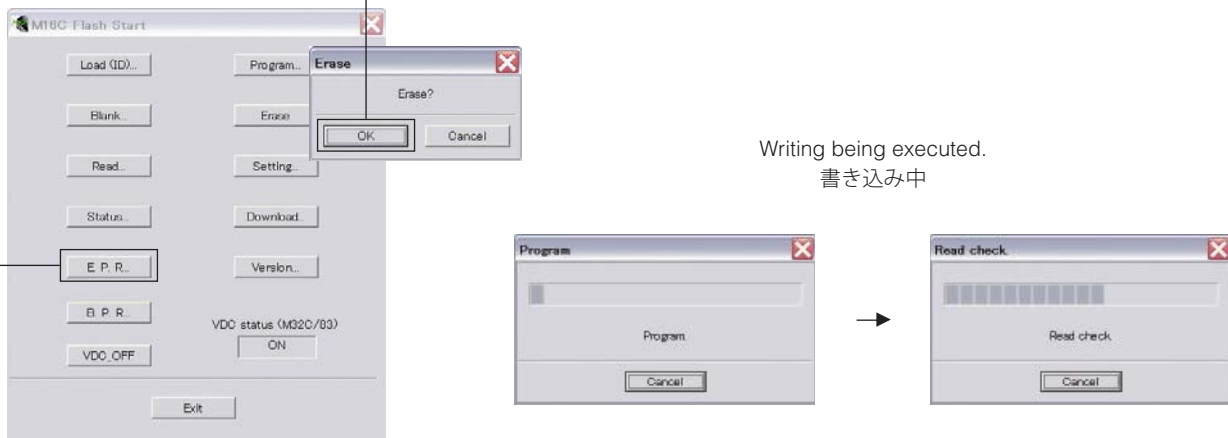


Fig. 5

7. When the program transmission is completed, the screen appears as shown below. (Fig. 6)
Click [OK] to end the procedure. (Fig. 6)
7. プログラムの送信が終了すると、下記の画面が表示されます。(Fig. 6)
[OK] をクリックして完了します。(Fig. 6)

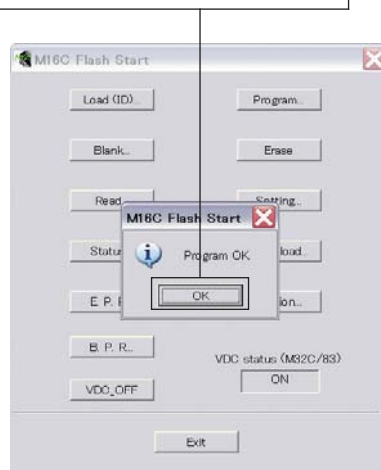


Fig. 6

8. Press the "POWER ON/OFF" switch of this unit to release it outward to the OFF position.
8. 本機の "POWER ON/OFF" スイッチを押してオフにします。
9. Disconnect the power cable of this unit from the AC outlet.
9. 本機の電源コードを AC コンセントから抜きます。
10. End "FlashSta.exe".
10. "FlashSta.exe" を終了します。
11. Disconnect the RS232C cross cable, RS232C conversion jig and flexible flat cable.
11. RS232C クロスケーブル、RS232C 変換アダプターカード電線を取り外します。

● Confirmation of firmware version

Press the "POWER ON/OFF" switch inward to the ON position while simultaneously pressing the "PLAY" and "STOP" keys of this unit, and then release these two keys. (Fig. 7)
The firmware version is displayed. (Fig. 7)

● ファームウェアバージョンの確認

本機の "PLAY" キーと "STOP" キーを押しながら、"POWER ON/OFF" スイッチを押してオンにし、これら2つのキーを放します。(Fig. 7)
ファームウェアバージョンが表示されます。(Fig. 7)

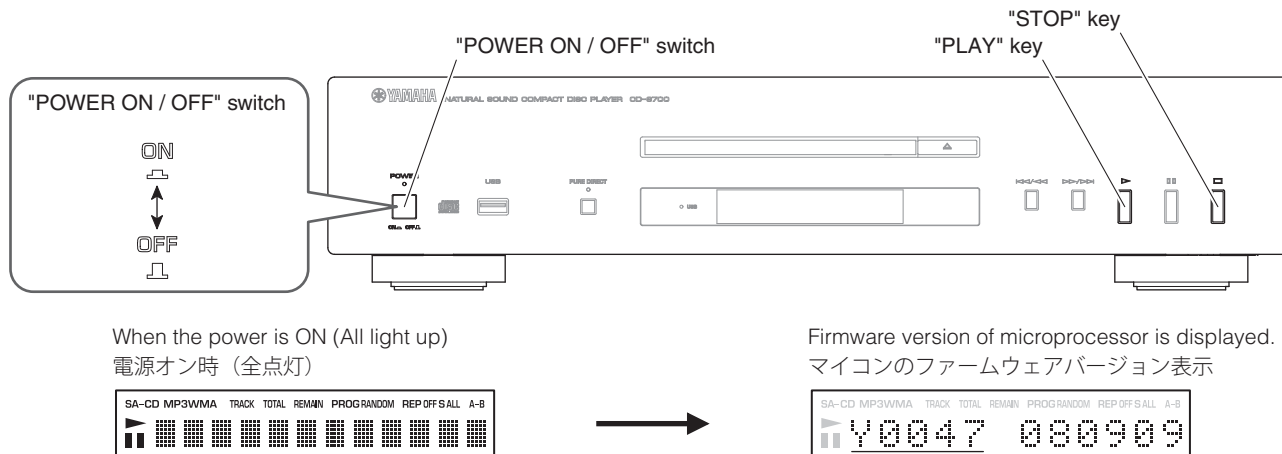


Fig. 7

Every time you press the "DISPLAY" key, the display changes in the order as shown below.

リモコンの "DISPLAY" キーを押すたびに、下図の順で表示が切り替わります。

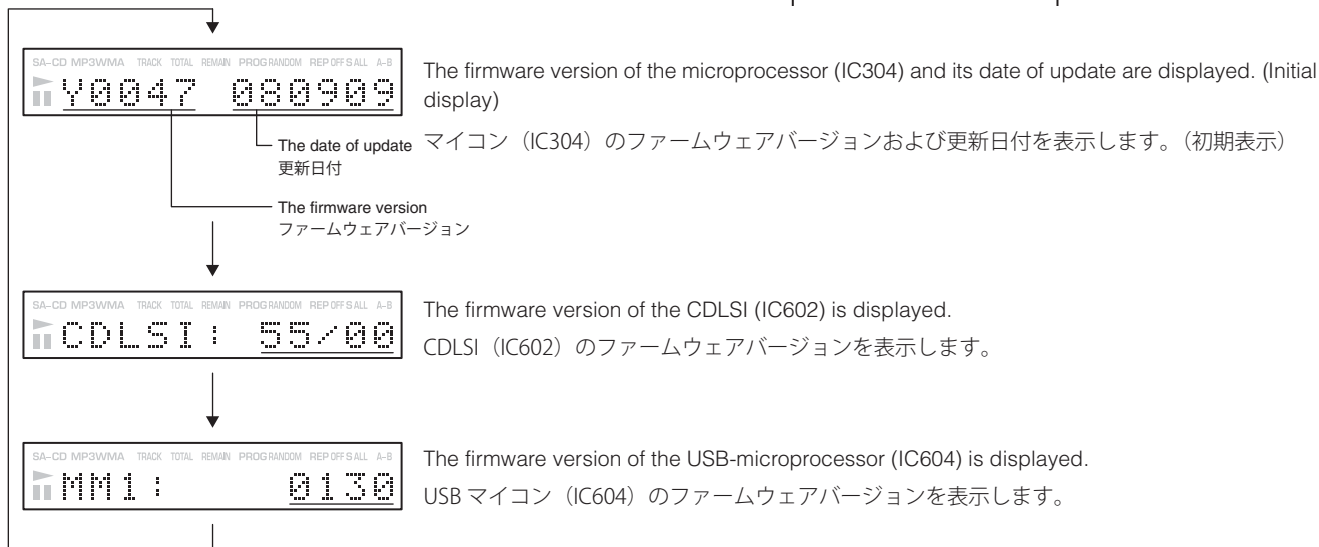
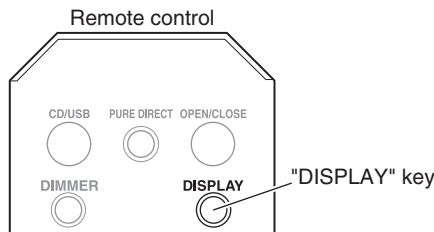


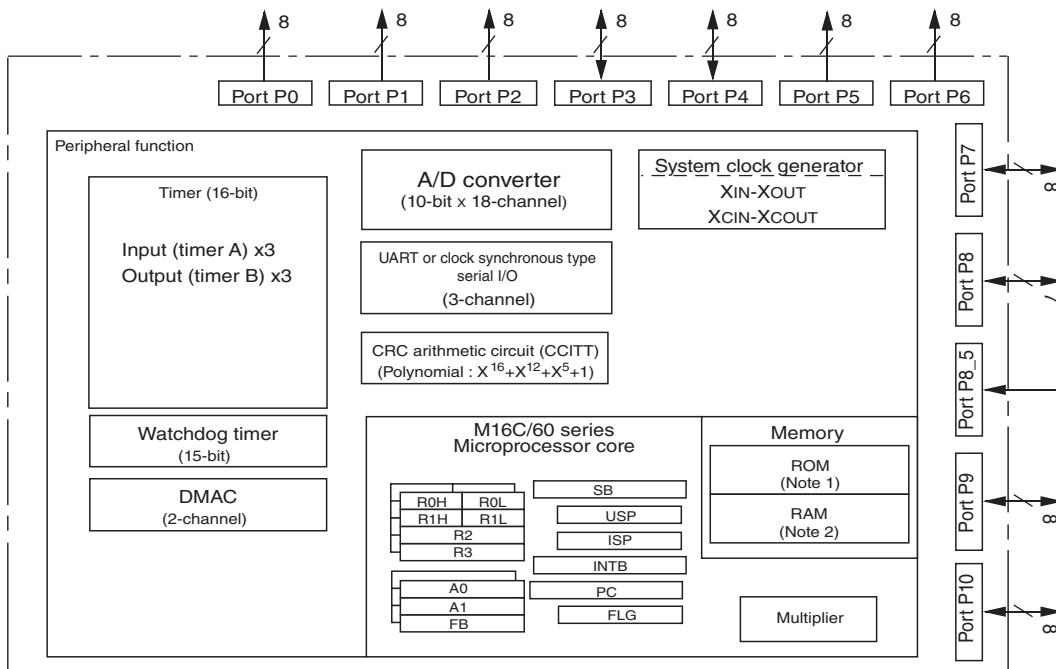
Fig. 8

* When the displayed firmware version is different from written firmware version, follow the steps from 1 to 11 of operation procedures again.

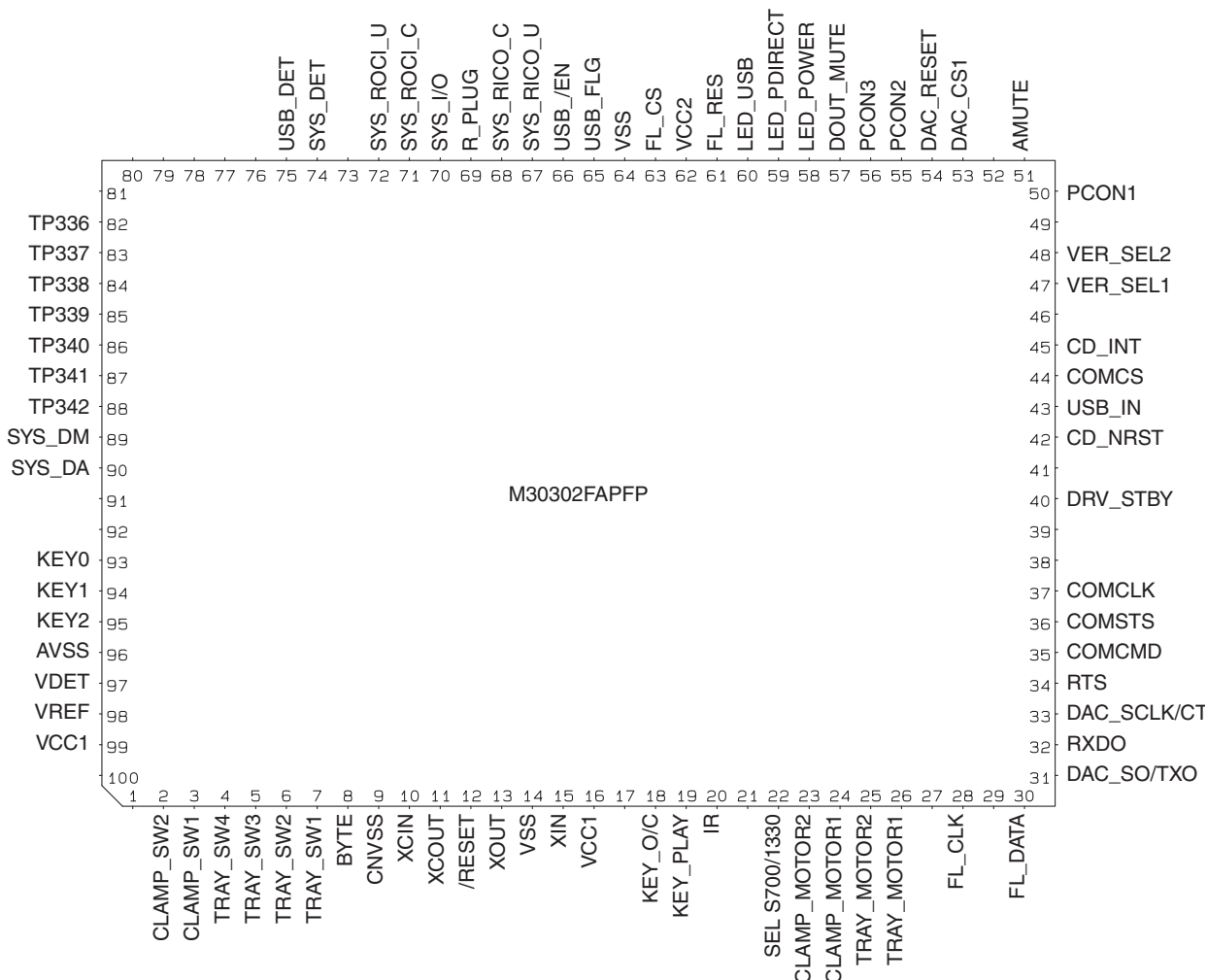
※ 表示されたファームウェアのバージョンが、書き込んだファームウェアのバージョンと異なる場合、操作手順の1から11までをもう一度実施してください。

IC DATA

IC304: M30302FAPFP (DIGITAL P.C.B.)
Single-chip 16-bit microprocessor



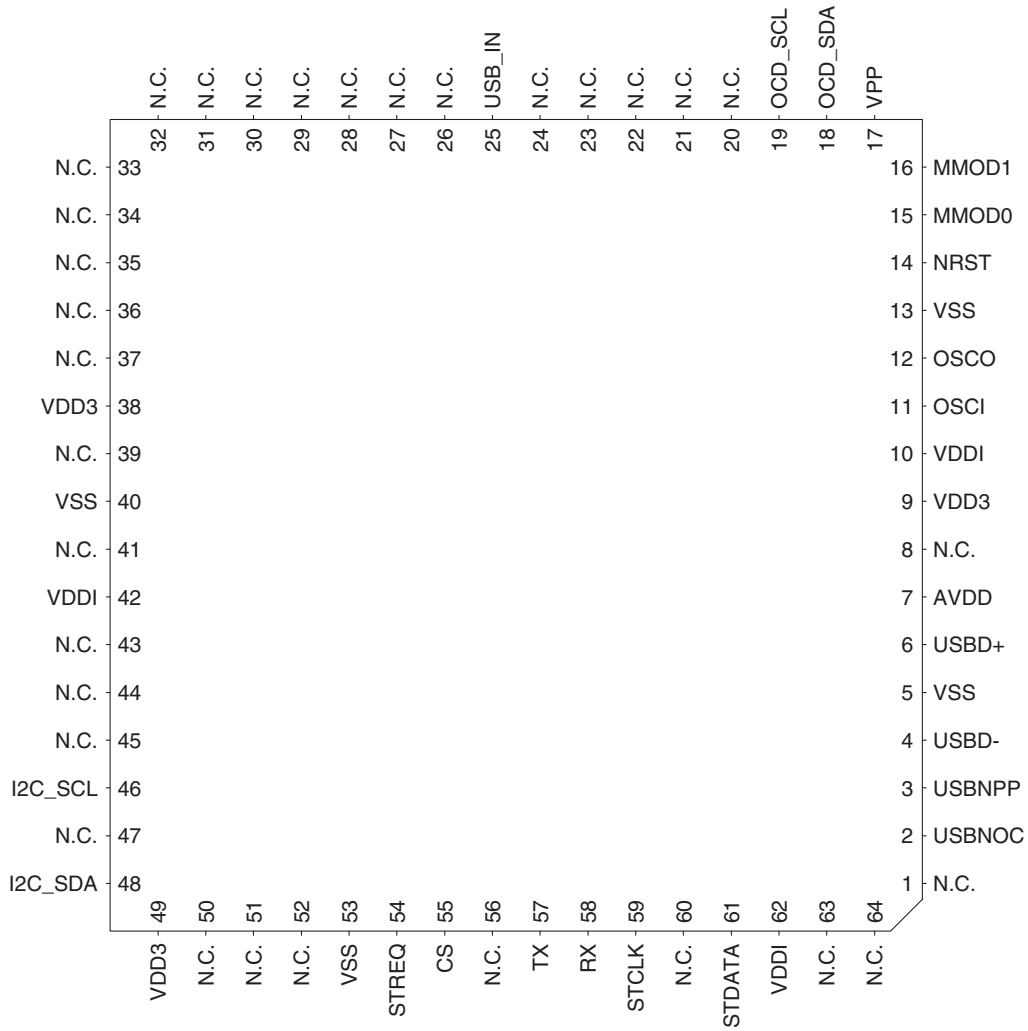
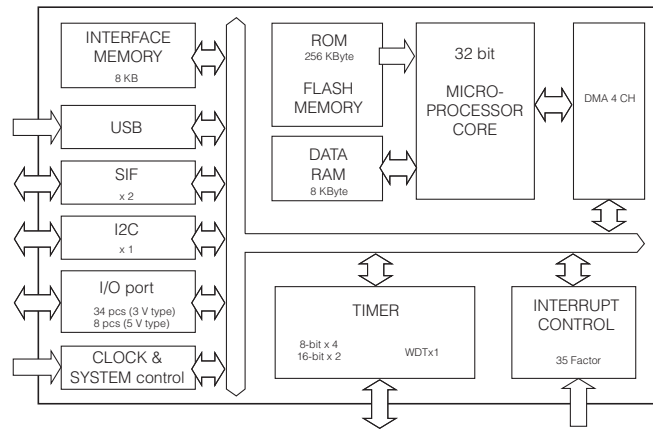
Note 1: ROM contents vary depending on types.
Note 2: RAM contents vary depending on types.



| No. | Port Name | Function Name | I/O | Detail of Function |
|-----|---------------|---------------------------|-----|---|
| 1 | | P9_6/ANEX1 | | (No connected) |
| 2 | CLAMP_SW2 | P9_5/ANEX0 | I | Clamp SW2 |
| 3 | CLAMP_SW1 | P9_4 | I | Clamp SW1 |
| 4 | TRAY_SW4 | P9_3 | | |
| 5 | TRAY_SW3 | P9_2/TB2IN | I | Tray SW3 / Loader mechanism specification confirm |
| 6 | TRAY_SW2 | P9_1/TB1IN | I | Tray SW2 |
| 7 | TRAY_SW1 | P9_0/TB0IN | I | Tray SW1 |
| 8 | BYTE | BYTE | I | GND |
| 9 | CNVSS | CNVSS | | Usually GND but VCC1 when writing FLASH |
| 10 | XCIN | P8_7/XCIN | | (No connected) |
| 11 | XCOUT | P8_6/XCOUT | | (No connected) |
| 12 | /RESET | /RESET | | |
| 13 | XOUT | XOUT | | |
| 14 | VSS | VSS | | GND |
| 15 | XIN | XIN | | |
| 16 | VCC1 | VCC1 | | |
| 17 | | P8_5/NMI | | Pull-up resistor required |
| 18 | KEY_O/C | P8_4/INT2 | | GND when writing FLASH |
| 19 | KEY_PLAY | P8_3/INT1 | | (No connected) |
| 20 | IR | P8_2/INT0 | I | Remote control |
| 21 | | P8_1 | | (No connected) |
| 22 | SEL S700/1330 | P8_0 | | |
| 23 | CLAMP_MOTOR2 | P7_7 | O | Clamp motor 2 |
| 24 | CLAMP_MOTOR1 | P7_6 | O | Clamp motor 1 |
| 25 | TRAY_MOTOR2 | P7_5/TA2IN | O | Tray motor 2 |
| 26 | TRAY_MOTOR1 | P7_4/TA2OUT | O | Tray motor 1 |
| 27 | | P7_3/CTS2/RTS2/TA1IN | | (No connected) |
| 28 | FL_CLK | P7_2/CLK2/TA1OUT | O | FL control |
| 29 | | P7_1/RXD2/SCL2/TA0IN | | (No connected) |
| 30 | FL_DATA | P7_0/TXD2/SDA2/TA0OUT | O | FL control |
| 31 | DAC_SO/TXO | P6_7/TXD1/SDA1 | O | TxD for DAC control / Rewriting FLASH commonly used |
| 32 | RXDO | P6_6/RXD1/SCL1 | I | RxD for rewriting FLASH commonly used |
| 33 | DAC_SCLK/CT | P6_5/CLK1 | O | CTS for DAC control / Rewriting FLASH commonly used |
| 34 | RTS | P6_4/CTS1/RTS1/CTS0/CLKS1 | I | RTS for rewriting FLASH commonly used |
| 35 | COMCMD | P6_3/TXD0/SDA0 | O | MODULE control |
| 36 | COMSTS | P6_2/RXD0/SCL0 | I | MODULE control |
| 37 | COMCLK | P6_1/CLK0 | I | MODULE control |
| 38 | | P6_0/CTS0/RTS0 | | (No connected) |
| 39 | | P5_7/RDY/CLKOUT | | (No connected) |
| 40 | DRV_STBY | P5_6/ALE | O | MODULE control |
| 41 | | P5_5/HOLD | | GND when writing FLASH |
| 42 | CD_NRST | P5_4/HLDA | O | MODULE control |
| 43 | USB_IN | P5_3/BCLK | O | MODULE control |
| 44 | COMCS | P5_2/RD | O | MODULE control |
| 45 | CD_INT | P5_1/WRH/BHE | I | MODULE control |
| 46 | | P5_0/WRL/WR | | VCC1 when writing FLASH |
| 47 | VER_SEL1 | P4_7/CS3 | | (No connected) |
| 48 | VER_SEL2 | P4_6/CS2 | | (No connected) |
| 49 | | P4_5/CS1 | | (No connected) |
| 50 | PCON1 | P4_4/CS0 | O | output RELAY |
| 51 | AMUTE | P4_3/A19 | O | Analog mute |
| 52 | | P4_2/A18 | O | DAC control |
| 53 | DAC_CS1 | P4_1/A17 | O | DAC control |
| 54 | DAC_RESET | P4_0/A16 | O | DAC control |
| 55 | PCON2 | P3_7/A15 | | (No connected) |
| 56 | PCON3 | P3_6/A14 | | (No connected) |
| 57 | DOUT_MUTE | P3_5/A13 | | (No connected) |
| 58 | LED_POWER | P3_4/A12 | O | Indicator of power supply |
| 59 | LED_PDIRECT | P3_3/A11 | O | Indicator of pure direct |
| 60 | LED_USB | P3_2/A10 | O | Indicator of SACD |

| No. | Port Name | Function Name | I/O | Detail of Function |
|-----|------------|---------------|-----|--------------------|
| 61 | FL_RES | P3_1/A9 | O | FL control |
| 62 | VCC2 | VCC2 | | |
| 63 | FL_CS | P3_0/A8 | O | FL control |
| 64 | VSS | VSS | | |
| 65 | USB_FLG | P2_7/A7 | | (No connected) |
| 66 | USB_EN | P2_6/A6 | | (No connected) |
| 67 | SYS_RICO_C | P2_5/A5 | | (No connected) |
| 68 | SYS_RICO_U | P2_4/A4 | | (No connected) |
| 69 | R_PLUG | P2_3/A3 | | (No connected) |
| 70 | SYS_I/O | P2_2/A2 | | (No connected) |
| 71 | SYS_ROCI_C | P2_1/A1 | | (No connected) |
| 72 | SYS_ROCI_U | P2_0/A0 | | (No connected) |
| 73 | | P1_7/D15 | | (No connected) |
| 74 | SYS_DET | P1_6/D14/INT4 | | (No connected) |
| 75 | USB_DET | P1_5/D13/INT3 | | (No connected) |
| 76 | | P1_4/D12 | | (No connected) |
| 77 | | P1_3/D11 | | (No connected) |
| 78 | | P1_2/D10 | | (No connected) |
| 79 | | P1_1/D9 | | (No connected) |
| 80 | | P1_0/D8 | | (No connected) |
| 81 | | P0_7/AN0_7/D7 | O | Test point |
| 82 | TP336 | P0_6/AN0_6/D6 | O | Test point |
| 83 | TP337 | P0_5/AN0_5/D5 | O | Test point |
| 84 | TP338 | P0_4/AN0_4/D4 | I | LOAD- monitor |
| 85 | TP339 | P0_3/AN0_3/D3 | O | Test point |
| 86 | TP340 | P0_2/AN0_2/D2 | I | LOAD+ monitor |
| 87 | TP341 | P0_1/AN0_1/D1 | O | Test point |
| 88 | TP342 | P0_0/AN0_0/D0 | O | Test point |
| 89 | SYS_DM | P10_7/AN7/KI3 | | (No connected) |
| 90 | SYS_DA | P10_6/AN6/KI2 | | (No connected) |
| 91 | | P10_5/AN5/KI1 | | (No connected) |
| 92 | | P10_4/AN4/KI0 | | (No connected) |
| 93 | KEY0 | P10_3/AN3 | I | Analog input |
| 94 | KEY1 | P10_2/AN2 | I | Analog input |
| 95 | KEY2 | P10_1/AN1 | I | Analog input |
| 96 | AVSS | AVSS | | |
| 97 | VDET | P10_0/AN0 | I | MODULE control |
| 98 | VREF | VREFF | | |
| 99 | VCC1 | AVCC | | |
| 100 | | P9_7/ADTRG | | (No connected) |

IC604: MN103SFB5KYAA (DIGITAL P.C.B.)
USB microprocessor

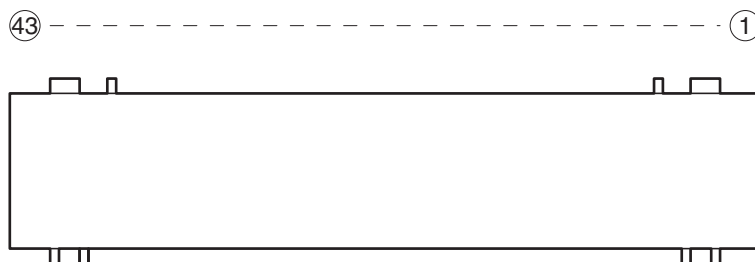


| No. | Port Name | Function Name | Detail of Function |
|-----|-----------|---------------|--|
| 1 | N.C. | | |
| 2 | USBNOG | | USB over-current input (negative polarity) |
| 3 | USBNPP | | USB, VBUS power output control terminal (negative polarity) |
| 4 | USBD- | | USB D- terminal |
| 5 | VSS | AVSS | Ground / Analog power supply for USB / Connect to VSS. |
| 6 | USBD+ | | USB D+ terminal |
| 7 | AVDD | | Analog power supply for USB / Connect to VDD33. |
| 8 | N.C. | | |
| 9 | VDD3 | VDD33 | Power for on-chip regulator (2.7V to 3.6V) I/O power supply (2.7V to 3.6V) |
| 10 | VDDI | VDD18/VOUT | Power for internal circuit (1.8V \pm 0.15V) Connect all VDD18 terminals outside of chip. Also, connect a 10 μ F capacitor between VDD18 and VSS of No.10 pin and place it near LSI. On-chip regulator output (1.8V \pm 0.15V) |
| 11 | OSCI | | High-speed oscillation input terminal (fosc) (When PLL used: 6.33 MHz to 20 MHz) |
| 12 | OSCO | | High-speed oscillation output terminal |
| 13 | VSS | | Ground |
| 14 | NRST | | Reset signal input terminal (negative polarity) |
| 15 | MMOD0 | | Operation mode setting terminal |
| 16 | MMOD1 | | Operation mode setting terminal |
| 17 | VPP | | Power for rewriting built-in Flash memory (3.3V \pm 0.3V) / only for Flash built in model |
| 18 | OCD_SDA | | Clock, data input/output terminal for on-chip debugger |
| 19 | OCD_SCL | | Clock, data input/output terminal for on-chip debugger |
| 20 | | | |
| 21 | | | |
| 22 | N.C. | | |
| 23 | | | |
| 24 | | | |
| 25 | USB_IN | | General purpose input/output port 0 |
| 26 | | | |
| 27 | | | |
| 28 | | | |
| 29 | | | |
| 30 | | | |
| 31 | | | |
| 32 | N.C. | | |
| 33 | | | |
| 34 | | | |
| 35 | | | |
| 36 | | | |
| 37 | | | |
| 38 | VDD3 | VDD33 | Power for on-chip regulator (2.7V to 3.6V) I/O power supply (2.7V to 3.6V) |
| 39 | N.C. | | |
| 40 | VSS | | Ground |
| 41 | N.C. | | |
| 42 | VDDI | VDD18 | Power supply for internal circuit (1.8V \pm 0.15V) Connect all VDD18 terminals outside of chip. Also, connect a 10 μ F capacitor between VDD18 and VSS of No.10 pin and place it near LSI. |
| 43 | | | |
| 44 | N.C. | | |
| 45 | | | |
| 46 | I2C_SCL | P35/SCL3 | General purpose input/output port 3 |
| 47 | N.C. | | |
| 48 | I2C_SDA | P33/SDA3 | General purpose input/output port 3 |
| 49 | VDD3 | VDD5 | I/O power supply (5V type I/O) |

| No. | Port Name | Function Name | Detail of Function |
|-----|-----------|---------------|--|
| 50 | N.C. | | |
| 51 | N.C. | | |
| 52 | N.C. | | |
| 53 | VSS | | Ground |
| 54 | STREQ | PD5/IRQ2 | External interrupt request signal input terminal |
| 55 | CS | PD4/IRQ1 | External interrupt request signal input terminal |
| 56 | N.C. | | |
| 57 | TX | PD1/SBI2 | Clock synchronization/start stop synchronization serial terminal |
| 58 | RX | PD0/SBO2 | Clock synchronization/start stop synchronization serial terminal |
| 59 | STCLK | P92/SBT0 | Serial clock input/output terminal |
| 60 | N.C. | | |
| 61 | STDATA | P90/SBO0 | Serial data output terminal |
| 62 | VDDI | VDD18 | Power supply for internal circuit (1.8V \pm 0.15V) Connect all VDD18 terminals outside of chip. Also, connect a 10 μ F capacitor between VDD18 and VSS of No.10 pin and place it near LSI. |
| 63 | N.C. | | |
| 64 | N.C. | | |

■ DISPLAY DATA

● V101 : 13-ST-81GINK (OPERATION (1) P.C.B.)

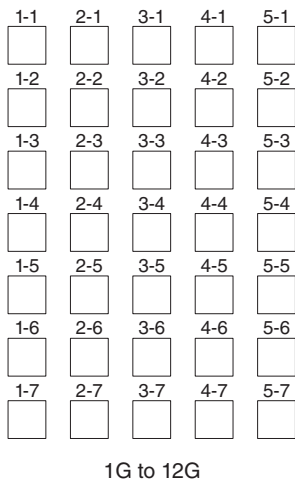
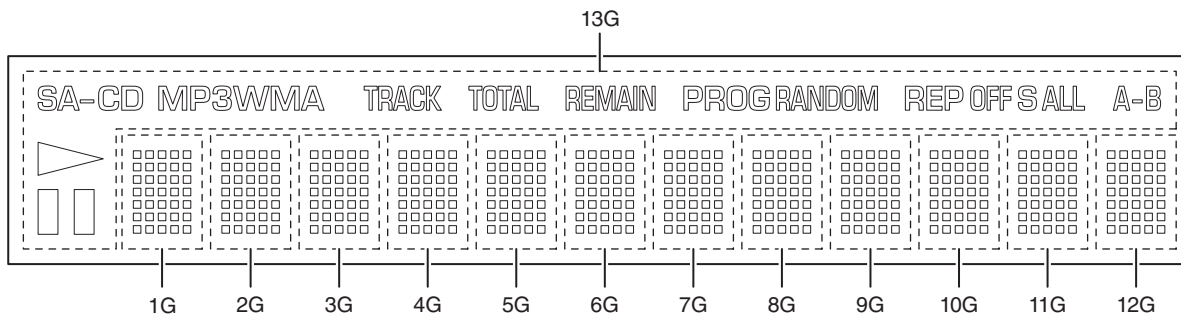


● PIN CONNECTION

| | | | | | | | | | | | | | | | | | | | |
|------------|-----|-----|-------|------|------|----|-----|-----|----|----|----|----|----|----|-----|------|----|----|----|
| Pin No. | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| Connection | NX | NX | NX | NX | NX | NX | NX | NX | NX | NX | NX | NX | NX | NX | 13G | Q13G | NP | NP | F1 |
| Pin No. | 37 | 36 | 35 | 34 | 33 | 32 | 31 | 30 | 29 | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20 | |
| Connection | VDD | OSC | RESET | CS | CP | DA | TSA | TSB | NX | NX | NX | NX | NX | NX | NX | NX | NX | | |
| Pin No. | 43 | 42 | 41 | 40 | 39 | 38 | | | | | | | | | | | | | |
| Connection | F2 | NP | NP | LGND | PGND | VH | | | | | | | | | | | | | |

Note: 1) F1, F2 Filament 2) NP No pin 3) NX No extended pin 4) DL Datum line 5) LGND Logic GND pin
 6) PGND Power GND pin 7) VH High voltage supply pin 8) VDD Logic voltage supply pin 9) CP Shift register clock
 10) DA Serial data input 11) TSA, B Test pin 12) CS Chip select input pin 13) OSC Pin for self-oscillation
 14) RESET Reset input 16) Q13G Driver output port 17) 13G Grid

● GRID ASSIGNMENT



● ANODE CONNECTION

| | 1G to 12G | 13G | | 1G to 12G | 13G | | 1G to 12G | 13G |
|-----|-----------|--------|-----|-----------|-----|-----|-----------|-----|
| D0 | 1-1 | | D15 | 1-4 | CD | D30 | 1-7 | - |
| D1 | 2-1 | | D16 | 2-4 | SA- | D31 | 2-7 | - |
| D2 | 3-1 | B | D17 | 3-4 | - | D32 | 3-7 | - |
| D3 | 4-1 | A- | D18 | 4-4 | - | D33 | 4-7 | - |
| D4 | 5-1 | ALL | D19 | 5-4 | - | D34 | 5-7 | - |
| D5 | 1-2 | S | D20 | 1-5 | - | | | |
| D6 | 2-2 | OFF | D21 | 2-5 | - | | | |
| D7 | 3-2 | REP | D22 | 3-5 | - | | | |
| D8 | 4-2 | RANDOM | D23 | 4-5 | - | | | |
| D9 | 5-2 | PROG | D24 | 5-5 | - | | | |
| D10 | 1-3 | REMAIN | D25 | 1-6 | - | | | |
| D11 | 2-3 | TOTAL | D26 | 2-6 | - | | | |
| D12 | 3-3 | TRACK | D27 | 3-6 | - | | | |
| D13 | 4-3 | WMA | D28 | 4-6 | - | | | |
| D14 | 5-3 | MP3 | D29 | 5-6 | - | | | |

PIN CONNECTION DIAGRAMS

ICs

| | | | | |
|-----------------------|---------------------|------------------------|------------------------|------------------------|
| <p>BD4829G-TR</p> | <p>BD9870FPS-E2</p> | <p>DSD1791DBR</p> | <p>LB1641</p> | |
| <p>M12L16161A-7TG</p> | <p>M30302FAPFP</p> | <p>MN103SFB5KYAA</p> | | |
| <p>OP275GSR</p> | <p>PQ033ES3MXP</p> | <p>R1172S331B-E2-F</p> | <p>R5523N001A-TR-F</p> | <p>RP131S501D-E2-F</p> |
| <p>TC74VHCT08AFT</p> | <p>TC7SH08F</p> | <p>TC7WU04F</p> | <p>TS7ST00F</p> | |

Diodes

| | | | |
|----------------|--|---------------------|-----------------------|
| <p>1N4002S</p> | <p>1SS355 FM203-W TE MA-8039-H MA8047-H MA8056-M 5.6V MA8062-M MA8130-M MA8300-M 30.0V RB050LA-40TR TP RB501V-40</p> | <p>D4SBN20-7101</p> | <p>RS203M-B-C-J80</p> |
|----------------|--|---------------------|-----------------------|

Transistors

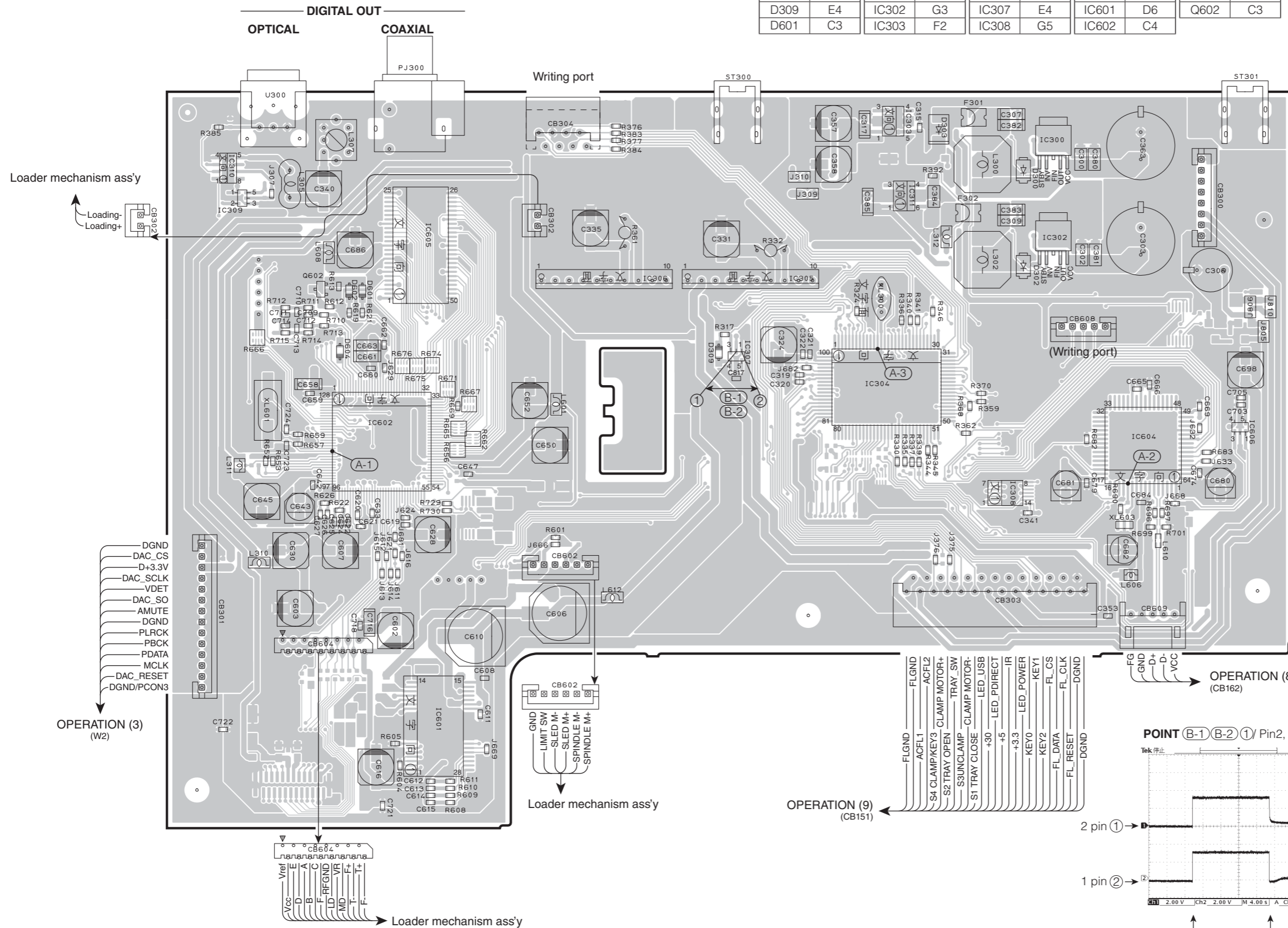
| | | | | | |
|---|----------------------------|----------------|----------------|---------------|------------------|
| <p>2SA1037K 2SC2412K 2SD1938F</p> | <p>2SB1257 2SD2014</p> | <p>2SB709A</p> | <p>2SC4488</p> | <p>2SK208</p> | <p>DTC114EKA</p> |
|---|----------------------------|----------------|----------------|---------------|------------------|

PRINTED CIRCUIT BOARDS

DIGITAL P.C.B. (Side A)

• Semiconductor Location

| Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|
| D300 | G3 | D602 | C3 | IC304 | F4 | IC309 | B3 | IC604 | H4 |
| D302 | G3 | D604 | C4 | IC305 | E3 | IC310 | B3 | IC605 | D3 |
| D303 | G2 | IC300 | G2 | IC306 | E3 | IC311 | F3 | IC606 | H4 |
| D309 | E4 | IC302 | G3 | IC307 | E4 | IC601 | D6 | Q602 | C3 |
| D601 | C3 | IC303 | F2 | IC308 | G5 | IC602 | C4 | | |



DGND
+B2
MGND
+B1
+30
ACFL2
ACFL1
FLGND

DGND
DAC_CS
D+3.3V
DAC_SCLK
VDET
DAC_SO
AMUTE
DGND
PLRCK
PBCK
PDATA
MCLK
DAC_RESET
DGND/PCON3

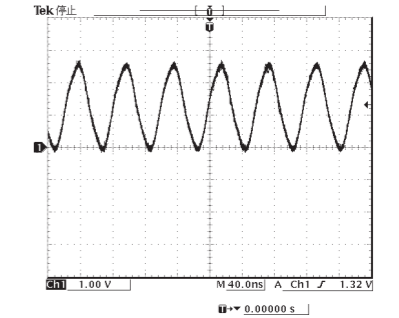
GND
LIMIT SW
SLED M-
SLED M+
SPINDLE M-
SPINDLE M+

FLGND
ACFL1
CLAMP MOTOR+
S4 CLAMPKEY3
S2 TRAY OPEN
S3 UNCLAMP
S1 TRAY CLOSE
LED_USB
+30
+5
+3.3
LED_POWER
KEY0
KEY1
KEY2
FL_DATA
FL_RESET
FL_CLK
DGND

OPERATION (8)
(CB162)
FG
GND
D+
D-
VCC

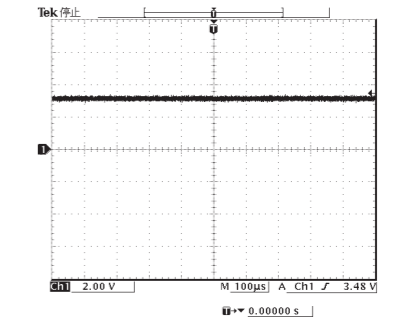
OPERATION (9)
(CB151)

POINT (A-1) XL601 (Pin 109 of IC602)

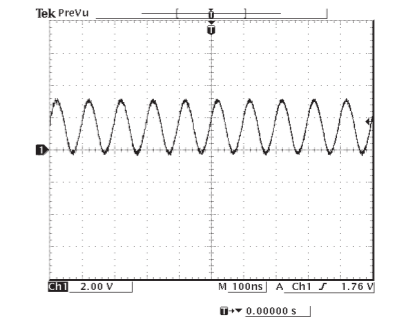


OPERATION (4)
(W208)

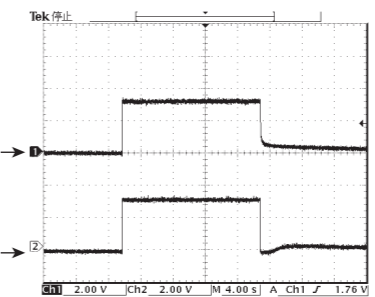
POINT (A-2) XL603 (Pin 12 of IC604)



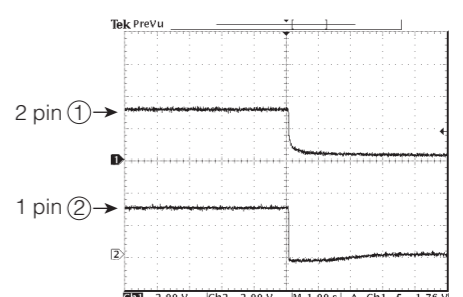
POINT (A-3) XL300 (Pin 13 of IC304)



POINT (B-1) (B-2) ①/ Pin2, ②/ Pin1 of IC307

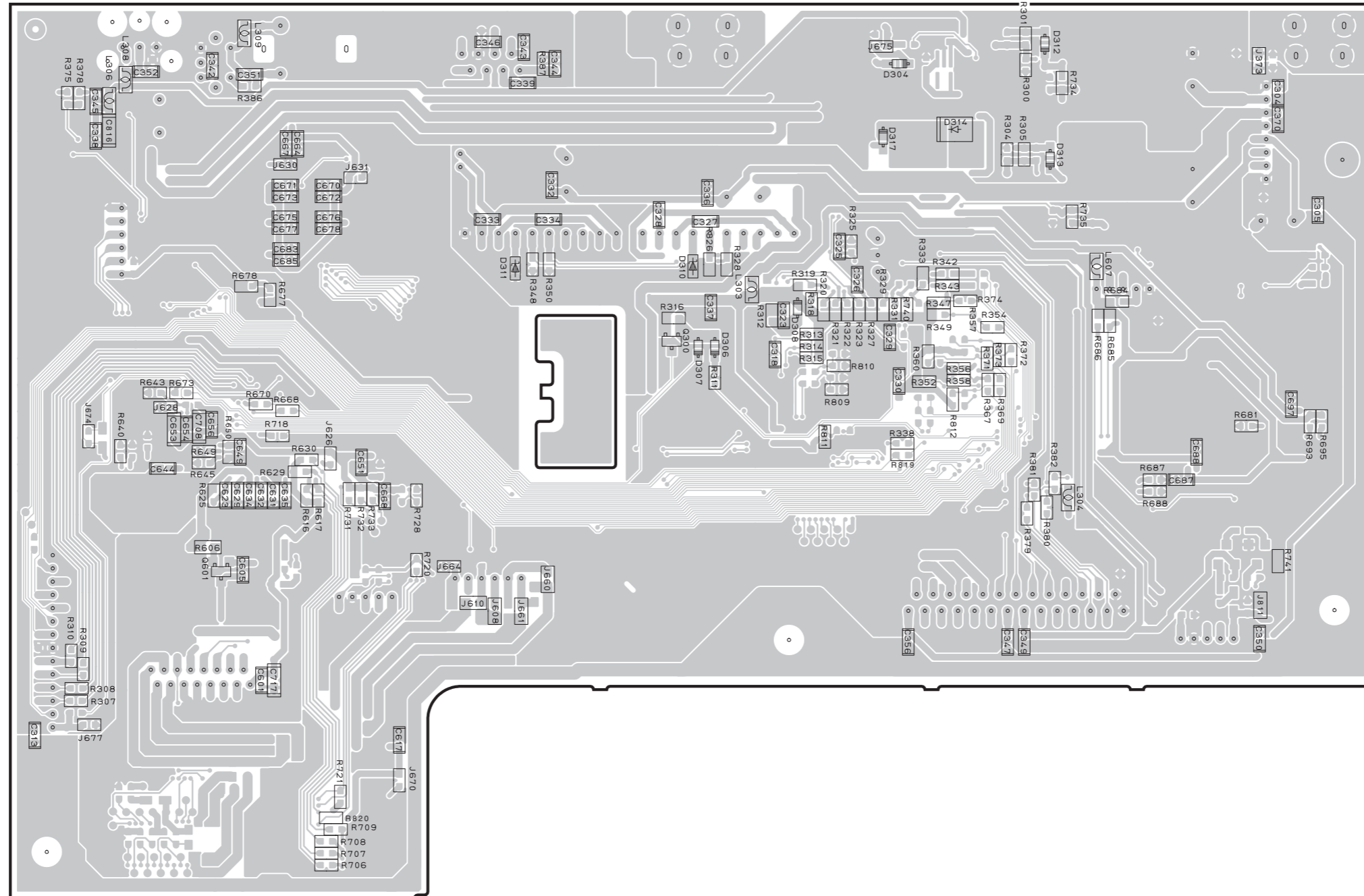


POWER ON POWER OFF



POWER OFF

DIGITAL P.C.B. (Side B)

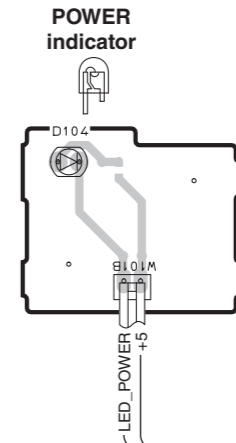
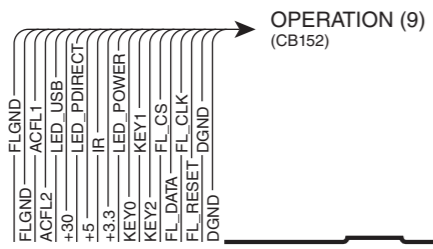
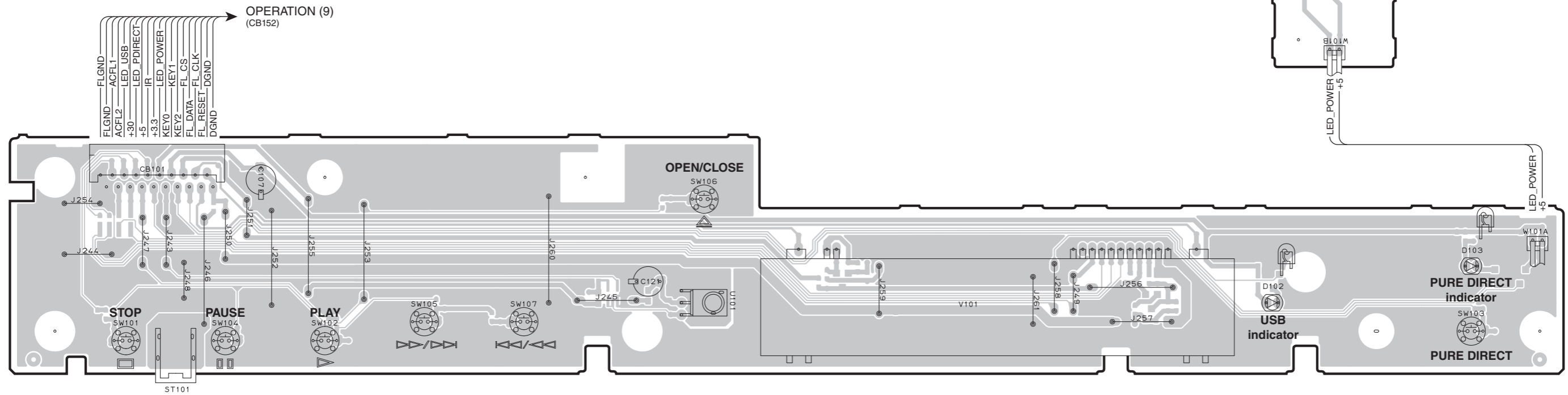


• Semiconductor Location

| Ref no. | Location |
|---------|----------|
| D304 | F2 |
| D306 | E4 |
| D307 | E4 |
| D308 | F4 |
| D310 | E3 |
| D311 | D3 |
| D312 | G2 |
| D313 | G3 |
| D314 | F3 |
| D317 | F3 |
| D603 | B4 |
| Q300 | E4 |
| Q601 | C5 |

OPERATION (1) P.C.B. (Side A)

OPERATION (2) P.C.B. (Side A)

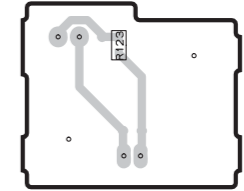
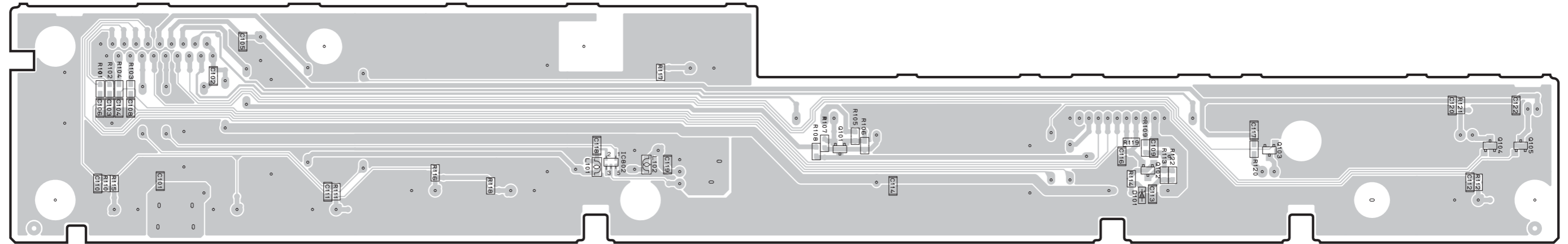


• Semiconductor Location

| Ref no. | Location |
|---------|----------|
| D102 | H4 |
| D103 | J4 |
| D104 | I2 |

OPERATION (1) P.C.B. (Side B)

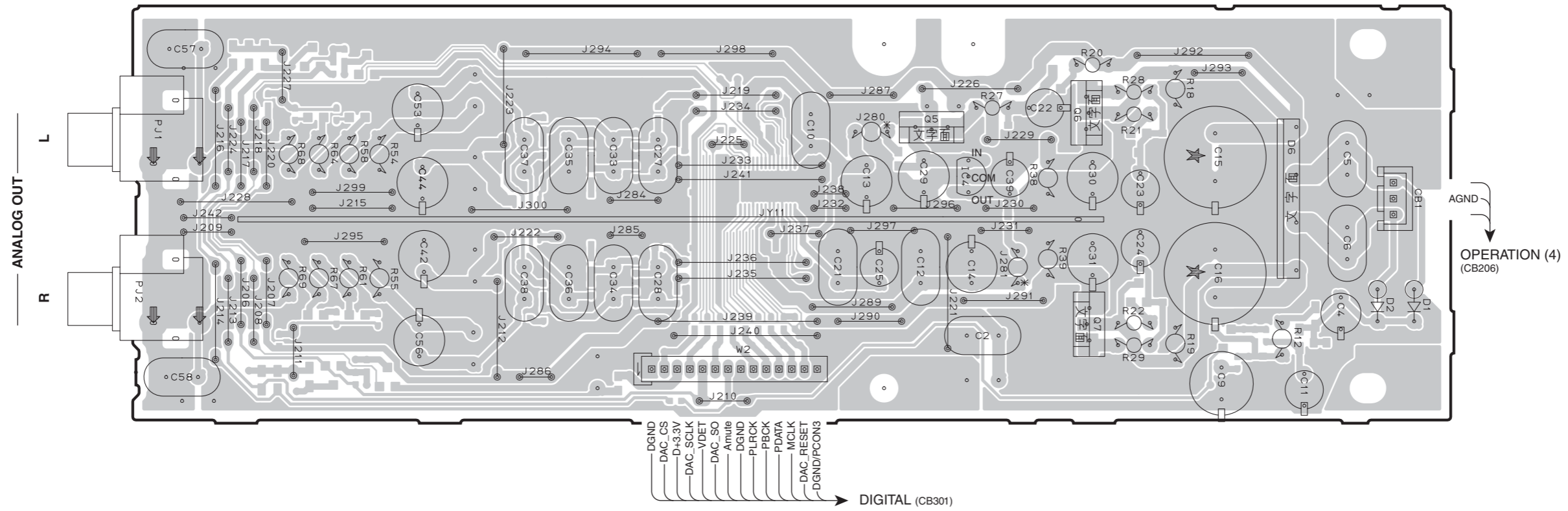
OPERATION (2) P.C.B. (Side B)



• Semiconductor Location

| Ref no. | Location |
|---------|----------|
| D101 | H4 |
| IC802 | D4 |
| Q101 | F4 |
| Q102 | H4 |
| Q103 | H4 |
| Q104 | J4 |
| Q105 | J4 |

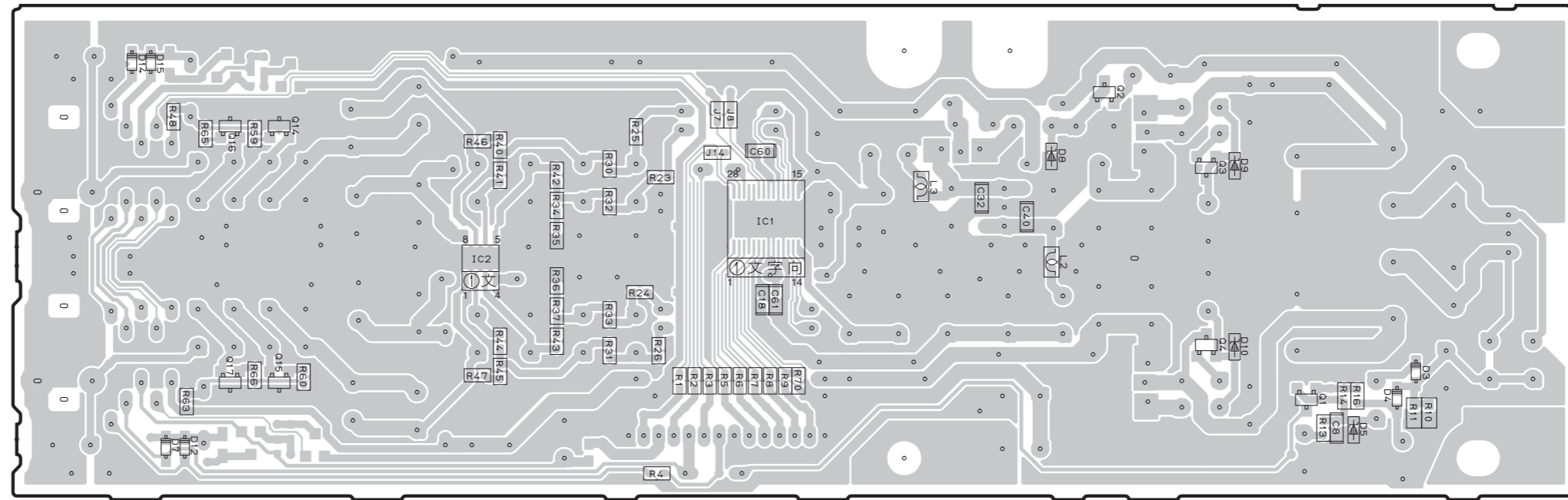
OPERATION (3) P.C.B. (Side A)



• Semiconductor Location

| Ref no. | Location |
|---------|----------|
| D1 | I4 |
| D2 | I4 |
| D6 | H4 |
| IC4 | G4 |
| Q5 | F3 |
| Q6 | G3 |
| Q7 | G4 |

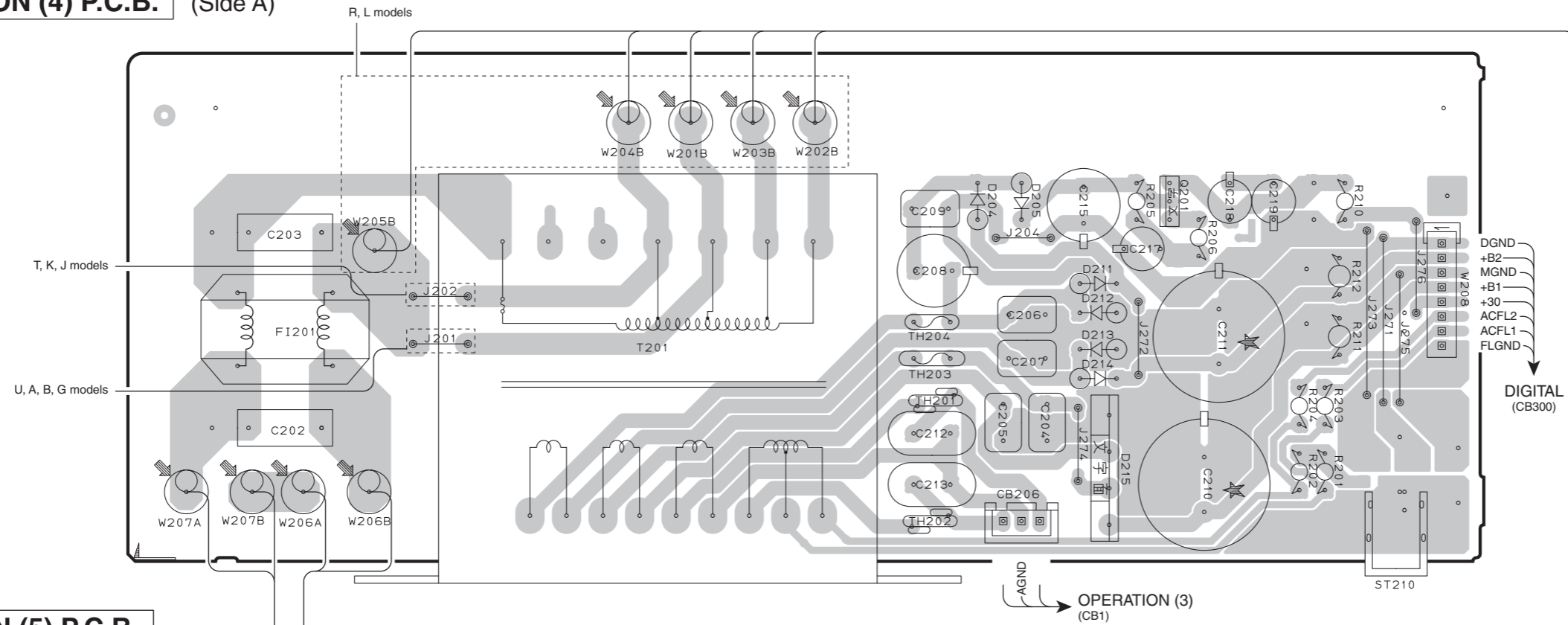
OPERATION (3) P.C.B. (Side B)



• Semiconductor Location

| Ref no. | Location |
|---------|----------|
| D3 | H4 |
| D4 | H5 |
| D5 | H5 |
| D7 | C5 |
| D8 | G3 |
| D9 | G4 |
| D10 | G4 |
| D12 | C5 |
| D14 | C3 |
| D15 | C3 |
| IC1 | E4 |
| IC2 | D4 |
| Q1 | H5 |
| Q2 | G3 |
| Q3 | G4 |
| Q4 | G4 |
| Q14 | C3 |
| Q15 | C4 |
| Q16 | C3 |
| Q17 | C4 |

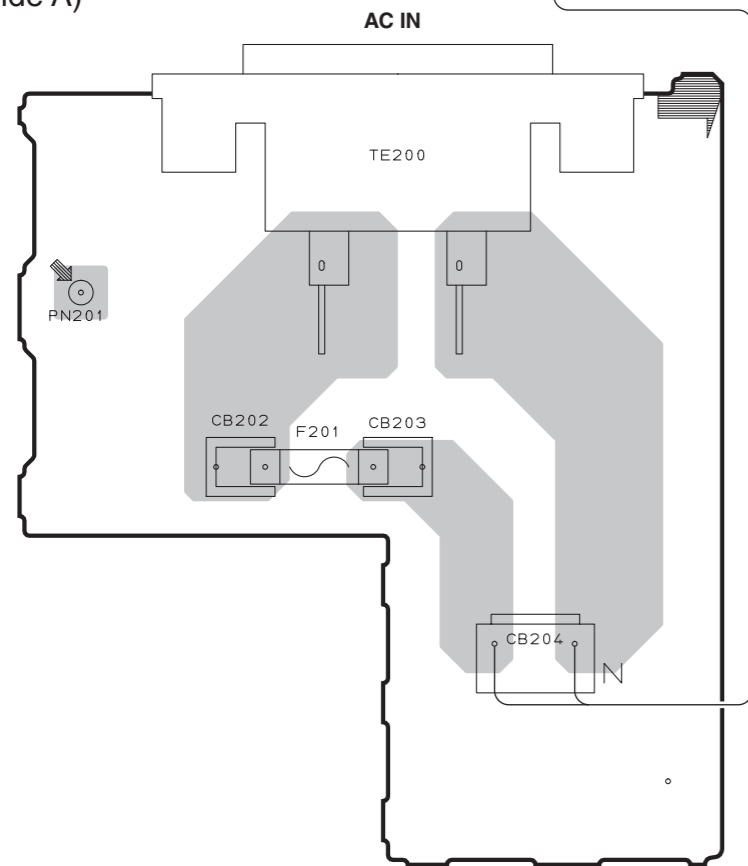
OPERATION (4) P.C.B. (Side A)



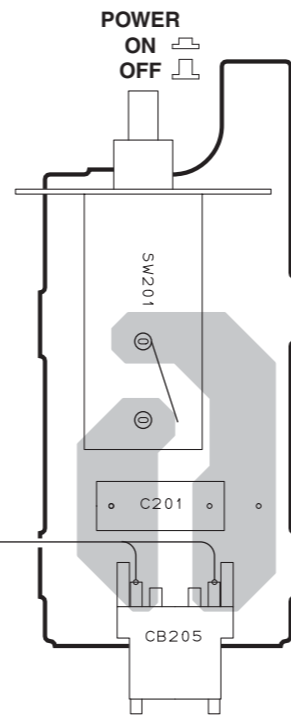
• Semiconductor Location

| Ref no. | Location |
|---------|----------|
| D204 | F2 |
| D205 | F2 |
| D211 | G3 |
| D212 | G3 |
| D213 | G3 |
| D214 | G3 |
| D215 | G3 |
| Q201 | G2 |

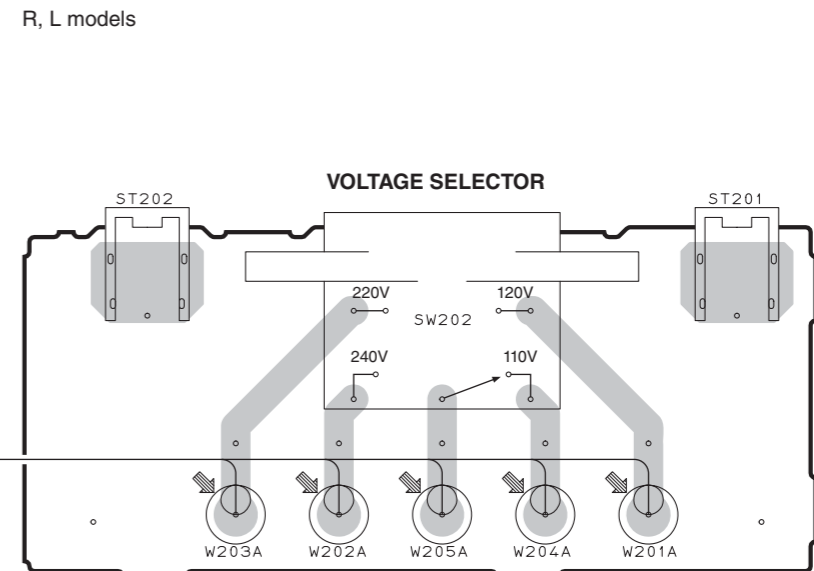
OPERATION (5) P.C.B. (Side A)



OPERATION (6) P.C.B. (Side A)



OPERATION (7) P.C.B. (Side A)



1

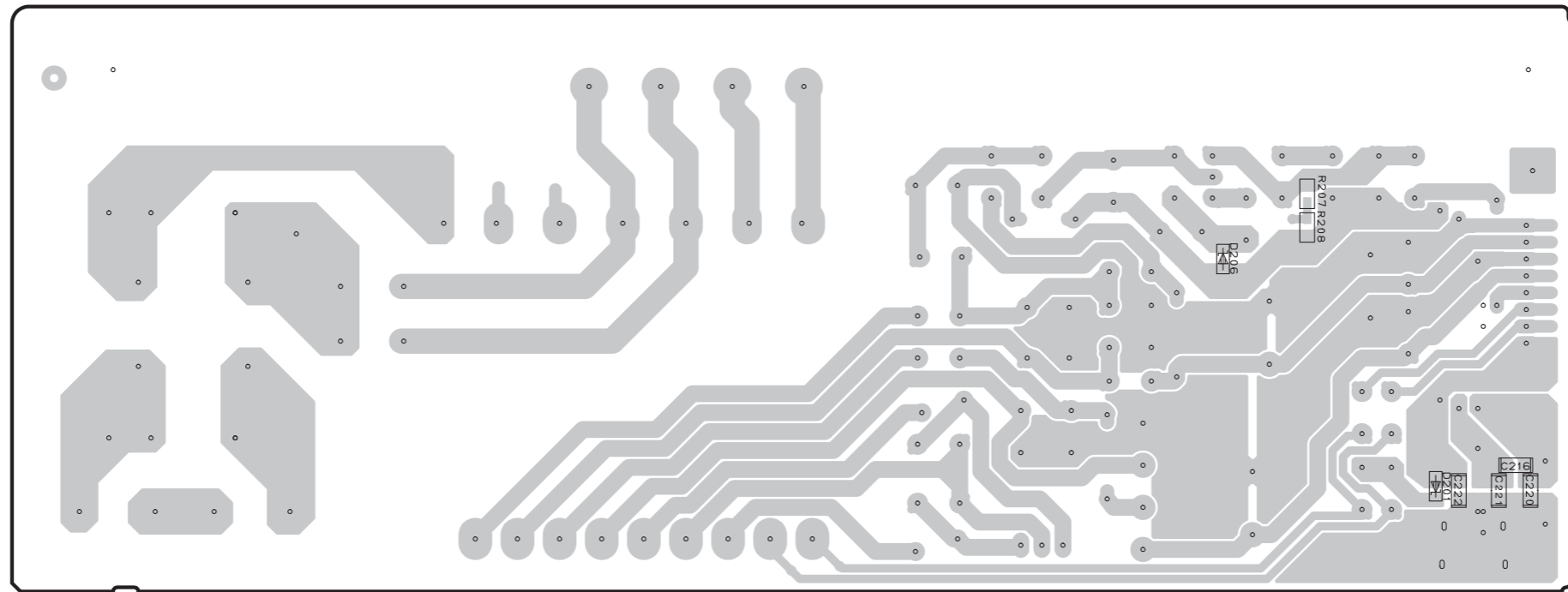
OPERATION (4) P.C.B. (Side B)

• Semiconductor Location

| Ref no. | Location |
|---------|----------|
| D201 | H3 |
| D206 | G3 |

2

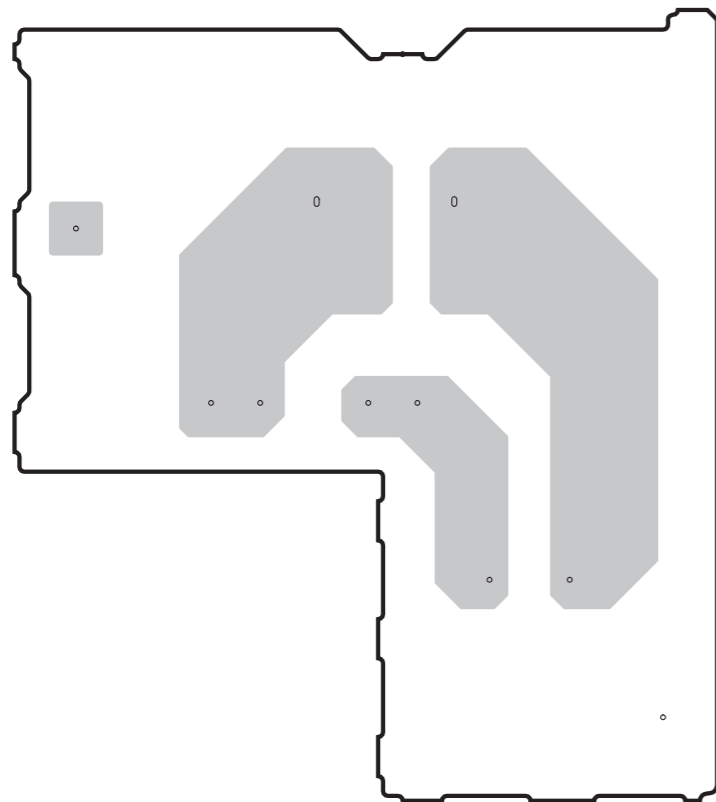
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4

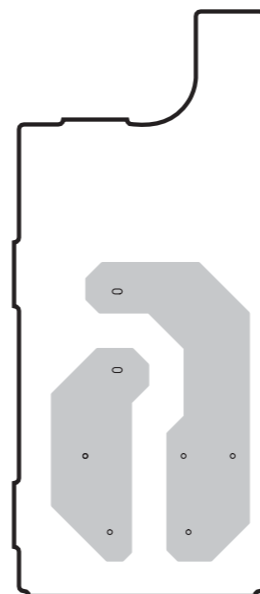
OPERATION (5) P.C.B.

(Side B)



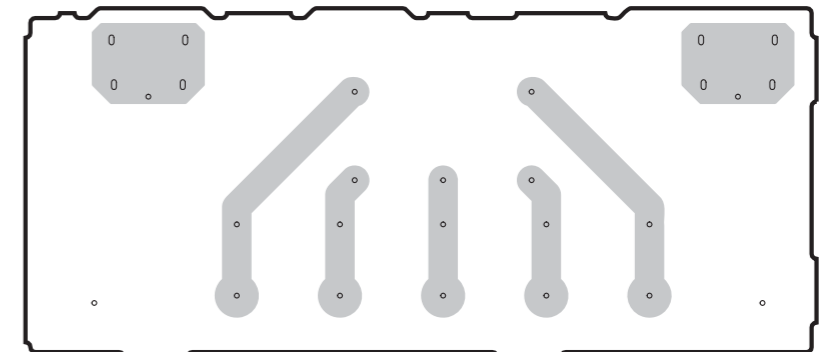
5

OPERATION (6) P.C.B. (Side B)



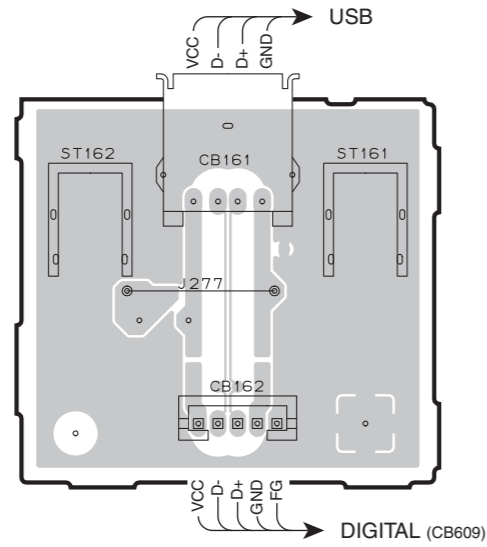
6

OPERATION (7) P.C.B. (Side B)

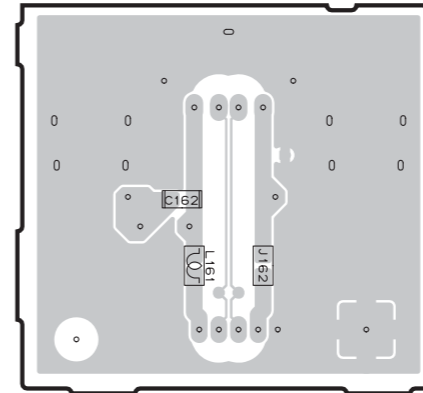


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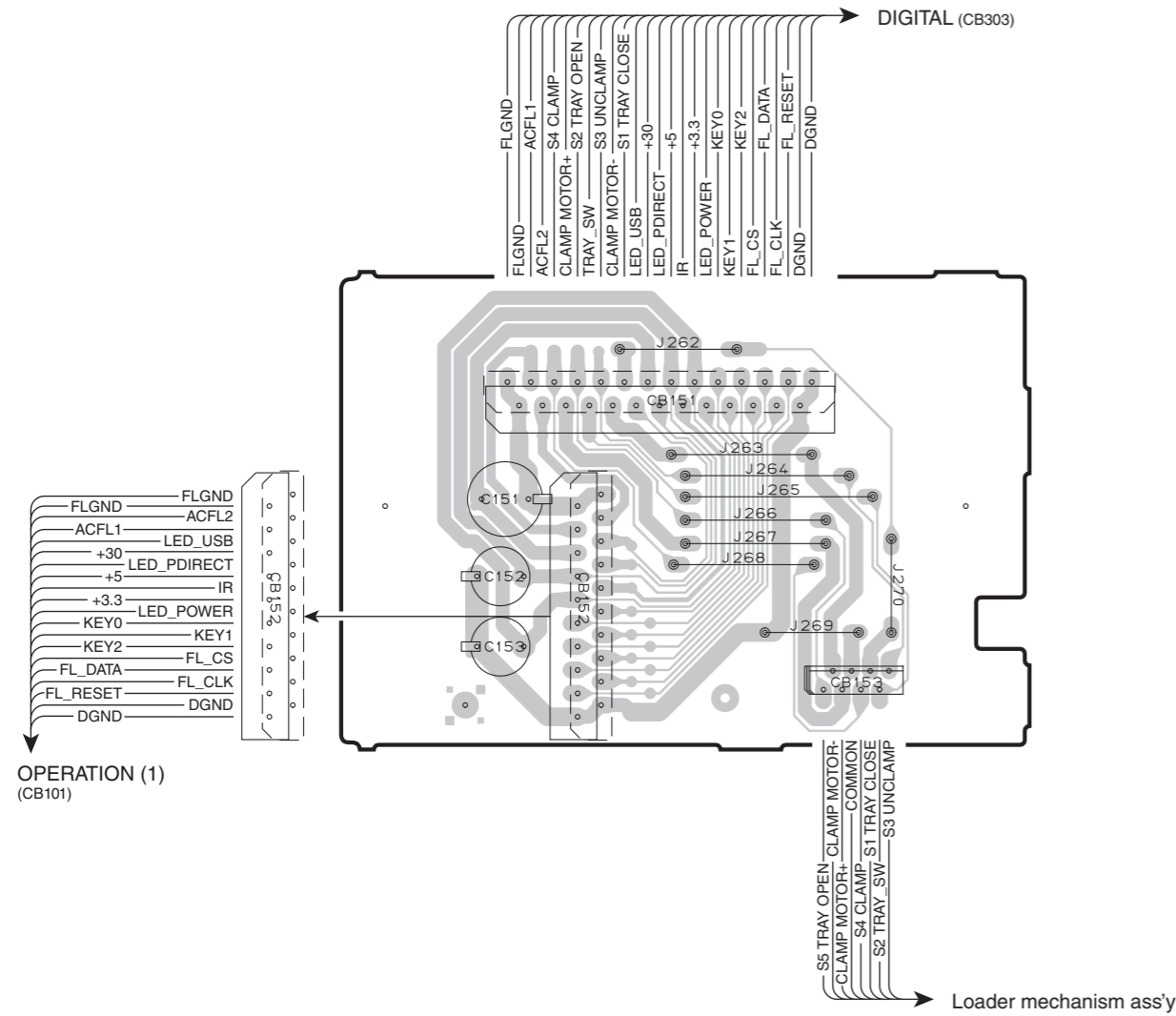
OPERATION (8) P.C.B. (Side A)



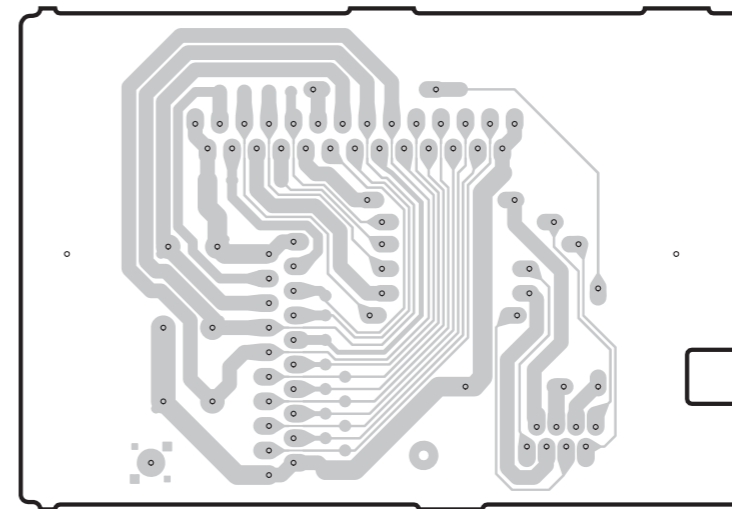
OPERATION (8) P.C.B. (Side B)



OPERATION (9) P.C.B. (Side A)

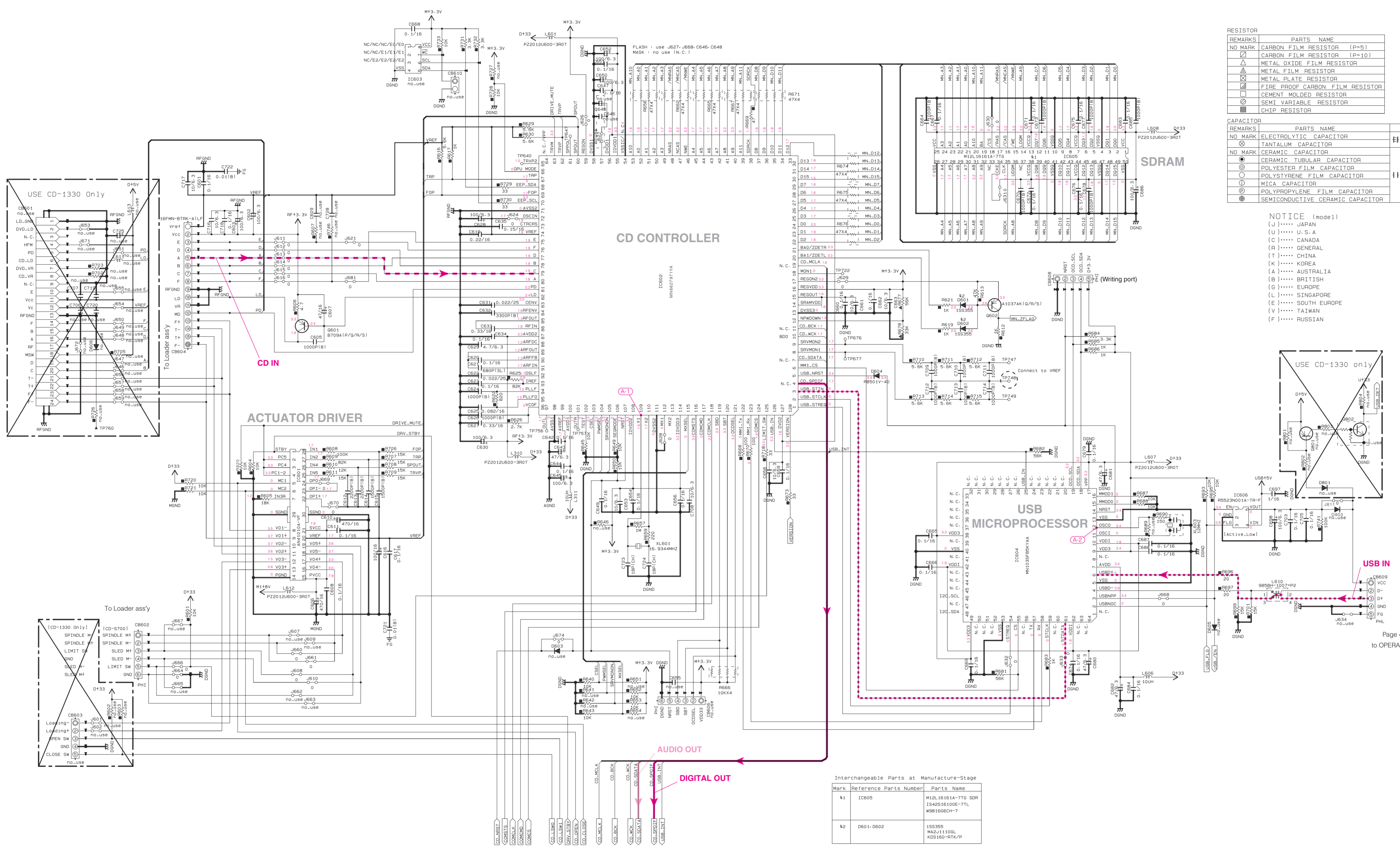


OPERATION (9) P.C.B. (Side B)



OPERATION (1)
(CB101)

SCHEMATIC DIAGRAMS
DIGITAL 1/2



RESISTOR

| REMARKS | PARTS NAME |
|---------|---------------------------------|
| NO MARK | CARBON FILM RESISTOR (P=5) |
| △ | CARBON FILM RESISTOR (P=10) |
| □ | METAL OXIDE FILM RESISTOR |
| ⊠ | METAL FILM RESISTOR |
| ⊞ | METAL PLATE RESISTOR |
| ⊞ | FIRE PROOF CARBON FILM RESISTOR |
| ⊞ | CEMENT MOLDED RESISTOR |
| ⊞ | SEMI VARIABLE RESISTOR |
| ⊞ | CHIP RESISTOR |

CAPACITOR

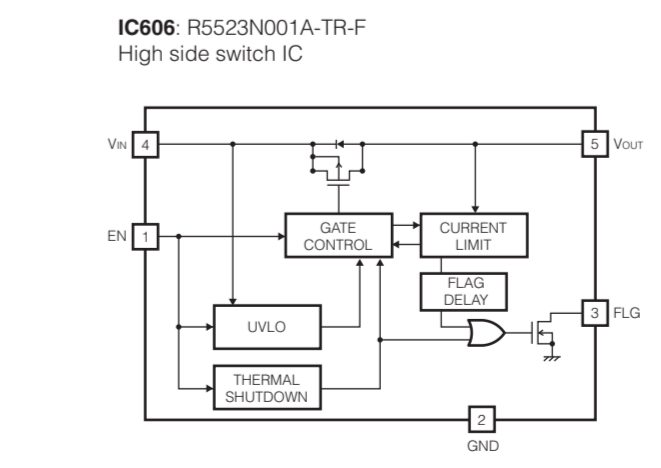
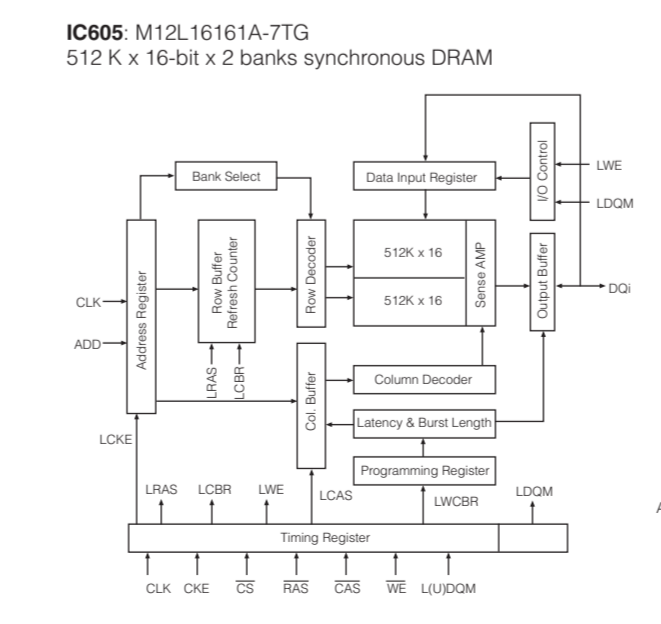
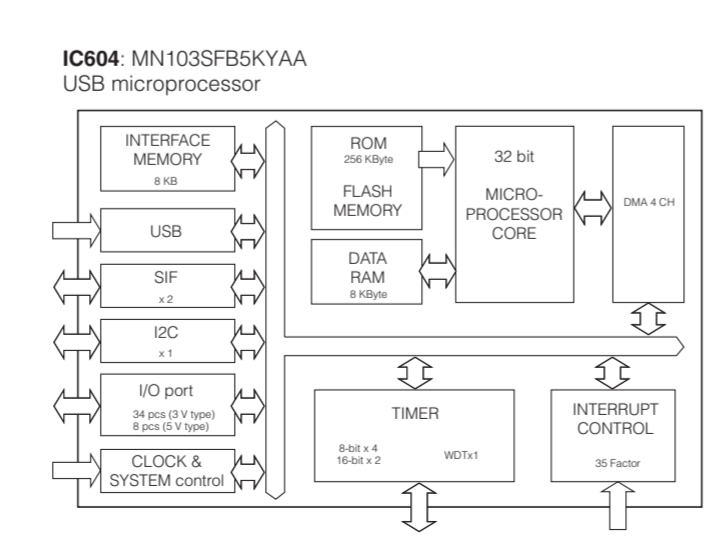
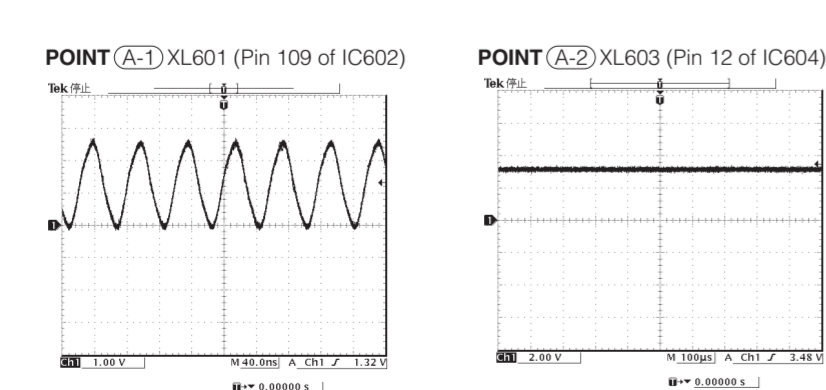
| REMARKS | PARTS NAME |
|---------|----------------------------------|
| NO MARK | ELECTROLYTIC CAPACITOR |
| ⊞ | TANTALUM CAPACITOR |
| NO MARK | CERAMIC CAPACITOR |
| ⊞ | CERAMIC TUBULAR CAPACITOR |
| ⊞ | POLYESTER FILM CAPACITOR |
| ⊞ | POLYSTYRENE FILM CAPACITOR |
| ⊞ | MICA CAPACITOR |
| ⊞ | POLYPROPYLENE FILM CAPACITOR |
| ⊞ | SEMICONDUCTIVE CERAMIC CAPACITOR |

NOTICE (mode1)

(J)..... JAPAN
(U)..... U.S.A
(C)..... CANADA
(R)..... GENERAL
(T)..... CHINA
(K)..... KOREA
(A)..... AUSTRALIA
(B)..... BRITISH
(G)..... EUROPE
(L)..... SINGAPORE
(E)..... SOUTH EUROPE
(V)..... TAIWAN
(F)..... RUSSIAN

Interchangeable Parts at Manufacture-Stage

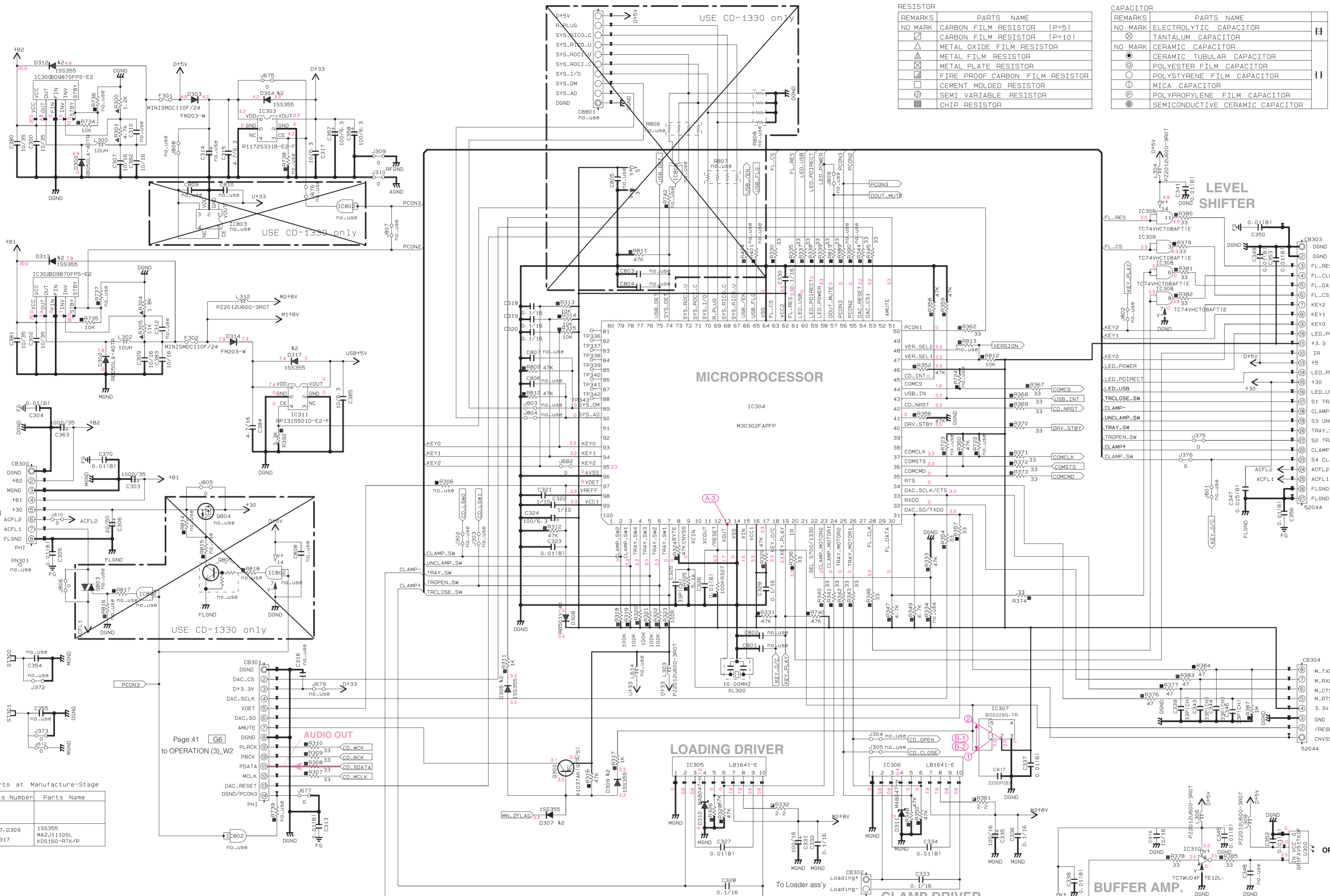
| Mark | Reference Parts Number | Parts Name |
|------|------------------------|---|
| 41 | IC605 | M12L16161A-7TG SDR 1S42S16100E-7L WB81666CH-7 |
| 42 | D601, D602 | 1S8395 MA241110GL KDS160-RTK/P |



* All voltages are measured with a 10MΩ/V DC electronic voltmeter.
* Components having special characteristics are marked with a triangle (△), and must be replaced with parts having specifications equal to those originally installed.
* Schematic diagram is subject to change without notice.

● 電圧は、内部抵抗10MΩの電圧計で測定したものです。
● △印のある部品は、安全確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
● 本回路図は標準回路図です。改良のため予告なく変更することがございます。

DIGITAL 2/2



| REMARKS | PARTS NAME |
|---------|---------------------------------|
| NO MARK | CARBON FILM RESISTOR (P=5) |
| □ | CARBON FILM RESISTOR (P=10) |
| △ | METAL OXIDE FILM RESISTOR |
| ▭ | METAL FILM RESISTOR |
| ⊠ | METAL PLATE RESISTOR |
| ▩ | FIRE PROOF CARBON FILM RESISTOR |
| ▨ | CEMENT MOLDED RESISTOR |
| ⊞ | SEMI VARIABLE RESISTOR |
| ■ | CHIP RESISTOR |

| REMARKS | PARTS NAME |
|---------|----------------------------------|
| NO MARK | ELECTROLYTIC CAPACITOR |
| ⊗ | TANTALUM CAPACITOR |
| NO MARK | CERAMIC CAPACITOR |
| ● | CERAMIC TUBULAR CAPACITOR |
| ⊙ | POLYESTER FILM CAPACITOR |
| ○ | POLYSTYRENE FILM CAPACITOR |
| ⊖ | MICA CAPACITOR |
| ⊕ | POLYPROPYLENE FILM CAPACITOR |
| ⊗ | SEMICONDUCTIVE CERAMIC CAPACITOR |

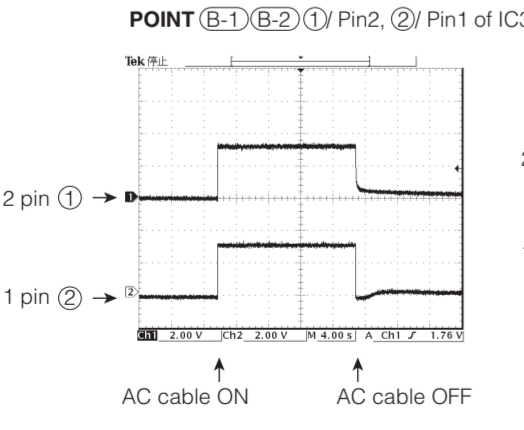
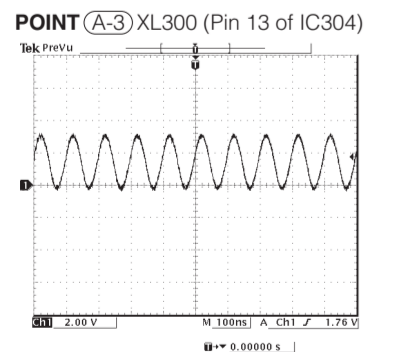
NOTICE (mode1)
 (J)..... JAPAN
 (U)..... U. S. A
 (C)..... CANADA
 (R)..... GENERAL
 (T)..... CHINA
 (K)..... KOREA
 (A)..... AUSTRALIA
 (B)..... BRITISH
 (G)..... EUROPE
 (L)..... SINGAPORE
 (V)..... SOUTH EUROPE
 (E)..... TAIWAN
 (F)..... RUSSIAN

Page 42 [L5] to OPERATION (4)_W208

Page 41 [G6] to OPERATION (3)_W2

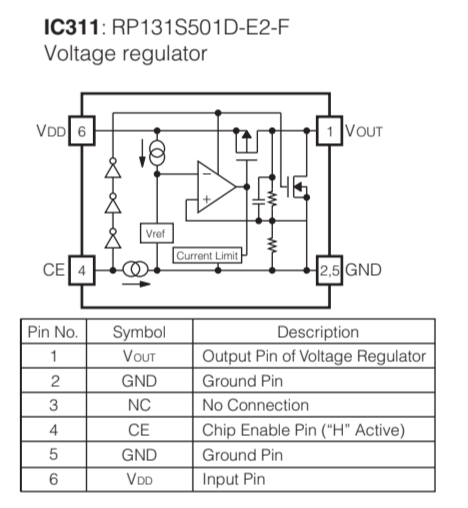
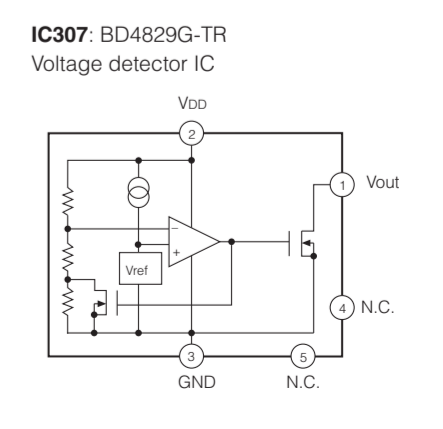
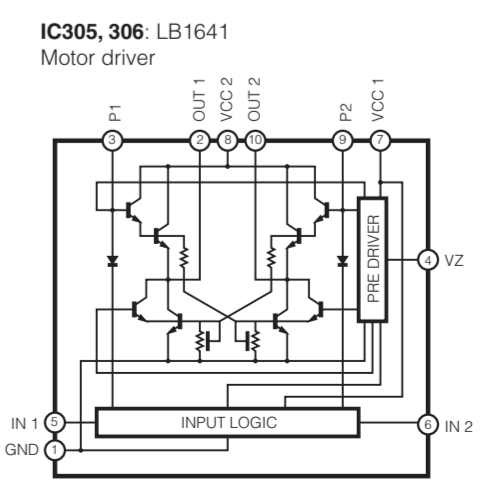
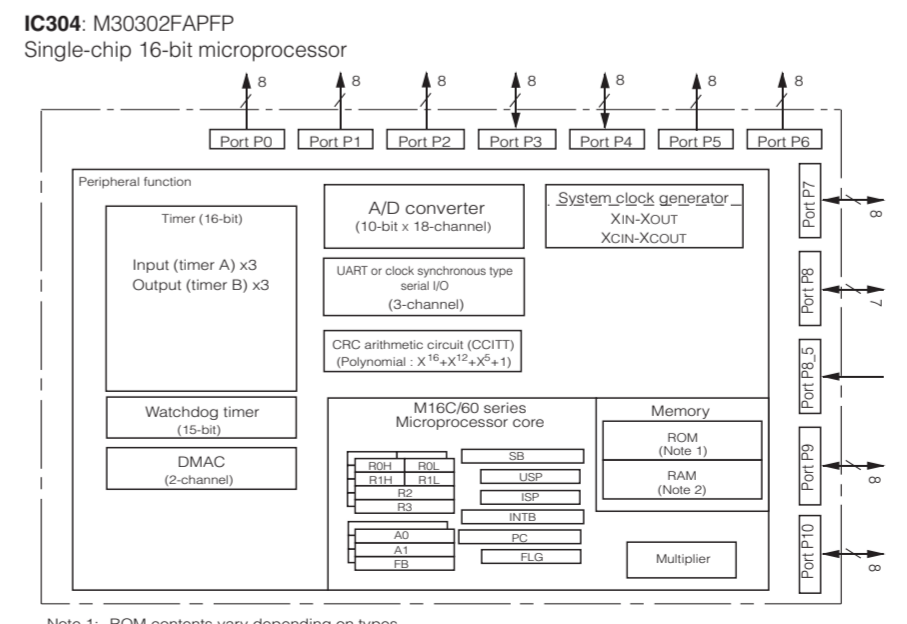
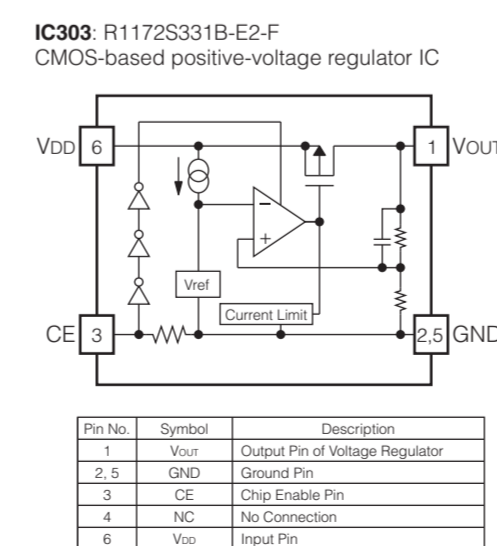
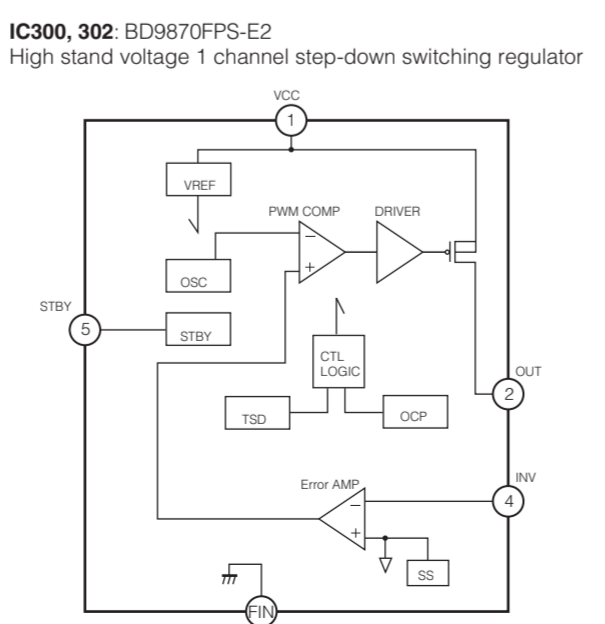
Interchangeable Parts at Manufacture-Stage

| Mark | Reference Parts Number | Parts Name |
|------|------------------------|---------------------------|
| k3 | D304, D306, D307, D309 | ISS395 |
| k2 | D312, D313, D317 | MA2J1109L KDS160-RTK/P |

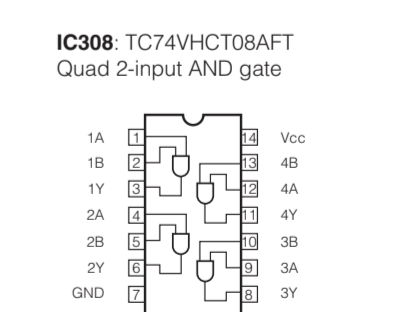
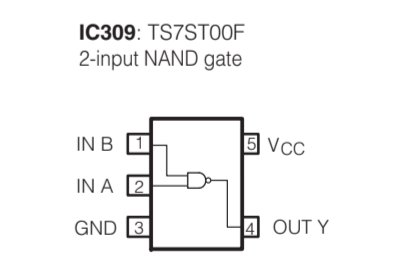
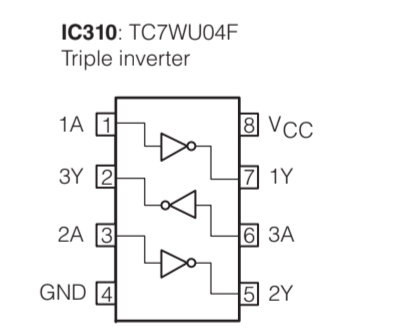


★ All voltages are measured with a 10MQ/V DC electronic voltmeter.
 ★ Components having special characteristics are marked with a triangle and must be replaced with parts having specifications equal to those originally installed.
 ★ Schematic diagram is subject to change without notice.

● 電圧は、内部抵抗10MΩの電圧計で測定したものです。
 ● !印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
 ● 本回路図は標準回路図です。改良のため予告なく変更することがございます。



| Pin No. | Symbol | Description |
|---------|--------|---------------------------------|
| 1 | Vout | Output Pin of Voltage Regulator |
| 2 | GND | Ground Pin |
| 3 | NC | No Connection |
| 4 | CE | Chip Enable Pin ("H" Active) |
| 5 | GND | Ground Pin |
| 6 | Vin | Input Pin |



DIGITAL OUT

COAXIAL

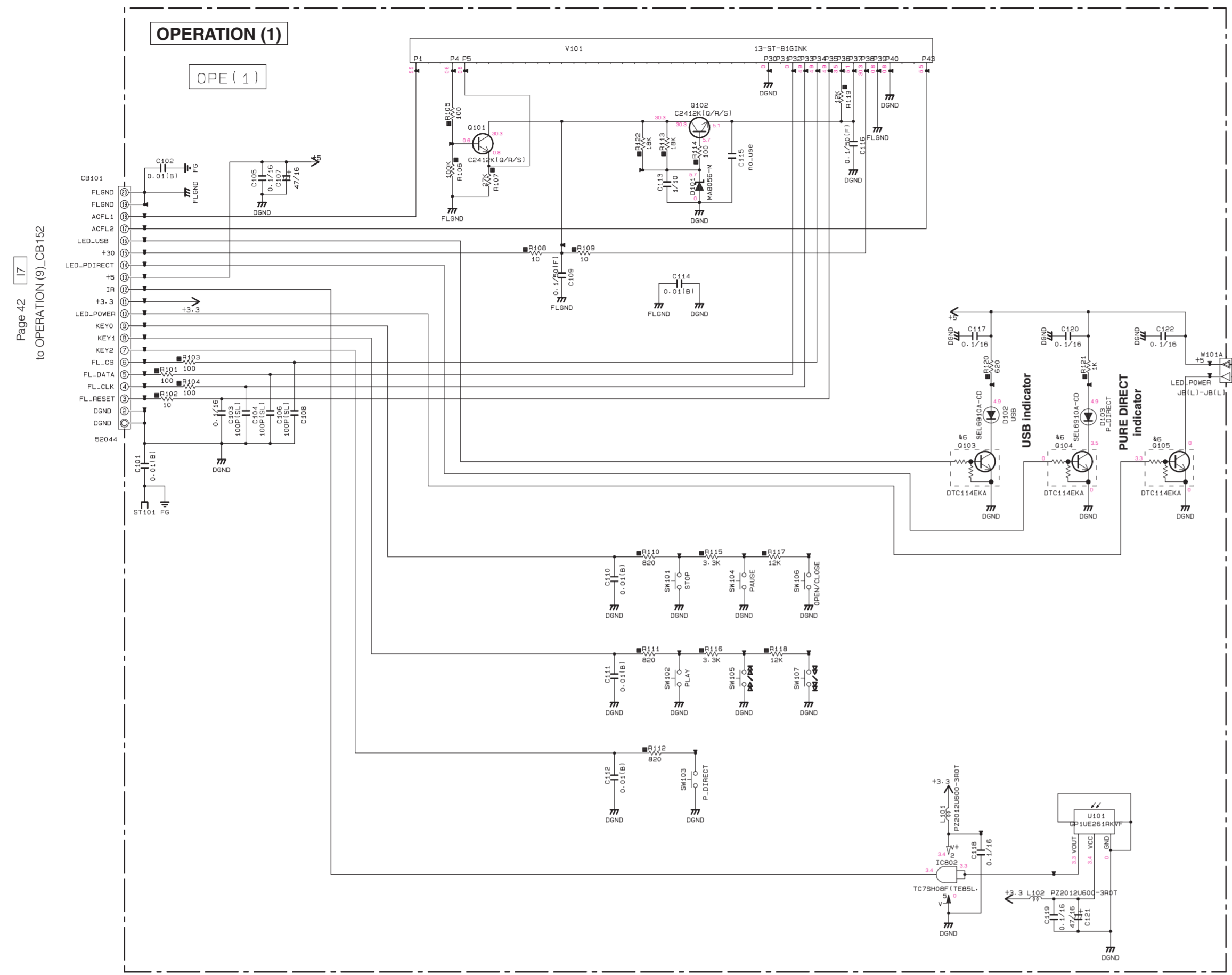
OPTICAL

FRONT_PANEL

LEVEL SHIFTER

Page 42 [F8] to OPERATION (9)_CB151

OPERATION 1/2



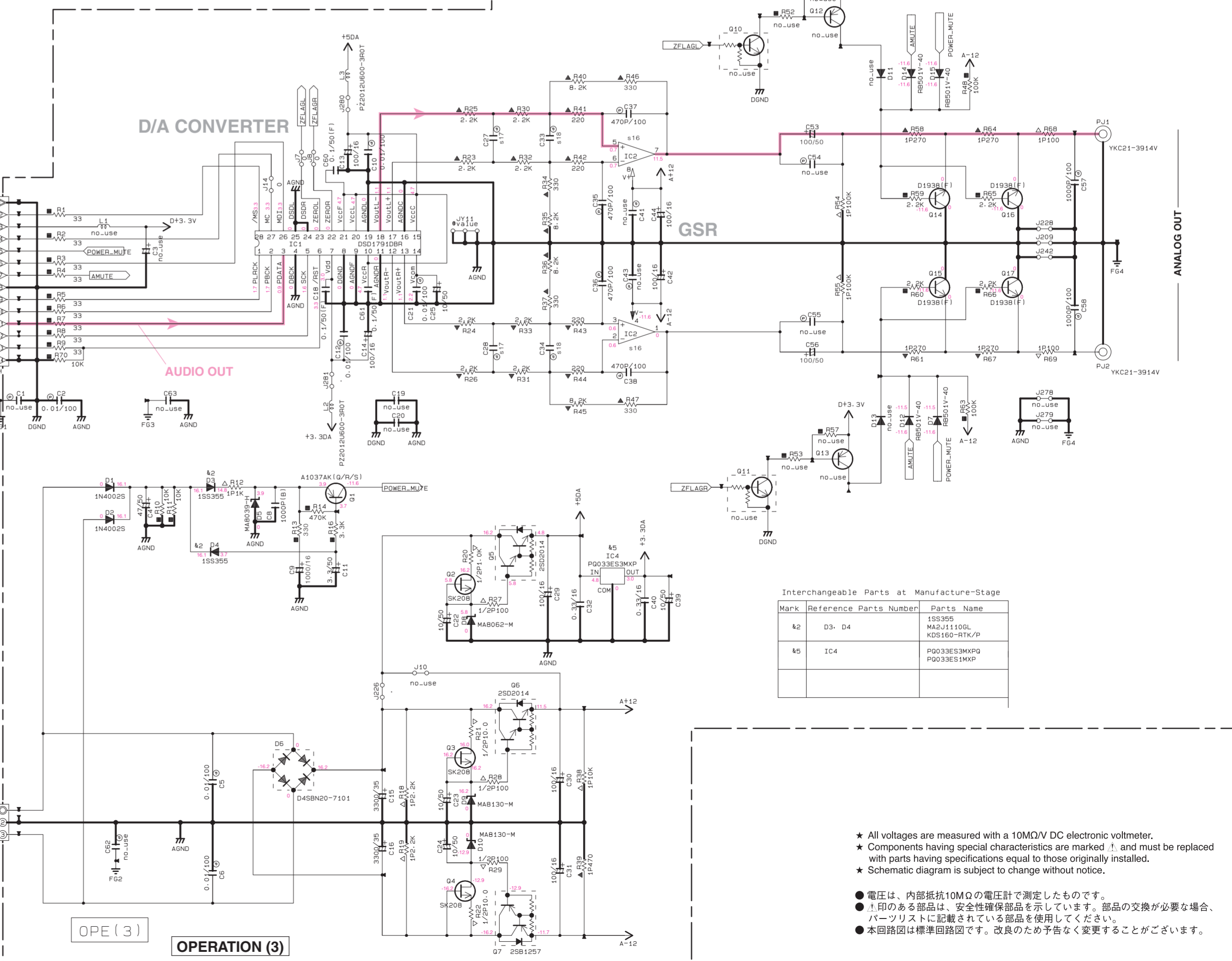
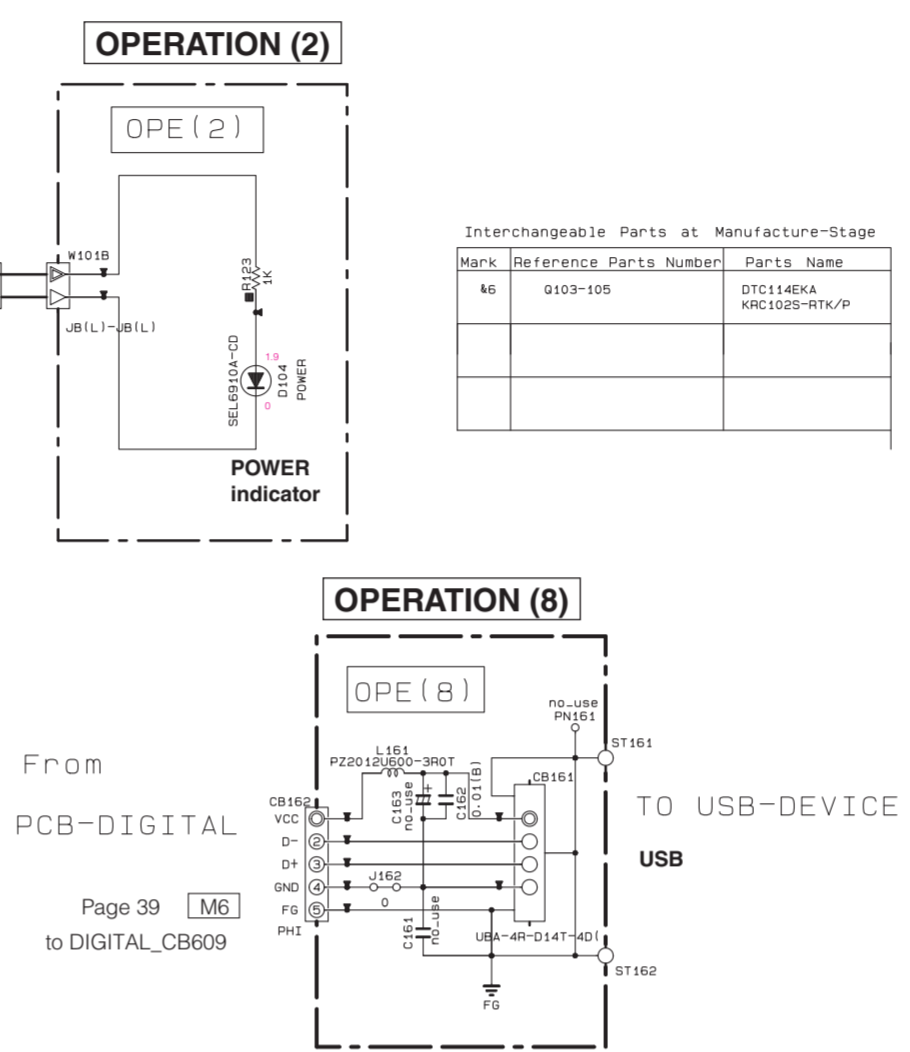
Page 42 [J] to OPERATION (3)_CB152

NOTICE (model)

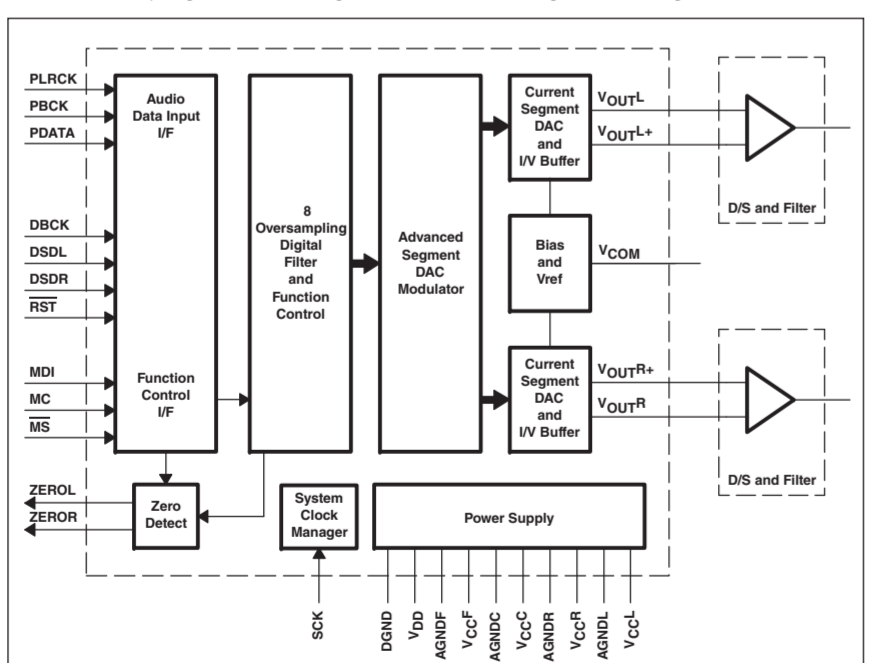
(J)..... JAPAN
 (U)..... U.S.A
 (C)..... CANADA
 (R)..... GENERAL
 (T)..... CHINA
 (A)..... AUSTRALIA
 (B)..... BRITISH
 (G)..... EUROPE
 (L)..... SINGAPORE
 (E)..... SOUTH EUROPE
 (V)..... TAIWAN
 (F)..... RUSSIAN

Interchangeable Parts at Manufacture-Stage

| Mark | Reference Parts Number | Parts Name |
|------|------------------------|----------------------------|
| K5 | G103-105 | DTC114EKA KRC1025-RTX/P |

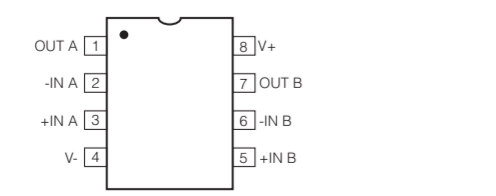


IC1: DSD1791DBR
 24-bit, 192 kHz sampling, advanced segment, audio stereo digital-to-analog converter

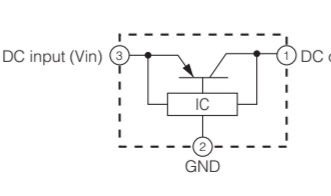


| | | | |
|-------|----|-------------------|----|
| PLRCK | 1 | MS | 38 |
| PBCK | 2 | MC | 39 |
| PDATA | 3 | MDI | 40 |
| DBCK | 4 | DSOL | 41 |
| DSOL | 5 | ZEROL | 42 |
| DSDR | 6 | ZEROR | 43 |
| RST | 7 | V _{DD} | 44 |
| MDI | 8 | V _{CC} | 45 |
| MC | 9 | AGND | 46 |
| ME | 10 | V _{CCP} | 47 |
| | 11 | AGNDL | 48 |
| | 12 | V _{OUTL} | 49 |
| | 13 | V _{OUTR} | 50 |
| | 14 | V _{CC} | 51 |

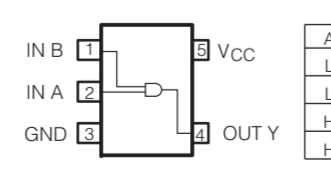
IC2: OP275GSR
 Dual bipolar/JFET, audio operational amplifier



IC4: PQ033ES3MXP
 Low power loss regulator



IC802: TC7SH08F
 2-input AND gate



Page 42 [J3] to OPERATION (4)_CB206

Interchangeable Parts at Manufacture-Stage

| Mark | Reference Parts Number | Parts Name |
|------|------------------------|--------------------------------------|
| K2 | D3- D4 | 1S9355 MA2-1110GL KDS160-RTX/P |
| M5 | IC4 | PQ033ES3MXP PQ033ES1MXP |

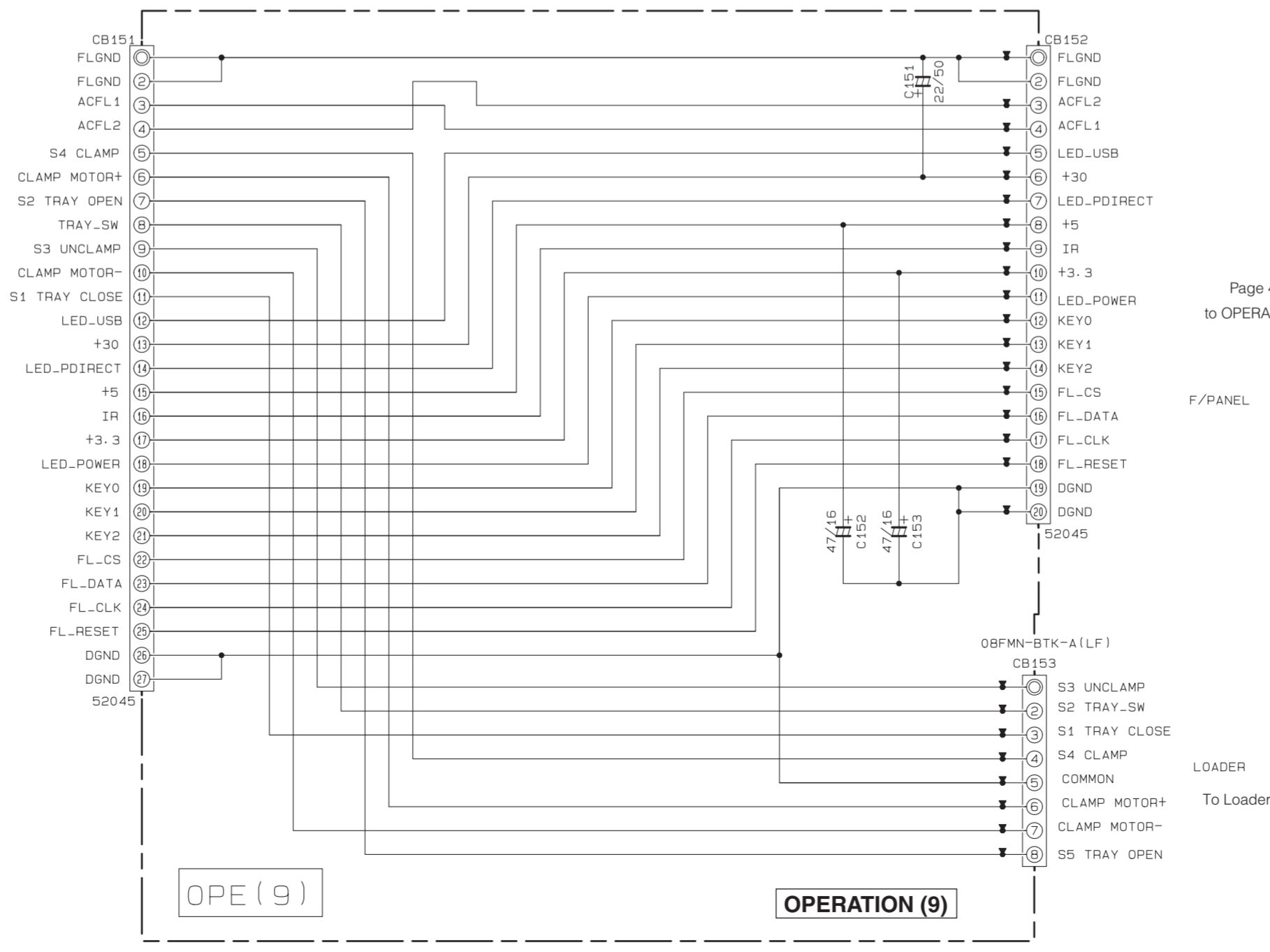
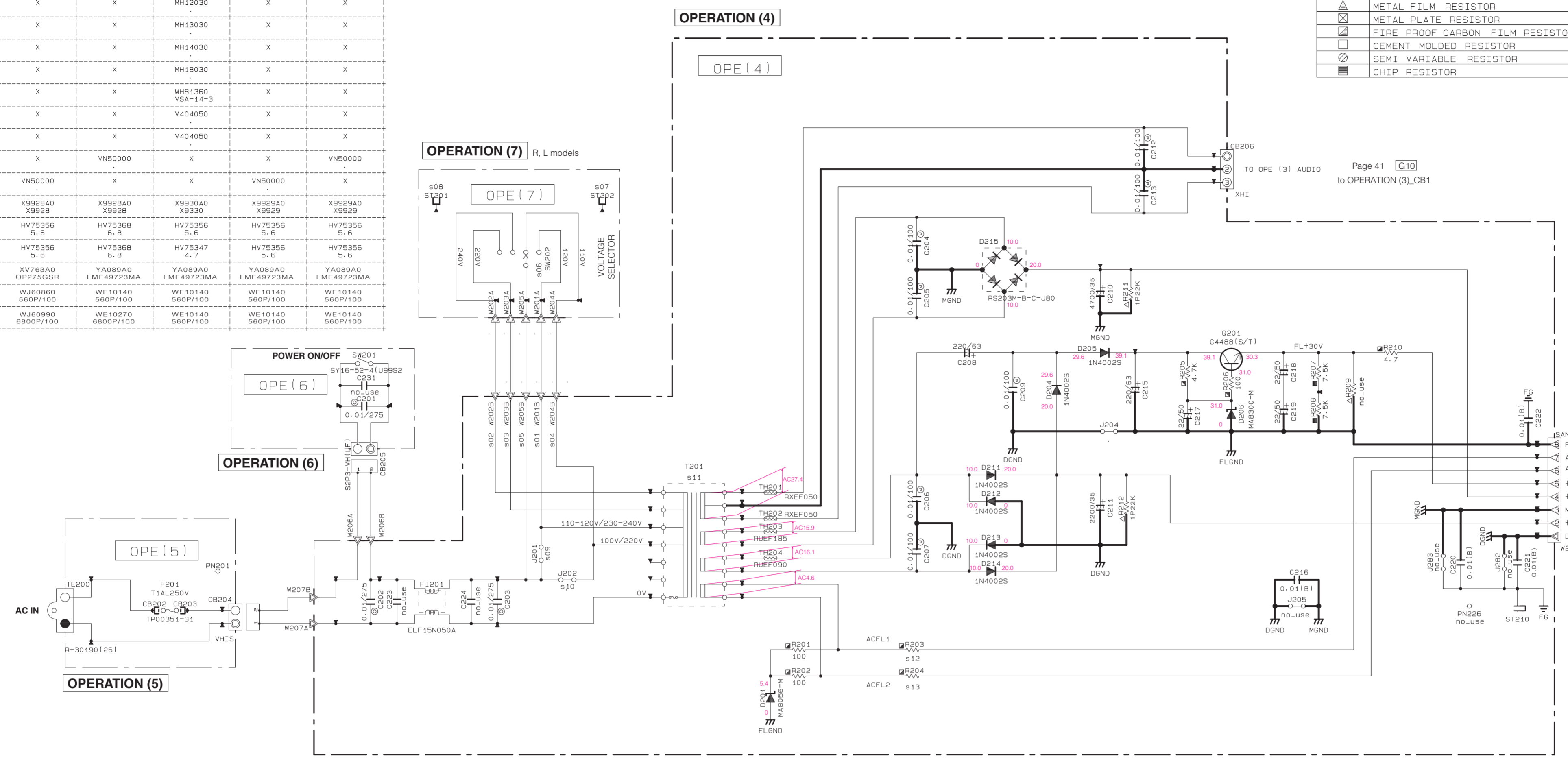
- ★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.
- ★ Components having special characteristics are marked with a triangle and must be replaced with parts having specifications equal to those originally installed.
- ★ Schematic diagram is subject to change without notice.
- 電圧は、内部抵抗10MΩの電圧計で測定したものです。
- 印のある部品は、安全性能保証品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
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OPERATION 2/2

| sXX | LOC | J | U | RL | TK | ABS |
|-----|----------------|---------------------|-----------------------|-----------------------|--------------------------|-----------------------|
| s1 | W201B W201A | X | X | MH11030 | X | X |
| s2 | W202A W202B | X | X | MH12030 | X | X |
| s3 | W203B W203A | X | X | MH13030 | X | X |
| s4 | W204A W204B | X | X | MH14030 | X | X |
| s5 | W205A W205B | X | X | MH18030 | X | X |
| s6 | SW202 | X | X | MH81360 V54-14-3 | X | X |
| s7 | ST202 | X | X | V404050 | X | X |
| s8 | ST201 | X | X | V404050 | X | X |
| s9 | J201 | X | VN50000 | X | X | VN50000 |
| s10 | J202 | VN50000 | X | X | VN50000 | X |
| s11 | T201 | X9928A0 X9928 | X9928A0 X9928 | X9930A0 X9930 | X9929A0 X9929 | X9929A0 X9929 |
| s12 | R203 | HV75356 5.6 | HV75368 6.8 | HV75356 5.6 | HV75356 5.6 | HV75356 5.6 |
| s13 | R204 | HV75356 5.6 | HV75368 6.8 | HV75347 4.7 | HV75356 5.6 | HV75356 5.6 |
| s16 | IC2 | XV763A0 OP2763BR | YA089A0 LME49733MA | YA089A0 LME49733MA | LME49733A0 LME49733MA | YA089A0 LME49733MA |
| s17 | C27 C28 | WJ60860 560P/100 | WE10140 560P/100 | WE10140 560P/100 | WE10140 560P/100 | WE10140 560P/100 |
| s18 | C34 C33 | WJ60990 680P/100 | WE10270 680P/100 | WE10140 560P/100 | WE10140 560P/100 | WE10140 560P/100 |

| REMARKS | PARTS NAME | REMARKS | PARTS NAME |
|---------|---------------------------------|---------|----------------------------------|
| NO MARK | CARBON FILM RESISTOR (P=5) | NO MARK | ELECTROLYTIC CAPACITOR |
| □ | CARBON FILM RESISTOR (P=10) | ⊗ | TANTALUM CAPACITOR |
| △ | METAL OXIDE FILM RESISTOR | ○ | CERAMIC CAPACITOR |
| ▴ | METAL FILM RESISTOR | ⊙ | CERAMIC TUBULAR CAPACITOR |
| ⊠ | METAL PLATE RESISTOR | ⊕ | POLYESTER FILM CAPACITOR |
| ▢ | FIRE PROOF CARBON FILM RESISTOR | ○ | POLYSTYRENE FILM CAPACITOR |
| □ | CEMENT MOLDED RESISTOR | ⊖ | MICA CAPACITOR |
| ⊗ | SEMI VARIABLE RESISTOR | ⊕ | POLYPROPYLENE FILM CAPACITOR |
| ■ | CHIP RESISTOR | ⊙ | SEMICONDUCTIVE CERAMIC CAPACITOR |

NOTICE (mode1)
(J)..... JAPAN
(U)..... U.S.A
(C)..... CANADA
(R)..... GENERAL
(T)..... CHINA
(K)..... KOREA
(A)..... AUSTRALIA
(B)..... BRITISH
(G)..... EUROPE
(L)..... SINGAPORE
(E)..... SOUTH EUROPE
(V)..... TAIWAN
(F)..... RUSSIAN



★ All voltages are measured with a 10MQ/V DC electronic voltmeter.
★ Components having special characteristics are marked with a triangle and must be replaced with parts having specifications equal to those originally installed.
★ Schematic diagram is subject to change without notice.

● 電圧は、内部抵抗10MQの電圧計で測定したものです。
● !印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
● 本回路図は標準回路図です。改良のため予告なく変更することがございます。

Page 40 [M4] to DIGITAL_CB303

Page 41 [A2] to OPERATION (1)_CB101

F/PANEL

To Loader ass'y

Page 40 [B5] to DIGITAL_CB300

■ REPLACEMENT PARTS LIST

• ELECTRICAL COMPONENT PARTS

WARNING

- Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
- The chip resistor is not supplied as a replacement part.
 - * When a chip resistor is necessary, use the following part.
AAX60720: CHIP RESISTOR SAMPLE BOOK
- Δ 印のある部分は、安全確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
- チップ抵抗はサービス部品として供給しません。
 - ※ チップ抵抗が必要な場合は、下記の部品をご利用ください。
AAX60720 : CHIP RESISTOR SAMPLE BOOK
- 部品価格ランクは、予告なく変更することがあります。

ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS:

| | | | |
|------------|-------------------------------|------------|--------------------------------|
| C.A.EL.CHP | : CHIP ALUMI.ELECTROLYTIC CAP | L.EMIT | : LIGHT EMITTING MODULE |
| C.CE | : CERAMIC CAP | LED.DSPLY | : LED DISPLAY |
| C.CE.ARRAY | : CERAMIC CAP ARRAY | LED.INFRD | : LED,INFRARED |
| C.CE.CHP | : CHIP CERAMIC CAP | MODUL.RF | : MODULATOR,RF |
| C.CE.ML | : MULTILAYER CERAMIC CAP | PHOT.CPL | : PHOTO COUPLER |
| C.CE.M.CHP | : CHIP MULTILAYER CERAMIC CAP | PHOT.INTR | : PHOTO INTERRUPTER |
| C.CE.SAFTY | : RECOGNIZED CERAMIC CAP | PHOT.RFLCT | : PHOTO REFLECTOR |
| C.CE.TUBLR | : CERAMIC TUBULAR CAP | PIN.TEST | : PIN,TEST POINT |
| C.CE.SMI | : SEMI CONDUCTIVE CERAMIC CAP | PLST.RIVET | : PLASTIC RIVET |
| C.EL | : ELECTROLYTIC CAP | R.ARRAY | : RESISTOR ARRAY |
| C.MICA | : MICA CAP | R.CAR. | : CARBON RESISTOR |
| C.ML.FLM | : MULTILAYER FILM CAP | R.CAR.CHP | : CHIP RESISTOR |
| C.MP | : METALLIZED PAPER CAP | R.CAR.FP | : FLAME PROOF CARBON RESISTOR |
| C.MYLAR | : MYLAR FILM CAP | R.FUS | : FUSABLE RESISTOR |
| C.MYLAR.ML | : MULTILAYER MYLAR FILM CAP | R.MTL.CHP | : CHIP METAL FILM RESISTOR |
| C.PAPER | : PAPER CAPACITOR | R.MTL.FLM | : METAL FILM RESISTOR |
| C.PLS | : POLYSTYRENE FILM CAP | R.MTL.OXD | : METAL OXIDE FILM RESISTOR |
| C.POL | : POLYESTER FILM CAP | R.MTL.PLAT | : METAL PLATE RESISTOR |
| C.POLY | : POLYETHYLENE FILM CAP | RSNR.CE | : CERAMIC RESONATOR |
| C.PP | : POLYPROPYLENE FILM CAP | RSNR.CRYS | : CRYSTAL RESONATOR |
| C.TNTL | : TANTALUM CAP | R.TW.CEM | : TWIN CEMENT FIXED RESISTOR |
| C.TNTL.CHP | : CHIP TANTALUM CAP | R.CEMENT | : CEMENT RESISTOR |
| C.TRIM | : TRIMMER CAP | SCR.BND.HD | : BIND HEAD B-TIGHT SCREW |
| CN | : CONNECTOR | SCR.BW.HD | : BW HEAD TAPPING SCREW |
| CN.BS.PIN | : CONNECTOR,BASE PIN | SCR.CUP | : CUP TIGHT SCREW |
| CN.CANNON | : CONNECTOR,CANNON | SCR.TERM | : SCREW TERMINAL |
| CN.DIN | : CONNECTOR,DIN | SCR.TR | : SCREW,TRANSISTOR |
| CN.FLAT | : CONNECTOR,FLAT CABLE | SUPRT.PCB | : SUPPORT,P.C.B. |
| CN.POST | : CONNECTOR,BASE POST | SURG.PRTCT | : SURGE PROTECTOR |
| COIL.MX.AM | : COIL,AM MIX | SW.TACT | : TACT SWITCH |
| COIL.AT.FM | : COIL,FM ANTENNA | SW.LEAF | : LEAF SWITCH |
| COIL.DT.FM | : COIL,FM DETECT | SW.LEVER | : LEVER SWITCH |
| COIL.MX.FM | : COIL,FM MIX | SW.MICRO | : MICRO SWITCH |
| COIL.OUTPT | : OUTPUT COIL | SW.PUSH | : PUSH SWITCH |
| DIOD.ARRAY | : DIODE ARRAY | SW.RT.ENC | : ROTARY ENCODER |
| DIODE.BRG | : DIODE BRIDGE | SW.RT.MTR | : ROTARY SWITCH WITH MOTOR |
| DIODE.CHP | : CHIP DIODE | SW.RT | : ROTARY SWITCH |
| DIODE.VAR | : VARACTOR DIODE | SW.SLIDE | : SLIDE SWITCH |
| DIOD.Z.CHP | : CHIP ZENER DIODE | TERM.SP | : SPEAKER TERMINAL |
| DIODE.ZENR | : ZENER DIODE | TERM.WRAP | : WRAPPING TERMINAL |
| DSCR.CE | : CERAMIC DISCRIMINATOR | THRMST.CHP | : CHIP THERMISTOR |
| FER.BEAD | : FERRITE BEADS | TR.CHP | : CHIP TRANSISTOR |
| FER.CORE | : FERRITE CORE | TR.DGT | : DIGITAL TRANSISTOR |
| FET.CHP | : CHIP FET | TR.DGT.CHP | : CHIP DIGITAL TRANSISTOR |
| FL.DSPLY | : FLUORESCENT DISPLAY | TRANS | : TRANSFORMER |
| FLTR.CE | : CERAMIC FILTER | TRANS.PULS | : PULSE TRANSFORMER |
| FLTR.COMB | : COMB FILTER MODULE | TRANS.PWR | : POWER TRANSFORMER ASS'Y |
| FLTR.LC.RF | : LC FILTER,EMI | TUNER.AM | : TUNER PACK,AM |
| GND.MTL | : GROUND PLATE | TUNER.FM | : TUNER PACK,FM |
| GND.TERM | : GROUND TERMINAL | TUNER.PK | : FRONT-ENDTUNER PACK |
| HOLDER.FUS | : FUSE HOLDER | VR | : ROTARY POTENTIOMETER |
| IC.PRTCT | : IC PROTECTOR | VR.MTR | : POTENTIOMETER WITH MOTOR |
| JUMPER.CN | : JUMPER CONNECTOR | VR.SW | : POTENTIOMETER WITH ROTARY SW |
| JUMPER.TST | : JUMPER,TEST POINT | VR.SLIDE | : SLIDE POTENTIOMETER |
| L.DTCT | : LIGHT DETECTING MODULE | VR.TRIM | : TRIMMER POTENTIOMETER |

P.C.B. DIGITAL

| Ref No. | Part No. | Description | Remarks | Markets | 部 品 名 | ランク |
|---------|----------|------------------------|----------------|---------|---------------------|-----|
| * | WQ026500 | P. C. B. | DIGITAL | | P C B D I G I T A L | |
| | CB300 | VB390400 CN. BS. PIN | 8P | | ベースピン | 01 |
| | CB301 | VE352600 CN. BS. PIN | 14P | | コネクタベースポスト | 01 |
| | CB302 | VB389800 CN. BS. PIN | 2P | | ベースピン | 01 |
| | CB303 | VQ045600 CN. BS. PIN | 27P SE | | F F Cコネクタ | 03 |
| | CB304 | VP682300 CN. BS. PIN | 8P | | F F Cコネクタ | 01 |
| | CB602 | VB390200 CN. BS. PIN | 6P | | コネクタベースポスト | 01 |
| | CB604 | V2731000 CN. FMN | 16P | | F M N コネクタ | 02 |
| | CB608 | VB390100 CN. BS. PIN | 5P | | ベースピン | 01 |
| | CB609 | VB858400 CN. BS. PIN | 5P | | ベースピン | 01 |
| * | C300 | WM489900 C. CE. CHP | 10uF 35V | | チップセラコン | |
| * | C302 | WM489900 C. CE. CHP | 10uF 35V | | チップセラコン | |
| * | C303 | UR259100 C. EL | 1000uF 35V | | ケミコン | |
| | C304-305 | US064100 C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| * | C306 | WG782400 C. EL | 22uF 50V | | ケミコン | |
| | C307 | WK004400 C. CE. M. CHP | 10uF 16V | | チップ積層セラコン | 01 |
| | C309 | WK004400 C. CE. M. CHP | 10uF 16V | | チップ積層セラコン | 01 |
| | C313 | US064100 C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| | C315 | WG251600 C. CE. CHP | 4. 7uF 6. 3V | | チップセラコン | 01 |
| * | C317 | WP882000 C. CE. CHP | 10uF 6. 3V | | チップセラコン | |
| | C318-320 | US135100 C. CE. CHP | 0. 1uF 16V | | チップセラコン | 01 |
| | C321-322 | US126100 C. CE. CHP | 1uF 10V | | チップセラコン | 01 |
| | C323 | US064100 C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| | C324 | UF418100 C. EL. CHP | 100uF 6. 3V | | チップケミコン | 01 |
| | C325 | US061330 C. CE. CHP | 33pF 50V B | | チップセラコン | 01 |
| | C326-327 | US064100 C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| | C328-330 | US135100 C. CE. CHP | 0. 1uF 16V | | チップセラコン | 01 |
| | C331 | UF438100 C. EL. CHP | 100uF 16V | | チップケミコン | 01 |
| | C332-333 | US135100 C. CE. CHP | 0. 1uF 16V | | チップセラコン | 01 |
| | C334 | US064100 C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| | C335 | UF438100 C. EL. CHP | 100uF 16V | | チップケミコン | 01 |
| | C336 | US135100 C. CE. CHP | 0. 1uF 16V | | チップセラコン | 01 |
| | C337-338 | US064100 C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| | C339 | US061330 C. CE. CHP | 33pF 50V B | | チップセラコン | 01 |
| * | C340 | UF437330 C. EL. CHP | 33uF 16V | | チップケミコン | |
| | C341 | US064100 C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| | C342 | US062330 C. CE. CHP | 330pF 50V B | | チップセラコン | 01 |
| | C343-344 | US061330 C. CE. CHP | 33pF 50V B | | チップセラコン | 01 |
| | C345 | US064100 C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| | C346 | US061330 C. CE. CHP | 33pF 50V B | | チップセラコン | 01 |
| | C347 | US064150 C. CE. CHP | 0. 015uF 50V B | | チップセラコン | 01 |
| | C349-350 | US064100 C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| | C351 | US062330 C. CE. CHP | 330pF 50V B | | チップセラコン | 01 |
| | C352-353 | US064100 C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| | C355-356 | US064100 C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| | C357-358 | WC890400 C. EL. CHP | 100uF 6. 3V | | チップケミコン | 01 |
| * | C363 | UR259100 C. EL | 1000uF 35V | | ケミコン | |
| | C370 | US064100 C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| * | C380-381 | WM489900 C. CE. CHP | 10uF 35V | | チップセラコン | |
| | C382-383 | WK004400 C. CE. M. CHP | 10uF 16V | | チップ積層セラコン | 01 |
| | C384 | WF456400 C. CE. M. CHP | 4. 7uF 16V | | チップ積層セラコン | 01 |
| * | C385 | WP882000 C. CE. CHP | 10uF 6. 3V | | チップセラコン | |
| | C601 | US135100 C. CE. CHP | 0. 1uF 16V | | チップセラコン | 01 |
| | C602-603 | UF418100 C. EL. CHP | 100uF 6. 3V | | チップケミコン | 01 |
| | C605 | US063100 C. CE. CHP | 1000pF 50V B | | チップセラコン | 01 |
| | C606 | WC892500 C. EL. CHP | 470uF 16V | | チップケミコン | |
| | C607 | UF437470 C. EL. CHP | 47uF 16V | | チップケミコン | 01 |

* New Parts * 新規部品

P.C.B. DIGITAL

| Ref No. | Part No. | Description | Remarks | Markets | 部 品 名 | ランク | |
|------------|----------|-------------|----------|---------|-------|---------|----|
| C608 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C610 | WC892500 | C. EL. CHP | 470uF | 16V | | チップケミコン | |
| C611 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C612-613 | US063220 | C. CE. CHP | 2200pF | 50V B | | チップセラコン | 01 |
| C614-615 | US063150 | C. CE. CHP | 1500pF | 50V B | | チップセラコン | 01 |
| C616 | UF438100 | C. EL. CHP | 100uF | 16V | | チップケミコン | 01 |
| C617 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C619 | US135220 | C. CE. CHP | 0. 22uF | 16V | | チップセラコン | 01 |
| C620 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C621 | US062680 | C. CE. CHP | 680pF | 50V B | | チップセラコン | 01 |
| C622 | US044220 | C. CE. CHP | 0. 022uF | 25V B | | チップセラコン | 01 |
| C623 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C624 | US063100 | C. CE. CHP | 1000pF | 50V B | | チップセラコン | 01 |
| C625 | US034820 | C. CE. CHP | 0. 082uF | 16V K | | チップセラコン | 01 |
| C626 | US063100 | C. CE. CHP | 1000pF | 50V B | | チップセラコン | 01 |
| C627 | US135330 | C. CE. CHP | 0. 33uF | 16V | | チップセラコン | 01 |
| C628 | UF418100 | C. EL. CHP | 100uF | 6. 3V | | チップケミコン | 01 |
| C629 | WG251600 | C. CE. CHP | 4. 7uF | 6. 3V | | チップセラコン | 01 |
| C630 | UF418100 | C. EL. CHP | 100uF | 6. 3V | | チップケミコン | 01 |
| C631 | US044220 | C. CE. CHP | 0. 022uF | 25V B | | チップセラコン | 01 |
| C632 | US063330 | C. CE. CHP | 3300pF | 50V B | | チップセラコン | 01 |
| C633 | US135330 | C. CE. CHP | 0. 33uF | 16V | | チップセラコン | 01 |
| C634 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C635 | US135150 | C. CE. CHP | 0. 15uF | 16V | | チップセラコン | 01 |
| C642 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| * C643 | UF417470 | C. EL. CHP | 47uF | 6. 3V | | チップケミコン | |
| C644 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C645 | UF418100 | C. EL. CHP | 100uF | 6. 3V | | チップケミコン | 01 |
| C647 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C648 | UF418100 | C. EL. CHP | 100uF | 6. 3V | | チップケミコン | 01 |
| C649 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C650 | UF418100 | C. EL. CHP | 100uF | 6. 3V | | チップケミコン | 01 |
| C651 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C652 | WC890400 | C. EL. CHP | 100uF | 6. 3V | | チップケミコン | 01 |
| * C653 | WP882000 | C. CE. CHP | 10uF | 6. 3V | | チップセラコン | |
| C654 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C656 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| * C658 | WP882000 | C. CE. CHP | 10uF | 6. 3V | | チップセラコン | |
| C659-660 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| * C661 | WP882000 | C. CE. CHP | 10uF | 6. 3V | | チップセラコン | |
| C662 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| * C663 | WP882000 | C. CE. CHP | 10uF | 6. 3V | | チップセラコン | |
| C664 | US063100 | C. CE. CHP | 1000pF | 50V B | | チップセラコン | 01 |
| C665-669 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C670 | US063100 | C. CE. CHP | 1000pF | 50V B | | チップセラコン | 01 |
| C671-672 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C673 | US063100 | C. CE. CHP | 1000pF | 50V B | | チップセラコン | 01 |
| C674-676 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C677-678 | US063100 | C. CE. CHP | 1000pF | 50V B | | チップセラコン | 01 |
| C679 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| * C680-682 | UF417470 | C. EL. CHP | 47uF | 6. 3V | | チップケミコン | |
| C683-684 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C685 | US063100 | C. CE. CHP | 1000pF | 50V B | | チップセラコン | 01 |
| C686 | UF418100 | C. EL. CHP | 100uF | 6. 3V | | チップケミコン | 01 |
| C687-688 | US135100 | C. CE. CHP | 0. 1uF | 16V | | チップセラコン | 01 |
| C697 | WJ881200 | C. CE. CHP | 1uF | 16V | | チップセラコン | 01 |
| C698 | UF418100 | C. EL. CHP | 100uF | 6. 3V | | チップケミコン | 01 |

* New Parts * 新規部品

P.C.B. DIGITAL

| Ref No. | Part No. | Description | Remarks | Markets | 部 品 名 | ランク |
|------------|----------|---------------|---------------------|-----------|-------------|-----|
| C703 | US135100 | C. CE. CHP | 0. 1uF 16V | | チップセラコン | 01 |
| C705 | US135100 | C. CE. CHP | 0. 1uF 16V | | チップセラコン | 01 |
| * C708 | WP882000 | C. CE. CHP | 10uF 6. 3V | | チップセラコン | |
| C709-714 | US063100 | C. CE. CHP | 1000pF 50V B | | チップセラコン | 01 |
| * C716-717 | WP882000 | C. CE. CHP | 10uF 6. 3V | | チップセラコン | |
| C718 | US135100 | C. CE. CHP | 0. 1uF 16V | | チップセラコン | 01 |
| C721-722 | US064100 | C. CE. CHP | 0. 01uF 50V B | | チップセラコン | 01 |
| C723-724 | US061180 | C. CE. CHP | 18pF 50V B | | チップセラコン | 01 |
| C816 | WK004400 | C. CE. M. CHP | 10uF 16V | | チップ積層セラコン | 01 |
| C817 | US063220 | C. CE. CHP | 2200pF 50V B | | チップセラコン | 01 |
| * D300 | WP292300 | DIODE | RB050LA-40TR TP | | ダイオード | |
| * D302 | WP292300 | DIODE | RB050LA-40TR TP | | ダイオード | |
| D303 | WM180900 | DIODE | FM203-W TE | | ダイオード | 01 |
| D304 | VT332900 | DIODE | 1SS355 | | ダイオード | 01 |
| D306-307 | VT332900 | DIODE | 1SS355 | | ダイオード | 01 |
| D308 | VV220700 | DIODE. SHOT | RB501V-40 | | ショットキーダイオード | 01 |
| D309 | VT332900 | DIODE | 1SS355 | | ダイオード | 01 |
| D310-311 | VU992300 | DIODE. ZENR | MA8047-H 4. 9V | | ツェナーダイオード | 01 |
| D312-313 | VT332900 | DIODE | 1SS355 | | ダイオード | 01 |
| * D314 | WM180900 | DIODE | FM203-W TE | | ダイオード | 01 |
| D317 | VT332900 | DIODE | 1SS355 | | ダイオード | 01 |
| D601-602 | VT332900 | DIODE | 1SS355 | | ダイオード | 01 |
| D603-604 | VV220700 | DIODE. SHOT | RB501V-40 | | ショットキーダイオード | 01 |
| * F301-302 | WQ151600 | SW. POLY | MINISMD C110F/24 | | ポリスイッチ | |
| * IC300 | X9850A00 | IC | BD9870FPS | | 電源 IC | |
| * IC302 | X9850A00 | IC | BD9870FPS | | 電源 IC | |
| IC303 | X8897A00 | IC | R1172S331B-E2-F | | 電源 IC | 03 |
| IC304 | X9278A00 | IC. CPU | M30302FAPFP CPU | boot only | IC CPU | |
| IC305-306 | XF494A00 | IC | LB1641 | | IC | 03 |
| * IC307 | YA514A00 | IC | BD5229G-TR | | IC | 02 |
| IC308 | X3586B00 | IC | TC74VHCT08AFT EL, K | | ロジック IC | 01 |
| IC309 | X3904A00 | IC | TS7ST00F NAND | | ロジック IC | 01 |
| IC310 | XN567A00 | IC | TC7WU04F INV | | IC | 01 |
| * IC311 | YA137A00 | IC | RP131S501D-E2 | | 電源 IC | |
| * IC601 | X8685A00 | IC | AN41010A-VF | | ドライバー IC | |
| * IC602 | X9932A00 | IC. CPU. CD | MN66F27971 | MASK ROM | IC CPU | |
| * IC604 | X9911A00 | IC. CPU. USB | MN103SFB5KYAA | written | IC CPU | |
| IC605 | X5693B00 | IC. MEMORY | M12L16161A-7TG | | メモリ IC 16M | |
| IC606 | X8096A00 | IC | R5523N001A-TR-F | | 電源 IC | 03 |
| PJ300 | V2283400 | JACK. PIN | 1P | | ピンジャック | 04 |
| Q300 | VV556500 | TR | 2SA1037K Q, R, S | | トランジスタ | 01 |
| Q601 | iB070900 | TR | 2SB709A P, Q, R, S | | トランジスタ | 01 |
| Q602 | VV556500 | TR | 2SA1037K Q, R, S | | トランジスタ | 01 |
| R332 | HV753220 | R. CAR. FP | 2. 2 Ω 1/4W | | 不燃化カーボン抵抗 | 01 |
| R361 | HV753220 | R. CAR. FP | 2. 2 Ω 1/4W | | 不燃化カーボン抵抗 | 01 |
| U300 | WH536900 | CN. PHOTO. T | 1P GP1FAV51TK0F | | 光ファイバー送信器 | 04 |
| XL300 | V8222200 | RSNR. CE | 10MHz CSTLS10MO | | セラミック振動子 | 01 |
| XL601 | WB872100 | RSNR. CRYST | 16. 9344MHz | | 水晶振動子 | 03 |
| * XL603 | WQ332600 | RSNR. CE | 12MHz | | セラミック発振子 | |

* New Parts * 新規部品

P.C.B. OPERATION

| Ref No. | Part No. | Description | Remarks | Markets | 部 品 名 | ランク | |
|-----------|----------|-------------|---------------|----------|-------|---------------|----|
| * | WQ026900 | P. C. B. | OPERATION | | J | PCB OPERATION | |
| * | WQ027000 | P. C. B. | OPERATION | | U | PCB OPERATION | |
| * | WQ027100 | P. C. B. | OPERATION | | RL | PCB OPERATION | |
| * | WQ027200 | P. C. B. | OPERATION | | TK | PCB OPERATION | |
| * | WQ027300 | P. C. B. | OPERATION | | ABG | PCB OPERATION | |
| CB1 | VL844700 | CN. BS. PIN | 3P | | | ベース付ポスト | 01 |
| CB101 | VQ045000 | CN. BS. PIN | 20P | | | FFCコネクター | 01 |
| CB151 | VQ047800 | CN. BS. PIN | 27P | | | FFCコネクター | 02 |
| CB152 | VQ047500 | CN. BS. PIN | 20P | | | FFCコネクター | 01 |
| CB153 | V6217800 | CN. BS. PIN | 8P TE FMN | | | FFCコネクター | 01 |
| CB161 | WG668100 | CN. USB | USB 4P SE | | | USBコネクター | 04 |
| CB162 | VB390100 | CN. BS. PIN | 5P | | | ベースピン | 01 |
| CB202-203 | WN103000 | CLIP. FUSE | TP00351-31 | | | ヒューズクリップ | 01 |
| CB204 | VG879900 | CN. BS. PIN | 2P | | | ベースピン | 01 |
| CB205 | VP245700 | CN. BS. PIN | VA 2P SE | | | ベースツキポスト | 01 |
| CB206 | LB918030 | CN. BS. PIN | 3P | | | ベース付ポスト | 01 |
| C2 | WE102900 | C. PP | 0. 01uF 100V | | | PPコン | 01 |
| C4 | UR267470 | C. EL | 47uF 50V | | | ケミコン | 01 |
| C5-6 | WE102900 | C. PP | 0. 01uF 100V | | | PPコン | |
| C8 | US063100 | C. CE. CHP | 1000pF 50V B | | | チップセラコン | 01 |
| C9 | UR239100 | C. EL | 1000uF 16V | | | ケミコン | |
| C10 | WE102900 | C. PP | 0. 01uF 100V | | | PPコン | |
| C11 | UR266330 | C. EL | 3. 3uF 50V | | | ケミコン | |
| C12 | WE102900 | C. PP | 0. 01uF 100V | | | PPコン | |
| C13-14 | UU238100 | C. EL | 100uF 16V | | | ケミコン | 01 |
| * C15-16 | WM113900 | C. EL | 3300uF 35V | | | ケミコン | |
| C18-19 | US065100 | C. CE. CHP | 0. 1uF 50V B | | | チップセラコン | 01 |
| C21 | WE102900 | C. PP | 0. 01uF 100V | | | PPコン | |
| C22-25 | UU267100 | C. EL | 10uF 50V | | | ケミコン FW | 01 |
| * C27 | WJ608600 | C. PP | 560pF 100V | J | | PPコン | 01 |
| C27 | WE101400 | C. PP | 560pF 100V | URTKABGL | | PPコン | 01 |
| * C28 | WJ608600 | C. PP | 560pF 100V | J | | PPコン | 01 |
| C28 | WE101400 | C. PP | 560pF 100V | URTKABGL | | PPコン | 01 |
| C29-31 | UU238100 | C. EL | 100uF 16V | | | ケミコン | 01 |
| C32 | US135330 | C. CE. CHP | 0. 33uF 16V | | | チップセラコン | 01 |
| * C33 | WJ609900 | C. PP | 6800pF 100V | J | | PPコン | 01 |
| C33 | WE102700 | C. PP | 6800pF 100V | URTKABGL | | PPコン | 01 |
| * C34 | WJ609900 | C. PP | 6800pF 100V | J | | PPコン | 01 |
| C34 | WE102700 | C. PP | 6800pF 100V | URTKABGL | | PPコン | 01 |
| C35-38 | WE101300 | C. PP | 470pF 100V | | | PPコン | 01 |
| C39 | UU267100 | C. EL | 10uF 50V | | | ケミコン FW | 01 |
| C40 | US135330 | C. CE. CHP | 0. 33uF 16V | | | チップセラコン | 01 |
| C42 | UU238100 | C. EL | 100uF 16V | | | ケミコン | 01 |
| C44 | UU238100 | C. EL | 100uF 16V | | | ケミコン | 01 |
| * C53 | WQ331800 | C. EL | 100uF 50V | | | ケミコン | 01 |
| * C56 | WQ331800 | C. EL | 100uF 50V | | | ケミコン | 01 |
| C57-58 | WE101700 | C. PP | 1000pF 100V | | | PPコン | |
| C60-61 | US065100 | C. CE. CHP | 0. 1uF 50V B | | | チップセラコン | 01 |
| C62 | WN165300 | C. PP | 0. 01uF 100V | | | PPコン | 01 |
| C101-102 | US064100 | C. CE. CHP | 0. 01uF 50V B | | | チップセラコン | 01 |
| C103 | US135100 | C. CE. CHP | 0. 1uF 16V | | | チップセラコン | 01 |
| C104 | US062100 | C. CE. CHP | 100pF 50V B | | | チップセラコン | 01 |
| C105 | US135100 | C. CE. CHP | 0. 1uF 16V | | | チップセラコン | 01 |
| C106 | US062100 | C. CE. CHP | 100pF 50V B | | | チップセラコン | 01 |
| C107 | WG780700 | C. EL | 47uF 16V | | | ケミコン | 01 |
| C108 | US062100 | C. CE. CHP | 100pF 50V B | | | チップセラコン | 01 |
| C109 | US065100 | C. CE. CHP | 0. 1uF 50V B | | | チップセラコン | 01 |

* New Parts * 新規部品

P.C.B. OPERATION

| Ref No. | Part No. | Description | Remarks | Markets | 部 品 名 | ランク |
|----------|----------|--------------|--------------------|----------|-------------|-----|
| C110-112 | US064100 | C. CE. CHP | 0.01uF 50V B | | チップセラコン | 01 |
| C113 | US126100 | C. CE. CHP | 1uF 10V | | チップセラコン | 01 |
| C114 | US064100 | C. CE. CHP | 0.01uF 50V B | | チップセラコン | 01 |
| C116 | US065100 | C. CE. CHP | 0.1uF 50V B | | チップセラコン | 01 |
| C117-120 | US135100 | C. CE. CHP | 0.1uF 16V | | チップセラコン | 01 |
| C121 | WG780700 | C. EL | 47uF 16V | | ケミコン | 01 |
| C122 | US135100 | C. CE. CHP | 0.1uF 16V | | チップセラコン | 01 |
| * C151 | WG782400 | C. EL | 22uF 50V | | ケミコン | |
| C152-153 | WG780700 | C. EL | 47uF 16V | | ケミコン | 01 |
| C162 | US064100 | C. CE. CHP | 0.01uF 50V B | | チップセラコン | 01 |
| C201-203 | V6185300 | C. CE. SAFTY | 0.01uF 275V | | 規格認定コンデンサ | 01 |
| C204-207 | WE102900 | C. PP | 0.01uF 100V | | PPコン | 01 |
| * C208 | UR278220 | C. EL | 220uF 63V | | ケミコン | |
| * C209 | WN165300 | C. PP | 0.01uF 100V | | PPコン | 01 |
| * C210 | URO59470 | C. EL | 4700uF 35V | | ケミコン | |
| * C211 | URO59220 | C. EL | 2200uF 35V | | ケミコン | 03 |
| C212-213 | WE102900 | C. PP | 0.01uF 100V | | PPコン | |
| * C215 | UR278220 | C. EL | 220uF 63V | | ケミコン | |
| C216 | US064100 | C. CE. CHP | 0.01uF 50V B | | チップセラコン | 01 |
| C217-219 | UR267220 | C. EL | 22uF 50V | | ケミコン | 01 |
| C220 | US064100 | C. CE. CHP | 0.01uF 50V B | | チップセラコン | 01 |
| C222 | US064100 | C. CE. CHP | 0.01uF 50V B | | チップセラコン | 01 |
| D1-2 | VV307700 | DIODE | 1N4002S | | ダイオード | 01 |
| D3-4 | VT332900 | DIODE | 1SS355 | | ダイオード | 01 |
| D5 | VU991500 | DIODE. ZENR | MA8039-H 4V | | ツェナーダイオード | 01 |
| D6 | WK870400 | DIODE. BRG | D4SBN20-7101 4A | | ダイオードブリッジ | 04 |
| D7 | VV220700 | DIODE. SHOT | RB501V-40 | | ショットキーダイオード | 01 |
| D8 | VU993400 | DIODE. ZENR | MA8062-M 6.2V | | ツェナーダイオード | 01 |
| D9-10 | VU996600 | DIODE. ZENR | MA8130-M 13V | | ツェナーダイオード | 01 |
| D12 | VV220700 | DIODE. SHOT | RB501V-40 | | ショットキーダイオード | 01 |
| D14-15 | VV220700 | DIODE. SHOT | RB501V-40 | | ショットキーダイオード | 01 |
| D101 | VU993000 | DIODE. ZENR | MA8056-M 5.6V | | ツェナーダイオード | 01 |
| D102-104 | WA467800 | LED | SEL6910A-CD | | LED | 01 |
| D201 | VU993000 | DIODE. ZENR | MA8056-M 5.6V | | ツェナーダイオード | 01 |
| D204-205 | VV307700 | DIODE | 1N4002S | | ダイオード | 01 |
| D206 | VU999900 | DIODE. ZENR | MA8300-M 30V | | ツェナーダイオード | 01 |
| D211-214 | VV307700 | DIODE | 1N4002S | | ダイオード | 01 |
| D215 | WH487300 | DIODE. BRG | RS203M 2.0A 200V | | ダイオードブリッジ | 02 |
| F201 | KB001770 | FUSE | T1A 250V | | ヒューズ | 02 |
| IC1 | X7947A00 | IC | DSD1791DBR | | D/Aコンバーター | 07 |
| IC2 | XV763A00 | IC | OP275GSR OP AMP | J | アンプIC | 05 |
| IC2 | YA089A00 | IC | LME49723MA | URTKABGL | アンプIC | |
| IC4 | X9430A00 | IC | PQ033ES3MXP | | 電源IC | 03 |
| IC802 | X2656A00 | IC | TC7SH08F AND | | ロジックIC | 01 |
| JY11 | WK849100 | BUS. BAR. 3P | 3P | | バスバー3P | 04 |
| * PJ1-2 | Wq070200 | JACK. PIN | 1P BLACK YKC21-391 | | ピンジャック | |
| Q1 | VV556500 | TR | 2SA1037K Q, R, S | | トランジスタ | 01 |
| Q2-4 | VR043100 | FET | 2SK208 Y | | チップFET | 01 |
| Q5-6 | WF691400 | TR | 2SD2014 | | トランジスタ | 03 |
| Q7 | WF691300 | TR | 2SB1257 | | トランジスタ | 03 |
| Q14-17 | VZ725900 | TR | 2SD1938F S, T | | トランジスタ | 01 |
| Q101-102 | VV556400 | TR | 2SC2412K Q, R, S | | トランジスタ | 01 |
| Q103-105 | VV655400 | TR. DGT | DTC114EKA | | デジタルトランジスタ | 01 |
| Q201 | VP872700 | TR | 2SC4488 S, T | | トランジスタ | 01 |
| R12 | V8071600 | R. MTL. OXD | 1K Ω 1W | | 金属被膜抵抗 | 01 |
| * R18-19 | V8071800 | R. MTL. OXD | 2.2K Ω 1W | | 酸化金属被膜抵抗 | |
| R20 | HL006100 | R. MTL. OXD | 1K Ω 1/2W | | 酸化金属被膜抵抗 | |

* New Parts * 新規部品

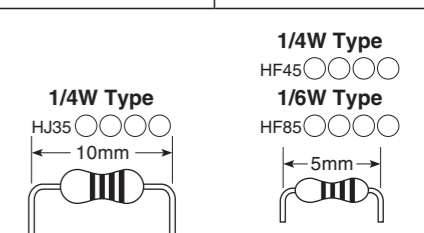
P.C.B. OPERATION

Carbon Resistors

| Ref No. | Part No. | Description | Remarks | Markets | 部 品 名 | ランク |
|------------|----------|-------------|------------------|---------|-------------|-----|
| * R21-22 | HL004100 | R. MTL. OXD | 10 Ω | 1/2W | 酸化金属被膜抵抗 | |
| R27-29 | HL005100 | R. MTL. OXD | 100 Ω | 1/2W | 酸化金属被膜抵抗 | |
| * R38 | V8072300 | R. MTL. OXD | 10K Ω | 1W | 酸化金属被膜抵抗 | |
| R39 | V8071300 | R. MTL. FLM | 470 Ω | 1W | 金属被膜抵抗 | |
| * R54-55 | V8073000 | R. MTL. OXD | 100K Ω | 1W | 酸化金属被膜抵抗 | |
| R58 | WA621700 | R. MTL. FLM | 270 Ω | 1W | 金属被膜抵抗 | |
| R61 | WA621700 | R. MTL. FLM | 270 Ω | 1W | 金属被膜抵抗 | |
| R64 | WA621700 | R. MTL. FLM | 270 Ω | 1W | 金属被膜抵抗 | |
| R67 | WA621700 | R. MTL. FLM | 270 Ω | 1W | 金属被膜抵抗 | |
| * R68-69 | WQ835800 | R. MTL. FLM | 100 Ω | 1W | 金属被膜抵抗 | 01 |
| R201-202 | HV755100 | R. CAR. FP | 100 Ω | 1/4W | 不燃化カーボン抵抗 | 01 |
| R203 | HV753560 | R. CAR. FP | 5.6 Ω | 1/4W | 不燃化カーボン抵抗 | 01 |
| R203 | HV753680 | R. CAR. FP | 6.8 Ω | 1/4W | 不燃化カーボン抵抗 | 01 |
| R204 | HV753560 | R. CAR. FP | 5.6 Ω | 1/4W | 不燃化カーボン抵抗 | 01 |
| R204 | HV753680 | R. CAR. FP | 6.8 Ω | 1/4W | 不燃化カーボン抵抗 | 01 |
| R204 | HV753470 | R. CAR. FP | 4.7 Ω | 1/4W | 不燃化カーボン抵抗 | 01 |
| R205 | HV756470 | R. CAR. FP | 4.7K Ω | 1/4W | 不燃化カーボン抵抗 | 01 |
| R206 | HV755100 | R. CAR. FP | 100 Ω | 1/4W | 不燃化カーボン抵抗 | 01 |
| R210 | HV753470 | R. CAR. FP | 4.7 Ω | 1/4W | 不燃化カーボン抵抗 | 01 |
| * R211-212 | V8072500 | R. MTL. OXD | 22K Ω | 1W | 酸化金属被膜抵抗 | |
| SW101-107 | WD483100 | SW. TACT | SKRGAAD010 | | タクト SW | 01 |
| SW201 | V8377400 | SW. POWER | SY16-52-4 | | パワースイッチ | |
| * SW202 | WH813600 | VOLT. SELCT | VSA-14-3 | | 電圧切替器 | |
| * T201 | X9928A00 | TRANS. PWR | JUC CD-S700ML | | 電源トランス | |
| * T201 | X9929A00 | TRANS. PWR | TKAGBL CD-S700ML | | 電源トランス | |
| * T201 | X9930A00 | TRANS. PWR | R CD-S700ML | | 電源トランス | |
| TE200 | WB782600 | AC INLET | R-30190 (26) | | A Cインレット 2P | |
| TH201-202 | VV216100 | PROTECTOR | RXE050 0.50A 60V | | ポリスイッチ | 03 |
| TH203 | VU847300 | POSISTOR | RUE185 1.85A 30V | | ポリスイッチ | 03 |
| TH204 | VV457600 | SW. POLY | RUE090 0.90A 30V | | ポリスイッチ | 02 |
| U101 | WH981800 | L. DTCT | GP1UE261RKVF | | リモコン受光ユニット | 02 |
| V101 | WK835500 | FL. DSPLY | 13-ST-81GINK | | 蛍光表示管 | 11 |
| | WM164600 | SHEET | | | シートFL | 01 |
| | V6203300 | SPACER | | | スペーサーFL | 01 |

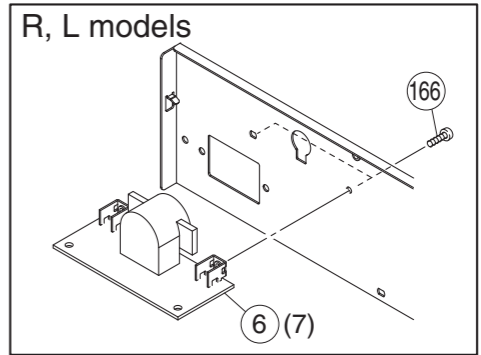
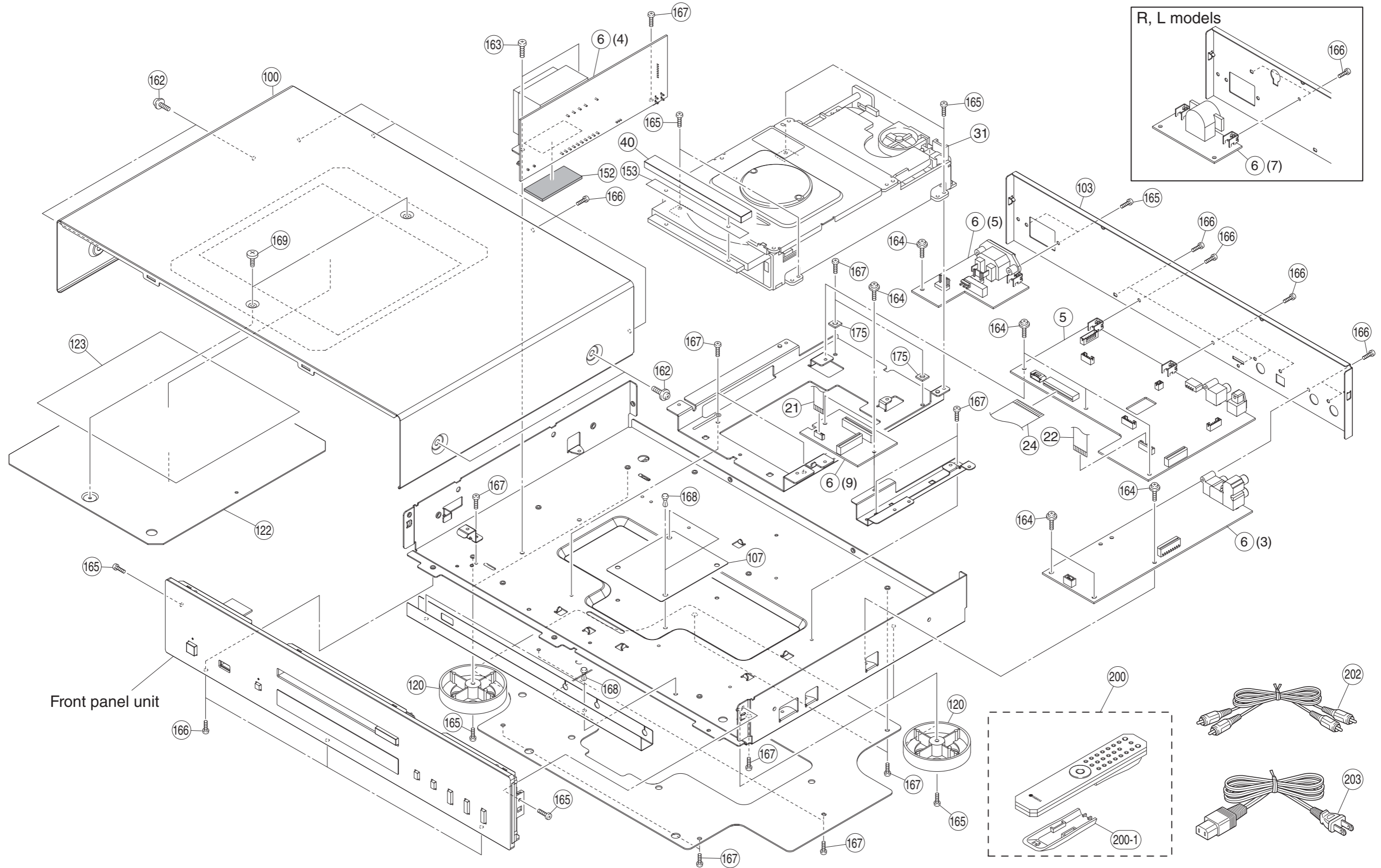
* New Parts * 新規部品

| Value | 1/4W Type Part No. | 1/6W Type Part No. | Value | 1/4W Type Part No. | 1/6W Type Part No. |
|--------|--------------------|--------------------|--------|--------------------|--------------------|
| 1.0 Ω | HJ35 3100 | HF85 3100 | 11 kΩ | HF45 7110 | HF45 7110 |
| 1.8 Ω | HJ35 3180 | * | 12 kΩ | HJ35 7120 | HF85 7120 |
| 2.2 Ω | HJ35 3220 | HF85 3220 | 13 kΩ | HF45 7130 | HF45 7130 |
| 3.3 Ω | HJ35 3330 | HF85 3330 | 15 kΩ | HF45 7150 | HF45 7150 |
| 4.7 Ω | HJ35 3470 | HF85 3470 | 18 kΩ | HF45 7180 | HF45 7180 |
| 5.6 Ω | HJ35 3560 | HF85 3560 | 22 kΩ | HF45 7220 | HF45 7220 |
| 10 Ω | HF45 4100 | HF45 4100 | 24 kΩ | HF45 7240 | HF45 7240 |
| 15 Ω | HJ35 4150 | HF85 4150 | 27 kΩ | HJ35 7270 | HF85 7270 |
| 22 Ω | HF45 4220 | HF45 4220 | 30 kΩ | HF45 7300 | HF45 7300 |
| 27 Ω | HJ35 4270 | HF85 4270 | 33 kΩ | HF45 7330 | HF45 7330 |
| 33 Ω | HF45 4330 | HF45 4330 | 36 kΩ | HF45 7360 | HF45 7360 |
| 39 Ω | HJ35 4470 | HF85 4390 | 39 kΩ | HF45 7390 | HF45 7390 |
| 47 Ω | HF45 4470 | HF45 4470 | 47 kΩ | HF45 7470 | HF45 7470 |
| 56 Ω | HF45 4560 | HF45 4560 | 51 kΩ | HF45 7510 | HF45 7510 |
| 68 Ω | HF45 4680 | HF45 4680 | 56 kΩ | HF45 7560 | HF45 7560 |
| 75 Ω | HF45 4750 | HF45 4750 | 62 kΩ | HF45 7620 | HF45 7620 |
| 82 Ω | HF45 4820 | HF45 4820 | 68 kΩ | HF45 7680 | HF45 7680 |
| 91 Ω | HF45 4910 | HF45 4910 | 82 kΩ | HF45 7820 | HF45 7820 |
| 100 Ω | HF45 5100 | HF45 5100 | 91 kΩ | HF45 7910 | HF45 7910 |
| 110 Ω | HJ35 5110 | HF85 5110 | 100 kΩ | HF45 8100 | HF45 8100 |
| 120 Ω | HF45 5120 | HF45 5120 | 110 kΩ | HF45 8110 | HF45 8110 |
| 150 Ω | HF45 5150 | HF45 5150 | 120 kΩ | HF45 8120 | HF45 8120 |
| 160 Ω | HJ35 5160 | * | 150 kΩ | HF45 8150 | HF45 8150 |
| 180 Ω | HF45 5180 | HF45 5180 | 180 kΩ | HF45 8180 | HF45 8180 |
| 200 Ω | HF45 5200 | HF45 5200 | 220 kΩ | HJ35 8220 | HF85 8220 |
| 220 Ω | HF45 5220 | HF45 5220 | 270 kΩ | HF45 8270 | HF45 8270 |
| 270 Ω | HF45 5270 | HF45 5270 | 300 kΩ | HF45 8300 | HF45 8300 |
| 330 Ω | HF45 5330 | HF45 5330 | 330 kΩ | HF45 8330 | HF45 8330 |
| 390 Ω | HF45 5390 | HF45 5390 | 390 kΩ | HJ35 8390 | HF85 8390 |
| 430 Ω | HF45 5430 | HF45 5430 | 470 kΩ | HF45 8470 | HF45 8470 |
| 470 Ω | HF45 5470 | HF45 5470 | 560 kΩ | HJ35 8560 | HF85 8560 |
| 510 Ω | HF45 5510 | HF45 5510 | 680 kΩ | HJ35 8680 | HF85 8680 |
| 560 Ω | HF45 5560 | HF45 5560 | 820 kΩ | HJ35 8820 | HF85 8820 |
| 680 Ω | HF45 5680 | HF45 5680 | 1.0 MΩ | HF45 9100 | HF45 9100 |
| 820 Ω | HF45 5820 | HF45 5820 | 1.2 MΩ | HJ35 9120 | * |
| 910 Ω | HF45 5910 | HF45 5910 | 1.5 MΩ | HJ35 9150 | HF85 9150 |
| 1.0 k | HF45 6100 | HF45 6100 | 1.8 MΩ | HJ35 9180 | HF85 9180 |
| 1.2 kΩ | HF45 6120 | HF45 6120 | 2.2 MΩ | HJ35 9220 | HF85 9220 |
| 1.5 kΩ | HF45 6150 | HF45 6150 | 3.3 MΩ | HJ35 9330 | HF85 9330 |
| 1.8 kΩ | HF45 6180 | HF45 6180 | 3.9 MΩ | HJ35 9390 | * |
| 2.0 kΩ | HJ35 6200 | HF85 6200 | 4.7 MΩ | HJ35 9470 | HF85 9470 |
| 2.2 kΩ | HF45 6220 | HF45 6220 | | | |
| 2.4 kΩ | HJ35 6240 | HF85 6240 | | | |
| 2.7 kΩ | HF45 6270 | HF45 6270 | | | |
| 3.0 kΩ | HF45 6300 | HF45 6300 | | | |
| 3.3 kΩ | HF45 6330 | HF45 6330 | | | |
| 3.6 kΩ | HJ35 6360 | HF85 6360 | | | |
| 3.9 kΩ | HF45 6390 | HF45 6390 | | | |
| 4.7 kΩ | HF45 6470 | HF45 6470 | | | |
| 5.1 kΩ | HF45 6510 | HF45 6510 | | | |
| 5.6 kΩ | HF45 6560 | HF45 6560 | | | |
| 6.8 kΩ | HF45 6680 | HF45 6680 | | | |
| 8.2 kΩ | HF45 6820 | HF45 6820 | | | |
| 9.1 kΩ | HF45 6910 | HF45 6910 | | | |
| 10 kΩ | HF45 7100 | HF45 7100 | | | |



* : Not available

• OVERALL ASS'Y



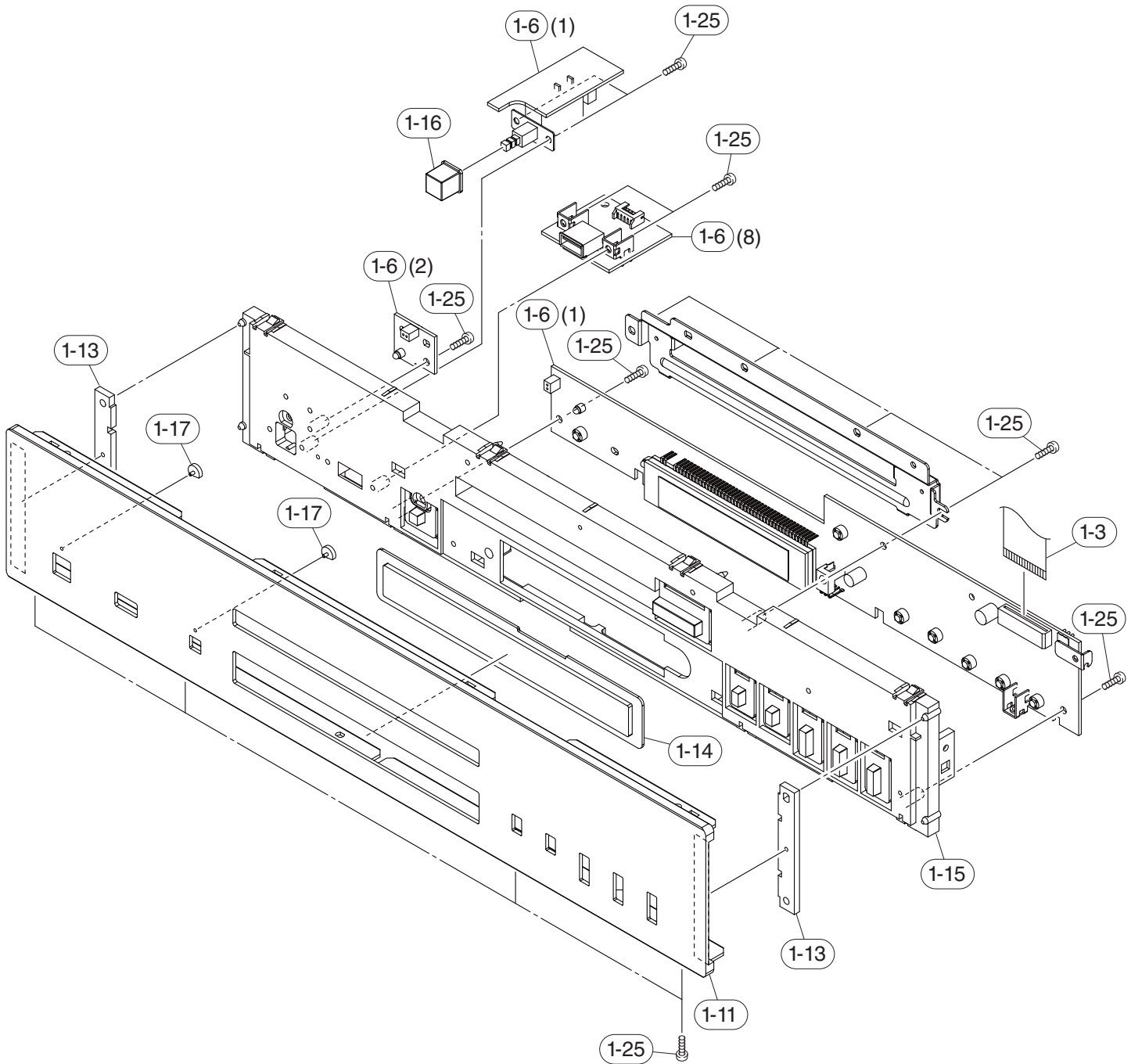
Front panel unit

| Ref No. | Part No. | Description | Remarks | Markets | 部 品 名 | ランク |
|---------|----------|---------------------------------------|-------------------|----------|---------------|-----|
| * | 5 | WQ026500 P. C. B. ASS'Y | DIGITAL | | PCB DIGITAL | |
| * | 6 | WQ026900 P. C. B. ASS'Y | OPERATION | J | PCB OPERATION | |
| * | 6 | WQ027000 P. C. B. ASS'Y | OPERATION | U | PCB OPERATION | |
| * | 6 | WQ027100 P. C. B. ASS'Y | OPERATION | RL | PCB OPERATION | |
| * | 6 | WQ027200 P. C. B. ASS'Y | OPERATION | TK | PCB OPERATION | |
| * | 6 | WQ027300 P. C. B. ASS'Y | OPERATION | ABG | PCB OPERATION | |
| | 21 | WM099700 FLEXIBLE FLAT CABLE | 8P 100mm P=1 | | カード電線 | 01 |
| * | 21 | WQ402900 FLEX FLAT CABLE | 8P 70mm P=1 | | カード電線 | |
| * | 22 | WQ096900 FLEXIBLE FLAT CABLE | 16P 260mm P=1 | | カード電線 | |
| * | 24 | WQ096800 FLEXIBLE FLAT CABLE | 27P 250mm P=1.25 | | カード電線 | |
| * | 31 | WQ087400 LOADER MECHANISM ASS'Y | YVGL-2 | | ローダーメカASSY | |
| * | 40 | WP331300 LID | | BL | リッド | |
| * | 40 | WP331200 LID | | SI | リッド | |
| * | 100 | WQ858400 TOP COVER | | BL | トップカバー | |
| * | 100 | WQ858300 TOP COVER | | SI | トップカバー | |
| * | 103 | WP330400 REAR PANEL | | J | リヤパネル | |
| * | 103 | WP329500 REAR PANEL | | U | リヤパネル | |
| * | 103 | WP329900 REAR PANEL | | R | リヤパネル | |
| * | 103 | WP330200 REAR PANEL | | T | リヤパネル | |
| * | 103 | WP330300 REAR PANEL | | K | リヤパネル | |
| * | 103 | WP329600 REAR PANEL | | A | リヤパネル | |
| * | 103 | WP329700 REAR PANEL | | BG | リヤパネル | |
| * | 103 | WP330000 REAR PANEL | | L | リヤパネル | |
| * | 107 | WQ366400 SHEET | | | シート | |
| * | 107 | WQ366400 SHEET | | | シート | |
| * | 120 | WQ396200 LEG | D60/H16 | | レッグ | |
| * | 122 | WQ775200 PLATE TOP | | | プレート トップ | |
| * | 123 | WQ853400 TAPE TOP | 180x160x0.17 | | TOPテープ | |
| * | 152 | WQ606800 DAMPER | 25x45x2 | | ダンパー | |
| * | 153 | WQ366500 TAPE LID | | | テープLID | |
| | 162 | VH313200 PW HEAD S-TIGHT SCREW | 4x8-10 MFN13BL | BL | PWヘッドSタイトネジ | 01 |
| | 162 | VD069600 PW HEAD S-TIGHT SCREW | 4x8-10 MFN133 | SI | PWヘッドSタイトネジ | 01 |
| | 163 | WF821300 BIND HEAD S-TIGHT SCREW | 4x7 MFZN2W3 | | バインドSタイトネジ | 01 |
| | 164 | VT669300 PW HEAD B-TIGHT SCREW | 3x8-8 MFC2 | | PWヘッドBタイトネジ | 01 |
| | 165 | WE774300 BIND HEAD B-TIGHT SCREW | 3x8 MFZN2W3 | | バインドBタイトネジ | 01 |
| | 166 | WE774100 BIND HEAD BONDING B-T. SCREW | 3x8 MFZN2B3 | | ボンディングBタイトネジ | 01 |
| | 167 | WE877800 BIND HEAD S-TIGHT SCREW | 3x6 MFZN2B3 | | バインドSタイトネジ | 01 |
| | 168 | WG432900 PUSH RIVET | P3535 | | プッシュリベット | 01 |
| | 169 | WE200500 DISH HEAD B-TIGHT SCREW | 3x6 MFN13BL | | DISH Bタイトネジ | |
| | 175 | WG471400 SPACER | 8x8x1 | | スペーサー | |
| | | ACCESSORIES | | | 付属品 | |
| * | 200 | WQ066800 REMOTE CONTROL | CDX7 | | リモコン | |
| | 200-1 | AAX87780 BATTERY COVER | | 60050008 | 電池蓋 | |
| | 202 | V6509000 RCA STEREO CABLE | 2P 1.5m RE-WH 1pc | | ステレオピンケーブル | 04 |
| △ | 203 | WA642300 POWER CABLE | 2m 1pc | J | 電源コード | 07 |
| △ | 203 | V7704800 POWER CABLE | 2m 1pc | U | 電源コード | 05 |
| △ | 203 | WK391000 POWER CABLE | 2m 1pc | R | 電源コード | |
| △ | 203 | V9358400 POWER CABLE | 2m 1pc | T | 電源コード | 05 |
| △ | 203 | WH641300 POWER CABLE | 2m 1pc | K | 電源コード | |
| △ | 203 | WB750900 POWER CABLE | 2m 1pc | A | 電源コード | 07 |
| * △ | 203 | WQ749200 POWER CABLE | 2m 1pc | B | 電源コード | |
| △ | 203 | V7704900 POWER CABLE | 2m 1pc | GL | 電源コード | 06 |
| | | BATTERY | R6, AA, UM-3 2pcs | | 単3乾電池 | |

* New Parts * 新規部品

CD-S700

• FRONT PANEL UNIT

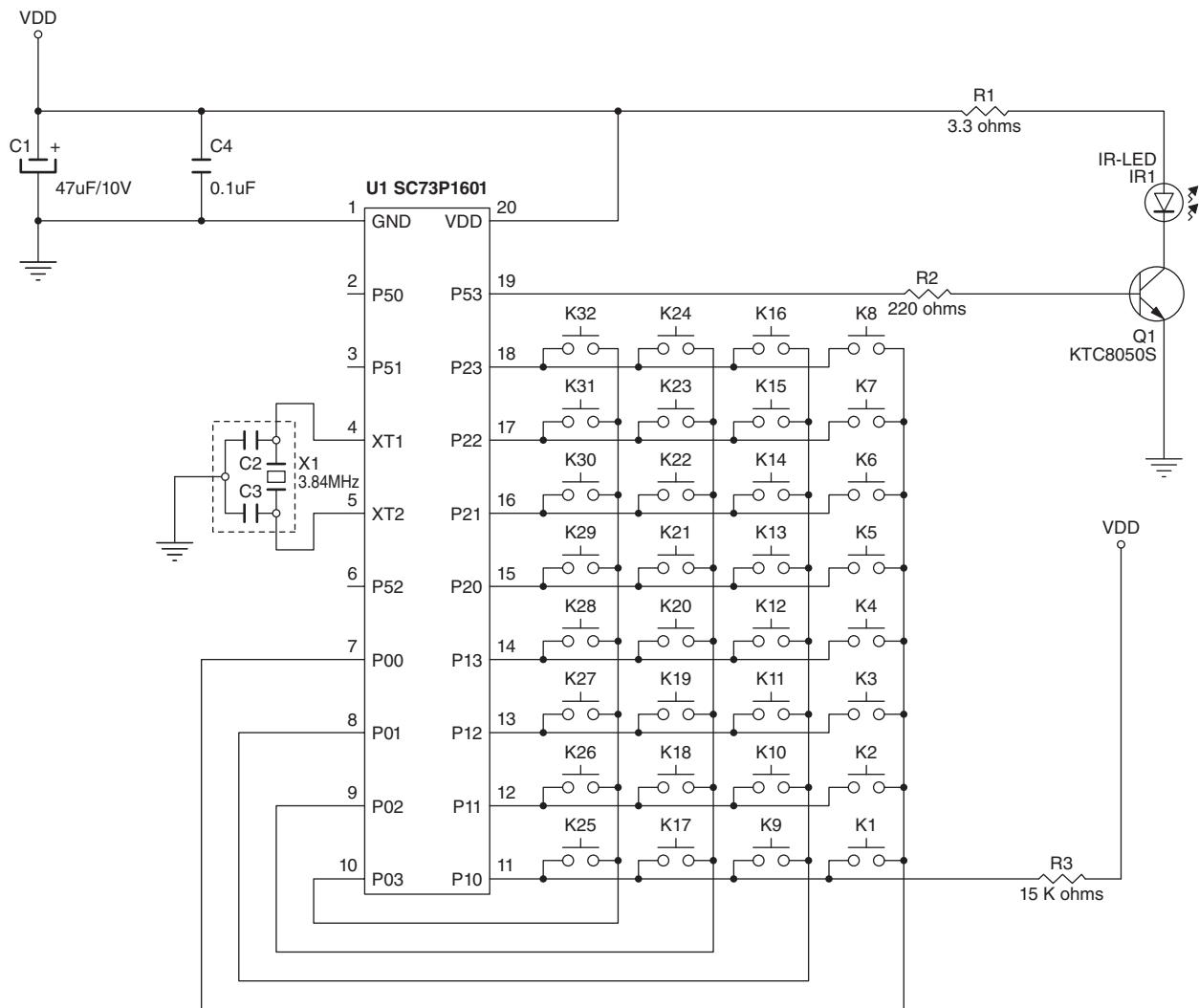


| Ref No. | Part No. | Description | Remarks | Markets | 部 品 名 | ランク | |
|---------|----------|----------------------------------|------------------------|----------------|-------|---------------|----|
| * | 1-3 | WQ096700 FLEXIBLE FLAT CABLE | 20P 180mm P=1.25 | | | カード電線 | |
| * | 1-6 | WQ026900 P. C. B. ASS'Y | OPERATION | | J | PCB OPERATION | |
| * | 1-6 | WQ027000 P. C. B. ASS'Y | OPERATION | | U | PCB OPERATION | |
| * | 1-6 | WQ027100 P. C. B. ASS'Y | OPERATION | | RL | PCB OPERATION | |
| * | 1-6 | WQ027200 P. C. B. ASS'Y | OPERATION | | TK | PCB OPERATION | |
| * | 1-6 | WQ027300 P. C. B. ASS'Y | OPERATION | | ABG | PCB OPERATION | |
| * | 1-11 | WP328400 FRONT PANEL | | BL | | フロントパネル | |
| * | 1-11 | WP328300 FRONT PANEL | | SI | | フロントパネル | |
| * | 1-13 | WP331000 SIDE PLATE | | BL | | サイドプレート | |
| * | 1-13 | WP330900 SIDE PLATE | | SI | | サイドプレート | |
| * | 1-14 | WP331900 WINDOW PANEL LID | | | | ウィンドウパネル | |
| * | 1-15 | WP328600 SUB PANEL | | BL | | サブパネル | |
| * | 1-15 | WP328500 SUB PANEL | | SI | | サブパネル | |
| * | 1-16 | WQ433100 CAP | POWER ON/OFF | BL | | キャップ | |
| * | 1-16 | WQ433000 CAP | POWER ON/OFF | SI | | キャップ | |
| * | 1-17 | WP080600 LENS LED | | | | レンズLED | |
| * | 1-25 | WE774800 BIND HEAD P-TIGHT SCREW | 3x8 MFZN2W3 | | | バインドPタイトネジ | 01 |
| | | SERVICE TOOL | | | | サービス用部品 | |
| | AAX88050 | RS232C CONVERSION ADAPTER | with CABLE (8P, P=1.0) | CDS2000ADAPTER | | RS232C変換アダプタ | 20 |

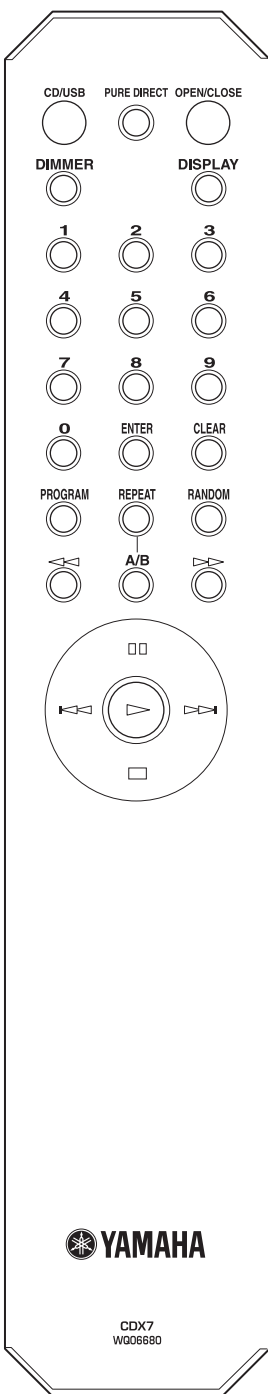
* New Parts * 新規部品

CD-S700

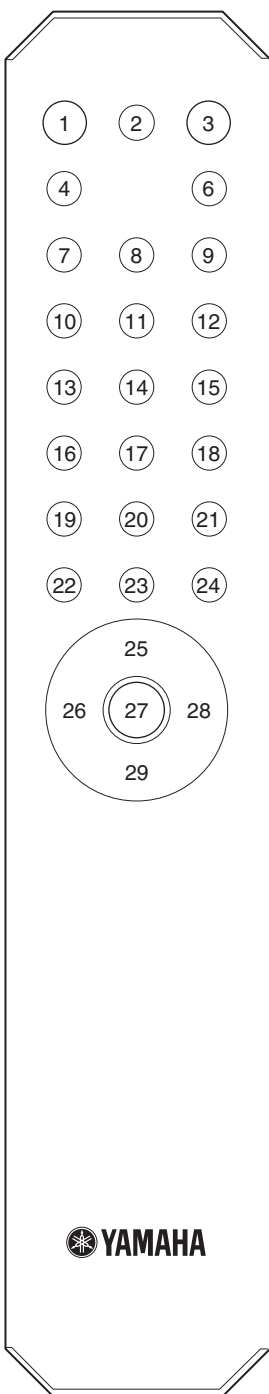
REMOTE CONTROL SCHEMATIC DIAGRAM



PANEL



KEY NO. LAYOUT



KEY CODE

| NO. | Customer Code | Data Code | Function |
|-----|---------------|-----------|-------------|
| 1 | 7986 | 6F90 | CD/USB |
| 2 | 7986 | 6E91 | PURE DIRECT |
| 3 | 7986 | 01FE | OPEN/CLOSE |
| 4 | 7986 | 54AB | DIMMER |
| 6 | 7986 | 0AF5 | DISPLAY |
| 7 | 7986 | 11EE | 1 |
| 8 | 7986 | 12ED | 2 |
| 9 | 7986 | 13EC | 3 |
| 10 | 7986 | 14EB | 4 |
| 11 | 7986 | 15EA | 5 |
| 12 | 7986 | 16E9 | 6 |
| 13 | 7986 | 17E8 | 7 |
| 14 | 7986 | 18E7 | 8 |
| 15 | 7986 | 19E6 | 9 |
| 16 | 7986 | 10EF | 0 |
| 17 | 7986 | 3FC0 | ENTER |
| 18 | 7986 | 0DF2 | CLEAR |
| 19 | 7986 | 0CF3 | PROGRAM |
| 20 | 7986 | 08F7 | REPEAT |
| 21 | 7986 | 1BE4 | RANDOM |
| 22 | 7986 | 05FA | ⏮ |
| 23 | 7986 | 09F6 | A/B REPEAT |
| 24 | 7986 | 06F9 | ⏭ |
| 25 | 7986 | 55AA | ⏸ |
| 26 | 7986 | 04FB | ⏪ |
| 27 | 7986 | 02FD | ▶ |
| 28 | 7986 | 07F8 | ⏩ |
| 29 | 7986 | 56A9 | ■ |

CD-S700



YAMAHA
