

# AV RECEIVER/AV AMPLIFIER RX-V463/HTR-6140/ DSP-AX463 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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# YAMAHA

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08 03

RX-V463/HTR-6140/  
DSP-AX463

## ■ TO SERVICE PERSONNEL

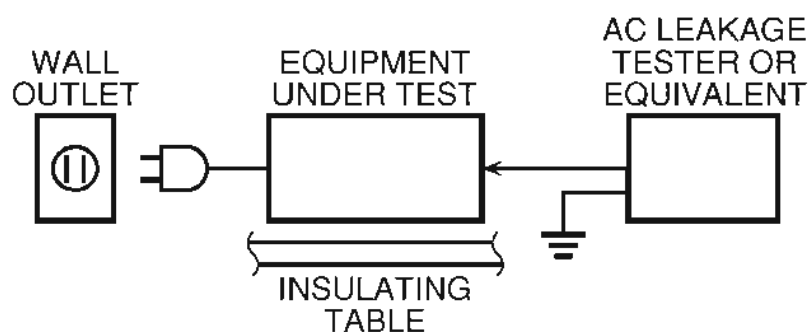
### 1. Critical Components Information

Components having special characteristics are marked  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 $\mu$ F.



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



**For U model**  
**"CAUTION"**

"F3401: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 6A, 125V FUSE."

**For C model**  
**CAUTION**

F3401: REPLACE WITH SAME TYPE 6A, 125V FUSE.

**ATTENTION**

F3401: UTILISER UN FUSIBLE DE RECHANGE DE MÊME TYPE DE 6A, 125V.

## 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 WHAT SO EVER!**

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。

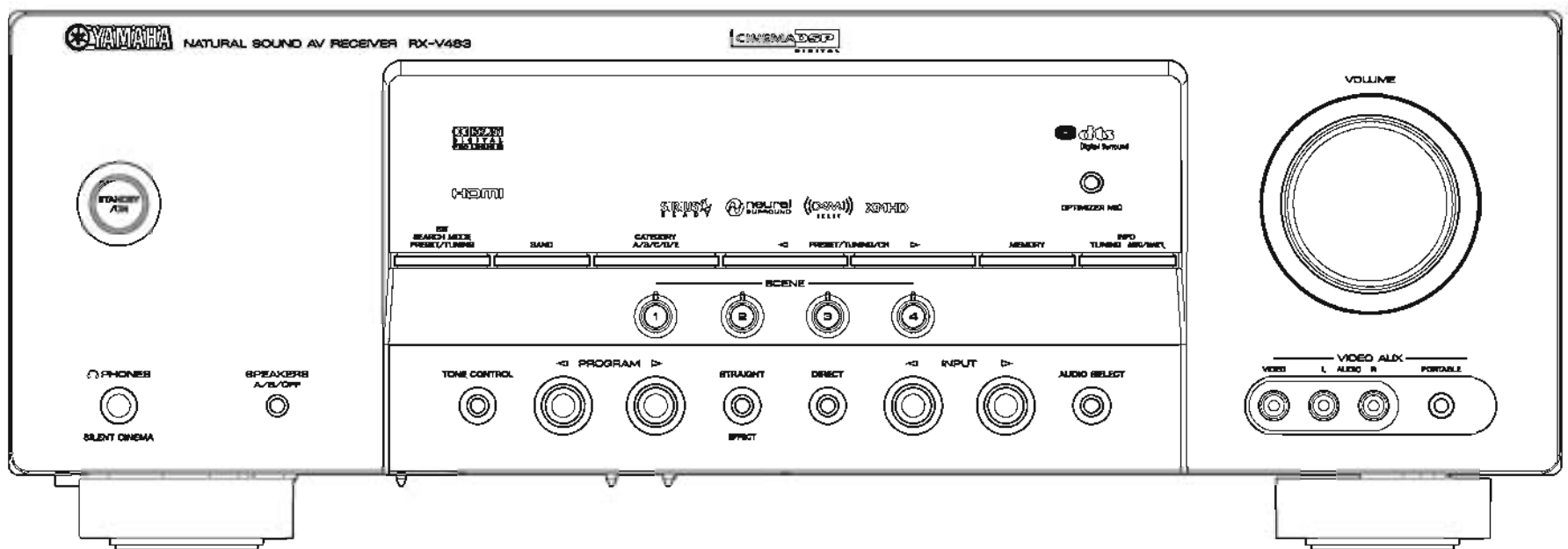
- ・ Sn+Ag+Cu(錫+銀+銅)
- ・ Sn+Cu(錫+銅)
- ・ Sn+Zn+Bi(錫+亜鉛+ビスマス)

### 注意:

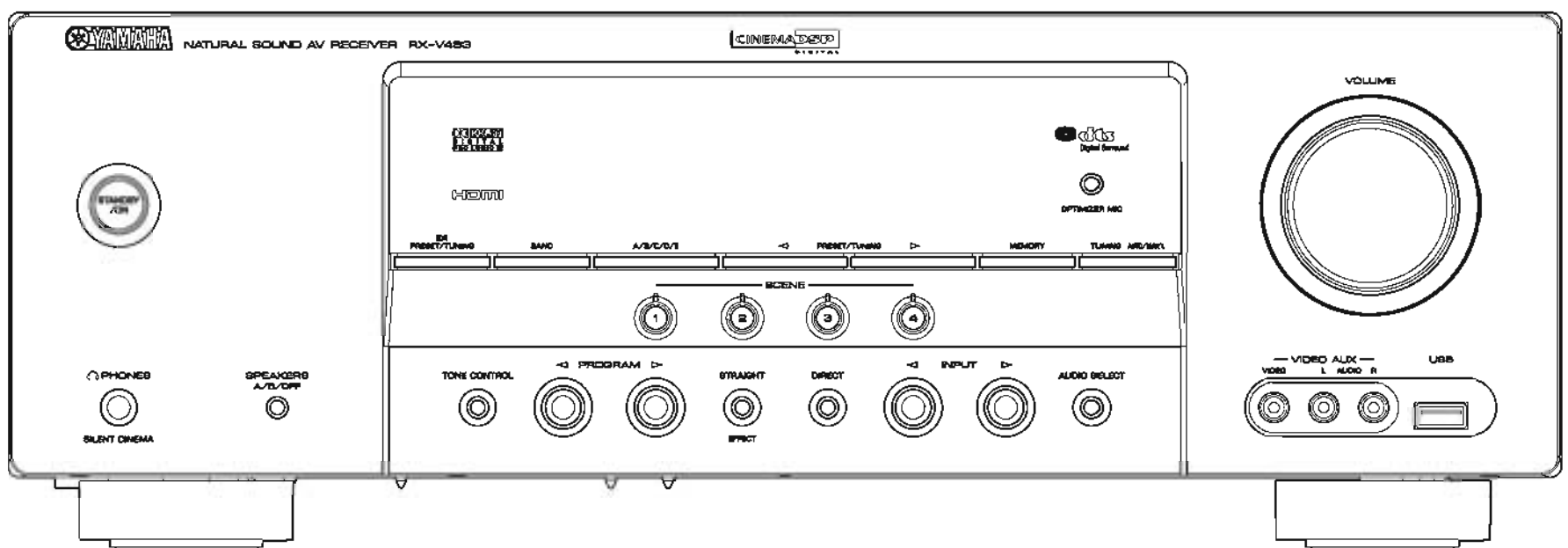
無鉛ハンダの融点温度は通常の鉛入りハンダに比べ30～40℃程度高くなっていますので、それぞれのハンダに合ったハンダごてをご使用ください。

## FRONT PANELS

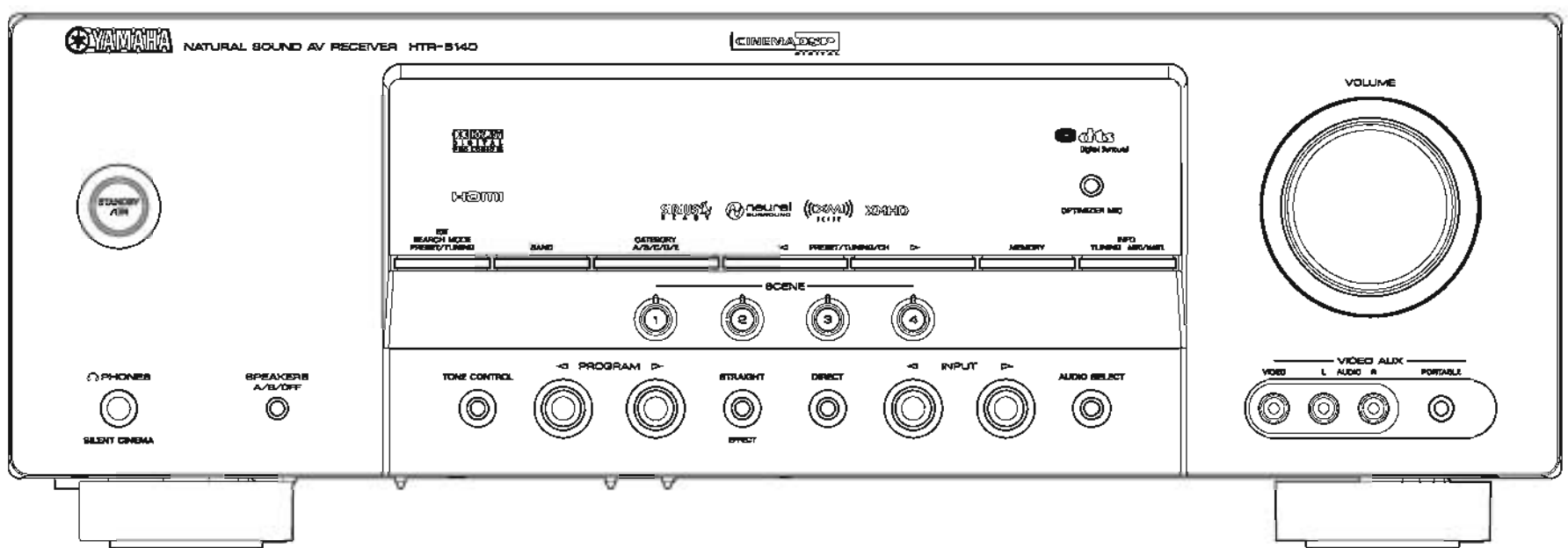
### RX-V463 (U, C models)



### RX-V463 (R, T, K, A, G, E, F, L models)

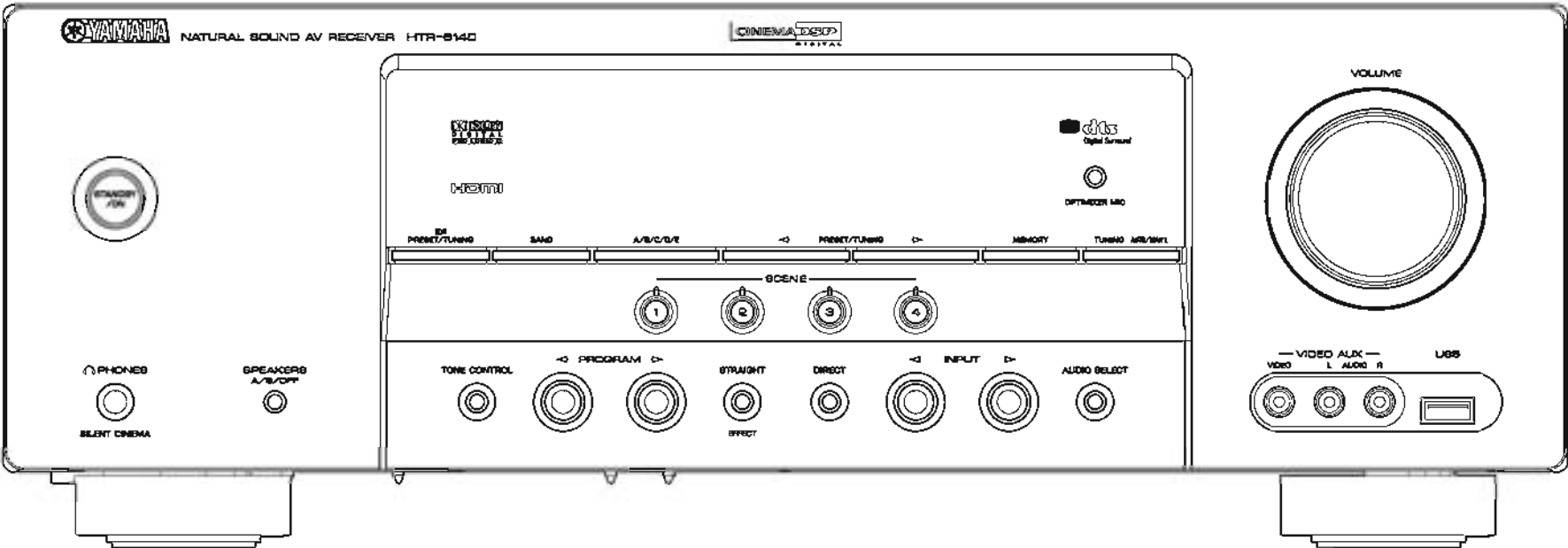


### HTR-6140 (U, C models)

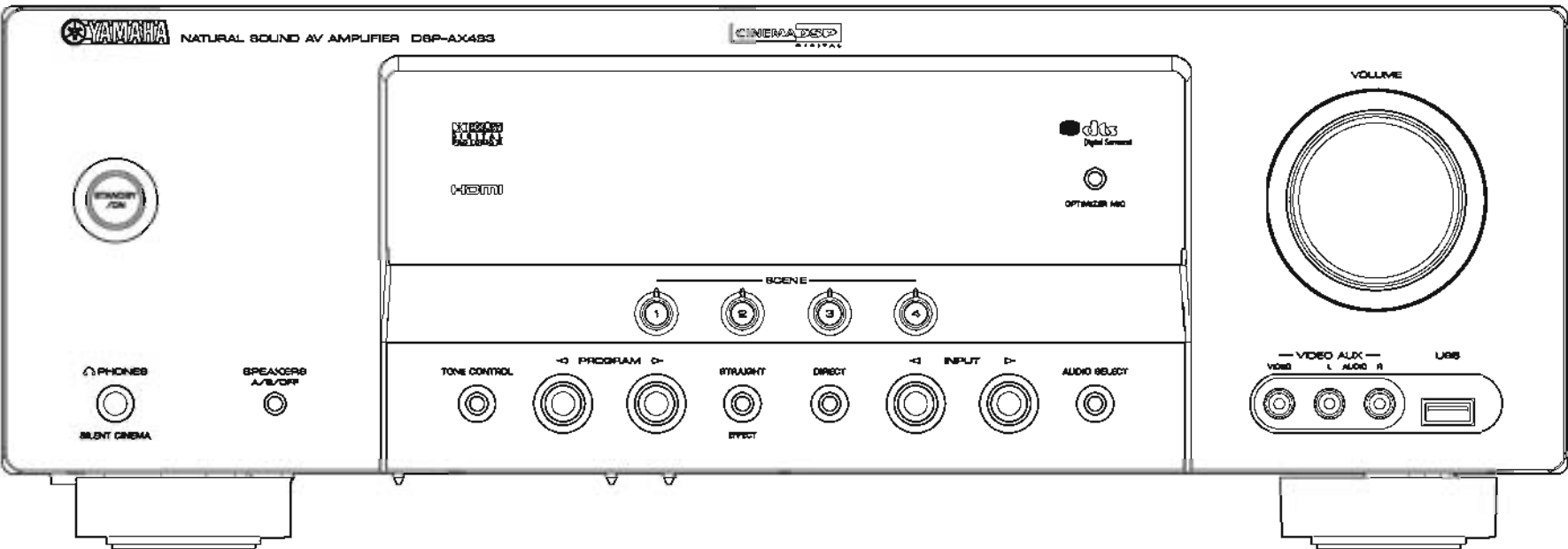


RX-V463/HTR-6140/DSP-AX463

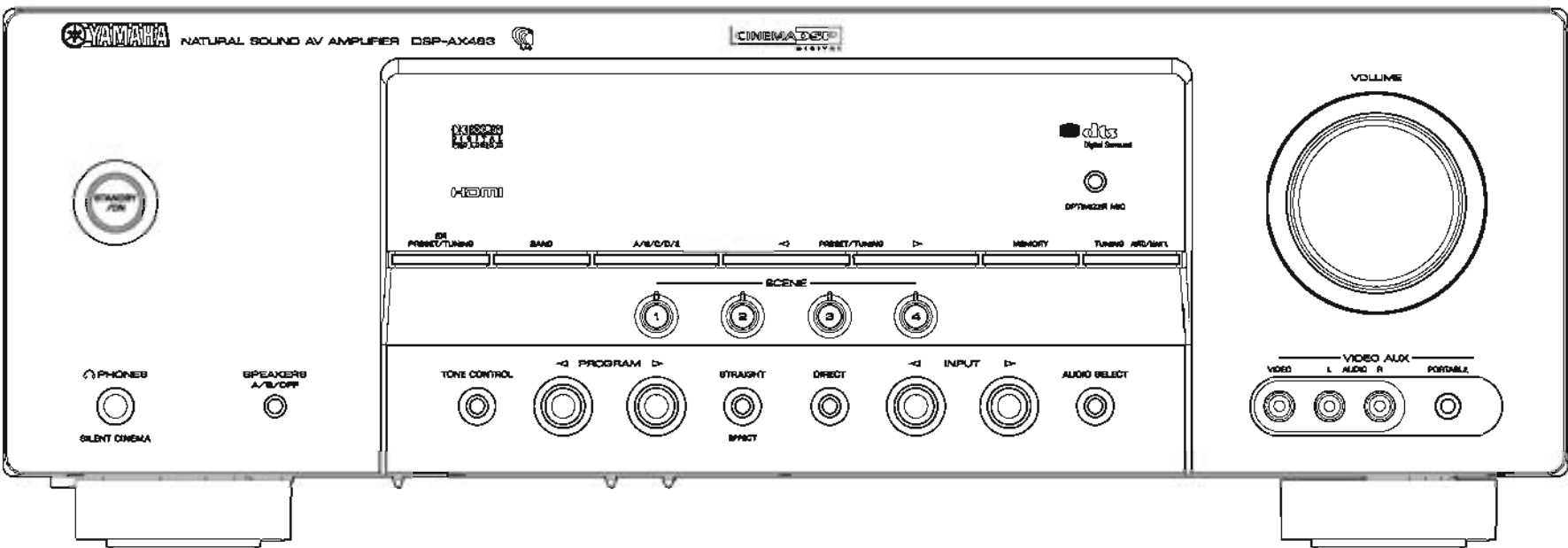
HTR-6140 (T, K, G, E, F models)



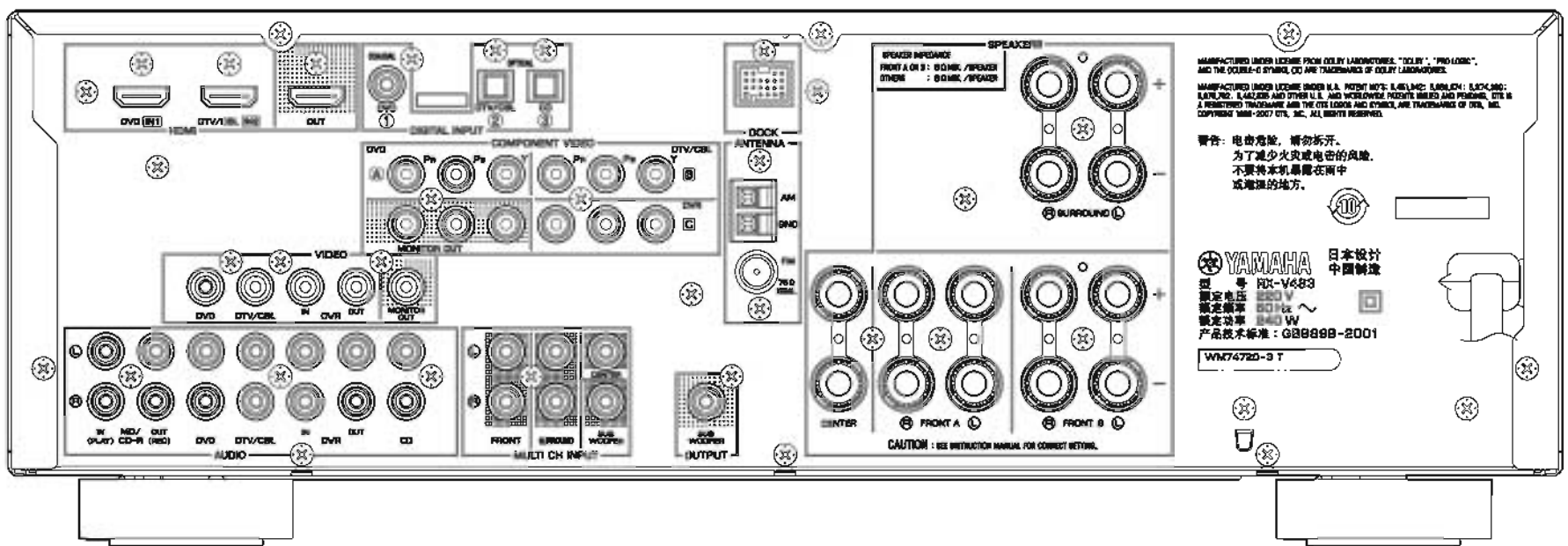
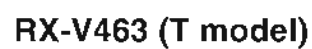
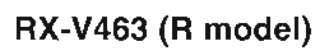
DSP-AX463 (B model)



DSP-AX463 (J model)

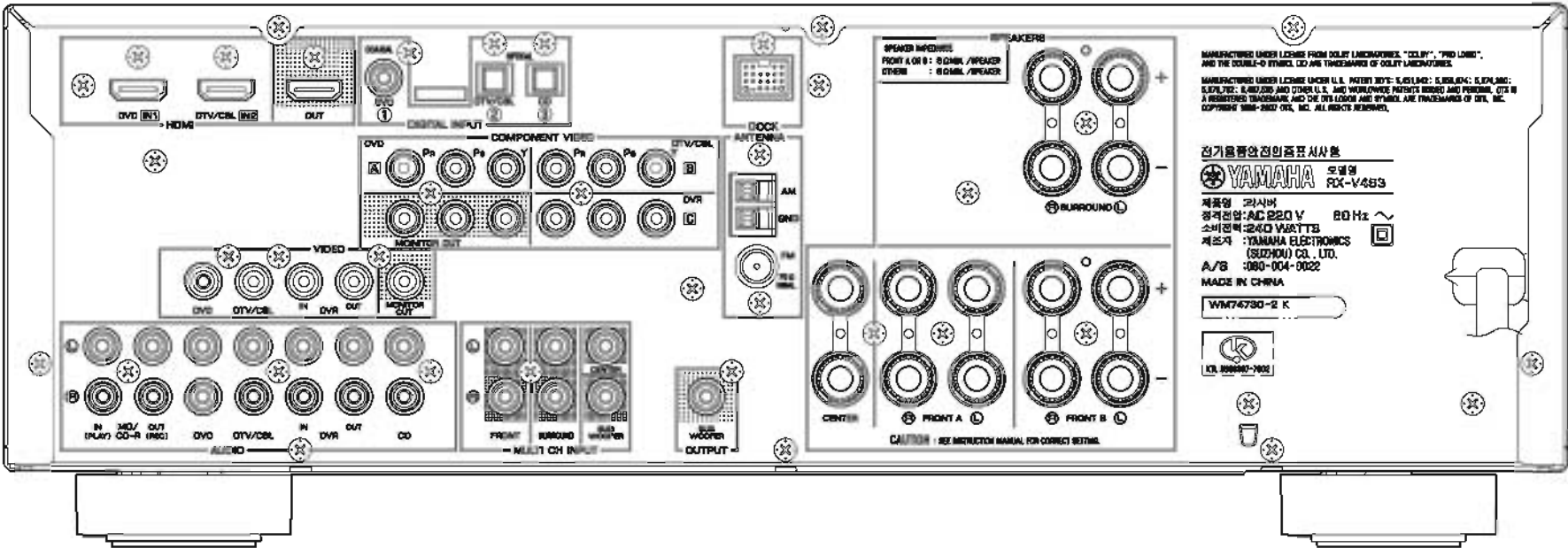


RX-V463/HTR-6140/  
DSP-AX463

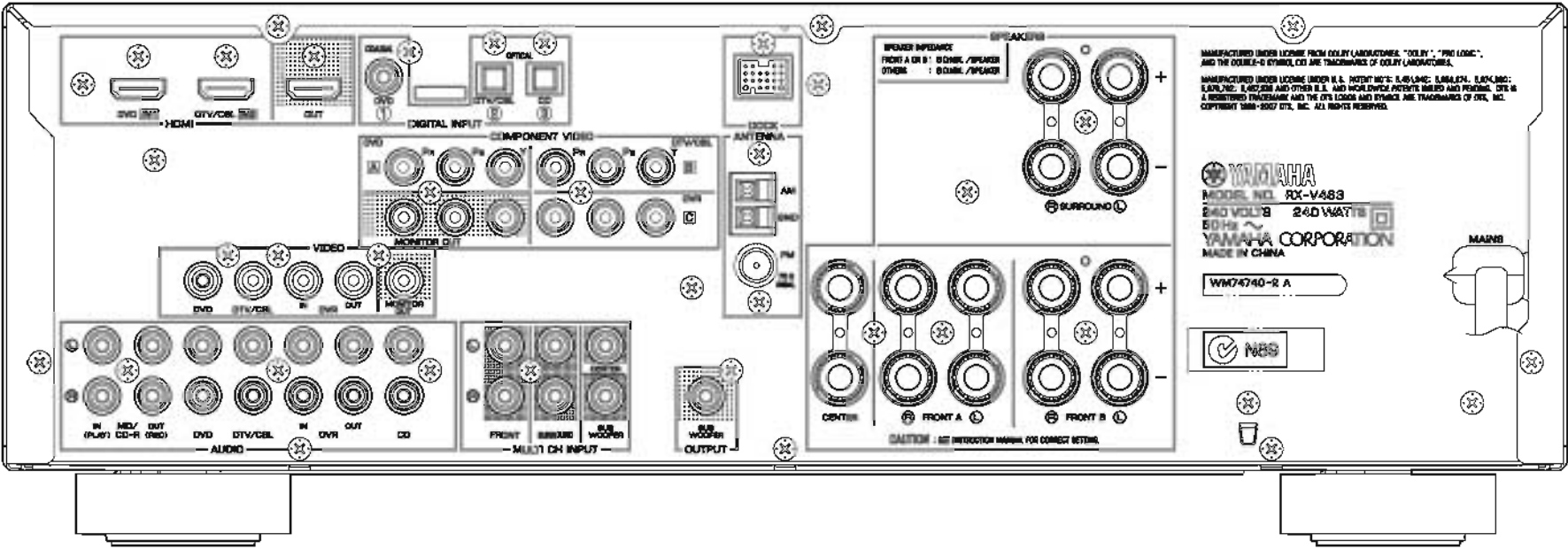
**RX-V463 (U, C models)**

RX-V463/HTR-6140/DSP-AX463

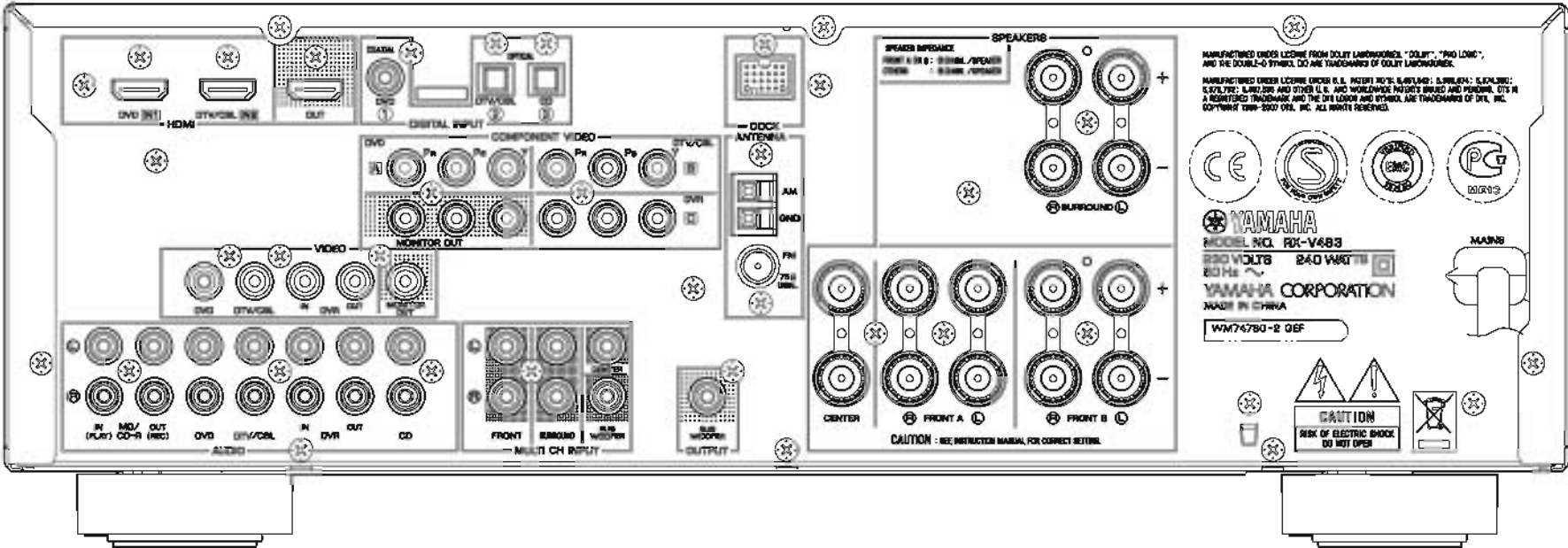
RX-V463 (K model)



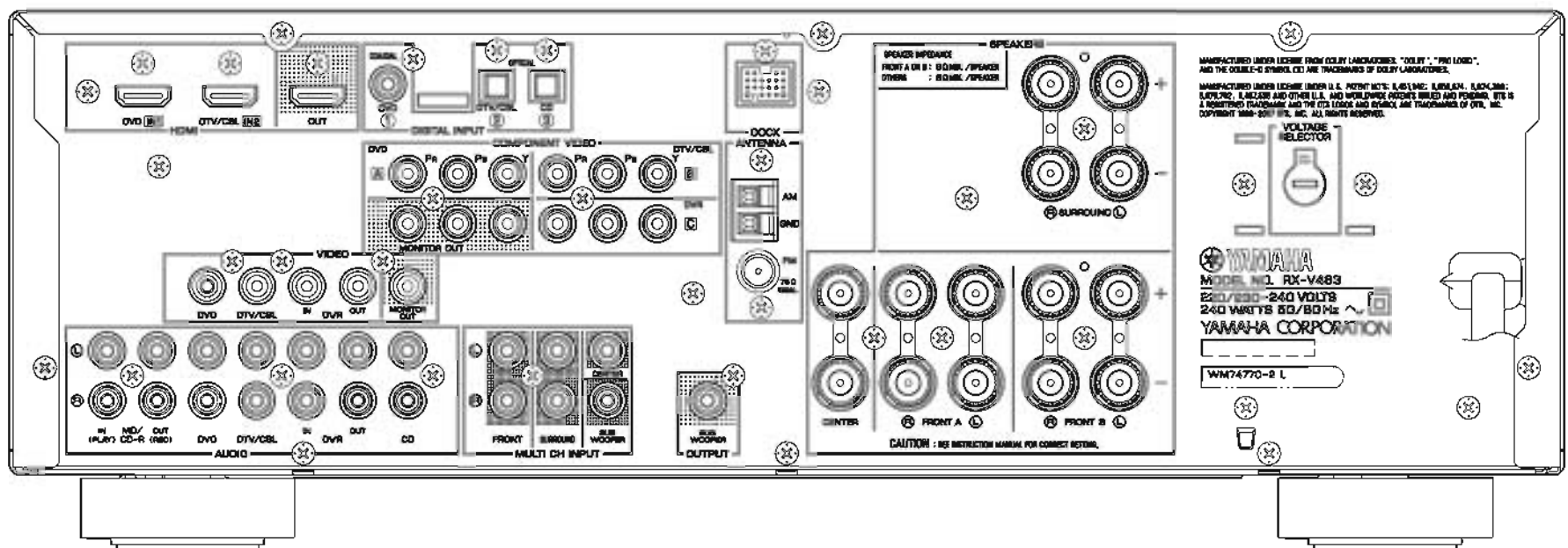
RX-V463 (A model)



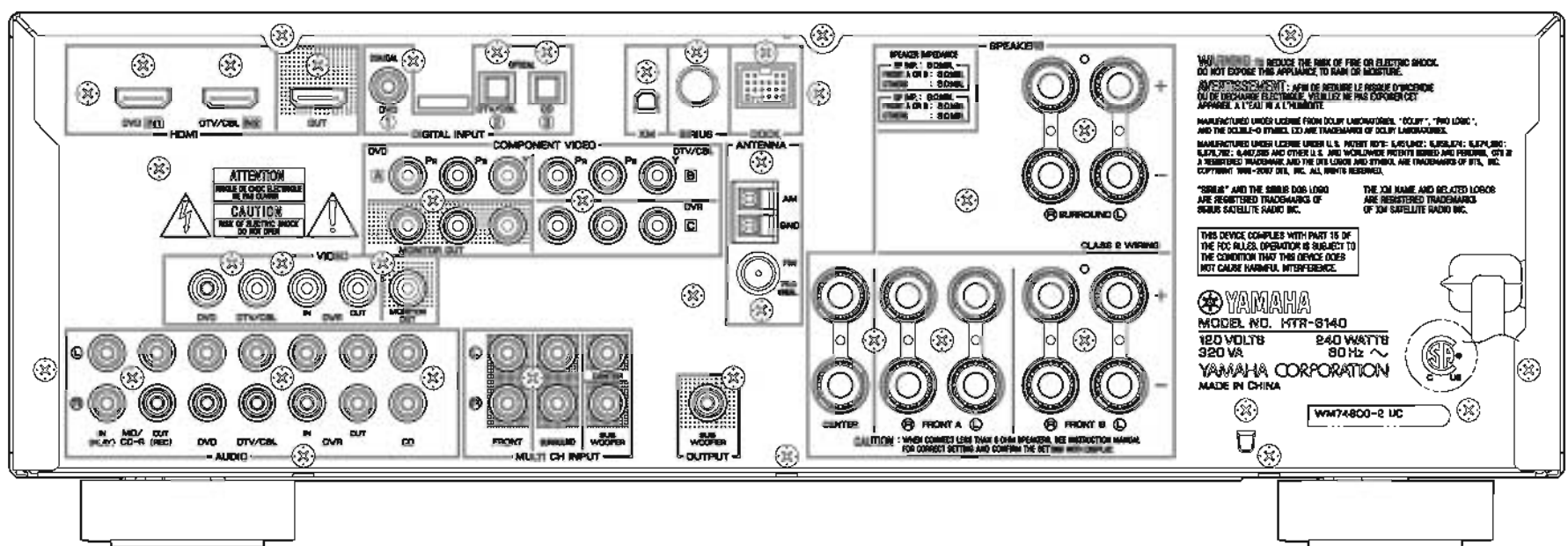
RX-V463 (G, E, F models)



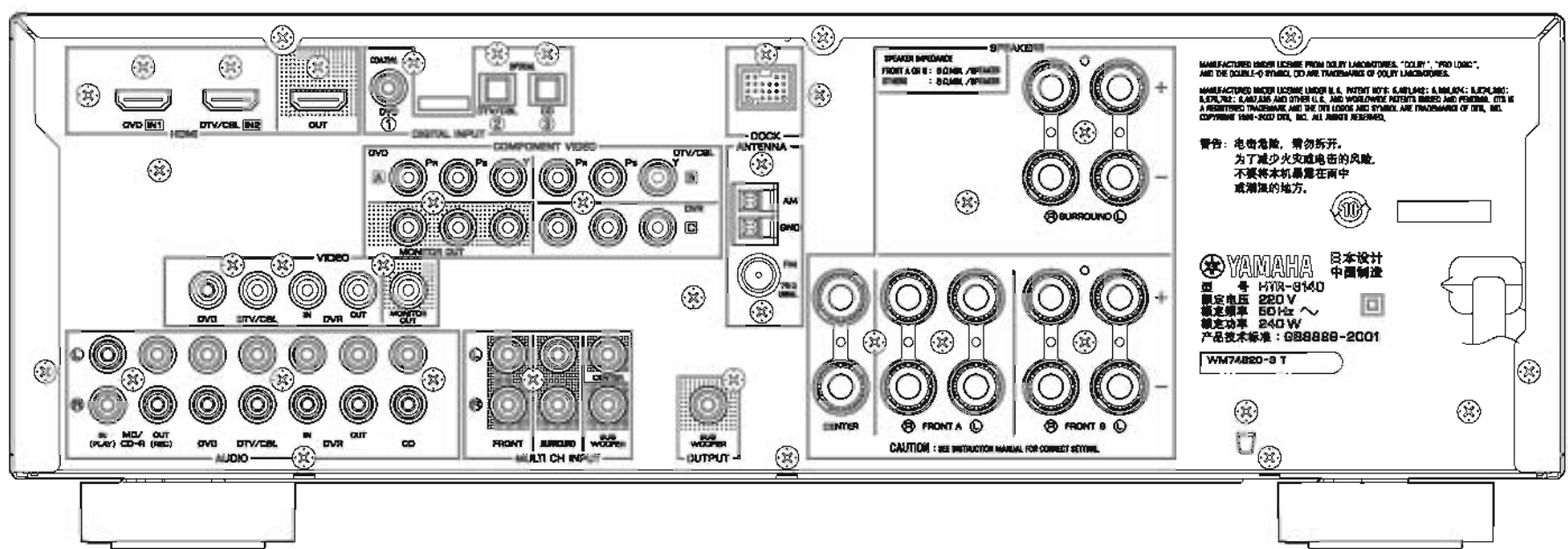
## RX-V463 (L model)



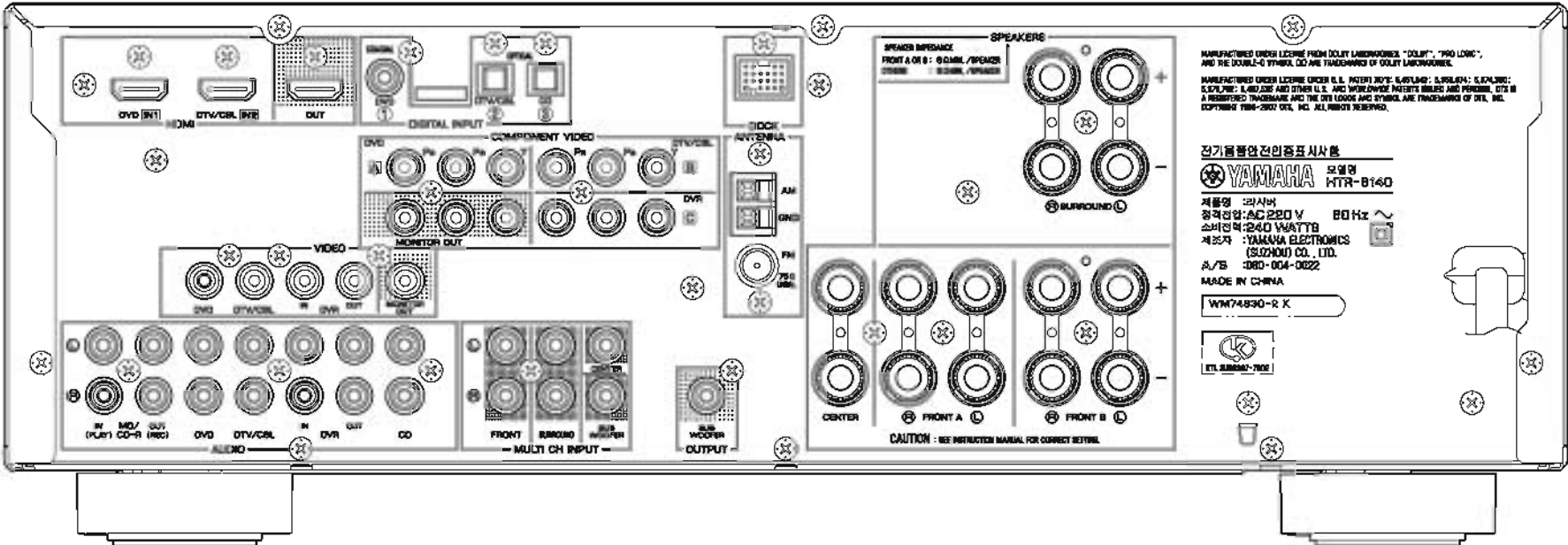
## HTR-6140 (U, C models)



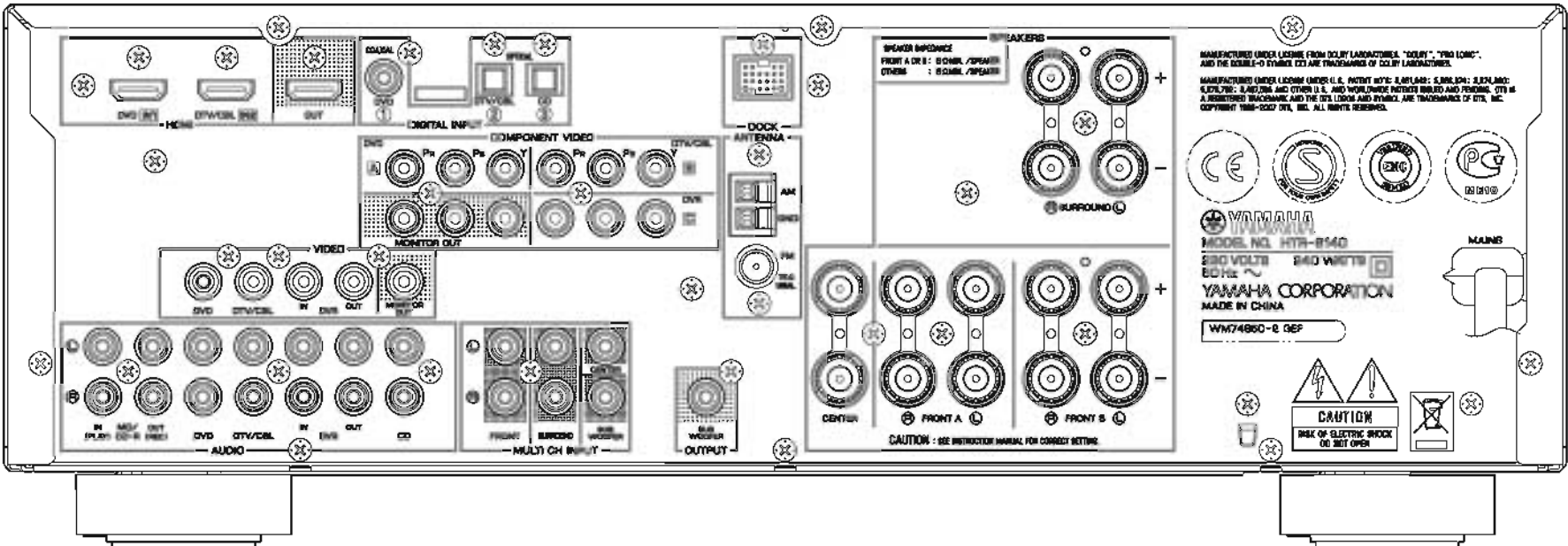
## HTR-6140 (T model)



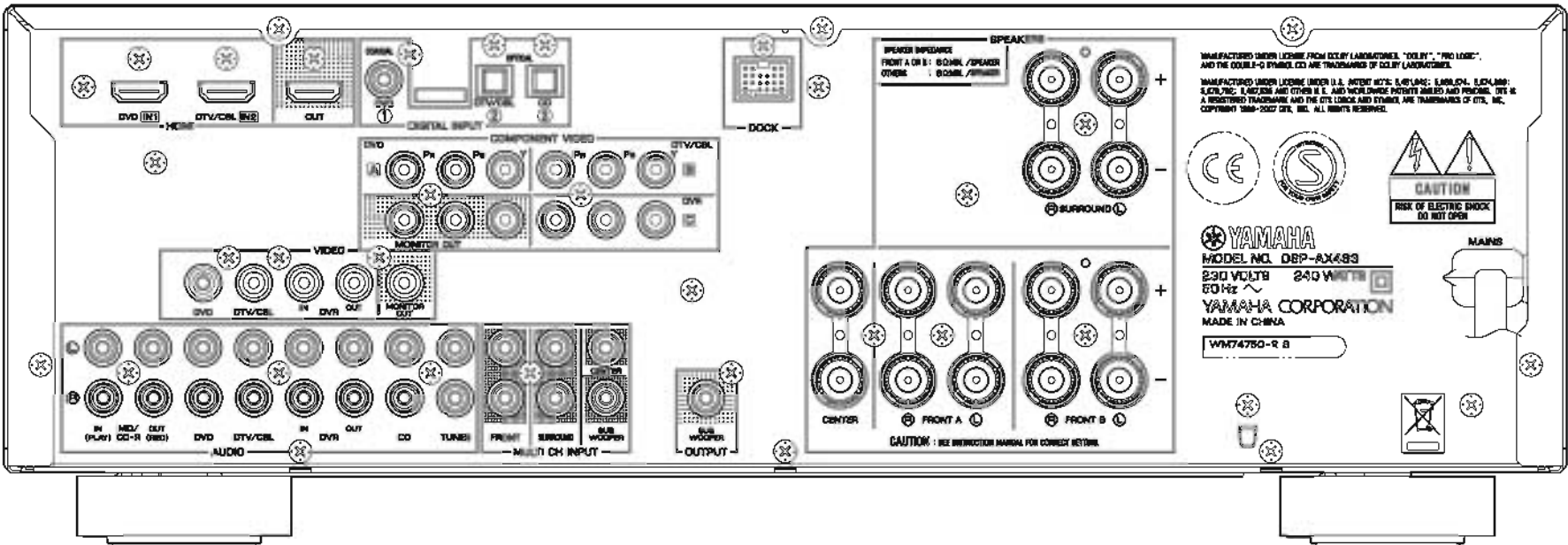
HTR-6140 (K model)



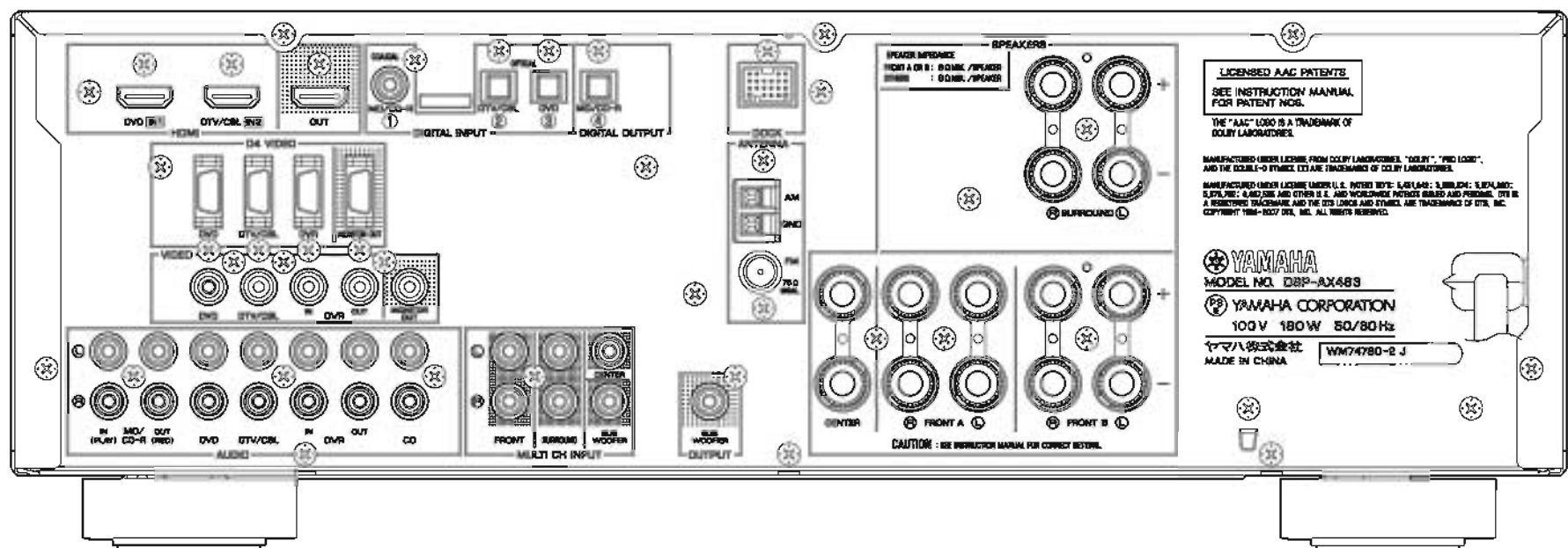
HTR-6140 (G, E, F models)



DSP-AX463 (B model)

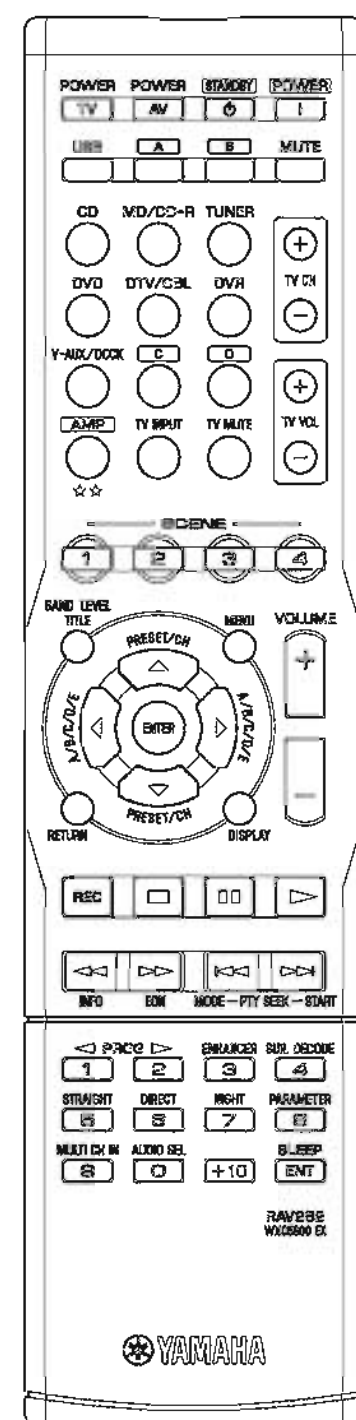
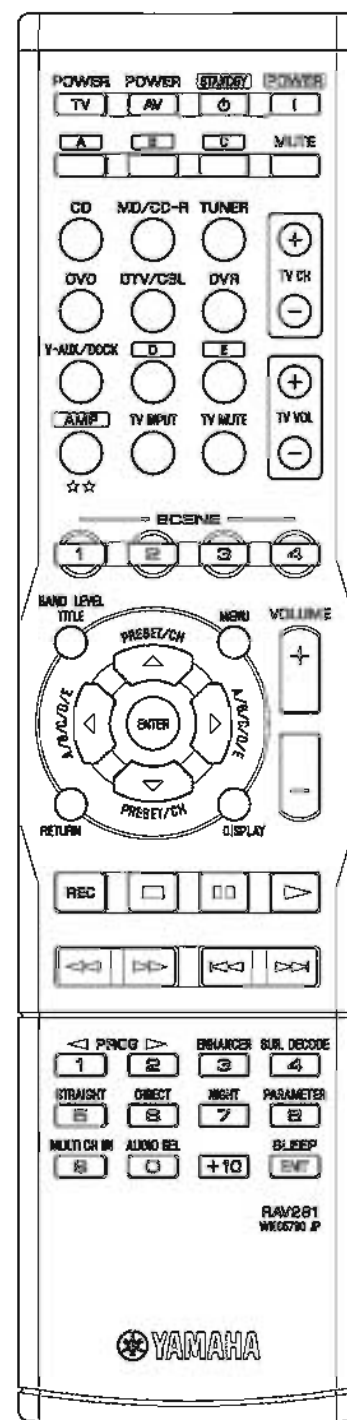
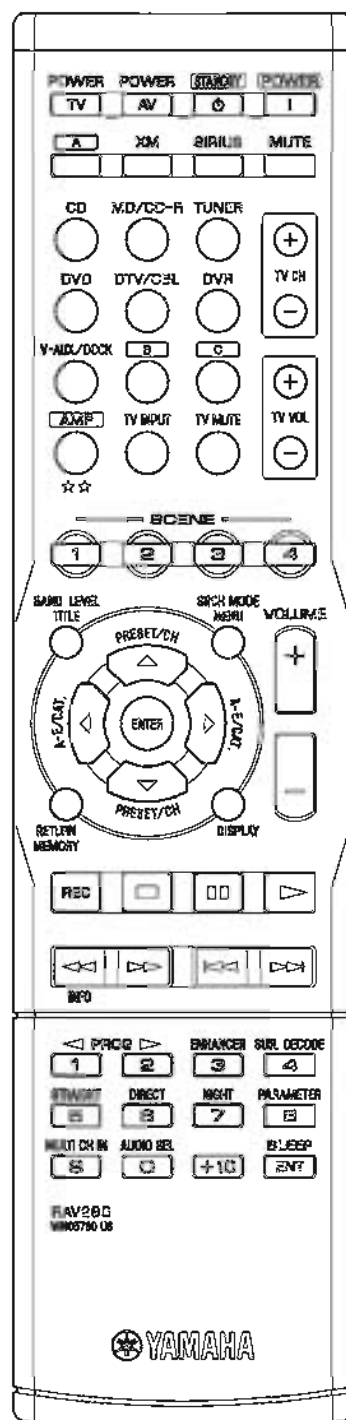


## DSP-AX463 (J model)



## REMOTE CONTROL PANEL

- RAV280  
RX-V463 (U, C models)  
HTR-6140 (U, C models)
- RAV282  
RX-V463 (R, T, K, A, G, E, F, L models)  
HTR-6140 (F model)  
DSP-AX463 (B model)
- RAV281  
DSP-AX463 (J model)



## ■ SPECIFICATIONS / 参考仕様

### ■ Audio Section / オーディオ部

**Minimum RMS Output Power (Power Amp. Section) / 定格出力(パワーアンプ部)** (1 kHz, 0.9 % THD)  
 FRONT L/R, CENTER, SURROUND L/R  
 U, C models (8 ohms) ..... 105 W/ch  
 R, T, K, A, B, G, E, F, L, J models (6 ohms) ..... 105 W/ch

**Maximum Power / 実用最大出力 (JEITA)**  
 (1 kHz, 10 % THD, 6 ohms)  
 FRONT L/R, CENTER, SURROUND L/R  
 R, T, K, L, J models ..... 140 W/ch

**Dynamic Power Per Channel / ダイナミックパワー (IHF)**  
 (FRONT L/R drive)  
 U, C models  
 (8/6/4/2 ohms) ..... 90/110/130/150 W  
 R, T, K, A, B, G, E, F, L, J models  
 (6/4/2 ohms) ..... 100/110/125 W

**Dynamic Headroom**  
 U, C models (8 ohms) ..... 0.27 dB

**Input Sensitivity/Input Impedance / 入力感度/入力インピーダンス** (1 kHz, 100 W / 8 ohms)  
 CD, etc. .... 200 mV / 47 k-ohms  
 MULTI CH INPUT  
 FRONT L/R, CENTER, SURROUND L/R, SUBWOOFER  
 ..... 200 mV / 47 k-ohms

**Maximum Input Signal / 最大許容入力**  
 (1 kHz, 0.5 % THD, Effect on)  
 CD, etc. .... 2.0 V or more

**Output Level/Output Impedance / 出力電圧/出力インピーダンス**  
 REC OUT ..... 200 mV / 1.2 k-ohms  
 SUBWOOFER (2ch STEREO and FRONT SP: Small)  
 ..... 4 V / 1.2 k-ohms

**Headphone Jack Rated Output/Impedance / ヘッドフォン出力/出力インピーダンス**  
 CD, etc. (1 kHz, 200 mV, 8 ohms) ..... 400 mV / 470 ohms

**Frequency Response / 周波数特性** (10 Hz to 100 kHz)  
 CD, etc. to FRONT L/R ..... 0 / -3 dB

**Total Harmonic Distortion / 全高調波歪率** (1 kHz)  
 Direct to FRONT L/R SP OUT  
 U, C models  
 (45 W, 8 ohms) ..... 0.06 % or less  
 R, T, K, A, B, G, E, F, L, J models  
 (50 W, 6 ohms) ..... 0.06 % or less

**Signal to Noise Ratio / 信号対雑音比 (IHF-A Network)**  
 Direct STEREO to Input shorted SP OUT  
 200 mV ..... 98 dB or more  
 250 mV ..... 100 dB or more

**Residual Noise / 残留ノイズ (IHF-A Network)**  
 FRONT L/R SP OUT ..... 150  $\mu$ V or less

**Channel Separation / チャンネルセパレーション**  
 CD, etc. (Input 5.1 k-ohms shorted, 1 kHz / 10 kHz)  
 ..... 60 dB or more / 45 dB or more

**Tone Control Characteristics / トーンコントロール特性**  
 BASS  
 Boost/Cut .....  $\pm$ 10 dB (100 Hz)  
 TREBLE  
 Boost/Cut .....  $\pm$ 10 dB (20 kHz)

**Filter Characteristics / フィルタ特性**  
 FRONT, CENTER, SURROUND small (H.P.F.)  
 .....  $f_c$ =40/60/80/90/100/110/120/160/200 Hz, 12 dB/oct.  
 SUBWOOFER (L.P.F.)  
 .....  $f_c$ =40/60/80/90/100/110/120/160/200 Hz, 24 dB/oct.

### ■ Video Section / ビデオ部

**Video Signal Type (Gray back) / ビデオ信号方式(グレイバック)**  
 U, C, R, K, J models ..... NTSC  
 T, A, B, G, E, F, L models ..... PAL

**Composite Video Signal Level / コンポジットビデオ信号**  
 ..... 1 Vp-p / 75 ohms

**Component Signal Level**  
 (U, C, R, T, K, A, B, G, E, F, L models)  
 Y ..... 1 Vp-p / 75 ohms  
 Pb/Pr ..... 0.7 Vp-p / 75 ohms

**D4-Video Signal Level / D4ビデオ信号**  
 (J model)  
 Y ..... 1 Vp-p / 75 ohms  
 Pb/Pr ..... 0.7 Vp-p / 75 ohms

**Video Maximum Input Level / ビデオ最大許容入力**  
 ..... 1.5 Vp-p or more

**Signal to Noise Ratio / 信号対雑音比**  
 ..... 50 dB or more

**Monitor Out Frequency Response / モニターアウト周波数帯域**  
 U, C, R, T, K, A, B, G, E, F, L models  
 Component video signal ..... 5 Hz to 60 MHz, -3 dB  
 J model  
 D4-video signal ..... 5 Hz to 60 MHz, -3 dB  
 HDMI ..... Ver. 1.2a

### ■ FM Section / FM部 (U, C, R, T, K, A, G, E, F, L, J models)

**Tuning Range / 受信周波数範囲**  
 U, C models ..... 87.5 to 107.9 MHz  
 R, L models ..... 87.5 to 108.0 / 87.50 to 108.00 MHz  
 T, K, A, G, E, F models ..... 87.50 to 108.00 MHz  
 J model ..... 76.0 to 90.0 MHz

**50dB Quieting Sensitivity / 50 dB SN感度 (IHF)**  
 (1 kHz, 100 % Mod.)  
 Mono ..... 2.8  $\mu$ V (20.2 dBf)

**Signal to Noise Ratio / 信号対雑音比 (IHF)**  
 Mono / Stereo ..... 73 dB / 70 dB

**Harmonic Distortion / 歪率** (1 kHz)  
 Mono / Stereo ..... 0.5 % / 0.5 %

**Antenna Input / アンテナ入力** ..... 75 ohms unbalanced

### ■ AM Section / AM部 (U, C, R, T, K, A, G, E, F, L, J models)

**Tuning Range / 受信周波数範囲**  
 U, C models ..... 530 to 1,710 kHz  
 R, L models ..... 530 to 1,710 / 531 to 1,611 kHz  
 T, K, A, G, E, F, J models ..... 531 to 1,611 kHz

**Antenna Input / アンテナ入力** ..... Loop antenna

### ■ General / 総合

**Power Supply / 電源電圧**  
 U, C models ..... AC 120 V, 60 Hz  
 R model ..... 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, E, F models ..... AC 230 V, 50 Hz  
 L model ..... AC 220, 230-240 V, 50/60 Hz  
 J model ..... AC 100 V, 50/60 Hz

**Power Consumption / 消費電力**  
 U, C models ..... 240 W / 320 VA  
 R, T, K, A, B, G, E, F, L models ..... 240 W  
 J model ..... 180 W

**Standby Power Consumption (reference data) / 待機時消費電力 (参考値)**  
 U, C, T, K, A, B, G, E, F, J models ..... 0.8 W

**Maximum Power Consumption** (5ch drive, 10 % THD)  
 R, L models ..... 440 W

|                                                                                                                                                                                                            |                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| <b>Dimensions / 寸法 (W x H x D)</b><br>..... 435 x 151 x 351.6 mm (17-1/8" x 5-15/16" x 13-13/16")                                                                                                          |                            |
| <b>Weight / 質量</b> .....                                                                                                                                                                                   | 8.5 kg (18 lbs. 11 oz.)    |
| <b>Finish / 仕上げ</b><br><b>[RX-V463]</b>                                                                                                                                                                    |                            |
| Gold color .....                                                                                                                                                                                           | R, T models                |
| Black color .....                                                                                                                                                                                          | U, C, R, A, G, E, F models |
| Titanium color .....                                                                                                                                                                                       | K, G, E, F, L models       |
| Silver color .....                                                                                                                                                                                         | A, L models                |
| <b>[HTR-6140]</b>                                                                                                                                                                                          |                            |
| Gold color .....                                                                                                                                                                                           | T model                    |
| Black color .....                                                                                                                                                                                          | U, C, G, F models          |
| Silver color .....                                                                                                                                                                                         | K, G, E, F models          |
| <b>[DSP-AX463]</b>                                                                                                                                                                                         |                            |
| Gold color .....                                                                                                                                                                                           | J model                    |
| Black color .....                                                                                                                                                                                          | B, J models                |
| Silver color .....                                                                                                                                                                                         | J model                    |
| <b>Accessories / 付属品</b>                                                                                                                                                                                   |                            |
| Remote control x 1, Batteries (R03, AAA, UM-4) x 2, Indoor FM antenna x 1 (U, C, R, T, K, A, G, E, F, L, J models), AM loop antenna x 1 (U, C, R, T, K, A, G, E, F, L, J models), Optimizer microphone 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。

|                |                         |                |                             |
|----------------|-------------------------|----------------|-----------------------------|
| <b>U</b> ..... | <b>U.S.A. model</b>     | <b>B</b> ..... | <b>British model</b>        |
| <b>C</b> ..... | <b>Canadian model</b>   | <b>G</b> ..... | <b>European model</b>       |
| <b>R</b> ..... | <b>General model</b>    | <b>E</b> ..... | <b>South European model</b> |
| <b>T</b> ..... | <b>Chinese model</b>    | <b>F</b> ..... | <b>Russian model</b>        |
| <b>K</b> ..... | <b>Korean model</b>     | <b>L</b> ..... | <b>Singapore model</b>      |
| <b>A</b> ..... | <b>Australian model</b> | <b>J</b> ..... | <b>Japanese model</b>       |

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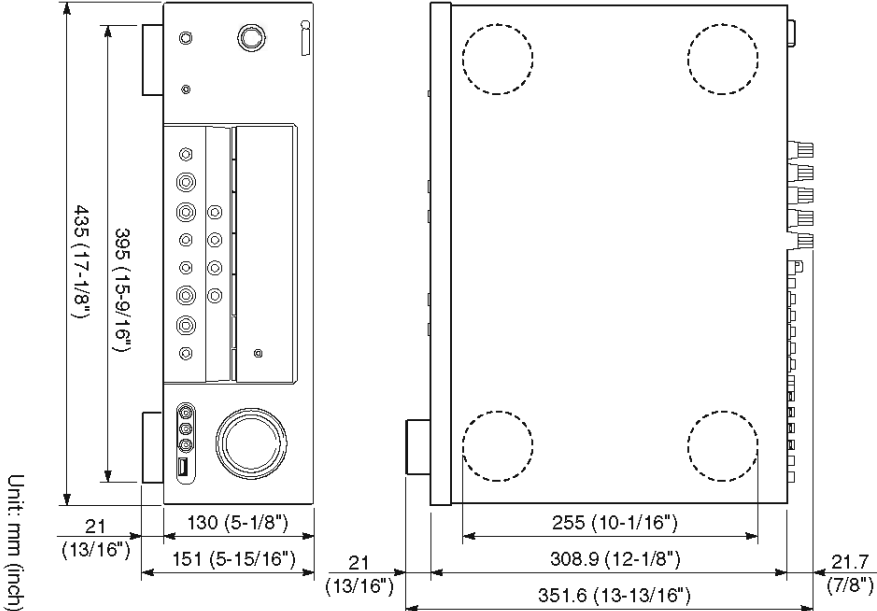


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• DIMENSIONS



• SCENE TEMPLATE

| SCENE name           | Contents               | Source       | Program        |                | Select (Default) |             |                                  |
|----------------------|------------------------|--------------|----------------|----------------|------------------|-------------|----------------------------------|
|                      |                        |              | Mode           | Sub-mode       | NIGHT            | U, C models | R, T, K, A, B, G, E, F, L models |
| DVD Viewing          | DVD                    | Movie        | DVD            | STRAIGHT       | —                | 0           | 0                                |
| DVD Movie Viewing    |                        | DVD          | MOVIE          | Movie Dramatic | SYSTEM           | 0           | 0                                |
| DVD Live Viewing     |                        | DVD          | MUSIC          | Pop/Rock       | SYSTEM           | 0           | 0                                |
| DVR Viewing          | DVR                    | DVR          | MOVIE          | Movie Dramatic | SYSTEM           | 0           | 0                                |
| Disc Hi-fi Listening | DVD-Audio / SA-CD / CD | Music Disc   | DIRECT STEREO  | —              | SYSTEM           | 0           | 0                                |
| Music Disc Listening |                        | DVD          | STEREO         | 2ch Stereo     | SYSTEM           | 0           | 0                                |
| Disc Listening       |                        | DVD          | STEREO         | 5ch Stereo     | SYSTEM           | 0           | 0                                |
| CD Hi-fi Listening   | CD                     | Music Disc   | DIRECT STEREO  | —              | SYSTEM           | 0           | 0                                |
| CD Listening         |                        | CD           | STEREO         | 5ch Stereo     | SYSTEM           | 0           | 0                                |
| CD Music Listening   |                        | CD           | STEREO         | 2ch Stereo     | SYSTEM           | 0           | 0                                |
| Radio Listening      | TUNER/RADIO            | FM/AM        | MUSIC ENHANCER | 5ch Enhancer   | SYSTEM           | 0           | 0                                |
| XM Listening         |                        | FM (TUNER)   | MUSIC ENHANCER | 5ch Enhancer   | SYSTEM           | 0           | 0                                |
| SIRIUS Listening     |                        | XM           | MUSIC ENHANCER | 5ch Enhancer   | SYSTEM           | 0           | —                                |
| Dock Listening       | DAP                    | iPod (V-AUX) | MUSIC ENHANCER | 5ch Enhancer   | SYSTEM           | 0           | 0                                |
| USB Audio Listening  |                        | USB          | MUSIC ENHANCER | 5ch Enhancer   | SYSTEM           | —           | —                                |
| TV Viewing           | TV                     | DTV/CBL      | STRAIGHT       | —              | SYSTEM           | 0           | 0                                |
| TV Sports Viewing    |                        | DTV/CBL      | ENTERTAINMENT  | TV Sports      | SYSTEM           | 0           | 0                                |
| Game Playing         | GAME                   | V-AUX        | ENTERTAINMENT  | Game           | SYSTEM           | 0           | 0                                |

• SOUND/SURROUND SELECT MENU

| Sound Field Parameters |                | DSP LEVEL<br>MIN. [MID], MAX | MUSIC ENHANCER<br>LOW, [HIGH] |
|------------------------|----------------|------------------------------|-------------------------------|
| STEREO                 | 2ch Stereo     |                              |                               |
|                        | 5ch Stereo     | 0                            |                               |
|                        | Pop/Rock       | 0                            |                               |
| MUSIC                  | Hall           | 0                            |                               |
|                        | Jazz           | 0                            |                               |
|                        | Game           | 0                            |                               |
| ENTERTAIN              | TV Sports      | 0                            |                               |
|                        | Movie Spacious | 0                            |                               |
|                        | Movie Dramatic | 0                            |                               |
| MUSIC ENHANCER         | Music Enh. 2ch | 0                            |                               |
|                        | Music Enh. 5ch | 0                            |                               |

Surround Decoders

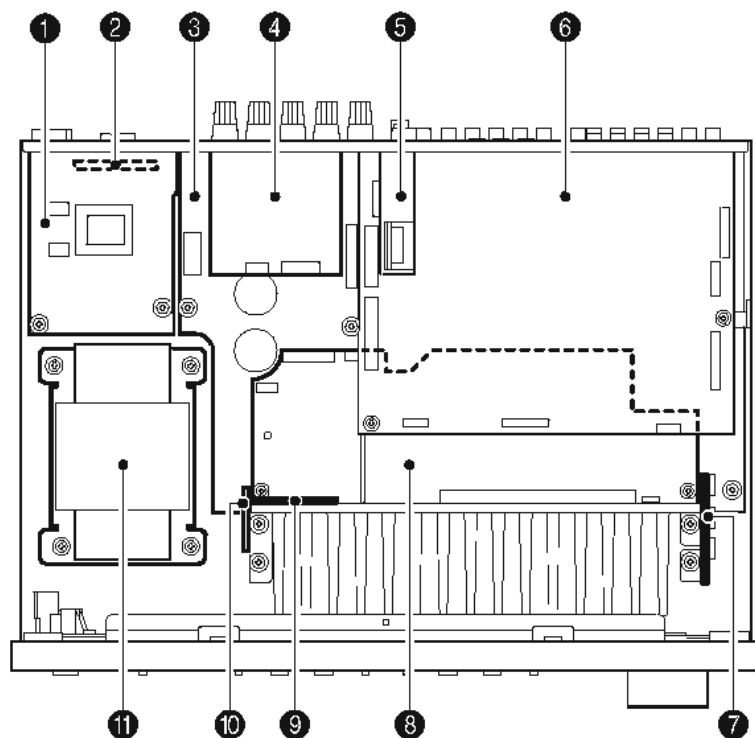
| DECODING<br>FORMAT      | Dolby Digital                 | PANORAMA<br>ON, [OFF] | DIMENSION<br>-3, [STD], +3 | CENTER WIDTH<br>0, 1, 2, [3], 4, 5, 6, 7 |
|-------------------------|-------------------------------|-----------------------|----------------------------|------------------------------------------|
| POST DECODING<br>FORMAT | DTS                           |                       |                            |                                          |
|                         | AAC (J model)                 |                       |                            |                                          |
|                         | Dolby Pro Logic               | 0                     |                            |                                          |
|                         | Dolby Pro Logic II Music      |                       | 0                          | 0                                        |
|                         | Dolby Pro Logic II Movie      |                       |                            |                                          |
|                         | Dolby Pro Logic II Game       |                       |                            |                                          |
|                         | Neural Surround (U, C models) |                       |                            |                                          |

• SET MENU TABLE

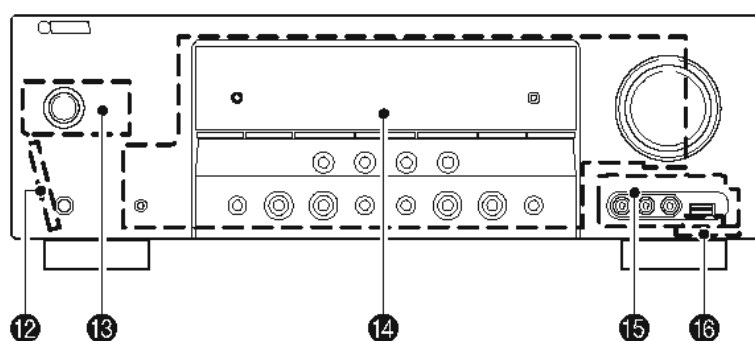
| CATEGORY     | MAIN MENU                                                               | SUB MENU                  | SELECT MENU          |                                                                                                                                                                                                                     | VALUE [INITIAL]                                      |                                                                |
|--------------|-------------------------------------------------------------------------|---------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------------|
| AUTO SETUP   | Use this feature to automatically adjust speaker and system parameters. |                           |                      |                                                                                                                                                                                                                     |                                                      |                                                                |
| MANUAL SETUP | 1 SOUND MENU                                                            | A) SPEAKER SET            | FRONT B              | FRONT                                                                                                                                                                                                               | [FRONT] / ZONE B                                     |                                                                |
|              |                                                                         |                           | FRONT                | LARGE                                                                                                                                                                                                               | SMALL / [LARGE]                                      |                                                                |
|              |                                                                         |                           | CENTER               | SMALL                                                                                                                                                                                                               | NONE / [SMALL] / LARGE                               |                                                                |
|              |                                                                         |                           | SUR. LR              | SMALL                                                                                                                                                                                                               |                                                      |                                                                |
|              |                                                                         |                           | BASS OUT             | BOTH                                                                                                                                                                                                                | SWFR / FRONT / [BOTH]                                |                                                                |
|              |                                                                         |                           | CROSSOVER            | 80 Hz                                                                                                                                                                                                               | 40 / 60 / [80] / 90 / 100 / 110 / 120 / 160 / 200 Hz |                                                                |
|              |                                                                         |                           | SWFR PHASE           | NRM                                                                                                                                                                                                                 | [NRM (normal)] / REV (reverse)                       |                                                                |
|              |                                                                         | B) SP LEVEL               | FL                   | •••••    •••••                                                                                                                                                                                                      | -10 to +10 dB, [0 dB], 1 dB step                     |                                                                |
|              |                                                                         |                           | FR                   | •••••    •••••                                                                                                                                                                                                      |                                                      |                                                                |
|              |                                                                         |                           | C                    | •••••    •••••                                                                                                                                                                                                      |                                                      |                                                                |
|              |                                                                         |                           | SWFR                 | •••••    •••••                                                                                                                                                                                                      |                                                      |                                                                |
|              |                                                                         |                           | SUR. L               | •••••    •••••                                                                                                                                                                                                      |                                                      |                                                                |
|              |                                                                         |                           | SUR. R               | •••••    •••••                                                                                                                                                                                                      |                                                      |                                                                |
|              |                                                                         | C) SP DISTANCE            | Unit: feet           | UNIT                                                                                                                                                                                                                | feet                                                 | feet / meters                                                  |
|              |                                                                         |                           |                      | FRONT L                                                                                                                                                                                                             | 10.0 ft                                              | 1.0 to 80.0 ft, [10.0 ft], 0.5 ft step                         |
|              |                                                                         |                           |                      | FRONT R                                                                                                                                                                                                             | 10.0 ft                                              |                                                                |
|              |                                                                         |                           |                      | CENTER                                                                                                                                                                                                              | 8.5 ft                                               |                                                                |
|              |                                                                         |                           |                      | SWFR                                                                                                                                                                                                                | 10.0 ft                                              | 1.0 to 80.0 ft, [10.0 ft], 0.5 ft step                         |
|              |                                                                         |                           |                      | SUR. L                                                                                                                                                                                                              | 8.0 ft                                               | 1.0 to 80.0 ft, [8.0 ft], 0.5 ft step                          |
|              |                                                                         |                           |                      | SUR. R                                                                                                                                                                                                              | 8.0 ft                                               |                                                                |
|              |                                                                         |                           | Unit: meters         | FRONT L                                                                                                                                                                                                             | 3.00 m                                               | 0.30 to 24.00 m, [3.00 m], 0.10 m step                         |
|              |                                                                         |                           |                      | FRONT R                                                                                                                                                                                                             | 3.00 m                                               |                                                                |
|              |                                                                         |                           |                      | CENTER                                                                                                                                                                                                              | 2.60 m                                               | 0.30 to 24.00 m, [2.60 m], 0.10 m step                         |
|              |                                                                         |                           |                      | SWFR                                                                                                                                                                                                                | 3.00 m                                               | 0.30 to 24.00 m, [3.00 m], 0.10 m step                         |
|              |                                                                         |                           |                      | SUR. L                                                                                                                                                                                                              | 2.40 m                                               | 0.30 to 24.00 m, [2.40 m], 0.10 m step                         |
|              |                                                                         |                           |                      | SUR. R                                                                                                                                                                                                              | 2.40 m                                               |                                                                |
|              |                                                                         |                           |                      | D) CENTER GEQ                                                                                                                                                                                                       | TEST TONE                                            | OFF                                                            |
|              |                                                                         | 100 Hz                    | --    -- 0 dB        |                                                                                                                                                                                                                     | -6.0 dB to +6.0 dB, [0 dB], 0.5 dB step              |                                                                |
|              |                                                                         | 300 Hz                    | --    -- 0 dB        |                                                                                                                                                                                                                     |                                                      |                                                                |
|              |                                                                         | 1 kHz                     | --    -- 0 dB        |                                                                                                                                                                                                                     |                                                      |                                                                |
|              |                                                                         | 3 kHz                     | --    -- 0 dB        |                                                                                                                                                                                                                     |                                                      |                                                                |
|              |                                                                         | 10 kHz                    | --    -- 0 dB        |                                                                                                                                                                                                                     |                                                      |                                                                |
|              |                                                                         | E) LFE LEVEL              | SP LFE               | 0 dB                                                                                                                                                                                                                | -20 dB to 0 dB, [0 dB], 1 dB step                    |                                                                |
|              |                                                                         |                           | HP LFE               | 0 dB                                                                                                                                                                                                                |                                                      |                                                                |
|              |                                                                         | F) D. RANGE               | SP D. R              | MAX                                                                                                                                                                                                                 | MIN / STD / [MAX]                                    |                                                                |
|              |                                                                         |                           | HP D. R              | MAX                                                                                                                                                                                                                 |                                                      |                                                                |
|              |                                                                         | G) AUDIO SET              | MUTE TYP             | FULL                                                                                                                                                                                                                | [FULL] / -20 dB                                      |                                                                |
|              |                                                                         |                           | A. DELAY             | 0 ms                                                                                                                                                                                                                | 0 to 160 ms, [0 ms], 1 ms step                       |                                                                |
|              |                                                                         |                           | MAX VOL.             | +16 dB                                                                                                                                                                                                              | +16 dB / +10 to -30 dB, [+16 dB], 5 dB step          |                                                                |
|              |                                                                         |                           | INI. VOL.            | OFF                                                                                                                                                                                                                 | OFF / MUTE / -80 to +16 dB, [OFF], 1 dB step         |                                                                |
|              |                                                                         | H) HDMI SET               | S. AUDIO             |                                                                                                                                                                                                                     | [RX-V463 / HTR-6140 / DSP-AX463] / OTHER             |                                                                |
|              |                                                                         | 2 INPUT MENU              | A) INPUT ASSIGN      | IN (1) [COAXIAL]                                                                                                                                                                                                    | DVD                                                  | CD / MD/CD-R / [DVD] / DTV/CBL / V-AUX / DVR / TUNER (B model) |
|              |                                                                         |                           |                      | IN (2) [OPTICAL]                                                                                                                                                                                                    | DTV/CBL                                              | CD / MD/CD-R / DVD / [DTV/CBL] / V-AUX / DVR / TUNER (B model) |
|              |                                                                         |                           |                      | IN (3) [OPTICAL]                                                                                                                                                                                                    | CD                                                   | [CD] / MD/CD-R / DVD / DTV/CBL / V-AUX / DVR / TUNER (B model) |
|              |                                                                         |                           |                      | HDMI1                                                                                                                                                                                                               | DVD                                                  | [DVD] / DTV/CBL / V-AUX / DVR                                  |
|              |                                                                         |                           |                      | HDMI2                                                                                                                                                                                                               | DTV/CBL                                              | DVD / [DTV/CBL] / V-AUX / DVR                                  |
|              |                                                                         |                           | B) INPUT RENAME      | CD / MD/CD-R / DVD / DTV/CBL / V-AUX / DVR                                                                                                                                                                          |                                                      |                                                                |
|              |                                                                         |                           |                      | Input is possible to 8 characters / 9文字まで入力可能<br>Input possible Character type / 入力可能文字<br>Capital / 英大文字: A to Z    Small / 英小文字: a to z    Figure / 数字: 0 to 9<br>Space / 空白    Marks / 記号: # * + , - . / : < > ? |                                                      |                                                                |
|              |                                                                         |                           | C) VOLUME TRIM       | CD / MD/CD-R / TUNER / DVD / DTV/CBL / V-AUX / DVR / DOCK / USB (R, T, K, A, B, G, E, F, L models) / MULTI CH / XM (U, C models) / SIRIUS (U, C models)                                                             |                                                      |                                                                |
|              |                                                                         |                           |                      | -6.0 to +6.0 dB, [0.0 dB], 1.0 dB step                                                                                                                                                                              |                                                      |                                                                |
|              | D) DECODER MODE                                                         |                           | CD / DTV/CBL / V-AUX |                                                                                                                                                                                                                     | [AUTO] / LAST                                        |                                                                |
|              |                                                                         |                           |                      |                                                                                                                                                                                                                     | [AUTO] / DTS                                         |                                                                |
|              | E) MULTI CH SET                                                         |                           | BGV                  | LAST                                                                                                                                                                                                                | DVD / DTV/CBL / V-AUX / DVR / [LAST]                 |                                                                |
|              | 3 OPTION MENU                                                           |                           | A) DISPLAY SET       | DIMMER                                                                                                                                                                                                              | 0                                                    | -4 to 0, [0], 1 step                                           |
|              |                                                                         |                           |                      | FL SCROLL                                                                                                                                                                                                           | CONT                                                 | [CONT] / ONCE                                                  |
|              |                                                                         |                           |                      | OSD SHIFT                                                                                                                                                                                                           | 0                                                    | -5 (upward) to +5 (downward), [0], 1step                       |
|              |                                                                         |                           |                      | OSD-SOURCE                                                                                                                                                                                                          | 30s                                                  | ON / 10s / [30s]                                               |
|              |                                                                         | OSD-AMP                   |                      | 30s                                                                                                                                                                                                                 | ON / 10s / [30s]                                     |                                                                |
|              |                                                                         | B) MEMORY GUARD           | MEMORY GUARD         | OFF                                                                                                                                                                                                                 | [OFF] / ON                                           |                                                                |
|              |                                                                         | C) AUDIO SELECT           | >AUTO                | LAST                                                                                                                                                                                                                | [AUTO] / LAST                                        |                                                                |
|              |                                                                         | D) PARAM. INI             | [NO] / YES           |                                                                                                                                                                                                                     |                                                      |                                                                |
|              |                                                                         | E) BLUETOOTH SET          |                      |                                                                                                                                                                                                                     |                                                      |                                                                |
|              |                                                                         | (U, C models)             | F) XM RADIO SET      | XM ANT.                                                                                                                                                                                                             | NONE / 0 to 100 %                                    |                                                                |
|              | G) SIRIUS SET                                                           |                           | PARENTAL LOCK        |                                                                                                                                                                                                                     |                                                      |                                                                |
|              | (R, T, K, A, B, G, E, F, L models)                                      |                           | F) USB PLAY STYLE    | REPEAT    OFF                                                                                                                                                                                                       | [OFF] / SINGLE / ALL                                 |                                                                |
|              |                                                                         |                           |                      | SHUFFLE    OFF                                                                                                                                                                                                      | [OFF] / ON                                           |                                                                |
| SIGNAL INFO  | AUDIO                                                                   | FORMAT (Signal format)    |                      | Analog / --- / --- / --- / --- / --- / ---                                                                                                                                                                          |                                                      |                                                                |
|              |                                                                         | SAMPLING                  |                      |                                                                                                                                                                                                                     |                                                      |                                                                |
|              |                                                                         | CHANNEL                   |                      |                                                                                                                                                                                                                     |                                                      |                                                                |
|              |                                                                         | BITRATE                   |                      | 3/2/0.1 (front/surround/LFE)                                                                                                                                                                                        |                                                      |                                                                |
|              |                                                                         | FLAG                      |                      | DTS, Dolby Digital, or PC                                                                                                                                                                                           |                                                      |                                                                |
|              | VIDEO                                                                   | HDMI SIGNAL               |                      | (HDMI-> DVI)                                                                                                                                                                                                        |                                                      |                                                                |
|              |                                                                         | HDMI RES.                 |                      | (1080p-> 1080p)                                                                                                                                                                                                     |                                                      |                                                                |
|              |                                                                         | HDMI ERROR (HDMI MESSAGE) |                      | DEVICE OVER / HDCP ERROR / OUT OF RES.                                                                                                                                                                              |                                                      |                                                                |

## INTERNAL VIEW

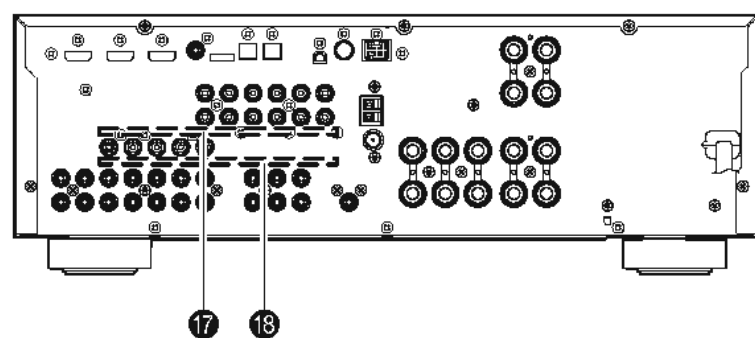
### • Top view



### • Front view



### • Rear view



- ① VIDEO (3) P.C.B.
- ② VIDEO (5) P.C.B. (R, L models)
- ③ MAIN (1) P.C.B.
- ④ VIDEO (4) P.C.B.
- ⑤ Tuner
- ⑥ DSP P.C.B.
- ⑦ OPERATION (8) P.C.B.
- ⑧ OPERATION (2) P.C.B.
- ⑨ MAIN (2) P.C.B.
- ⑩ OPERATION (9) P.C.B.
- ⑪ Power Transformer
- ⑫ OPERATION (3) P.C.B.
- ⑬ OPERATION (7) P.C.B.
- ⑭ OPERATION (1) P.C.B.
- ⑮ OPERATION (5) P.C.B. (U, C, J models)
- ⑯ OPERATION (4) P.C.B. (R, T, K, A, B, G, E, F, L models)
- ⑰ OPERATION (6) P.C.B. (R, T, K, A, B, G, E, F, L models)
- ⑱ VIDEO (2) P.C.B.
- ⑲ VIDEO (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 5 screws (①), 4 screws (②) and 1 screw (③). (Fig. 1)
- b. Slide the top cover rearward to remove it. (Fig. 1)

### 1. トップカバーの外し方

- a. ①のネジ5本、②のネジ4本、③のネジ1本を外します。(Fig. 1)
- b. トップカバーを後方へスライドさせ、取り外します。(Fig. 1)

### 2. Removal of Front Panel Unit

- a. Remove 6 screws (④). (Fig. 1)
- b. Remove CB71 (R, T, K, A, B, G, E, F, L models), CB83, CB601, CB602, CB608 and CB703. (Fig. 1)
- c. Release hook and then remove the front panel unit. (Fig. 1)

### 2. フロントパネルユニットの外し方

- a. ④のネジ6本を外します。(Fig. 1)
- b. CB83、CB601、CB602、CB608、CB703を外します。(Fig. 1)
- c. フック1ヶ所を外し、フロントパネルユニットを取り外します。(Fig. 1)

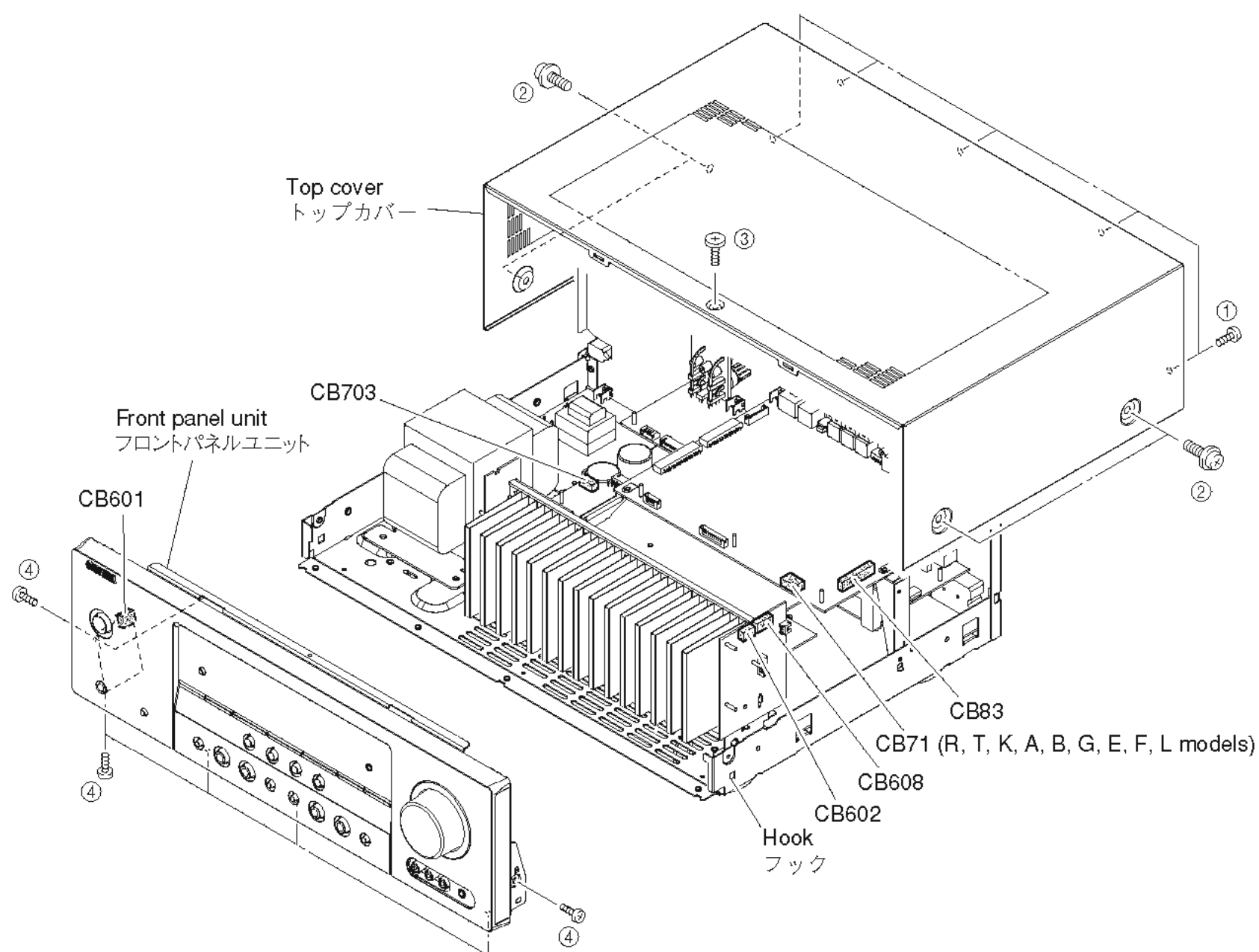


Fig. 1

3. Removal of DSP P.C.B.

Note: U, C, T, K, G, E, F models

After replacement of DSP P.C.B. or writing of the firmware, make sure to activate the self-diagnostic function and change the "M6 Model ID" setting to the same model name as this unit (RX-V463 or HTR-6140).

- a. Remove 2 screws (⑤). (Fig. 2)
- b. Remove 11 screws (⑥). (Fig. 3)
- c. Remove CB21, CB22, CB31, CB32, CB81, CB82 and CB84. (Fig. 2)
- d. Remove DSP P.C.B. (Fig. 2)

3. DSP P.C.B.の外し方

- a. ⑤のネジ2本を外します。(Fig. 2)
- b. ⑥のネジ10本を外します。(Fig. 3)
- c. CB21、CB22、CB31、CB32、CB81、CB82、CB84を外します。(Fig. 2)
- d. DSP P.C.B.を取り外します。(Fig. 2)

4. Removal of VIDEO (1) and (2) P.C.B.s

- a. Remove 7 screws (⑦). (Fig. 3)
- b. Remove CB301 and CB609. (Fig. 2)
- c. Remove VIDEO (1) and (2) P.C.B.s. (Fig. 2)

4. VIDEO (1), (2) P.C.B.の外し方

- a. ⑦のネジ5本を外します。(Fig. 3)
- b. CB301、CB609を外します。(Fig. 2)
- c. VIDEO (1), (2) P.C.B.を取り外します。(Fig. 2)

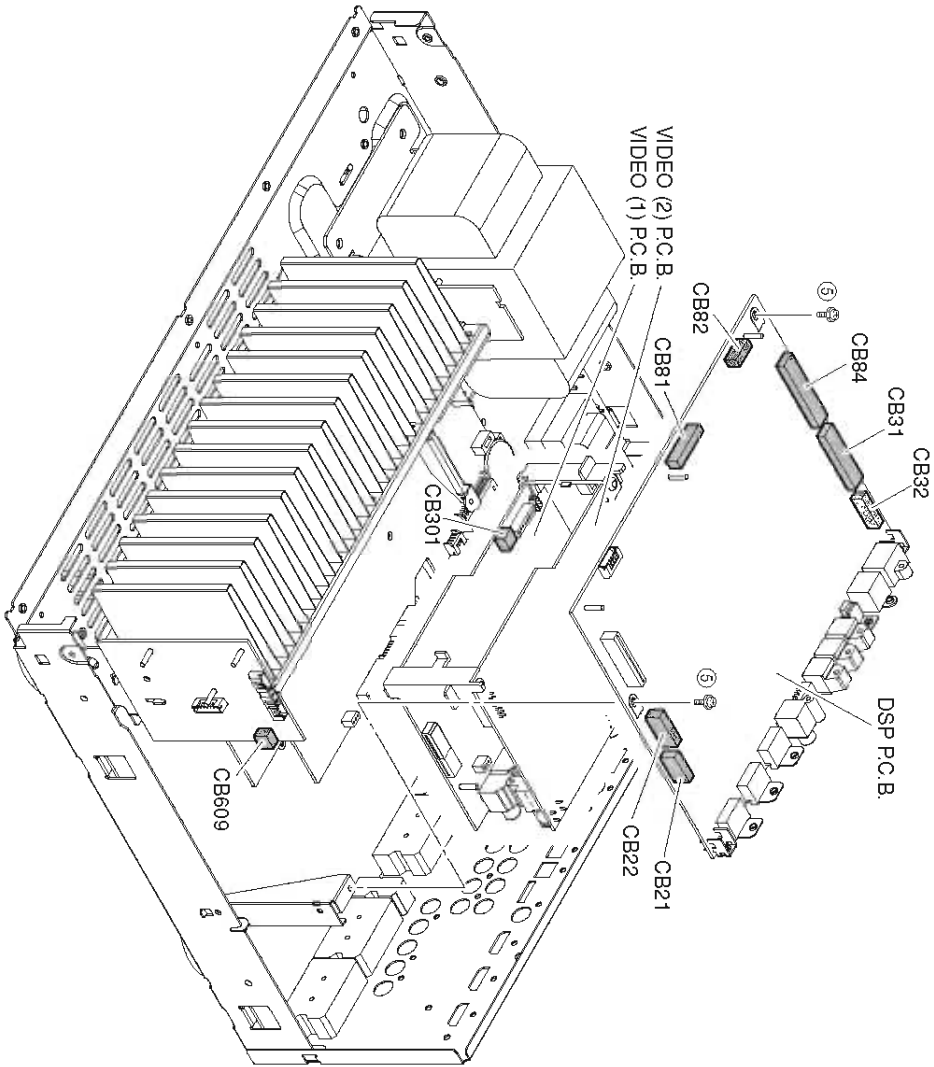


Fig. 2

U, C, R, T, K, A, B, G, F, L models

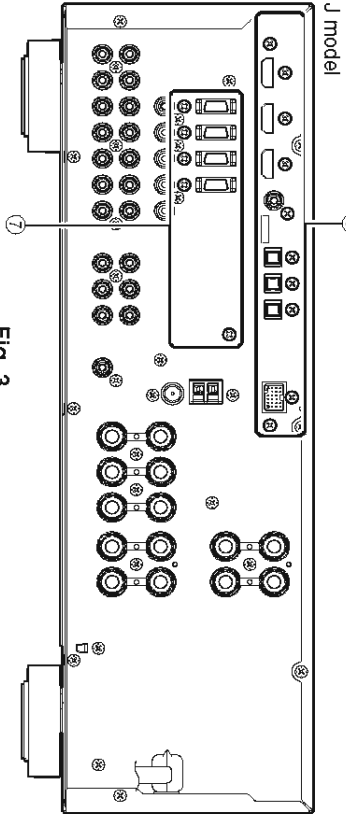
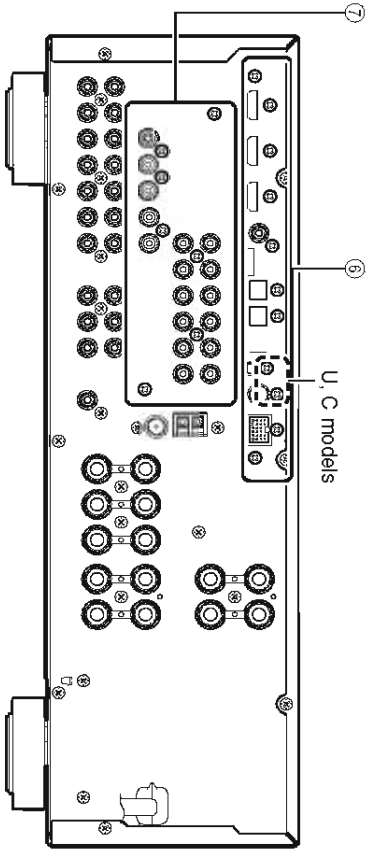


Fig. 3

5. Removal of VIDEO (4) P.C.B.

- a. Remove 2 screws (⑧). (Fig. 4)
- b. Remove CB351 and CB353. (Fig. 4)
- g. Remove VIDEO (4) P.C.B. (Fig. 4)

5. VIDEO (4) P.C.B.の外し方

- a. ⑧のネジ2本を外します。(Fig. 4)
- b. CB351、CB353を外します。(Fig. 4)
- c. VIDEO (4) P.C.B.を取り外します。(Fig. 4)

6. Removal of FM/AM Tuner

- a. Remove 2 screws (⑨). (Fig. 4)
- b. Remove CB403. (Fig. 4)
- c. Remove FM/AM tuner. (Fig. 4)

6. FM/AMチューナーの外し方

- a. ⑨のネジ2本を外します。(Fig. 4)
- b. CB403を外します。(Fig. 4)
- c. FM/AMチューナーを取り外します。(Fig. 4)

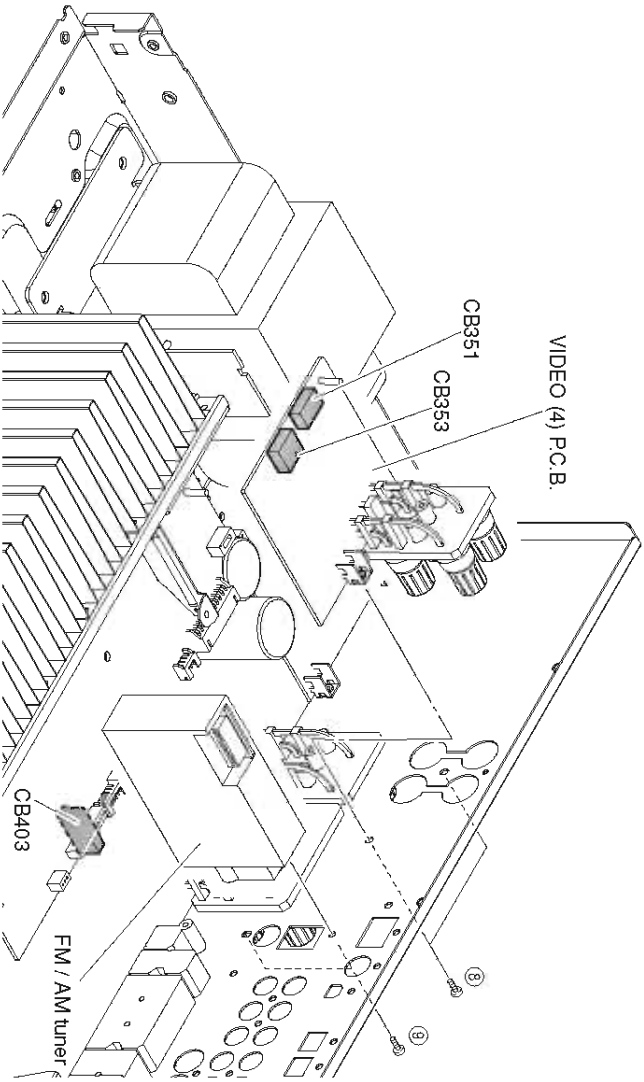


Fig. 4

When checking the P.C.B.:

- a. Remove the top cover. (Fig. 1)
- b. Remove DSP P.C.B.. (Fig. 2)
- c. Remove 6 screws (10). (Fig. 5)
- d. Remove 2 screws (11). (Fig. 5)
- e. Remove 3 screws (12). (Fig. 6)
- f. Remove 2 screws (13). (Fig. 5)
- g. Remove 4 screws (14). (Fig. 5)
- h. Place the P.C.B. upright. (Fig. 7)
- i. The P.C.B. removed from the chassis does not work because its grounding is loose.

Be sure to connect the ground of rear panel and MAIN (1) P.C.B. (G5004, G5005, G5006 and G3401) and DSP P.C.B. (G801 and G802) to the chassis with a ground lead or the like. (Fig. 7)

P.C.B.チェックをする場合には:

- a. トップカバーを取り外します。 (Fig. 1)
- b. DSP P.C.B.を取り外します。 (Fig. 2)
- c. ⑩のネジ6本を外します。 (Fig. 5)
- d. ⑪のネジ2本を外します。 (Fig. 5)
- e. ⑫のネジ3本を外します。 (Fig. 6)
- f. ⑬のネジ2本を外します。 (Fig. 5)
- g. ⑭のネジ4本を外します。 (Fig. 5)
- h. P.C.B.を立ち上げて置きます。 (Fig. 7)
- i. シヤージから外したP.C.B.はアースが浮いて動作しませんので、リッパネルおよびMAIN(1)P.C.B.のG5004、G5005、G5006、G3401とDSP P.C.B.のG801、G802のアースをリード線等でシヤージに接続してください。 (Fig. 7)

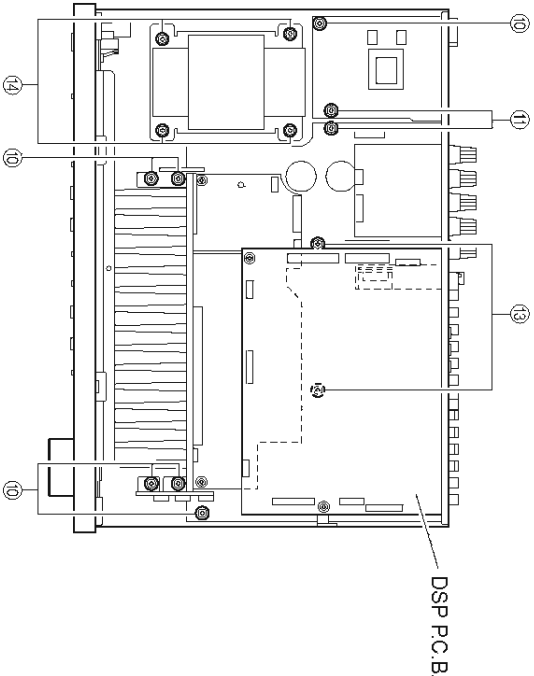


Fig. 5

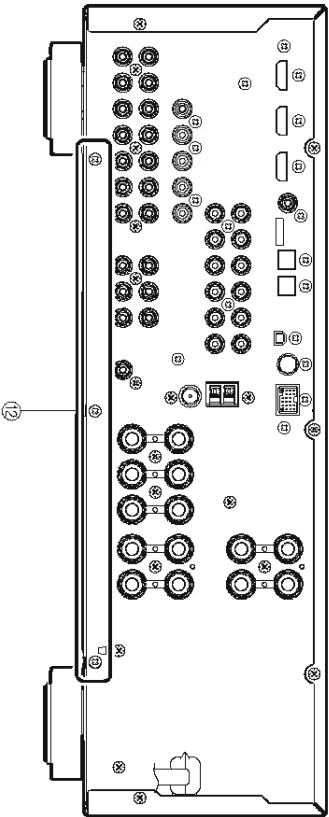


Fig. 6

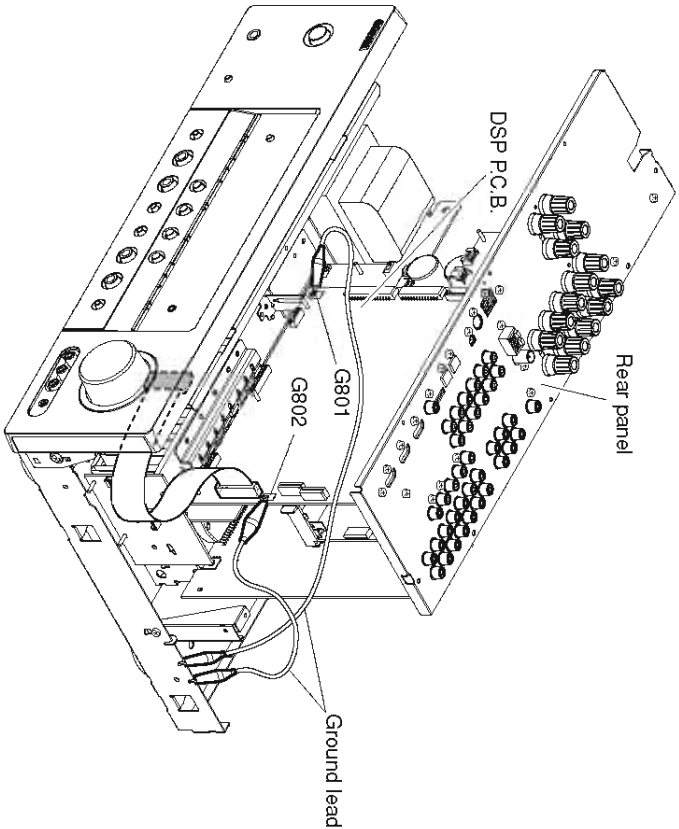
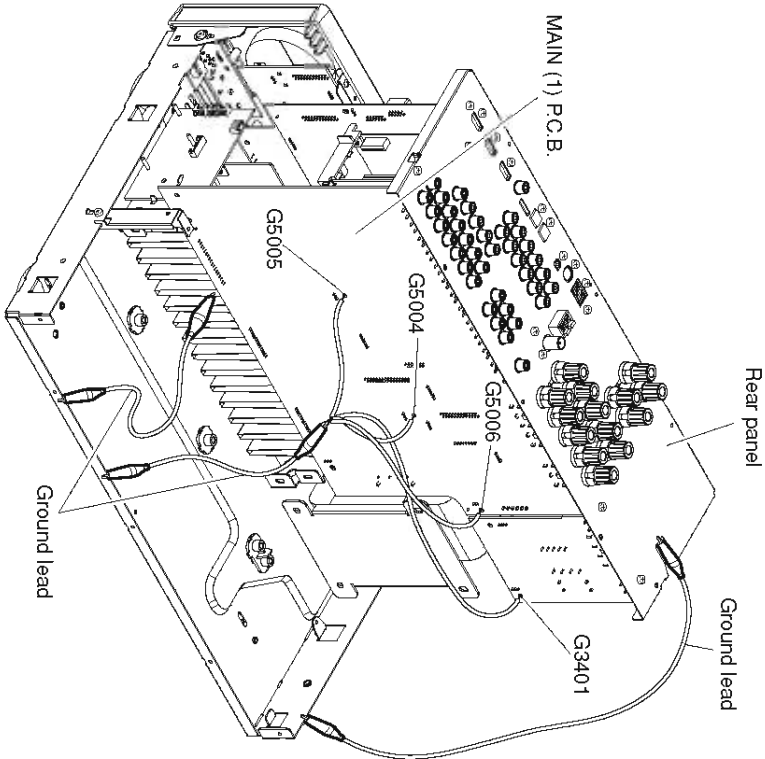


Fig. 7

## ■ UPDATING FIRMWARE / ファームウェアの書き込み

**Note:** U, C, T, K, G, E, F models

After replacement of DSP P.C.B. or writing of the firmware, make sure to activate the self-diagnostic function and change the "M6 Model ID" setting to the same model name as this unit (RX-V463 or HTR-6140).

After replacing the following parts, be sure to write the latest firmware.

- P.C.B. ass'y DSP P.C.B.
- IC52 FLASH ROM of DSP P.C.B.

下記の部品をサービス部品に交換した場合、最新のファームウェアの書き込みを行ってください。

- P.C.B. ASSY : DSP
- DSP P.C.B. : IC52 FLASH ROM

### ● Required Tools

- DVD or CD player (with DIGITAL OUTPUT (OPTICAL or COAXIAL) jack)
- Optical cable (when OPTICAL jack is used)
- Digital audio pin cable (when COAXIAL jack is used)
- Firmware CD
- \* To make the firmware CD, download the latest firmware from the specified download source to PC.

### ● 必要なツール

- DVDまたはCDプレーヤー (DIGITAL OUTPUT (OPTICALまたはCOAXIAL) 端子付き)
- 光ファイバーケーブル (OPTICAL端子使用時)
- デジタル音声ピンケーブル (COAXIAL端子使用時)
- ファームウェアCD
- ※ ファームウェアCDは、PCへ最新のファームウェアを指定のダウンロード先からダウンロードして制作してください。

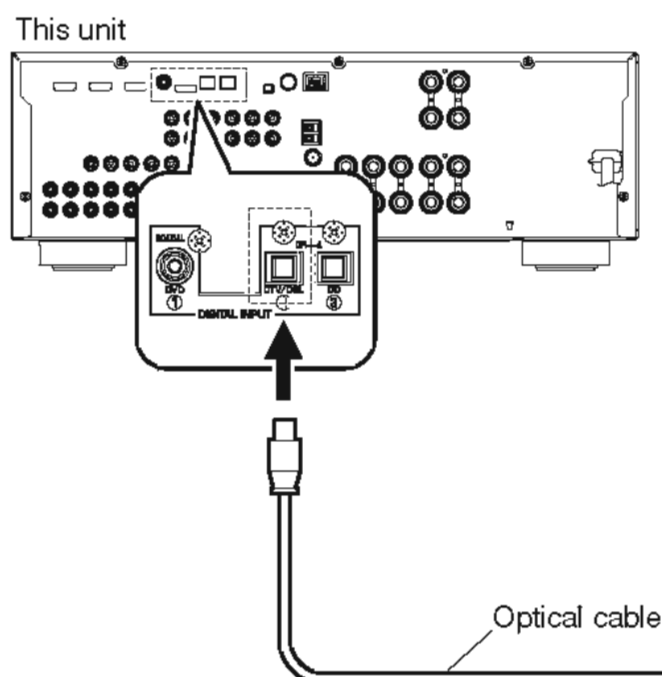
### ● Operation Procedures

1. Connect this unit and DVD/CD player as shown below. (Fig. 1)

### ● 操作手順

1. 本機とDVD/CDプレーヤーを下記のように接続します。(Fig. 1)

#### Example of connection between digital OPTICAL jacks



#### Example of connection between digital COAXIAL jacks

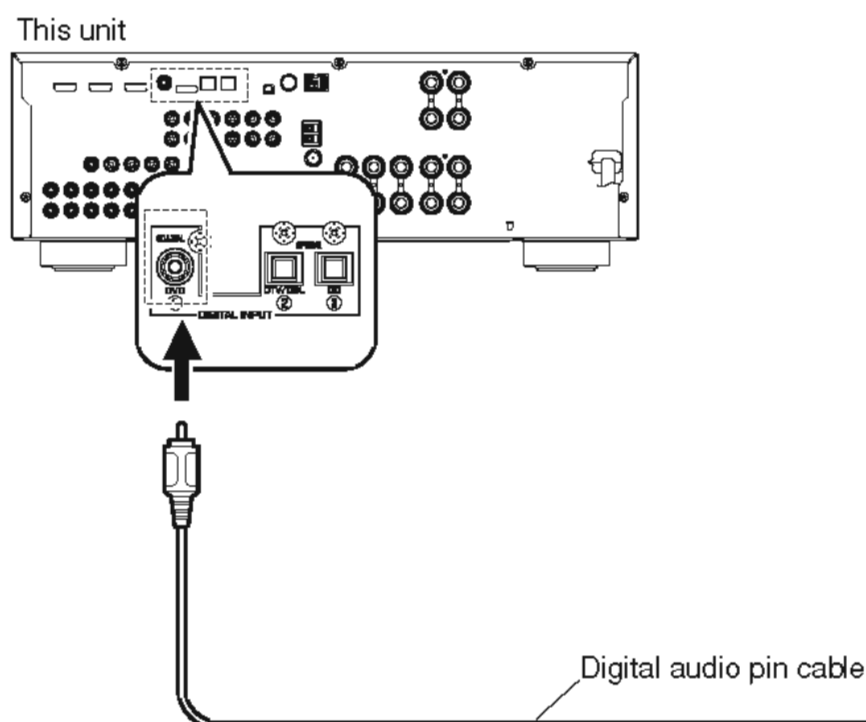


Fig. 1

2. While simultaneously pressing the “STANDBY/ON” and “SPEAKERS A/B/OFF” keys of this unit, connect the power cable of this unit to the AC outlet. (Fig. 2)  
The FIRMWARE UPDATE mode is activated and “SPDIF Upgrade” is displayed. (Fig. 2)

2. 本機の“STANDBY/ON”キーと“SPEAKERS A/B/OFF”キーを同時に押しながら、本機の電源コードをACコンセントに接続します。(Fig. 2)  
FIRMWARE UPDATEモードが起動し、“SPDIF Upgrade”が表示されます。(Fig. 2)

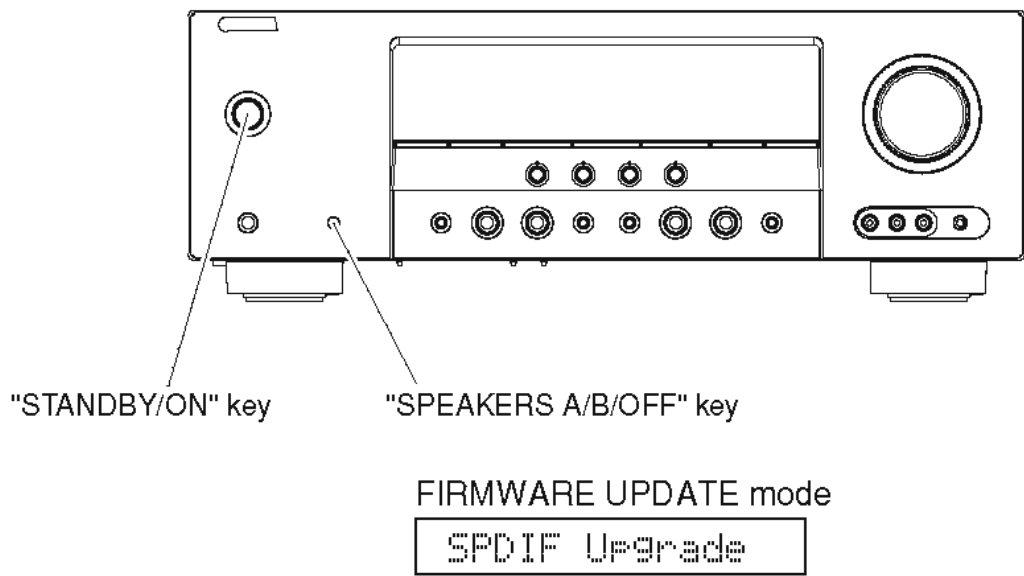


Fig. 2

3. Connect the power cable of DVD/CD player to the AC outlet.  
4. Press the “STANDBY/ON” key of the DVD/CD player.  
5. Press the “EJECT” key of the DVD/CD player to open the disc tray.  
6. Place the firmware CD in the disc tray and close the disc tray.  
7. Press the “PLAY” key of the DVD/CD player. Then writing of the firmware is started. (Fig. 3)  
8. When writing of the firmware is completed, “Upgrade OK”, “Please...” and “Turn off!!” are displayed repeatedly. (Fig. 3)

3. DVD/CDプレーヤーの電源コードをACコンセントに接続します。  
4. DVD/CDプレーヤーの“STANDBY/ON”キーを押します。  
5. DVD/CDプレーヤーの“EJECT”キーを押し、トレイを開きます。  
6. ファームウェアCDをトレイに載せ、トレイを閉じます。  
7. DVD/CDプレーヤーの“PLAY”キーを押します。ファームウェアの書き込みが開始されます。(Fig. 3)  
8. ファームウェアの書き込み完了後、“Upgrade OK”、“Please...”、“Turn off!!”が繰り返し表示されます。(Fig. 3)

Writing is started. / 書き込み開始

Address:XXXXXX

XXXXXX: Address information of the received data /  
受信データのアドレス情報

Writing is completed. / 書き込み完了

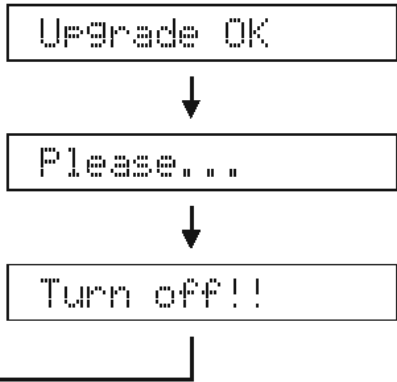


Fig. 3

- \* When the version of the firmware to be written is the same as the one existing in this unit, "Same Version", "Please..." and "Turn off!!" are displayed repeatedly. (Upgrading is not necessary.)

If the display remains unchanged for more than 10 seconds after starting the firmware CD play procedure, perform the firmware CD play procedure again from the beginning.

If "FILE CORRUPTED" is displayed after "Address:XXXXXX", make sure that the firmware CD is not corrupted and perform steps 1 to 8 of "Operation Procedures" again.

If "Upgrade Failed" is displayed, perform Steps 1 to 8 of "Operation Procedures" again.

9. Press the "STOP" key of the DVD/CD player.
10. Press the "EJECT" key of the DVD/CD player to open the disc tray.
11. Remove the firmware CD from the disc tray and close the disc tray.
12. Turn off the power of the DVD/CD player and disconnect the power cable from the AC outlet.
13. Turn off the power by pressing the "STANDBY/ON" key of this unit.

### ● Initializing of this unit

- \* After updating the firmware, be sure to initialize this unit.
1. Connect the power cable of this unit to the AC outlet.
  2. Press the "STANDBY/ON" key while simultaneously pressing the "STRAIGHT" and "AUDIO SELECT" keys. (Fig. 4)
- The self-diagnostic function is activated.

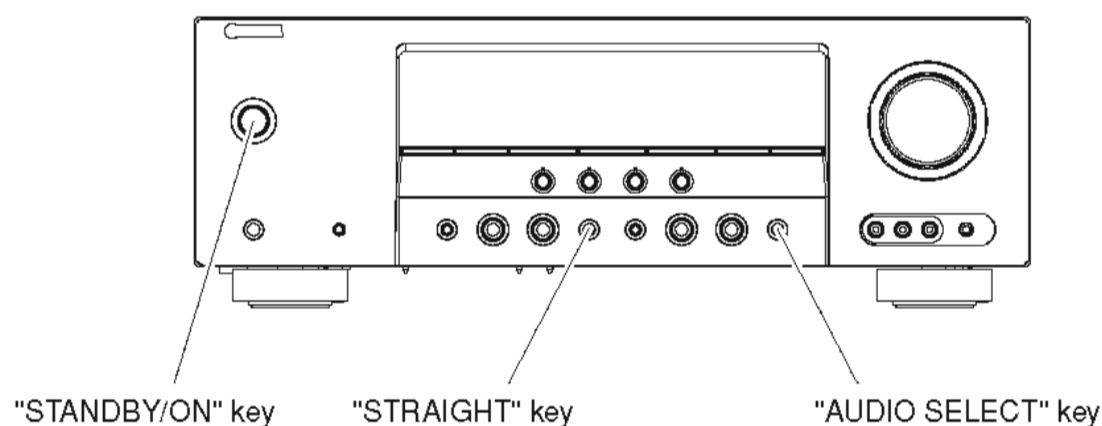


Fig. 4

3. Select the main menu "R. FACTORY PRESET".
4. Select the "R2. PRESET RSRV".

PRESET INHIBIT (Initialization inhibited)

R1.PRESET INHI



PRESET RESERVED (Initialization reserved)

R2.PRESET RSRV

5. Turn off the power of this unit and disconnect the power cable from the AC outlet.

- ※ 本機に既存のファームウェアと、書き込もうとしているファームウェアのバージョンが同じ場合、"Same Version"、"Please..."、"Turn off!!"の表示が繰り返されます。(バージョンアップの必要はありません。)

ファームウェアCDの再生開始後、10秒以上経過してもディスプレイ表示が変わらない場合、ファームウェアCDの再生を最初からやり直してください。

"Address:XXXXXX"の後に、"FILE CORRUPTED"が表示された場合、書き込みデータが破損していないかを確認し、"操作方法"の1から8までをもう一度やり直してください。

"Upgrade Failed"が表示された場合、"操作方法"の1から8までをもう一度やり直してください。

9. DVD/CDプレーヤーの"STOP"キーを押します。
10. DVD/CDプレーヤーの"EJECT"キーを押し、トレイを開きます。
11. ファームウェアCDをトレイから外し、トレイを閉じます。
12. DVD/CDプレーヤーの電源を切り、電源コードをACコンセントから抜きます。
13. 本機の"STANDBY/ON"キーを押して電源を切ります。

### ● 本機の初期化

- ※ ファームウェアのアップデート後は、必ず本機を初期化してください。
1. 本機の電源コードをACコンセントに接続します。
  2. "STRAIGHT"キーと"AUDIO SELECT"キーを押しながら、"STANDBY/ON"キーを押し、ダイアグを起動します。(Fig. 4)

3. ダイアグ"R. FACTORY PRESET"を選択します。
4. "R2. PRESET RSRV"を選択します。

5. 本機の電源を切り、電源コードをACコンセントから抜きます。

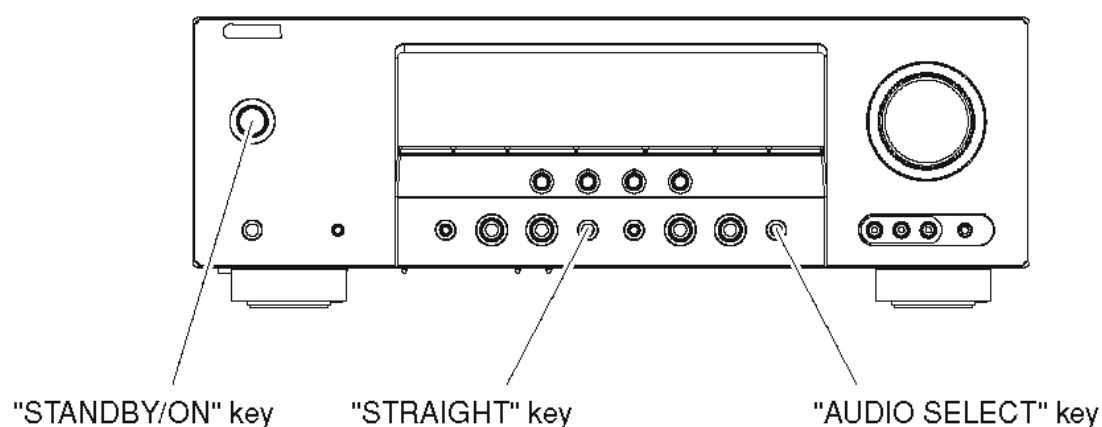
## ● Confirmation of firmware version and checksum

To confirm that the firmware is updated successfully, check the firmware version and checksum value by using the self-diagnostic function menu "S. ROM VER/SUM".

For more information, refer to "SELF-DIAGNOSTIC FUNCTION".

\* When the displayed firmware version and checksum are different from written firmware version and checksum, follow the steps from 1 to 13 of "Operation Procedures" again.

1. Reconnect the power cable of this unit to the AC outlet.
2. Press the "STANDBY/ON" key while simultaneously pressing the "STRAIGHT" and "AUDIO SELECT" keys. (Fig. 5)  
Then the self-diagnostic function is activated.
3. Select the self-diagnostic function menu "S1. Version".  
Confirm the displayed firmware version is the same as the written firmware version. (Fig. 5)



Example / 例 :

S1. VER. E048

Fig. 5

4. Select the self-diagnostic function menu "S2. All checksum".  
Confirm the displayed checksum is the same as the written firmware checksum. (Fig. 6)  
(The checksum value is found where downloading is specified to.)

Example / 例 :

S2. A. SUM: EDA1

Fig. 6

5. Select the self-diagnostic function menu "S3. Program checksum".  
Confirm the displayed checksum is the same as the written firmware checksum. (Fig. 7)  
(The checksum value is found where downloading is specified to.)

Example / 例 :

S3. P. SUM: FE77

Fig. 7

## ● ファームウェアバージョンおよびチェックサムの確認

ダイアグメニューでファームウェアのバージョンおよびチェックサムが正しく更新されたことを確認します。

ダイアグメニューの詳細は「ダイアグ(自己診断機能)」を参照してください。

※ 表示されたファームウェアのバージョンおよびチェックサムが、書き込んだファームウェアのバージョンおよびチェックサムと異なる場合、「操作方法」の1から13までをもう一度やり直してください。

1. 本機の電源コードをACコンセントに接続します。
2. "STRAIGHT"キーと"AUDIO SELECT"キーを押しながら、"STANDBY/ON"キーを押し、ダイアグを起動します。(Fig. 5)
3. ダイアグ"S1. Version"を選択します。  
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同じであることを確認します。(Fig. 5)

4. ダイアグ"S2. All checksum"を選択します。  
表示されたチェックサムが書き込んだファームウェアのチェックサムと同じであることを確認します。(Fig. 6)  
(チェックサム値は指定ダウンロード先に記載されています。)

5. ダイアグ"S3. Program checksum"を選択します。  
表示されたチェックサムが書き込んだファームウェアのチェックサムと同じであることを確認します。(Fig. 7)  
(チェックサム値は指定ダウンロード先に記載されています。)

6. Turn off the power of this unit and disconnect the power cable from the AC outlet.

\* When the displayed firmware version and checksum are different from written firmware version and checksum, follow the steps from 1 to 13 of "Operation Procedures" again.

● Confirmation of model name  
(U, C, T, K, G, E, F models)

After replacement of DSP P.C.B. or writing of the firmware, make sure to activate the self-diagnostic function and change the "M6 Model ID" setting to the same model name as this unit (RX-V463 or HTR-6140).

1. Connect the power cable of this unit to the AC outlet.
2. Press the "STANDBY/ON" key while simultaneously pressing the "STRAIGHT" and "AUDIO SELECT" keys. (Fig. 8)
3. The self-diagnostic function is activated.  
Select the self-diagnostic function menu "M6. Model ID".

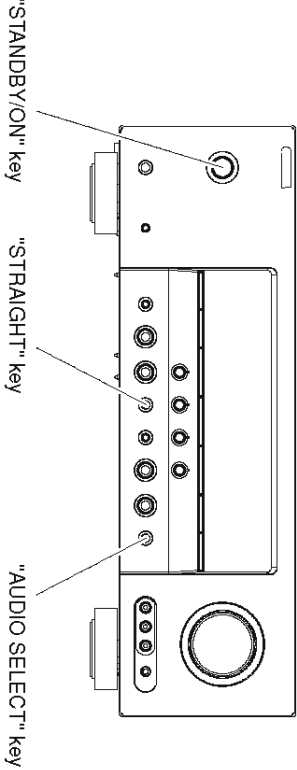


Fig. 8

6. 本機の電源を切り、電源コードをACコンセントから抜きます。

※ 表示されたファームウェアのバージョンおよびチェックサムが、書き込んだファームウェアのバージョンおよびチェックサムと異なる場合、“操作手順”の1から13までをもう一度やり直してください。

● モデル名の確認

このモデルには適用されません。

4. Press "PRESET/TUNING<" or "PRESET/TUNING>" key and select the model name.

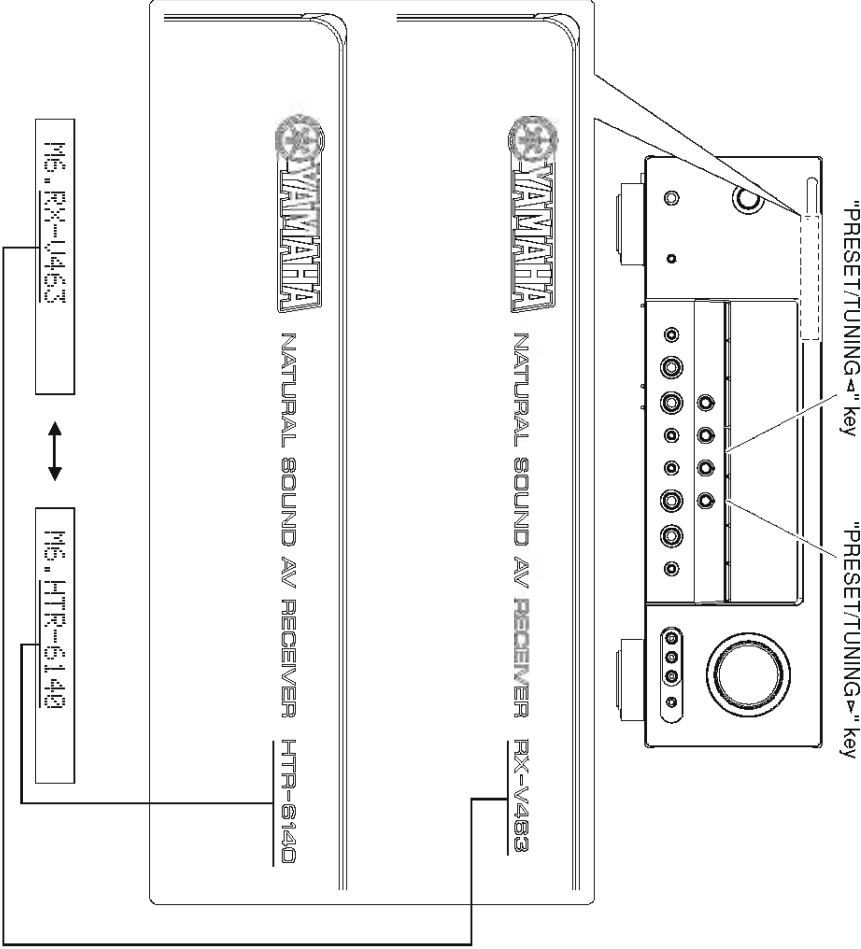


Fig. 9

5. Turn off the power of this unit and disconnect the power cable from the AC outlet.

■ SELF-DIAGNOSTIC FUNCTION / ダイアグ (自己診断機能)

This unit has self diagnosis functions that are intended for inspection, measurement and location of faulty point.  
There are 19 main menu items, each of which has sub-menu items.

Listed in the table below are menu items and sub-menu items.

Note that not all menu items listed will apply to the models covered in this service manual.

本機には、検査、測定、不良個所の発見を目的にしたダイアグ(自己診断機能)があります。  
ダイアグメニューは24個あり、それぞれにサブメニューがあります。  
下表はダイアグメニュー一覧です。  
下表の全ダイアグメニュー項目が、このサービスマニュアル記載のモデルに適用されるとは限りません。

| No. | Main menu                                 | Sub-menu                                                                                                                                                                                                                          |
|-----|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A   | BYPASS                                    | 1 ANLOG BYPAS<br>2 DSP BYPASS                                                                                                                                                                                                     |
| B   | AUDIO CHECK                               | 1 AUDIO CHECK<br>2 ANALOG AUDIO PLAYBACK<br>3 MUTE ALL<br>4 MUTE SYS IC<br>5 MUTE TR                                                                                                                                              |
| C   | SPEAKERS SET                              | 1 FRNT : SML0dB<br>2 CENTER : NONE<br>3 LFE/B : FRNT<br>4 TONE : MAX<br>5 TONE : MIN                                                                                                                                              |
| D   | XCH-INPUT                                 | 1 6chINPUT 6Ω<br>2 8chINPUT 6Ω<br>3 8chINPUT 8Ω<br>4 8chINPUT 8Ω<br>5 LIM : PLDET : THM (ex. D5, 255* 255* 64)                                                                                                                    |
| E   | MIC CHECK                                 | 1 MIC CHECK                                                                                                                                                                                                                       |
| F   | FL CHECK                                  | 1 VFD CHECK<br>2 VFD DISP OFF<br>3 VFD DISP ALL<br>4 VFD DIMMER<br>5 CHECK PATTERN                                                                                                                                                |
| G   | TEST TONE                                 | 1 TEST ALL<br>2 TEST FRNT L<br>3 TEST CENTER<br>4 TEST FRNT R<br>5 TEST SURR L<br>6 TEST SURR L<br>7 TEST LFE                                                                                                                     |
| H   | XM STATUS<br>(U, C models)                | 1 1k - 1dB/44<br>2 1k -61dB/44<br>3 MUTE /44<br>4 XM TONE/44<br>5 ISO TONE/44<br>6 1k - 1dB/32<br>7 1k -61dB/32<br>8 MUTE /32<br>9 XM TONE/32<br>10 ISOTONE/32<br>11 BUSPWR (BUS power) : OFF                                     |
| I   | iPod                                      | 1 DOCK : xx xxx<br>2 DOCK IGNORE<br>3 Bluetooth version<br>4 Clear Bluetooth pairing info.                                                                                                                                        |
| J   | USB<br>(R, T, K, A, B, G, E, F, L models) | 1 USBFile1/xx<br>2 USBFile2/xx<br>3 High Speed TEST PACKET mode<br>4 High Speed TEST SEO NAK mode                                                                                                                                 |
| K   | SIRIUS<br>(U, C models)                   | 1 SIRIUS connection check<br>2 SIRIUS antenna status<br>3 SIRIUS loop back test<br>4 SSP : (SIRIUS #0 version)<br>5 MAC : (SIRIUS #1 version)<br>6 ADP : (SIRIUS #2 version)<br>7 PRDID : (Product ID)<br>8 SECID : (Sequence ID) |

| No. | Main menu                                                               | Sub-menu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| L   | VIDEO CONVERSION<br>(Not applied to these models.)<br>(このモデルには適用されません。) | 1 V-IN (Video info.)<br>2 V-CONV S-V (Conversion S-video)<br>3 V-CONV CVBS (Conversion CVBS)<br>4 V-CONV OFF (Conversion OFF)<br>5 V-TestPtn (Video test pattern)                                                                                                                                                                                                                                                                                                                                                                                                                 |
| M   | HDMI Check                                                              | 1 HDMI SPDIF (SPDIF audio playback)<br>2 HDMI NONE<br>3 HDMI IN1<br>4 HDMI IN2<br>5 I2C : xx xxx (I2C access check)<br>6 Model ID for EDID setting                                                                                                                                                                                                                                                                                                                                                                                                                                |
| N   | AD DATA CHECK                                                           | 1 PD : xxx DI : xxx (ex. N1PD: 45D1: 0)<br>2 V1 : xxx V2 : xxx (ex. N2V1: 94U2:120)<br>3 TH : xxx PL : xxx (ex. N3TH: 64PL:255)<br>4 PI : xxx DE : xxx (ex. H4PI: 0DE: 0)<br>5 KO : xxx K1 : xxx (ex. H5K0: 254K1:254)                                                                                                                                                                                                                                                                                                                                                            |
| O   | PROTECTION                                                              | 1 PHD : xxx/xxx (ex. 02, PHD: 23/ 70)<br>2 PV1 : xxx/xxx (ex. 03, PV2:104/181)<br>3 PV2 : xxx/xxx (ex. 04, TH4: 0/131)<br>4 TH4 : xxx/xxx (ex. 05, L66: 0/ 0)<br>5 L66 : xxx/xxx (PLDET 6ch 6ohms : xxx/xxx) (ex. 06, L86: 0/ 0)<br>6 L86 : xxx/xxx (PLDET 8ch 6ohms : xxx/xxx) (ex. 07, L68: 0/ 0)<br>7 L68 : xxx/xxx (PLDET 6ch 8ohms : xxx/xxx) (ex. 08, L88: 0/ 0)<br>8 L88 : xxx/xxx (PLDET 8ch 8ohms : xxx/xxx) (ex. 09, PRI: 0/100)<br>9 PRI : xxx/xxx (PRI : xxx/xxx) (ex. 010PDE: 0/255)<br>10 PDE : xxx/xxx (PDET : xxx/xxx) (ex. PRU:xxx) (ex. TH4: xxx) (ex. PRI:xxx) |
| P   | PROTECTION HIST.                                                        | 1 History 1 (ex. PRU:xxx)<br>2 History 2 (ex. TH4: xxx)<br>3 History 3 (ex. PRI:xxx)<br>4 History 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Q   | RESERVED                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| R   | FACTORY PRESET                                                          | 1 PRESET INHI<br>2 PRESET RSRV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| S   | ROM VER/SUM                                                             | 1 Microprocessor version<br>2 All checksum<br>3 Program checksum<br>4 SPI checksum<br>5 SPD checksum<br>6 XM version (U, C models)<br>7 SIRIUS version (U, C models)<br>8 FlashROM read/write check test<br>9 SDRAM read/write check test<br>10 EEPROM read/write check test                                                                                                                                                                                                                                                                                                      |

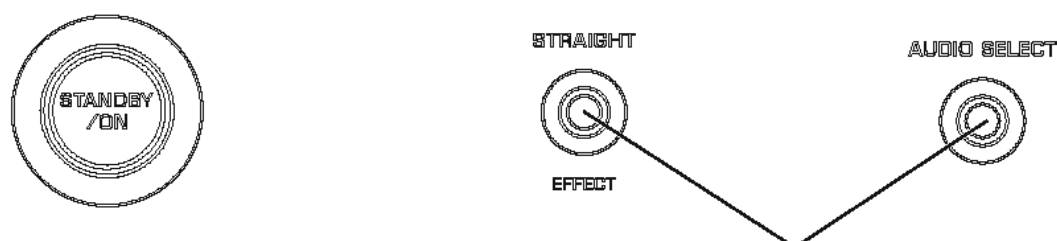
## ● Starting Self-diagnostic Function

Press the "STANDBY/ON" key while simultaneously pressing those two keys of this unit as indicated in the figure below.

## ● ダイアグの起動

本機の下図に示すキーを同時に押しながら"STANDBY/ON"キーを押すと、ダイアグが起動します。

Keys of this unit / 本機キー



Turn on the power while pressing these keys. /  
これらのキーを同時に押しながら、電源オンする。

## ● Starting Self-diagnostic Function in the protection cancel mode

If the protection function works and causes hindrance to trouble diagnosis, cancel the protection function as described below, and it will be possible to enter the self-diagnostic function mode. (The protection functions other than the excess current detect function will be disabled.)

Press the "STANDBY/ON" key while simultaneously pressing those two keys indicated in the figure above. At this time, keep pressing those two keys for 3 seconds or longer.

In this mode, the [SLEEP] segment of the FL display of this unit flashes to indicate that the mode is self-diagnostic function mode with the protection functions disabled.

## ● プロテクション解除モードでの起動

プロテクションが動作することにより、故障箇所の診断に支障をきたすような場合は、次の方法によりプロテクションを解除した状態でダイアグモードに入ることができます。(過電流検出以外のプロテクション動作を解除する)

上図のキーを同時に押しながら"STANDBY/ON"キーを押します。このとき、上図のキーを3秒以上押し続けてください。

このモードでは本機FLの「SLEEP」セグメントが点滅し、プロテクションを解除した状態でのダイアグモードであることを知らせます。

### CAUTION!

Using this product with the protection function disabled may cause damage to this unit. Use special care for this point when using this mode.

### 注意!

プロテクション解除モードでの起動は、危険な状態でもプロテクションが作動しないため、動作させると本機を破壊することがあります。  
このモードを使用する場合は十分注意してください。

## ● Canceling Self-diagnostic Function

1. Before canceling self-diagnostic function, execute setting for FACTORY PRESET of main menu No.R (Memory initialization inhibited or Memory initialized).

\* In order to keep the user memory stored, be sure to select PRESET INHIBITED (Memory initialization inhibited).

2. Turn off the power by pressing the "STANDBY/ON" key of this unit.

## ● ダイアグの解除

1. ダイアグを解除する前に、ダイアグメニューNo. 23 FACTORY PRESET (メモリーの初期化禁止/またはメモリーの初期化)の設定をします。

※ ユーザーメモリーを保持したい場合は、必ず PRESET INHIBITED (メモリー初期化禁止)を選択してください。

2. 本機の"STANDBY/ON"キーを押し、電源オフします。

● **Display provided when Self-diagnostic Function started**

On the FL display of this unit, an opening message (including the protection history) appears for a few seconds followed by the self-diagnostic function menu display (A1. ANALOG BYPASS).

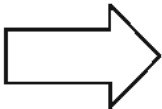
**When there is no history of protection function:**

Opening message / オープニング表示

When there is no protection history  
プロテクション履歴が無い場合

NO PROTECTION

After a few seconds / 数秒後



Main menu display / メインメニュー表示

A1. ANALOG BYPASS

**When there is a history of protection function:**

**When there is a history of protection function due to excess current**

**プロテクション履歴がある場合：**

過電流によるプロテクション履歴がある場合

PRI PRT:xxx

AD value when the protection function is working /  
プロテクション動作時のA/D値

**Cause:** An excessive current flowed through the power amplifier.

**Supplementary information:**

As current of the power amplifier is detected, the abnormal channel can be identified by checking the current detect transistor. Turning on the power without correcting the abnormality will cause the protection function to work immediately and the power supply will instantly be shut off.

**原因：** パワーアンプに過電流が流れた。  
**補足：** パワーアンプの電流を検出していますので、電流検出トランジスタをチェックすれば異常チャンネルが特定できます。異常状態のまま電源オンすると、瞬時にプロテクションがかかり、すぐに電源が切れます。

**Note)**

- Applying the power to this unit without correcting the abnormality can be dangerous and cause additional circuit damage. To avoid this, if “PRI” and “PRD” protection function has been activated 3 times continuously, the power will not turn on even when the “STANDBY/ON” key is pressed. In order to turn on the power again, disconnect the power cable of this unit from the AC outlet once and then reconnect it again.
- The output transistors in each power amplifier channel should be checked for damage before applying power to this unit.
- Power amplifier current should be monitored by measuring DC voltage across the emitter resistors for each channel.

● **ダイアグ起動時の表示**

本機のFLディスプレイには、オープニング(プロテクション履歴/バージョン)が表示され、数秒後にメインメニュー表示(A1. ANALOG BYPASS)となります。

プロテクション履歴が無い場合：

プロテクション履歴がある場合：

**原因：** パワーアンプに過電流が流れた。  
**補足：** パワーアンプの電流を検出していますので、電流検出トランジスタをチェックすれば異常チャンネルが特定できます。異常状態のまま電源オンすると、瞬時にプロテクションがかかり、すぐに電源が切れます。

**注意！**

- 異常状態のまま本機の電源を入れると、危険な状態になり、さらに回路が損傷を受ける原因になります。そのため連続してプロテクションが働いた場合、3回目から“STANDBY/ON”キーを押しても電源が入らなくなります。再度電源を入れる場合、一度本機の電源コードをAC電源コンセントから抜いて接続し直してください。
- 本機の電源をいれる前に、各パワーアンプのチャンネル内の出力トランジスタに損傷がないかチェックしてください。
- パワーアンプの電流は、各チャンネルのエミッターの抵抗器間DC電圧を測定することによりモニターしてください。

When there is a history of protection function due to abnormal DC output

DC出力異常によるプロテクション履歴がある場合

PRD PRT:xxx

AD value when the protection function is working /  
プロテクション動作時のA/D値

**Cause:** DC output of the power amplifier is abnormal.

**Supplementary information:**

The protection function worked due to a DC voltage appearing at the speaker terminal. A cause could be a defect in the amplifier. If the power is turned on with the abnormality unsolved, the protection function works in 3 seconds to turn off the power.

**原因:** パワーアンプのDC出力が異常。

**補足:** アンプの故障でスピーカー端子に直流電圧が掛かるなどが原因で、プロテクションが働いたことを示します。異常状態のままパワーオンすると、3秒後にプロテクションが掛かり、電源が切れます。

When there is a history of protection function due to abnormal voltage in the power supply section

電源部の電圧異常によるプロテクション履歴がある場合

PRV1 PRT:xxx

AD value when the protection function is working /  
プロテクション動作時のA/D値

**Cause:** The voltage in the power supply section is abnormal.

**Supplementary information:**

The protection function worked due to a defect or overload in the power supply. If the power is turned on with the abnormality unsolved, the protection function works in 1 second to turn off the power.

**原因:** 電源部の電圧が異常。

**補足:** 電源電圧による原因で、プロテクションが働いたことを示します。異常状態のままパワーオンすると、1秒後にプロテクションが掛かり、電源が切れます。

When there is a history of protection function due to abnormal voltage in the power supply section

電源部の電圧異常によるプロテクション履歴がある場合

PRV2 PRT:xxx

AD value when the protection function is working /  
プロテクション動作時のA/D値

**Cause:** The voltage in the power supply section is abnormal.

**Supplementary information:**

The protection function worked due to a defect or overload in the power supply. If the power is turned on with the abnormality unsolved, the protection function works in 1 second to turn off the power.

**原因:** 電源部の電圧が異常。

**補足:** 電源電圧による原因で、プロテクションが働いたことを示します。異常状態のままパワーオンすると、1秒後にプロテクションが掛かり、電源が切れます。

When there is a history of protection function due to excessive heat sink temperature

ヒートシンクの異常温度によるプロテクション履歴がある場合

TMM PRT:xxx

AD value when the protection function is working /  
プロテクション動作時のA/D値

**Cause:** The temperature of the heat sink is excessive.  
**Supplementary information:**  
The protection function worked due to the temperature limit being exceeded.  
Causes could be poor ventilation or a defect related to the thermal sensor.  
If the power is turned on with the abnormality unsolved, the protection function works in 1 second to turn off the power.

**原因:** ヒートシンクの温度が異常。  
**補足:** 温度制限を越えた原因で、プロテクションが働いたことを示します。  
異常状態のままパワーオンすると、1秒後にプロテクションが掛かり、電源が切れます。

For detection of each protection function, refer to main menu described later.

各プロテクションの検出に関しては、後述のメインメニューを参照してください。

History of protection function

When the protection function has worked, its history is stored in memory with a backup.  
Even if no abnormality is noted while servicing the unit, an abnormality which has occurred previously can be defined as long as the backup data has been stored.  
The history of the protection function is cleared when self-diagnostic function is cancelled by selecting PRESET RESERVED (Memory initialized) of main menu No. R or when the backup data is erased.

プロテクションの履歴

プロテクションが働いた場合、履歴をバックアップして記憶しています。  
サービスのときに異常が認められなくても、バックアップが残っていれば、お客様のところで起きた異常を区別できます。  
メインメニューNo. R PRESET RESERVED(メモリーの初期化)を選んでダイアグを解除した場合、またはバックアップが消えた場合にプロテクションの履歴はクリアされます。

- **Display during menu operation**  
The function at work is indicated on the FL indicator of this unit.  
The contents displayed during the function operation are described later in the “Details of self-diagnostic function menu” section.

- **メニュー動作中の表示**  
本機のFLディスプレイには動作中の機能が表示されます。  
機能動作中の表示内容については、後述の機能詳細で記述します。

## ● Operation procedure of Main menu and Sub-menu

There are 19 main menu items, each them having sub-menu items.

### Main menu selection:

Select the main menu using “▷” (forward) and “◁” (reverse) keys of PROGRAM.

### Sub-menu selection:

Select the sub-menu using “SCENE 2” (forward) and “SCENE 1” (Reverse) keys.

## ● メインメニューとサブメニューの操作

ダイアグにはNo. 1～19のメインメニューがあり、そのそれぞれにサブメニューがあります。

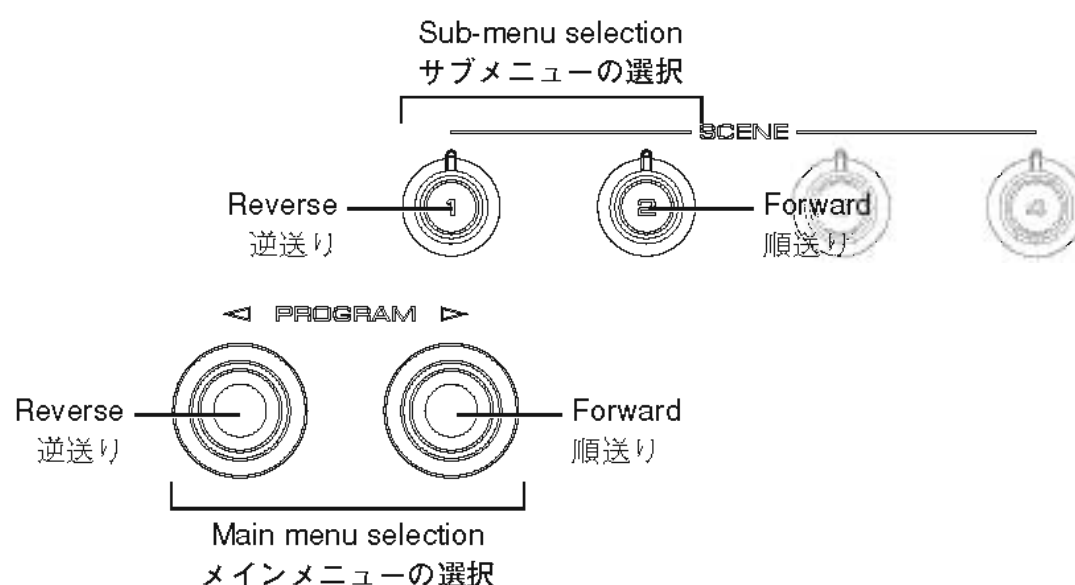
### メインメニューの選択:

“PROGRAM ▷”(順送り)、“◁ PROGRAM”(逆送り)キーで選択します。

### サブメニューの選択:

“SCENE 2”(順送り)、“SCENE 1”(逆送り)キーで選択します。

Keys of this unit / 本機キー



## ● Functions in Self-Diagnostic Function mode

In addition to the self-diagnostic function menu items, functions as listed below are available.

- Power on/off
- Master volume
- Muting
- Speakers A/B/OFF
- Input selection
- Audio select
- Tone control

\* Functions related to the tuner and the set menu are not available.

## ● ダイアグ中の機能

ダイアグメニューの他に、以下の機能が動作します。

- パワーオン／オフ
- マスターボリューム
- ミューティング
- スピーカーリレーA、B、OFF
- インプットセレクト
- オーディオセレクト
- トーンコントロール

※ チューナー関連、セットメニュー関連は機能しません。

## ● Initial settings used to start Self-Diagnostic Function

The following initial settings are used when starting self-diagnostic function.

When self-diagnostic function is canceled, these settings are restored to those before starting self-diagnostic function.

- Master volume: -20 dB
- Input: DVD (MULTI CHANNEL INPUT OFF)
- Effect level: 0 dB
- Main menu: A1. ANALOG BYPASS

## ● ダイアグ開始時の初期設定

ダイアグ開始時に以下のような設定になります。

ダイアグ解除時にはダイアグ開始前の状態に戻ります。

- マスターボリューム: -20 dB
- インプット: DVD (マルチチャンネルINPUT オフ)
- エフェクトレベル: 0 dB
- メインメニュー: A1. ANALOG BYPASS

## ● Details of Self-Diagnostic Function menu

### A. BYPASS

Using the sub-menu, it is possible to select ANALOG BYPASS output or DSP BYPASS output.

#### ANALOG BYPASS

The analog input sound signal is output to FRONT L/R with EFFECT OFF.

A1. ANALOG BYPASS

INPUT: DVD ANALOG

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Input level      | Volume  | SPEAKER OUT |        |          | SUBWOOFER OUTPUT |
|------------------|---------|-------------|--------|----------|------------------|
|                  |         | FRONT       | CENTER | SURROUND |                  |
| Both ch, -20 dBm | +6.0 dB | +11.5 dBm   | -∞     | -∞       | -∞               |

### DSP BYPASS

The digital input sound signal is output to FRONT L/R with EFFECT OFF.

A2. DSP BYPASS

INPUT: DVD ANALOG

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Input level      | Volume  | SPEAKER OUT |        |          | SUBWOOFER OUTPUT |
|------------------|---------|-------------|--------|----------|------------------|
|                  |         | FRONT       | CENTER | SURROUND |                  |
| Both ch, -20 dBm | +6.0 dB | +11.5 dBm   | -∞     | -∞       | -∞               |

## B. AUDIO CHECK

### AUDIO CHECK

The input sound signal is output.

\* When the inputted sound signal is 2 ch L/R, it is distributed as follows when output.

**L ch:** FRONT L, CENTER, SURROUND L, LFE (L ch +10 dB)

**R ch:** SURROUND R

B1. AUDIO CHECK

INPUT: DVD ANALOG

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Input level      | Volume  | SPEAKER OUT |           |           | SUBWOOFER OUTPUT |
|------------------|---------|-------------|-----------|-----------|------------------|
|                  |         | FRONT       | CENTER    | SURROUND  |                  |
| Both ch, -20 dBm | +6.0 dB | +11.5 dBm   | +11.5 dBm | +11.5 dBm | 0 dBm            |

### ANALOG AUDIO PLAYBACK

The analog input sound signal is output.

B2. ANALOG PLAY

### MUTE ALL

Sound signals of all channels are muted by System IC (MAIN P.C.B.) and Transistor (Q5008-5011 MAIN P.C.B.).

B3. MUTE ALL

## ● ダイアグメニュー詳細

### A. BYPASS

サブメニューによりANALOG BYPASS/DSP BYPASSが選択可能です。

#### ANALOG BYPASS

アナログ入力の音声信号をEFFECT OFFでFRONT L/Rへ出力します。

### DSP BYPASS

デジタル入力の音声信号をEFFECT OFFでFRONT L/Rへ出力します。

## B. AUDIO CHECK

### AUDIO CHECK

入力された音声信号を出力します。

※ 入力された音声信号が2 ch L/Rの場合は、下記のように振り分け出力します。

**L ch:** FRONT L、CENTER、SURROUND L、LFE (L ch +10 dB)

**R ch:** SURROUND R

### ANALOG AUDIO PLAYBACK

アナログ入力された音声信号を出力します。

### MUTE ALL

全チャンネルの音声信号をシステムIC (MAIN P.C.B.) およびトランジスタ (Q5008-5011 MAIN P.C.B.) でミュートします。

**MUTE SYSTEM IC**

Sound signals of all channels are muted by System IC (MAIN P.C.B.).

**MUTE SYSTEM IC**

全チャンネルの音声信号をシステムIC (MAIN P.C.B.) でミュートします。

E4.MUTE SYS IC

**MUTE TRANSISTOR**

Sound signals of all channels are muted by Transistor (Q5008-5011 MAIN P.C.B.).

**MUTE TRANSISTOR**

全チャンネルの音声信号をトランジスタ (Q5008-5011 MAIN P.C.B.) でミュートします。

E5.MUTE TR

**C. SPEAKER SET**

The analog switch settings for each sub-menu are as shown in the table below.

**C. SPEAKER SET**

各サブメニューにおけるアナログスイッチの設定は以下の通りです。

|                 |       |       |       |       |
|-----------------|-------|-------|-------|-------|
| FRONT : SML 0dB | SMALL | LARGE | LARGE | SWFR  |
| CENTER : NONE   | LARGE | NONE  | LARGE | SWFR  |
| LFE/B : FRNT    | LARGE | SMALL | SMALL | FRONT |
| TONE : MAX      | LARGE | LARGE | LARGE | SWFR  |
| TONE : MIN      | LARGE | LARGE | LARGE | SWFR  |

**LARGE:** This mode is used for a speaker with high bass reproduction performance (a large unit). Full bandwidth signals are output.

**SMALL:** This mode is used for a speaker with low bass reproduction performance (a small unit). The signals of 90 Hz or less are mixed into the channel specified by LFE/BASS.

**NONE:** This mode is used for no center speaker. The center content is reduced by 3 dB and distributed to FRONT L/R.

**SWFR:** LFE of 5.1 ch signal or LFE/BASS lower than 90 Hz is output through SUBWOOFER OUT.

**FRONT:** LFE of 5.1 ch signal or LFE/BASS lower than 90 Hz is distributed to FRONT L/R.

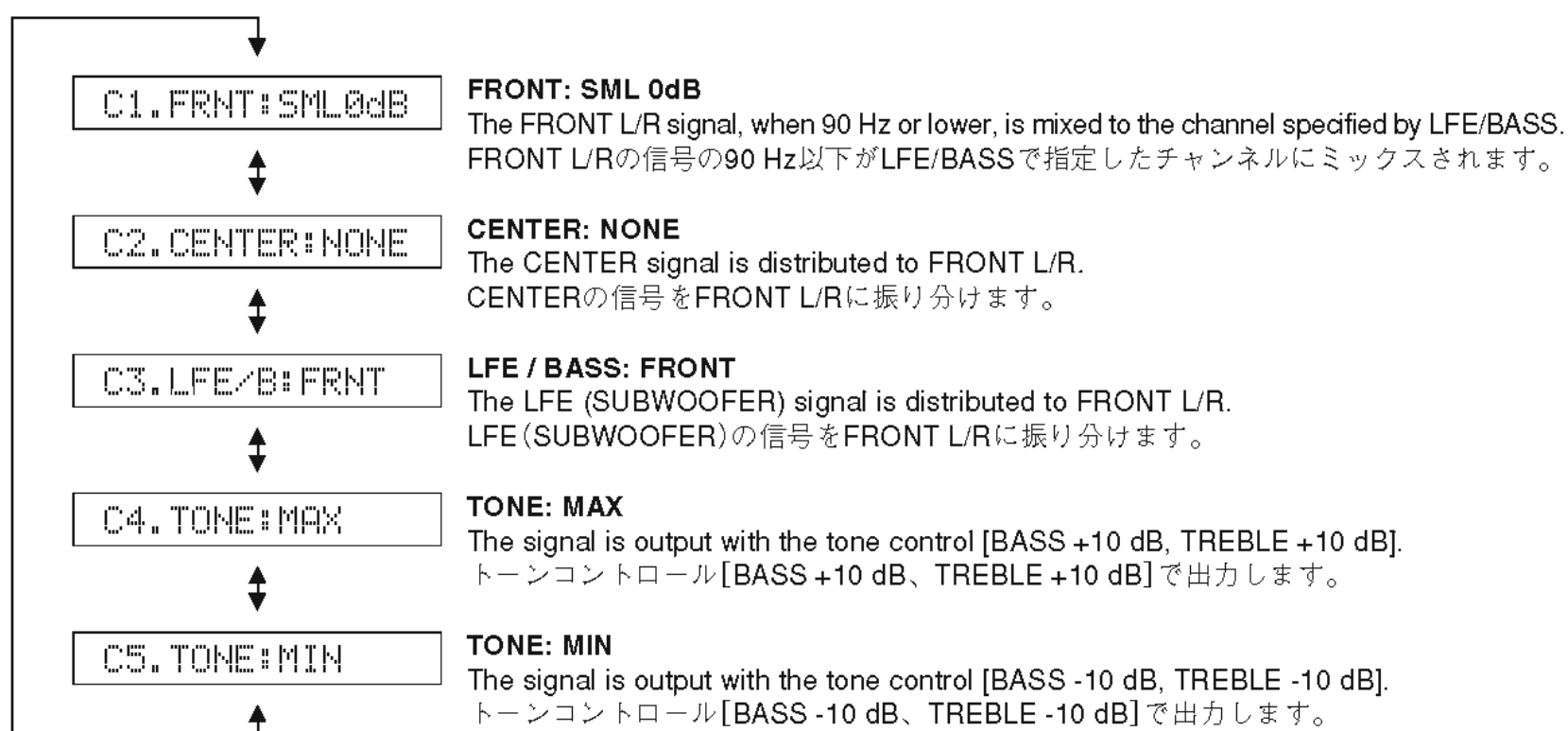
**LARGE:** 低音再生能力の高い(ユニットの大きい)スピーカーを使用するモードです。全帯域が出力されます。

**SMALL:** 低音再生能力の低い(ユニットの小さい)スピーカーを使用するモードです。90 Hz以下がLFE/BASSで指定したチャンネルにミックスされます。

**NONE:** センタースピーカーを使用しないモードです。センター成分は-3dBされて、FRONT L/Rに振り分けられます。

**SWFR:** 5.1 ch信号のLFEまたは90 Hz以下のLFE/BASSがSUBWOOFER OUTに出力されます。

**FRONT:** 5.1 ch信号のLFEまたは90 Hz以下のLFE/BASSをFRONT L/Rに振り分けます。



INPUT: DVD ANALOG

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Sub-menu        | Input level      | Volume  | SPEAKER OUT |        |          | SUBWOOFER OUTPUT |
|-----------------|------------------|---------|-------------|--------|----------|------------------|
|                 |                  |         | FRONT       | CENTER | SURROUND |                  |
| FRONT : SML 0dB | Both ch, -20 dBm | +6.0 dB | +11.5 dBm   | -∞     | -∞       | -3.5 dBm         |
| CENTER : NONE   | Both ch, -20 dBm | +6.0 dB | +11.5 dBm   | -∞     | -∞       | -∞               |
| LFE/B : FRNT    | Both ch, -20 dBm | +6.0 dB | +11.5 dBm   | -∞     | -∞       | -∞               |
| TONE : MAX      | Both ch, -20 dBm | +6.0 dB | +14.5 dBm   | -∞     | -∞       | -∞               |
| TONE : MIN      | Both ch, -20 dBm | +6.0 dB | +8.5 dBm    | -∞     | -∞       | -∞               |

**D. XCH INPUT**

The input source [MULTI CHANNEL INPUT] is selected.

It is possible to select the 6-ohm/8-ohm by using the sub-menu.

**6 ch INPUT 6-ohm**

D1. 6chINPUT 6Ω

INPUT: MULTI CH INPUT

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Sub-menu         | Input level      | Volume  | SPEAKER OUT |           |           | SUBWOOFER OUTPUT |
|------------------|------------------|---------|-------------|-----------|-----------|------------------|
|                  |                  |         | FRONT       | CENTER    | SURROUND  |                  |
| 6 ch INPUT 6-ohm | Both ch, -20 dBm | +6.0 dB | +11.5 dBm   | +11.5 dBm | +11.5 dBm | -3.5 dBm         |

**8 ch INPUT 6-ohm**

D2. 8chINPUT 6Ω

INPUT: MULTI CH INPUT

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Sub-menu         | Input level      | Volume  | SPEAKER OUT |           |           | SUBWOOFER OUTPUT |
|------------------|------------------|---------|-------------|-----------|-----------|------------------|
|                  |                  |         | FRONT       | CENTER    | SURROUND  |                  |
| 6 ch INPUT 8-ohm | Both ch, -20 dBm | +6.0 dB | +11.5 dBm   | +11.5 dBm | +11.5 dBm | -3.5 dBm         |

**6 ch INPUT 8-ohm**

D3. 6chINPUT 8Ω

INPUT: MULTI CH INPUT

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Sub-menu         | Input level      | Volume  | SPEAKER OUT |           |           | SUBWOOFER OUTPUT |
|------------------|------------------|---------|-------------|-----------|-----------|------------------|
|                  |                  |         | FRONT       | CENTER    | SURROUND  |                  |
| 6 ch INPUT 8-ohm | Both ch, -20 dBm | +6.0 dB | +11.5 dBm   | +11.5 dBm | +11.5 dBm | -3.5 dBm         |

**D. XCH INPUT**

入力ソース[MULTI CHANNEL INPUT]が選択されます。

サブメニューにより、6オーム／8オームが選択可能です。

**6 ch INPUT 6-ohm****8 ch INPUT 6-ohm****6 ch INPUT 8-ohm**

## 8 ch INPUT 8-ohm

## 8 ch INPUT 8-ohm

D4.8chINPUT 8Ω

INPUT: MULTI CH INPUT

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Sub-menu         | Input level      | Volume  | SPEAKER OUT |           |           | SUBWOOFER OUTPUT |
|------------------|------------------|---------|-------------|-----------|-----------|------------------|
|                  |                  |         | FRONT       | CENTER    | SURROUND  |                  |
| 6 ch INPUT 8-ohm | Both ch, -20 dBm | +6.0 dB | +11.5 dBm   | +11.5 dBm | +11.5 dBm | -3.5 dBm         |

## LIM/PLDET/THM

**LIM:** Setting value of LIM (Limiter control)

- \* Do not change the setting value because this item is only for the use of development staff.

**PLDET:** Power limiter detection

The A/D conversion value during operation is displayed.

**THM:** Thermo protection detection

The A/D conversion value during operation is displayed.

(Reference voltage: 3.3 V=255)

## LIM/PLDET/THM

**LIM:** LIM(リミッター制御)の設定値

- ※ 開発用メニューのため、設定値の変更は行わないでください。

**PLDET:** パワーリミッターの検出

動作時のA/D変換値が表示されます。

**THM:** 温度プロテクションの検出動作時のA/D変換値が表示されます。  
(基準電圧: 3.3 V=255)

D5.255:255: 64

- THM (Thermo protection detection / 温度プロテクションの検出)
- PLDET (Power limiter detection / パワーリミッターの検出)
- LIM (Limiter control / リミッター制御)

## E. MIC CHECK

The signals input through the microphone are output of FRONT L/R via A/D and D/A.

E1.MIC CHECK

## E. MIC CHECK

マイク入力された信号をA/D—D/A経由でFRONT L/Rに出力します。

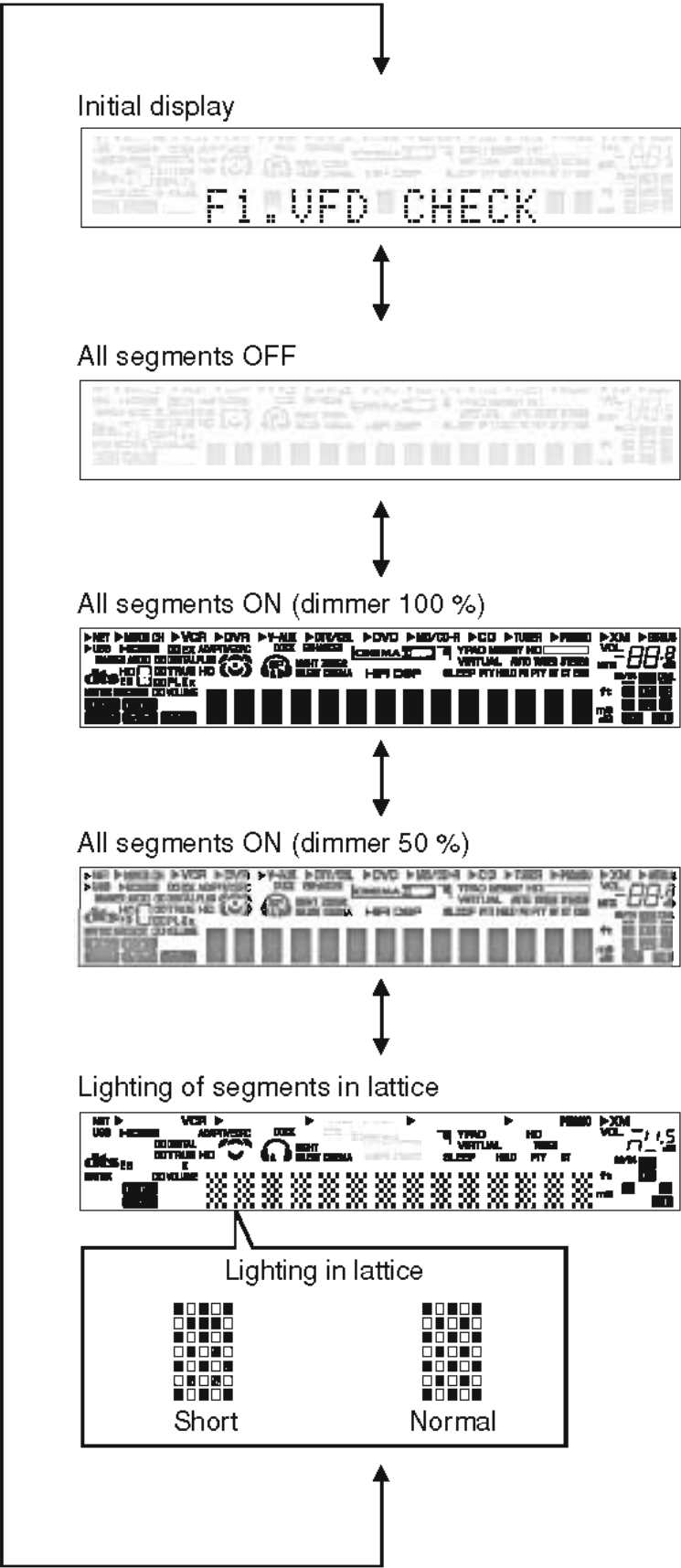
F. FL/OSD CHECK

Use this program to check the FL display section.  
For audio signal processing, use STRAIGHT.

F. FL/OSD CHECK

FL表示部のチェックプログラムです。  
オーディオ信号処理はSTRAIGHTです。

Checking FL display section /  
FL表示部のチェック



**G. TEST TONE**

The outputs the noise through the channels specified by the sub-menu.

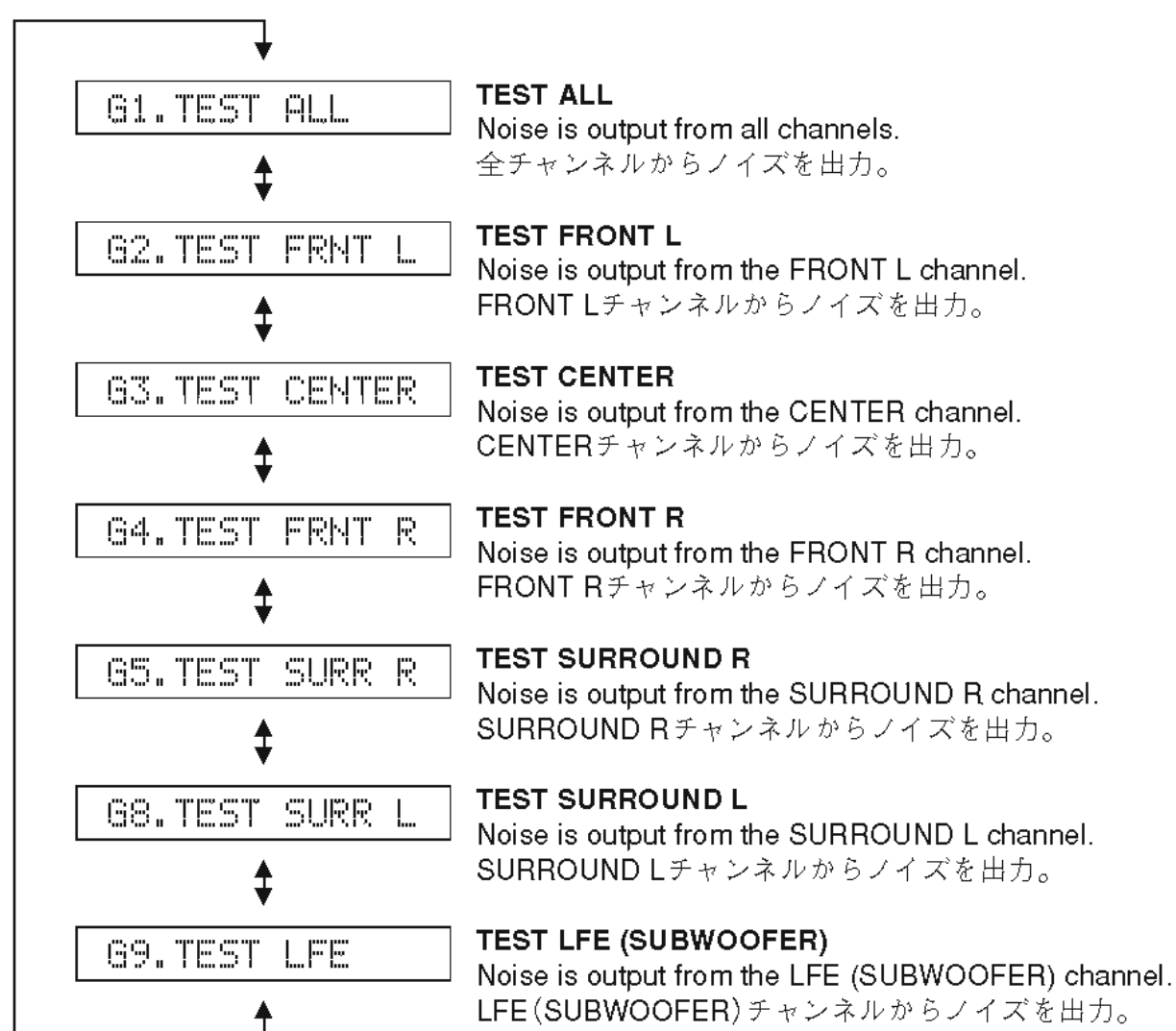
The noise frequency for LFE (SUBWOOFER) is 35 to 80 Hz.

Other than that, the noise frequency is 500 to 2 kHz.

**G. TEST TONE**

サブメニューで指定したチャンネルへノイズを出力します。

LFE (SUBWOOFER) 用のノイズ周波数は35～80 Hz、それ以外はノイズ周波数500～2 kHzとなります。

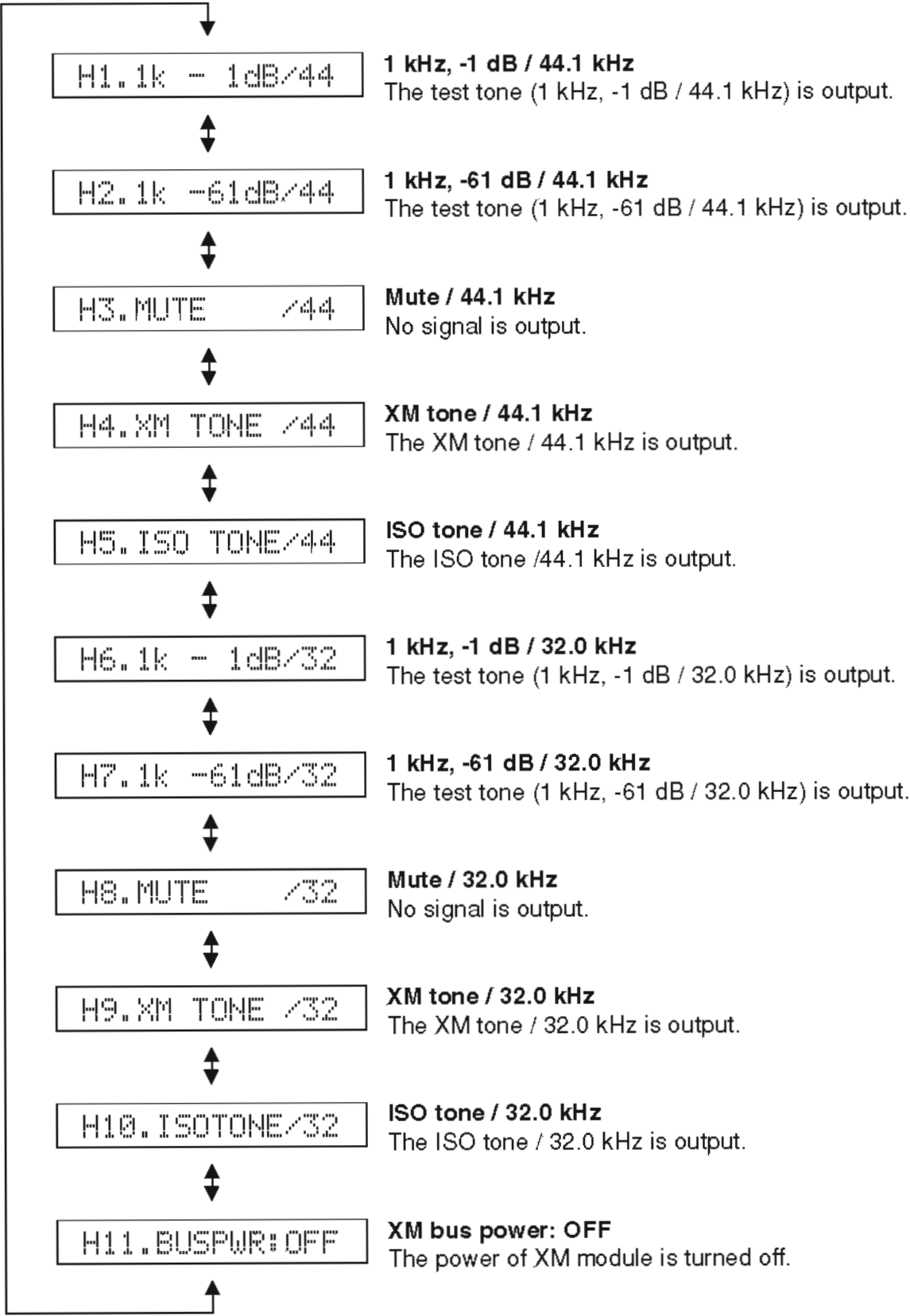


H. XM STATUS (U, C models)

The output check of XM radio is executed.  
(Connect XM radio antenna module to this unit  
before executing.)

H. XM STATUS

このモデルには適用されません。



RX-V463/HTR-6140/  
DSP-AX463

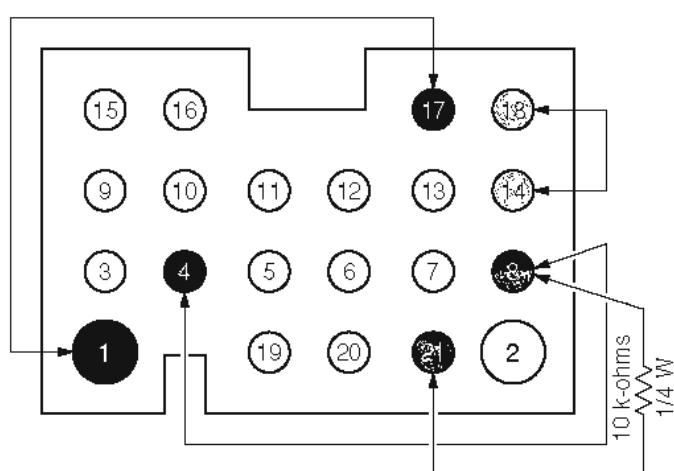
## I. iPod

This menu is used to test the DOCK connector without the iPod itself. After turning off the power to this unit short between pins No. 14 (TX) and No. 18 (RX), between pins No. 1 (PWR) and No. 17 (ACCPOW), between pins No. 4 (iPDET) and No. 8 (DGND) and between pins No. 21 (DKID) and No. 8 (DGND) of the DOCK connector. (Make sure that the power is turned off when shorting pins.)

Start the self-diagnostic function and select this menu.

The check result is displayed according to the following display specifications.

**Note) Be sure to return the shorted pins to their original condition after executing this test.**



DOCK CONNECTOR

| Check item / チェック項目                                    | Result / 結果      |                            | Display / 表示 |
|--------------------------------------------------------|------------------|----------------------------|--------------|
| UART loop back test<br>UARTループバックテスト                   | OK               |                            | Y            |
|                                                        | NG               |                            | N            |
| iPAP (iPod accessory power) detection<br>iPAP検出        | IC83<br>pin No.5 | High                       | Y            |
|                                                        |                  | Low                        | N            |
| iPDET (iPod installation to DOCK) detection<br>iPDET検出 | IC82<br>pin No.5 | Low (iPod universal dock)  | Y            |
|                                                        |                  | High (Bluetooth adapter)   | N            |
| DKID (DOCK ID) detection<br>DKID検出                     | IC82<br>pin No.4 | 10 k-ohms, 1/4 W pull down | Y            |
|                                                        |                  | Other                      | N            |

### DOCK ignore

When DOCK and iPod are connected, the input source [DOCK (iPod)] is made ineffective and [V-AUX] is selected.

I2.DOCK IGNORE

### Bluetooth version

When the Bluetooth DOCK is connected, the firmware version of that Bluetooth module is displayed.

I3.BTYS:x.xxx

## I. iPod

iPod本体無しで、DOCKコネクタの検査を行うメニューです。

本機をパワーオフ状態にしてから、DOCKコネクタの14ピン(TX)と18ピン(RX)、1ピン(PWR)と17ピン(ACCPOW)、4ピン(iPDET)と8ピン(DGND)、21ピン(DKID)と8ピン(DGND)をショートさせます。(ショートさせる時は、必ず電源を切ってください。)

ダイアグを起動して本メニューを選択します。

下記の表示仕様に従って、チェック結果が表示されます。

注) 検査後、ショートしたピンを必ず元の状態に戻してください。

I1.DOCK:NG NNN

All Y / 全てY = OK

Others / その他 = NG

Clear Bluetooth pairing information

While the Bluetooth DOCK is connected, initialization of the Bluetooth DOCK pairing information is inhibited/ reserved.  
Use “PRESET/TUNING<” and “PRESET TUNING>” keys for operation.

Initialization inhibited / 初期化禁止

I4.BT CLR:INHI



Initialization inhibited / 初期化禁止

User memory initialization is not executed. Select this sub-menu to protect the user memory.  
Bluetooth DOCKのペアリング情報の初期化は行われません。Bluetooth DOCKのペアリング情報を保護するときは、こちらを選択してください。

Clear Bluetooth pairing information

Bluetooth DOCKを接続している時、Bluetooth DOCKのペアリング情報の初期化を予約/禁止します。  
操作は、“PRESET/TUNING <”、“PRESET/TUNING >”キーで行います。

Initialization reserved / 初期化予約

I4.BT CLR:RSRV

Initialization reserved / 初期化予約

Initialization of the use memory is reserved. (Actually, initialization is executed the next time that the power is turned on.)  
Select this sub-menu to reset to the original factory settings or to reset the use memory.  
Any protection history will be cleared.  
Bluetooth DOCKのペアリング情報の初期化が予約されます。(実際に初期化されるのは、次回の電源投入時です。)  
Bluetooth DOCKのペアリング情報を削除したいときは、こちらを選択してください。

J. USB (R, T, K, A, B, G, E, F, L models)

- The music file recorded in the USB flash memory is reproduced.
- a. Copy the 2 music files from PC into the root folder of the USB flash memory.
  - b. Insert the USB flash memory to the USB terminal of this unit.

USB FILE1

Reproduced at this time is the first piece of the music file in the USB flash memory connected to the USB terminal on the front panel.

J1.USBFile1/OK

OK: Connected/Playback  
NG: No music file

USB FILE2

Reproduced at this time is the second piece of the music file in the USB flash memory connected to the USB terminal on the front panel.

J2.USBFile2/OK

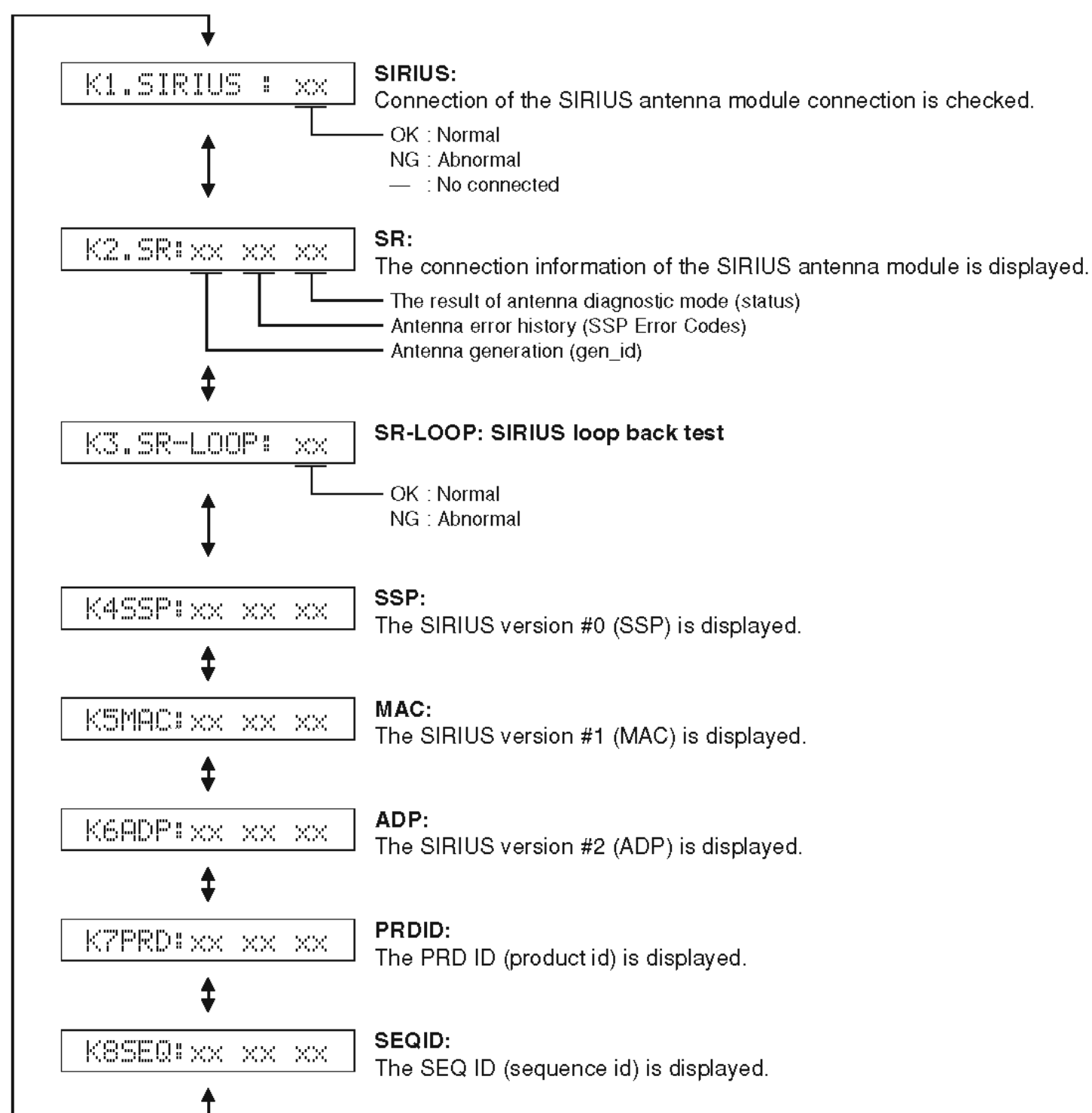
OK: Connected/Playback  
NG: No music file

**K. SIRIUS (U, C models)**

The SIRIUS antenna module is checked.  
(Connect SIRIUS antenna module to this unit before executing.)

**K. SIRIUS**

このモデルには適用されません。



L. VIDEO CONVERSION  
Not applied to these models.

Video INFO.

L1. V-IN:

CONVERSION S-Video

L2.V-CONV S-V

CONVERSION CVBS

L3.V-CONV CVBS

CONVERSION OFF

L4.V-CONV OFF

Test pattern

L5.V-TestPttm

L. VIDEO CONVERSION  
このモデルには適用されません。

Video INFO.

CONVERSION S-Video

CONVERSION CVBS

CONVERSION OFF

Test pattern

**M. HDMI SELECT**

The selected input signal is output to HDMI OUT by the sub-menu operation.

**HDMI SPDIF (SPDIF audio playback)**

SPDIF signal is output.

M1.HDMI SPDIF

**HDMI NONE**

No signal is output.

M2.HDMI NONE

**HDMI IN1**

HDMI "IN 1" is output.

M3.HDMI IN1

**HDMI IN2**

HDMI "IN 2" is output.

M4.HDMI IN2

**I2C : xx xxx (I2C access check)**

Self-diagnosis is executed to check whether data reading/writing between the microprocessor connected to the I2C line and each IC is done properly or not.

M5.I2C:NG NYN

All Y / すべてY = "OK"  
Others / その他 = "NG"

| Check item        | Result | Display |
|-------------------|--------|---------|
| HDMI Rx           | OK     | Y       |
| (IC12 DSP P.C.B.) | NG     | N       |
| HDMI Tx           | OK     | Y       |
| (IC11 DSP P.C.B.) | NG     | N       |
| *                 | OK     | Y       |
|                   | NG     | N       |

**Model ID for EDID setting**

(U, C, T, K, G, E, F models)

After replacement of DSP P.C.B or writing of the firmware, make sure to change the "M6 Model ID" setting to the same model name as this unit (RX-V463 or HTR-6140). Press "PRESET/TUNING<" or "PRESET TUNING>" key for selection.

M6.RX-V463



M6.HTR-6140

R, A, L models

M6.RX-V463

B, J models

M6.DSP-AX463

**M. HDMI SELECT**

サブメニュー操作により、選択された入力信号を HDMI OUTへ出力します。

**HDMI SPDIF (SPDIF audio playback)**

SPDIF信号が出力されます。

**HDMI NONE**

何も出力されません。

**HDMI IN1**

HDMI "IN 1"が出力されます。

**HDMI IN2**

HDMI "IN 2"が出力されます。

**I2C : xx xxx (I2C access check)**

I2Cラインに接続されているマイコンと各IC間でデータ読み出し／書き込みの正否を自己診断します。

**Model ID for EDID setting**

**N. A/D DATA CHECK**

This menu is used to display the A/D conversion value of the microprocessor which detects panel keys of the main unit and protection functions in using the sub-menu.

When K0/K1 menu is selected, keys become non-operable due to detection of the values of all keys. However, it is possible to advance to the next sub-menu by turning the VOLUME of the main unit. When using this function, note that turning the VOLUME more than 1 click would cause the volume value to change.

During signal processing, the condition before execution is maintained.

\* The figures in the diagram are given as reference only.

**PD/DI**

**PD:** PRD (Power amplifier DC protection detection)  
The output of power amplifier DC (DC voltage) is detected.

Normal value: 27 to 89 (Reference voltage: 3.3 V=255)

\* If PRD is out of the normal value range, the protection function works to turn off the power.

**DI:** DOCK ID (DOCK ID detection)  
The output of DOCK ID is detected.  
(Reference voltage: 3.3 V=255)

DOCK detection for AD port (IC82 AD converter pin no. 4)  
Pull-up resistance 10 k-ohms

| DOCK type         | DOCK (Bluetooth) | Reserved | Reserved | DOCK (iPod) | Reserved | (Development) | No connect |
|-------------------|------------------|----------|----------|-------------|----------|---------------|------------|
| Ohm               | 0.56k            | 2.7k     | 5.6k     | 10.0k       | 18.0k    | 39.0k         | —          |
| DKID (Pin no. 21) | 5-25             | 50-60    | 85-100   | 120-140     | 150-170  | 195-210       | 245-255    |

N1PD: 45DI: 0

**V1/V2**

**V1:** PRV1 (Voltage protection detection)  
Voltage detects: ACL, 10V, VP, +6.3H and +3.3H

Normal value: 68 to 161 (Reference voltage: 3.3 V=255)

**V2:** PRV2 (Voltage protection detection)  
Voltage detects: AC2, +12, -12, +5D, +5I, +5V and -5V

Normal value: 104 to 181 (Reference voltage: 3.3 V=255)

\* If PRV1 and PRV2 are out of the normal value range, the protection function works to turn off the power.

N2V1: 94V2: 128

**N. A/D DATA CHECK**

本機パネルキー、プロテクションなどを検出しているマイコンのA/D変換値を、サブメニューで表示します。

K0/K1のメニューにすると、全キーの値を検出するためキー操作はできなくなりますが、本機のVOLUMEを回すことにより、次のサブメニューに進めることができます。このとき1クリック以上回すと、ボリューム値が変化するので注意してください。

信号処理は実行前の状態を維持します。

※ 図中の数値は参考例です。

**PD/DI**

**PD:** PRD (パワーアンプDCプロテクションの検出)  
パワーアンプDC (直流電圧) 出力の検出。  
正常値: 27—89 (基準電圧: 3.3 V=255)

※ PRDは正常値を外れるとプロテクションが働き、電源オフされます。

**DI:** DOCK ID (DOCK IDの検出)  
DOCK ID出力の検出。  
(基準電圧: 3.3 V=255)

**V1/V2**

**V1:** PRV1 (電圧プロテクションの検出1)  
検出電圧: ACL、10V、VP、+6.3H、+3.3H  
正常値: 68—161 (基準電圧: 3.3 V=255)

**V2:** PRV2 (電圧プロテクションの検出2)  
検出電圧: AC2、+12、-12、+5D、+5I、+5V、-5V  
正常値: 104—181 (基準電圧: 3.3 V=255)

※ PRV1、PRV2は正常値を外れるとプロテクションが働き、電源オフされます。

**TH/PL**

**TH:** THM (Thermo protection detection)  
The temperature of the heat sink is detected.  
Normal value: 0 to 136 (Reference voltage: 3.3 V=255)

\* If THM is out of the normal value range, the protection function works to turn off the power.

**PL:** PLDET (Power limiter detection)  
The output voltage of power amplifier is detected.

**TH/PL**

**TH:** THM(温度プロテクションの検出)  
ヒートシンク温度の検出。  
正常値: 0—136(基準電圧: 3.3 V=255)

※ THMは正常値を外れるとプロテクションが働き、電源オフされます。

**PL:** PLDET(パワーリミッターの検出)  
パワーアンプ出力電圧の検出。

|                |
|----------------|
| N3TH: 64PL:255 |
|----------------|

U, C models (Reference voltage: 3.3 V=255)

|                     | During normal operation | Value for starting limiter operation | Value for canceling limiter operation |
|---------------------|-------------------------|--------------------------------------|---------------------------------------|
| PLDET               | 255                     | 77                                   | 108                                   |
| LIM H: 255 / L: 102 | H                       | L                                    | H                                     |

(LIM: Limiter control)

R, T, K, A, B, G, E, F, L models (Reference voltage: 3.3V=255)

|                    | During normal operation | Value for starting limiter operation | Value for canceling limiter operation |
|--------------------|-------------------------|--------------------------------------|---------------------------------------|
| PLDET              | 255                     | 100                                  | 131                                   |
| LIM H: 255 / L: 90 | H                       | L                                    | H                                     |

(LIM: Limiter control)

J model (基準電圧: 3.3 V=255)

|                    | 通常値 | リミッター動作開始値 | リミッター動作解除値 |
|--------------------|-----|------------|------------|
| PLDET              | 255 | 108        | 139        |
| LIM H: 255 / L: 90 | H   | L          | H          |

(LIM: リミッター制御)

**PI/DE**

**PI:** PRI (Current protection detection)  
The current of the power amplifier is detected.  
Normal value: 0 to 100 (Reference voltage: 3.3 V=255)

**DE:** PDET (Sub-trans power detection)  
Normal value: 0 to 255 (Reference voltage: 3.3 V=255)

\* If PRI and PDET are out of the normal value range, the protection function works to turn off the power.

**PI/DE**

**PI:** PRI(電流プロテクションの検出)  
パワーアンプ電流の検出。  
正常値: 0—100(基準電圧: 3.3 V=255)

**DE:** PDET(サブトランス電源電圧の検出)  
正常値: 0—255(基準電圧: 3.3 V=255)

※ PRIおよびPDETは正常値を外れるとプロテクションが働き、電源オフされます。

|              |
|--------------|
| N4PI: 0DE: 0 |
|--------------|

K0/K1

**K0/K1:** KEY0/KEY1 (Panel key of this unit)  
A/D value of the key fails to function properly when the standard value is deviated by  $\pm 4$ .  
In this case, check the constant of partial pressure resistor, solder condition, etc.  
Refer to table.  
(Reference voltage: 3.3 V=255)

K0/K1

**K0/K1 :** KEY0/KEY1(本機パネルキー)  
キーのA/D値は基準値から $\pm 4$ を外れると、正常な動きをしません。  
下表をご覧になり、各キーの分圧抵抗の定数、ハンダ不良等の確認をしてください。  
(基準電圧：3.3 V=255)

N5K0:254K1:254

U, C, R, T, K, A, G, E, F, L, J models

| Displayed | K0                    | K1                        |
|-----------|-----------------------|---------------------------|
| 0 + 4     | —                     | —                         |
| 23 ± 4    | SPEAKERS<br>A/B/OFF   | —                         |
| 42 ± 4    | TONE<br>CONTROL       | AUDIO<br>SELECT           |
| 66 ± 4    | PROGRAM<br><          | INPUT<br>>                |
| 92 ± 4    | PROGRAM<br>>          | INPUT<br><                |
| 112 ± 4   | STRAIGHT<br>EFFECT    | DIRECT                    |
| 134 ± 4   | A/B/C/D/E             | PRESET/TUNING<br><        |
| 156 ± 4   | BAND                  | PRESET/TUNING<br>>        |
| 176 ± 4   | —                     | MEMORY                    |
| 195 ± 4   | EDIT<br>PRESET/TUNING | —                         |
| 215 ± 4   | —                     | INFO<br>TUNING AUTO/MAN'L |

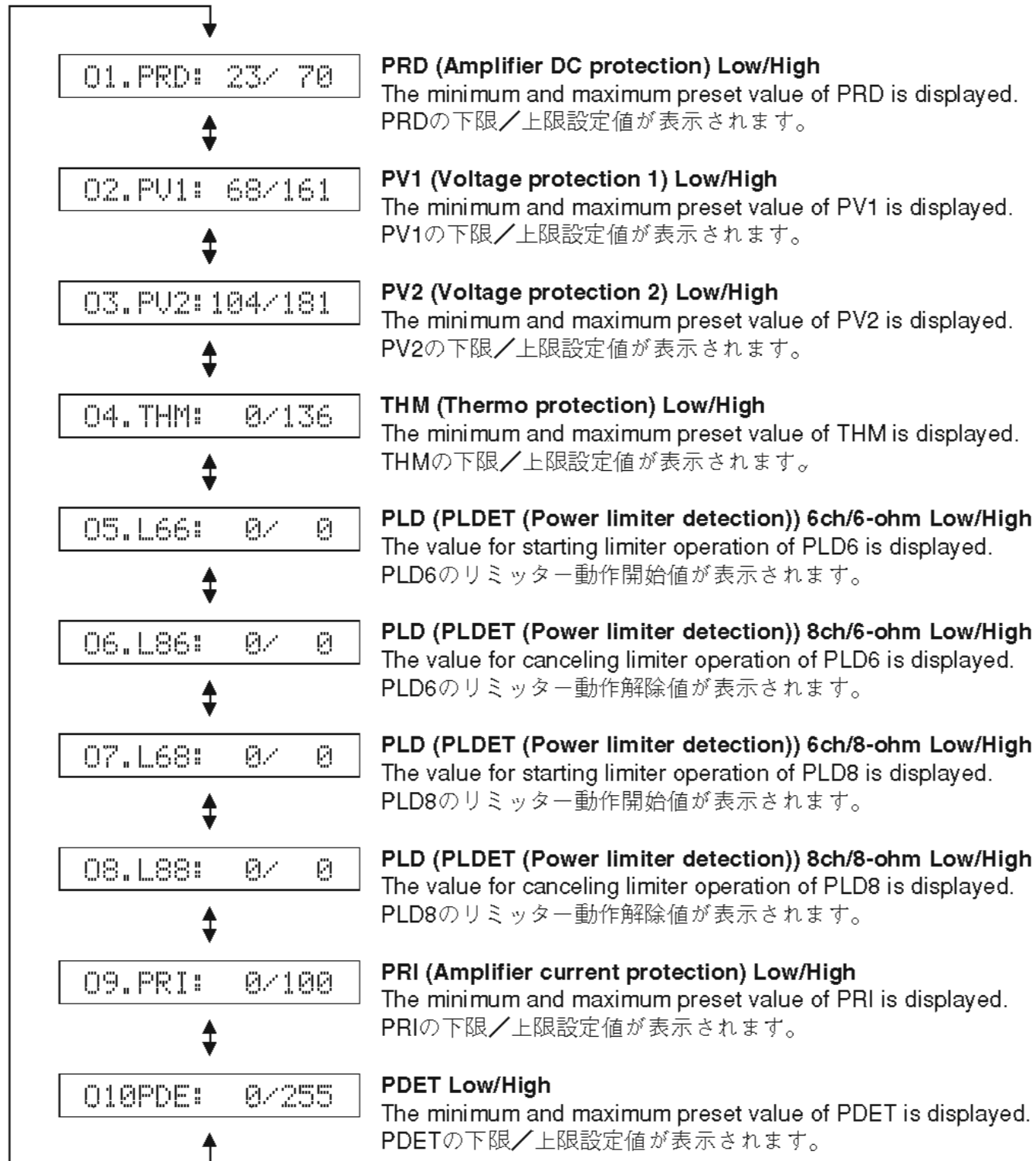
B model

| Displayed | K0                  | K1              |
|-----------|---------------------|-----------------|
| 0 + 4     | —                   | —               |
| 23 ± 4    | SPEAKERS<br>A/B/OFF | —               |
| 42 ± 4    | TONE<br>CONTROL     | AUDIO<br>SELECT |
| 66 ± 4    | PROGRAM<br><        | INPUT<br>>      |
| 92 ± 4    | PROGRAM<br>>        | INPUT<br><      |
| 112 ± 4   | STRAIGHT<br>EFFECT  | DIRECT          |
| 134 ± 4   | —                   | —               |
| 156 ± 4   | —                   | —               |
| 176 ± 4   | —                   | —               |
| 195 ± 4   | —                   | —               |
| 215 ± 4   | —                   | —               |

**O. PROTECTION**

The A/D setting value of each protection is displayed.

(Reference voltage: 3.3 V=255)

**P. PROTECTION HISTORY**

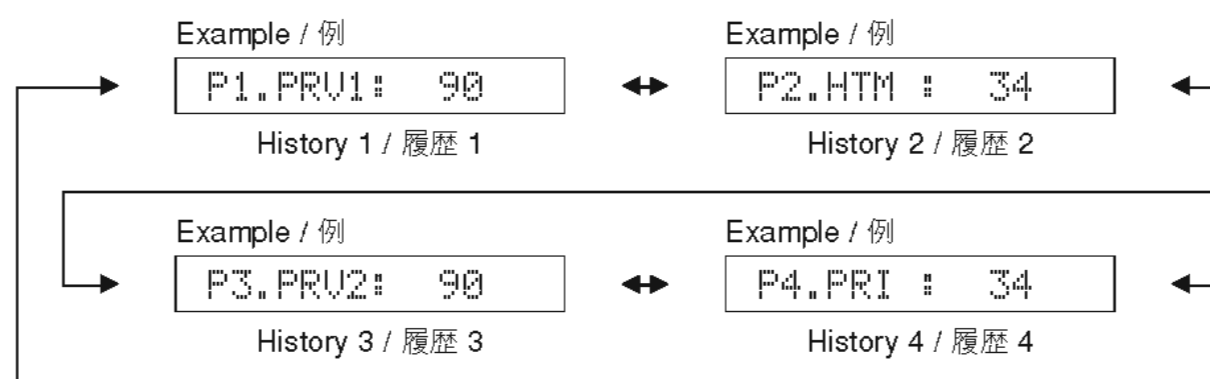
Four protection histories are displayed.

**O. PROTECTION**

各プロテクションのA/D設定値が表示されます。  
(基準電圧：3.3 V=255)

**P. PROTECTION HISTORY**

過去のプロテクション履歴が4つまで表示されます。



Q. RESERVED

Q. RESERVED

R. FACTORY PRESET

This menu is used to reserve/inhibit initialization of the user memory (Parameters and set menu contents, etc. of the sound field program). The signals are processed using EFFECT OFF (The L/R signal is output using ANALOG BY-PASS).

R. FACTORY PRESET

ユーザーメモリ(音場プログラムのパラメーターやセットメニュー内容等)の初期化を予約／禁止します。信号処理はEFFECT OFF (ANALOG BYPASSでL/Rを出力) です。

R1.PRESET INHI



R2.PRESET RSRV

**PRESET INHIBIT (Initialization inhibited) / PRESET INHIBIT (初期化禁止)**  
User memory initialization is not executed. Select this sub-menu to protect the user memory.  
ユーザーメモリの初期化は行われません。ユーザーメモリを保護するときは、こちらを選択してください。

**PRESET RESERVED (Initialization reserved) / PRESET RESERVED (初期化予約)**  
Initialization of the use memory is reserved. (Actually, initialization is executed the next time that the power is turned on.)  
Select this sub-menu to reset to the original factory settings or to reset the use memory.  
Any protection history will be cleared.  
ユーザーメモリの初期化が予約されます。(実際に初期化されるのは、次回の電源投入時です。)  
工場出荷時やユーザーメモリをリセットしたいときは、こちらを選択してください。  
このとき、プロテクション履歴も初期化されます。

**CAUTION:** Before setting to the PRESET RESERVED, write down the existing preset memory content of the tuner in a table as shown below. (This is because setting to the PRESET RESERVED will cause the user memory content of the tuner to be erased.)

**注意：** PRESET RESERVEDを選んで初期化をする前に、チューナーのユーザーメモリー内容を下表に書き写してください。(初期化をすると、チューナーのユーザーメモリーの内容は消えてしまいます。)

| Preset Group | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 |
|--------------|----|----|----|----|----|----|----|----|
| A            |    |    |    |    |    |    |    |    |
| B            |    |    |    |    |    |    |    |    |
| C            |    |    |    |    |    |    |    |    |
| D            |    |    |    |    |    |    |    |    |
| E            |    |    |    |    |    |    |    |    |

S. ROM VER/SUM

The version and checksum are displayed. The signal is processed using EFFECT OFF. The checksum is obtained by adding the data at every 8-bit for each program area and expressing the result as a 4-figure hexadecimal data.

S. ROM VER. / SUM / PORT

プログラムのバージョン、チェックサムを表示します。信号はエフェクトオフです。チェックサムは、プログラムのエリア別にデータを8ビットごとに加算していき、4桁の16進データで現したものです。

S1. VER. E048

Microprocessor version

Firmware version of microprocessor (IC41 DSP P.C.B.) is displayed.  
マイコン(IC41 DSP P.C.B.)のファームウェアのバージョンを表示します。

S2. P. SUM: ED91

All checksum

Checksum value of microprocessor (IC41 DSP P.C.B.) is displayed.  
マイコン(IC41 DSP P.C.B.)のチェックサム値を表示します。

S3. P. SUM: FE77

Program checksum

Checksum value of application and standby code program is displayed.  
アプリケーションおよびスタンバイコードプログラムのチェックサム値を表示します。

S4. SPI.S: 2D61

SPI (Serial Peripheral Interface) checksum

Checksum value of SPI firmware update code is displayed.  
SPIファームウェアアップデートコードのチェックサム値を表示します。

S5. SPD.S: 5BEE

SPD (S/PDIF) checksum

Checksum value of SPD firmware update code is displayed.  
SPDファームウェアアップデートコードのチェックサム値を表示します。

S6. XM :

XM version (U, C models)

Firmware version of XM is displayed.  
XMのファームウェアのバージョンを表示します。

S7. SR :

SIRIUS version (U, C models)

Firmware version of SIRIUS is displayed.

S8. FROMTEST:OK

FlashROM test

The read/write test of microprocessor (IC41 DSP P.C.B.) and flash ROM (IC52 DSP P.C.B.).  
マイコン(IC41 DSP P.C.B.)とフラッシュROM(IC52 DSP P.C.B.)の読み出し／書き込みテストを行います。

S9. DRAMTEST:NG

SDRAM test

The read/write test of microprocessor (IC41 DSP P.C.B.) and SDRAM (IC51 DSP P.C.B.).  
マイコン(IC41 DSP P.C.B.)とSDRAM(IC51 DSP P.C.B.)の読み出し／書き込みテストを行います。

S10.FROMTEST:OK

EEPROM test

The read/write test of microprocessor (IC41 DSP P.C.B.) and EEPROM (IC42 DSP P.C.B.).  
マイコン(IC41 DSP P.C.B.)とEEPROM(IC42 DSP P.C.B.)の読み出し／書き込みテストを行います。

OK: No error detected / 不良検出なし

NG: An error is detected / 不良検出あり

■ DISPLAY DATA

- V6001 : 17-BT-32GNK (OPERATION P.C.B.)



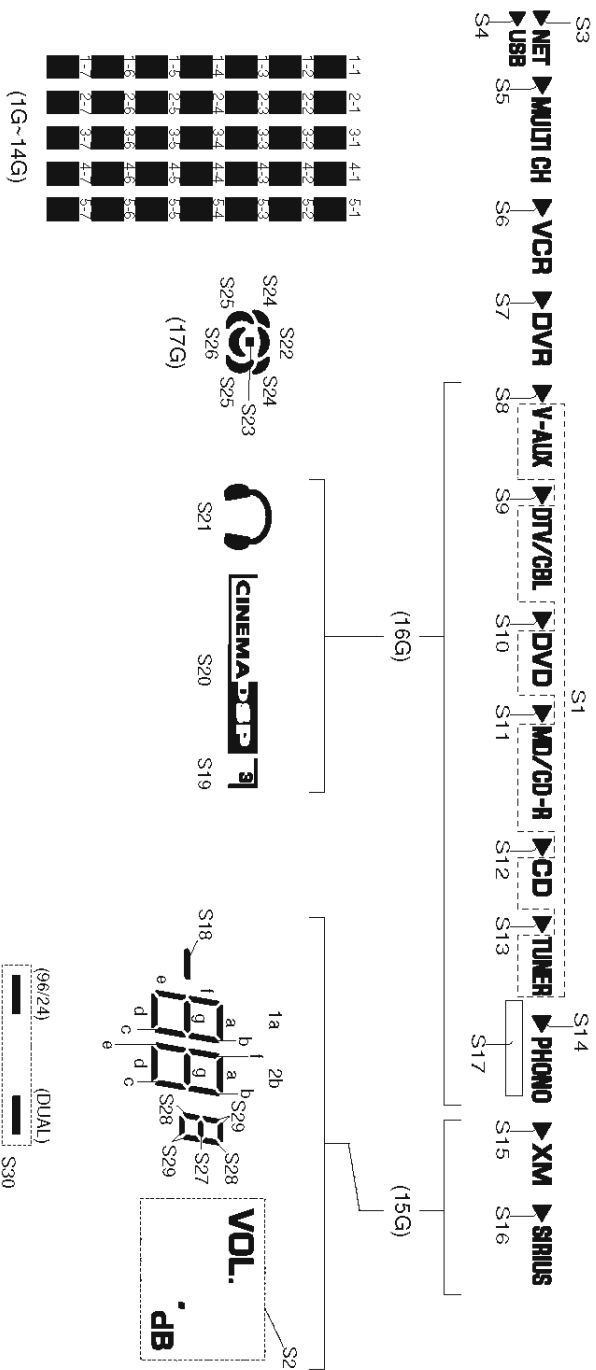
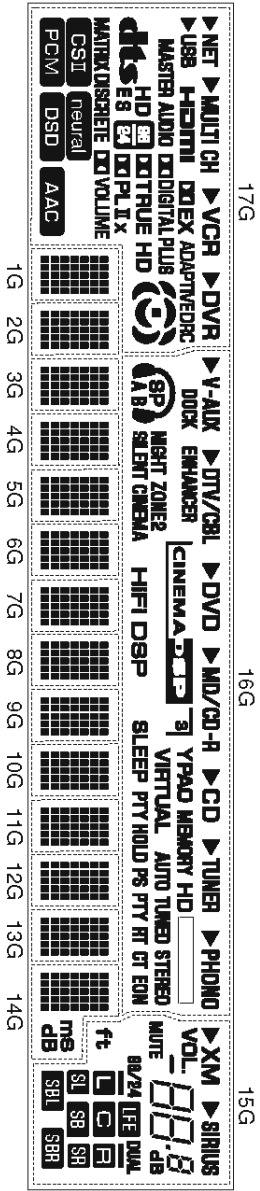
● PIN CONNECTION

|            |    |    |    |    |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pin No.    | 69 | 68 | 67 | 66 | 65 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56  | 55  | 54  | 53  | 52  | 51  | 50  | 49  | 48  | 47  | 46  | 45  | 44  | 43  | 42  | 41  | 40  | 39  | 38  | 37  | 36  | 35  |
| Connection | F2 | NX | NP | NP | P1 | P2 | P3 | P4 | P5 | P6 | P7 | P8 | P9 | P10 | P11 | P12 | P13 | P14 | P15 | P16 | P17 | P18 | P19 | P20 | P21 | P22 | P23 | P24 | P25 | P26 | P27 | P28 | P29 | P30 | P31 |

|            |     |     |     |     |     |     |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
|------------|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Pin No.    | 34  | 33  | 32  | 31  | 30  | 29  | 28 | 27 | 26 | 25 | 24 | 23 | 22 | 21 | 20  | 19  | 18  | 17  | 16  | 15  | 14  | 13  | 12 | 11 | 10 | 9  | 8  | 7  | 6  | 5  | 4  | 3  | 2  | 1  |    |
| Connection | P92 | P93 | P94 | P95 | P96 | P97 | NX | NX | NX | NX | NX | NX | NX | NX | 17G | 16G | 15G | 14G | 13G | 12G | 11G | 10G | 9G | 8G | 7G | 6G | 5G | 4G | 3G | 2G | 1G | NP | NP | NX | F1 |

Note : 1) F1, F2 ..... Filament pin    2) NP ..... No pin    3) NX ..... No extend pin    4) 1G~17G ..... Grid pin

● GRID ASSIGNMENT

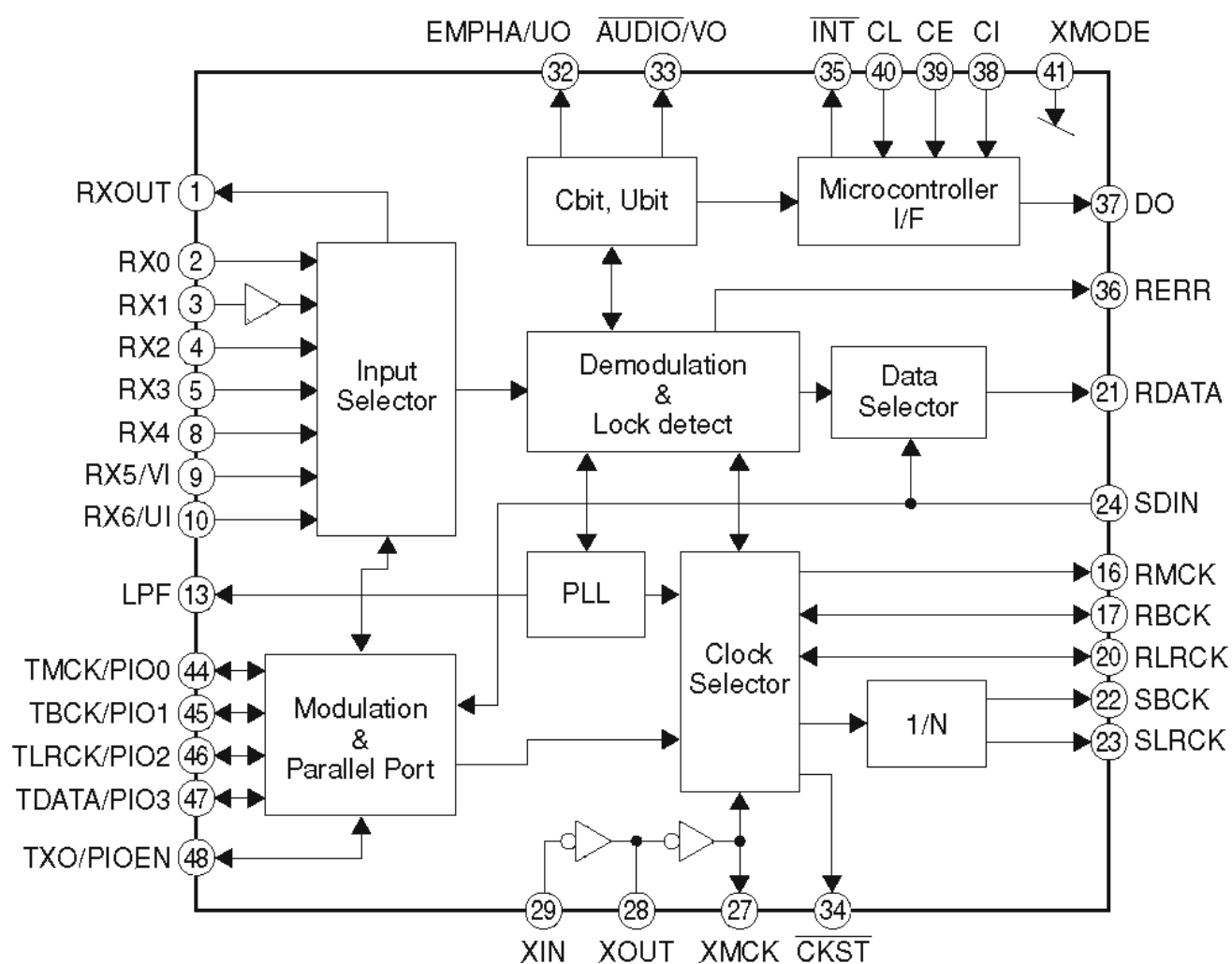


● ANODE CONNECTION

|     | 17G          | 16G           | 15G    | 14G | 13G~1G |
|-----|--------------|---------------|--------|-----|--------|
| 1P  | NET          | S1            | XM     | 1-1 | 1-1    |
| 2P  | MULTI CH     | PHONO         | SIRIUS | 2-1 | 2-1    |
| 3P  | VCR          | S8            | S15    | 3-1 | 3-1    |
| 4P  | DVR          | S9            | S16    | 4-1 | 4-1    |
| 5P  | USB          | S10           | S2     | 5-1 | 5-1    |
| 6P  | S3           | S11           | S18    | 1-2 | 1-2    |
| 7P  | S5           | S12           | 1a     | 2-2 | 2-2    |
| 8P  | S6           | S13           | 1b     | 3-2 | 3-2    |
| 9P  | S7           | S14           | 1c     | 4-2 | 4-2    |
| 10P | S4           | DOCK          | 1d     | 5-2 | 5-2    |
| 11P | H-CONT       | ENHANCER      | 1e     | 1-3 | 1-3    |
| 12P | DOEX         | S21           | 1f     | 2-3 | 2-3    |
| 13P | ADAPTMEDRC   | SP            | 1g     | 3-3 | 3-3    |
| 14P | MASTER AUDIO | A             | 2a     | 4-3 | 4-3    |
| 15P | DTS          | B             | 2b     | 5-3 | 5-3    |
| 16P | HD (ES)      | NIGHT         | 2c     | 1-4 | 1-4    |
| 17P | E6           | ZONE2         | 2d     | 2-4 | 2-4    |
| 18P | ES           | SILENT CAMERA | 2e     | 3-4 | 3-4    |
| 19P | DD DIGITAL   | S20           | 2f     | 4-4 | 4-4    |
| 20P | PUS          | S19           | 2g     | 5-4 | 5-4    |
| 21P | DD TRUE HD   | HIFI DSP      | S27    | 1-5 | 1-5    |
| 22P | DD PL        | YPAO          | S28    | 2-5 | 2-5    |
| 23P | II           | MEMORY        | S29    | 3-5 | 3-5    |
| 24P | x            | HD            | MUTE   | 4-5 | 4-5    |
| 25P | MATRIX       | S17           | 80/24  | 5-5 | 5-5    |
| 26P | DISCRETE     | VIRTUAL       | DUAL   | 1-6 | 1-6    |
| 27P | DD VOLUME    | AUTO          | ft     | 2-6 | 2-6    |
| 28P | CSII         | TUNED         | S30    | 3-6 | 3-6    |
| 29P | neutral      | STEREO        | LFE    | 4-6 | 4-6    |
| 30P | PCM          | SLEEP         | L      | 5-6 | 5-6    |
| 31P | DSD          | PTY (HOLD)    | C      | 1-7 | 1-7    |
| 32P | AAC          | HOLD          | R      | 2-7 | 2-7    |
| 33P | S22          | P8            | SL     | 3-7 | 3-7    |
| 34P | S23          | PTY (RT)      | SB     | 4-7 | 4-7    |
| 35P | S24          | RT            | SB     | 5-7 | 5-7    |
| 36P | S25          | CT            | SBL    | ms  | —      |
| 37P | S26          | EDN           | SBR    | dB  | —      |

## ■ IC DATA

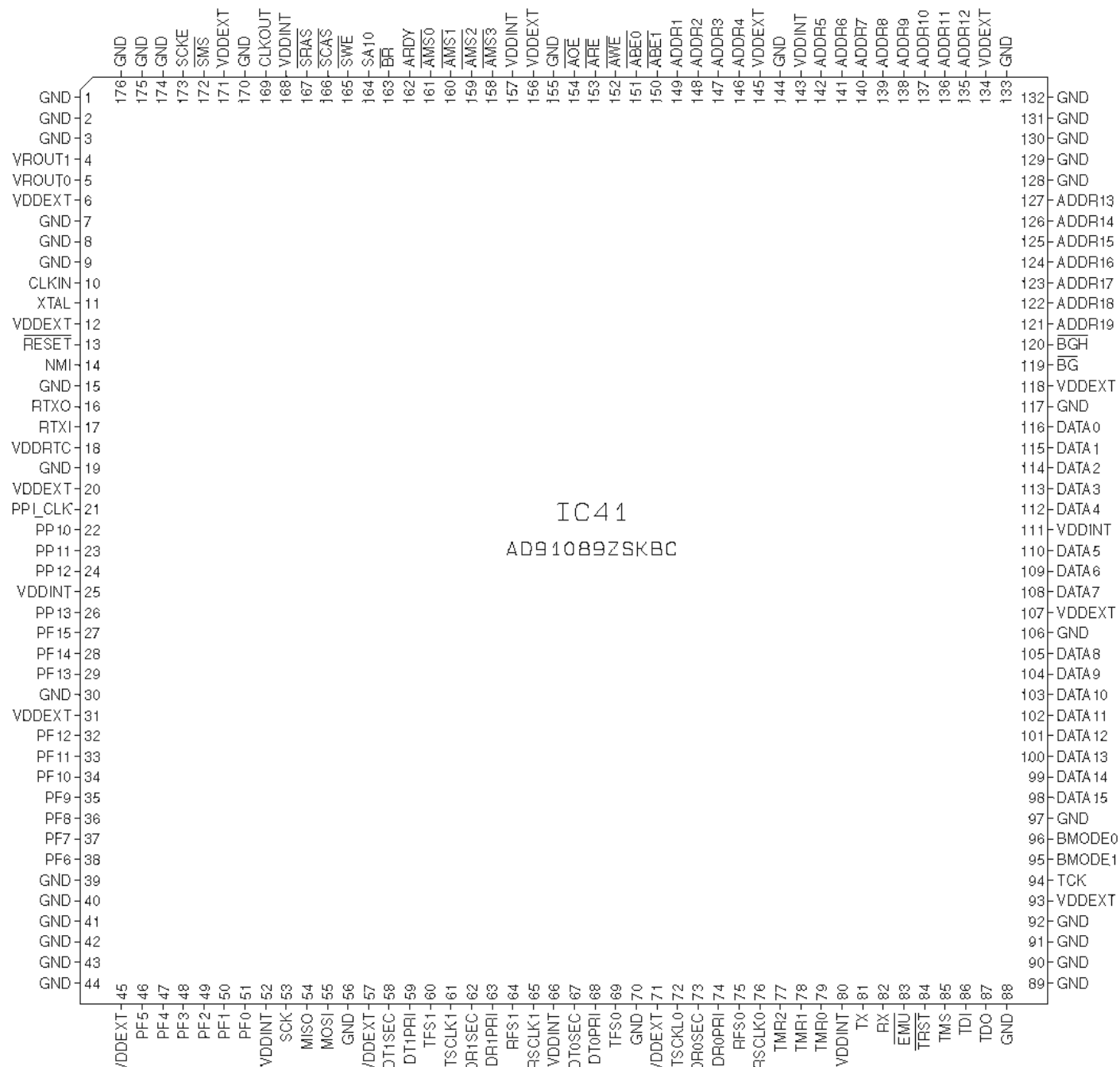
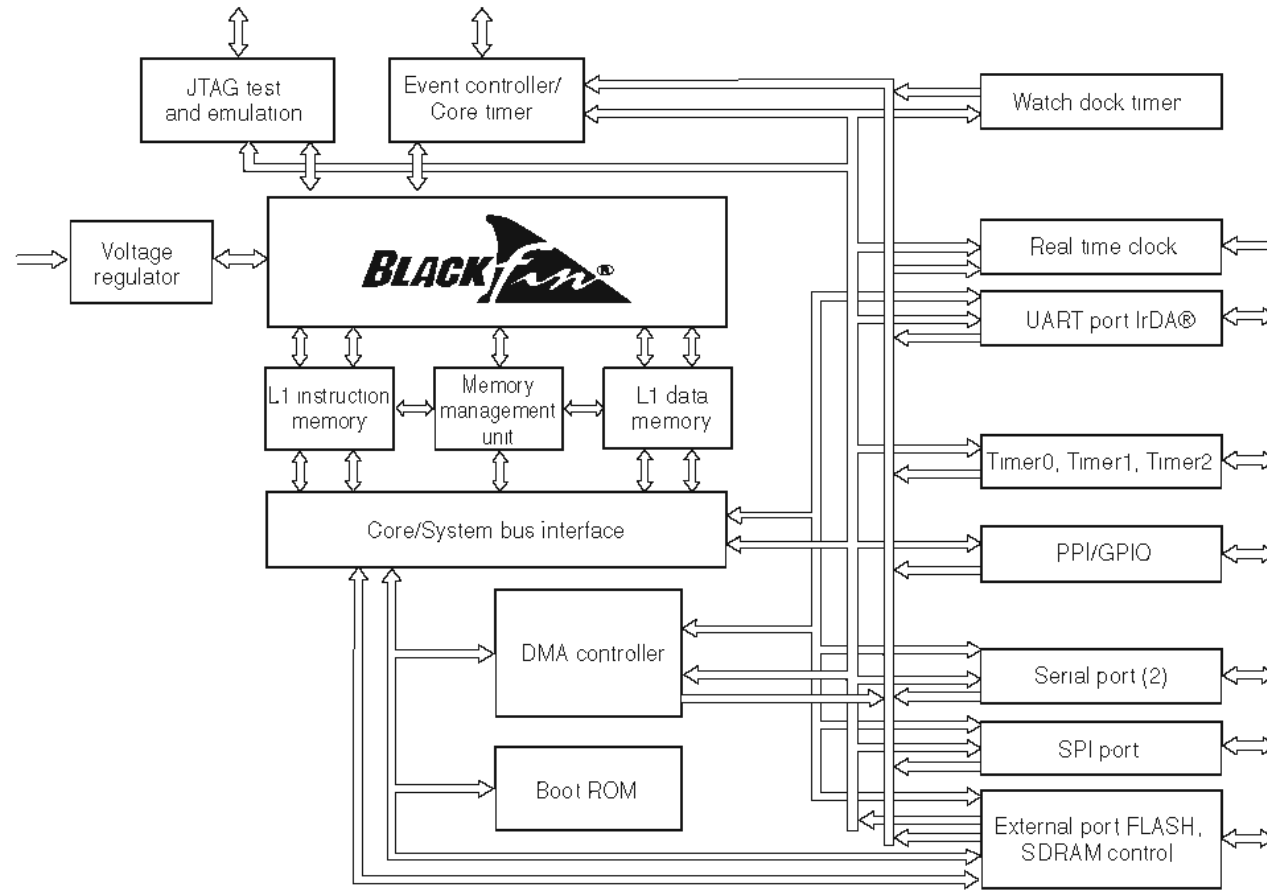
**IC31:** LC89057W-VF4AD-E (DSP P.C.B.)  
Digital audio interface transceiver



| Pin No. | Function Name | I/O | Detail of Function                                                                                                           |
|---------|---------------|-----|------------------------------------------------------------------------------------------------------------------------------|
| 1       | RXOUT         | O   | Output pin of input bi-phase selection data                                                                                  |
| 2       | RX0           | Is  | Input pin of TTL-compatible digital data                                                                                     |
| 3       | RX1           | I   | Digital data input pin with built-in amplifier that supports coaxial                                                         |
| 4       | RX2           | Is  | Input pin of TTL-compatible digital data                                                                                     |
| 5       | RX3           | Is  | Input pin of TTL-compatible digital data                                                                                     |
| 6       | DGND          |     | Digital GND                                                                                                                  |
| 7       | DVDD          |     | Digital power supply (3.3 V)                                                                                                 |
| 8       | RX4           | Is  | Input pin of TTL-compatible digital data                                                                                     |
| 9       | RX5           | Is  | TTL-compatible digital data / Validity flag input pin for modulation                                                         |
| 10      | RX6           | Is  | TTL-compatible digital data / User data input pin for modulation                                                             |
| 11      | DVDD          |     | Digital power supply for PLL                                                                                                 |
| 12      | DGND          |     | Digital GND for PLL                                                                                                          |
| 13      | LPF           | O   | PLL loop filter connection pin                                                                                               |
| 14      | AVDD          |     | Analog power supply for PLL (3.3 V)                                                                                          |
| 15      | AGND          |     | Analog GND for PLL                                                                                                           |
| 16      | RMCK          | O   | R system clock output pin (256 fs, 512 fs, XIN, VCO)                                                                         |
| 17      | RBCK          | O/I | R bit clock input/output pin (64 fs)                                                                                         |
| 18      | DGND          |     | Digital GND                                                                                                                  |
| 19      | DVDD          |     | Digital power supply (3.3 V)                                                                                                 |
| 20      | RLRCK         | O/I | R LR clock input/output pin (fs)                                                                                             |
| 21      | RDATA         | O   | Output pin of serial audio data                                                                                              |
| 22      | SBCK          | O   | S bit clock output pin (32 fs, 64 fs, 128 fs) (No connected.)                                                                |
| 23      | SLRCK         | O   | S LR clock output pin (fs/2, fs, 2 fs) (No connected.)                                                                       |
| 24      | SDIN          | Is  | Input pin of serial audio data                                                                                               |
| 25      | DGND          |     | Digital GND                                                                                                                  |
| 26      | DVDD          |     | Digital power supply (3.3 V)                                                                                                 |
| 27      | XMCK          | O   | Oscillation amplifier output pin                                                                                             |
| 28      | XOUT          | O   | Quartz resonator connection output pin                                                                                       |
| 29      | XIN           | I   | Quartz resonator connection, input pin of external supply clock (24.576 MHz or 12.288 MHz)                                   |
| 30      | DVDD          |     | Digital power supply (3.3 V)                                                                                                 |
| 31      | DGND          |     | Digital GND                                                                                                                  |
| 32      | EMPHA/UO/CD   | I/O | Emphasis information / U data output / C data output / Chip address setting pin                                              |
| 33      | AUDIO/VO      | I/O | Non-PCM detection / V flag output / Chip address setting pin                                                                 |
| 34      | CKST/PT       | I/O | Output of clock switch transitional period signal / Preamble B output / Demodulation master or slave function switch pin     |
| 35      | INT           | I/O | Interrupt output for microprocessor (Possible to select an interrupt factor.) / Modulation or general-purpose I/O switch pin |
| 36      | RERR          | O   | PLL clock error, data error flag output                                                                                      |
| 37      | DO            | O   | Microprocessor I/F, read data output pin (3-state)                                                                           |
| 38      | DI            | Is  | Microprocessor I/F, write data input pin                                                                                     |
| 39      | CE            | Is  | Microprocessor I/F, chip enable input pin                                                                                    |
| 40      | CL            | Is  | Microprocessor I/F, clock input pin"                                                                                         |
| 41      | XMODE         | Is  | System reset input pin                                                                                                       |
| 42      | DGND          |     | Digital GND                                                                                                                  |
| 43      | DVDD          |     | Digital power supply (3.3 V)                                                                                                 |
| 44      | PIO0          | O   | Sport input select                                                                                                           |
| 45      | PIO1          | O   |                                                                                                                              |
| 46      | PIO2          | O   | Audio direct stereo ON                                                                                                       |
| 47      | PIO3          | O   | Audio clock select                                                                                                           |
| 48      | PIOEN         | I/O | Modulation data output / General-purpose I/O enable output pin                                                               |

- 1) Withstand voltage input/output: I or O = -0.3 to 3.6 V, Is = -0.3 to 5.5 V
- 2) Pins 32 and 33 are input pins for chip address setting, when pin 41 = "L".
- 3) Pin 34 is a demodulation function master or an input pin for slave setting, when pin 41 = "L".
- 4) Pin 35 is a modulation function or an input pin for general-purpose I/O function switch setting, when pin 41 = "L".
- 5) ON/OFF for all power supplies must be done at the same timing as a latch-up countermeasure.

# IC41: AD91089SKBC CPU (DSP P.C.B.) Microprocessor



## Memory Interface

| Pin No. | Function Name | I/O | Detail of Function                                        |
|---------|---------------|-----|-----------------------------------------------------------|
| 121     | ADDR19        | O   | Address bus for async/Sync access                         |
| 122     | ADDR18        |     |                                                           |
| 123     | ADDR17        |     |                                                           |
| 124     | ADDR16        |     |                                                           |
| 125     | ADDR15        |     |                                                           |
| 126     | ADDR14        |     |                                                           |
| 127     | ADDR13        |     |                                                           |
| 135     | ADDR12        | O   | Address bus for async/Sync access                         |
| 136     | ADDR11        |     |                                                           |
| 137     | ADDR10        |     |                                                           |
| 138     | ADDR9         |     |                                                           |
| 139     | ADDR8         |     |                                                           |
| 140     | ADDR7         |     |                                                           |
| 141     | ADDR6         |     |                                                           |
| 142     | ADDR5         | O   | Address bus for async/Sync access                         |
| 146     | ADDR4         |     |                                                           |
| 147     | ADDR3         |     |                                                           |
| 148     | ADDR2         |     |                                                           |
| 149     | ADDR1         | I/O | Data bus for async access                                 |
| 98      | DATA15        |     |                                                           |
| 99      | DATA14        |     |                                                           |
| 100     | DATA13        |     |                                                           |
| 101     | DATA12        |     |                                                           |
| 102     | DATA11        |     |                                                           |
| 103     | DATA10        |     |                                                           |
| 104     | DATA9         |     |                                                           |
| 105     | DATA8         | I/O | Data bus for async access                                 |
| 108     | DATA7         |     |                                                           |
| 109     | DATA6         |     |                                                           |
| 110     | DATA5         | I/O | Data bus for async access                                 |
| 112     | DATA4         |     |                                                           |
| 113     | DATA3         |     |                                                           |
| 114     | DATA2         |     |                                                           |
| 115     | DATA1         |     |                                                           |
| 116     | DATA0         | O   | Byte enables/Data masks for async/Sync access             |
| 150     | ABE1          |     |                                                           |
| 151     | ABE0          | I   | Bus request (This pin should be pulled HIGH if not used.) |
| 163     | BR            |     |                                                           |
| 119     | BG            | O   | Bus grant                                                 |
| 120     | BGH           | O   | Bus grant hang                                            |

## Asynchronous memory control

| Pin No. | Function Name | I/O | Detail of Function                                                   |
|---------|---------------|-----|----------------------------------------------------------------------|
| 158     | AMS3          | O   | Banks select                                                         |
| 159     | AMS2          |     |                                                                      |
| 160     | AMS1          |     |                                                                      |
| 161     | AMS0          |     |                                                                      |
| 162     | ARDY          | I   | hardware ready control (This pin should be pulled HIGH if not used.) |
| 154     | AOE           | O   | Output enable                                                        |
| 153     | ARE           | O   | Read enable                                                          |
| 152     | AWE           | O   | Write enable                                                         |

## Synchronous memory control

| Pin No. | Function Name | I/O | Detail of Function    |
|---------|---------------|-----|-----------------------|
| 167     | SRAS          | O   | Row address strobe    |
| 166     | SCAS          | O   | Column address strobe |
| 165     | SWE           | O   | Write enable          |
| 173     | SCKE          | O   | Clock enable          |
| 169     | CLKOUT        | O   | Clock output          |
| 164     | SA10          | O   | A10 pin               |
| 172     | SMS           | O   | Bank select           |

## Timers

| Pin No. | Function Name | I/O | Detail of Function     |
|---------|---------------|-----|------------------------|
| 79      | TMR0          | I/O | Timer0                 |
| 78      | TMR1          | I/O | Timer1/PPI frame sync1 |
| 77      | TMR2          | I/O | Timer2/PPI frame sync2 |

## PPI port

| Pin No. | Function Name | I/O | Detail of Function                 |
|---------|---------------|-----|------------------------------------|
| 22      | PPI0          | I/O | PPI3-0                             |
| 23      | PPI1          |     |                                    |
| 24      | PPI2          |     |                                    |
| 26      | PPI3          |     |                                    |
| 21      | PPI_CLK       | I   | PPI clock/External timer reference |

## Port F:

## GPIO/Parallel peripheral interface port/SPI/Timers

| Pin No. | Function Name | I/O | Detail of Function                                          |
|---------|---------------|-----|-------------------------------------------------------------|
| 51      | PF0           | I/O | GPIO/SPI slave select input                                 |
| 50      | PF1           | I/O | GPIO/SPI slave select enable 1/ Timer alternate clock input |
| 49      | PF2           | I/O | GPIO/SPI slave select enable 2                              |
| 48      | PF3           | I/O | GPIO/SPI slave select enable 3/ PPI frame sync 3            |
| 47      | PF4           | I/O | GPIO/SPI slave select enable 4/ PPI 15                      |
| 46      | PF5           | I/O | GPIO/SPI slave select enable 5/ PPI 14                      |
| 38      | PF6           | I/O | GPIO/SPI slave select enable 6/ PPI 13                      |
| 37      | PF7           | I/O | GPIO/SPI slave select enable 7/ PPI 12                      |
| 36      | PF8           | I/O | GPIO/PPI 11                                                 |
| 35      | PF9           | I/O | GPIO/PPI 10                                                 |
| 34      | PF10          | I/O | GPIO/PPI 9                                                  |
| 33      | PF11          | I/O | GPIO/PPI 8                                                  |
| 32      | PF12          | I/O | GPIO/PPI 7                                                  |
| 29      | PF13          | I/O | GPIO/PPI 6                                                  |
| 28      | PF14          | I/O | GPIO/PPI 5                                                  |
| 27      | PF15          | I/O | GPIO/PPI 4                                                  |

**JTAG port**

| Pin No. | Function Name | I/O | Detail of Function                                                 |
|---------|---------------|-----|--------------------------------------------------------------------|
| 94      | TCK           | I   | JTAG clock                                                         |
| 87      | TDO           | O   | JTAG serial data out                                               |
| 86      | TDI           | I   | JTAG serial data in                                                |
| 85      | TMS           | I   | JTAG mode select                                                   |
| 84      | TRST          | I   | JTAG reset (This pin is should be pulled LOW if JTAG is not used.) |
| 83      | EMU           | O   | Emulation output                                                   |

**Mode controls**

| Pin No. | Function Name | I/O | Detail of Function                                                                           |
|---------|---------------|-----|----------------------------------------------------------------------------------------------|
| 13      | RESET         | I   | Reset (This pin is always active during core power-on.)                                      |
| 14      | NMI           | I   | Nonmaskable interrupt (This pin should be pulled LOW when not used.)                         |
| 95      | BMODE1        | I   | Boot mode strap (These pins must be pulled to the state required for the desired boot mode.) |
| 96      | BMODE0        |     |                                                                                              |

**SPI port**

| Pin No. | Function Name | I/O | Detail of Function                                                                                                 |
|---------|---------------|-----|--------------------------------------------------------------------------------------------------------------------|
| 55      | MOSI          | I/O | Master out slave in                                                                                                |
| 54      | MISO          | I/O | Master in slave out (This pin is should be pulled HIGH through a 4.7 k-ohms resistor if booting via the SPI port.) |
| 53      | SCK           | I/O | SPI clock                                                                                                          |

**Voltage regulator**

| Pin No. | Function Name | I/O | Detail of Function |
|---------|---------------|-----|--------------------|
| 4       | VROUT1        | O   | External FET drive |
| 5       | VROUT0        |     |                    |

**Serial ports**

| Pin No. | Function Name | I/O | Detail of Function             |
|---------|---------------|-----|--------------------------------|
| 76      | RSCLK0        | I/O | SPORT0 receive serial clock    |
| 75      | RFS0          | I/O | SPORT0 receive frame sync      |
| 74      | DR0PRI        | I   | SPORT0 receive data primary    |
| 73      | DR0SEC        | I   | SPORT0 receive data secondary  |
| 72      | TSCLK0        | I/O | SPORT0 transmit serial clock   |
| 69      | TFS0          | I/O | SPORT0 transmit frame sync     |
| 68      | DTOPRI        | O   | SPORT0 transmit data primary   |
| 67      | DTOSEC        | O   | SPORT0 transmit data secondary |
| 65      | RSCLK1        | I/O | SPORT1 receive serial clock    |
| 64      | RFS1          | I/O | SPORT1 receive frame sync      |
| 63      | DR1PRI        | I   | SPORT1 receive data primary    |
| 62      | DR1SEC        | I   | SPORT1 receive data secondary  |
| 61      | TSCLK1        | I/O | SPORT1 transmit serial clock   |
| 60      | TFS1          | I/O | SPORT1 transmit frame sync     |
| 59      | DT1PRI        | O   | SPORT1 transmit data primary   |
| 58      | DT1SEC        | O   | SPORT1 transmit data secondary |

**UART port**

| Pin No. | Function Name | I/O | Detail of Function |
|---------|---------------|-----|--------------------|
| 82      | RX            | I   | UART receive       |
| 81      | TX            | O   | UART transmit      |

**Real-time clock**

| Pin No. | Function Name | I/O | Detail of Function                                               |
|---------|---------------|-----|------------------------------------------------------------------|
| 17      | RTXI          | I   | RTC crystal input (This pin should be pulled LOW when not used.) |
| 16      | RTXO          | O   | RTC crystal output                                               |

**Clock**

| Pin No. | Function Name | I/O | Detail of Function                                                 |
|---------|---------------|-----|--------------------------------------------------------------------|
| 10      | CLKIN         | I   | Clock/Crystal input (This pin needs to be at a level or clocking.) |
| 11      | XTAL          | O   | Crystal output                                                     |

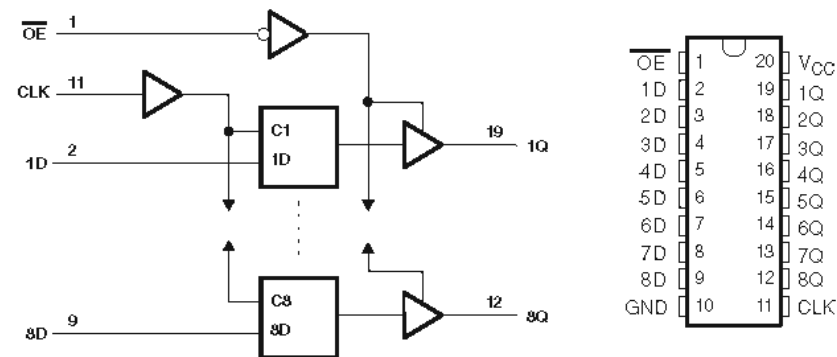
Supplies

| Pin No. | Function Name | I/O | Detail of Function           |
|---------|---------------|-----|------------------------------|
| 6       | VDDEXT        | P   | I/O power supply             |
| 12      |               |     |                              |
| 20      |               |     |                              |
| 31      |               |     |                              |
| 45      |               |     |                              |
| 57      |               |     |                              |
| 71      |               |     |                              |
| 93      |               |     |                              |
| 107     |               |     |                              |
| 118     |               |     |                              |
| 134     |               |     |                              |
| 145     |               |     |                              |
| 156     |               |     |                              |
| 171     |               |     |                              |
| 25      | VDDINT        | P   | Core power supply            |
| 52      |               |     |                              |
| 66      |               |     |                              |
| 80      |               |     |                              |
| 111     |               |     |                              |
| 143     |               |     |                              |
| 157     |               |     |                              |
| 168     |               |     |                              |
| 18      | VDDRTC        | P   | Real-time clock power supply |

| Pin No. | Function Name | I/O | Detail of Function |
|---------|---------------|-----|--------------------|
| 1       | GND           | G   | External ground    |
| 2       |               |     |                    |
| 3       |               |     |                    |
| 7       |               |     |                    |
| 8       |               |     |                    |
| 9       |               |     |                    |
| 15      |               |     |                    |
| 19      |               |     |                    |
| 30      |               |     |                    |
| 39      |               |     |                    |
| 40      |               |     |                    |
| 41      |               |     |                    |
| 42      |               |     |                    |
| 43      |               |     |                    |
| 44      |               |     |                    |
| 56      |               |     |                    |
| 70      |               |     |                    |
| 88      |               |     |                    |
| 89      |               |     |                    |
| 90      |               |     |                    |
| 91      |               |     |                    |
| 92      |               |     |                    |
| 97      |               |     |                    |
| 106     |               |     |                    |
| 117     |               |     |                    |
| 128     |               |     |                    |
| 133     |               |     |                    |
| 144     |               |     |                    |
| 155     |               |     |                    |
| 170     |               |     |                    |
| 171     |               |     |                    |
| 172     |               |     |                    |
| 173     |               |     |                    |
| 174     |               |     |                    |
| 175     |               |     |                    |
| 176     |               |     |                    |

- Microprocessor extended port

IC57-IC59: SN74LV574APWR (DSP P.C.B.)  
Octal edge-triggered D-type flip-flops with 3-state outputs



## IC57

| Pin No. | Port Name | Function Name | Detail of Function              |
|---------|-----------|---------------|---------------------------------|
| 1       | /OE       | /EXPE         | Extended port enable            |
| 2       | 1D        | D00           | Data bus 00                     |
| 3       | 2D        | D01           | Data bus 01                     |
| 4       | 3D        | D02           | Data bus 02                     |
| 5       | 4D        | D03           | Data bus 03                     |
| 6       | 5D        | D04           | Data bus 04                     |
| 7       | 6D        | D05           | Data bus 05                     |
| 8       | 7D        | D06           | Data bus 06                     |
| 9       | 8D        | D07           | Data bus 07                     |
| 10      | GND       | DGND          | Ground of external              |
| 11      | LCK       | NPGA_EXSTB    | Bank select 1                   |
| 12      | 8Q        | —             | —                               |
| 13      | 7Q        | R2A_CLK       | E-Vol control clock             |
| 14      | 6Q        | R2A_DATA      | E-Vol control data              |
| 15      | 5Q        | VIDEO_MTVR1   | DVR REC output inhibit          |
| 16      | 4Q        | /DAC_CS       | DA converter chip select        |
| 17      | 3Q        | /ADC_CS       | AD converter chip select        |
| 18      | 2Q        | /VFD_CS       | VFD (Front display) chip select |
| 19      | 1Q        | /DIR_CS       | Audio CODEC chip select         |
| 20      | VCC       | VCC           | Power supply +3.3V              |

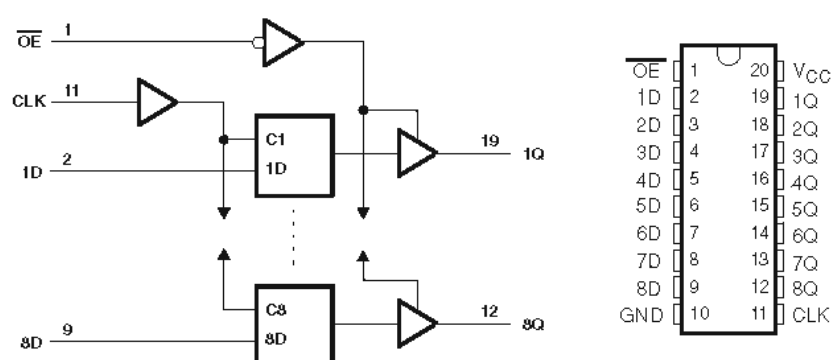
## IC58

| Pin No. | Port Name | Function Name | Detail of Function     |
|---------|-----------|---------------|------------------------|
| 1       | /OE       | /EXPE         | Extended port enable   |
| 2       | 1D        | D00           | Data bus 00            |
| 3       | 2D        | D01           | Data bus 01            |
| 4       | 3D        | D02           | Data bus 02            |
| 5       | 4D        | D03           | Data bus 03            |
| 6       | 5D        | D04           | Data bus 04            |
| 7       | 6D        | D05           | Data bus 05            |
| 8       | 7D        | D06           | Data bus 06            |
| 9       | 8D        | D07           | Data bus 07            |
| 10      | GND       | DGND          | Ground of external     |
| 11      | CLK       | NPGA_EXSTB    | Bank select 1          |
| 12      | 8Q        | PRY           | Power relay control    |
| 13      | 7Q        | XM_POWER      | XM power enable        |
| 14      | 6Q        | /Z2MT         | Zone2 L/R mute         |
| 15      | 5Q        | /SBMT         | Surround back L/R mute |
| 16      | 4Q        | /SWMT         | Subwoofer mute         |
| 17      | 3Q        | /CMT          | Center mute            |
| 18      | 2Q        | /SMT          | Surround L/R mute      |
| 19      | 1Q        | /FMT          | Front L/R mute         |
| 20      | VCC       | VCC           | Power supply +3.3V     |

## IC59

| Pin No. | Port Name | Function Name | Detail of Function   |
|---------|-----------|---------------|----------------------|
| 1       | /OE       | /EXPE         | Extended port enable |
| 2       | 1D        | D00           | Data bus 00          |
| 3       | 2D        | D01           | Data bus 01          |
| 4       | 3D        | D02           | Data bus 02          |
| 5       | 4D        | D03           | Data bus 03          |
| 6       | 5D        | D04           | Data bus 04          |
| 7       | 6D        | D05           | Data bus 05          |
| 8       | 7D        | D06           | Data bus 06          |
| 9       | 8D        | D07           | Data bus 07          |
| 10      | GND       | DGND          | Ground of external   |
| 11      | CLK       | NPGA_EXSTB    | Bank select 0        |
| 12      | 8Q        | ADC_SELECT_C  | Selector C           |
| 13      | 7Q        | ADC_SELECT_B  | Selector B           |
| 14      | 6Q        | ADC_SELECT_A  | Selector A           |
| 15      | 5Q        | SBRY          | Speaker relay SB     |
| 16      | 4Q        | HPRY          | Headphone relay      |
| 17      | 3Q        | CSRY          | Speaker relay C/SW   |
| 18      | 2Q        | MRYB          | Speaker relay F/B    |
| 19      | 1Q        | MRYA          | Speaker relay F/A    |
| 20      | VCC       | VCC           | Power supply +3.3V   |

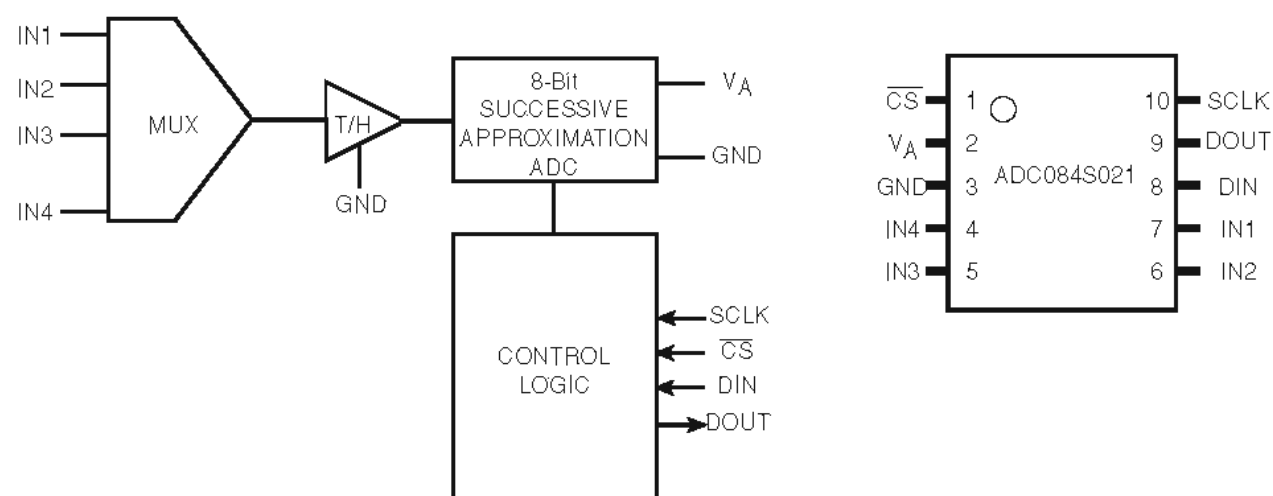
IC56: SN74AHCT574AWR (DSP P.C.B.)  
Octal edge-triggered D-type flip-flops with 3-state outputs



| Pin No. | Port Name | Function Name  | Detail of Function       |
|---------|-----------|----------------|--------------------------|
| 1       | /OE       | /EXPE          | Extended port enable     |
| 2       | 1D        | D00            | Data bus 00              |
| 3       | 2D        | D01            | Data bus 01              |
| 4       | 3D        | D02            | Data bus 02              |
| 5       | 4D        | D03            | Data bus 03              |
| 6       | 5D        | D04            | Data bus 04              |
| 7       | 6D        | D05            | Data bus 05              |
| 8       | 7D        | D06            | Data bus 06              |
| 9       | 8D        | D07            | Data bus 07              |
| 10      | GND       | DGND           | Ground of external       |
| 11      | CLK       | NPGA_EXSTB     | Bank select 0            |
| 12      | 8Q        | 5VIDEO_VIA     | Video input selector A   |
| 13      | 7Q        | 5VIDEO_VIB     | Video input selector B   |
| 14      | 6Q        | 5VIDEO_VIC     | Video input selector C   |
| 15      | 5Q        | /5VIDEO_MTMON  | Monitor output inhibit   |
| 16      | 4Q        | /5VIDEO_CMON   | Component output inhibit |
| 17      | 3Q        | 5VIDEO_CBYPASS | Component bypass         |
| 18      | 2Q        | 5VIDEO_CMP1    | Component select 1       |
| 19      | 1Q        | 5VIDEO_CMP0    | Component select 2       |
| 20      | VCC       | VCC            | Power supply +5V         |

- **Microprocessor ADC select port**

**IC81:** ADC084S021C1MM (DSP P.C.B.)  
4-channel, 200 kSPS, 8-bit A/D converter



| Pin No. | Port Name | Function Name | Detail of Function        |
|---------|-----------|---------------|---------------------------|
| 1       | /CS       | /ADC_CS       | CS for microprocessor     |
| 2       | VA        | +3.3S         | Power supply +3.3V        |
| 3       | GND       | DGND          | Ground of external        |
| 4       | IN4       | ADC_COM2      | SPI bus COM (IC83)        |
| 5       | IN3       | ADC_COM1      | SPI bus COM (IC82)        |
| 6       | IN2       | KEY1          | Key input 1               |
| 7       | IN1       | KEY0          | Key input 0               |
| 8       | DIN       | SPIMI         | Master output/slave input |
| 9       | DOUT      | SPIMO         | Master input/slave output |
| 10      | SCLK      | SPISCK        | SPI clock                 |

Key detection for A/D port

Key input (A/D) pull-up resistance 10 k-ohms

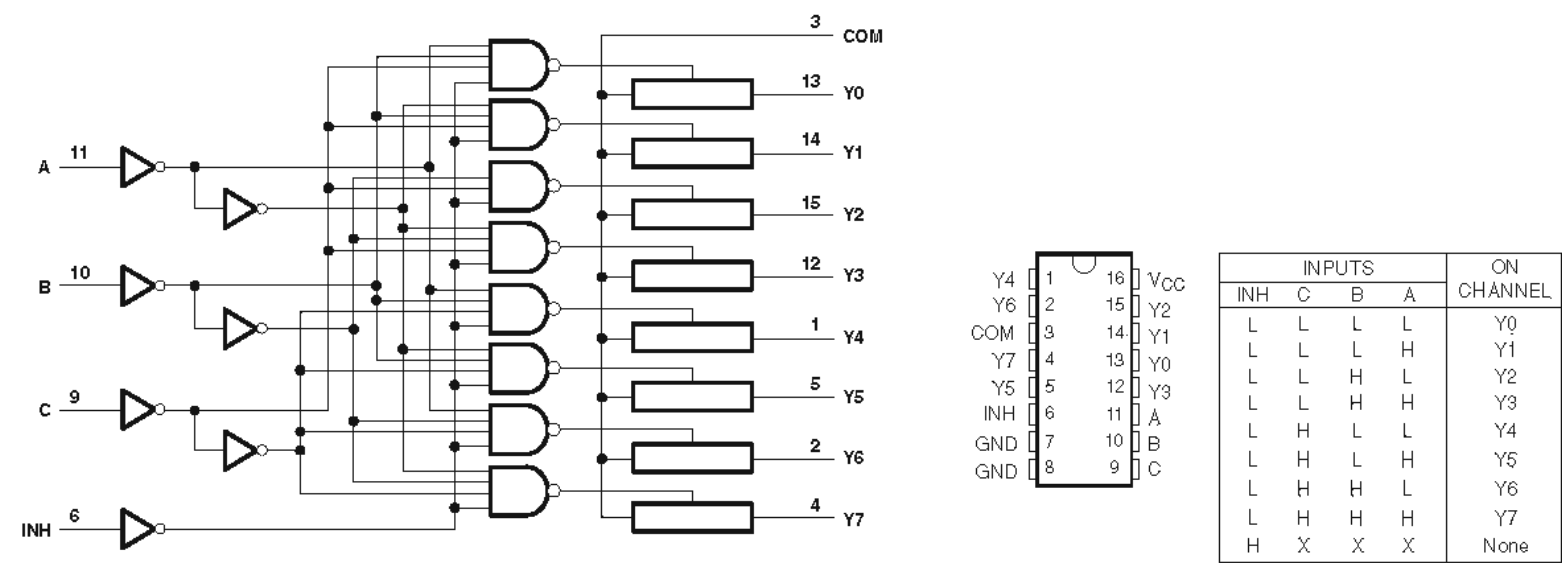
U, C, R, T, K, A, G, E, F, L, J models

| Ohm                 | 0     | + 1.0 k          | + 1.0 k      | + 1.5 k   | + 2.2 k   | + 2.2 k         | + 3.3 k         | + 4.7 k         | + 6.8 k | + 10.0 k           | + 22.0 k               |
|---------------------|-------|------------------|--------------|-----------|-----------|-----------------|-----------------|-----------------|---------|--------------------|------------------------|
| V                   | 0–0.2 | 0.2–0.4          | 0.4–0.7      | 0.7–1.0   | 1.0–1.3   | 1.3–1.6         | 1.6–1.9         | 1.9–2.1         | 2.1–2.4 | 2.4–2.7            | 2.7–3.0                |
| KEY INPUT 0 (7 pin) | –     | SPEAKERS A/B/OFF | TONE CONTROL | PROGRAM < | PROGRAM > | STRAIGHT EFFECT | A/B/C/D/E       | BAND            | –       | EDIT PRESET/TUNING | –                      |
| KEY INPUT 1 (6 pin) | –     | –                | AUDIO SELECT | INPUT >   | INPUT <   | DIRECT          | PRESET/TUNING < | PRESET/TUNING > | MEMORY  | –                  | INFO TUNING AUTO/MAN'L |

B model

| Ohm                 | 0     | + 1.0 k          | + 1.0 k      | + 1.5 k   | + 2.2 k   | + 2.2 k         | + 3.3 k | + 4.7 k | + 6.8 k | + 10.0 k | + 22.0 k |
|---------------------|-------|------------------|--------------|-----------|-----------|-----------------|---------|---------|---------|----------|----------|
| V                   | 0–0.2 | 0.2–0.4          | 0.4–0.7      | 0.7–1.0   | 1.1–1.3   | 1.3–1.6         | 1.6–1.9 | 1.9–2.1 | 2.1–2.4 | 2.4–2.7  | 2.7–2.9  |
| KEY INPUT 0 (7 pin) | –     | SPEAKERS A/B/OFF | TONE CONTROL | PROGRAM < | PROGRAM > | STRAIGHT EFFECT | –       | –       | –       | –        | –        |
| KEY INPUT 1 (6 pin) | –     | –                | AUDIO SELECT | INPUT >   | INPUT <   | DIRECT          | –       | –       | –       | –        | –        |

IC82, IC83: SN74LV4051APWR (DSP P.C.B.)  
8-channel analog multiplexers/demultiplexers



IC82

| Pin No. | Port Name | Function Name | Detail of Function                                |
|---------|-----------|---------------|---------------------------------------------------|
| 1       | Y4        | /TUNER_TUNED  | Tuner tuned detection                             |
| 2       | Y6        | XM_ANT        | XM antenna                                        |
| 3       | COM       | ADC_COM1      | SPI bus COM (IC81)                                |
| 4       | Y7        | DOCK_ID       | DOCK detection (Normal DOCK or Bluetooth adapter) |
| 5       | Y5        | IP_DET        | iPod detection                                    |
| 6       | INH       | DGND          | Ground of external                                |
| 7       | GND       | DGND          | Ground of external                                |
| 8       | GND       | DGND          | Ground of external                                |
| 9       | C         | SELECT C      | ADC selector C                                    |
| 10      | B         | SELECT B      | ADC selector B                                    |
| 11      | A         | SELECT A      | ADC selector A                                    |
| 12      | Y3        | THM           | Temperature detection                             |
| 13      | Y0        | DEST1         | Destination detection                             |
| 14      | Y1        | PRV1          | Power supply protection 1                         |
| 15      | Y2        | PRD           | AMP DC protecton                                  |
| 16      | Vcc       | +3.3S         | Power supply +3.3V                                |

DOCK detection for AD port (IC82 AD converter pin no. 4)  
Pull-up resistance 10 k-ohms

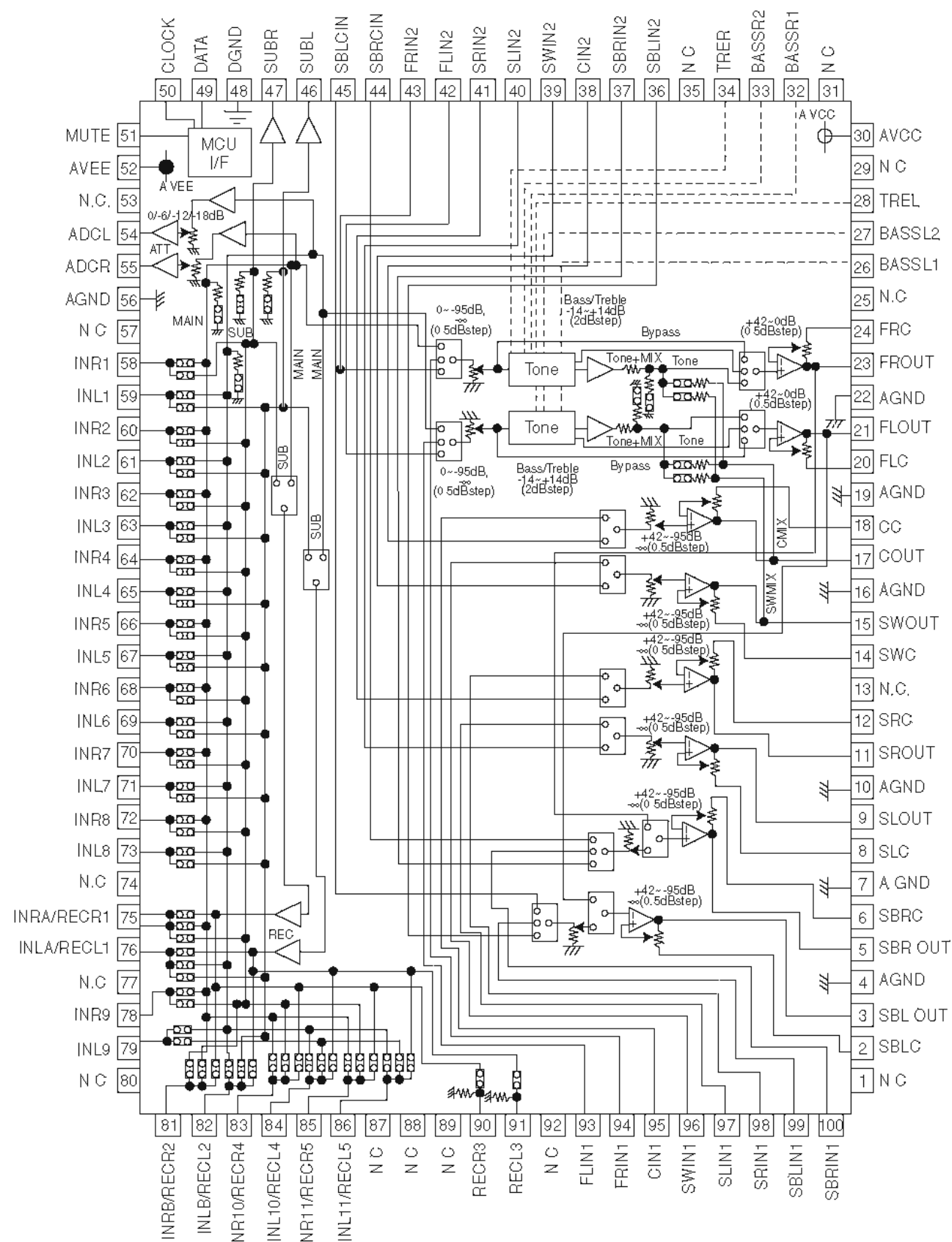
| DOCK connector    | DOCK (Bluetooth) | Reserved | Reserved | DOCK (iPod) | Reserved | (Develop-ment) | No connect |
|-------------------|------------------|----------|----------|-------------|----------|----------------|------------|
| Ohm               | 0.56k            | 2.7k     | 5.6k     | 10.0k       | 18.0k    | 39.0k          | —          |
| DKID (Pin no. 21) | 5-25             | 50-60    | 85-100   | 120-140     | 150-170  | 195-210        | 245-255    |

IC83

|    | Port Name | Function Name | Detail of Function                          |
|----|-----------|---------------|---------------------------------------------|
| 1  | Y4        | /TUNER_STEREO | Tuner stereo detection                      |
| 2  | Y6        | XM_LINK       | XM link                                     |
| 3  | COM       | ADC_COM2      | SPI bus COM (IC81)                          |
| 4  | Y7        | /HP_DET       | Headphone detect                            |
| 5  | Y5        | IP_AP         | iPod                                        |
| 6  | INH       | DGND          | Ground of external                          |
| 7  | GND       | DGND          | Ground of external                          |
| 8  | GND       | DGND          | Ground of external                          |
| 9  | C         | SELECT C      | ADC selector C                              |
| 10 | B         | SELECT B      | ADC selector B                              |
| 11 | A         | SELECT A      | ADC selector A                              |
| 12 | Y3        | PRI           | AMP current protection                      |
| 13 | Y0        | DEST2         | —                                           |
| 14 | Y1        | PRV2          | Power supply protection 2                   |
| 15 | Y2        | PLDET         | Output voltage of power amplifier detection |
| 16 | Vcc       | +3.3S         | Power supply +3.3V                          |

IC401 : R2A15218FP (MAIN P.C.B.)

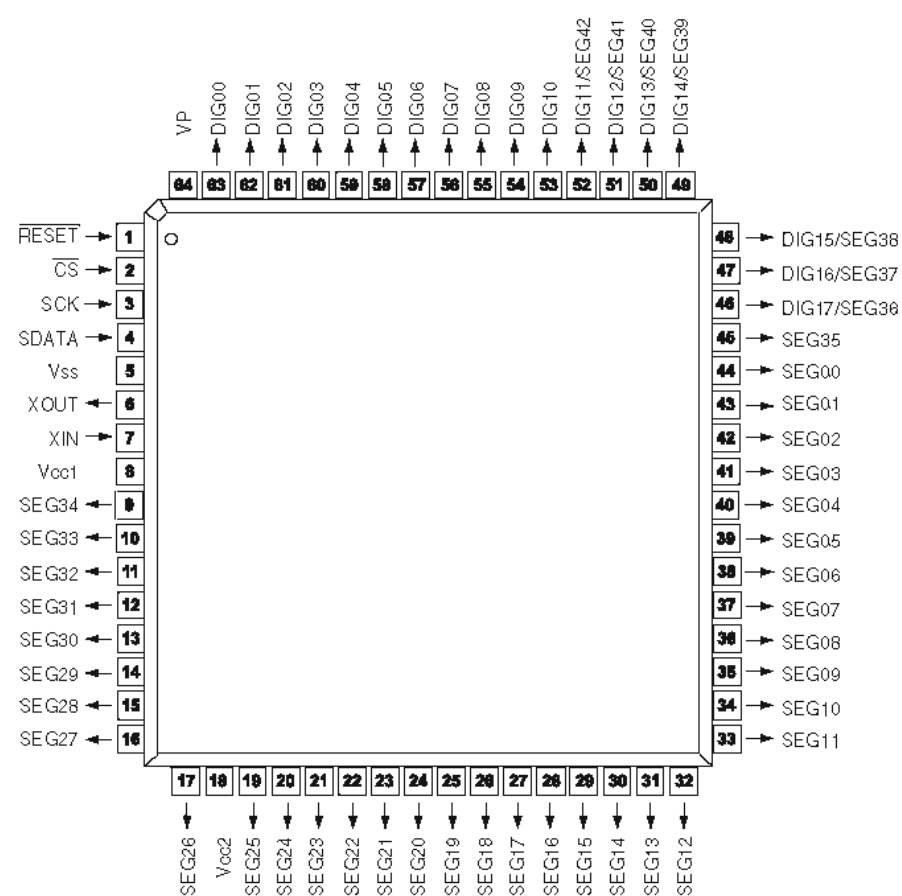
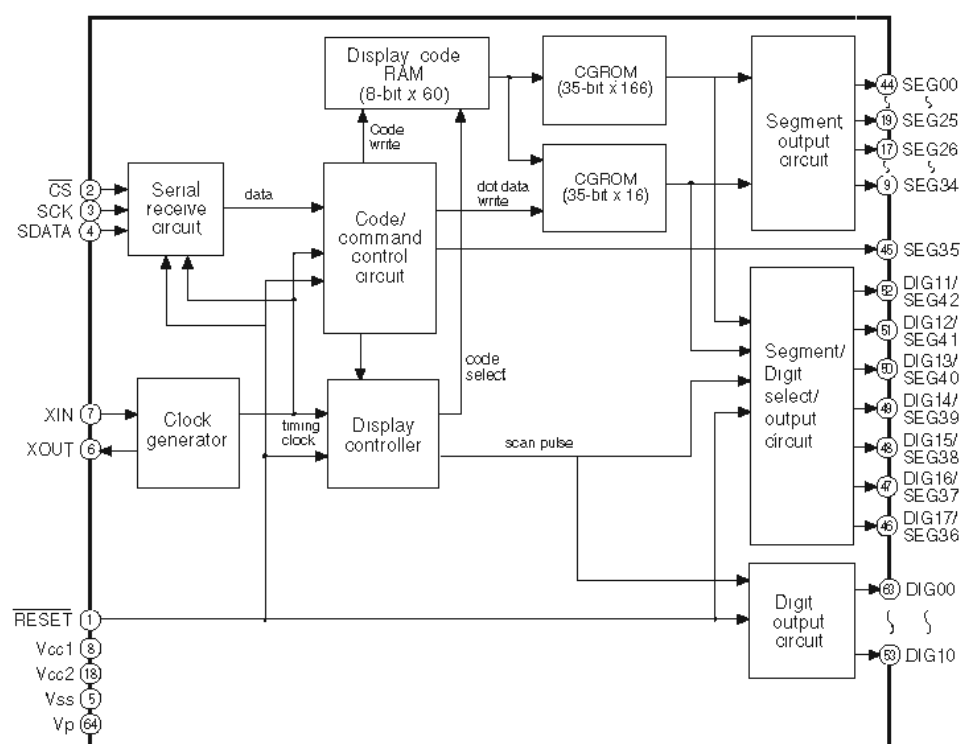
8 ch electronic volume with 11 input selector and tone control



| Pin No. | Function Name | Detail of Function                                                                   |
|---------|---------------|--------------------------------------------------------------------------------------|
| 1       | NC            |                                                                                      |
| 2       | SBLC          | Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume |
| 3       | SBL OUT       | Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel                                       |
| 4       | AGND          | Analog ground of internal circuit                                                    |
| 5       | SBR OUT       | Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel                                       |
| 6       | SBRC          | Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume |
| 7       | AGND          | Analog ground of internal circuit                                                    |
| 8       | SLC           | Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume |
| 9       | SLOUT         | Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel                                       |
| 10      | AGND          | Analog ground of internal circuit                                                    |
| 11      | SROUT         | Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel                                       |
| 12      | SRC           | Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume |
| 13      | NC            |                                                                                      |
| 14      | SWC           | Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume |
| 15      | SWOUT         | Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel                                       |
| 16      | AGND          | Analog ground of internal circuit                                                    |
| 17      | COUT          | Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel                                       |
| 18      | CC            | Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume |
| 19      | AGND          | Analog ground of internal circuit                                                    |
| 20      | FLC           | Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume |
| 21      | FLOUT         | Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel                                       |
| 22      | AGND          | Analog ground of internal circuit                                                    |
| 23      | FROUT         | Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel                                       |
| 24      | FRC           | Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume |
| 25      | NC            |                                                                                      |
| 26      | BASSL1        | Frequency characteristic setting pin of L/R channel tone control (Bass)              |
| 27      | BASSL2        |                                                                                      |
| 28      | TREL          | Frequency characteristic setting pin of L/R channel tone control (Treble)            |
| 29      | NC            |                                                                                      |
| 30      | AVCC          | Positive power supply to internal circuit                                            |
| 31      | NC            |                                                                                      |
| 32      | BASSR1        | Frequency characteristic setting pin of L/R channel tone control (Bass)              |
| 33      | BASSR2        |                                                                                      |
| 34      | TRER          | Frequency characteristic setting pin of L/R channel tone control (Treble)            |
| 35      | NC            |                                                                                      |
| 36      | SBLIN2        | Input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)                           |
| 37      | SBRIN2        |                                                                                      |
| 38      | CIN2          |                                                                                      |
| 39      | SWIN2         |                                                                                      |
| 40      | SLIN2         |                                                                                      |
| 41      | SRIN2         |                                                                                      |
| 42      | FLIN2         |                                                                                      |
| 43      | FRIN2         |                                                                                      |
| 44      | SBRCIN        | Input pin for SBL/SBR channel volume                                                 |
| 45      | SBLCIN        |                                                                                      |
| 46      | SUBL          | Output pin for L/R channel SUB output                                                |
| 47      | SUBR          |                                                                                      |
| 48      | DGND          | Digital ground of internal circuit                                                   |
| 49      | DATA          | Input pin of control data                                                            |
| 50      | CLOCK         | Input pin of control clock                                                           |

| Pin No. | Function Name | Detail of Function                                                                |
|---------|---------------|-----------------------------------------------------------------------------------|
| 51      | MUTE          | Outside mute control pin                                                          |
| 52      | AVEE          | Negative power supply to internal circuit                                         |
| 53      | NC            |                                                                                   |
| 54      | ADCL          | Output pin for L/R channel ADC                                                    |
| 55      | ADCR          |                                                                                   |
| 56      | AGND          | Analog ground of internal circuit                                                 |
| 57      | NC            |                                                                                   |
| 58      | INR1          | Input pin of L/R channel (Input selector)                                         |
| 59      | INL1          |                                                                                   |
| 60      | INR2          |                                                                                   |
| 61      | INL2          |                                                                                   |
| 62      | INR3          |                                                                                   |
| 63      | INL3          |                                                                                   |
| 64      | INR4          |                                                                                   |
| 65      | INL4          |                                                                                   |
| 66      | INR5          |                                                                                   |
| 67      | INL5          |                                                                                   |
| 68      | INR6          |                                                                                   |
| 69      | INL6          |                                                                                   |
| 70      | INR7          |                                                                                   |
| 71      | INL7          |                                                                                   |
| 72      | INR8          |                                                                                   |
| 73      | INL8          |                                                                                   |
| 74      | NC            |                                                                                   |
| 75      | INRA/RECR1    | Input pin of L/R channel (Input selector) / Output pin for L/R channel REC output |
| 76      | INLA/RECL1    |                                                                                   |
| 77      | NC            |                                                                                   |
| 78      | INR9          | Input pin of L/R channel (Input selector)                                         |
| 79      | INL9          |                                                                                   |
| 80      | NC            |                                                                                   |
| 81      | INRB/RECR2    | Input pin of L/R channel (Input selector) / Output pin for L/R channel REC output |
| 82      | INLB/RECL2    |                                                                                   |
| 83      | INR10/RECR4   |                                                                                   |
| 84      | INL10/RECL4   |                                                                                   |
| 85      | INR11/RECR5   |                                                                                   |
| 86      | INL11/RECL5   |                                                                                   |
| 87      | NC            |                                                                                   |
| 88      | NC            |                                                                                   |
| 89      | NC            |                                                                                   |
| 90      | RECR3         | Output pin for L/R channel REC output                                             |
| 91      | RECL3         |                                                                                   |
| 92      | NC            |                                                                                   |
| 93      | FLIN1         | Input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)                        |
| 94      | FRIN1         |                                                                                   |
| 95      | CIN1          |                                                                                   |
| 96      | SWIN1         |                                                                                   |
| 97      | SLIN1         |                                                                                   |
| 98      | SRIN1         |                                                                                   |
| 99      | SBLIN1        |                                                                                   |
| 100     | SBRIN1        |                                                                                   |

**IC603:** M66003-0131FP-R (OPERATION P.C.B.)  
18 digit 5x7 segment VFD controller/driver



| Pin No. | Port Name | Function Name | I/O               | Detail of Function                                                                                                                                      |
|---------|-----------|---------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | /RESET    | Reset         | Reset input       | When "L", M66003 is initialized                                                                                                                         |
| 2       | /CEFL     | CS            | Chip select input | When "L", communication with the MCU is possible<br>When "H", any instruction from the MCU is neglected                                                 |
| 3       | CKFL      | SCK           | Shift clock input | Serial input data is taken and shifted by the positive edge of SCK                                                                                      |
| 4       | DTFL      | SDATA         | Serial data input |                                                                                                                                                         |
| 5       | VSS       | Vss           |                   | GND (0V)                                                                                                                                                |
| 6       | XOUT      | XOUT          | Clock output      | When use as a CR oscillator, connect external resistor and capacitor / When use an external clock, input external clock to XIN, and XOUT must be opened |
| 7       | XIN       | XIN           | Clock input       |                                                                                                                                                         |
| 8       | VDD       | Vcc1          |                   | Positive power supply for internal logic                                                                                                                |
| 9       | P1I       | SEG34         | Segment output    | Positive power supply for DIG and SEG outputs                                                                                                           |
| 10      | P2        | SEG33         | Segment output    |                                                                                                                                                         |
| 11      | P3        | SEG32         | Segment output    |                                                                                                                                                         |
| 12      | P4        | SEG31         | Segment output    |                                                                                                                                                         |
| 13      | P5        | SEG30         | Segment output    |                                                                                                                                                         |
| 14      | P6        | SEG29         | Segment output    |                                                                                                                                                         |
| 15      | P7        | SEG28         | Segment output    |                                                                                                                                                         |
| 16      | P8        | SEG27         | Segment output    |                                                                                                                                                         |
| 17      | P9        | SEG26         | Segment output    |                                                                                                                                                         |
| 18      | VDD       | Vcc2          |                   | Connect to segment (anode) pins of VFD                                                                                                                  |
| 19      | P10       | SEG25         | Segment output    |                                                                                                                                                         |
| 20      | P11       | SEG24         | Segment output    |                                                                                                                                                         |
| 21      | P12       | SEG23         | Segment output    |                                                                                                                                                         |
| 22      | P13       | SEG22         | Segment output    |                                                                                                                                                         |
| 23      | P14       | SEG21         | Segment output    |                                                                                                                                                         |
| 24      | P15       | SEG20         | Segment output    |                                                                                                                                                         |
| 25      | P16       | SEG19         | Segment output    |                                                                                                                                                         |
| 26      | P17       | SEG18         | Segment output    |                                                                                                                                                         |
| 27      | P18I      | SEG17         | Segment output    |                                                                                                                                                         |
| 28      | P19       | SEG16         | Segment output    |                                                                                                                                                         |
| 29      | P20       | SEG15         | Segment output    |                                                                                                                                                         |
| 30      | P21       | SEG14         | Segment output    |                                                                                                                                                         |
| 31      | P22       | SEG13         | Segment output    |                                                                                                                                                         |
| 32      | P23       | SEG12         | Segment output    |                                                                                                                                                         |
| 33      | P24       | SEG11         | Segment output    |                                                                                                                                                         |
| 34      | P25       | SEG10         | Segment output    |                                                                                                                                                         |
| 35      | P26       | SEG09         | Segment output    |                                                                                                                                                         |
| 36      | P27       | SEG08         | Segment output    |                                                                                                                                                         |
| 37      | P28       | SEG07         | Segment output    |                                                                                                                                                         |
| 38      | P29       | SEG06         | Segment output    |                                                                                                                                                         |
| 39      | P30       | SEG05         | Segment output    |                                                                                                                                                         |
| 40      | P31       | SEG04         | Segment output    |                                                                                                                                                         |
| 41      | P32       | SEG03         | Segment output    |                                                                                                                                                         |
| 42      | P33       | SEG02         | Segment output    |                                                                                                                                                         |
| 43      | P34       | SEG01         | Segment output    |                                                                                                                                                         |
| 44      | P35       | SEG00         | Segment output    |                                                                                                                                                         |
| 45      | P36       | SEG35         | Segment output    |                                                                                                                                                         |
| 46      | P37       | DIG17/SEG36   | Segment output    | Connect to digit (grid) pins of VFD                                                                                                                     |
| 47      | G17I      | DIG16/SEG37   | Digit output      |                                                                                                                                                         |
| 48      | G16I      | DIG15/SEG38   | Digit output      |                                                                                                                                                         |
| 49      | G15I      | DIG14/SEG39   | Digit output      |                                                                                                                                                         |
| 50      | G14       | DIG13/SEG40   | Digit output      |                                                                                                                                                         |
| 51      | G13       | DIG12/SEG41   | Digit output      |                                                                                                                                                         |
| 52      | G12       | DIG11/SEG42   | Digit output      |                                                                                                                                                         |
| 53      | G11       | DIG10         | Digit output      |                                                                                                                                                         |
| 54      | G10       | DIG09         | Digit output      |                                                                                                                                                         |
| 55      | G9        | DIG08         | Digit output      |                                                                                                                                                         |
| 56      | G8        | DIG07         | Digit output      |                                                                                                                                                         |
| 57      | G7        | DIG06         | Digit output      |                                                                                                                                                         |
| 58      | G6        | DIG05         | Digit output      |                                                                                                                                                         |
| 59      | G5        | DIG04         | Digit output      |                                                                                                                                                         |
| 60      | G4        | DIG03         | Digit output      |                                                                                                                                                         |
| 61      | G3        | DIG02         | Digit output      |                                                                                                                                                         |
| 62      | G2        | DIG01         | Digit output      |                                                                                                                                                         |
| 63      | G1        | DIG00         | Digit output      |                                                                                                                                                         |
| 64      | VP        | Vp            |                   | Negative power supply to pull down                                                                                                                      |



MEMO



RX-V463/HTR-6140/  
DSP-AX463



## ■ BLOCK DIAGRAMS

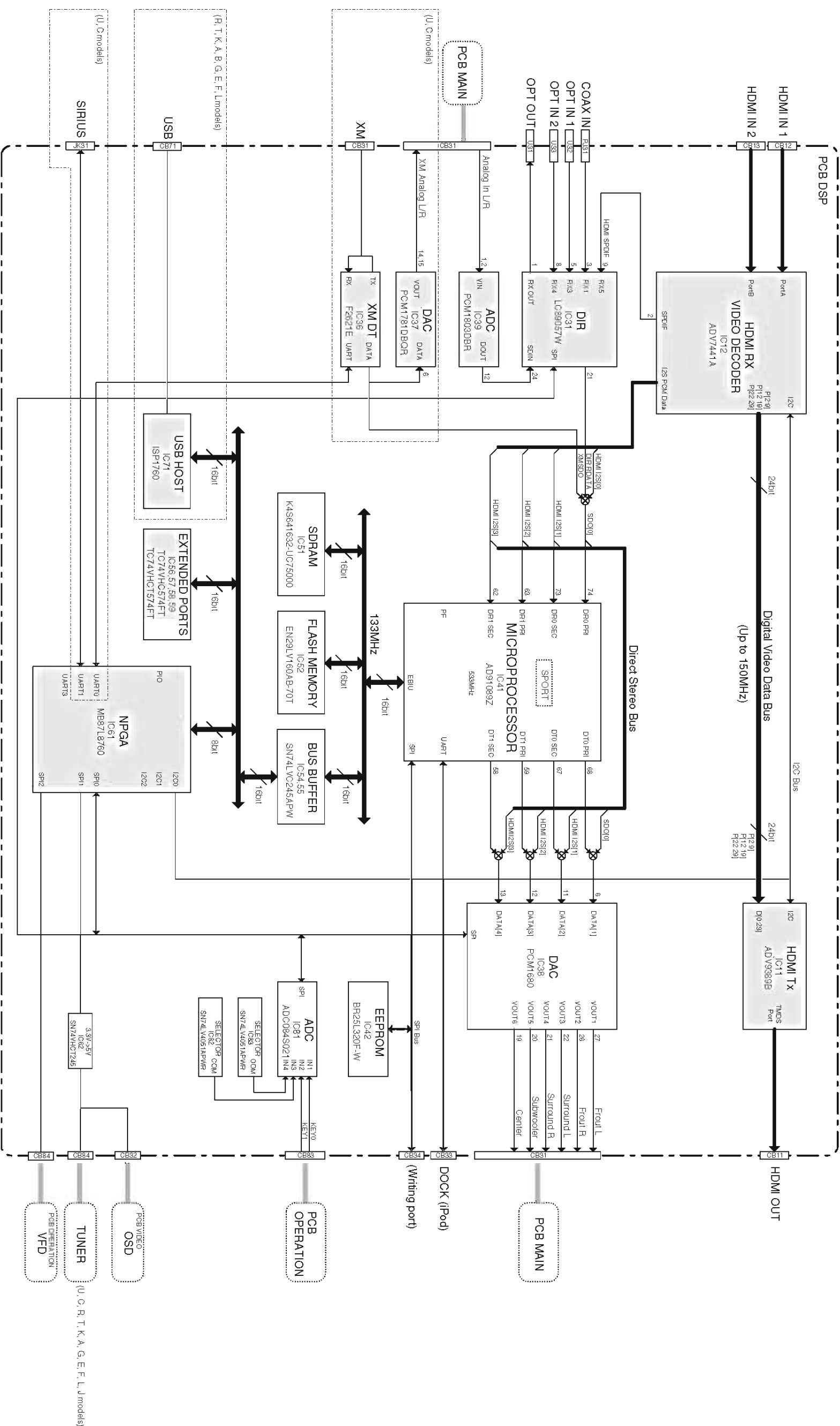
## AUDIO (DIGITAL) SECTION BLOCK DIAGRAM

**DSP**

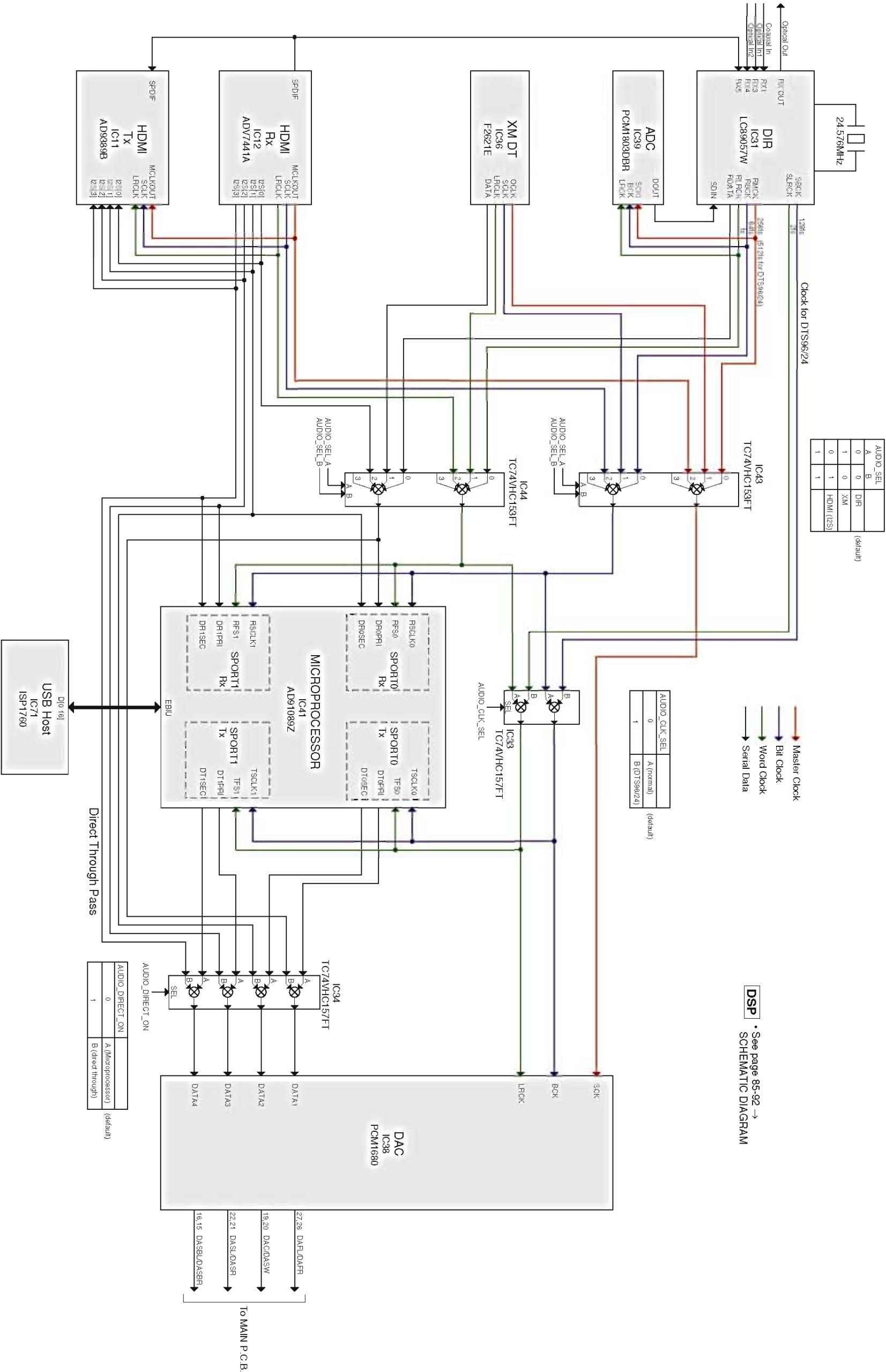
- See page 85-92 →  
SCHEMATIC DIAGRAM

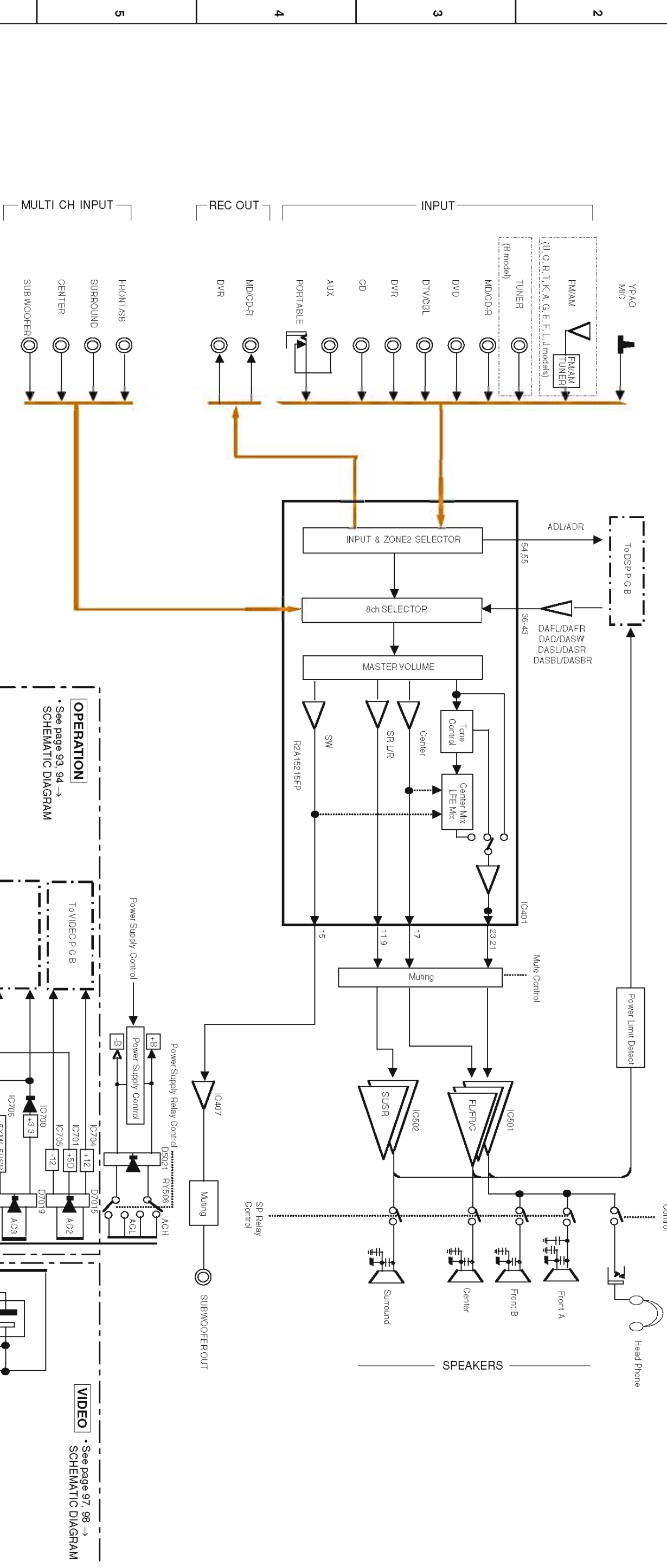
\_\_\_\_\_ Data Line ☐ Power off during standby mode

\_\_\_\_\_ Control Line



DSP CONTROL SECTION BLOCK DIAGRAM

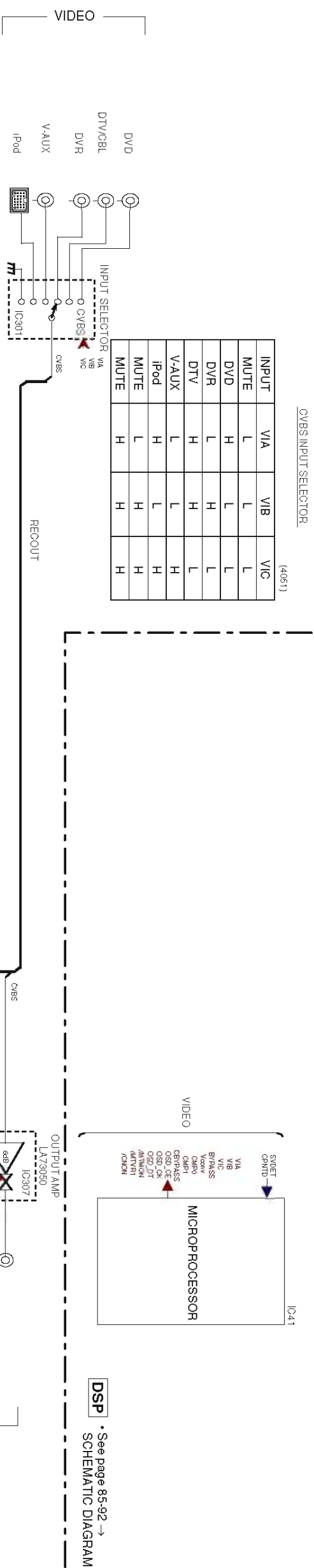




**VIDEO**

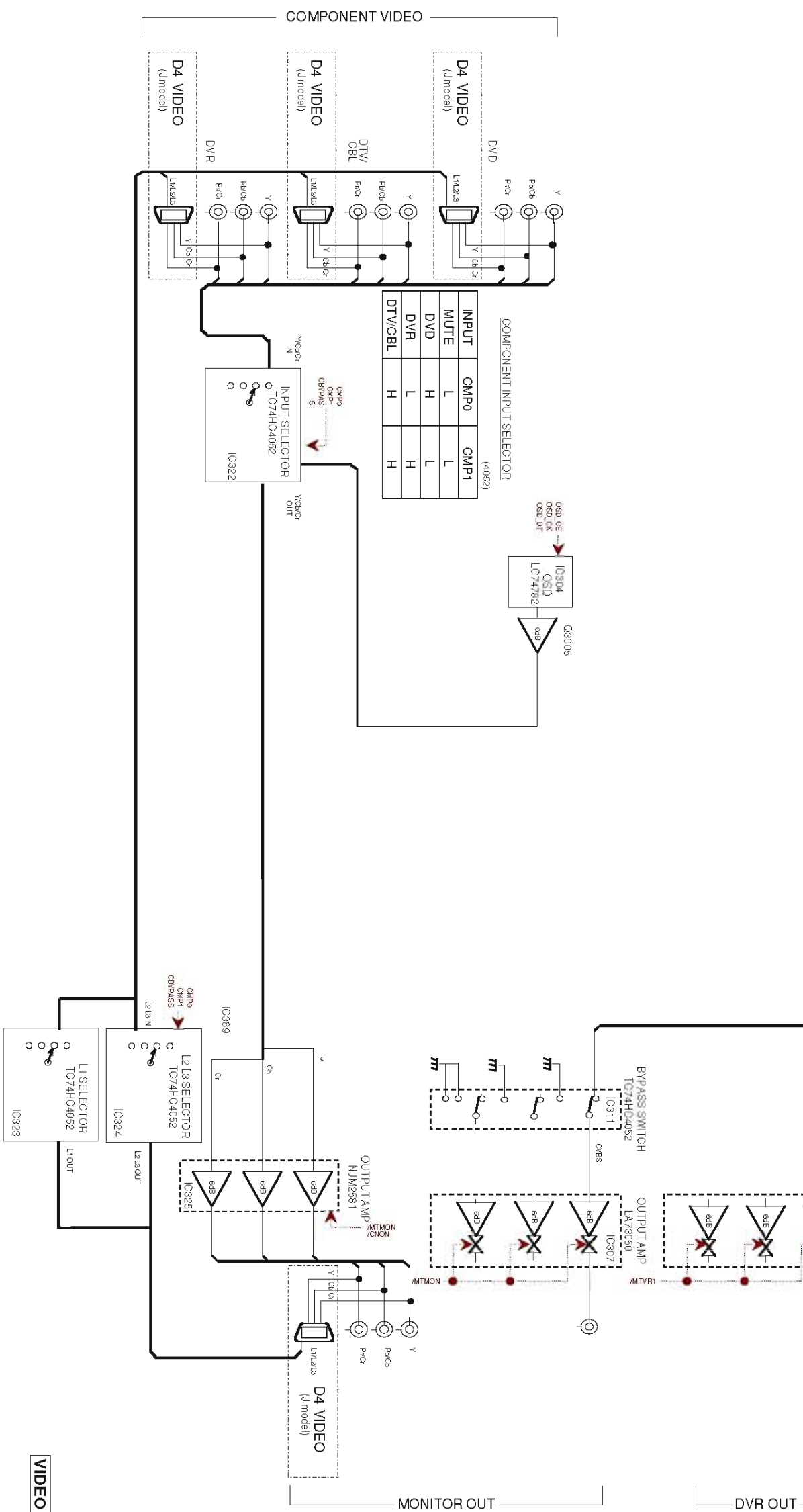
- See page 97, 98 → SCHEMATIC DIAGRAM

## VIDEO SECTION BLOCK DIAGRAM



**DSP**

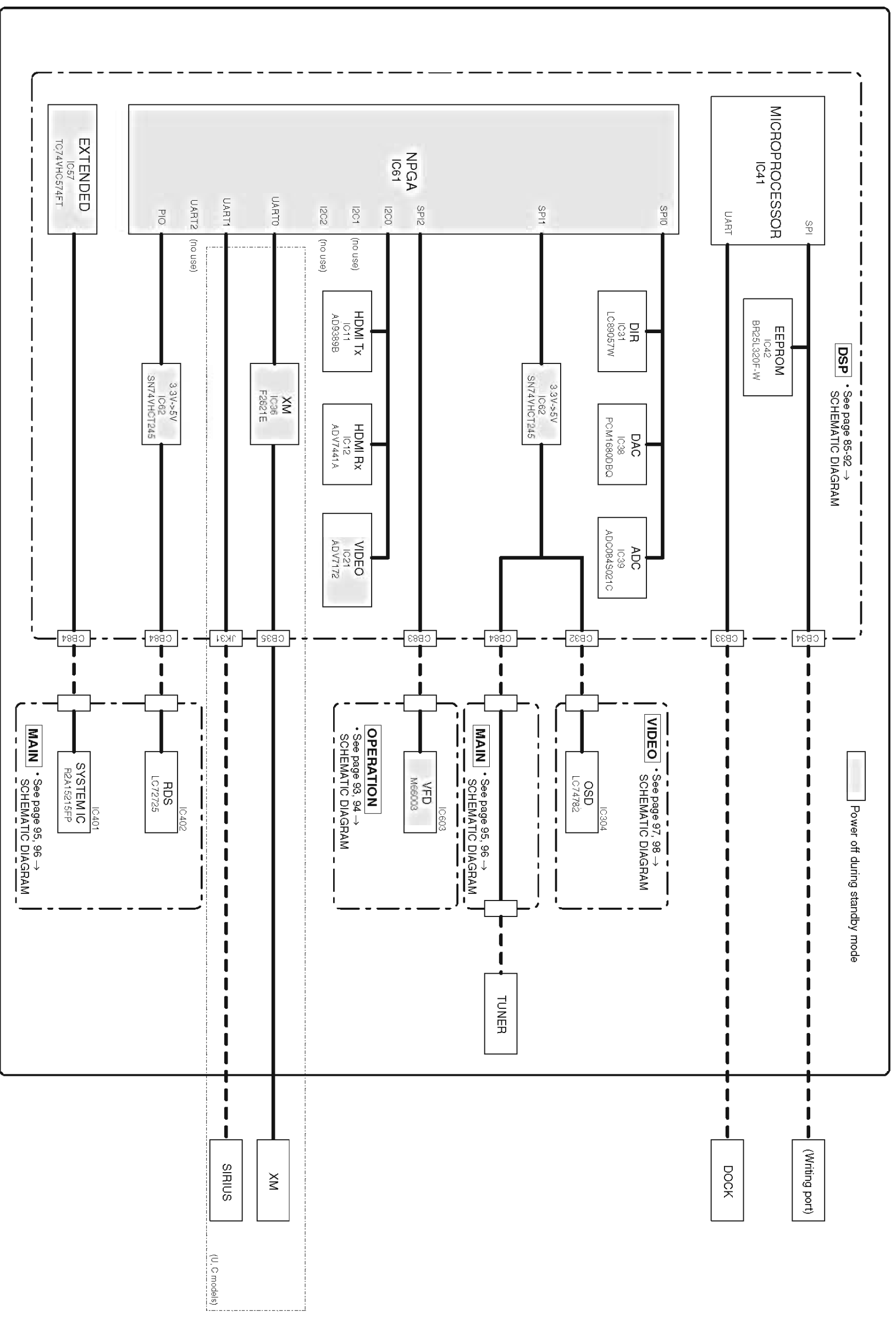
- See page 85-92 → SCHEMATIC DIAGRAM



**VIDEO**

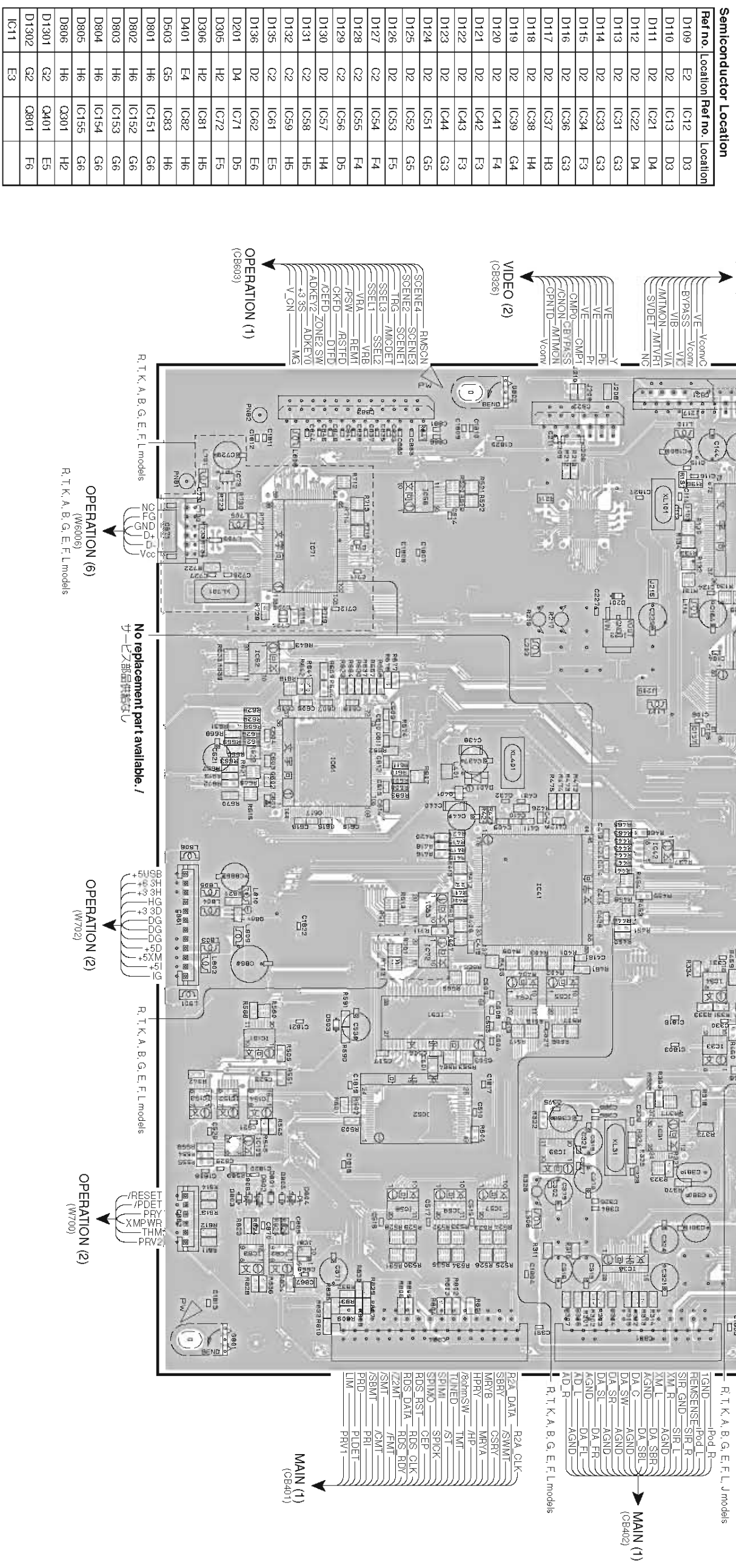
- See page 97, 98 → SCHEMATIC DIAGRAM

## CONTROL SECTION BLOCK DIAGRAM

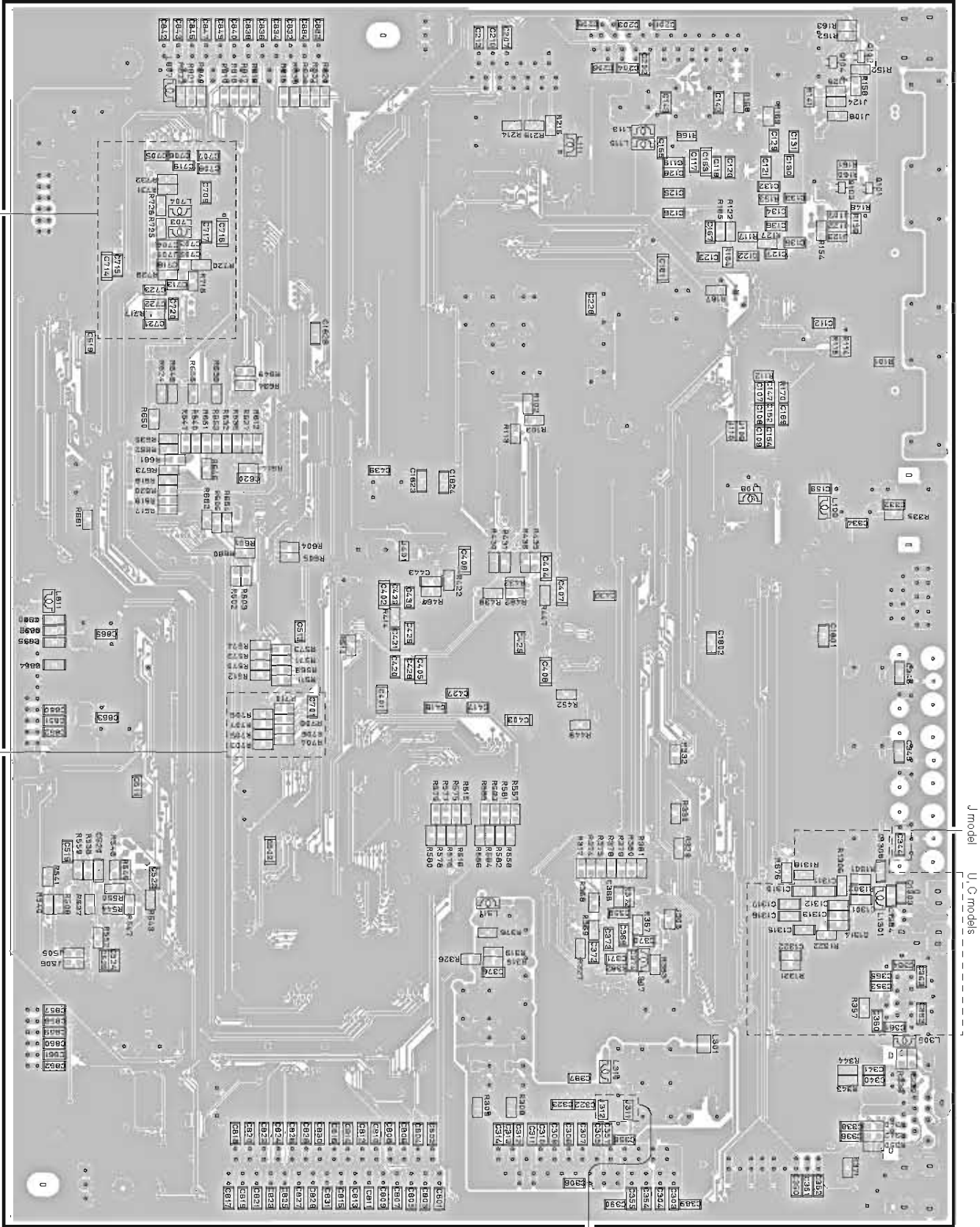


PRINTED CIRCUIT BOARDS

DSP P.C.B. (Side A)



DSP P.C.B. (Side B)



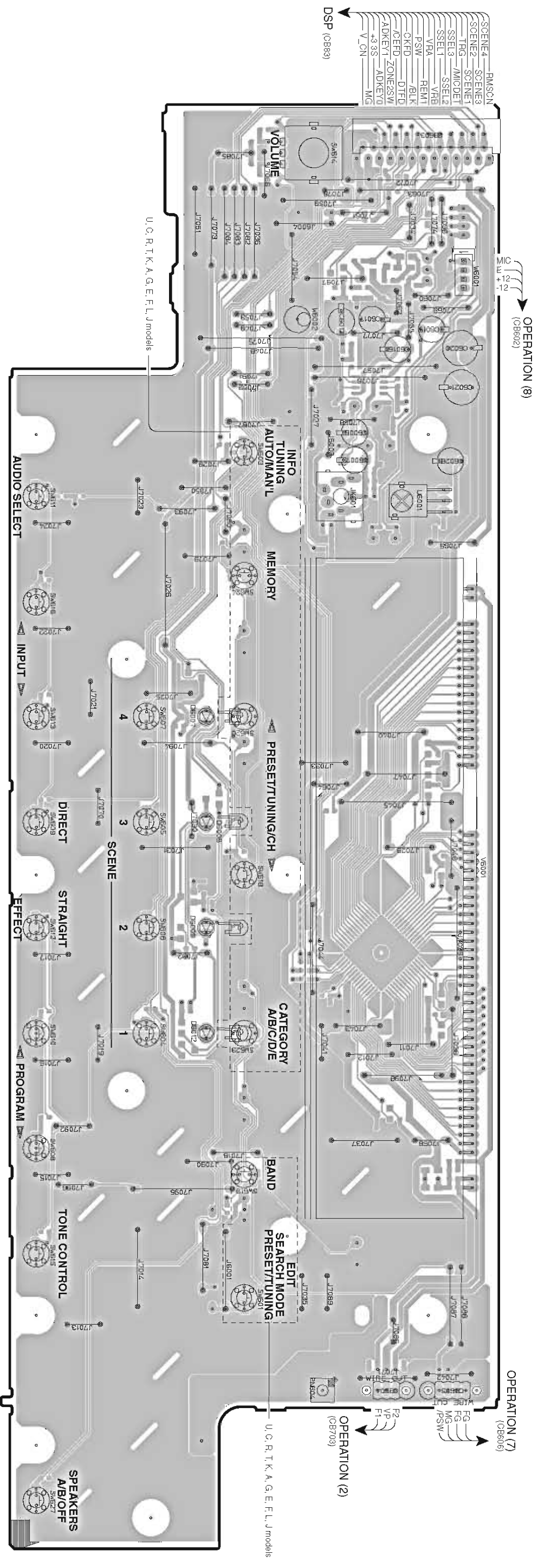
R, T, K, A, B, G, E, F, L models

R, T, K, A, B, G, E, F, L models

R, T, K, A, B, G, E, F, L models

• Semiconductor Location

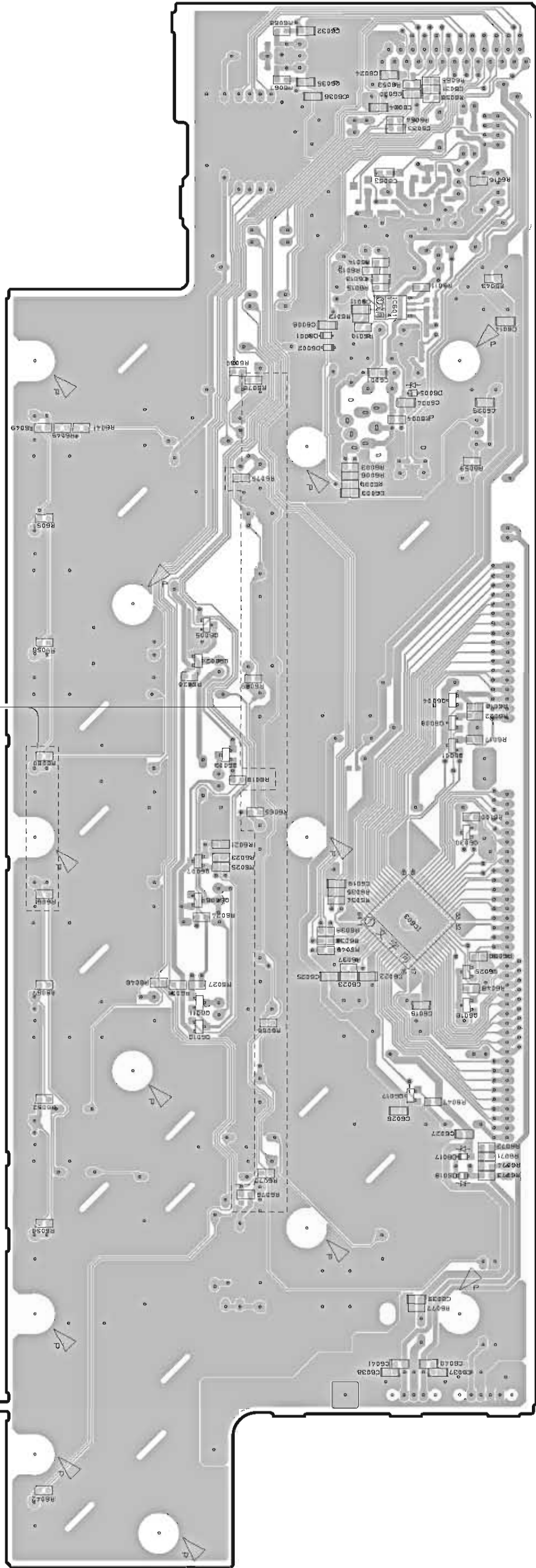
| Ref no. | Location |
|---------|----------|
| D1303   | G2       |
| Q101    | D2       |
| Q102    | C2       |
| Q103    | D2       |
| Q104    | C2       |



- **Semiconductor Location**

| Ref no. | Locatio |
|---------|---------|
| D6007   | E4      |
| D6008   | F4      |
| D6009   | G4      |
| D6012   | G4      |

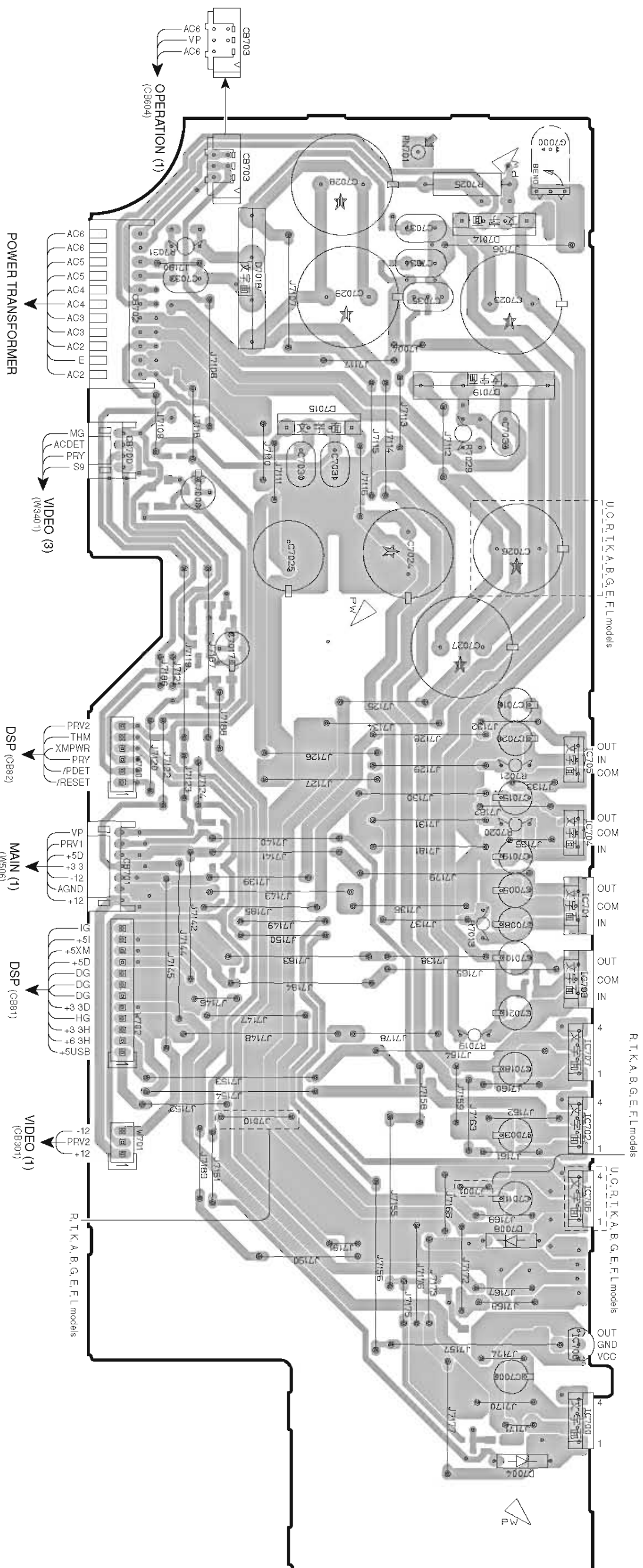
OPERATION (1) P.C.B. (Side B)



U, C, R, I, K, A, G, E, F, L, J models

• Semiconductor Location

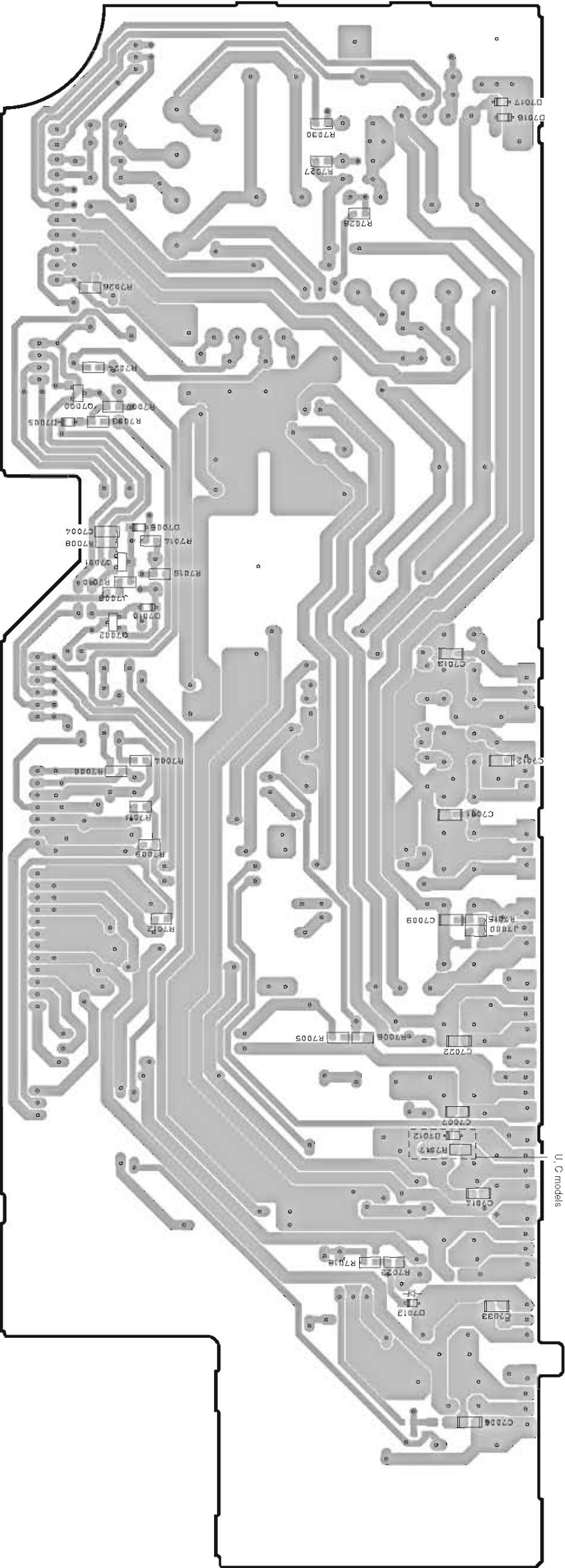
| Ref no. | Location | Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|---------|----------|
| D6001   | C4       | Q6003   | F4       | Q6018   | G3       |
| D6002   | C4       | Q6004   | E3       | Q6029   | G3       |
| D6005   | D3       | Q6005   | E4       | Q6030   | F3       |
| D6017   | H3       | Q6006   | G4       |         |          |
| D6018   | H3       | Q6007   | F4       |         |          |
| IC601   | C3       | Q6008   | E3       |         |          |
| IC603   | G3       | Q6010   | G4       |         |          |
| Q6001   | F3       | Q6011   | G4       |         |          |
| Q6002   | E4       | Q6017   | H3       |         |          |



- **Semiconductor Location**

| Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|
| D7004   | I3       | IC702   | H2       |
| D7008   | H3       | IC703   | G2       |
| D7014   | B3       | IC704   | F2       |
| D7015   | G4       | IC705   | E2       |
| D7018   | C4       | IC706   | H2       |
| D7019   | C3       | IC707   | G2       |
| IC700   | I2       | IC708   | I2       |
| IC701   | F2       |         |          |

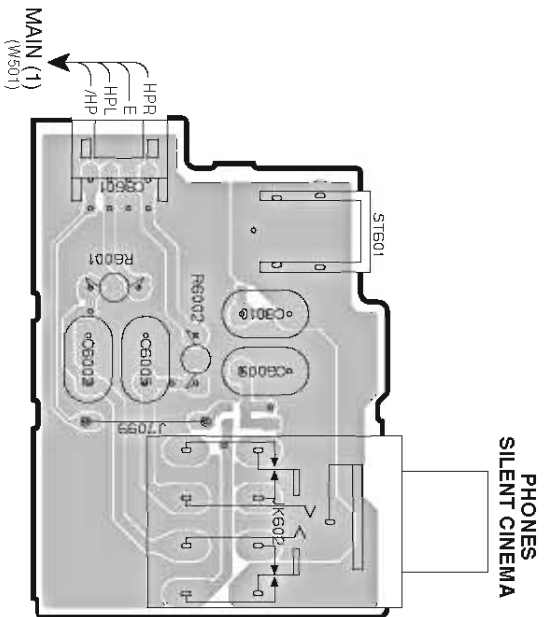
OPERATION (2) P.C.B. (Side B)



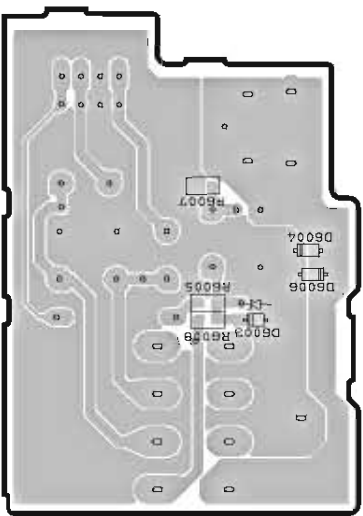
• Semiconductor Location

| Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|
| D7005   | D5       | D7016   | B3       |
| D7006   | D4       | D7017   | B3       |
| D7010   | E4       | Q7000   | D5       |
| D7012   | H3       | Q7001   | E5       |
| D7013   | I3       | Q7002   | E5       |

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

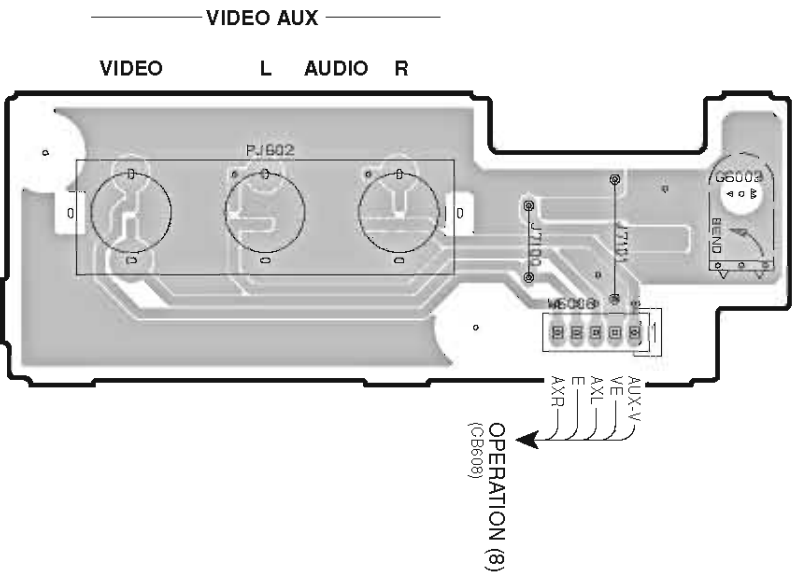


OPERATION (3) P.C.B. (Side B)



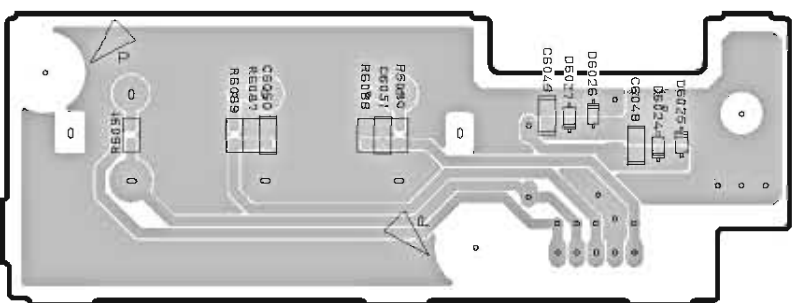
OPERATION (4) P.C.B. (Side A)

R, T, K, A, B, G, E, F, L models



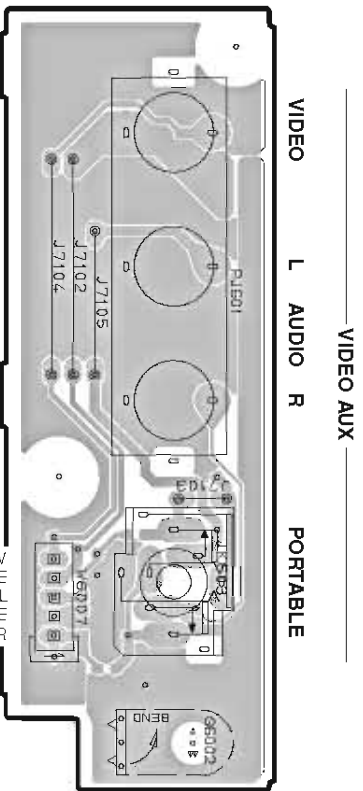
OPERATION (4) P.C.B. (Side B)

R, T, K, A, B, G, E, F, L models



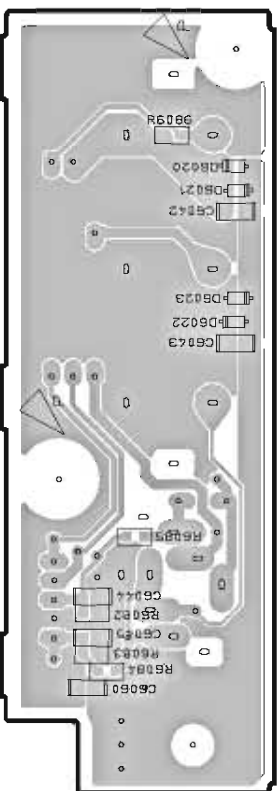
OPERATION (5) P.C.B. (Side A)

U, C, J models



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

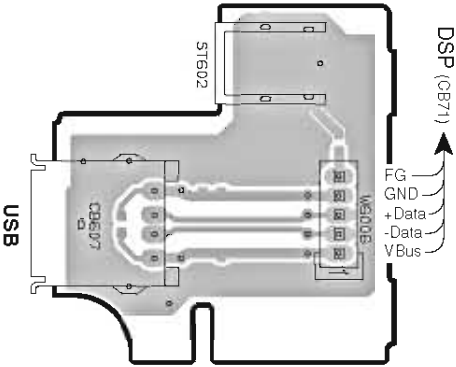
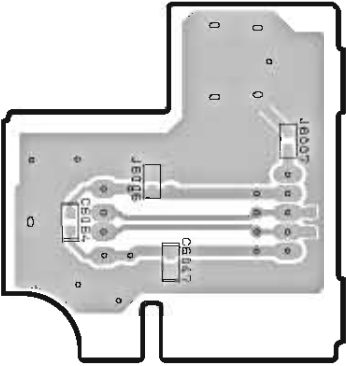
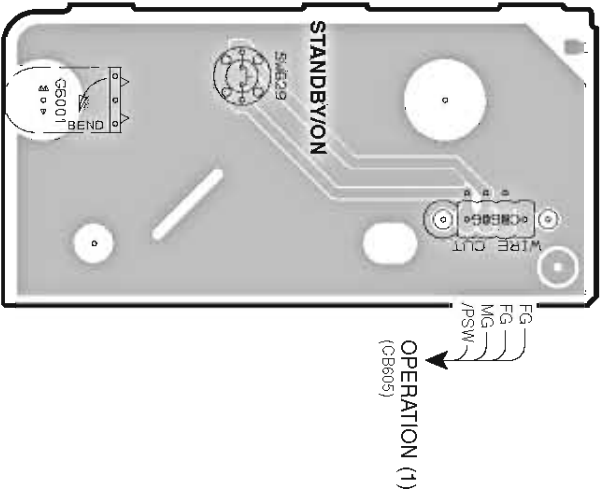
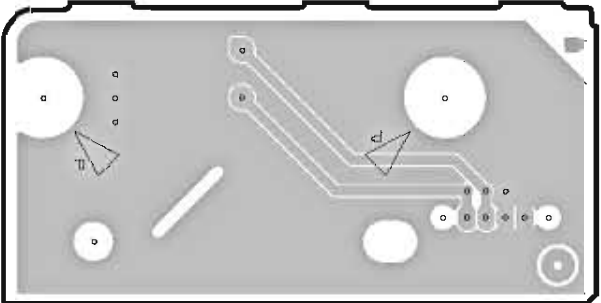
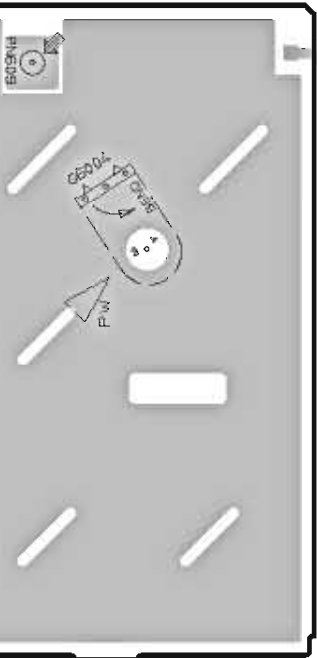
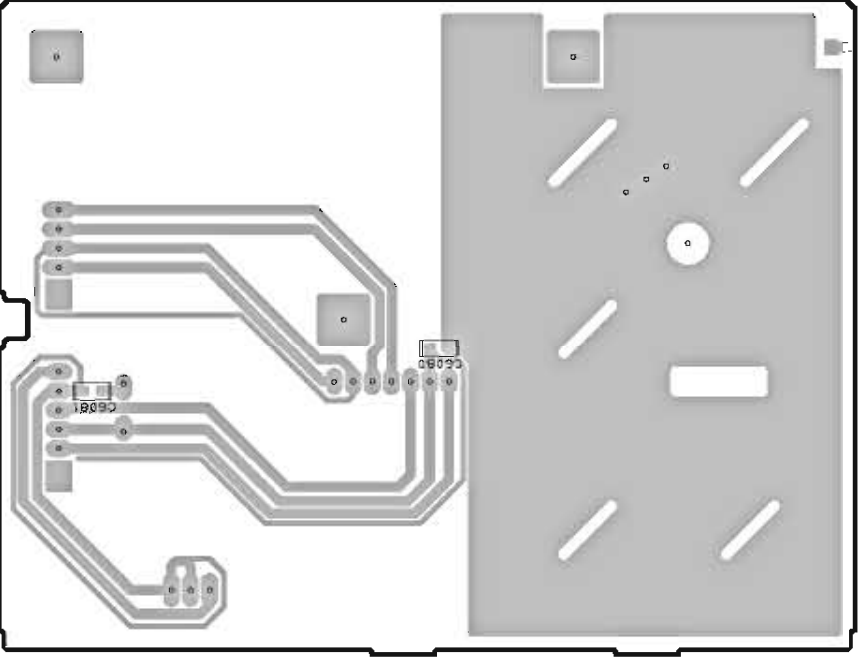
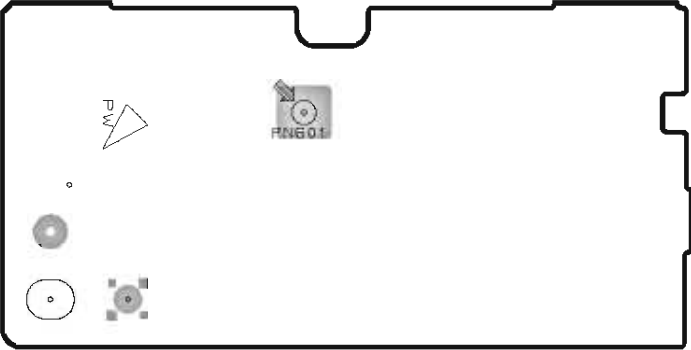
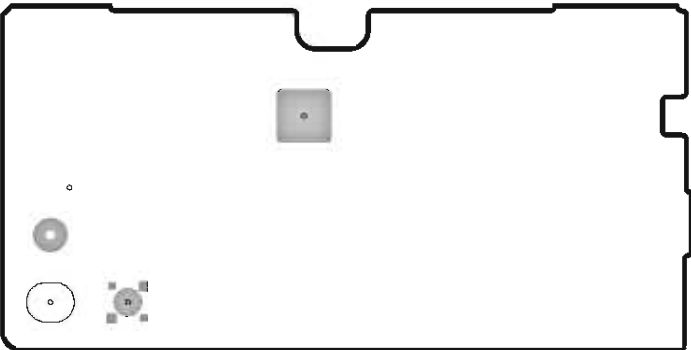
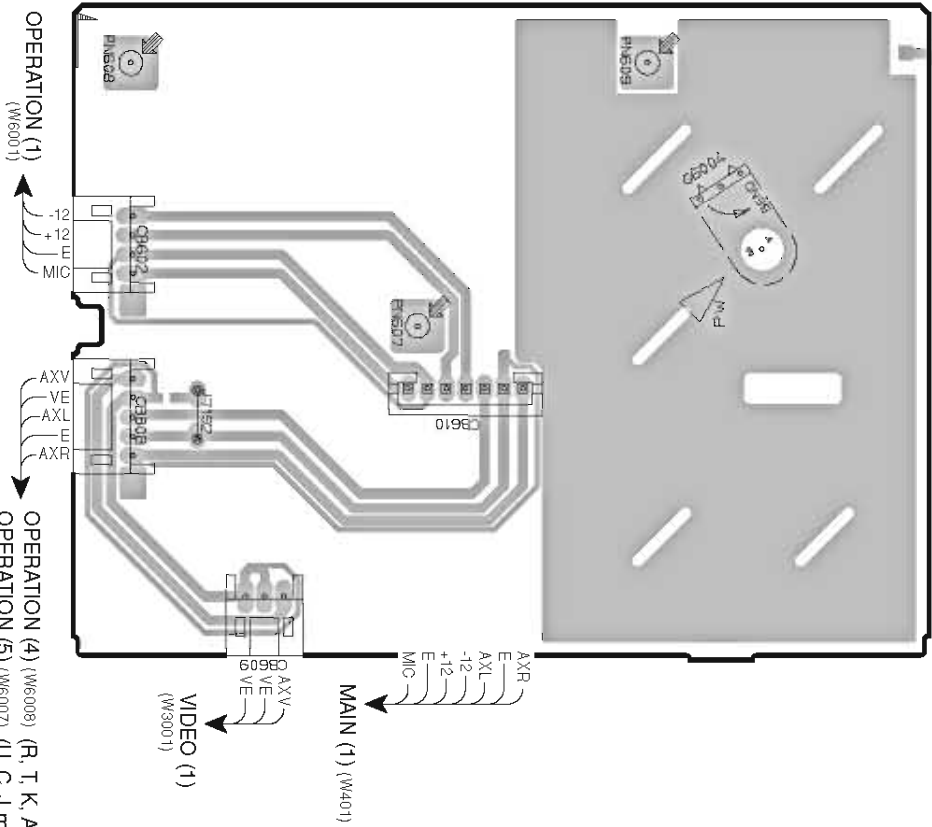
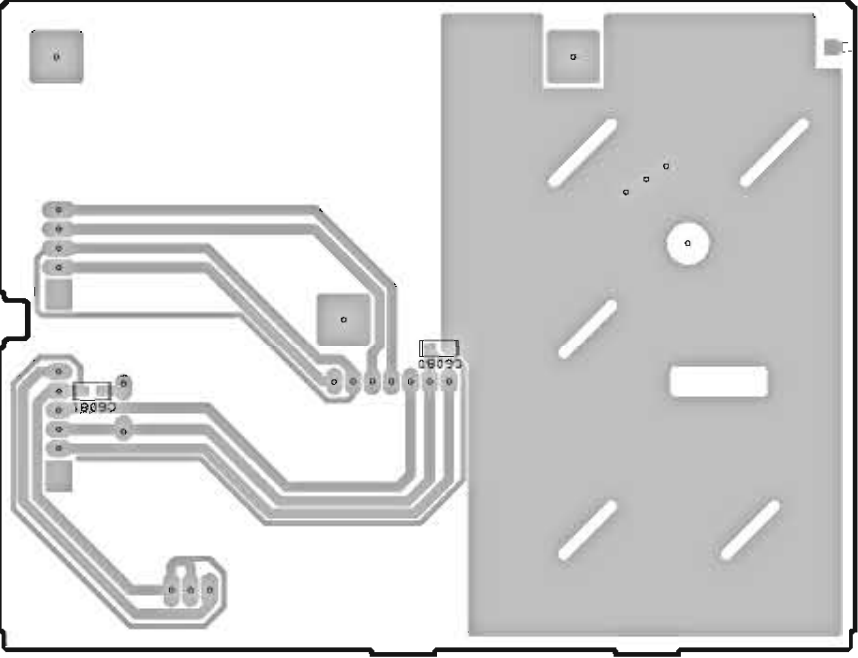
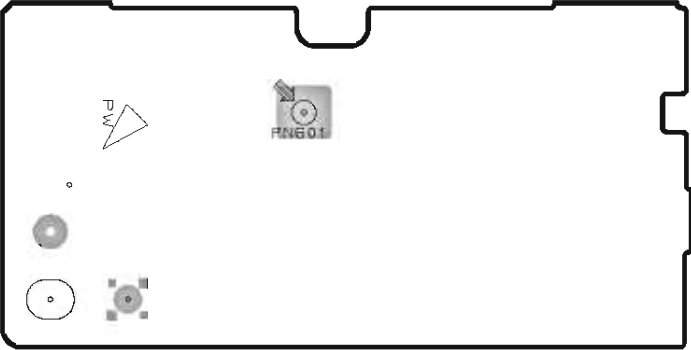
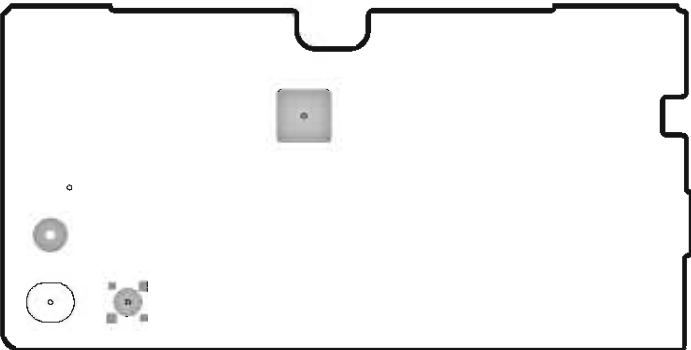
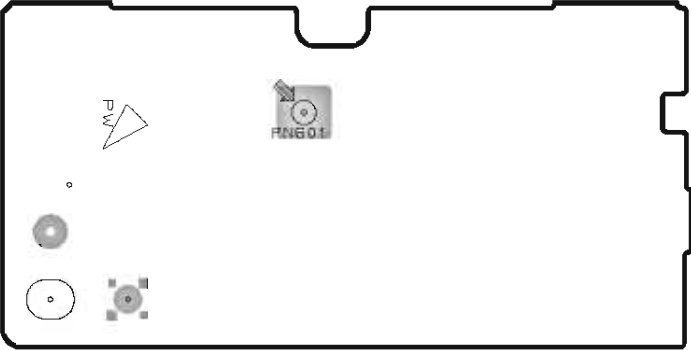
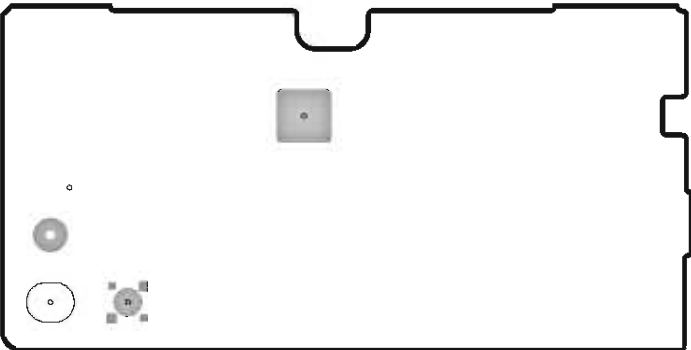
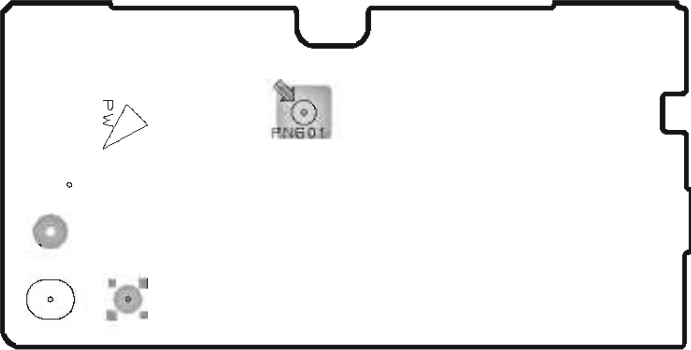
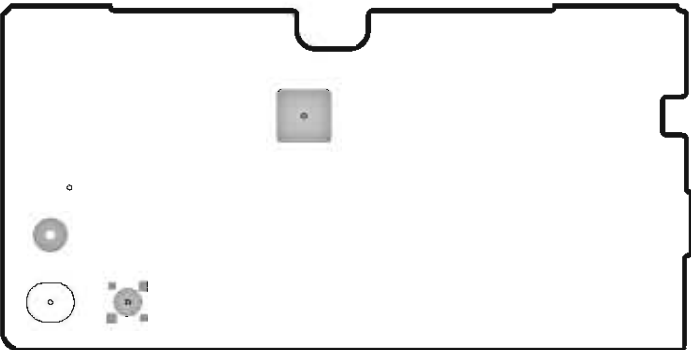
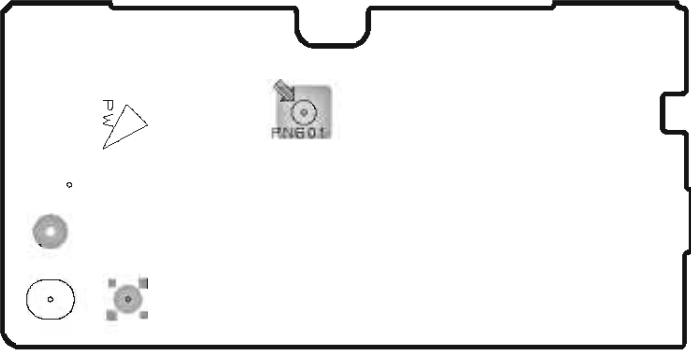
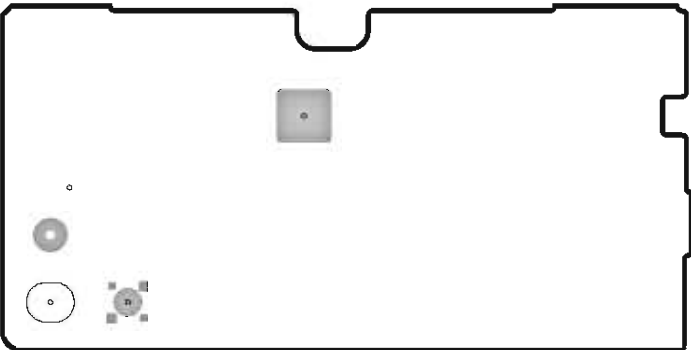
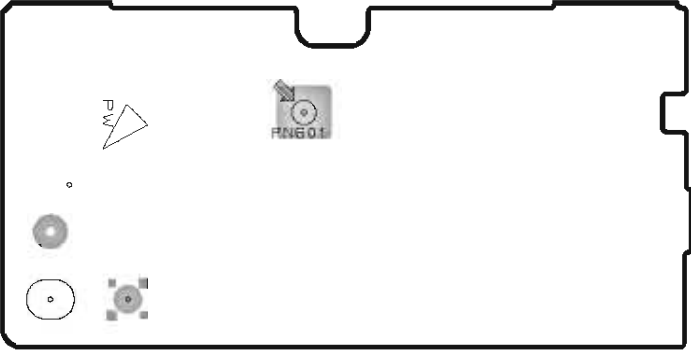
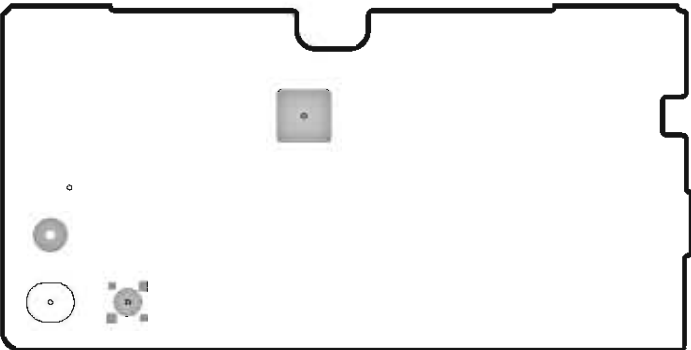
U, C, J models



OPERATION (8) (C6008)

Semiconductor Location

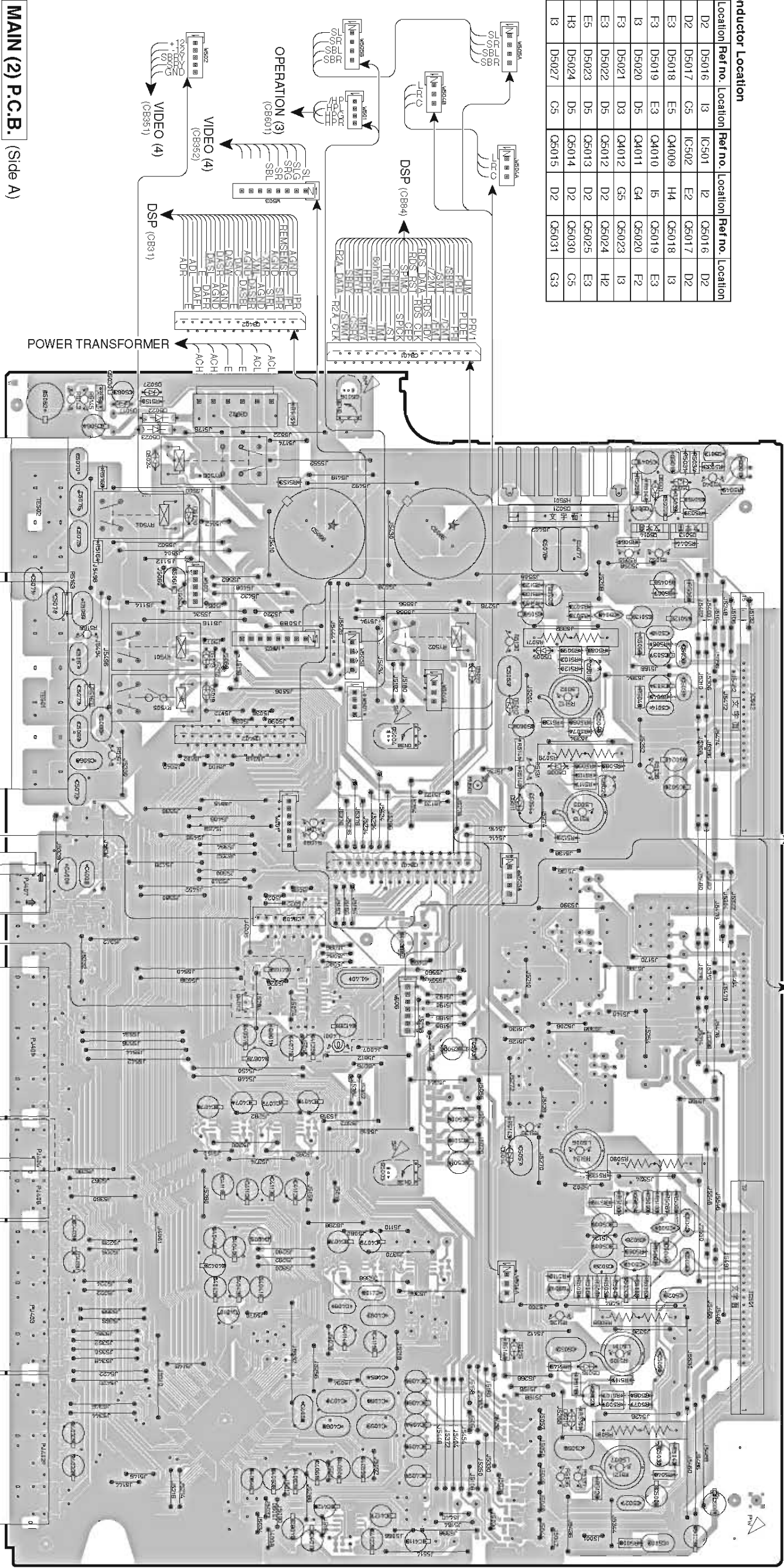
| Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|
| D6003   | E2       | D6023   | F5       |
| D6004   | E2       | D6024   | I2       |
| D6006   | E2       | D6025   | I2       |
| D6020   | F5       | D6026   | I2       |
| D6021   | F5       | D6027   | I2       |
| D6022   | F5       |         |          |

|   | A                                                                                   | B | C                                                                                    | D | E                                                                                     | F | G                                                                                     | H | I | J |
|---|-------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------|---|---|---|
| 1 | <b>OPERATION (6) P.C.B.</b> (Side A)<br>R, T, K, A, B, G, E, F, L models            |   | <b>OPERATION (6) P.C.B.</b> (Side B)<br>R, T, K, A, B, G, E, F, L models             |   | <b>OPERATION (7) P.C.B.</b> (Side A)<br>OPERATION (1)<br>(08605)                      |   | <b>OPERATION (7) P.C.B.</b> (Side B)                                                  |   |   |   |
| 2 |  |   |  |   |  |   |  |   |   |   |
| 3 |   |   |  |   |    |   |    |   |   |   |
| 4 | <b>OPERATION (8) P.C.B.</b> (Side A)                                                |   | <b>OPERATION (8) P.C.B.</b> (Side B)                                                 |   | <b>OPERATION (9) P.C.B.</b> (Side A)                                                  |   | <b>OPERATION (9) P.C.B.</b> (Side B)                                                  |   |   |   |
| 5 |  |   |  |   |    |   |    |   |   |   |
| 6 |  |   |   |   |    |   |    |   |   |   |
| 7 |  |   |   |   |    |   |    |   |   |   |

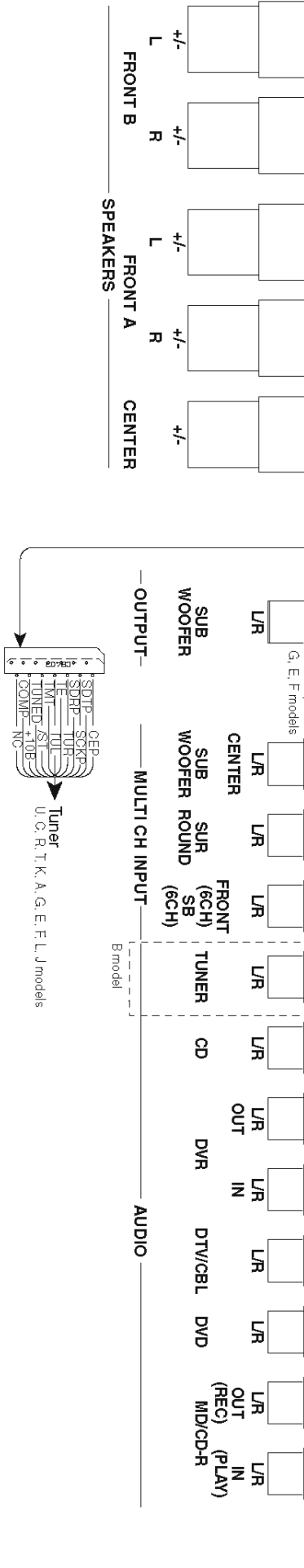
MAIN (1) P.C.B. (Side A)

Semiconductor Location

| Ref.no. | Location | Ref.no. | Location | Ref.no. | Location |
|---------|----------|---------|----------|---------|----------|
| D5001   | D2       | D5016   | I3       | IC501   | I2       |
| D5002   | D2       | D5017   | C5       | IC502   | E2       |
| D5005   | E3       | D5018   | E5       | Q4009   | H4       |
| D5006   | F3       | D5019   | E3       | Q4010   | I5       |
| D5010   | I3       | D5020   | D5       | Q4011   | G4       |
| D5011   | F3       | D5021   | D3       | Q4012   | G5       |
| D5012   | E3       | D5022   | D5       | Q4012   | D2       |
| D5013   | E5       | D5023   | D5       | Q4013   | D2       |
| D5014   | H3       | D5024   | D5       | Q4014   | D2       |
| D5015   | I3       | D5027   | C5       | Q4015   | D2       |

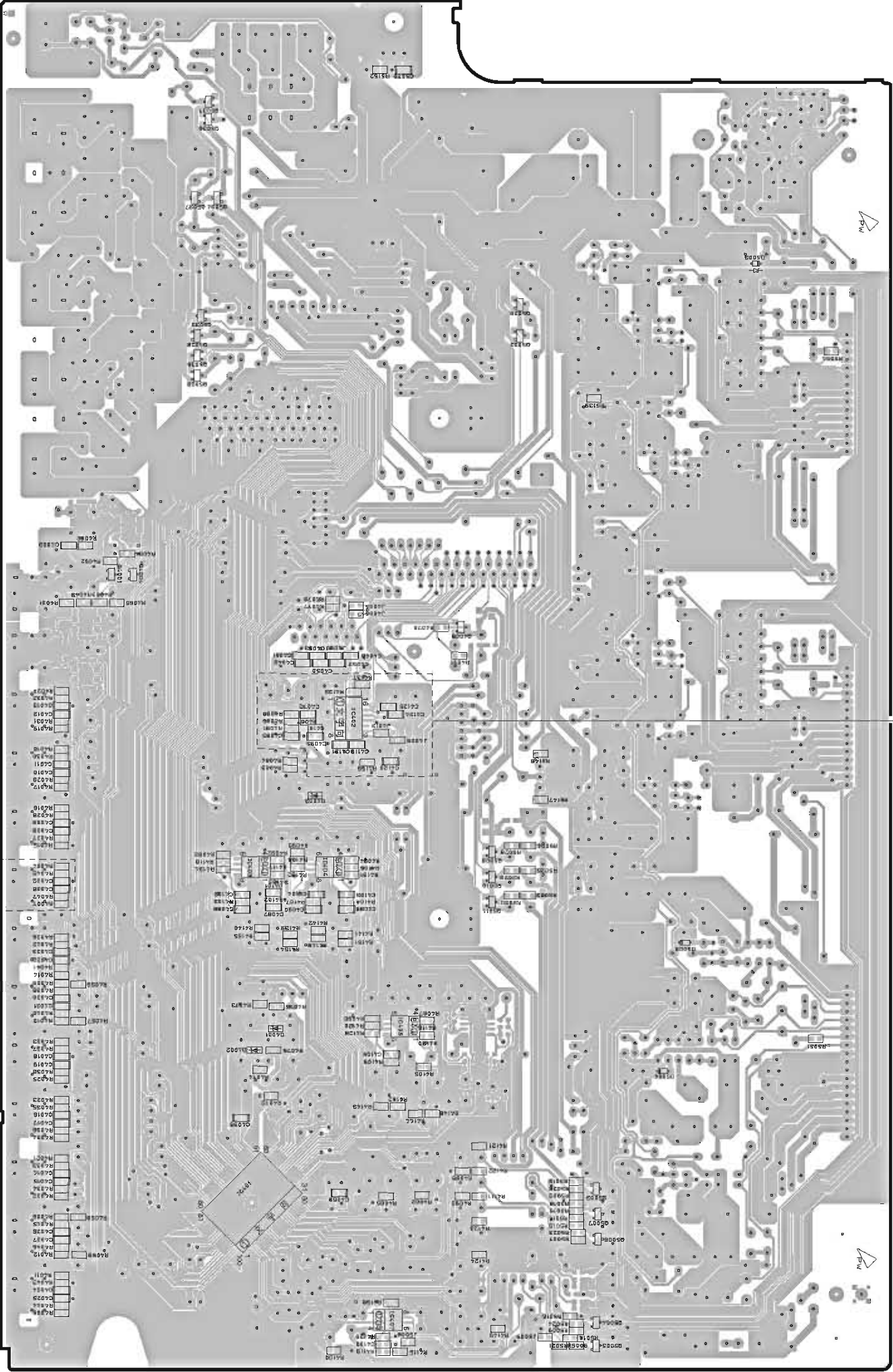


MAIN (2) P.C.B. (Side A)



A B C D E F G H I J

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



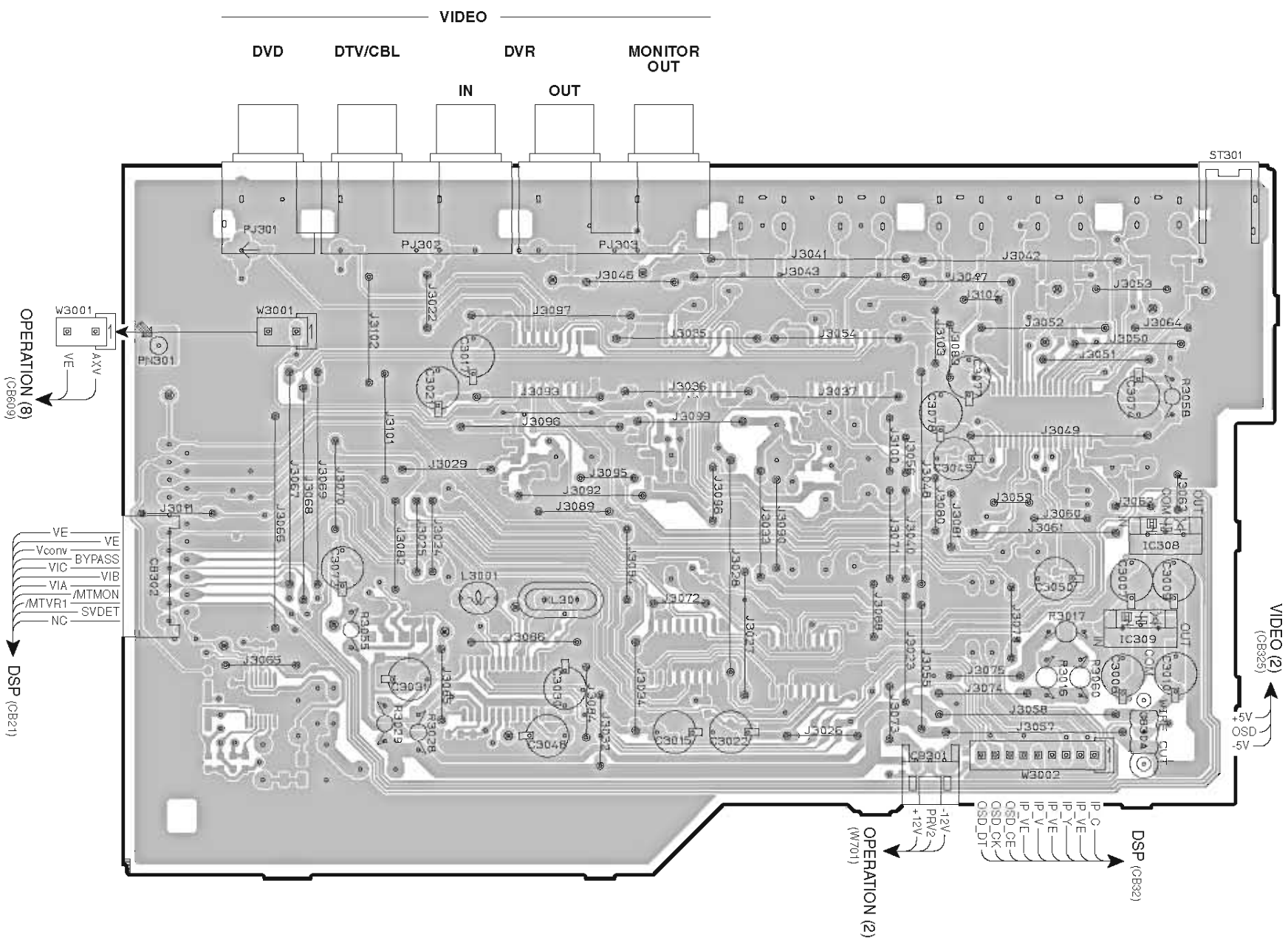
MAIN (2) P.C.B. (Side B)



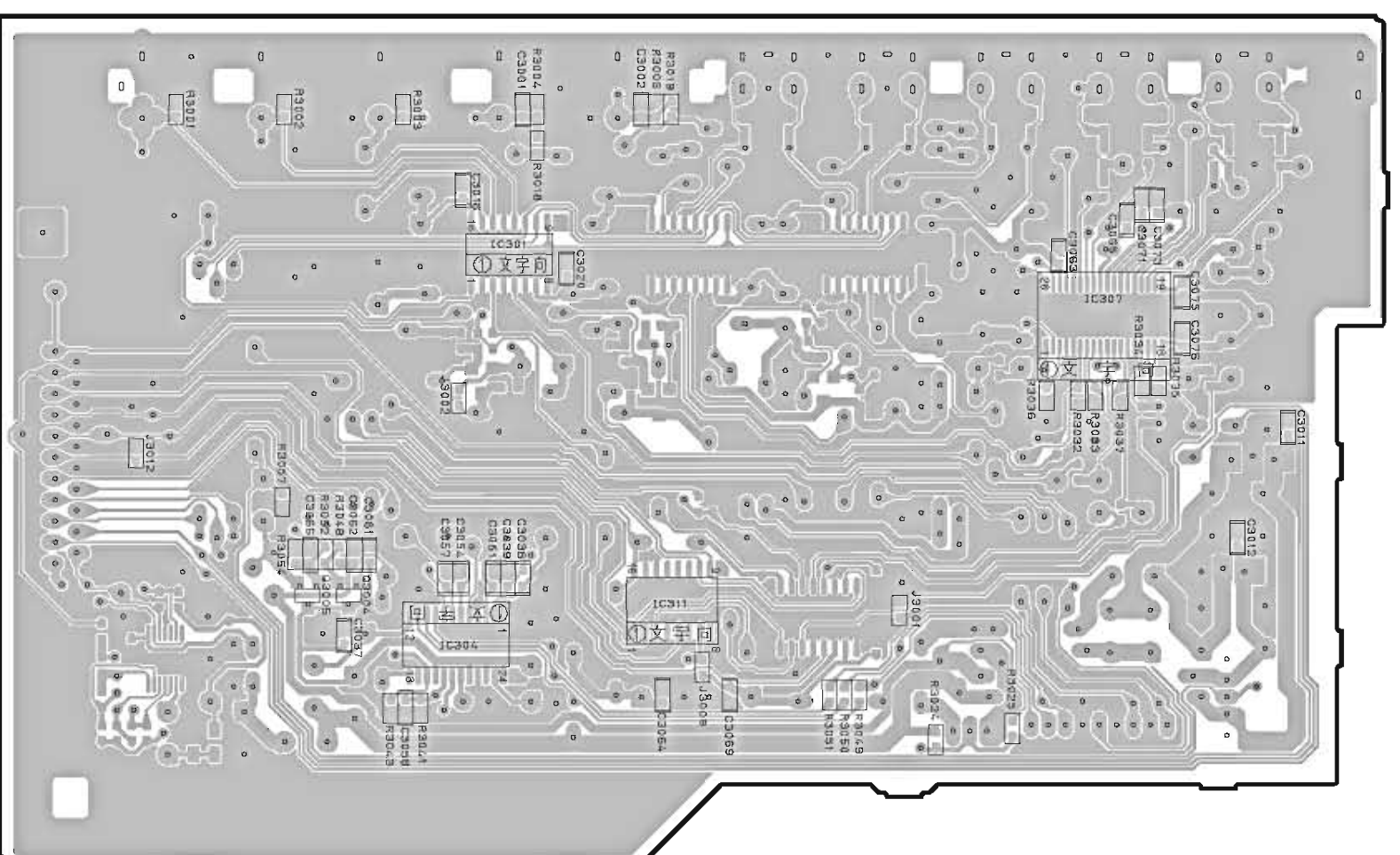
Semiconductor Location

| Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|---------|----------|---------|----------|
| D4001   | H5       | IC404   | G4       | Q5006   | I3       | Q5032   | D3       |
| D4002   | H5       | IC405   | H4       | Q5007   | H3       | Q5033   | D5       |
| D4003   | F4       | IC407   | I4       | Q5009   | G3       | Q5034   | C5       |
| D5003   | D2       | Q4001   | E5       | Q5010   | G3       | Q5035   | D5       |
| D5004   | H3       | Q4004   | E5       | Q5011   | G3       | Q5036   | C5       |
| D5009   | G2       | Q4008   | E4       | Q5026   | D5       | Q5037   | C5       |
| IC401   | H5       | Q5003   | H3       | Q5027   | C5       |         |          |
| IC402   | F4       | Q5004   | I3       | Q5028   | D5       |         |          |
| IC403   | G5       | Q5005   | I3       | Q5029   | D3       |         |          |

**VIDEO (1) P.C.B.** (Side A)



**VIDEO (1) P.C.B.** (Side B)



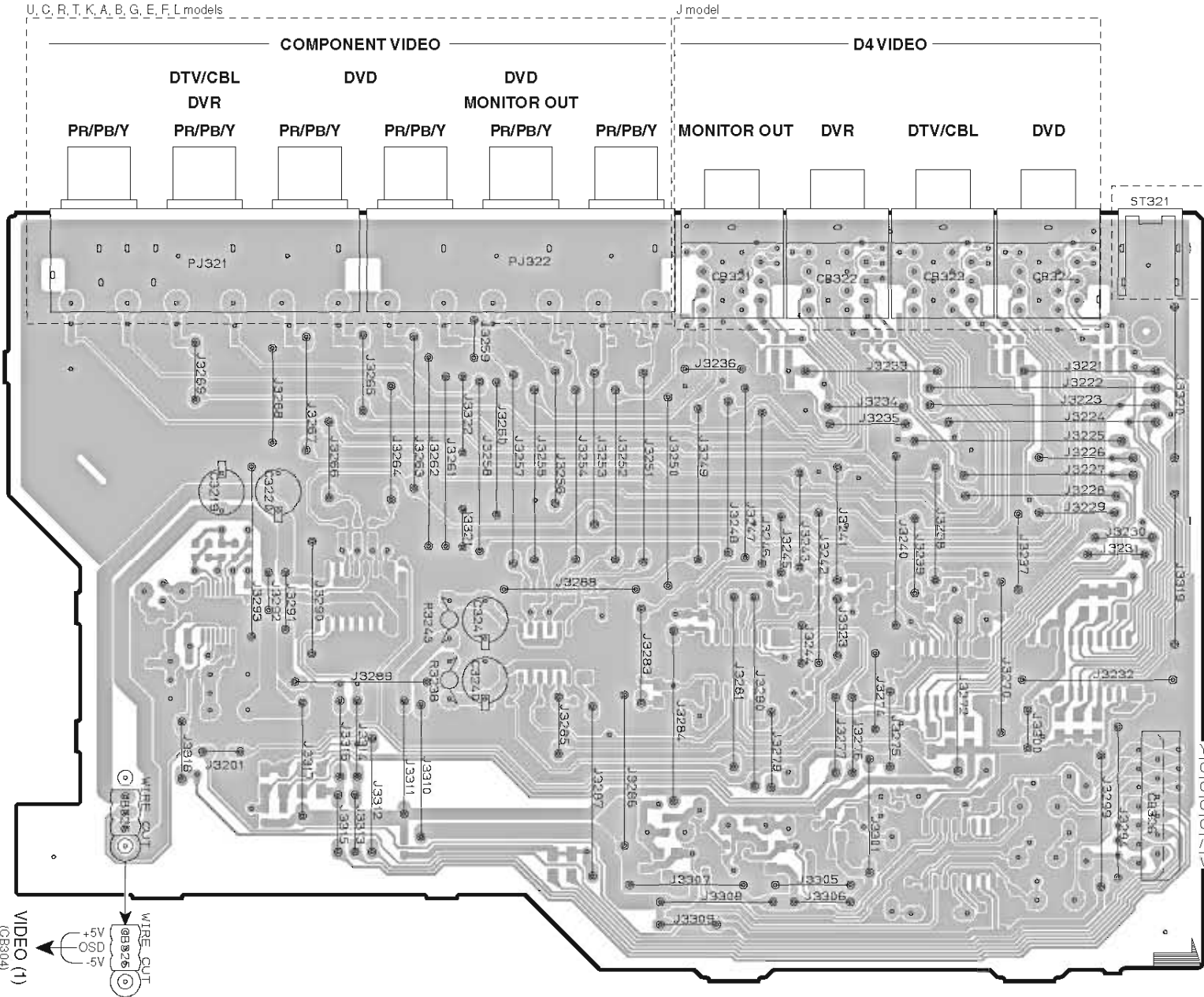
- **Semiconductor Location**

| Ref no. | Location |
|---------|----------|
| IC301   | G5       |
| IC304   | H5       |
| IC307   | G2       |
| IC308   | D2       |
| IC309   | D2       |
| IC311   | H4       |
| Q3004   | H5       |
| Q3005   | H5       |

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

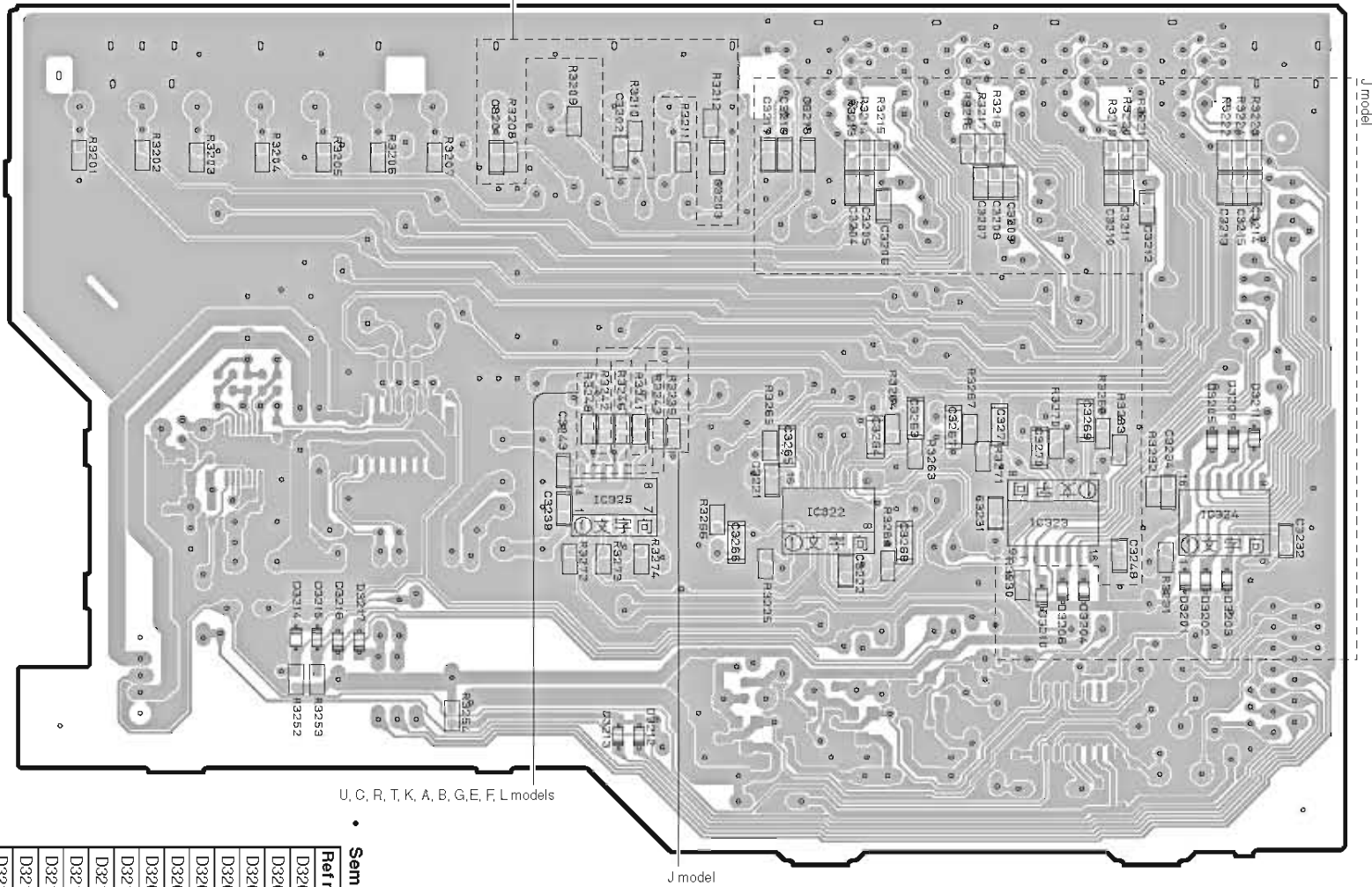
DSP (CB22)

U, C, R, T, K, A, B, G, E, F, L models



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

U, C, R, T, K, A, B, G, E, F, L models

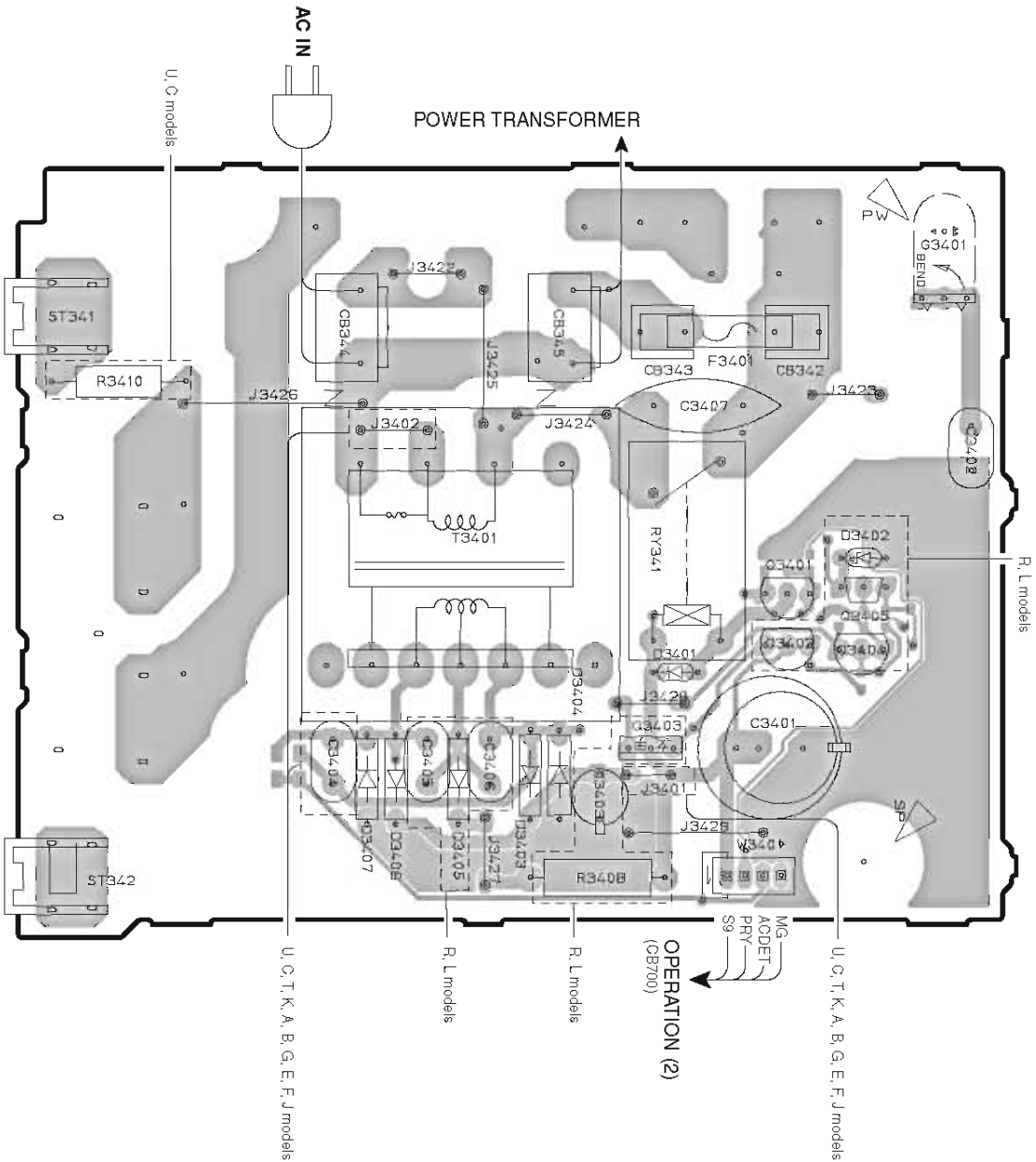


U, C, R, T, K, A, B, G, E, F, L models

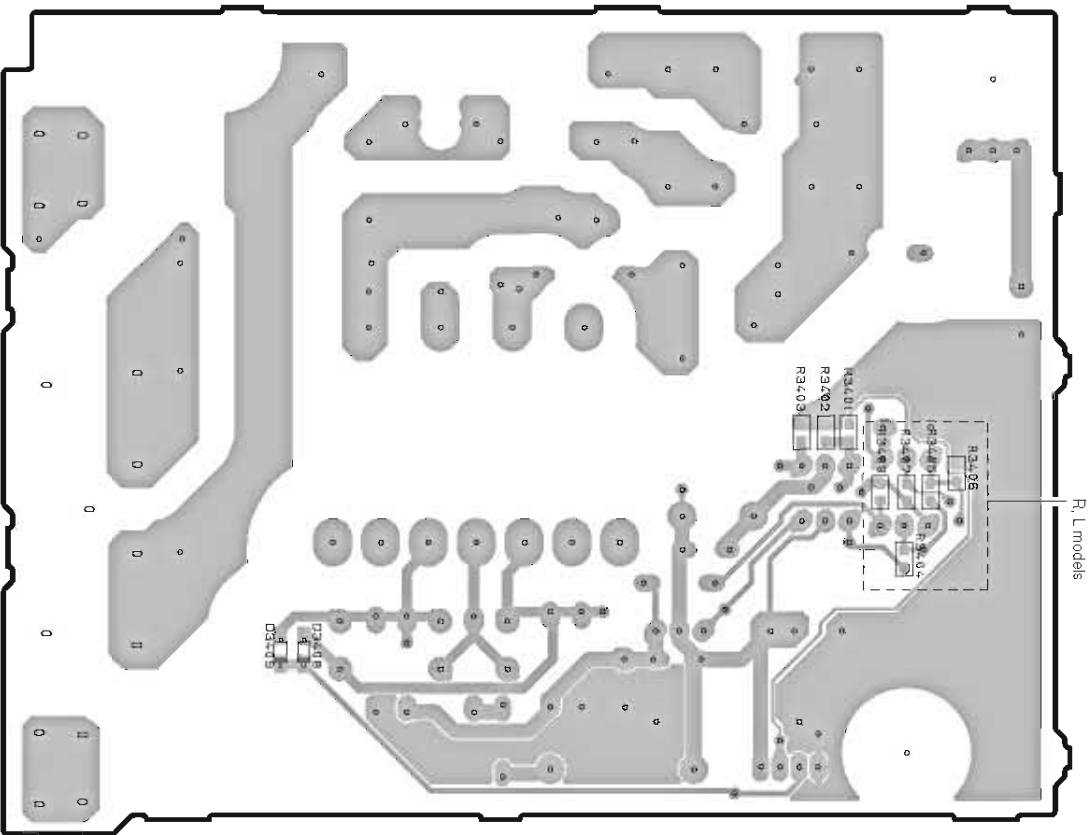
Semiconductor Location

| Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|
| D3201   | H2       | D3217   | I6       |
| D3202   | H2       | IC322   | H4       |
| D3203   | H2       | IC323   | H3       |
| D3204   | H3       | IC324   | H2       |
| D3205   | H2       | IC325   | H5       |
| D3208   | H3       |         |          |
| D3209   | H2       |         |          |
| D3210   | H3       |         |          |
| D3211   | H2       |         |          |
| D3212   | I5       |         |          |
| D3213   | I5       |         |          |
| D3214   | I6       |         |          |
| D3215   | I6       |         |          |
| D3216   | I6       |         |          |

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



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



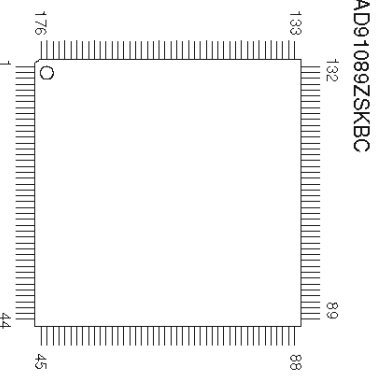
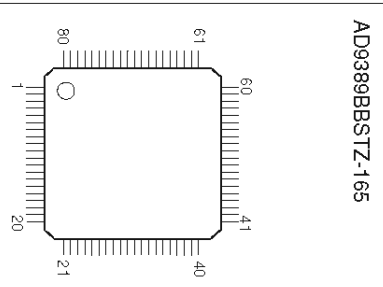
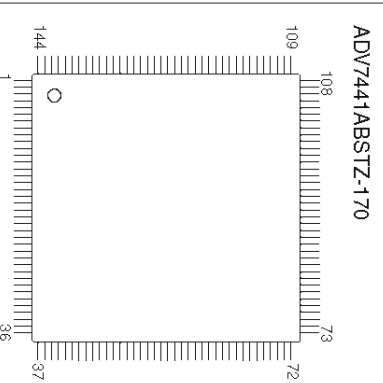
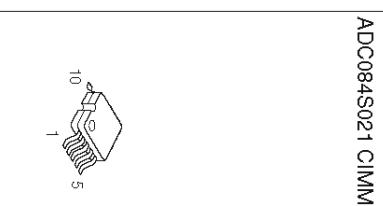
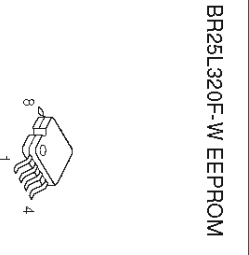
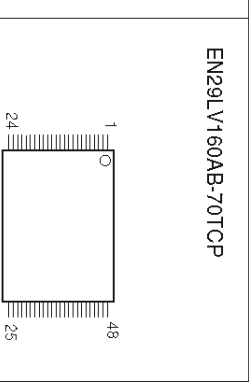
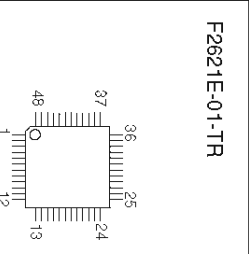
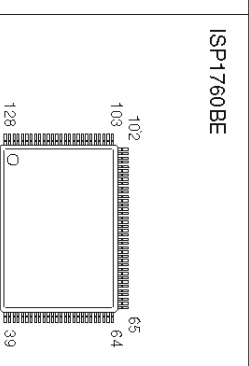
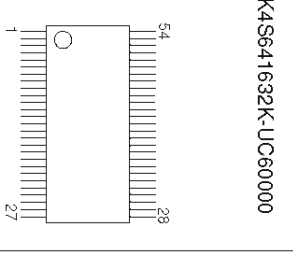
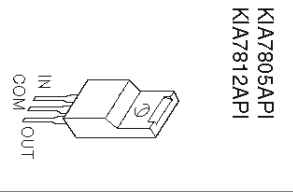
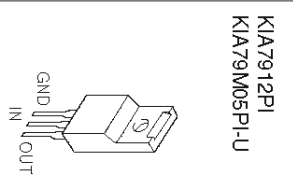
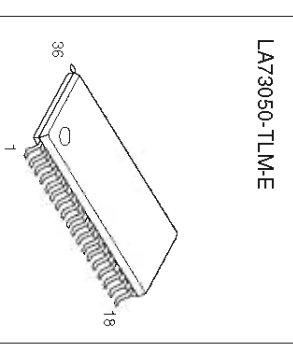
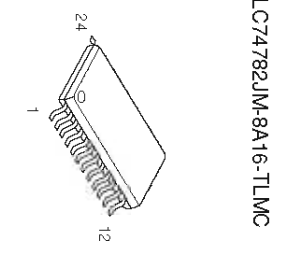
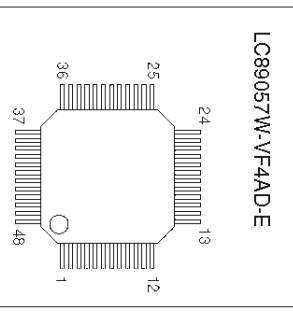
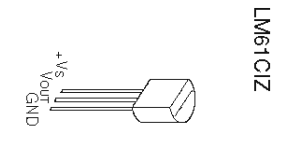
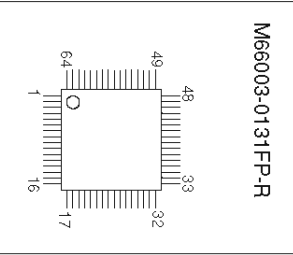
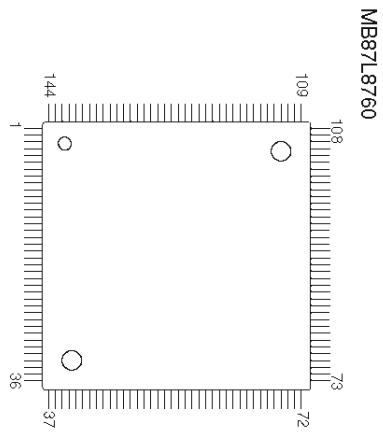
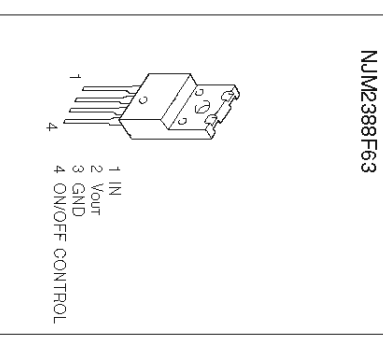
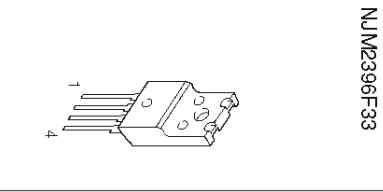
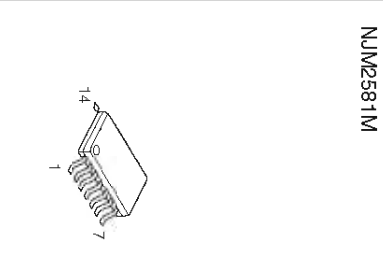
• Semiconductor Location

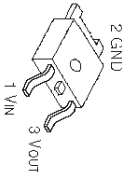
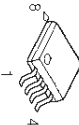
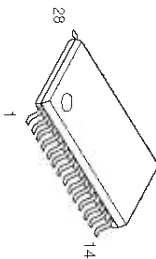
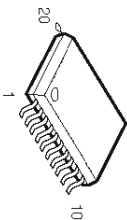
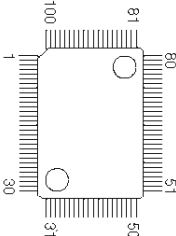
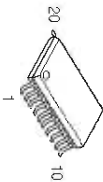
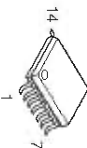
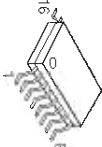
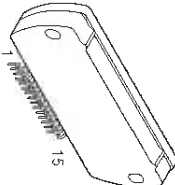
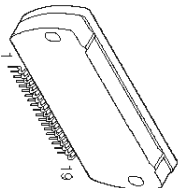
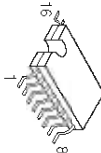
| Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|
| D3401   | D3       | D3408   | H5       |
| D3402   | C2       | D3409   | H5       |
| D3403   | D4       | D3401   | C3       |
| D3404   | D4       | D3402   | D3       |
| D3405   | D4       | D3403   | D3       |
| D3406   | D4       | D3404   | D2       |
| D3407   | D4       | D3405   | C2       |



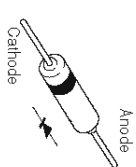
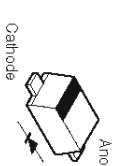
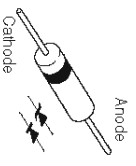
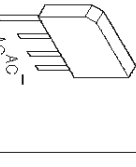
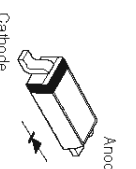
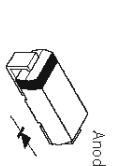
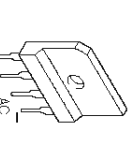
■ PIN CONNECTION DIAGRAMS

ICs

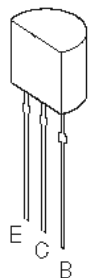
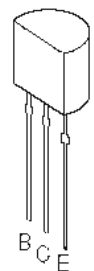
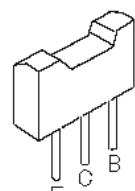
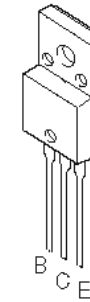
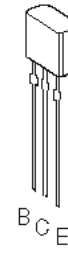
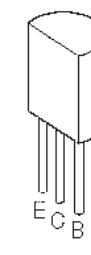
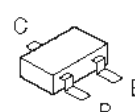
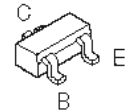
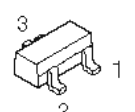
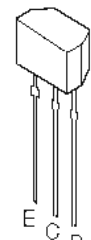
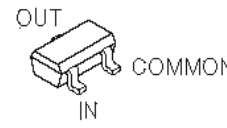
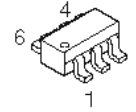
|                                                                                     |                                                                                     |                                                                                      |                                                                                       |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| AD91089ZSKBC                                                                        | AD9389BBSTZ-165                                                                     | ADV7441ABSTZ-170                                                                     | ADC084S021 CIMM                                                                       |
|  |  |  |  |
| BR25L320F-W EEPROM                                                                  | EN29LV160AB-70T CP                                                                  | F2621E-01-TR                                                                         | ISP1760BE                                                                             |
|  |  |   |   |
| K4S641632K-UC60000                                                                  | KIA7805API<br>KIA7812API                                                            | KIA7912PI<br>KIA79M05PI-U                                                            | LA73050- TLM-E                                                                        |
|   |   |    |    |
| LC74782JM-8A16-TLMC                                                                 | LC89057W-VF4AD-E                                                                    | LM61CIZ                                                                              | M66003-0131FP-R                                                                       |
|    |    |     |     |
| MB87L8760                                                                           | NUM2388F63                                                                          | NUM2396F33                                                                           | NUM2581M                                                                              |
|    |    |    |    |

|                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| NUM2845DL1-18                                                                         | NUM2867F3-05                                                                          | NUM4565M                                                                              | PCM1680DBQR                                                                           | PCM1803DBR<br>SN74AHCT245PWR<br>SN74ALVC245APWR                                       |
|  |  |  |  |  |
| R2A15218FP                                                                            | R5523N001A-TR-F                                                                       | SN74AHCT574PWR<br>SN74LV574APWR 8D-F                                                  | SN74LV144PWR<br>SN74ALVC08APWR<br>SN74ALVC32APW                                       |                                                                                       |
|  |  |  |  |                                                                                       |
| SN74LV157APWR<br>SN74LV4051APWR<br>TC74VHC153FT                                       | STK433-130-E                                                                          | STK433-330-E                                                                          | TC74HC4052AF                                                                          |                                                                                       |
|   |   |   |   |                                                                                       |

Diodes

|                                                                                     |                                                                                                                          |                                                                                     |                                                                                     |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 1SS133<br>1SS176<br>1SS270A<br>MTZJ4.7A<br>MTZJ16A                                  | 1SS335<br>MA8075-H 7.7V<br>MA8100-H 10.3V<br>RB500V-40<br>UDZ3.6BTE-17 3.6V<br>UDZ5.1B<br>UDZS3.3BTE-17 3.3V<br>UDZS9.1B | 1T2                                                                                 |                                                                                     |
|  |                                       |  |                                                                                     |
| KBP103G 1.0A 200V                                                                   | KDS160-RTK                                                                                                               | RB160L-40 TE25                                                                      | RS403M<br>TS6P03G 6.0A 200V                                                         |
|  |                                       |  |  |

Transistors

|                                                                                                                           |                                                                                                                                                                 |                                                                                                                            |                                                                                                                    |                                                                                                                                                     |                                                                                                                                                                      |                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 2N5401C-AT/P<br>2SA1015-Y<br>2SC2705<br> | 2N5551C-AT<br>                                                                 | 2SA1037K<br>                             | 2SA1708<br>                     | 2SB1274<br>                                                      | 2SC1740S<br>                                                                      | 2SC1815 Y<br> |
| 2SC2412K<br>                           | 2SC3326-A (TE85R, F)<br>2SC3326-B (TE85R, F)<br>2SC4081 T106<br>2SD1938F<br> | DTA143EKA<br><br>1 GND<br>2 IN<br>3 OUT | KRA102M-AT/P<br>KRC102M-AT<br> | KRA102S-RTK/P<br>KRA104S-RTK<br>KRC102S-RTK<br>KRC104S-RTK<br> | RTQ040P02<br><br>1 Drain<br>2 Drain<br>3 Gate<br>4 Source<br>5 Drain<br>6 Drain |                                                                                                  |



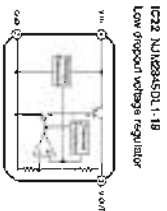
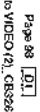
MEMO



RX-V463/HTR-6140/  
DSP-AX463





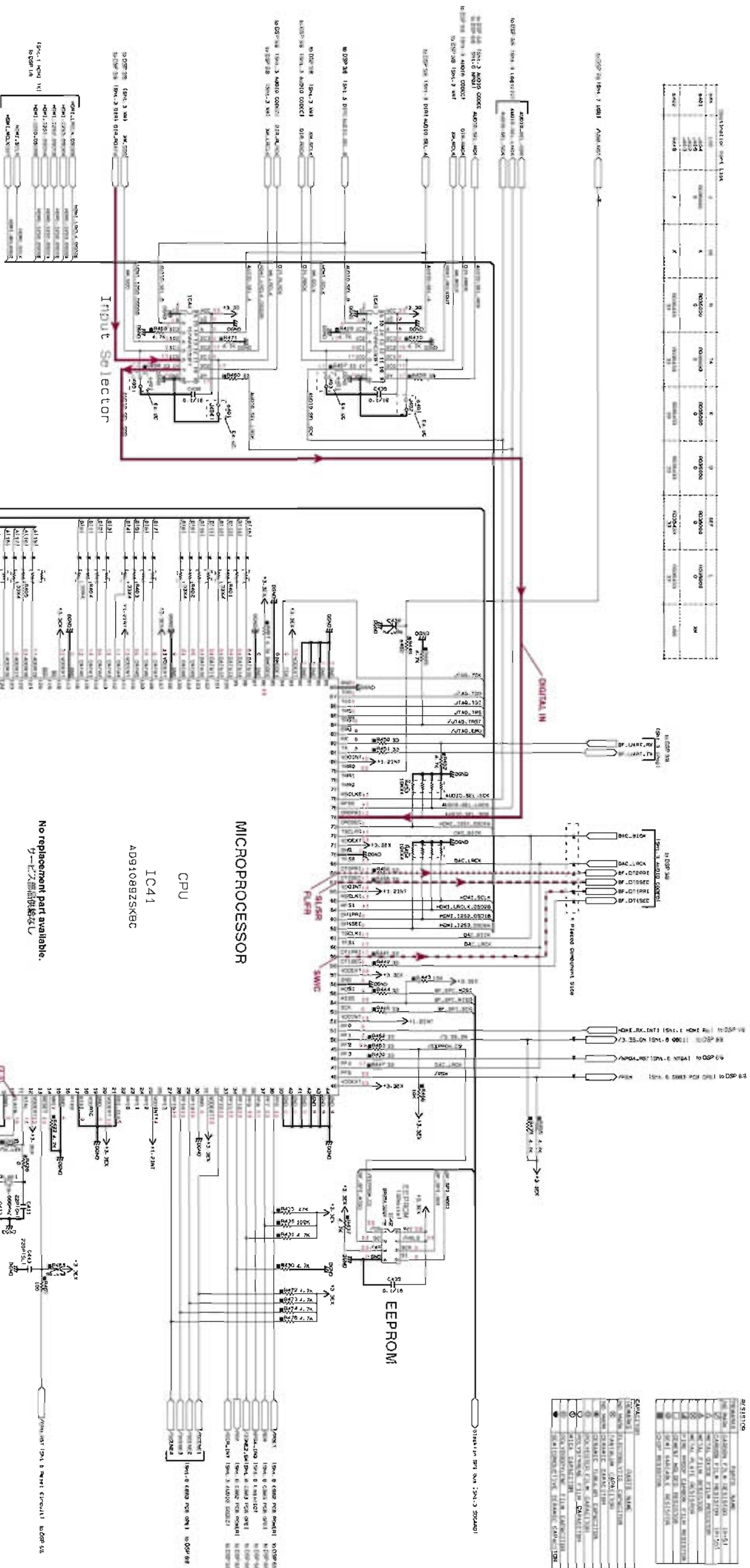


- 電圧は、内部抵抗10MΩの電圧計で測定したものです。
- 本品の内部抵抗は、安全規格に準拠しています。製品の交換が必須な場合、パフォーマンスにばらつきのある部品を使用してください。
- 本製品の品質を向上させるため、改良のため予告なく変更することがあります。

- 電圧は、内部系統10kVの電圧計で測定したものです。
- 小皿のある部品は、安全性確保部品を示しています。部品の交換が必要の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。
- 本機内部は導電性樹脂です。部品のため必ず着なく変更することがございます。



| FUNCTION INPUT LIST |        |          |     |        |          |     |        |          |     |      |
|---------------------|--------|----------|-----|--------|----------|-----|--------|----------|-----|------|
| Pin                 | Symbol | Function | Pin | Symbol | Function | Pin | Symbol | Function | Pin |      |
| 40                  | IN0    | Input 0  | 41  | IN1    | Input 1  | 42  | IN2    | Input 2  | 43  | IN3  |
| 44                  | IN4    | Input 4  | 45  | IN5    | Input 5  | 46  | IN6    | Input 6  | 47  | IN7  |
| 48                  | IN8    | Input 8  | 49  | IN9    | Input 9  | 50  | IN10   | Input 10 | 51  | IN11 |
| 52                  | IN12   | Input 12 | 53  | IN13   | Input 13 | 54  | IN14   | Input 14 | 55  | IN15 |
| 56                  | IN16   | Input 16 | 57  | IN17   | Input 17 | 58  | IN18   | Input 18 | 59  | IN19 |
| 60                  | IN20   | Input 20 | 61  | IN21   | Input 21 | 62  | IN22   | Input 22 | 63  | IN23 |
| 64                  | IN24   | Input 24 | 65  | IN25   | Input 25 | 66  | IN26   | Input 26 | 67  | IN27 |
| 68                  | IN28   | Input 28 | 69  | IN29   | Input 29 | 70  | IN30   | Input 30 | 71  | IN31 |



NOTICE (page 1)

10. U.S.A.

11. CANADA

12. EUROPE

13. JAPAN

14. AUSTRALIA

15. SOUTH AFRICA

16. INDIA

17. SINGAPORE

18. MALAYSIA

19. THAILAND

20. PHILIPPINES

21. VIETNAM

22. CAMBODIA

23. LAOS

24. MYANMAR

25. BURMA

26. SRI LANKA

27. NEPAL

28. BANGLADESH

29. PAKISTAN

30. AFGHANISTAN

31. UZBEKISTAN

32. KAZAKHSTAN

33. KYRGYZSTAN

34. TAJIKISTAN

35. TURKMENISTAN

36. ARMENIA

37. GEORGIA

38. ABKHAZIA

39. SOUTH OSSETIA

40. NORTH OSSETIA

41. CHECHENIA

42. DAGESTAN

43. INGHUSHETIA

44. DAGESTAN

45. INGHUSHETIA

46. DAGESTAN

47. INGHUSHETIA

48. DAGESTAN

49. INGHUSHETIA

50. DAGESTAN

- All voltages are measured with a 10kΩ/1V DC impedance voltmeter.
- Component values in parentheses are not required for operation.
- Components having specifications equal to those originally installed.
- Schematic diagram is subject to change without notice.

- 電圧は、10kΩ/1V DCの電圧計で測ったものです。
- 括弧にある数値は、必ずしも必要ではありません。製品の交換が容易になる、パーツに代用される場合も使用してください。
- 本回路図は機密情報です。改訂のなげ予告なく変更することがあります。



POINT ③ (X)AD0 (Pin 10 of IC41)

IC41: AD9108ZSNBC

IC41: AD9108ZSNBC

IC41: AD9108ZSNBC

IC41: AD9108ZSNBC

IC41: AD9108ZSNBC

IC41: AD9108ZSNBC

IC41: AD9108ZSNBC

IC41: AD9108ZSNBC

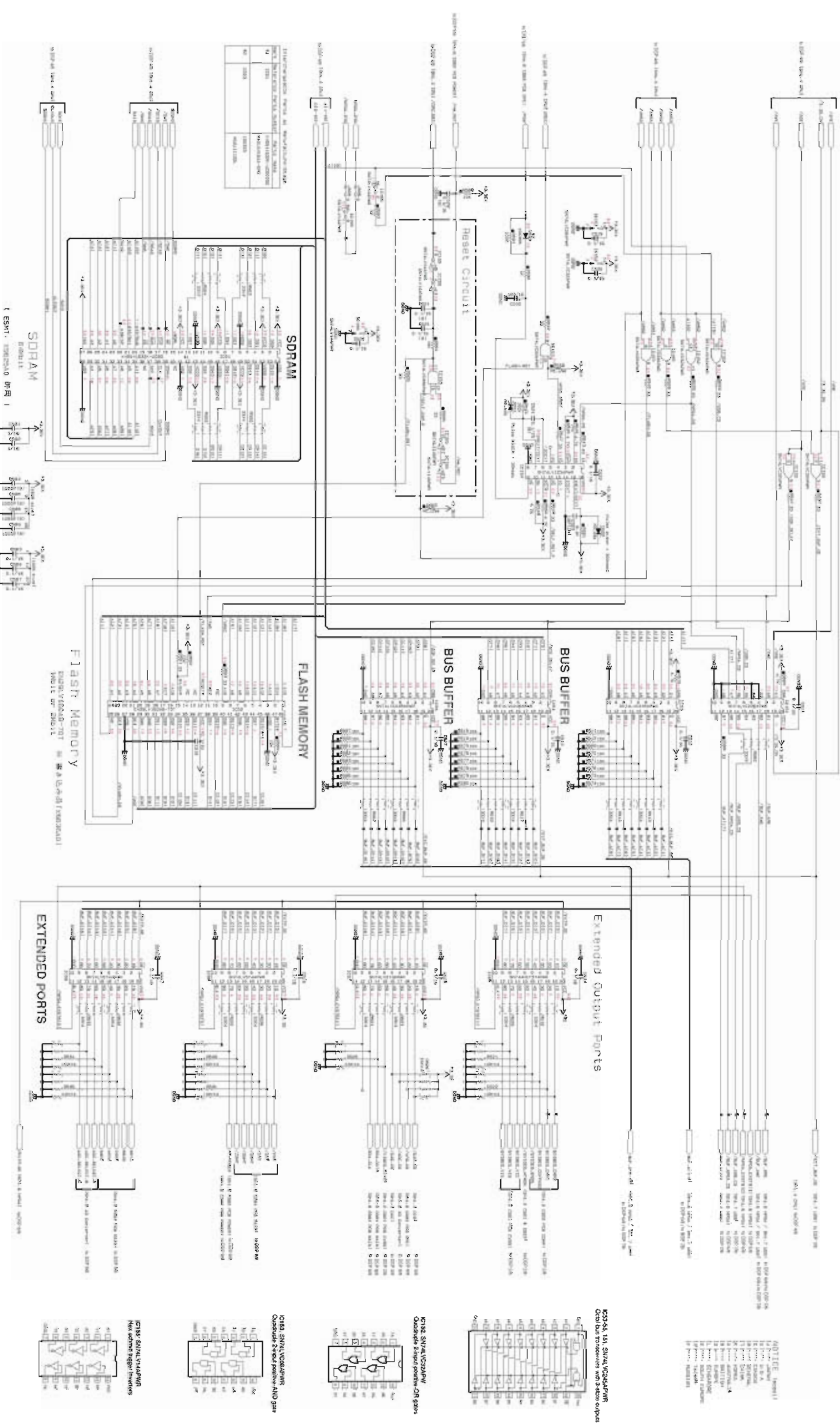
IC41: AD9108ZSNBC

IC41: AD9108ZSNBC

IC41: AD9108ZSNBC

IC41: AD9108ZSNBC

IC41: AD9108ZSNBC



| IC11 | K4S4162KJ-C6000 | 64 Mbytes DRAM |
|------|-----------------|----------------|
| 1    | 1               | 1              |
| 2    | 2               | 2              |
| 3    | 3               | 3              |
| 4    | 4               | 4              |
| 5    | 5               | 5              |
| 6    | 6               | 6              |
| 7    | 7               | 7              |
| 8    | 8               | 8              |
| 9    | 9               | 9              |
| 10   | 10              | 10             |



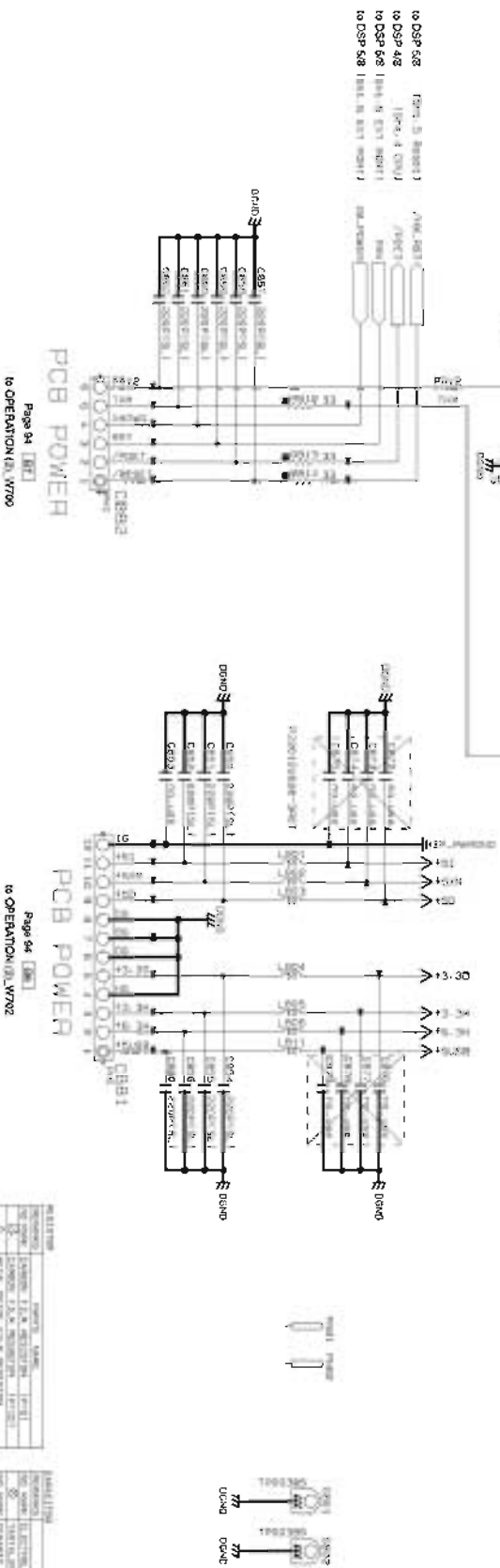
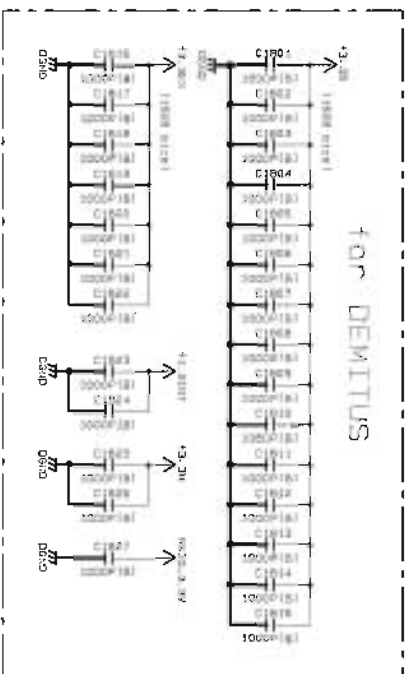
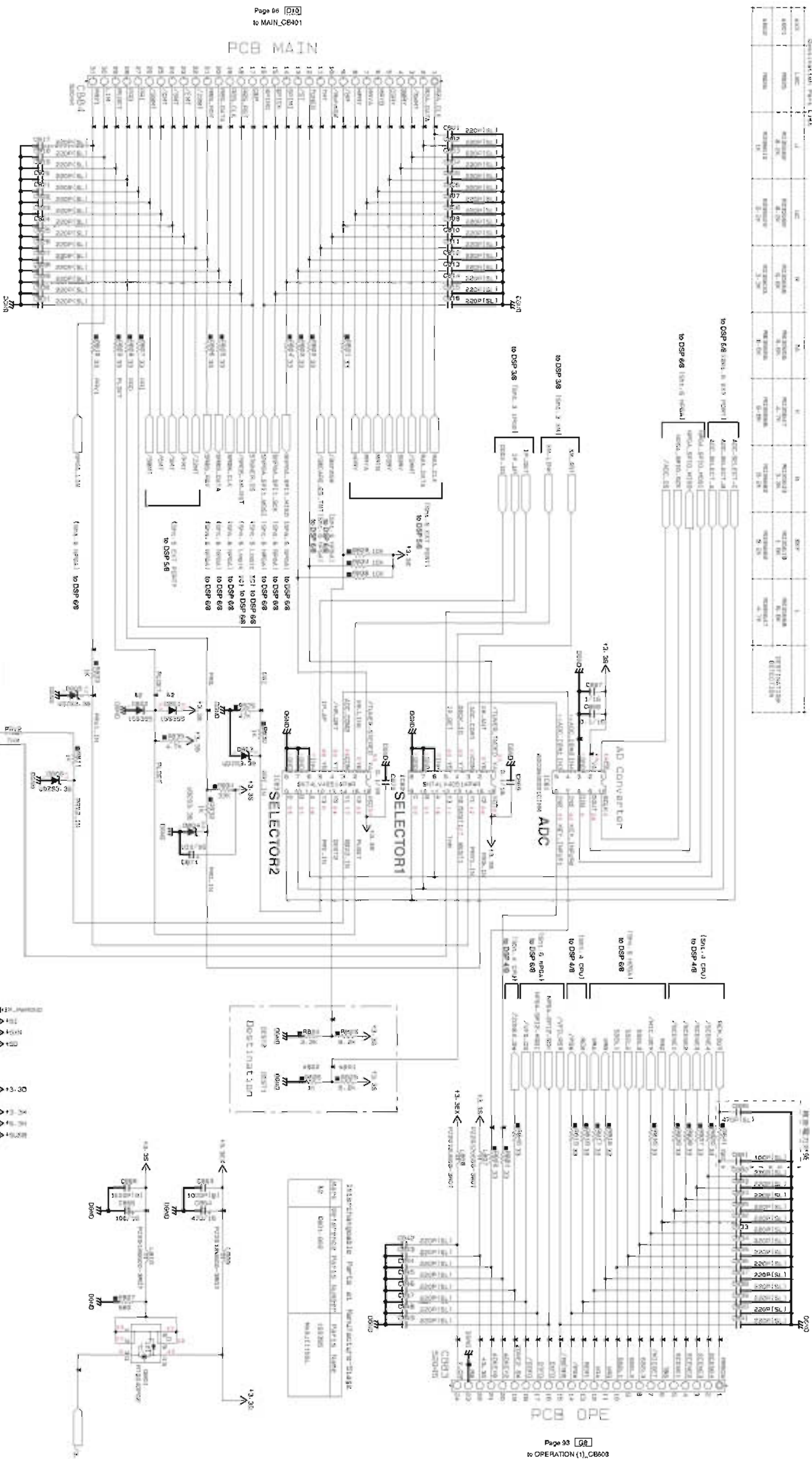


1

1



| ROW  | LINE | J      | LC   | N      | Y5   | I      | D    | GR     | I    |
|------|------|--------|------|--------|------|--------|------|--------|------|
| 1001 | 0000 | 000000 | 0.00 | 000000 | 0.00 | 000000 | 0.00 | 000000 | 0.00 |
| 1002 | 0000 | 000000 | 0.00 | 000000 | 0.00 | 000000 | 0.00 | 000000 | 0.00 |



| Case No. | Case Name | Case Status |
|----------|-----------|-------------|
| 1        | Case 1    | Open        |
| 2        | Case 2    | Open        |
| 3        | Case 3    | Open        |
| 4        | Case 4    | Open        |
| 5        | Case 5    | Open        |
| 6        | Case 6    | Open        |
| 7        | Case 7    | Open        |
| 8        | Case 8    | Open        |
| 9        | Case 9    | Open        |
| 10       | Case 10   | Open        |
| 11       | Case 11   | Open        |
| 12       | Case 12   | Open        |
| 13       | Case 13   | Open        |
| 14       | Case 14   | Open        |
| 15       | Case 15   | Open        |
| 16       | Case 16   | Open        |
| 17       | Case 17   | Open        |
| 18       | Case 18   | Open        |
| 19       | Case 19   | Open        |
| 20       | Case 20   | Open        |
| 21       | Case 21   | Open        |
| 22       | Case 22   | Open        |
| 23       | Case 23   | Open        |
| 24       | Case 24   | Open        |
| 25       | Case 25   | Open        |
| 26       | Case 26   | Open        |
| 27       | Case 27   | Open        |
| 28       | Case 28   | Open        |
| 29       | Case 29   | Open        |
| 30       | Case 30   | Open        |
| 31       | Case 31   | Open        |
| 32       | Case 32   | Open        |
| 33       | Case 33   | Open        |
| 34       | Case 34   | Open        |
| 35       | Case 35   | Open        |
| 36       | Case 36   | Open        |
| 37       | Case 37   | Open        |
| 38       | Case 38   | Open        |
| 39       | Case 39   | Open        |
| 40       | Case 40   | Open        |
| 41       | Case 41   | Open        |
| 42       | Case 42   | Open        |
| 43       | Case 43   | Open        |
| 44       | Case 44   | Open        |
| 45       | Case 45   | Open        |
| 46       | Case 46   | Open        |
| 47       | Case 47   | Open        |
| 48       | Case 48   | Open        |
| 49       | Case 49   | Open        |
| 50       | Case 50   | Open        |
| 51       | Case 51   | Open        |
| 52       | Case 52   | Open        |
| 53       | Case 53   | Open        |
| 54       | Case 54   | Open        |
| 55       | Case 55   | Open        |
| 56       | Case 56   | Open        |
| 57       | Case 57   | Open        |
| 58       | Case 58   | Open        |
| 59       | Case 59   | Open        |
| 60       | Case 60   | Open        |
| 61       | Case 61   | Open        |
| 62       | Case 62   | Open        |
| 63       | Case 63   | Open        |
| 64       | Case 64   | Open        |
| 65       | Case 65   | Open        |
| 66       | Case 66   | Open        |
| 67       | Case 67   | Open        |
| 68       | Case 68   | Open        |
| 69       | Case 69   | Open        |
| 70       | Case 70   | Open        |
| 71       | Case 71   | Open        |
| 72       | Case 72   | Open        |
| 73       | Case 73   | Open        |
| 74       | Case 74   | Open        |
| 75       | Case 75   | Open        |
| 76       | Case 76   | Open        |
| 77       | Case 77   | Open        |
| 78       | Case 78   | Open        |
| 79       | Case 79   | Open        |
| 80       | Case 80   | Open        |
| 81       | Case 81   | Open        |
| 82       | Case 82   | Open        |
| 83       | Case 83   | Open        |
| 84       | Case 84   | Open        |
| 85       | Case 85   | Open        |
| 86       | Case 86   | Open        |
| 87       | Case 87   | Open        |
| 88       | Case 88   | Open        |
| 89       | Case 89   | Open        |
| 90       | Case 90   | Open        |
| 91       | Case 91   | Open        |
| 92       | Case 92   | Open        |
| 93       | Case 93   | Open        |
| 94       | Case 94   | Open        |
| 95       | Case 95   | Open        |
| 96       | Case 96   | Open        |
| 97       | Case 97   | Open        |
| 98       | Case 98   | Open        |
| 99       | Case 99   | Open        |
| 100      | Case 100  | Open        |

| Serial No. | Project Name     | Project Type     |
|------------|------------------|------------------|
| 1          | 1. Project Name  | 1. Project Type  |
| 2          | 2. Project Name  | 2. Project Type  |
| 3          | 3. Project Name  | 3. Project Type  |
| 4          | 4. Project Name  | 4. Project Type  |
| 5          | 5. Project Name  | 5. Project Type  |
| 6          | 6. Project Name  | 6. Project Type  |
| 7          | 7. Project Name  | 7. Project Type  |
| 8          | 8. Project Name  | 8. Project Type  |
| 9          | 9. Project Name  | 9. Project Type  |
| 10         | 10. Project Name | 10. Project Type |

Activity level

1) none at all

2) none at all

3) none at all

4) none at all

5) none at all

6) none at all

7) none at all

8) none at all

9) none at all

10) none at all

11) none at all

12) none at all

13) none at all

14) none at all

15) none at all

16) none at all

17) none at all

18) none at all

19) none at all

20) none at all

21) none at all

22) none at all

23) none at all

24) none at all

25) none at all

26) none at all

27) none at all

28) none at all

29) none at all

30) none at all

31) none at all

32) none at all

33) none at all

34) none at all

35) none at all

36) none at all

37) none at all

38) none at all

39) none at all

40) none at all

41) none at all

42) none at all

43) none at all

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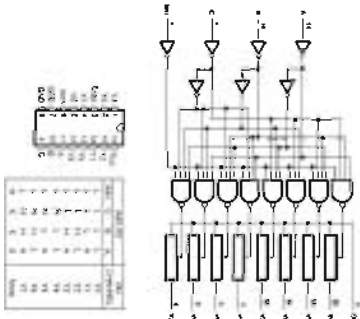
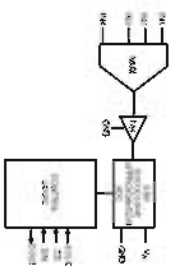
96) none at all

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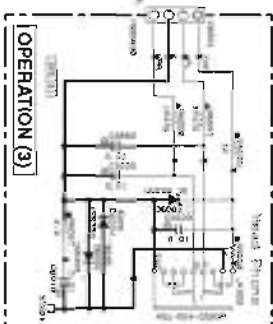
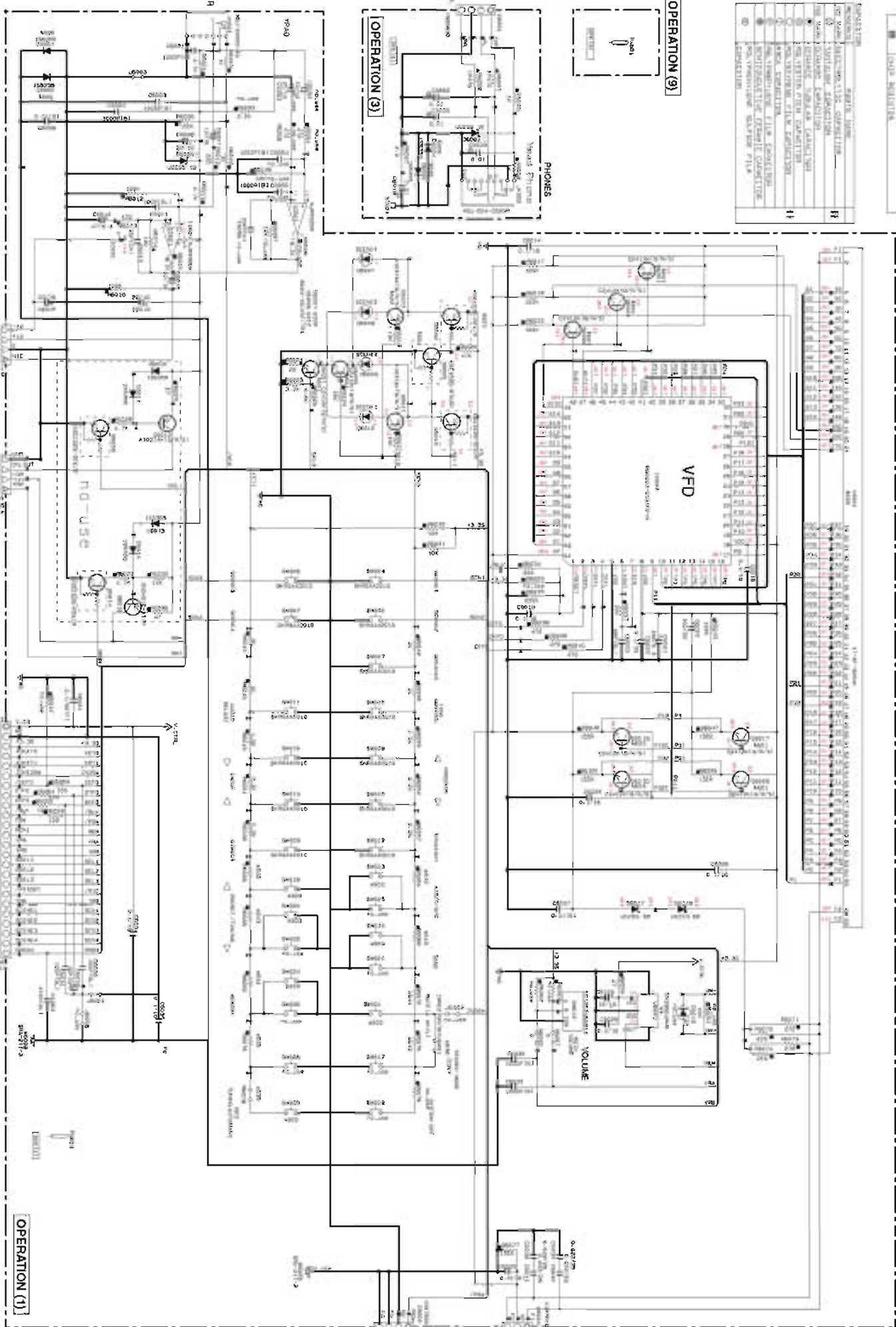


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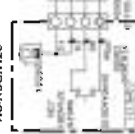
OPERATION (9)



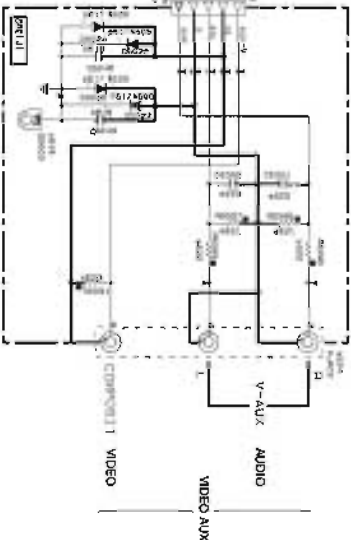
### OPERATION (3)

Page 95 ☐ JAL  
to MAIN VIEW

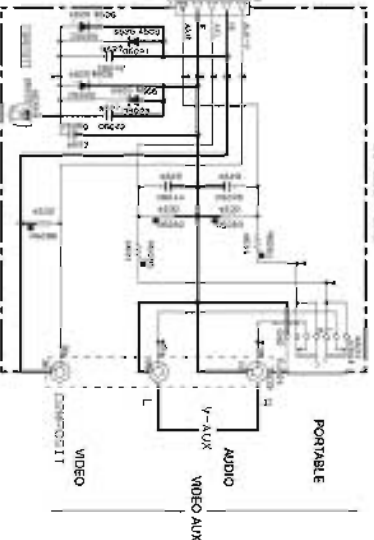
OPERATION (7)



#### OPERATION (4)



**OPERATION {5}**: U, C, J models

[illegible]

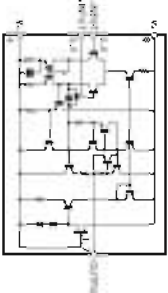
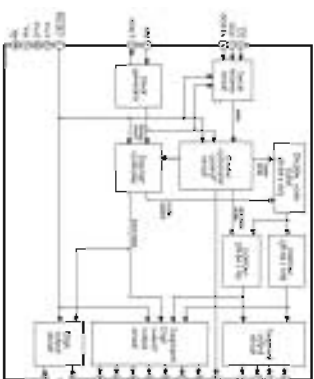
**NOTICE**

- |                                     |
|-------------------------------------|
| (A) print "Hello"                   |
| (B) print "A B C"                   |
| (C) print "HELLO"                   |
| (D) print "hello world"             |
| (E) print "Hi C++"                  |
| (F) print "hello A"                 |
| (G) print "HELLO HELLO"             |
| (H) print "HELLO HELLO HELLO"       |
| (I) print "HELLO HELLO HELLO HELLO" |

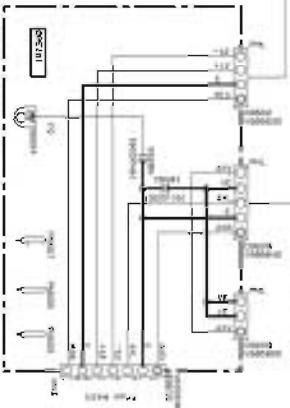
[illegible]

| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|
| 1990 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

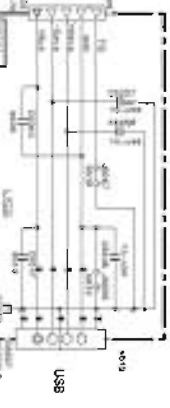
IC691: NJM4565M  
Dual operational amplifier

IC603, M66003-0131F.P.A  
18 digit x 7 segment VFD controller/drivePage 97 [E2]  
10 VIDEO (1), WFOO-TVPage 06 E31  
to MAIN\_W401

### OPERATION (8)



## OPERATION (6)



VIDEO AUX

**PORTABLE**

## VIDEO ALBUM

## VIDEO

- \* All wiring must be done with a 100V/50 Hz AC electrician with proper training. Special characteristics are required, and must be followed.
- \* Not performing specifications equal to those originally installed.
- \* Not performing work is subject to charge without notice.

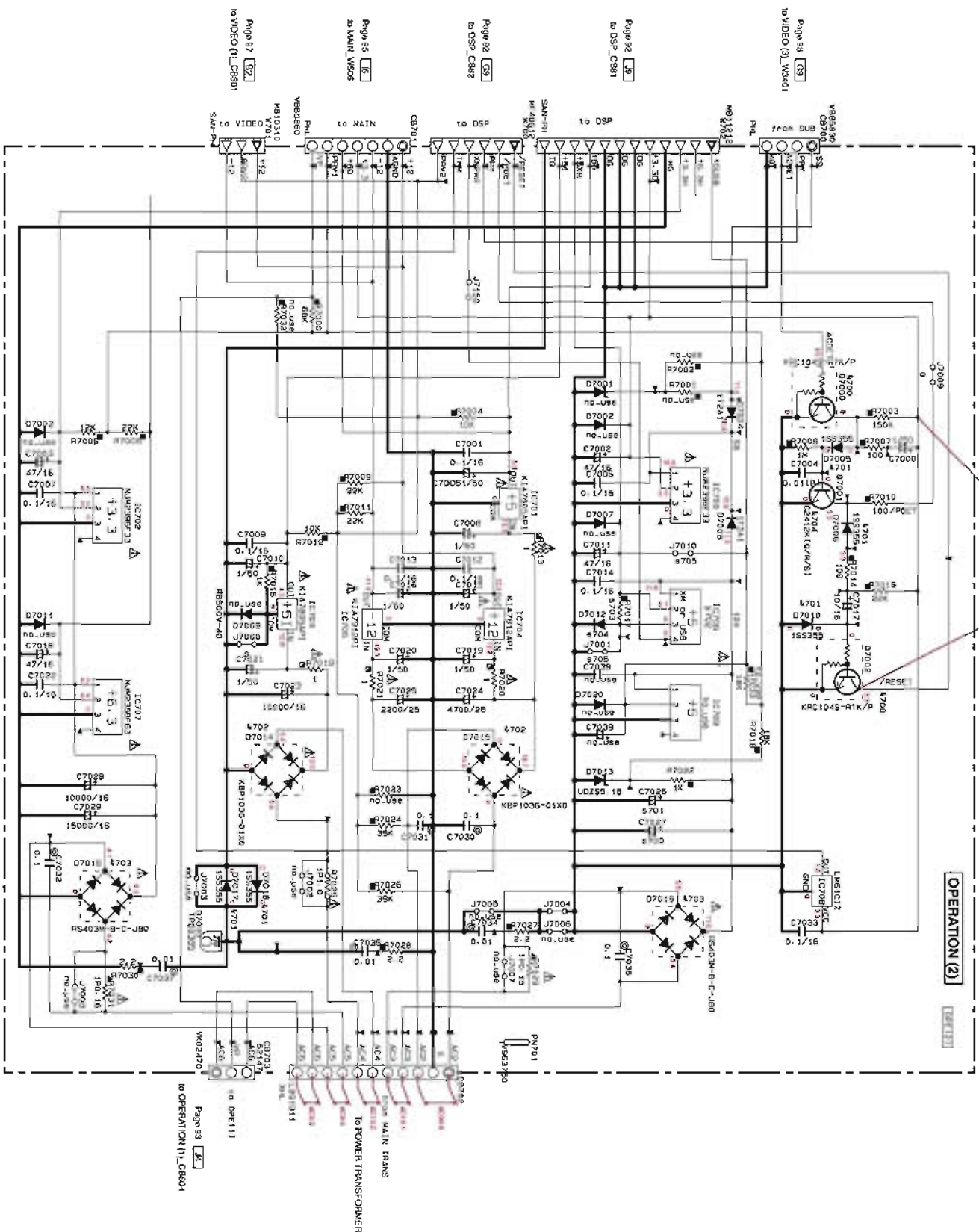
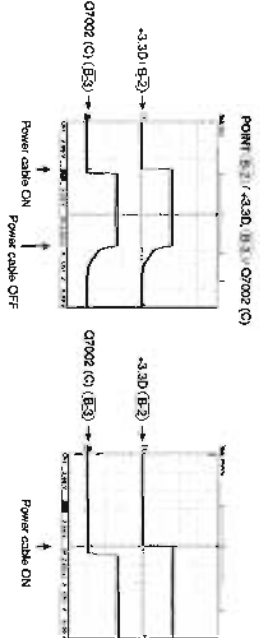
● 電圧は、内装材100Vの電圧にて施工します。

● 点検のある場合は、安全作業員が施工します。電線の交換が必要な場合は、必ず電線工事の資格のある電工に依頼してください。

● 本取組には保証が適用されず、点検の必ずずりな保証が適用されることがあります。

Interchangeable Parts & Manufacturer-Status

| Mark | Reference Part No.      | Part No.       | Manufacturer           |
|------|-------------------------|----------------|------------------------|
| 8100 | 07000-7002              | 07C114F4A      | KDC (KAWA) LTD./P      |
| 8101 | 07005, 7006, 7010, 7015 | 15S103         | MAJ11100L              |
| 8102 | 07014-7018              | KBP1036        | KBP1036                |
| 8103 | 07018-7019              | RS403M-B-C-J80 | RS403M-C-07            |
| 8104 | 07001                   | KRC1045-R1K    | KRC1045-R1K/10L/07/0/5 |



Interchangeable Parts List

| Part No. | Part Name  | Part No. | Part Name               |
|----------|------------|----------|-------------------------|
| 8100     | 07000-7002 | 8101     | 07005, 7006, 7010, 7015 |
| 8102     | 07014-7018 | 8103     | 07018-7019              |
| 8104     | 07001      |          |                         |

NOTICE (note1)

1. Japan

2. U.S.A.

3. Canada

4. Australia

5. Europe

6. Singapore

7. South Korea

8. Taiwan

9. Hong Kong

10. Malaysia

11. Indonesia

12. Philippines

13. Thailand

14. Vietnam

15. Cambodia

16. Laos

17. Myanmar

18. Brunei

19. Timor-Leste

20. Papua New Guinea

21. Solomon Islands

22. Vanuatu

23. Fiji

24. Tonga

25. Samoa

26. Kiribati

27. Tuvalu

28. Nauru

29. Palau

30. Micronesia

31. Marshall Islands

32. Kiribati

33. Tuvalu

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779. Palau

780. Micronesia

781. Marshall Islands

782. Kiribati

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995. Palau

996. Micronesia

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999. Tuvalu

1000. Nauru

1001. Palau

1002. Micronesia

1003. Marshall Islands

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1005. Tuvalu

1006. Nauru

1007. Palau

1008. Micronesia

1009. Marshall Islands

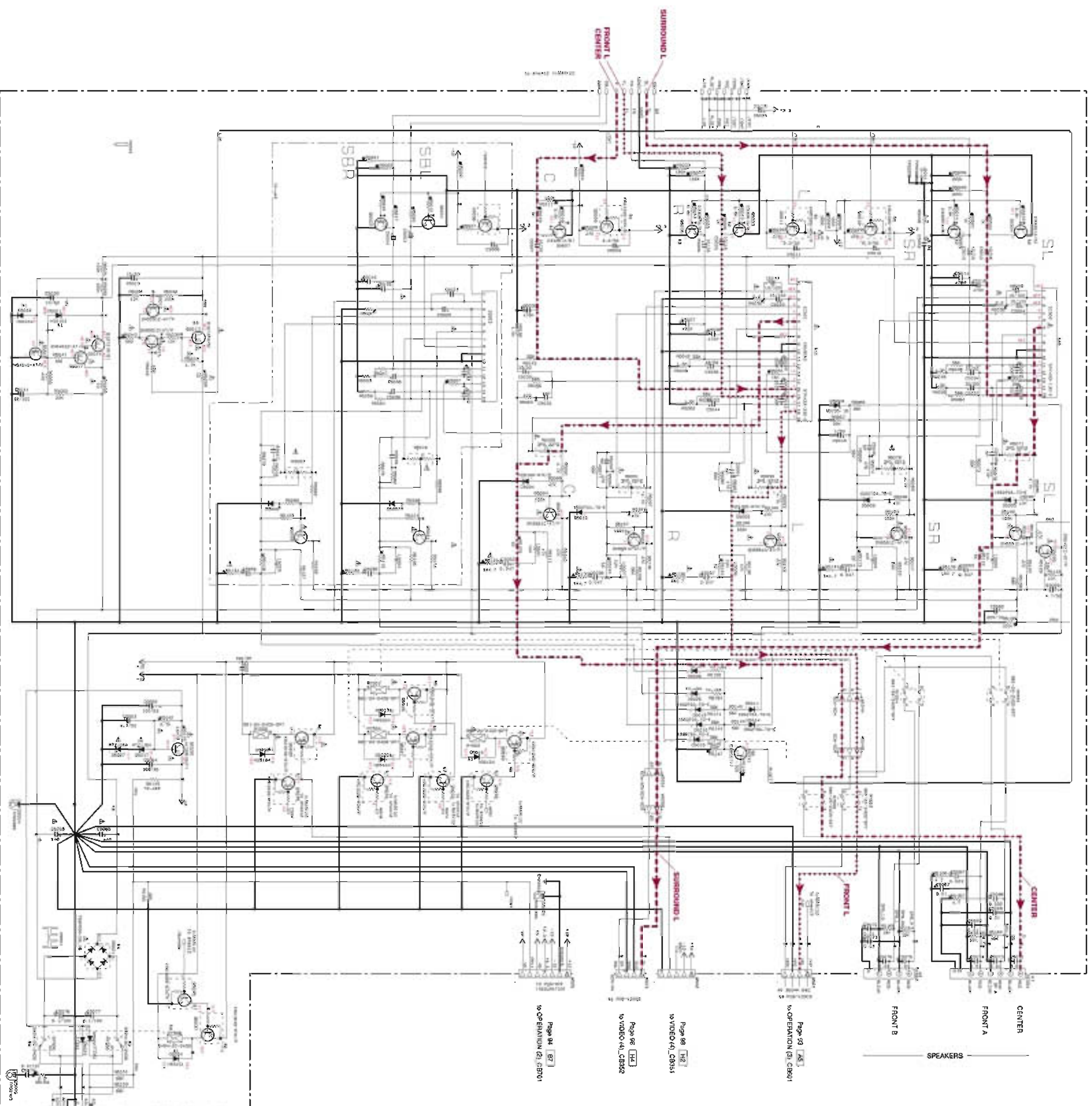
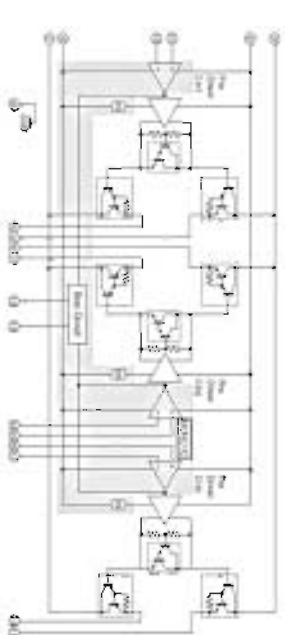
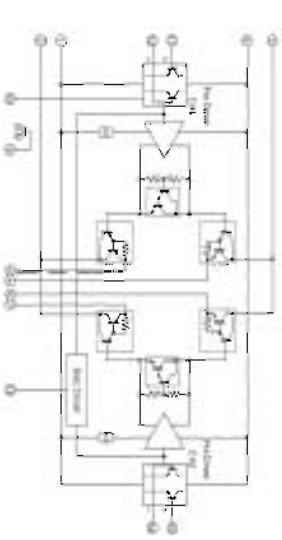
1010. Kiribati

1011. Tuvalu

1012. Nauru

1013. Palau

1

IC501: STK433-830-E  
3-channel AF power amplifier, standby circuit built-inIC502: STK433-130-E  
2-channel AF power amplifier, standby circuit built-in

| IC PART NO. | IC NAME      | IC FUNCTION                                            |
|-------------|--------------|--------------------------------------------------------|
| IC501       | STK433-830-E | 3-channel AF power amplifier, standby circuit built-in |
| IC502       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC503       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC504       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC505       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC506       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC507       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC508       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC509       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC510       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |

NOTICE (continued)

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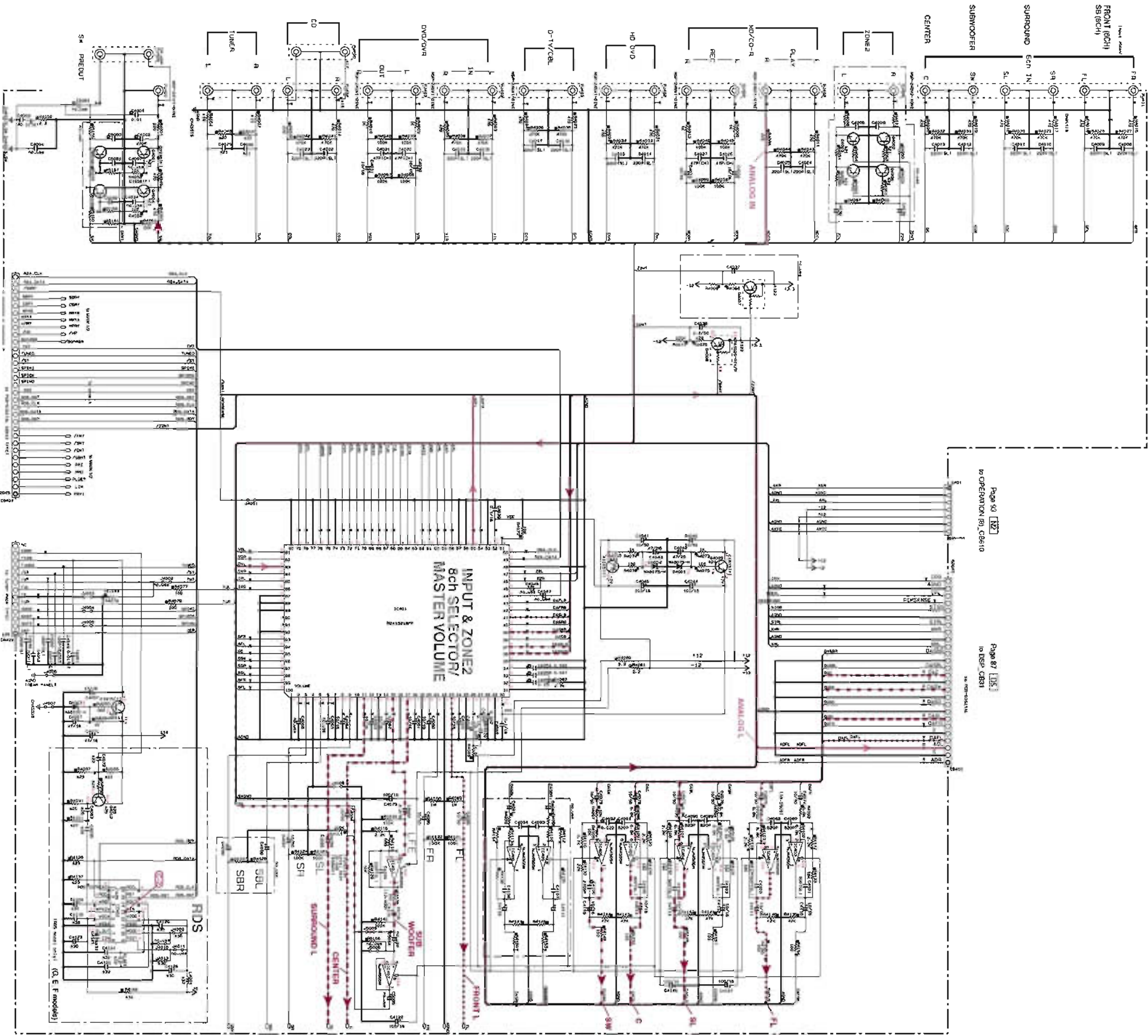
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| IC PART NO. | IC NAME      | IC FUNCTION                                            |
|-------------|--------------|--------------------------------------------------------|
| IC501       | STK433-830-E | 3-channel AF power amplifier, standby circuit built-in |
| IC502       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC503       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC504       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC505       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC506       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC507       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC508       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC509       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |
| IC510       | STK433-130-E | 2-channel AF power amplifier, standby circuit built-in |

- \* All voltages are measured with a 100M $\Omega$  DC electronic voltmeter.
- \* Components having special designations are marked  $\Delta$ , and must be replaced with parts having specifications equal to those originally installed.
- \* Schematic diagrams subject to change without notice.
- \* 電圧は、100M $\Omega$ の電子直流電圧計で測ります。
- \*  $\Delta$ 印のある部品は、特別な仕様部品を示しています。部品の交換が必要の場合、パーツには同等あるいは同等以上の部品を使用してください。
- \* 本図面は最終図面です。改訂のため予告なく変更することがあります。

MULTI CH INPUT

AUDIO



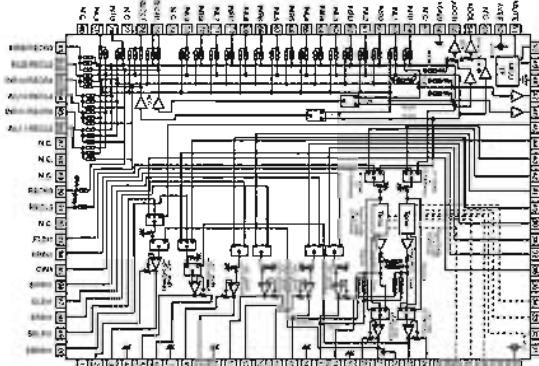
Page 50 [52]  
to OPERATION B, C&E 10

Page 87 [108]  
to DSP\_C8B1

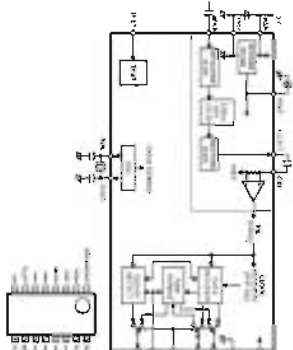
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|-----------|----------------|------------|-------------|
| REV.      | DESCRIPTION    | DATE       | BY          |
| 001       | INITIAL DESIGN | 2007.11.15 | Y. KAWABATA |
| 002       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |
| 003       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |
| 004       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |
| 005       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |
| 006       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |
| 007       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |
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| 010       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |
| 011       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |
| 012       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |
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| 017       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |
| 018       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |
| 019       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |
| 020       | DESIGN CHANGE  | 2008.03.10 | Y. KAWABATA |

| NO. | ITEM | REVISION | DATE       | BY          |
|-----|------|----------|------------|-------------|
| 1   | 1.1  | 1.1      | 2007.11.15 | Y. KAWABATA |
| 2   | 1.2  | 1.2      | 2008.03.10 | Y. KAWABATA |
| 3   | 1.3  | 1.3      | 2008.03.10 | Y. KAWABATA |
| 4   | 1.4  | 1.4      | 2008.03.10 | Y. KAWABATA |
| 5   | 1.5  | 1.5      | 2008.03.10 | Y. KAWABATA |
| 6   | 1.6  | 1.6      | 2008.03.10 | Y. KAWABATA |
| 7   | 1.7  | 1.7      | 2008.03.10 | Y. KAWABATA |
| 8   | 1.8  | 1.8      | 2008.03.10 | Y. KAWABATA |
| 9   | 1.9  | 1.9      | 2008.03.10 | Y. KAWABATA |
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| 12  | 1.12 | 1.12     | 2008.03.10 | Y. KAWABATA |
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| 17  | 1.17 | 1.17     | 2008.03.10 | Y. KAWABATA |
| 18  | 1.18 | 1.18     | 2008.03.10 | Y. KAWABATA |
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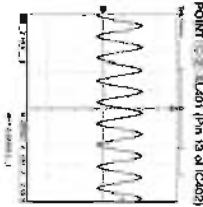
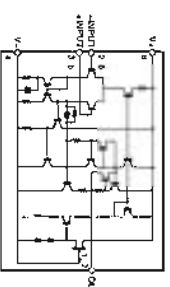
IC801: 75A15210P  
Estimated dissipation value with 15 input selector and tone control



IC408: LC72738M-UV114E  
RDS signal demodulation IC

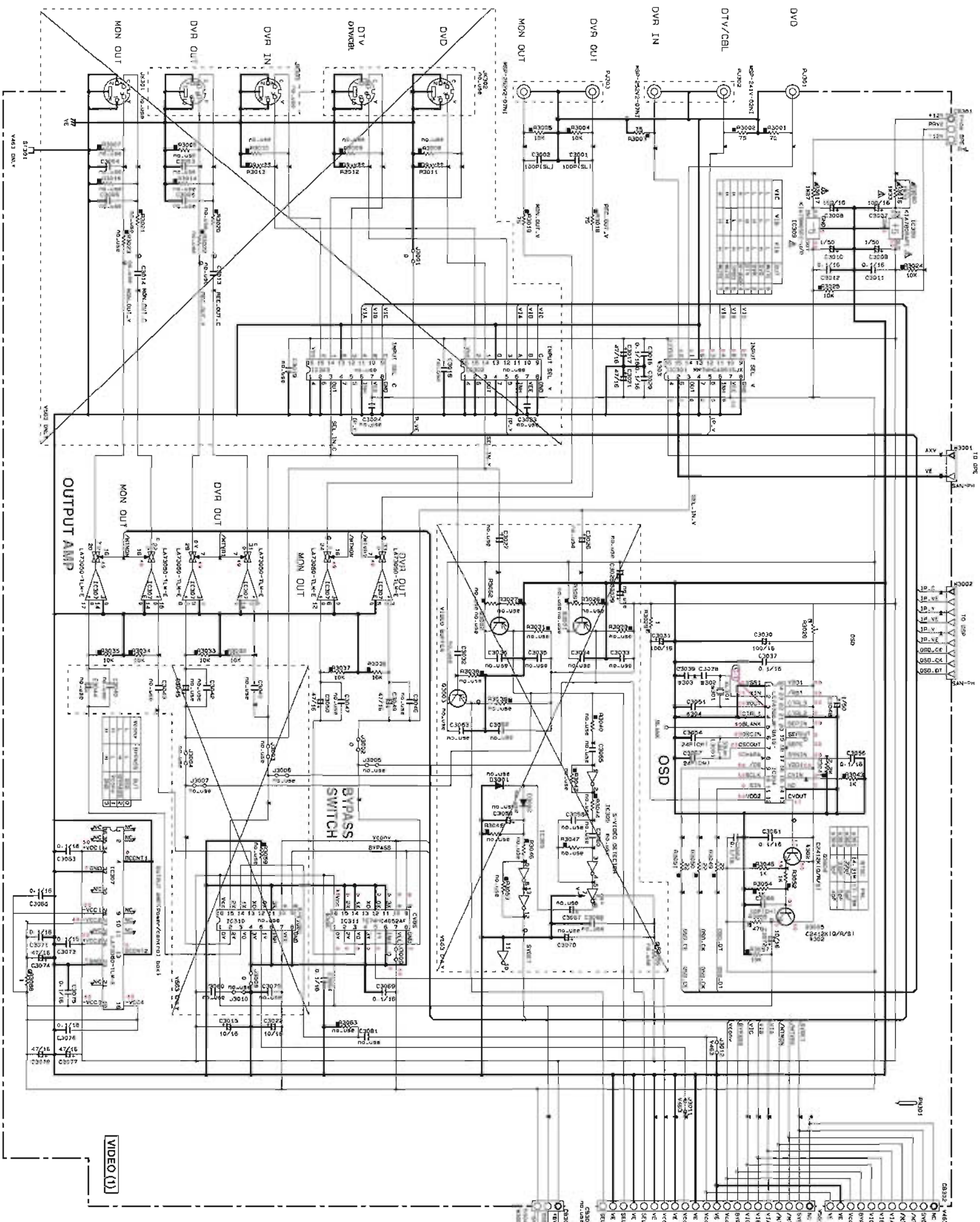


IC403: 405, 407: NJM4550M  
Dual operational amplifier

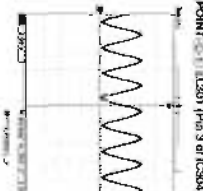
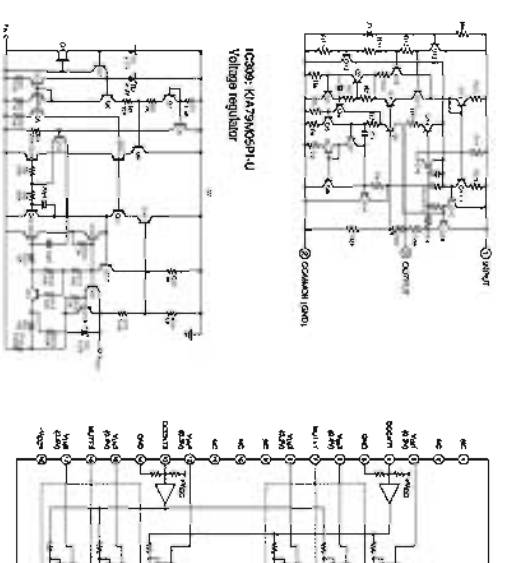
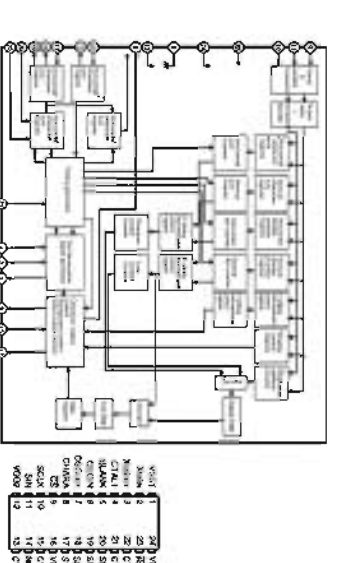


● All voltages are measured with a 10MΩV D.C. electronic voltmeter.  
● Components having special characteristics are marked with a \* and must be replaced with parts having specifications equal to those originally installed.  
● Schematic diagram is subject to change without notice.

● 電圧は、10MΩVの電圧計で測定したものです。  
● 小記号の部品は、特殊特性部品を示しています。部品の交換が不良の場合、パーツリストに記されている部品を必ずしも交換してください。  
● 本図は、仕様変更を伴う場合があります。交換の際は必ずしも交換してください。

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to OPERATION (4), CB229Page 87 [D3]  
to DSP\_C832Page 88 [M3]  
to DSP\_C861

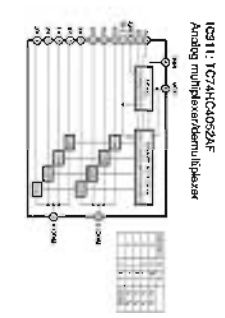
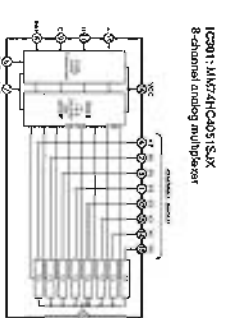
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|----------|-----------------|----------|-----------------|
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| 1003     | IC1003: 74VHC04 | 1004     | IC1004: 74VHC04 |
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| 1007     | IC1007: 74VHC04 | 1008     | IC1008: 74VHC04 |
| 1009     | IC1009: 74VHC04 | 1010     | IC1010: 74VHC04 |
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| 1153     | IC1153: 74VHC04 | 1154     | IC1154: 74VHC04 |
| 1155     | IC1155: 74VHC04 | 1156     | IC1156: 74VHC04 |
| 1157     | IC1157: 74VHC04 | 1158     | IC1158: 74VHC04 |
| 1159     | IC1159: 74VHC04 | 1160     | IC1160: 74VHC04 |
| 1161     | IC1161: 74VHC04 | 1162     | IC1162: 74VHC04 |
| 1163     | IC1163: 74VHC04 | 1164     | IC1164: 74VHC04 |
| 1165     | IC1165: 74VHC04 | 1166     | IC1166: 74VHC04 |
| 1167     | IC1167: 74VHC04 | 1168     | IC1168: 74VHC04 |
| 1169     | IC1169: 74VHC04 | 1170     | IC1170: 74VHC04 |
| 1171     | IC1171: 74VHC04 | 1172     | IC1172: 74VHC04 |
| 1173     | IC1173: 74VHC04 | 1174     | IC1174: 74VHC04 |
| 1175     | IC1175: 74VHC04 | 1176     | IC1176: 74VHC04 |
| 1177     | IC1177: 74VHC04 | 1178     | IC1178: 74VHC04 |
| 1179     | IC1179: 74VHC04 | 1180     | IC1180: 74VHC04 |
| 1181     | IC1181: 74VHC04 | 1182     | IC1182: 74VHC04 |
| 1183     | IC1183: 74VHC04 | 1184     | IC1184: 74VHC04 |
| 1185     | IC1185: 74VHC04 | 1186     | IC1186: 74VHC04 |
| 1187     | IC1187: 74VHC04 | 1188     | IC1188: 74VHC04 |
| 1189     | IC1189: 74VHC04 | 1190     | IC1190: 74VHC04 |
| 1191     | IC1191: 74VHC04 | 1192     | IC1192: 74VHC04 |
| 1193     | IC1193: 74VHC04 | 1194     | IC1194: 74VHC04 |
| 1195     | IC1195: 74VHC04 | 1196     | IC1196: 74VHC04 |
| 1197     | IC1197: 74VHC04 | 1198     | IC1198: 74VHC04 |
| 1199     | IC1199: 74VHC04 | 1200     | IC1200: 74VHC04 |

Page 89 [M4]  
to VIDEO (2), CB235Page 90 [M5]  
to VIDEO (2), CB235IC207: LA72000 TLM-E  
6 channel 75-ohm video driverPage 91 [M6]  
to VIDEO (2), CB235IC204: LC7A782M SA-16 TLMC  
The on-screen display controller LSI

NOTICE (model)

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

| RESISTOR | DATA NAME                    | DATA NAME                    |
|----------|------------------------------|------------------------------|
| RES101   | NO MARK                      | NO MARK                      |
| RES102   | CARBON FILM RESISTOR (10-10) | CARBON FILM RESISTOR (10-10) |
| RES103   | NO MARK                      | NO MARK                      |
| RES104   | NO MARK                      | NO MARK                      |
| RES105   | NO MARK                      | NO MARK                      |
| RES106   | NO MARK                      | NO MARK                      |
| RES107   | NO MARK                      | NO MARK                      |
| RES108   | NO MARK                      | NO MARK                      |
| RES109   | NO MARK                      | NO MARK                      |
| RES110   | NO MARK                      | NO MARK                      |
| RES111   | NO MARK                      | NO MARK                      |
| RES112   | NO MARK                      | NO MARK                      |
| RES113   | NO MARK                      | NO MARK                      |
| RES114   | NO MARK                      | NO MARK                      |
| RES115   | NO MARK                      | NO MARK                      |
| RES116   | NO MARK                      | NO MARK                      |
| RES117   | NO MARK                      | NO MARK                      |
| RES118   | NO MARK                      | NO MARK                      |
| RES119   | NO MARK                      | NO MARK                      |
| RES120   | NO MARK                      | NO MARK                      |
| RES121   | NO MARK                      | NO MARK                      |
| RES122   | NO MARK                      | NO MARK                      |
| RES123   | NO MARK                      | NO MARK                      |
| RES124   | NO MARK                      | NO MARK                      |
| RES125   | NO MARK                      | NO MARK                      |
| RES126   | NO MARK                      | NO MARK                      |
| RES127   | NO MARK                      | NO MARK                      |
| RES128   | NO MARK                      | NO MARK                      |
| RES129   | NO MARK                      | NO MARK                      |
| RES130   | NO MARK                      | NO MARK                      |
| RES131   | NO MARK                      | NO MARK                      |
| RES132   | NO MARK                      | NO MARK                      |
| RES133   | NO MARK                      | NO MARK                      |
| RES134   | NO MARK                      | NO MARK                      |
| RES135   | NO MARK                      | NO MARK                      |
| RES136   | NO MARK                      | NO MARK                      |
| RES137   | NO MARK                      | NO MARK                      |
| RES138   | NO MARK                      | NO MARK                      |
| RES139   | NO MARK                      | NO MARK                      |
| RES140   | NO MARK                      | NO MARK                      |
| RES141   | NO MARK                      | NO MARK                      |
| RES142   | NO MARK                      | NO MARK                      |
| RES143   | NO MARK                      | NO MARK                      |
| RES144   | NO MARK                      | NO MARK                      |
| RES145   | NO MARK                      | NO MARK                      |
| RES146   | NO MARK                      | NO MARK                      |
| RES147   | NO MARK                      | NO MARK                      |
| RES148   | NO MARK                      | NO MARK                      |
| RES149   | NO MARK                      | NO MARK                      |
| RES150   | NO MARK                      | NO MARK                      |
| RES151   | NO MARK                      | NO MARK                      |
| RES152   | NO MARK                      | NO MARK                      |
| RES153   | NO MARK                      | NO MARK                      |
| RES154   | NO MARK                      | NO MARK                      |
| RES155   | NO MARK                      | NO MARK                      |
| RES156   | NO MARK                      | NO MARK                      |
| RES157   | NO MARK                      | NO MARK                      |
| RES158   | NO MARK                      | NO MARK                      |
| RES159   | NO MARK                      | NO MARK                      |
| RES160   | NO MARK                      | NO MARK                      |
| RES161   | NO MARK                      | NO MARK                      |
| RES162   | NO MARK                      | NO MARK                      |
| RES163   | NO MARK                      | NO MARK                      |
| RES164   | NO MARK                      | NO MARK                      |
| RES165   | NO MARK                      | NO MARK                      |
| RES166   | NO MARK                      | NO MARK                      |
| RES167   | NO MARK                      | NO MARK                      |
| RES168   | NO MARK                      | NO MARK                      |
| RES169   | NO MARK                      | NO MARK                      |
| RES170   | NO MARK                      | NO MARK                      |
| RES171   | NO MARK                      | NO MARK                      |
| RES172   | NO MARK                      | NO MARK                      |
| RES173   | NO MARK                      | NO MARK                      |
| RES174   | NO MARK                      | NO MARK                      |
| RES175   | NO MARK                      | NO MARK                      |
| RES176   | NO MARK                      | NO MARK                      |
| RES177   | NO MARK                      | NO MARK                      |
| RES178   | NO MARK                      | NO MARK                      |
| RES179   | NO MARK                      | NO MARK                      |
| RES180   | NO MARK                      | NO MARK                      |
| RES181   | NO MARK                      | NO MARK                      |
| RES182   | NO MARK                      | NO MARK                      |
| RES183   | NO MARK                      | NO MARK                      |
| RES184   | NO MARK                      | NO MARK                      |
| RES185   | NO MARK                      | NO MARK                      |
| RES186   | NO MARK                      | NO MARK                      |
| RES187   | NO MARK                      | NO MARK                      |
| RES188   | NO MARK                      | NO MARK                      |
| RES189   | NO MARK                      | NO MARK                      |
| RES190   | NO MARK                      | NO MARK                      |
| RES191   | NO MARK                      | NO MARK                      |
| RES192   | NO MARK                      | NO MARK                      |
| RES193   | NO MARK                      | NO MARK                      |
| RES194   | NO MARK                      | NO MARK                      |
| RES195   | NO MARK                      | NO MARK                      |
| RES196   | NO MARK                      | NO MARK                      |
| RES197   | NO MARK                      | NO MARK                      |
| RES198   | NO MARK                      | NO MARK                      |
| RES199   | NO MARK                      | NO MARK                      |
| RES200   | NO MARK                      | NO MARK                      |





## ■ REPLACEMENT PARTS LIST

### • ELECTRICAL COMPONENT PARTS

#### WARNING

- Components having special characteristics are marked  $\triangle$  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
- $\triangle$ 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。
- 部品価格ランクは、予告なく変更することがあります。
- チップ抵抗はサービス部品として供給できません。  
※ 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

#### 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-END TUNER 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. DSP

| Ref No.  | Part No. | Description | Remarks       | Markets   | 部 品 名       | ランク |
|----------|----------|-------------|---------------|-----------|-------------|-----|
|          | WN276900 | P.C.B.      | DSP           | J         | P C B D S P |     |
|          | WN277000 | P.C.B.      | DSP           | UC        | P C B D S P |     |
|          | WN277100 | P.C.B.      | DSP           | R         | P C B D S P |     |
|          | WN277200 | P.C.B.      | DSP           | TA        | P C B D S P |     |
|          | WN277300 | P.C.B.      | DSP           | K         | P C B D S P |     |
|          | WN277400 | P.C.B.      | DSP           | B         | P C B D S P |     |
|          | WN277500 | P.C.B.      | DSP           | GEF       | P C B D S P |     |
|          | WN277600 | P.C.B.      | DSP           | L         | P C B D S P |     |
| CB11-13  | WM462600 | CN.HDMI     | 19P SE        |           | コネクタ HDMI   |     |
| CB21     | VM859500 | CN.BS.PIN   | 11P           |           | F F Cコネクター  | 01  |
| CB22     | VM923600 | CN.BS.PIN   | 13P           |           | F F Cコネクター  | 01  |
| CB31     | VQ045500 | CN.BS.PIN   | 26P           |           | F F Cコネクター  | 02  |
| CB32     | VB390500 | CN.BS.PIN   | 9P            |           | コネクタベースポスト  | 03  |
| CB34     | VQ044400 | CN.BS.PIN   | 9P            |           | F F Cコネクター  | 01  |
| CB35     | WJ458700 | CN.XM       | 4P, CAM-D96   | UC        | X Mコネクタ     |     |
| CB71     | VB858500 | CN.BS.PIN   | 6P            | RTKABGEFL | ベースピン       | 01  |
| CB71     | VB858500 | CN.BS.PIN   | 6P            |           | ベースピン       | 01  |
| CB81     | VB390800 | CN.BS.PIN   | 12P           |           | コネクタベースポスト  | 01  |
| CB82     | VB390200 | CN.BS.PIN   | 6P            |           | コネクタベースポスト  | 01  |
| CB83     | VP127700 | CN          | 24P           |           | コネクター       | 01  |
| CB84     | VQ046000 | CN.BS.PIN   | 31P           |           | F F Cコネクター  | 03  |
| C101-110 | US135100 | C.CE.CHP    | 0.1uF 16V     |           | チップセラコン     | 01  |
| C111     | WD758300 | C.CE.CHP    | 10uF 10V      |           | チップセラコン     | 01  |
| C112     | US135100 | C.CE.CHP    | 0.1uF 16V     |           | チップセラコン     | 01  |
| C113     | US060900 | C.CE.CHP    | 9pF 50V D     |           | チップセラコン     | 01  |
| C114     | US060800 | C.CE.CHP    | 8pF 50V B     |           | チップセラコン     | 01  |
| C115     | US034820 | C.CE.CHP    | 0.082uF 16V K |           | チップセラコン     | 01  |
| C116     | US064100 | C.CE.CHP    | 0.01uF 50V B  |           | チップセラコン     | 01  |
| C117-136 | US135100 | C.CE.CHP    | 0.1uF 16V     |           | チップセラコン     | 01  |
| C141     | UR837100 | C.EL        | 10uF 16V      |           | ケミコン        | 01  |
| C142-143 | US135100 | C.CE.CHP    | 0.1uF 16V     |           | チップセラコン     | 01  |
| C144     | UR837100 | C.EL        | 10uF 16V      |           | ケミコン        | 01  |
| C147     | US064100 | C.CE.CHP    | 0.01uF 50V B  |           | チップセラコン     | 01  |
| C151     | US063820 | C.CE.CHP    | 8200pF 50V B  |           | チップセラコン     | 01  |
| C152     | US064100 | C.CE.CHP    | 0.01uF 50V B  |           | チップセラコン     | 01  |
| C153     | WJ606100 | C.MYLAR     | 0.082uF 50V   |           | マイラーコン      |     |
| C154     | US064100 | C.CE.CHP    | 0.01uF 50V B  |           | チップセラコン     | 01  |
| C156-157 | WD758300 | C.CE.CHP    | 10uF 10V      |           | チップセラコン     | 01  |
| C158     | UR037100 | C.EL        | 10uF 16V      |           | ケミコン        | 01  |
| C159     | US135100 | C.CE.CHP    | 0.1uF 16V     |           | チップセラコン     | 01  |
| C160     | UR037100 | C.EL        | 10uF 16V      |           | ケミコン        | 01  |
| C161     | WD758300 | C.CE.CHP    | 10uF 10V      |           | チップセラコン     | 01  |
| C162     | UR037100 | C.EL        | 10uF 16V      |           | ケミコン        | 01  |
| C163     | WD758300 | C.CE.CHP    | 10uF 10V      |           | チップセラコン     | 01  |
| C164     | UR037100 | C.EL        | 10uF 16V      |           | ケミコン        | 01  |
| C165     | US135100 | C.CE.CHP    | 0.1uF 16V     |           | チップセラコン     | 01  |
| C167     | US062220 | C.CE.CHP    | 220pF 50V B   |           | チップセラコン     | 01  |
| C169     | US062220 | C.CE.CHP    | 220pF 50V B   |           | チップセラコン     | 01  |
| C171-174 | US064100 | C.CE.CHP    | 0.01uF 50V B  |           | チップセラコン     | 01  |
| C175-176 | US035100 | C.CE.CHP    | 0.1uF 16V B   |           | チップセラコン     | 01  |
| C201-212 | US062220 | C.CE.CHP    | 220pF 50V B   |           | チップセラコン     | 01  |
| C227-228 | US135100 | C.CE.CHP    | 0.1uF 16V     |           | チップセラコン     | 01  |
| C229     | UR237220 | C.EL        | 22uF 16V      |           | ケミコン        |     |
| C301     | UR038100 | C.EL        | 100uF 16V     |           | ケミコン        | 01  |
| C302     | US135100 | C.CE.CHP    | 0.1uF 16V     |           | チップセラコン     | 01  |

\* New Parts \* 新規部品

## P.C.B. DSP

| Ref No.  | Part No. | Description | Remarks       | Markets | 部 品 名   | ランク |
|----------|----------|-------------|---------------|---------|---------|-----|
| C303-314 | US062220 | C.CE.CHP    | 220pF 50V B   |         | チップセラコン | 01  |
| C315-316 | UR037100 | C.EL        | 10uF 16V      |         | ケミコン    | 01  |
| C319     | UR037100 | C.EL        | 10uF 16V      |         | ケミコン    | 01  |
| C320     | US035100 | C.CE.CHP    | 0.1uF 16V B   |         | チップセラコン | 01  |
| C321     | UR067100 | C.EL        | 10uF 50V      |         | ケミコン    | 01  |
| C322-323 | US126100 | C.CE.CHP    | 1uF 10V       |         | チップセラコン | 01  |
| C324     | UU238100 | C.EL        | 100uF 16V     |         | ケミコン    | 01  |
| C325     | US135100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C326     | US064100 | C.CE.CHP    | 0.01uF 50V B  |         | チップセラコン | 01  |
| C328-329 | US061200 | C.CE.CHP    | 20pF 50V B    |         | チップセラコン | 01  |
| C330-331 | US135100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C332     | US061220 | C.CE.CHP    | 22pF 50V B    |         | チップセラコン | 01  |
| C334     | US035100 | C.CE.CHP    | 0.1uF 16V B   |         | チップセラコン | 01  |
| C335-338 | US062220 | C.CE.CHP    | 220pF 50V B   |         | チップセラコン | 01  |
| C339     | US064100 | C.CE.CHP    | 0.01uF 50V B  |         | チップセラコン | 01  |
| C340-341 | US062220 | C.CE.CHP    | 220pF 50V B   |         | チップセラコン | 01  |
| C342     | US063100 | C.CE.CHP    | 1000pF 50V B  |         | チップセラコン | 01  |
| C343     | US135100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C344     | US135100 | C.CE.CHP    | 0.1uF 16V     | J       | チップセラコン | 01  |
| C345-346 | US135100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C350-352 | US062220 | C.CE.CHP    | 220pF 50V B   |         | チップセラコン | 01  |
| C353     | US063100 | C.CE.CHP    | 1000pF 50V B  | UC      | チップセラコン | 01  |
| C354-357 | US062220 | C.CE.CHP    | 220pF 50V B   |         | チップセラコン | 01  |
| C359     | US135100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C360-365 | US062220 | C.CE.CHP    | 220pF 50V B   | UC      | チップセラコン | 01  |
| C367     | US062220 | C.CE.CHP    | 220pF 50V B   | UC      | チップセラコン | 01  |
| C368     | US062220 | C.CE.CHP    | 220pF 50V B   |         | チップセラコン | 01  |
| C369-375 | US135100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C376     | US062220 | C.CE.CHP    | 220pF 50V B   |         | チップセラコン | 01  |
| C377     | US035100 | C.CE.CHP    | 0.1uF 16V B   |         | チップセラコン | 01  |
| C378     | UR037100 | C.EL        | 10uF 16V      |         | ケミコン    | 01  |
| C379     | UR237470 | C.EL        | 47uF 16V      |         | ケミコン    | 01  |
| * C380   | WJ606200 | C.MYLAR     | 0.1uF 50V     |         | マイラーコン  |     |
| C381     | WJ605400 | C.MYLAR     | 0.022uF 50V J |         | マイラーコン  | 01  |
| C382     | US062220 | C.CE.CHP    | 220pF 50V B   |         | チップセラコン | 01  |
| C384     | US135100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C385     | US064100 | C.CE.CHP    | 0.01uF 50V B  |         | チップセラコン | 01  |
| C386     | US135100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C387     | US126100 | C.CE.CHP    | 1uF 10V       |         | チップセラコン | 01  |
| C388     | UR037100 | C.EL        | 10uF 16V      |         | ケミコン    |     |
| C389-391 | US064100 | C.CE.CHP    | 0.01uF 50V B  |         | チップセラコン | 01  |
| C401-408 | UB446100 | C.CE.CHP    | 1uF 16V       |         | チップセラコン | 01  |
| C409-416 | US635100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C417-418 | US063100 | C.CE.CHP    | 1000pF 50V B  |         | チップセラコン | 01  |
| C419     | US635100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C420-422 | US063100 | C.CE.CHP    | 1000pF 50V B  |         | チップセラコン | 01  |
| C423-424 | US635100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C425     | US063100 | C.CE.CHP    | 1000pF 50V B  |         | チップセラコン | 01  |
| C426     | US635100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C427-430 | US063100 | C.CE.CHP    | 1000pF 50V B  |         | チップセラコン | 01  |
| C431-432 | US061220 | C.CE.CHP    | 22pF 50V B    |         | チップセラコン | 01  |
| C433     | US135100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C435-436 | US135100 | C.CE.CHP    | 0.1uF 16V     |         | チップセラコン | 01  |
| C437     | WH771300 | C.EL        | 100uF 10V     |         | ケミコン    | 01  |
| C438     | UB446100 | C.CE.CHP    | 1uF 16V       |         | チップセラコン | 01  |

\* New Parts \* 新規部品

## P.C.B. DSP

| Ref No.    | Part No. | Description | Remarks      | Markets   | 部 品 名   | ランク |
|------------|----------|-------------|--------------|-----------|---------|-----|
| C439       | US135100 | C. CE. CHP  | 0.1uF 16V    |           | チップセラコン | 01  |
| C440       | UB446100 | C. CE. CHP  | 1uF 16V      |           | チップセラコン | 01  |
| C441       | WH771300 | C. EL       | 100uF 10V    |           | ケミコン    | 01  |
| C443       | US062220 | C. CE. CHP  | 220pF 50V B  |           | チップセラコン | 01  |
| C501-502   | UB446100 | C. CE. CHP  | 1uF 16V      |           | チップセラコン | 01  |
| C503       | US635100 | C. CE. CHP  | 0.1uF 16V    |           | チップセラコン | 01  |
| C504-505   | US063100 | C. CE. CHP  | 1000pF 50V B |           | チップセラコン | 01  |
| C506-507   | US635100 | C. CE. CHP  | 0.1uF 16V    |           | チップセラコン | 01  |
| C508-509   | US063100 | C. CE. CHP  | 1000pF 50V B |           | チップセラコン | 01  |
| C510-517   | US135100 | C. CE. CHP  | 0.1uF 16V    |           | チップセラコン | 01  |
| C519-520   | US135100 | C. CE. CHP  | 0.1uF 16V    |           | チップセラコン | 01  |
| C521       | US035100 | C. CE. CHP  | 0.1uF 16V B  |           | チップセラコン | 01  |
| C522       | US135100 | C. CE. CHP  | 0.1uF 16V    |           | チップセラコン | 01  |
| C523       | US061180 | C. CE. CHP  | 18pF 50V B   |           | チップセラコン | 01  |
| C524-525   | US035100 | C. CE. CHP  | 0.1uF 16V B  |           | チップセラコン | 01  |
| C526-527   | US135100 | C. CE. CHP  | 0.1uF 16V    |           | チップセラコン | 01  |
| C529       | US035100 | C. CE. CHP  | 0.1uF 16V B  |           | チップセラコン | 01  |
| C530       | UR038100 | C. EL       | 100uF 16V    |           | ケミコン    | 01  |
| C601-618   | US635100 | C. CE. CHP  | 0.1uF 16V    |           | チップセラコン | 01  |
| C619       | US135100 | C. CE. CHP  | 0.1uF 16V    |           | チップセラコン | 01  |
| C620       | US062220 | C. CE. CHP  | 220pF 50V B  |           | チップセラコン | 01  |
| C621       | UR837100 | C. EL       | 10uF 16V     |           | ケミコン    | 01  |
| C701-713   | US135100 | C. CE. CHP  | 0.1uF 16V    | RTKABGEFL | チップセラコン | 01  |
| C714       | WD758300 | C. CE. CHP  | 10uF 10V     | RTKABGEFL | チップセラコン | 01  |
| C715       | US135100 | C. CE. CHP  | 0.1uF 16V    | RTKABGEFL | チップセラコン | 01  |
| C716       | WD758300 | C. CE. CHP  | 10uF 10V     | RTKABGEFL | チップセラコン | 01  |
| C717-720   | US135100 | C. CE. CHP  | 0.1uF 16V    | RTKABGEFL | チップセラコン | 01  |
| C721       | US062220 | C. CE. CHP  | 220pF 50V B  | RTKABGEFL | チップセラコン | 01  |
| C722-723   | US035100 | C. CE. CHP  | 0.1uF 16V B  | RTKABGEFL | チップセラコン | 01  |
| C724-725   | US064100 | C. CE. CHP  | 0.01uF 50V B | RTKABGEFL | チップセラコン | 01  |
| C726       | US061120 | C. CE. CHP  | 12pF 50V B   | RTKABGEFL | チップセラコン | 01  |
| C727       | US061200 | C. CE. CHP  | 20pF 50V B   | RTKABGEFL | チップセラコン | 01  |
| C729       | UR838100 | C. EL       | 100uF 16V    | RTKABGEFL | ケミコン    | 01  |
| C730-731   | US064100 | C. CE. CHP  | 0.01uF 50V B | RTKABGEFL | チップセラコン | 01  |
| C801-852   | US062220 | C. CE. CHP  | 220pF 50V B  |           | チップセラコン | 01  |
| C854-862   | US062220 | C. CE. CHP  | 220pF 50V B  |           | チップセラコン | 01  |
| C863       | US063100 | C. CE. CHP  | 1000pF 50V B |           | チップセラコン | 01  |
| C864       | UR038470 | C. EL       | 470uF 16V    |           | ケミコン    |     |
| C865       | US063100 | C. CE. CHP  | 1000pF 50V B |           | チップセラコン | 01  |
| C866       | UR238100 | C. EL       | 100uF 16V    |           | ケミコン    |     |
| C867       | UB446100 | C. CE. CHP  | 1uF 16V      |           | チップセラコン | 01  |
| C868-870   | US135100 | C. CE. CHP  | 0.1uF 16V    |           | チップセラコン | 01  |
| C871       | UR038100 | C. EL       | 100uF 16V    |           | ケミコン    | 01  |
| C880       | US062220 | C. CE. CHP  | 220pF 50V B  |           | チップセラコン | 01  |
| C881       | US062100 | C. CE. CHP  | 100pF 50V B  |           | チップセラコン | 01  |
| C882-885   | US062220 | C. CE. CHP  | 220pF 50V B  |           | チップセラコン | 01  |
| C886       | US062470 | C. CE. CHP  | 470pF 50V B  |           | チップセラコン | 01  |
| C1301      | US135100 | C. CE. CHP  | 0.1uF 16V    | UC        | チップセラコン | 01  |
| C1302-1303 | US035100 | C. CE. CHP  | 0.1uF 16V B  | UC        | チップセラコン | 01  |
| C1304      | US135100 | C. CE. CHP  | 0.1uF 16V    | UC        | チップセラコン | 01  |
| C1305      | US063100 | C. CE. CHP  | 1000pF 50V B | UC        | チップセラコン | 01  |
| C1306-1307 | US061100 | C. CE. CHP  | 10pF 50V B   | UC        | チップセラコン | 01  |
| C1308-1309 | UB446100 | C. CE. CHP  | 1uF 16V      | UC        | チップセラコン | 01  |
| C1310-1317 | US135100 | C. CE. CHP  | 0.1uF 16V    | UC        | チップセラコン | 01  |
| C1321      | US064100 | C. CE. CHP  | 0.01uF 50V B |           | チップセラコン | 01  |

\* New Parts \* 新規部品

## P.C.B. DSP

| Ref No.      | Part No. | Description  | Remarks            | Markets   | 部 品 名      | ランク |
|--------------|----------|--------------|--------------------|-----------|------------|-----|
| C1322        | US035100 | C.CE.CHP     | 0.1uF 16V B        | UC        | チップセラコン    | 01  |
| C1801-1827   | US063100 | C.CE.CHP     | 1000pF 50V B       |           | チップセラコン    | 01  |
| * D109-111   | WJ586300 | VARI STOR    | SDV1608H100C050YPT |           | チップバリスタ    |     |
| D112         | VT332900 | DIODE        | 1SS355             |           | ダイオード      | 01  |
| D113-116     | WH641900 | ESD          | PESD0603-140       |           | ポリマー ESD   | 01  |
| * D117-118   | WJ586300 | VARI STOR    | SDV1608H100C050YPT |           | チップバリスタ    |     |
| D119-130     | WH641900 | ESD          | PESD0603-140       |           | ポリマー ESD   | 01  |
| * D131-132   | WJ586300 | VARI STOR    | SDV1608H100C050YPT |           | チップバリスタ    |     |
| * D135-136   | WJ586300 | VARI STOR    | SDV1608H100C050YPT |           | チップバリスタ    |     |
| D201         | VT332900 | DIODE        | 1SS355             |           | ダイオード      | 01  |
| D305-306     | VT332900 | DIODE        | 1SS355             |           | ダイオード      | 01  |
| D401         | VS597600 | DIODE.CHP    | RB160L-40 TE25     |           | チップダイオード   | 01  |
| D503         | VT332900 | DIODE        | 1SS355             |           | ダイオード      | 01  |
| D801-802     | VT332900 | DIODE        | 1SS355             |           | ダイオード      | 01  |
| D803-806     | VU171400 | DIODE.ZENR   | UDZS3.3BTE-17 3.3V |           | ツェナーダイオード  |     |
| * D1301-1303 | WJ586300 | VARI STOR    | SDV1608H100C050YPT | UC        | チップバリスタ    |     |
| IC13         | X7741A00 | IC           | NJM2867F3-05 (TE1) |           | 電源 IC      | 02  |
| IC22         | X7907A00 | IC           | NJM2845DL1-18      |           | 電源 IC      | 04  |
| IC31         | X7746A00 | IC           | LC89057W-VF4AD-E   |           | IC         | 07  |
| IC33-34      | X6123A00 | IC           | SN74LV157APWR      |           | ロジック IC    | 02  |
| * IC36       | X8192A00 | IC           | F2621E-01-TR       | UC        | IC         |     |
| IC38         | X7355A00 | IC           | PCM1680DBQR        |           | IC         | 07  |
| IC39         | X7357A00 | IC           | PCM1803DBR         |           | IC         | 04  |
| IC42         | X8653A00 | IC           | BR25L320F-W EEPROM |           | メモリ IC     | 04  |
| IC43-44      | XV894A00 | IC           | TC74VHC153FT MULTI |           | ロジック IC    | 03  |
| * IC51       | X9626A00 | IC.MEMORY    | K4S641632K-UC60000 |           | メモリ IC 64M |     |
| * IC52       | X9636A00 | IC.MEMORY    | EN29LV160AB-70TCP  | written   | メモリ IC     |     |
| IC53-55      | XZ287A00 | IC           | SN74LVC245APWR     |           | ロジック IC    | 02  |
| * IC56       | X9439A00 | IC           | SN74AHCT574PWR     |           | ロジック IC    |     |
| IC57-59      | X5135A00 | IC           | SN74LV574APWR 8D-F |           | ロジック IC    | 02  |
| IC61         | X8813A00 | IC           | MB87L8760          |           | IC デジタル    | 08  |
| IC62         | X2709A00 | IC           | SN74AHCT245PWR     |           | ロジック IC    | 02  |
| IC72         | XZ287A00 | IC           | SN74LVC245APWR     | RTKABGEFL | ロジック IC    | 02  |
| * IC73       | X8096A00 | IC           | R5523N001A-TR-F    | RTKABGEFL | 電源 IC      |     |
| IC81         | X6905A00 | IC           | ADC084S021C1MM     |           | ADコンバーター   | 04  |
| IC82-83      | X5875A00 | IC           | SN74LV4051APWR     |           | ロジック IC    | 01  |
| IC151        | XZ287A00 | IC           | SN74LVC245APWR     |           | ロジック IC    | 02  |
| IC152        | X5405A00 | IC           | SN74LVC32APWR OR   |           | ロジック IC    | 01  |
| * IC153      | X5404A00 | IC           | SN74LVC08APWR AND  |           | ロジック IC    |     |
| IC154        | X6611A00 | IC           | SN74LV123APWR      |           | ロジック IC    | 01  |
| IC155        | X6688A00 | IC           | SN74LV14APWR INV   |           | ロジック IC    | 01  |
| JK31         | VV269500 | CN           | 8P DIN             | UC        | 複合コネクタ     | 03  |
| PJ31         | V8795700 | JACK. PIN    | 1P                 |           | ピンジャック     | 01  |
| PN81-82      | V9637500 | PIN          | L=70 #18           |           | スタイルピン     |     |
| Q101-104     | VQ986700 | TR           | 2SC4081 T106       |           | トランジスタ     | 01  |
| Q301         | VV655200 | TR. DGT      | DTA143EKA          | UC        | デジタルトランジスタ | 01  |
| Q401         | WE736300 | FET          | RTQ040P02          |           | FET        | 01  |
| Q801         | WE736300 | FET          | RTQ040P02          |           | FET        | 01  |
| * R217-218   | WJ682800 | R.MTL. FLM   | 2.2Ω 1W            |           | 金属被膜抵抗     |     |
| R328         | HV753100 | R. CAR. FP   | 1Ω 1/4W            |           | 不燃化カーボン抵抗  | 01  |
| T101         | WA789600 | SCR. TERM    | M3                 |           | スクリューターミナル |     |
| T301         | WA789600 | SCR. TERM    | M3                 |           | スクリューターミナル |     |
| U31          | WH536900 | CN. PHOTO. T | 1P GP1FAV51TK0F    | J         | 光ファイバー送信器  | 04  |
| U32-33       | WH169900 | CN. PHOTO. R | 1P GP1FAV51RK0F    |           | 光ファイバー受信器  | 04  |
| XL31         | WJ625200 | RSNR. CRYST  | 24.576MHz          |           | 水晶振動子      | 02  |

\* New Parts \* 新規部品

## P.C.B. DSP and P.C.B. OPERATION

| Ref No.    | Part No. | Description | Remarks          | Markets   | 部 品 名         | ランク |
|------------|----------|-------------|------------------|-----------|---------------|-----|
| XL101      | VZ772700 | RSNR. CRY   | 28.63636MHz      |           | 水晶振動子         | 03  |
| XL311      | WH455300 | RSNR. CRY   | 45.1584MHz       | UC        | 水晶振動子         |     |
| XL401      | WB551700 | RSNR. CRY   | 16.666MHz SMD-49 |           | 水晶振動子         | 03  |
| XL701      | VS294900 | RSNR. CRY   | 12MHz SMD-49     | RTKABGEFL | 水晶振動子         | 04  |
|            | WN278400 | P.C.B.      | OPERATION        | J         | PCB OPERATION |     |
|            | WN278500 | P.C.B.      | OPERATION        | UC        | PCB OPERATION |     |
|            | WN278600 | P.C.B.      | OPERATION        | RTKAGEFL  | PCB OPERATION |     |
|            | WN278700 | P.C.B.      | OPERATION        | B         | PCB OPERATION |     |
| CB601-602  | VB858300 | CN.BS.PIN   | 4P               |           | コネクタベースポスト    | 01  |
| CB603      | VP798200 | CN.BS.PIN   | 24P              |           | FFCコネクタ       | 01  |
| CB607      | WG668100 | CN.USB      | USB 4P SE        | RTKABGEFL | USBコネクタ       | 04  |
| CB608      | VB858400 | CN.BS.PIN   | 5P               |           | ベースピン         | 01  |
| CB609      | VB858200 | CN.BS.PIN   | 3P               |           | ベースピン         | 01  |
| CB610      | VB390300 | CN.BS.PIN   | 7P               |           | ベースピン         | 01  |
| CB700      | VB858300 | CN.BS.PIN   | 4P               |           | コネクタベースポスト    | 01  |
| CB701      | VB858600 | CN.BS.PIN   | 7P               |           | ベースピン         | 01  |
| CB702      | LB919110 | CN.BS.PIN   | 11P SE           |           | ベースツキポスト      | 01  |
| CB703      | VK024700 | CN.BS.PIN   | 3P               |           | ワイヤートラップ      | 01  |
| C6001      | US063100 | C.CE.CHP    | 1000pF 50V B     |           | チップセラコン       | 01  |
| C6002      | WJ605000 | C.MYLAR     | 0.01uF 50V J     |           | マイラーコン        | 01  |
| C6003-6004 | US063100 | C.CE.CHP    | 1000pF 50V B     |           | チップセラコン       | 01  |
| C6005      | WJ605000 | C.MYLAR     | 0.01uF 50V J     |           | マイラーコン        | 01  |
| C6006      | US064100 | C.CE.CHP    | 0.01uF 50V B     |           | チップセラコン       | 01  |
| C6007      | UM397100 | C.EL        | 10uF 16V         |           | ケミコン          | 01  |
| C6008      | UM397220 | C.EL        | 22uF 25V         |           | ケミコン          | 01  |
| C6009-6010 | WJ605000 | C.MYLAR     | 0.01uF 50V J     |           | マイラーコン        | 01  |
| C6011      | US062100 | C.CE.CHP    | 100pF 50V B      |           | チップセラコン       | 01  |
| C6012      | UM387470 | C.EL        | 47uF 16V         |           | ケミコン          | 01  |
| C6013      | US061330 | C.CE.CHP    | 33pF 50V B       |           | チップセラコン       | 01  |
| C6014      | US135100 | C.CE.CHP    | 0.1uF 16V        |           | チップセラコン       | 01  |
| C6015      | UM397100 | C.EL        | 10uF 16V         |           | ケミコン          | 01  |
| C6016-6017 | UM397220 | C.EL        | 22uF 25V         |           | ケミコン          | 01  |
| C6018-6019 | US135100 | C.CE.CHP    | 0.1uF 16V        |           | チップセラコン       | 01  |
| C6020      | UR068100 | C.EL        | 100uF 50V        |           | ケミコン          | 01  |
| C6021      | UM388330 | C.EL        | 330uF 6.3V       |           | ケミコン          | 01  |
| C6022      | US135100 | C.CE.CHP    | 0.1uF 16V        |           | チップセラコン       | 01  |
| C6023      | US061680 | C.CE.CHP    | 68pF 50V B       |           | チップセラコン       | 01  |
| C6024      | US065100 | C.CE.CHP    | 0.1uF 50V B      |           | チップセラコン       | 01  |
| C6025-6026 | US135100 | C.CE.CHP    | 0.1uF 16V        |           | チップセラコン       | 01  |
| C6027      | US064100 | C.CE.CHP    | 0.01uF 50V B     |           | チップセラコン       | 01  |
| C6028      | UM397100 | C.EL        | 10uF 16V         |           | ケミコン          | 01  |
| C6029      | US135100 | C.CE.CHP    | 0.1uF 16V        |           | チップセラコン       | 01  |
| C6030-6031 | US062100 | C.CE.CHP    | 100pF 50V B      |           | チップセラコン       | 01  |
| C6032      | US063100 | C.CE.CHP    | 1000pF 50V B     |           | チップセラコン       | 01  |
| C6033      | US061100 | C.CE.CHP    | 10pF 50V B       |           | チップセラコン       | 01  |
| C6034      | US135100 | C.CE.CHP    | 0.1uF 16V        |           | チップセラコン       | 01  |
| C6035      | US063100 | C.CE.CHP    | 1000pF 50V B     |           | チップセラコン       | 01  |
| C6036      | US135100 | C.CE.CHP    | 0.1uF 16V        |           | チップセラコン       | 01  |
| C6037-6038 | US044220 | C.CE.CHP    | 0.022uF 25V B    |           | チップセラコン       | 01  |
| C6039      | US064100 | C.CE.CHP    | 0.01uF 50V B     |           | チップセラコン       | 01  |
| C6040-6041 | US044220 | C.CE.CHP    | 0.022uF 25V B    |           | チップセラコン       | 01  |
| C6042-6043 | US135100 | C.CE.CHP    | 0.1uF 16V        | JUC       | 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 |
|------------|----------|-------------|--------------------|-------------|-------------|-----|
| C6044-6045 | US063680 | C.CE.CHP    | 6800pF 50V B       | JUC         | チップセラコン     | 01  |
| C6047      | US062100 | C.CE.CHP    | 100pF 50V B        | RTKABGEFL   | チップセラコン     | 01  |
| C6048-6049 | US135100 | C.CE.CHP    | 0.1uF 16V          | RTKABGEFL   | チップセラコン     | 01  |
| C6050-6051 | US062220 | C.CE.CHP    | 220pF 50V B        | RTKABGEFL   | チップセラコン     | 01  |
| C6060      | US135100 | C.CE.CHP    | 0.1uF 16V          | JUC         | チップセラコン     | 01  |
| C6063      | US062470 | C.CE.CHP    | 470pF 50V B        |             | チップセラコン     | 01  |
| C6064      | US126100 | C.CE.CHP    | 1uF 10V            | RTKABGEFL   | チップセラコン     | 01  |
| C6080-6081 | US063100 | C.CE.CHP    | 1000pF 50V B       |             | チップセラコン     | 01  |
| C6082      | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン     | 01  |
| C7000      | UR866100 | C.EL        | 1uF 50V            |             | ケミコン        | 01  |
| C7001      | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン     | 01  |
| C7002-7003 | UR837470 | C.EL        | 47uF 16V           |             | ケミコン        | 01  |
| C7004      | US064100 | C.CE.CHP    | 0.01uF 50V B       |             | チップセラコン     | 01  |
| C7005      | UR866100 | C.EL        | 1uF 50V            |             | ケミコン        | 01  |
| C7006-7007 | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン     | 01  |
| C7008      | UR866100 | C.EL        | 1uF 50V            |             | ケミコン        | 01  |
| C7009      | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン     | 01  |
| C7010      | UR866100 | C.EL        | 1uF 50V            |             | ケミコン        | 01  |
| C7011      | UR837470 | C.EL        | 47uF 16V           |             | ケミコン        | 01  |
| C7012-7014 | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン     | 01  |
| C7015-7016 | UR866100 | C.EL        | 1uF 50V            |             | ケミコン        | 01  |
| C7017      | UR837100 | C.EL        | 10uF 16V           |             | ケミコン        | 01  |
| C7018      | UR837470 | C.EL        | 47uF 16V           |             | ケミコン        | 01  |
| C7019-7021 | UR866100 | C.EL        | 1uF 50V            |             | ケミコン        | 01  |
| C7022      | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン     | 01  |
| C7023      | UR73A100 | C.EL        | 10000uF 16V        |             | ケミコン        | 03  |
| C7024      | UR749470 | C.EL        | 4700uF 25V         |             | ケミコン        | 05  |
| C7025      | UR749220 | C.EL        | 2200uF 25V         |             | ケミコン        | 03  |
| C7026      | UR039470 | C.EL        | 4700uF 16V         | UCRTKABGEFL | ケミコン        | 03  |
| C7027      | UR73A100 | C.EL        | 10000uF 16V        | J           | ケミコン        | 03  |
| C7027      | WG602000 | C.EL        | 15000uF 16V        | UCRTKABGEFL | ケミコン        | 04  |
| C7028      | UR73A100 | C.EL        | 10000uF 16V        |             | ケミコン        | 03  |
| C7029      | WG602000 | C.EL        | 15000uF 16V        |             | ケミコン        | 04  |
| C7030-7032 | VE326000 | C.MYLAR     | 0.1uF 50V          |             | マイラーコン      | 01  |
| C7033      | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン     | 01  |
| C7034-7035 | WJ605000 | C.MYLAR     | 0.01uF 50V J       |             | マイラーコン      | 01  |
| C7036      | VE326000 | C.MYLAR     | 0.1uF 50V          |             | マイラーコン      | 01  |
| C7037      | WJ605000 | C.MYLAR     | 0.01uF 50V J       |             | マイラーコン      | 01  |
| D6001-6002 | VT332900 | DIODE       | 1SS355             |             | ダイオード       | 01  |
| D6003      | VU172500 | DIODE.ZENR  | UDZS9.1B           |             | ツェナーダイオード   | 01  |
| D6004      | VT332900 | DIODE       | 1SS355             |             | ダイオード       | 01  |
| D6005      | VU171900 | DIODE.ZENR  | UDZ5.1B 5.1V       |             | ツェナーダイオード   | 01  |
| D6006      | VT332900 | DIODE       | 1SS355             |             | ダイオード       | 01  |
| D6007-6009 | WJ249600 | LED         | ORANGE             |             | LED         | 01  |
| D6012      | WJ249600 | LED         | ORANGE             |             | LED         | 01  |
| D6017-6018 | VU171500 | DIODE.ZENR  | UDZ 3.6BTE-17 3.6V |             | ツェナーダイオード   | 01  |
| D6020-6023 | VT332900 | DIODE       | 1SS355             | JUC         | ダイオード       | 01  |
| D6024-6027 | VT332900 | DIODE       | 1SS355             | RTKABGEFL   | ダイオード       | 01  |
| D7004      | VS997800 | DIODE       | 1T2                |             | ダイオード       | 01  |
| D7005-7006 | VT332900 | DIODE       | 1SS355             |             | ダイオード       | 01  |
| D7008      | VS997800 | DIODE       | 1T2                |             | ダイオード       | 01  |
| D7010      | VT332900 | DIODE       | 1SS355             |             | ダイオード       | 01  |
| D7012      | V2376600 | DIODE.SHOT  | RB500V-40          | UC          | ショットキーダイオード | 01  |
| D7013      | VU171900 | DIODE.ZENR  | UDZ5.1B 5.1V       |             | ツェナーダイオード   | 01  |
| D7014-7015 | WA653100 | DIODE.BRG   | KBP103G 1A 200V    |             | ダイオードブリッジ   | 02  |



\* New Parts \* 新規部品

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| Ref No.      | Part No. | Description | Remarks          | Markets     | 部 品 名      | ランク |
|--------------|----------|-------------|------------------|-------------|------------|-----|
| △ D7016-7017 | VT332900 | DIODE       | 1SS355           |             | ダイオード      | 01  |
| △ D7018-7019 | WJ286700 | DIODE.BRG   | RS403M 4A 140V   |             | ダイオードブリッジ  | 03  |
| △ IC601      | X7378A00 | IC          | NJM4565M(TE1)    |             | アンプ IC     | 01  |
| △ IC603      | X6386A00 | IC          | M66003-0131FP    |             | IC         | 07  |
| △ IC700      | X4419A00 | IC          | NJM2396F33 3.3V  |             | 電源 IC      | 03  |
| △ IC701      | X4928A00 | IC          | KIA7805API 5V    |             | 電源 IC      | 02  |
| △ IC702      | X4419A00 | IC          | NJM2396F33 3.3V  |             | 電源 IC      | 03  |
| △ IC703      | X4928A00 | IC          | KIA7805API 5V    |             | 電源 IC      | 02  |
| △ IC704      | X4153A00 | IC          | KIA7812API       |             | 電源 IC      | 02  |
| △ IC705      | X4154A00 | IC          | KIA7912PI        |             | 電源 IC      |     |
| △ IC706      | X6143A00 | IC          | NJM2388F05 5.0V  | UCRTKABGEFL | 電源 IC      | 04  |
| * △ IC707    | X7976A00 | IC          | NJM2388F63       |             | 電源 IC      |     |
| △ IC708      | X0515A00 | IC          | LM61CIZ THERMAL  |             | 電源 IC      | 03  |
| JK601        | WJ117300 | JACK. PHONE | PHONES           |             | ヘッドホンジャック  | 02  |
| JK602        | V9408200 | JACK. PHONE | MSJ-064-05B GR   |             | ホンジャック     | 03  |
| JK603        | WJ117400 | JACK. MNI   | OPTIMIZER MIC    | JUC         | ミニジャック     | 02  |
| PJ601        | WJ117500 | JACK. PIN   | 3P               | JUC         | ピンジャック     | 03  |
| PJ602        | WJ117500 | JACK. PIN   | 3P               | RTKABGEFL   | ピンジャック     | 03  |
| PN601        | V9637500 | PIN         | L=70 #18         |             | スタイルピン     |     |
| PN604        | V9637500 | PIN         | L=70 #18         |             | スタイルピン     |     |
| PN607-609    | V9637500 | PIN         | L=70 #18         |             | スタイルピン     |     |
| PN701        | V9637500 | PIN         | L=70 #18         |             | スタイルピン     |     |
| Q6001        | VV556400 | TR          | 2SC2412K Q, R, S |             | トランジスタ     | 01  |
| Q6002        | WC434800 | TR. DGT     | KRA102S-RTK/P    |             | デジタルトランジスタ | 01  |
| Q6003        | VV556500 | TR          | 2SA1037K Q, R, S |             | トランジスタ     | 01  |
| Q6004        | VV556400 | TR          | 2SC2412K Q, R, S |             | トランジスタ     | 01  |
| Q6005        | WC435000 | TR. DGT     | KRC102S-RTK      |             | デジタルトランジスタ | 01  |
| Q6006-6008   | VV556400 | TR          | 2SC2412K Q, R, S |             | トランジスタ     | 01  |
| Q6010        | WC434800 | TR. DGT     | KRA102S-RTK/P    |             | デジタルトランジスタ | 01  |
| Q6011        | VV556500 | TR          | 2SA1037K Q, R, S |             | トランジスタ     | 01  |
| Q6017-6018   | VV556400 | TR          | 2SC2412K Q, R, S |             | トランジスタ     | 01  |
| Q6029-6030   | VV556400 | TR          | 2SC2412K Q, R, S |             | トランジスタ     | 01  |
| Q7000        | WC435100 | TR. DGT     | KRC104S-RTK      |             | デジタルトランジスタ | 01  |
| Q7001        | VV556400 | TR          | 2SC2412K Q, R, S |             | トランジスタ     | 01  |
| Q7002        | WC435100 | TR. DGT     | KRC104S-RTK      |             | デジタルトランジスタ | 01  |
| R6001-6002   | WJ685600 | R. MTL. FLM | 470Ω 1W J        |             | 金属被膜抵抗     | 01  |
| △ R7013      | HV753100 | R. CAR. FP  | 1Ω 1/4W          |             | 不燃化カーボン抵抗  | 01  |
| △ R7019-7021 | HV753100 | R. CAR. FP  | 1Ω 1/4W          |             | 不燃化カーボン抵抗  | 01  |
| △ R7025      | WH820300 | R. FUSE     | 1Ω 1W J          |             | ヒューズ抵抗     | 01  |
| * △ R7029    | WJ681400 | R. MTL. FLM | 0.15Ω 1W         |             | 金属被膜抵抗     |     |
| * △ R7031    | WJ681400 | R. MTL. FLM | 0.15Ω 1W         |             | 金属被膜抵抗     |     |
| ST601        | WA789700 | SCR. TERM   | D3.5             |             | スクリーターミナル  | 01  |
| ST602        | WA789700 | SCR. TERM   | D3.5             | RTKABGEFL   | スクリーターミナル  | 01  |
| SW601        | WD483100 | SW. TACT    | SKRGAAD010       | JUCRTKAGEFL | タクト SW     | 01  |
| SW603        | WD483100 | SW. TACT    | SKRGAAD010       | JUCRTKAGEFL | タクト SW     | 01  |
| SW604-613    | WD483100 | SW. TACT    | SKRGAAD010       |             | タクト SW     | 01  |
| SW614        | V9597100 | SW. RT. ENC | EC12E2460802     |             | ロータリーエンコーダ | 04  |
| SW615-616    | WD483100 | SW. TACT    | SKRGAAD010       |             | タクト SW     | 01  |
| SW618-620    | WD483100 | SW. TACT    | SKRGAAD010       | JUCRTKAGEFL | タクト SW     | 01  |
| SW623-624    | WD483100 | SW. TACT    | SKRGAAD010       | JUCRTKAGEFL | タクト SW     | 01  |
| SW627        | WD483100 | SW. TACT    | SKRGAAD010       |             | タクト SW     | 01  |
| SW629        | WD483100 | SW. TACT    | SKRGAAD010       |             | タクト SW     | 01  |
| U6001        | WJ645300 | L. DTCT     | SM3385UMH6       |             | リモコン受光ユニット | 03  |
| * V6001      | WN049000 | FL. DSPLY   | 17-BT-32GNK      |             | 蛍光表示管      |     |
|              | WA790900 | SPACER      | 4.6/10/32        |             | スペーサ F L   |     |

\* New Parts \* 新規部品

## P.C.B. MAIN

| Ref No.    | Part No. | Description | Remarks       | Markets     | 部 品 名         | ランク |
|------------|----------|-------------|---------------|-------------|---------------|-----|
|            | WN272700 | P.C.B.      | MAIN          | JUCRTA      | P C B M A I N |     |
|            | WN272900 | P.C.B.      | MAIN          | KL          | P C B M A I N |     |
|            | WN273000 | P.C.B.      | MAIN          | B           | P C B M A I N |     |
|            | WN273100 | P.C.B.      | MAIN          | GEF         | P C B M A I N |     |
| CB401      | VQ048000 | CN. BS. PIN | 31P           |             | F F C コネクター   | 02  |
| CB402      | VN520900 | CN. BS. PIN | 52045 26P TE  |             | F F C コネクター   | 02  |
| CB403      | VM923600 | CN. BS. PIN | 13P           | JUCRTKAGEFL | F F C コネクター   | 01  |
| CB502      | LB932060 | CN. BS. PIN | 6P            |             | ベースポスト        | 01  |
| C4001      | WJ605000 | C.MYLAR     | 0.01uF 50V J  |             | マイラーコン        | 01  |
| C4002      | WJ603300 | C.MYLAR     | 470pF 50V J   |             | マイラーコン        | 01  |
| C4003      | US064100 | C.CE.CHP    | 0.01uF 50V B  |             | チップセラコン       | 01  |
| C4008-4019 | US062220 | C.CE.CHP    | 220pF 50V B   |             | チップセラコン       | 01  |
| C4020-4021 | US061470 | C.CE.CHP    | 47pF 50V B    |             | チップセラコン       | 01  |
| C4022-4025 | US062220 | C.CE.CHP    | 220pF 50V B   |             | チップセラコン       | 01  |
| C4026-4027 | US061470 | C.CE.CHP    | 47pF 50V B    |             | チップセラコン       | 01  |
| C4028-4029 | US062220 | C.CE.CHP    | 220pF 50V B   | B           | チップセラコン       | 01  |
| C4030-4033 | UR837100 | C.EL        | 10uF 16V      |             | ケミコン          | 01  |
| C4038      | UR866220 | C.EL        | 2.2uF 50V     |             | ケミコン          | 01  |
| C4039      | US135100 | C.CE.CHP    | 0.1uF 16V     |             | チップセラコン       | 01  |
| C4040-4041 | UR067100 | C.EL        | 10uF 50V      |             | ケミコン          | 01  |
| C4042-4043 | UR847470 | C.EL        | 47uF 25V      |             | ケミコン          | 01  |
| C4044-4045 | UR038100 | C.EL        | 100uF 16V     |             | ケミコン          |     |
| C4048      | US063100 | C.CE.CHP    | 1000pF 50V B  |             | チップセラコン       | 01  |
| C4049-4050 | US062100 | C.CE.CHP    | 100pF 50V B   |             | チップセラコン       | 01  |
| C4051      | US064100 | C.CE.CHP    | 0.01uF 50V B  |             | チップセラコン       | 01  |
| C4052-4053 | US062100 | C.CE.CHP    | 100pF 50V B   |             | チップセラコン       | 01  |
| C4054      | WJ605400 | C.MYLAR     | 0.022uF 50V J |             | マイラーコン        | 01  |
| C4055      | WJ605800 | C.MYLAR     | 0.047uF 50V J |             | マイラーコン        | 01  |
| C4056      | VE326200 | C.MYLAR     | 0.15uF 50V    |             | マイラーコン        |     |
| C4057      | UR837470 | C.EL        | 47uF 16V      |             | ケミコン          | 01  |
| C4058      | WJ605400 | C.MYLAR     | 0.022uF 50V J |             | マイラーコン        | 01  |
| C4059-4064 | UR837100 | C.EL        | 10uF 16V      |             | ケミコン          | 01  |
| C4067      | UR837470 | C.EL        | 47uF 16V      |             | ケミコン          | 01  |
| C4068      | VE326200 | C.MYLAR     | 0.15uF 50V    |             | マイラーコン        |     |
| C4069      | US135100 | C.CE.CHP    | 0.1uF 16V     |             | チップセラコン       | 01  |
| C4070      | WJ605800 | C.MYLAR     | 0.047uF 50V J |             | マイラーコン        | 01  |
| C4071      | UR837470 | C.EL        | 47uF 16V      |             | ケミコン          | 01  |
| C4072      | US135100 | C.CE.CHP    | 0.1uF 16V     | GEF         | チップセラコン       | 01  |
| C4073      | UR038100 | C.EL        | 100uF 16V     |             | ケミコン          |     |
| C4074-4079 | UR067100 | C.EL        | 10uF 50V      |             | ケミコン          | 01  |
| C4082      | UR866220 | C.EL        | 2.2uF 50V     |             | ケミコン          | 01  |
| C4083      | US062330 | C.CE.CHP    | 330pF 50V B   | GEF         | チップセラコン       | 01  |
| C4084-4086 | UR067100 | C.EL        | 10uF 50V      |             | ケミコン          | 01  |
| C4087-4090 | US162820 | C.CE.CHP    | 820pF 50V J   |             | チップセラコン       |     |
| C4091      | WJ603600 | C.MYLAR     | 820pF 50V J   |             | マイラーコン        | 01  |
| C4092      | WJ605400 | C.MYLAR     | 0.022uF 50V J |             | マイラーコン        | 01  |
| C4095      | US062330 | C.CE.CHP    | 330pF 50V B   | GEF         | チップセラコン       | 01  |
| C4096-4097 | UR067100 | C.EL        | 10uF 50V      |             | ケミコン          | 01  |
| C4100      | US062100 | C.CE.CHP    | 100pF 50V B   |             | チップセラコン       | 01  |
| C4101-4105 | US061820 | C.CE.CHP    | 82pF 50V B    |             | チップセラコン       | 01  |
| C4106      | WJ604200 | C.MYLAR     | 2700pF 50V    |             | マイラーコン        |     |
| C4109      | UR837470 | C.EL        | 47uF 16V      | GEF         | ケミコン          | 01  |
| C4110-4116 | UR837100 | C.EL        | 10uF 16V      |             | ケミコン          | 01  |
| C4119-4120 | US135100 | C.CE.CHP    | 0.1uF 16V     | GEF         | チップセラコン       | 01  |
| C4121      | US062560 | C.CE.CHP    | 560pF 50V B   | GEF         | チップセラコン       | 01  |

\* New Parts \* 新規部品

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| Ref No.    | Part No. | Description | Remarks        | Markets  | 部 品 名     | ランク |
|------------|----------|-------------|----------------|----------|-----------|-----|
| C4122      | UR038100 | C. EL       | 100uF 16V      |          | ケミコン      |     |
| C4123      | UR837470 | C. EL       | 47uF 16V       | GEF      | ケミコン      | 01  |
| C4124-4125 | US061270 | C. CE. CHP  | 27pF 50V B     | GEF      | チップセラコン   | 01  |
| C4126      | UR837470 | C. EL       | 47uF 16V       | GEF      | ケミコン      | 01  |
| C4127-4128 | UR038100 | C. EL       | 100uF 16V      |          | ケミコン      |     |
| C5001      | UR837330 | C. EL       | 33uF 16V       |          | ケミコン      | 01  |
| C5002      | WJ605000 | C. MYLAR    | 0.01uF 50V J   |          | マイラーコン    | 01  |
| C5005-5007 | UR037100 | C. EL       | 10uF 16V       |          | ケミコン      | 01  |
| C5009-5011 | UR866220 | C. EL       | 2.2uF 50V      |          | ケミコン      | 01  |
| C5012-5013 | UR037100 | C. EL       | 10uF 16V       |          | ケミコン      | 01  |
| C5014      | WJ603300 | C. MYLAR    | 470pF 50V J    |          | マイラーコン    | 01  |
| * C5015    | UR277220 | C. EL       | 22uF 63V       |          | ケミコン      |     |
| C5017      | UR297100 | C. EL       | 10uF 100V      |          | ケミコン      |     |
| △ C5018    | WJ603300 | C. MYLAR    | 470pF 50V J    |          | マイラーコン    | 01  |
| C5020      | UR297100 | C. EL       | 10uF 100V      |          | ケミコン      |     |
| * C5022    | UR277220 | C. EL       | 22uF 63V       |          | ケミコン      |     |
| C5023-5024 | UR297100 | C. EL       | 10uF 100V      |          | ケミコン      |     |
| C5026-5028 | WJ603300 | C. MYLAR    | 470pF 50V J    |          | マイラーコン    | 01  |
| C5029      | WJ602900 | C. MYLAR    | 100pF 50V K    |          | マイラーコン    | 01  |
| * C5030    | UR067330 | C. EL       | 33uF 50V       |          | ケミコン      |     |
| C5031      | WJ602900 | C. MYLAR    | 100pF 50V K    |          | マイラーコン    | 01  |
| * C5032    | UR067330 | C. EL       | 33uF 50V       |          | ケミコン      |     |
| * C5034    | UR067330 | C. EL       | 33uF 50V       |          | ケミコン      |     |
| C5036      | WJ602900 | C. MYLAR    | 100pF 50V K    |          | マイラーコン    | 01  |
| * C5037    | UR067330 | C. EL       | 33uF 50V       |          | ケミコン      |     |
| C5038      | WJ602900 | C. MYLAR    | 100pF 50V K    |          | マイラーコン    | 01  |
| C5041      | UR897100 | C. EL       | 10uF 100V      |          | ケミコン      | 01  |
| C5042      | FG651100 | C. CE       | 10pF 50V       |          | セラコン      | 01  |
| C5043      | WJ602900 | C. MYLAR    | 100pF 50V K    |          | マイラーコン    | 01  |
| * C5044    | UR067330 | C. EL       | 33uF 50V       |          | ケミコン      |     |
| C5045      | UR866100 | C. EL       | 1uF 50V        |          | ケミコン      | 01  |
| C5046      | FG650500 | C. CE       | 5pF 50V        |          | セラコン      | 01  |
| C5048      | FG650500 | C. CE       | 5pF 50V        |          | セラコン      | 01  |
| C5050-5051 | FG650500 | C. CE       | 5pF 50V        |          | セラコン      | 01  |
| C5052-5054 | WJ605800 | C. MYLAR    | 0.047uF 50V J  |          | マイラーコン    | 01  |
| C5057-5058 | WJ605800 | C. MYLAR    | 0.047uF 50V J  |          | マイラーコン    | 01  |
| C5059      | UR866470 | C. EL       | 4.7uF 50V      |          | ケミコン      | 01  |
| C5060      | UR828220 | C. EL       | 220uF 10V      |          | ケミコン      | 01  |
| C5061      | UR858100 | C. EL       | 100uF 35V      |          | ケミコン      | 01  |
| * C5062    | UR278100 | C. EL       | 100uF 63V      |          | ケミコン      |     |
| C5063      | UR866470 | C. EL       | 4.7uF 50V      |          | ケミコン      | 01  |
| C5064      | UR058100 | C. EL       | 100uF 35V      |          | ケミコン      | 01  |
| △ C5065    | WE514200 | C. EL       | 6800uF 63V     | JUCRTKAL | ケミコン      |     |
| * C5065    | WN524400 | C. EL       | 6800uF 63V     | BGEF     | ケミコン      |     |
| C5066      | WE514200 | C. EL       | 6800uF 63V     | JUCRTKAL | ケミコン      |     |
| * C5066    | WN524400 | C. EL       | 6800uF 63V     | BGEF     | ケミコン      |     |
| C5067-5076 | WJ605000 | C. MYLAR    | 0.01uF 50V J   |          | マイラーコン    | 01  |
| C5077-5078 | WJ611400 | C. MYLAR    | 0.1uF 100V J   |          | マイラーコン    | 01  |
| C5079      | US064100 | C. CE. CHP  | 0.01uF 50V B   |          | チップセラコン   | 01  |
| C5086-5087 | WJ605400 | C. MYLAR    | 0.022uF 50V J  |          | マイラーコン    | 01  |
| D4001-4002 | VU994300 | DIODE. ZENR | MA8075-H 7.7V  |          | ツェナーダイオード | 01  |
| D4003      | VU995500 | DIODE. ZENR | MA8100-H 10.3V |          | ツェナーダイオード | 02  |
| D5001-5002 | VD631600 | DIODE       | 1SS133, 176    |          | ダイオード     | 01  |
| D5003      | VU171900 | DIODE. ZENR | UDZ5.1B 5.1V   |          | ツェナーダイオード | 01  |
| D5004      | WC398800 | DIODE       | KDS160-RTK     |          | ダイオード     | 01  |

\* New Parts \* 新規部品

## P.C.B. MAIN

| Ref No.        | Part No. | Description  | Remarks           | Markets     | 部 品 名      | ランク |
|----------------|----------|--------------|-------------------|-------------|------------|-----|
| D5005-5006     | VN008700 | DIODE        | 1SS270A           |             | ダイオード      | 01  |
| D5009          | WC398800 | DIODE        | KDS160-RTK        |             | ダイオード      | 01  |
| D5010-5012     | VN008700 | DIODE        | 1SS270A           |             | ダイオード      | 01  |
| D5013          | VD631600 | DIODE        | 1SS133, 176       |             | ダイオード      | 01  |
| D5014-5016     | VN008700 | DIODE        | 1SS270A           |             | ダイオード      | 01  |
| △ D5017        | VG441000 | DIODE. ZENR  | MTZJ16A 16V       |             | ツェナーダイオード  | 01  |
| D5018-5020     | VD631600 | DIODE        | 1SS133, 176       |             | ダイオード      | 01  |
| △ D5021        | WA653200 | DIODE. BRG   | TS6P03G 6A 200V   |             | ダイオードブリッジ  | 04  |
| D5022-5023     | VS997800 | DIODE        | 1T2               |             | ダイオード      | 01  |
| D5024          | VD631600 | DIODE        | 1SS133, 176       |             | ダイオード      | 01  |
| △ D5027        | VG441000 | DIODE. ZENR  | MTZJ16A 16V       |             | ツェナーダイオード  | 01  |
| * IC401        | X8155B00 | IC           | R2A15218FP        |             | IC         |     |
| * IC402        | X8235A00 | IC           | LC72725KM         | GEF         | IC         |     |
| IC403-405      | X7378A00 | IC           | NJM4565M(TE1)     |             | アンプIC      | 01  |
| IC407          | X7378A00 | IC           | NJM4565M(TE1)     |             | アンプIC      | 01  |
| △ IC501        | X8190A00 | IC           | STK433-330-E      |             | パワーIC      | 12  |
| △ IC502        | X7427A00 | IC           | STK433-130-E      |             | アンプIC      | 04  |
| PJ401          | V7190400 | JACK. PIN    | 6P                |             | ピンジャック     | 03  |
| PJ402-403      | V7046800 | JACK. PIN    | 6P MSP-246V1-01NI |             | ピンジャック     | 04  |
| PJ404          | V7046700 | JACK. PIN    | 4P MSP-244V1-01NI | B           | ピンジャック     | 03  |
| PJ407          | V7189700 | JACK. PIN    | 1P                |             | ピンジャック     | 01  |
| * PJ408        | WC612700 | JACK. PIN    | 2P                | JUCRTKAGEFL | ピンジャック     |     |
| PN501          | V9637500 | PIN          | L=70 #18          |             | スタイルピン     |     |
| Q4001          | VZ725900 | TR           | 2SD1938F S, T     |             | トランジスタ     | 01  |
| Q4004          | VZ725900 | TR           | 2SD1938F S, T     |             | トランジスタ     | 01  |
| Q4008          | WC434800 | TR. DGT      | KRA102S-RTK/P     |             | デジタルトランジスタ | 01  |
| Q4009          | iC181510 | TR           | 2SC1815 Y         |             | トランジスタ     | 01  |
| Q4010          | iA101510 | TR           | 2SA1015 Y         |             | トランジスタ     | 01  |
| Q4011          | iC181510 | TR           | 2SC1815 Y         |             | トランジスタ     | 01  |
| Q4012          | iC174020 | TR           | 2SC1740S QRS      | GEF         | トランジスタ     | 01  |
| Q5003-5007     | VD303700 | TR           | 2SC3326 A, B      |             | トランジスタ     | 01  |
| Q5009-5011     | WC434800 | TR. DGT      | KRA102S-RTK/P     |             | デジタルトランジスタ | 01  |
| △ Q5012        | WC398400 | TR           | 2N5551C-AT        |             | トランジスタ     | 01  |
| △ Q5013-5014   | VC614000 | TR           | 2SB1274 Q, R, S   |             | トランジスタ     | 02  |
| △ Q5015        | WC398400 | TR           | 2N5551C-AT        |             | トランジスタ     | 01  |
| △ Q5016-5017   | WC397700 | TR           | 2N5401C-AT        |             | トランジスタ     |     |
| △ Q5018-5020   | WC398400 | TR           | 2N5551C-AT        |             | トランジスタ     | 01  |
| Q5023-5024     | WC398400 | TR           | 2N5551C-AT        |             | トランジスタ     | 01  |
| △ Q5025        | WC397700 | TR           | 2N5401C-AT        |             | トランジスタ     |     |
| △ Q5026-5029   | WC434900 | TR. DGT      | KRA104S-RTK       |             | デジタルトランジスタ | 01  |
| △ Q5030        | VP872600 | TR           | 2SA1708 S, T      |             | トランジスタ     | 01  |
| Q5031          | iC181510 | TR           | 2SC1815 Y         |             | トランジスタ     | 01  |
| Q5032-5036     | WC435000 | TR. DGT      | KRC102S-RTK       |             | デジタルトランジスタ | 01  |
| Q5037          | WC434900 | TR. DGT      | KRA104S-RTK       |             | デジタルトランジスタ | 01  |
| R4080-4081     | HV753220 | R. CAR. FP   | 2.2Ω 1/4W         |             | 不燃化カーボン抵抗  | 01  |
| △ R5035-5036   | HV753220 | R. CAR. FP   | 2.2Ω 1/4W         |             | 不燃化カーボン抵抗  | 01  |
| △ R5040        | HV755560 | R. CAR. FP   | 560Ω 1/4W         |             | 不燃化カーボン抵抗  | 01  |
| △ R5052        | HV754100 | R. CAR. FP   | 10Ω 1/4W          |             | 不燃化カーボン抵抗  | 01  |
| △ R5055        | HV754100 | R. CAR. FP   | 10Ω 1/4W          |             | 不燃化カーボン抵抗  | 01  |
| * △ R5069      | WM280300 | R. MTL. PLAT | 0.22+0.22Ω RGC33  |             | 金属板抵抗      |     |
| * △ R5071      | WM280300 | R. MTL. PLAT | 0.22+0.22Ω RGC33  |             | 金属板抵抗      |     |
| * △ R5079      | WM280300 | R. MTL. PLAT | 0.22+0.22Ω RGC33  |             | 金属板抵抗      |     |
| * △ R5090-5091 | WM280300 | R. MTL. PLAT | 0.22+0.22Ω RGC33  |             | 金属板抵抗      |     |
| R5109          | HV754100 | R. CAR. FP   | 10Ω 1/4W          |             | 不燃化カーボン抵抗  | 01  |
| R5112-5113     | HV754100 | R. CAR. FP   | 10Ω 1/4W          |             | 不燃化カーボン抵抗  | 01  |

\* New Parts \* 新規部品

## P.C.B. MAIN and P.C.B. VIDEO

| Ref No.      | Part No. | Description  | Remarks            | Markets | 部 品 名           | ランク |
|--------------|----------|--------------|--------------------|---------|-----------------|-----|
| R5121        | HV754100 | R. CAR. FP   | 10Ω 1/4W           |         | 不燃化カーボン抵抗       | 01  |
| R5124        | HV754100 | R. CAR. FP   | 10Ω 1/4W           |         | 不燃化カーボン抵抗       | 01  |
| △ R5126      | WB625100 | R. MTL. FLM  | 4.7Ω 1W J          |         | 金属被膜抵抗          | 01  |
| △ R5130-5131 | WB625100 | R. MTL. FLM  | 4.7Ω 1W J          |         | 金属被膜抵抗          | 01  |
| R5136-5137   | WB625100 | R. MTL. FLM  | 4.7Ω 1W J          |         | 金属被膜抵抗          | 01  |
| △ R5142      | HV756270 | R. CAR. FP   | 2.7KΩ 1/4W         |         | 不燃化カーボン抵抗       | 01  |
| △ R5145      | WB627300 | R. MTL. OXD  | 470Ω 1W            |         | 酸化金属被膜抵抗        |     |
| R5167-5168   | HV753470 | R. CAR. FP   | 4.7Ω 1/4W          |         | 不燃化カーボン抵抗       | 01  |
| △ RY501-502  | WJ122400 | RELAY        | 981-2A-24DS-SP7    |         | リレー 24V         | 04  |
| △ RY504-505  | WJ122400 | RELAY        | 981-2A-24DS-SP7    |         | リレー 24V         | 04  |
| * RY506      | WJ117200 | RELAY        | DC24V 942H-2C-24DS |         | リレー             |     |
| * TE501      | WK561000 | TERM. SP     | 6P MST-207V1-01 NC | JUCRTA  | スピーカーターミナル      |     |
| * TE501      | WK561100 | TERM. SP     | 6P MST-207V1-01 WC | KBGEFL  | スピーカーターミナル      |     |
| * TE502      | WK560800 | TERM. SP     | 4P MST-204V1-01 NC | JUCRTA  | スピーカーターミナル      |     |
| * TE502      | WK560900 | TERM. SP     | 4P MST-204V1-01 WC | KBGEFL  | スピーカーターミナル      |     |
| * XL401      | WJ588000 | RSNR. CRYST  | 4.332MHz           | GEF     | 水晶振動子           |     |
|              | WE774200 | SCR. BND. HD | 3x10 MFZN2W3       |         | バインドBタイトネジ      | 01  |
| * WN274300   | P.C.B.   | VIDEO        |                    | J       | P C B V I D E O |     |
| * WN274400   | P.C.B.   | VIDEO        |                    | UC      | P C B V I D E O |     |
| * WN274500   | P.C.B.   | VIDEO        |                    | R       | P C B V I D E O |     |
| * WN274600   | P.C.B.   | VIDEO        |                    | TA      | P C B V I D E O |     |
| * WN274700   | P.C.B.   | VIDEO        |                    | K       | P C B V I D E O |     |
| * WN274800   | P.C.B.   | VIDEO        |                    | BGEF    | P C B V I D E O |     |
| * WN274900   | P.C.B.   | VIDEO        |                    | L       | P C B V I D E O |     |
| CB301        | VB858200 | CN. BS. PIN  | 3P                 |         | ベースピン           | 01  |
| CB302        | VQ044500 | CN. BS. PIN  | 11P                |         | FFCコネクタ         | 01  |
| CB321-324    | WD398400 | CN. DIN      | 14P YKF45-3011     | J       | D I Nコネクタ       | 05  |
| CB326        | VM923600 | CN. BS. PIN  | 13P                |         | FFCコネクタ         | 01  |
| * CB342-343  | WN077700 | CLIP. FUSE   | CLIP PFC5000-0202F |         | ヒューズクリップ        |     |
| CB344-345    | VG879900 | CN. BS. PIN  | 2P                 |         | ベースピン           | 01  |
| CB351        | VB858400 | CN. BS. PIN  | 5P                 |         | ベースピン           | 01  |
| CB352        | LB919040 | CN. BS. PIN  | 4P                 |         | ベース付ポスト         | 01  |
| * CB356      | V9377800 | CN. BS. PIN  | 3P                 | RL      | ベース付ポスト         |     |
| * CB357      | V9377900 | CN. BS. PIN  | 4P                 | RL      | ベース付ポスト         |     |
| * CB358-359  | WN077700 | CLIP. FUSE   | CLIP PFC5000-0202F | RL      | ヒューズクリップ        |     |
| △ C3001-3002 | US062100 | C. CE. CHP   | 100pF 50V B        |         | チップセラコン         | 01  |
| △ C3007-3008 | WG218100 | C. EL        | 100uF 16V          |         | ケミコン            |     |
| C3009-3010   | V7887800 | C. EL        | 1uF 50V            |         | ケミコン            |     |
| C3011-3012   | US135100 | C. CE. CHP   | 0.1uF 16V          |         | チップセラコン         | 01  |
| C3015        | UR837100 | C. EL        | 10uF 16V           |         | ケミコン            | 01  |
| C3016        | US135100 | C. CE. CHP   | 0.1uF 16V          |         | チップセラコン         | 01  |
| C3017        | UR837470 | C. EL        | 47uF 16V           |         | ケミコン            | 01  |
| C3020        | US135100 | C. CE. CHP   | 0.1uF 16V          |         | チップセラコン         | 01  |
| C3021        | UR837470 | C. EL        | 47uF 16V           |         | ケミコン            | 01  |
| C3022        | UR837100 | C. EL        | 10uF 16V           |         | ケミコン            | 01  |
| C3030-3031   | UR838100 | C. EL        | 100uF 16V          |         | ケミコン            | 01  |
| C3037        | US135100 | C. CE. CHP   | 0.1uF 16V          |         | チップセラコン         | 01  |
| C3038        | US061220 | C. CE. CHP   | 22pF 50V B         | JUCRK   | チップセラコン         | 01  |
| C3038        | US060500 | C. CE. CHP   | 5pF 50V B          | TABGEFL | チップセラコン         | 01  |
| C3039        | US061330 | C. CE. CHP   | 33pF 50V B         | JUCRK   | チップセラコン         | 01  |
| C3039        | US060500 | C. CE. CHP   | 5pF 50V B          | TABGEFL | チップセラコン         | 01  |
| C3048        | UR866100 | C. EL        | 1uF 50V            |         | ケミコン            | 01  |

\* New Parts \* 新規部品

## P.C.B. VIDEO

| Ref No.      | Part No. | Description | Remarks            | Markets     | 部 品 名     | ランク |
|--------------|----------|-------------|--------------------|-------------|-----------|-----|
| C3049-3050   | UR837470 | C.EL        | 47uF 16V           |             | ケミコン      | 01  |
| C3051        | US060300 | C.CE.CHP    | 3pF 50V B          | JUCRK       | チップセラコン   | 01  |
| C3051        | US060400 | C.CE.CHP    | 4pF 50V B          | TABGEFL     | チップセラコン   |     |
| C3054        | US061240 | C.CE.CHP    | 24pF 50V B         |             | チップセラコン   | 01  |
| C3056        | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン   | 01  |
| C3057        | US061240 | C.CE.CHP    | 24pF 50V B         |             | チップセラコン   | 01  |
| C3061-3065   | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン   | 01  |
| C3066        | US061100 | C.CE.CHP    | 10pF 50V B         |             | チップセラコン   | 01  |
| C3069        | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン   | 01  |
| C3071        | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン   | 01  |
| C3072        | UR837100 | C.EL        | 10uF 16V           |             | ケミコン      | 01  |
| C3073        | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン   | 01  |
| C3074        | UR837470 | C.EL        | 47uF 16V           |             | ケミコン      | 01  |
| C3075-3076   | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン   | 01  |
| C3077-3078   | UR837470 | C.EL        | 47uF 16V           |             | ケミコン      | 01  |
| C3201-3203   | US060800 | C.CE.CHP    | 8pF 50V B          | UCRTKABGEFL | チップセラコン   | 01  |
| C3204-3215   | US064100 | C.CE.CHP    | 0.01uF 50V B       | J           | チップセラコン   | 01  |
| C3216-3218   | US060800 | C.CE.CHP    | 8pF 50V B          | J           | チップセラコン   | 01  |
| C3219-3220   | UR837100 | C.EL        | 10uF 16V           |             | ケミコン      | 01  |
| C3221-3222   | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン   | 01  |
| C3231        | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン   | 01  |
| C3232        | US135100 | C.CE.CHP    | 0.1uF 16V          | J           | チップセラコン   | 01  |
| C3234        | US135100 | C.CE.CHP    | 0.1uF 16V          | J           | チップセラコン   | 01  |
| C3239        | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン   | 01  |
| C3240-3241   | UR837470 | C.EL        | 47uF 16V           |             | ケミコン      | 01  |
| C3243        | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン   | 01  |
| C3248        | US135100 | C.CE.CHP    | 0.1uF 16V          |             | チップセラコン   | 01  |
| C3263-3271   | WD758300 | C.CE.CHP    | 10uF 10V           |             | チップセラコン   | 01  |
| C3401        | UR749220 | C.EL        | 2200uF 25V         | JUCTKABGEF  | ケミコン      | 03  |
| C3401        | UR759220 | C.EL        | 2200uF 35V         | RL          | ケミコン      | 02  |
| C3402        | WJ605000 | C.MYLAR     | 0.01uF 50V J       |             | マイラーコン    | 01  |
| C3403        | UR897100 | C.EL        | 10uF 100V          | RL          | ケミコン      | 01  |
| C3404        | WJ605000 | C.MYLAR     | 0.01uF 50V J       | JUCTKABGEF  | マイラーコン    | 01  |
| C3405-3406   | WJ605000 | C.MYLAR     | 0.01uF 50V J       | RL          | マイラーコン    | 01  |
| △ C3407      | WB121400 | C.CE.SAFETY | 0.01uF 295V        |             | 規格認定コンデンサ |     |
| C3501        | WJ605000 | C.MYLAR     | 0.01uF 50V J       |             | マイラーコン    | 01  |
| C3503-3505   | WJ605000 | C.MYLAR     | 0.01uF 50V J       |             | マイラーコン    | 01  |
| D3201-3205   | VT332900 | DIODE       | 1SS355             | J           | ダイオード     | 01  |
| D3208-3211   | VT332900 | DIODE       | 1SS355             | J           | ダイオード     | 01  |
| D3212-3217   | VT332900 | DIODE       | 1SS355             |             | ダイオード     | 01  |
| D3401        | VD631600 | DIODE       | 1SS133, 176        |             | ダイオード     | 01  |
| △ D3402      | VG437000 | DIODE.ZENR  | MTZJ4.7A 4.7V      | RL          | ツェナーダイオード | 01  |
| △ D3403-3404 | VS997800 | DIODE       | 1T2                |             | ダイオード     | 01  |
| △ D3405      | VS997800 | DIODE       | 1T2                | RL          | ダイオード     | 01  |
| △ D3406-3407 | VS997800 | DIODE       | 1T2                |             | ダイオード     | 01  |
| D3408-3409   | WC398800 | DIODE       | KDS160-RTK         |             | ダイオード     | 01  |
| D3501        | VD631600 | DIODE       | 1SS133, 176        |             | ダイオード     | 01  |
| △ F3401      | WB221200 | FUSE        | T6A 125V           | JUCRL       | ヒューズ      | 01  |
| △ F3401      | VV071700 | FUSE        | 3.15A 250V         | TKABGEF     | ヒューズ      | 01  |
| △ F3551      | VV071700 | FUSE        | 3.15A 250V         | RL          | ヒューズ      | 01  |
| IC301        | XY550A00 | IC          | MM74HC4051SJX      |             | ロジックIC    | 01  |
| IC304        | X7818A00 | IC          | LC74782JM-8A16-TLM |             | IC        | 07  |
| IC307        | X6742A00 | IC          | LA73050-TLM-E      |             | アンプIC     | 04  |
| △ IC308      | X4928A00 | IC          | KIA7805API 5V      |             | 電源IC      | 02  |
| △ IC309      | X7973A00 | IC          | KIA79M05PI-U       |             | 電源IC      | 02  |

\* New Parts \* 新規部品

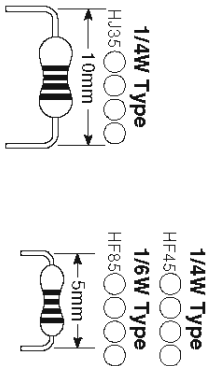
## P.C.B. VIDEO

| Ref No.    | Part No. | Description | Remarks            | Markets     | 部 品 名       | ランク |
|------------|----------|-------------|--------------------|-------------|-------------|-----|
| IC311      | XS790A00 | IC          | TC74HC4052AF MPX   |             | ロジック IC     | 02  |
| IC322-323  | XS790A00 | IC          | TC74HC4052AF MPX   |             | ロジック IC     | 02  |
| IC324      | XS790A00 | IC          | TC74HC4052AF MPX   | J           | ロジック IC     | 02  |
| IC325      | X2904A00 | IC          | NJM2581M VIDEO AMP |             | アンプ IC      | 06  |
| PJ301      | V7189800 | JACK. PIN   | 1P                 |             | ピンジャック      | 01  |
| PJ302-303  | V7190000 | JACK. PIN   | 2P                 |             | ピンジャック      |     |
| PJ321-322  | WG471900 | JACK. PIN   | 6P                 | UCRTKABGEFL | ピンジャック 6 P  | 03  |
| PN301      | V9637500 | PIN         | L=70 #18           |             | スタイルピン      |     |
| PN351      | V9637500 | PIN         | L=70 #18           |             | スタイルピン      |     |
| Q3004-3005 | VV556400 | TR          | 2SC2412K Q, R, S   |             | トランジスタ      | 01  |
| △ Q3401    | VE198800 | TR          | 2SC2705 O, Y       |             | トランジスタ      | 01  |
| △ Q3402    | iA101510 | TR          | 2SA1015 Y          | RL          | トランジスタ      | 01  |
| △ Q3403    | VP872600 | TR          | 2SA1708 S, T       | RL          | トランジスタ      | 01  |
| △ Q3404    | iA101510 | TR          | 2SA1015 Y          | RL          | トランジスタ      | 01  |
| △ Q3405    | WC529200 | TR. DGT     | KRC102M-AT         | RL          | デジタルトランジスタ  | 01  |
| Q3501      | WC398500 | TR. DGT     | KRA102M-AT         |             | デジタルトランジスタ  | 01  |
| * R3016    | WB625900 | R. MTL. OXD | 33 Ω 1W            |             | 酸化金属被膜抵抗    |     |
| * △ R3017  | WB625800 | R. MTL. OXD | 27 Ω 1W            |             | 酸化金属被膜抵抗    |     |
| R3028-3029 | HV753100 | R. CAR. FP  | 1 Ω 1/4W           |             | 不燃化カーボン抵抗   | 01  |
| R3055      | HV755470 | R. CAR. FP  | 470 Ω 1/4W         |             | 不燃化カーボン抵抗   | 01  |
| R3058      | HV753100 | R. CAR. FP  | 1 Ω 1/4W           |             | 不燃化カーボン抵抗   | 01  |
| * R3060    | WB625900 | R. MTL. OXD | 33 Ω 1W            |             | 酸化金属被膜抵抗    |     |
| R3238      | HV753100 | R. CAR. FP  | 1 Ω 1/4W           |             | 不燃化カーボン抵抗   | 01  |
| R3245      | HV753100 | R. CAR. FP  | 1 Ω 1/4W           |             | 不燃化カーボン抵抗   | 01  |
| R3408      | VC757900 | R. MTL. OXD | 47 Ω 2W            | RL          | 酸化金属被膜抵抗    | 01  |
| △ R3410    | V6730000 | R. CAR.     | 2.2M Ω 1/2W        | UC          | 放電抵抗        | 01  |
| △ RY341    | V9366900 | RELAY       | DLS9D1-O (M) 0.25W |             | リレー 9V TV-8 | 05  |
| RY351      | WJ122400 | RELAY       | 981-2A-24DS-SP7    |             | リレー 24V     | 04  |
| ST301      | WA789600 | SCR. TERM   | M3                 |             | スクリューターミナル  |     |
| ST321      | WA789600 | SCR. TERM   | M3                 | UCRTKABGEFL | スクリューターミナル  |     |
| ST322      | WA789600 | SCR. TERM   | M3                 | J           | スクリューターミナル  |     |
| ST341-342  | WA789600 | SCR. TERM   | M3                 |             | スクリューターミナル  |     |
| ST351      | WA789600 | SCR. TERM   | M3                 |             | スクリューターミナル  |     |
| * △ SW356  | WB493700 | VOLT. SELCT | R8140246           | R           | 電圧切替器       |     |
| * △ SW356  | WD073700 | VOLT. SELCT | R8140254           | L           | 電圧切替器       |     |
| △ T3401    | X8520A00 | TRANS. PWR  |                    | J           | 電源トランス      | 07  |
| * △ T3401  | X8521A00 | TRANS. PWR  |                    | UC          | 電源トランス      |     |
| * △ T3401  | X8522A00 | TRANS. PWR  |                    | RL          | 電源トランス      |     |
| * △ T3401  | X8523A00 | TRANS. PWR  |                    | TKABGEF     | 電源トランス      |     |
| * △ TE351  | WK560800 | TERM. SP    | 4P MST-204V1-01 NC | JUCRTA      | スピーカーターミナル  |     |
| * △ TE351  | WK560900 | TERM. SP    | 4P MST-204V1-01 WC | KBGEFL      | スピーカーターミナル  |     |
| * XL301    | WN380400 | RSNR. CRYST | 14.3181MHz AT-49   | JUCRK       | 水晶振動子       |     |
| * XL301    | WN380500 | RSNR. CRYST | 17.7344MHz AT-49   | TABGEFL     | 水晶振動子       |     |

\* New Parts \* 新規部品

Chip Resistors

| 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          | 10 kΩ  | HF45 7100          | HF45 7100          |
| 1.8 Ω  | HJ35 3180          | *                  | 11 kΩ  | HF45 7110          | HF45 7110          |
| 2.2 Ω  | HJ35 3220          | HF85 3220          | 12 kΩ  | HJ35 7120          | HF85 7120          |
| 3.3 Ω  | HJ35 3330          | HF85 3330          | 13 kΩ  | HF45 7130          | HF45 7130          |
| 4.7 Ω  | HJ35 3470          | HF85 3470          | 15 kΩ  | HF45 7150          | HF45 7150          |
| 5.6 Ω  | HJ35 3560          | HF85 3560          | 18 kΩ  | HF45 7180          | HF45 7180          |
| 10 Ω   | HF45 4100          | HF45 4100          | 22 kΩ  | HF45 7220          | HF45 7220          |
| 15 Ω   | HJ35 4150          | HF85 4150          | 24 kΩ  | HF45 7240          | HF45 7240          |
| 22 Ω   | HF45 4220          | HF45 4220          | 27 kΩ  | HJ35 7270          | HF85 7270          |
| 27 Ω   | HJ35 4270          | HF85 4270          | 30 kΩ  | HF45 7300          | HF45 7300          |
| 33 Ω   | HF45 4330          | HF45 4330          | 33 kΩ  | HF45 7330          | HF45 7330          |
| 39 Ω   | HJ35 4470          | HF85 4390          | 36 kΩ  | HF45 7360          | HF45 7360          |
| 47 Ω   | HF45 4470          | HF45 4470          | 39 kΩ  | HF45 7390          | HF45 7390          |
| 56 Ω   | HF45 4560          | HF45 4560          | 47 kΩ  | HF45 7470          | HF45 7470          |
| 68 Ω   | HF45 4680          | HF45 4680          | 51 kΩ  | HF45 7510          | HF45 7510          |
| 75 Ω   | HF45 4750          | HF45 4750          | 56 kΩ  | HF45 7560          | HF45 7560          |
| 82 Ω   | HF45 4820          | HF45 4820          | 62 kΩ  | HF45 7620          | HF45 7620          |
| 91 Ω   | HF45 4910          | HF45 4910          | 68 kΩ  | HF45 7680          | HF45 7680          |
| 100 Ω  | HF45 5100          | HF45 5100          | 82 kΩ  | HF45 7820          | HF45 7820          |
| 110 Ω  | HJ35 5110          | HF85 5110          | 91 kΩ  | HF45 7910          | HF45 7910          |
| 120 Ω  | HF45 5120          | HF45 5120          | 100 kΩ | HF45 8100          | HF45 8100          |
| 150 Ω  | HF45 5150          | HF45 5150          | 110 kΩ | HF45 8110          | HF45 8110          |
| 160 Ω  | HJ35 5160          | *                  | 120 kΩ | HF45 8120          | HF45 8120          |
| 180 Ω  | HF45 5180          | HF45 5180          | 150 kΩ | HF45 8150          | HF45 8150          |
| 200 Ω  | HF45 5200          | HF45 5200          | 180 kΩ | HF45 8180          | HF45 8180          |
| 220 Ω  | HF45 5220          | HF45 5220          | 220 kΩ | HJ35 8220          | HF85 8220          |
| 270 Ω  | HF45 5270          | HF45 5270          | 270 kΩ | HF45 8270          | HF45 8270          |
| 330 Ω  | HF45 5330          | HF45 5330          | 300 kΩ | HF45 8300          | HF45 8300          |
| 390 Ω  | HF45 5390          | HF45 5390          | 330 kΩ | HF45 8330          | HF45 8330          |
| 430 Ω  | HF45 5430          | HF45 5430          | 390 kΩ | HJ35 8390          | HF85 8390          |
| 470 Ω  | HF45 5470          | HF45 5470          | 470 kΩ | HF45 8470          | HF45 8470          |
| 510 Ω  | HF45 5510          | HF45 5510          | 560 kΩ | HJ35 8560          | HF85 8560          |
| 560 Ω  | HF45 5560          | HF45 5560          | 680 kΩ | HJ35 8680          | HF85 8680          |
| 680 Ω  | HF45 5680          | HF45 5680          | 820 kΩ | HJ35 8820          | HF85 8820          |
| 820 Ω  | HF45 5820          | HF45 5820          | 1.0 MΩ | HF45 9100          | HF45 9100          |
| 910 Ω  | HF45 5910          | HF45 5910          | 1.2 MΩ | HJ35 9120          | *                  |
| 1.0 kΩ | HF45 6100          | HF45 6100          | 1.5 MΩ | HJ35 9150          | HF85 9150          |
| 1.2 kΩ | HF45 6120          | HF45 6120          | 1.8 MΩ | HJ35 9180          | HF85 9180          |
| 1.5 kΩ | HF45 6150          | HF45 6150          | 2.2 MΩ | HJ35 9220          | HF85 9220          |
| 1.8 kΩ | HF45 6180          | HF45 6180          | 3.3 MΩ | HJ35 9330          | HF85 9330          |
| 2.0 kΩ | HJ35 6200          | HF85 6200          | 3.9 MΩ | HJ35 9390          | *                  |
| 2.2 kΩ | HF45 6220          | HF45 6220          | 4.7 MΩ | HJ35 9470          | HF85 9470          |
| 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          |        |                    |                    |

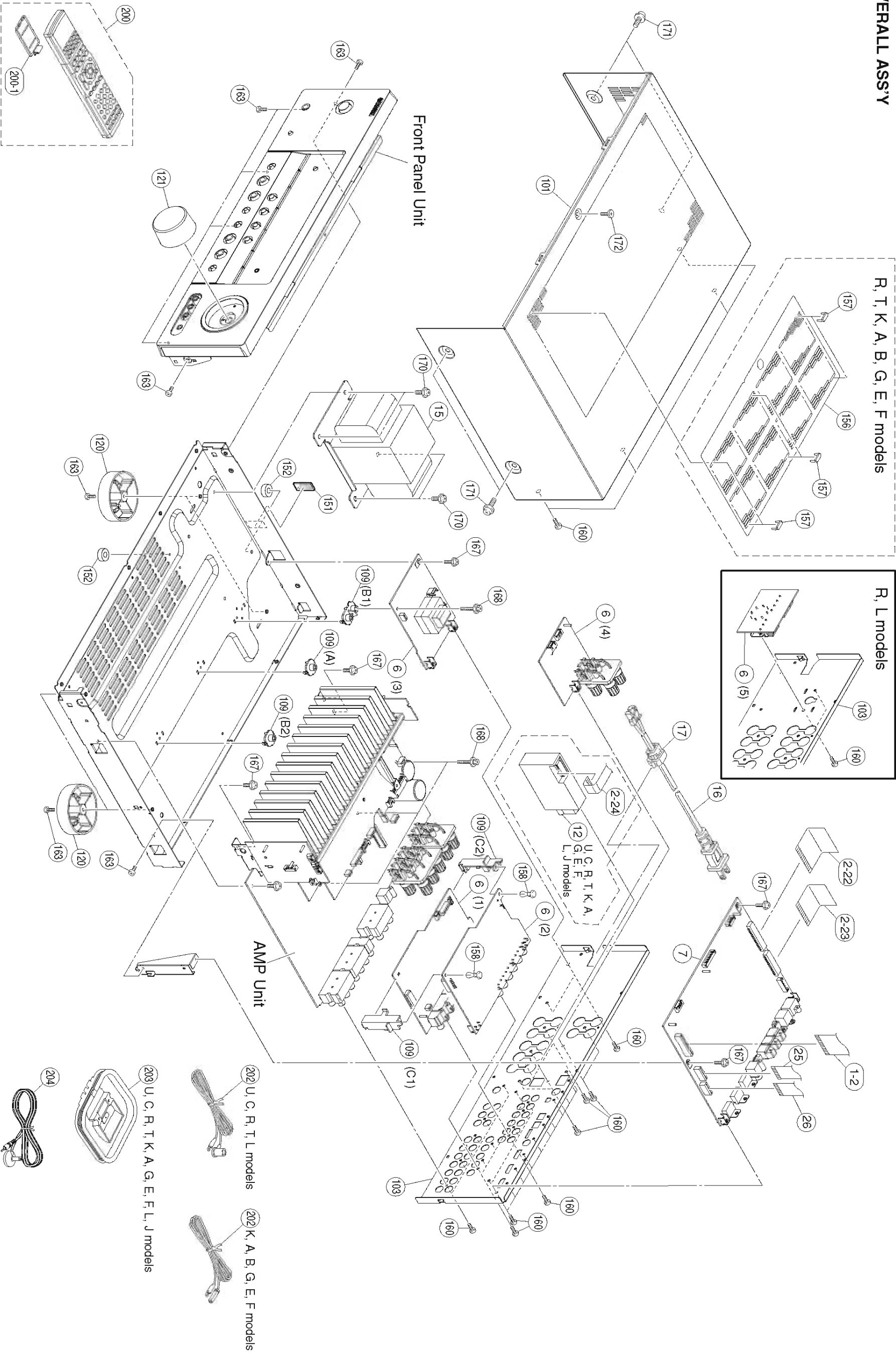


\* : Not available

• OVERALL ASS'Y

R, T, K, A, B, G, E, F models

R, L models



| Ref No. | Part No. | Description         | Remarks          | Markets     | 部 品 名           | ラシク |
|---------|----------|---------------------|------------------|-------------|-----------------|-----|
| 1-2     | MF124250 | FLEXIBLE FLAT CABLE |                  |             | カード電線 C&C       | 03  |
| 2-22    | MF31120  | FLEXIBLE FLAT CABLE | 24P 250mm P=1.25 |             | カード電線 C&C       | 03  |
| 2-23    | MF26100  | FLEXIBLE FLAT CABLE | 31P 120mm P=1.25 |             | カード電線 C&C       | 01  |
| 2-24    | MF13160  | FLEXIBLE FLAT CABLE | 26P 100mm P=1.25 |             | カード電線 C&C       | 01  |
|         | MF13160  | FLEXIBLE FLAT CABLE | 13P 160mm P=1.25 |             | カード電線 C&C       | 01  |
| 6       | WM274300 | P.C.B. ASS'Y        | VIDEO            | JUCRTKAGEFL | P C B V I D E O |     |
|         | WM274400 | P.C.B. ASS'Y        | VIDEO            | UC          | P C B V I D E O |     |
| *       | WM274500 | P.C.B. ASS'Y        | VIDEO            | R           | P C B V I D E O |     |
| *       | WM274600 | P.C.B. ASS'Y        | VIDEO            | TA          | P C B V I D E O |     |
| *       | WM274700 | P.C.B. ASS'Y        | VIDEO            | K           | P C B V I D E O |     |
| *       | WM274800 | P.C.B. ASS'Y        | VIDEO            | BGEF        | P C B V I D E O |     |
| 6       | WM274900 | P.C.B. ASS'Y        | VIDEO            | L           | P C B V I D E O |     |
| *       | WM276900 | P.C.B. ASS'Y        | DSP              | J           | P C B D S P     |     |
| *       | WM277000 | P.C.B. ASS'Y        | DSP              | UC          | P C B D S P     |     |
| *       | WM277100 | P.C.B. ASS'Y        | DSP              | R           | P C B D S P     |     |
| *       | WM277200 | P.C.B. ASS'Y        | DSP              | TA          | P C B D S P     |     |
| *       | WM277300 | P.C.B. ASS'Y        | DSP              | K           | P C B D S P     |     |
| *       | WM277400 | P.C.B. ASS'Y        | DSP              | B           | P C B D S P     |     |
| *       | WM277500 | P.C.B. ASS'Y        | DSP              | GEF         | P C B D S P     |     |
| *       | WM277600 | P.C.B. ASS'Y        | DSP              | L           | P C B D S P     |     |
| 12      | WB877200 | AM/FM TUNER         | FAE381~07F       | J           | AM / FM チューナー   | 12  |
| 12      | WB877300 | AM/FM TUNER         | FAE381~407F      | UCRTL       | AM / FM チューナー   |     |
| 12      | WB877400 | AM/FM TUNER         | FAE481~E07F      | KAGEF       | AM / FM チューナー   |     |
| *       | X9544A00 | POWER TRANSFORMER   |                  | J           | 電源トランス          |     |
| *       | X9545A00 | POWER TRANSFORMER   |                  | UC          | 電源トランス          |     |
| *       | X9546A00 | POWER TRANSFORMER   |                  | RL          | 電源トランス          |     |
| *       | X9547A00 | POWER TRANSFORMER   |                  | TK          | 電源トランス          |     |
| *       | X9548A00 | POWER TRANSFORMER   |                  | A           | 電源トランス          |     |
| *       | X9549A00 | POWER TRANSFORMER   |                  | BGEF        | 電源トランス          |     |
| 16      | WB211800 | POWER CABLE         | 1.8m             | J           | 電源コード           |     |
| 16      | WB120500 | POWER CABLE         | 2m               | UC          | 電源コード           |     |
| 16      | WC992700 | POWER CABLE         | 2m               | R           | 電源コード           |     |
| 16      | WB120600 | POWER CABLE         | 2m               | T           | 電源コード           |     |
| 16      | WC753000 | POWER CABLE         | 2m               | K           | 電源コード           |     |
| 16      | WC743700 | POWER CABLE         | 2m               | A           | 電源コード           |     |
| 16      | WB212200 | POWER CABLE         | 2m               | B           | 電源コード           |     |
| 16      | WB212300 | POWER CABLE         | 2m               | GEFL        | 電源コード           |     |
| 17      | V2438700 | CORD STOPPER        | 10P1             |             | コードストッパ         | 02  |
| 25      | MF113100 | FLEXIBLE FLAT CABLE | 13P 100mm P=1.25 |             | カード電線 C&C       | 01  |
| 26      | MF111120 | FLEXIBLE FLAT CABLE | 11P 120mm P=1.25 |             | カード電線 C&C       | 01  |
| *       | WM744800 | TOP COVER           |                  | BL          | トップカバー          |     |
| 101     | WM744900 | TOP COVER           |                  | GD          | トップカバー          |     |
| *       | WM745000 | TOP COVER           |                  | TI          | トップカバー          |     |
| *       | WM745100 | TOP COVER           |                  | SI          | トップカバー          |     |
| 103     | WM747800 | REAR PANEL          |                  | J           | リヤパネル           |     |
| 103     | WM746900 | REAR PANEL          |                  | UC          | リヤパネル           |     |
| 103     | WM747100 | REAR PANEL          |                  | VA63        | リヤパネル           |     |
| 103     | WM747200 | REAR PANEL          |                  | R           | リヤパネル           |     |
| 103     | WM747300 | REAR PANEL          |                  | T           | リヤパネル           |     |
| 103     | WM747400 | REAR PANEL          |                  | K           | リヤパネル           |     |
| 103     | WM747500 | REAR PANEL          |                  | A           | リヤパネル           |     |
| 103     | WM747600 | REAR PANEL          |                  | B           | リヤパネル           |     |
| 103     | WM747700 | REAR PANEL          |                  | GEF         | リヤパネル           |     |
| 103     | WM747800 | REAR PANEL          |                  | L           | リヤパネル           |     |
| 103     | WM748000 | REAR PANEL          |                  | UC          | リヤパネル           |     |
| 103     | WM748200 | REAR PANEL          |                  | T           | リヤパネル           |     |
| 103     | WM748300 | REAR PANEL          |                  | K           | リヤパネル           |     |
| 103     | WM748500 | REAR PANEL          |                  | GEF         | リヤパネル           |     |
| 109     | WM749300 | SUPPORT PCB         |                  |             | サポート PCB        |     |
| 120     | WA790600 | LEG                 | D60/H21 GD       | GD          | レッグ             |     |
| 120     | WA790500 | LEG                 | D60/H21 HS       | BL, TI, SI  | レッグ             |     |
| 121     | WM749500 | KNOB D48            |                  | GD          | ノブ D 4 8        |     |

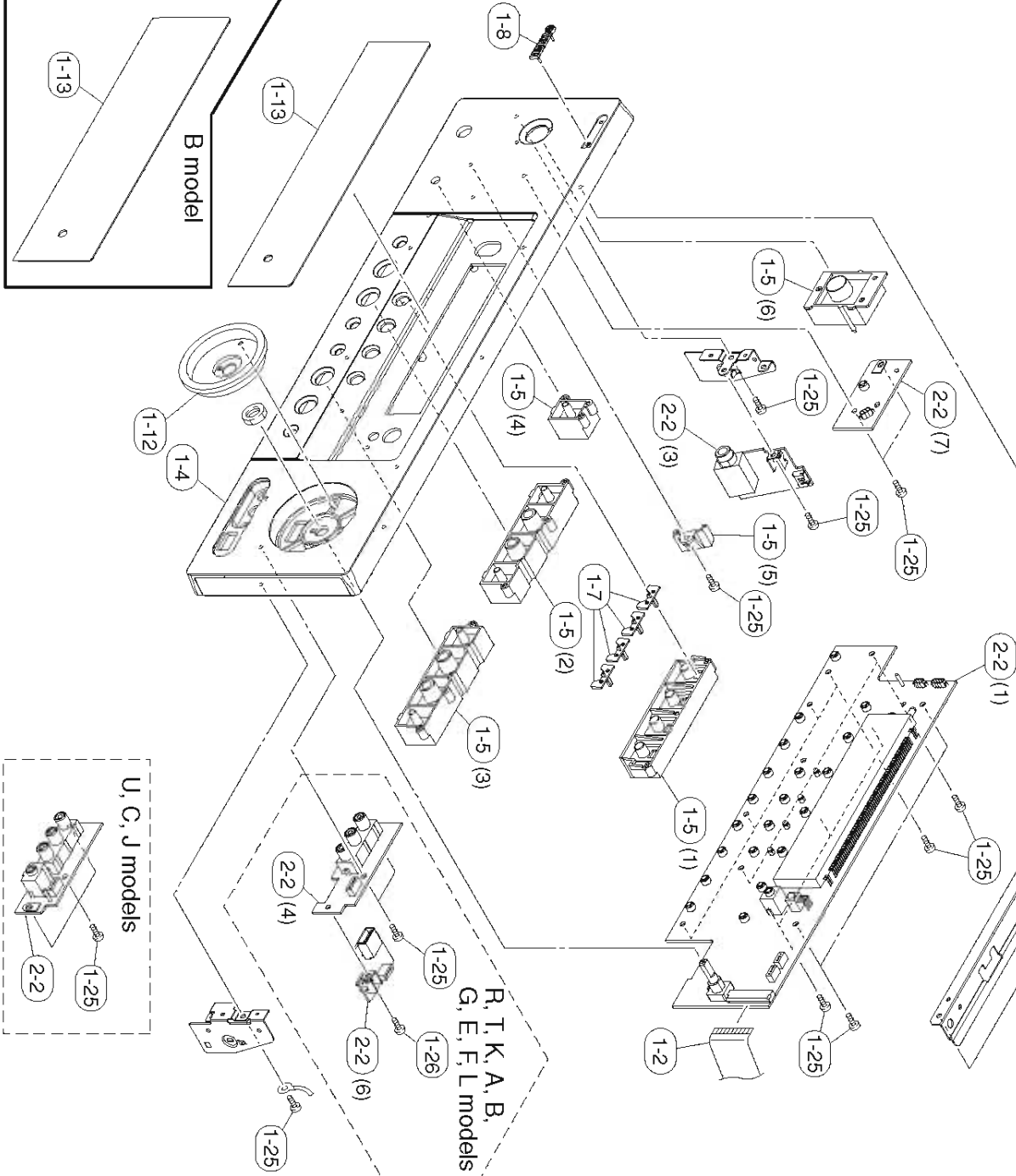
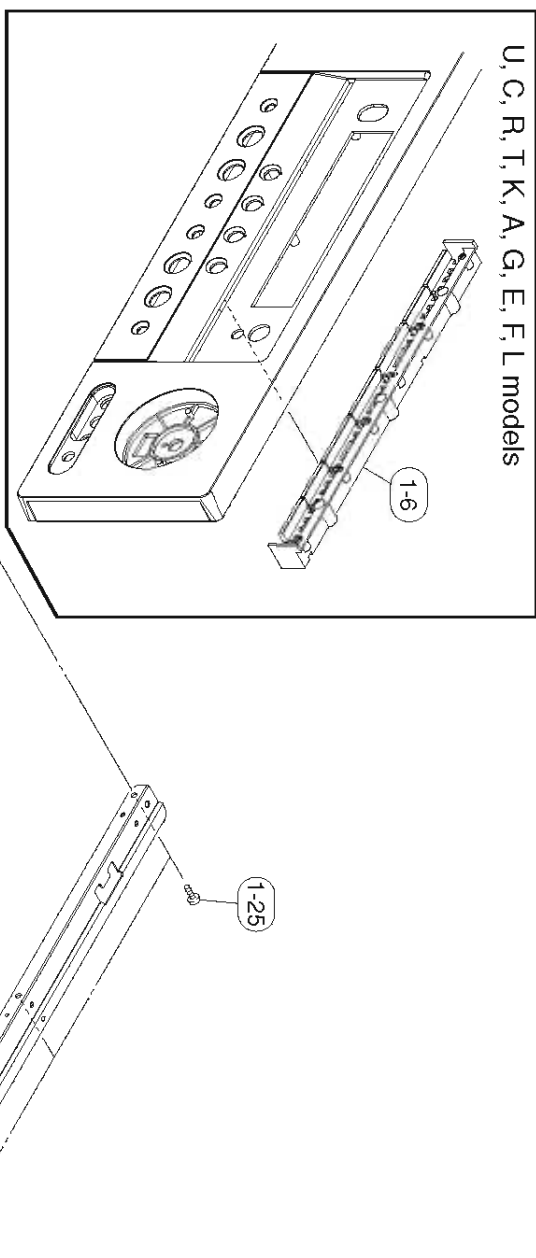
\* New Parts \* 新規部品

| Ref No. | Part No. | Description                  | Remarks           | Markets        | 部 品 名            | ラシク |
|---------|----------|------------------------------|-------------------|----------------|------------------|-----|
| 121     | WM749400 | KNOB D48                     |                   | BL             | ノブ D 4 8         |     |
| *       | WM749600 | KNOB D48                     |                   | TI             | ノブ D 4 8         |     |
| 121     | WM749700 | KNOB D48                     |                   | SI             | ノブ D 4 8         |     |
| 121     | WB408400 | DAMPER                       | 10x30 t=4         |                | ダンパー             |     |
| 151     | WB484700 | DAMPER                       | SCREEN MASK       |                | ダンパー             |     |
| 152     | WM589800 | SHEET TOP                    |                   |                | シート              |     |
| 156     | WM323900 | RIVET TOP                    |                   |                | リベット             |     |
| 157     | WM323900 | RIVET TOP                    |                   |                | リベット             |     |
| 158     | VO368600 | PUSH RIVET                   | P3555-B           |                | プッシュリベット         | 01  |
| 160     | WE774100 | BIND HEAD BONDING B-T. SCREW | 3x8               | MFZN2B3        | ボンドインシグBタイトネジ    | 01  |
| 163     | WE774300 | BIND HEAD B-TIGHT SCREW      | 3x8               | MFZN2K3        | バインドBタイトネジ       | 01  |
| 167     | WE774600 | SCREW IC                     | 3x18              | MFZN2K3        | PWヘッドBタイトネジ      | 01  |
| 170     | WE774700 | BIND HEAD S-TIGHT SCREW      | 4x10              | MFZN2K3        | スクリュー IC         | 01  |
| 171     | VD069600 | PW HEAD S-TIGHT SCREW        | 4x8-10            | MFN133         | バインドSタイトネジ       | 01  |
| 171     | VH313200 | PW HEAD S-TIGHT SCREW        | 4x8-10            | MFN13BL        | PWヘッドSタイトネジ      | 01  |
| 172     | WE200400 | DISH HEAD B-TIGHT SCREW      | 3x6               | MFN133         | DISH Bタイトネジ      | 01  |
| 172     | WE200500 | DISH HEAD B-TIGHT SCREW      | 3x6               | MFN13BL        | DISH Bタイトネジ      | 01  |
|         |          | ACCESSORIES                  |                   |                |                  |     |
| 200     | WM057900 | REMOTE CONTROL               | RAY281            |                | 付属品              |     |
| *       | WM057800 | REMOTE CONTROL               | RAY280            |                | リモコン             |     |
| 200     | WM058000 | REMOTE CONTROL               | RAY282            |                | リモコン             |     |
| 200-1   | AAK82380 | BATTERY COVER                |                   | CG-2209        | 電池蓋              | 03  |
| 202     | WB212500 | INDOOR FM ANTENNA            | 1.4m 1pc          |                | FM簡易アンテナ         | 03  |
| 202     | WB212400 | INDOOR FM ANTENNA            | 1.4m 1pc          |                | FM簡易アンテナ         |     |
| 203     | WB212600 | AM LOOP ANTENNA              | 1.0m 1pc          |                | AMループアンテナ        | 04  |
| 204     | WM649600 | OPTIMIZER MICROPHONE BATTERY | 6.0m 1pc          | EM6022L-HM1700 | オプティマイザーマイク単4乾電池 |     |
|         |          |                              | R03,AAA,UM-4 2pcs |                |                  |     |

\* New Parts \* 新規部品

• FRONT PANEL UNIT

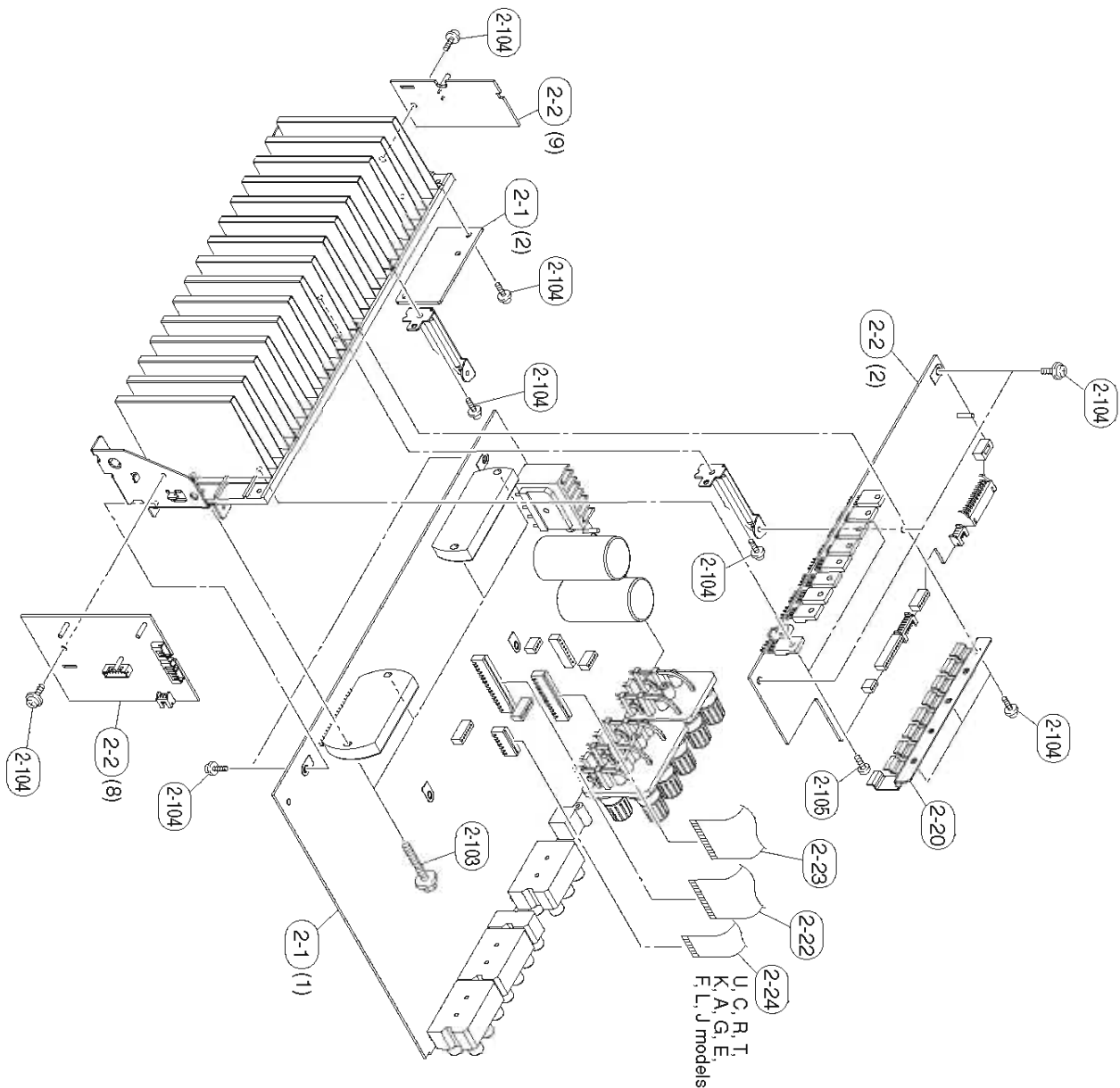
U, C, R, T, K, A, G, E, F, L models



| Ref.No. | Part No. | Description              | Remarks          | Markets     | 部 品 名         | ラック |
|---------|----------|--------------------------|------------------|-------------|---------------|-----|
| 1-2     | MF124250 | FLEXIBLE FLAT CABLE      | 24P 250mm P=1.25 |             | カード電線 C&C     | 03  |
| 1-4     | NM753000 | FRONT PANEL              | AX463GD          | J           | フロントパネル       |     |
| *       |          |                          |                  | RT          | フロントパネル       |     |
| *       | NM752900 | FRONT PANEL              | V463GD           | J           | フロントパネル       |     |
| *       | NM751800 | FRONT PANEL              | AX463BL          | UC          | フロントパネル       |     |
| *       | NM751600 | FRONT PANEL              | V463BL           | PAGEF       | フロントパネル       |     |
| *       | NM751700 | FRONT PANEL              | AX463BL          | B           | フロントパネル       |     |
| *       | NM994600 | FRONT PANEL              | V463TI           | J           | フロントパネル       |     |
| *       | NM753900 | FRONT PANEL              | AX463SI          | AL          | フロントパネル       |     |
| *       | NM995000 | FRONT PANEL              | V463SI           | UC          | フロントパネル       |     |
| *       | NM994900 | FRONT PANEL              | 6140GD           | GF          | フロントパネル       |     |
| *       | NM751900 | FRONT PANEL              | 6140BL           | K           | フロントパネル       |     |
| *       | NM752000 | FRONT PANEL              | 6140SI           | GEF         | フロントパネル       |     |
| *       | NM995100 | FRONT PANEL              | 6140SI           |             | フロントパネル       |     |
| 1-4     | NM754500 | FRONT PANEL              | GD               |             | フロントパネル       |     |
| 1-5     | KJ192500 | BUTTON CASE              | BL               |             | ボタシケース        | 04  |
| 1-5     | KJ192300 | BUTTON CASE              | TI               |             | ボタシケース        |     |
| 1-5     | KJ192700 | BUTTON CASE              | SI               |             | ボタシケース        |     |
| 1-6     | KJ192800 | BUTTON TUNER             |                  | JUCRTKAGEFL | ボタシチューナー      | 04  |
| 1-7     | KJ193200 | LENS BUTTON              | GD               |             | ボタシレンズ        | 02  |
| 1-8     | KJ193400 | EMBLEM GD                | BL, TI, SI       |             | エンブレムGD       | 02  |
| 1-8     | KJ193300 | EMBLEM BL                |                  |             | エンブレムBL       |     |
| 1-12    | NM750100 | ESCUTCHEON VOL           | GD               |             | エスカッションVOL    |     |
| *       | NM750000 | ESCUTCHEON VOL           | BL               |             | エスカッションVOL    |     |
| *       | NM750200 | ESCUTCHEON VOL           | TI               |             | エスカッションVOL    |     |
| *       | NM750300 | ESCUTCHEON VOL           | SI               |             | エスカッションVOL    |     |
| *       | NM750800 | SHEET WINDOW             |                  | JRTKAGEFL   | シートウインドウ      |     |
| *       | NM761700 | SHEET WINDOW             |                  | UC          | シートウインドウ      |     |
| 1-13    | NM750500 | SHEET WINDOW             |                  | B           | シートウインドウ      |     |
| 1-25    | ME774800 | BLIND HEAD P-TIGHT SCREW | 3x8              |             | バインドPタイトネジ    | 01  |
| 1-26    | MF268000 | BLIND HEAD P-TIGHT SCREW | 3x10             | RTKABGEFL   | バインドPタイトネジ    | 01  |
| 2-2     | NM278400 | P.C.B. ASSY              | OPERATION        | J           | PCB OPERATION |     |
| 2-2     | NM278500 | P.C.B. ASSY              | OPERATION        | UC          | PCB OPERATION |     |
| 2-2     | NM278600 | P.C.B. ASSY              | OPERATION        | RTKAGEFL    | PCB OPERATION |     |
| 2-2     | NM278700 | P.C.B. ASSY              | OPERATION        | B           | PCB OPERATION |     |

|  | A | B | C | D | E | F | G | H | I | J |
|--|---|---|---|---|---|---|---|---|---|---|
|--|---|---|---|---|---|---|---|---|---|---|

• AMP UNIT



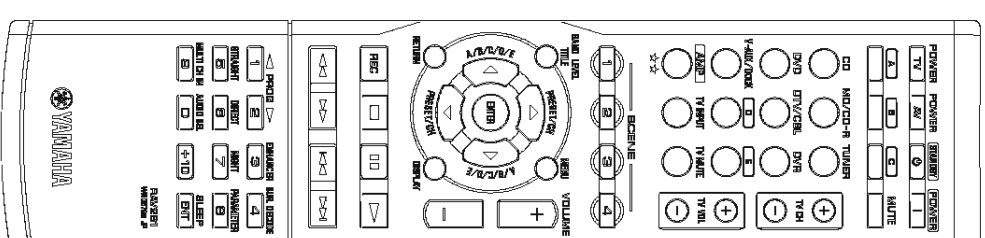
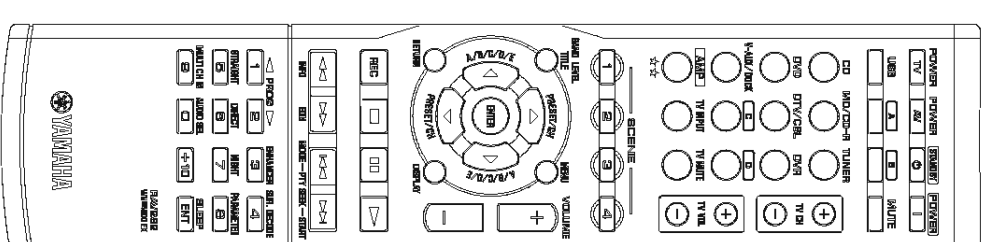
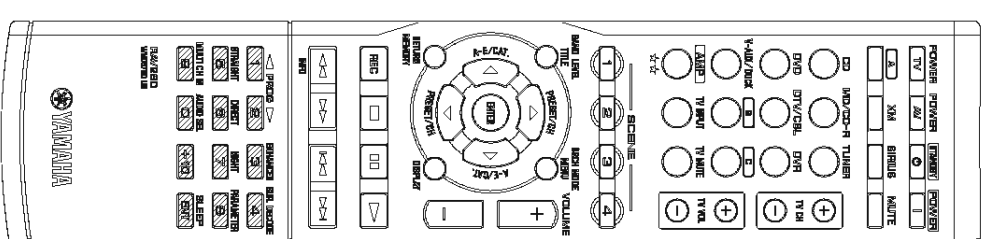
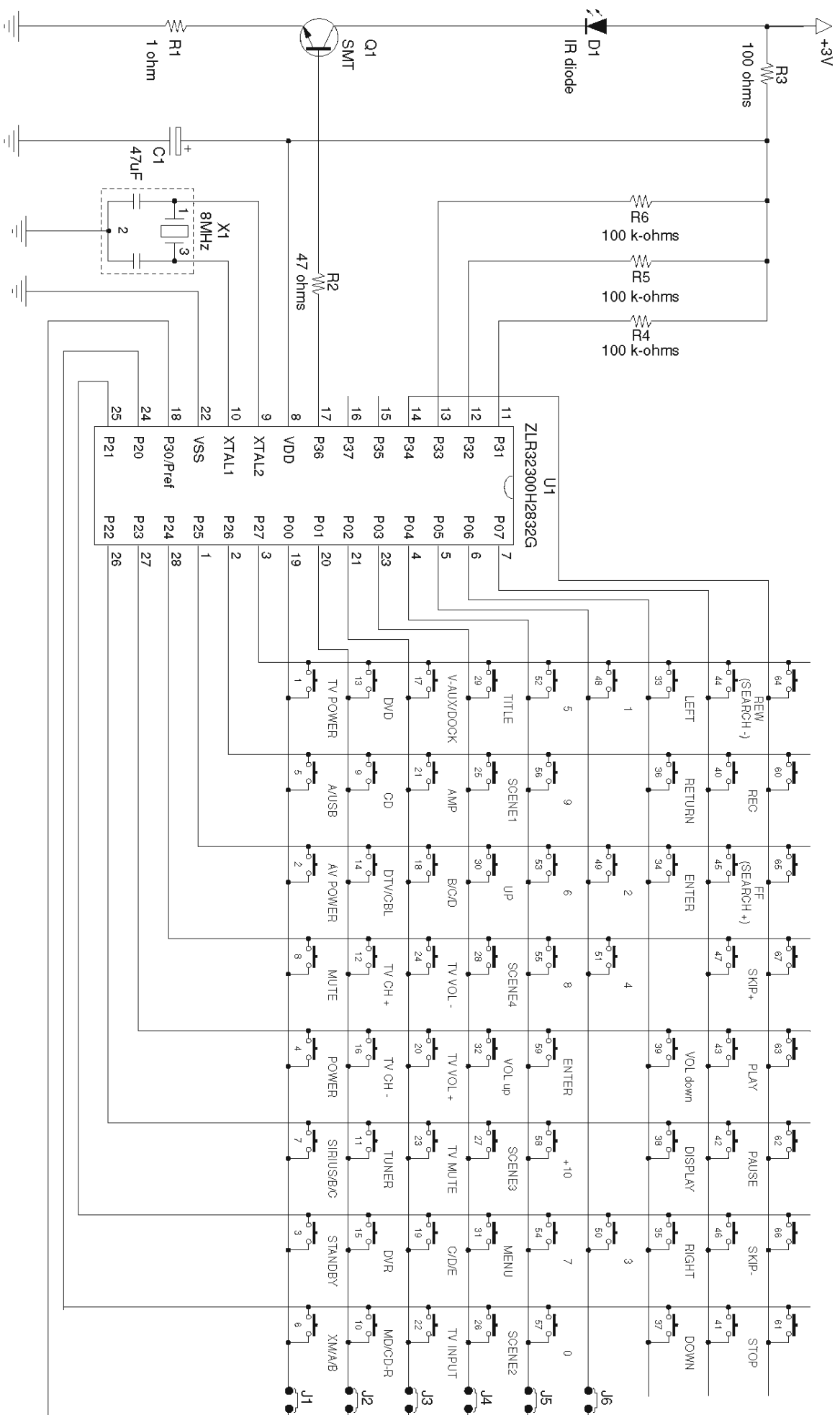
| Ref No. | Part No. | Description             | Remarks | Markets     | 部 品 名                     | ランク |
|---------|----------|-------------------------|---------|-------------|---------------------------|-----|
| * 2-1   | WN272700 | P.C.B. ASS'Y            |         | JUCRTA      | P C B   M A I N           |     |
| * 2-1   | WN272900 | P.C.B. ASS'Y            |         | KL          | P C B   M A I N           |     |
| * 2-1   | WN273000 | P.C.B. ASS'Y            |         | B           | P C B   M A I N           |     |
| * 2-1   | WN273100 | P.C.B. ASS'Y            |         | GEF         | P C B   M A I N           |     |
| * 2-2   | WN278400 | P.C.B. ASS'Y            |         | J           | P C B   O P E R A T I O N |     |
| * 2-2   | WN278500 | P.C.B. ASS'Y            |         | UC          | P C B   O P E R A T I O N |     |
| * 2-2   | WN278600 | P.C.B. ASS'Y            |         | RTKAGEFL    | P C B   O P E R A T I O N |     |
| * 2-2   | WN278700 | P.C.B. ASS'Y            |         | B           | P C B   O P E R A T I O N |     |
| 2-20    | MM749200 | SUPPORT TR-8P           |         |             | サポ ー ト ト ラ ー 8 P          |     |
| 2-22    | MF131120 | FLEXIBLE FLAT CABLE     |         |             | カー ド 電 線   C & C          | 03  |
| 2-23    | MF126100 | FLEXIBLE FLAT CABLE     |         |             | カー ド 電 線   C & C          | 01  |
| 2-24    | MF113160 | FLEXIBLE FLAT CABLE     |         |             | カー ド 電 線   C & C          | 01  |
| 2-103   | ME774600 | SCREW IC                |         | JUCRTKAGEFL | ス ク リ ュ ー   I C           | 01  |
| 2-104   | MF002600 | PW HEAD B-TIGHT SCREW   |         |             | P W ヘ ッ ド B タ イ ト ネ ジ     | 01  |
| 2-105   | ME774300 | BIND HEAD B-TIGHT SCREW |         |             | バ イ ン ド B タ イ ト ネ ジ       | 01  |

\* New Parts   \* 新規部品

## ■ REMOTE CONTROL

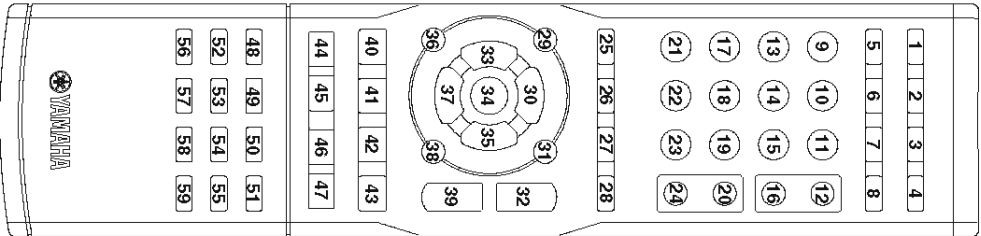
- RAV280 (U, C models), RAV282 (R, T, K, A, B, G, E, F, L models), RAV281 (J model)
- SCHEMATIC DIAGRAM

- **PANELS**

RAV280  
(U, C models)RAV282  
(R, T, K, A, B, G, E, F, L  
models)RAV281  
(J model)

|    | RAV280 | RAV281 | RAV282 |
|----|--------|--------|--------|
| J1 | O      | X      | X      |
| J2 | X      | O      | X      |
| J3 | X      | X      | O      |
| J4 | X      | X      | X      |
| J5 | X      | X      | X      |
| J6 | X      | X      | X      |

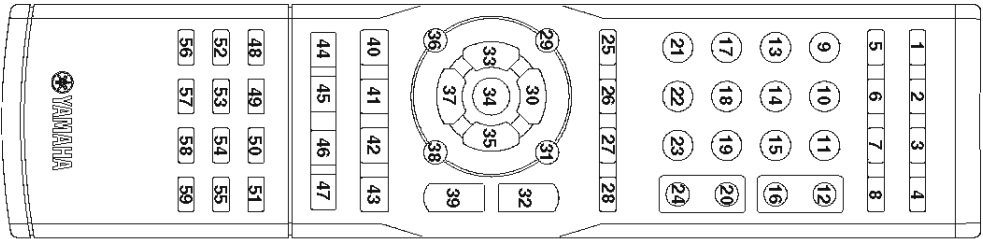
• KEY LAYOUT



• IR CODE

| Key no. | Label               | Common | ZONE2 code | K21 [AMP]     |          |           |           | K5 [USB] RAV282 | K6 [XM] RAV280 | K7 [SIRIUS] RAV280 | K9 [CD]    | K10 [MD/CD-R] | K13 [DVD]  | K14 [DVD/CBL] | K15 [DVR]  | K17 [V-AUX] | K18 [VCR]    | K19 [PHONO]  |
|---------|---------------------|--------|------------|---------------|----------|-----------|-----------|-----------------|----------------|--------------------|------------|---------------|------------|---------------|------------|-------------|--------------|--------------|
|         |                     |        |            | ID1 (default) |          | ID2       |           |                 |                |                    |            |               |            |               |            |             |              |              |
|         |                     |        |            | MAIN          | ZONE2    | MAIN      | ZONE2     |                 |                |                    |            |               |            |               |            |             |              |              |
| 1       | POWER TV            | -      | -          |               |          |           |           | (TV POWER)      | (TV POWER)     | (TV POWER)         | (TV POWER) | (TV POWER)    | (TV POWER) | (TV POWER)    | (TV POWER) | (TV POWER)  | (TV POWER)   | (TV POWER)   |
| 2       | POWER AV            | -      | -          | 7E-7F         | 7E-BB    | 7E-7B81   | 7E-BB45   | 7F01-20         | -              | 7F01-D0            | 7F01-D02E  | 7F-80         | 7C-80      | DVR POWER     | 048 012    | 7F01-00     | -            | DVR POWER    |
| 3       | STANDBY             | -      | -          | 7E-7E         | 7E-BA    | 7E-7E80   | 7E-BA44   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 4       | POWER               | -      | -          | 7F01-3F       | 7F01-40  | 7F01-3FC1 | 7F01-40BE | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 5       | A (RAV280, RAV281)  | -      | -          |               |          |           |           |                 |                |                    |            |               |            |               |            |             |              |              |
| 6       | USB (RAV282)        | -      | -          |               |          |           |           |                 |                |                    |            |               |            |               |            |             |              |              |
| 7       | A (RAV281)          | -      | -          | 7A-B4         | 7A-B8    | 7A-B44A   | 7A-B846   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 8       | SIRIUS (RAV280)     | -      | -          |               |          |           |           |                 |                |                    |            |               |            |               |            |             |              |              |
| 9       | C (RAV281)          | -      | -          | 7A-39         | 7A-3A    | 7A-39C7   | 7A-3AC4   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 10      | MUTE                | -      | -          |               |          |           |           |                 |                |                    |            |               |            |               |            |             |              |              |
| 11      | CD                  | -      | -          | 7A-1C         | 7A-DC    | 7A-1CE2   | 7A-DC22   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 12      | MD/CD-R             | -      | -          | 7A-15         | 7A-D1    | 7A-15EB   | 7A-D12F   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 13      | TUNER               | -      | -          | 7A-09         | 7A-0F    | 7A-0937   | 7A-0F31   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 14      | DVD                 | -      | -          | 7A-16         | 7A-D2    | 7A-16EB   | 7A-D22C   | (TV CH +)       | (TV CH +)      | (TV CH +)          | (TV CH +)  | (TV CH +)     | (TV CH +)  | (TV CH +)     | (TV CH +)  | (TV CH +)   | (TV CH +)    | (TV CH +)    |
| 15      | TV CH -             | -      | -          | 7A-01         | 7A-0D    | 7A-013F   | 7A-0D38   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 16      | V-AUX/DIGOCK        | -      | -          | 7A-09         | 7A-D9    | 7A-094A   | 7A-D927   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 17      | B (RAV280)          | -      | -          | 7A-13         | 7A-D7    | 7A-13ED   | 7A-D729   | (TV CH -)       | (TV CH -)      | (TV CH -)          | (TV CH -)  | (TV CH -)     | (TV CH -)  | (TV CH -)     | (TV CH -)  | (TV CH -)   | (TV CH -)    | (TV CH -)    |
| 18      | D (RAV281)          | -      | -          | 7A-55         | 7A-D8    | 7A-55AB   | 7A-D826   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 19      | C (RAV282)          | -      | -          | 7A-0F         | 7A-D6    | 7A-0FF1   | 7A-D628   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 20      | D (RAV283)          | -      | -          |               |          |           |           | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 21      | AMP / *+*           | -      | -          | 7A-14         | 7A-D0    | 7A-14EA   | 7A-D02E   | (TV VOL +)      | (TV VOL +)     | (TV VOL +)         | (TV VOL +) | (TV VOL +)    | (TV VOL +) | (TV VOL +)    | (TV VOL +) | (TV VOL +)  | (TV VOL +)   | (TV VOL +)   |
| 22      | TV INPUT            | -      | -          |               |          |           |           | (TV INPUT)      | (TV INPUT)     | (TV INPUT)         | (TV INPUT) | (TV INPUT)    | (TV INPUT) | (TV INPUT)    | (TV INPUT) | (TV INPUT)  | (TV INPUT)   | (TV INPUT)   |
| 23      | TV MUTE             | -      | -          |               |          |           |           | (TV MUTE)       | (TV MUTE)      | (TV MUTE)          | (TV MUTE)  | (TV MUTE)     | (TV MUTE)  | (TV MUTE)     | (TV MUTE)  | (TV MUTE)   | (TV MUTE)    | (TV MUTE)    |
| 24      | TV VOL -            | -      | -          | 7A-007F       | 7A-017E  | 7A-007E   | 7A-017F   | (TV VOL -)      | (TV VOL -)     | (TV VOL -)         | (TV VOL -) | (TV VOL -)    | (TV VOL -) | (TV VOL -)    | (TV VOL -) | (TV VOL -)  | (TV VOL -)   | (TV VOL -)   |
| 25      | SCENE 1             | -      | -          | 7A-037C       | 7A-047B  | 7A-037A   | 7A-047A   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 26      | SCENE 2             | -      | -          | 7A-0679       | 7A-0778  | 7A-0678   | 7A-077A   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 27      | SCENE 3             | -      | -          | 7A-0976       | 7A-0A75  | 7A-0977   | 7A-0A7A   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 28      | SCENE 4             | -      | -          | 7A-86         | 7A-87    | 7A-8678   | 7A-8778   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 29      | BAND LEVEL / TITLE  | -      | -          | 7A-9D         | 7A-9E    | 7A-9D53   | 7A-9E53   | 7F01-2D         | 7A-70          | 7F01-DD            | 7F01-DD23  | -             | -          | 7A-AE         | 7A-AE50    | 7C-81       | -            | -            |
| 30      | PRESET / CH (UP)    | -      | -          | 7A-84         | 7A-8A    | 7A-847A   | 7A-8A7A   | 7F01-2E         | 7A-6A          | 7F01-E1            | 7F01-E11F  | -             | -          | 7A-10         | 7A-10EE    | 7C-84       | -            | -            |
| 31      | SRC MODE / MENU     | -      | -          | 7A-1A         | 7A-DA    | 7A-1AE4   | 7A-DA24   | 7F01-2F         | 7A-6D          | 7F01-DE            | 7F01-DE20  | -             | -          | 7A-AB         | 7A-B55     | 7C-82       | -            | -            |
| 32      | VOLUME +            | -      | -          | 7A-9F         | 7A-DE    | 7A-9FE1   | 7A-DE20   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 33      | A-E/CAT / A/B/C/D/E | -      | -          | 7A-9E         | 7A-DE    | 7A-9E61   | 7A-DE20   | 7F01-30         | 7A-6E          | 7F01-E2            | 7F01-E21C  | -             | -          | 7A-AC         | 7A-AC32    | 7C-B5       | -            | -            |
| 34      | ENTER               | -      | -          | 7A-9E         | 7A-DE    | 7A-9E60   | 7A-DE20   | 7F01-31         | 7A-6F          | 7F01-E3            | 7F01-E31D  | -             | -          | 7A-AD         | 7A-AD53    | 7C-B8       | -            | -            |
| 35      | A-E/CAT / A/B/C/D/E | -      | -          | 7A-9E         | 7A-DE    | 7A-9E60   | 7A-DE20   | 7F01-32         | 7A-6C          | 7F01-E4            | 7F01-E41A  | -             | -          | 7A-12         | 7A-12EC    | 7C-B6       | -            | -            |
| 36      | RETURN / MEMORY     | -      | -          | 7A-AA         | 7A-AA    | 7A-AA54   | 7A-AA54   | 7F01-33         | 7A-71          | 7F01-DE            | 7F01-DE21  | -             | -          | 7A-AF         | 7A-AF51    | 7C-B7       | -            | -            |
| 37      | PRESET / CH (DOWN)  | -      | -          | 7A-9C         | 7A-9C    | 7A-9C62   | 7A-9C62   | 7F01-34         | 7A-6B          | 7F01-E5            | 7F01-E51E  | -             | -          | 7A-11         | 7A-11EF    | 7C-B3       | -            | -            |
| 38      | DISPLAY             | -      | -          | 7A-9C         | 7A-9C    | 7A-9C62   | 7A-9C62   | 7F01-35         | 7A-72          | 7F01-E6            | 7F01-E61E  | -             | -          | 7A-B0         | 7A-B04E    | 7C-A6       | -            | -            |
| 39      | VOLUME -            | -      | -          | 7A-1B         | 7A-DB    | 7A-1BE5   | 7A-DB25   | -               | -              | -                  | -          | -             | -          | -             | -          | -           | -            | -            |
| 40      | REC                 | -      | -          | (device)      | (device) | (device)  | (device)  | 7F01-36         | -              | 7F01-E6            | 7F01-E618  | -             | -          | -             | -          | 7C-8E       | (DVR REC)    | (DVR REC)    |
| 41      | STOP                | -      | -          | (device)      | (device) | (device)  | (device)  | 7F01-3D         | -              | 7F01-E9            | 7F01-E917  | -             | -          | -             | -          | 7C-85       | (DVR STOP)   | (DVR STOP)   |
| 42      | PAUSE               | -      | -          | (device)      | (device) | (device)  | (device)  | 7F01-3A         | -              | 7F01-E7            | 7F01-E719  | -             | -          | -             | -          | 7C-83       | (DVR PAUSE)  | (DVR PAUSE)  |
| 43      | PLAY                | -      | -          | (device)      | (device) | (device)  | (device)  | 7F01-3E         | -              | 7F01-E8            | 7F01-E816  | -             | -          | -             | -          | 7C-82       | (DVR PLAY)   | (DVR PLAY)   |
| 44      | REW / INFO          | -      | -          | (device)      | (device) | (device)  | (device)  | 7F01-37         | 7A-3D          | 7F01-EA            | 7F01-EA14  | -             | -          | 7A-A4         | 7A-A45A    | 7C-87       | (DVR REW)    | (DVR REW)    |
| 45      | FF                  | -      | -          | (device)      | (device) | (device)  | (device)  | 7F01-38         | 7A-3E          | 7F01-EB            | 7F01-EB15  | -             | -          | 7A-A5         | 7A-A55B    | 7C-87       | (DVR FFI)    | (DVR FFI)    |
| 46      | PT / SEEK-MODE      | -      | -          | (device)      | (device) | (device)  | (device)  | 7F01-3B         | 7A-3F          | 7F01-EC            | 7F01-EC12  | -             | -          | 7A-A6         | 7A-A658    | 7C-B9       | (DVR SKIP -) | (DVR SKIP -) |
| 47      | PT / SEEK-START     | -      | -          | (device)      | (device) | (device)  | (device)  | 7F01-3C         | 7A-EF          | 7F01-ED            | 7F01-ED13  | -             | -          | 7A-A7         | 7A-A759    | 7C-BA       | (DVR SKIP +) | (DVR SKIP +) |
| 48      | 1-PRG               | -      | -          | 7A-59         | 7A-59    | 7A-59A7   | 7A-59A7   | 7F01-21         | 7A-61          | 7F01-D1            | 7F01-D12F  | 7F-11         | 7C-94      | 7A-E5         | 7A-E518    | 7C-94       | -            | -            |
| 49      | 2-PRG               | -      | -          | 7A-59         | 7A-59    | 7A-59A7   | 7A-59A7   | 7F01-22         | 7A-62          | 7F01-D2            | 7F01-D22C  | 7F-12         | 7C-95      | 7A-E7         | 7A-E718    | 7C-95       | -            | -            |
| 50      | 3-ENHANCER          | -      | -          | 7A-8D         | 7A-8D    | 7A-8D73   | 7A-8D73   | 7F01-23         | 7A-63          | 7F01-D3            | 7F01-D32C  | 7F-13         | 7C-96      | 7A-E9         | 7A-E918    | 7C-96       | -            | -            |
| 51      | 4-SUR DECODE        | -      | -          | 7A-8D         | 7A-8D    | 7A-8D73   | 7A-8D73   | 7F01-24         | 7A-64          | 7F01-D4            | 7F01-D42A  | 7F-14         | 7C-97      | 7A-E9         | 7A-E916    | 7C-97       | -            | -            |
| 52      | 5-STRAIGHT          | -      | -          | 7A-8D         | 7A-8D    | 7A-8D73   | 7A-8D73   | 7F01-25         | 7A-65          | 7F01-D5            | 7F01-D52B  | 7F-15         | 7C-98      | 7A-E9         | 7A-E917    | 7C-98       | -            | -            |
| 53      | 6-DIRECT            | -      | -          | 7A-95         | 7A-95    | 7A-9568   | 7A-9568   | 7F01-26         | 7A-66          | 7F01-D6            | 7F01-D628  | 7F-16         | 7C-99      | 7A-EA         | 7A-EA14    | 7C-99       | -            | -            |
| 54      | 7-NIGHT             | -      | -          | 7A-95         | 7A-95    | 7A-9568   | 7A-9568   | 7F01-27         | 7A-67          | 7F01-D7            | 7F01-D729  | 7F-17         | 7C-9A      | 7A-EA         | 7A-EA15    | 7C-9A       | -            | -            |
| 55      | 8-PARAMETER         | -      | -          | 7A-87         | 7A-87    | 7A-8729   | 7A-8729   | 7F01-28         | 7A-68          | 7F01-D8            | 7F01-D826  | 7F-18         | 7C-9B      | 7A-EC         | 7A-EC12    | 7C-9B       | -            | -            |
| 56      | 9-MULTI CH IN       | -      | -          | 7A-87         | 7A-87    | 7A-8729   | 7A-8729   | 7F01-29         | 7A-69          | 7F01-D9            | 7F01-D927  | 7F-19         | 7C-9C      | 7A-B1         | 7A-B14F    | 7C-9C       | -            | -            |
| 57      | 10-AUDIO SEL        | -      | -          | 7A-03         | 7A-03    | 7A-033D   | 7A-033D   | 7F01-2A         | 7A-60          | 7F01-DA            | 7F01-DA2A  | 7F-1A         | 7C-9D      | 7A-B2         | 7A-B24D    | 7C-9D       | -            | -            |
| 58      | +10                 | -      | -          | -             | -        | -         | -         | 7F01-2B         | -              | 7F01-DB            | 7F01-DB25  | 7F-1A         | 7C-9E      | -             | -          | 7F01-0A     | -            | -            |
| 59      | ENT SLEEP           | -      | -          | AMP           | AMP      | AMP       | AMP       | 7F01-2C         | 7A-BF          | 7F01-DC            | 7F01-DC22  | 7F-0B         | 7C-9F      | 7A-B3         | 7A-B34D    | 7C-9F       | -            | -            |
|         | default             | -      | -          | Brand         | Brand    | Brand     | Brand     | TUNER           | TUNER          | TUNER              | TUNER      | CD            | CD-R       | TUNER         | TUNER      | TUNER       | -            | -            |
|         | Preset number       | -      | -          | Yamaha-1      | Yamaha-1 | Yamaha-2  | Yamaha-2  | Yamaha-8        | Yamaha-5       | Yamaha-11          | Yamaha-9   | Yamaha-10     | Yamaha-1   | Yamaha        | Yamaha-3   | Yamaha-12   | Yamaha-1     | Yamaha-7     |
|         | setting             | -      | -          | [5019]        | [5020]   | [5020]    | [5020]    | 3012            | 3009           | 3015               | 3017       | 3018          | 3013       | 3001          | 3007       | 3016        | 2000         | 3011         |

• FUNCTION CHART



| Key no. | Label               | K21              | K5                        | K6                        | K7                          | K9              | K10                  | K11                | K13              | K14                  | K15              | K17                | K18              | K19                |
|---------|---------------------|------------------|---------------------------|---------------------------|-----------------------------|-----------------|----------------------|--------------------|------------------|----------------------|------------------|--------------------|------------------|--------------------|
| 1       | POWER TV            | [AMP] (TV POWER) | [USB] (A/V282) (TV POWER) | [X.M] (A/V280) (TV POWER) | [S.FUS] (A/V280) (TV POWER) | [CD] (TV POWER) | [MD/CD-R] (TV POWER) | [TUNER] (TV POWER) | [DVD] (TV POWER) | [DVR/CBL] (TV POWER) | [DVR] (TV POWER) | [V-AUX] (TV POWER) | [VCH] (TV POWER) | [PHONO] (TV POWER) |
| 2       | POWER AV            | (device)         | POWER                     | POWER                     | POWER                       | POWER           | POWER                | POWER              | POWER            | (DVR POWER)          | POWER            | POWER              | POWER            | TV POWER           |
| 12      | TV CH +             | (TV CH +)        | (TV CH +)                 | (TV CH +)                 | (TV CH +)                   | (TV CH +)       | (TV CH +)            | (TV CH +)          | (TV CH +)        | (TV CH +)            | (TV CH +)        | (TV CH +)          | (TV CH +)        | (TV CH +)          |
| 16      | TV CH -             | (TV CH -)        | (TV CH -)                 | (TV CH -)                 | (TV CH -)                   | (TV CH -)       | (TV CH -)            | (TV CH -)          | (TV CH -)        | (TV CH -)            | (TV CH -)        | (TV CH -)          | (TV CH -)        | (TV CH -)          |
| 20      | TV VOL +            | (TV VOL +)       | (TV VOL +)                | (TV VOL +)                | (TV VOL +)                  | (TV VOL +)      | (TV VOL +)           | (TV VOL +)         | (TV VOL +)       | (TV VOL +)           | (TV VOL +)       | (TV VOL +)         | (TV VOL +)       | (TV VOL +)         |
| 22      | TV INPUT            | (TV INPUT)       | (TV INPUT)                | (TV INPUT)                | (TV INPUT)                  | (TV INPUT)      | (TV INPUT)           | (TV INPUT)         | (TV INPUT)       | (TV INPUT)           | (TV INPUT)       | (TV INPUT)         | (TV INPUT)       | (TV INPUT)         |
| 23      | TV MUTE             | (TV MUTE)        | (TV MUTE)                 | (TV MUTE)                 | (TV MUTE)                   | (TV MUTE)       | (TV MUTE)            | (TV MUTE)          | (TV MUTE)        | (TV MUTE)            | (TV MUTE)        | (TV MUTE)          | (TV MUTE)        | (TV MUTE)          |
| 24      | TV VOL -            | (TV VOL -)       | (TV VOL -)                | (TV VOL -)                | (TV VOL -)                  | (TV VOL -)      | (TV VOL -)           | (TV VOL -)         | (TV VOL -)       | (TV VOL -)           | (TV VOL -)       | (TV VOL -)         | (TV VOL -)       | (TV VOL -)         |
| 25      | SCENE 1             |                  |                           |                           |                             |                 |                      |                    |                  |                      |                  |                    |                  |                    |
| 26      | SCENE 2             |                  |                           |                           |                             |                 |                      |                    |                  |                      |                  |                    |                  |                    |
| 27      | SCENE 3             |                  |                           |                           |                             |                 |                      |                    |                  |                      |                  |                    |                  |                    |
| 28      | SCENE 4             |                  |                           |                           |                             |                 |                      |                    |                  |                      |                  |                    |                  |                    |
| 29      | BAND LEVEL / TITLE  | LEVEL            | TITLE                     | BAND                      | TITLE                       | -               | -                    | BAND               | TITLE            | TITLE                | TITLE            | TITLE              | TITLE            | TITLE              |
| 30      | PRESETCH ▲ (UP)     | MENU UP          | UP                        | PRESET (+)                | UP                          | -               | -                    | PRESET (+)         | MENU UP          | MENU UP              | MENU UP          | PRESET (+)         | -                | MENU UP            |
| 31      | SCCH MODE / MENU    | MENU             | MENU                      | SCCH MODE                 | SCCH MODE                   | -               | -                    | SCCH MODE          | MENU             | MENU                 | MENU             | SCCH MODE          | -                | MENU               |
| 32      | VOLUME +            |                  |                           |                           |                             |                 |                      |                    |                  |                      |                  |                    |                  |                    |
| 33      | A-E/CAT / A/B/C/D/E | MENU LEFT        | LEFT                      | A-E/CAT (-)               | LEFT                        | -               | -                    | A-E/CAT (-)        | MENU LEFT        | MENU LEFT            | MUTE LEFT        | A-E/CAT (-)        | -                | MENU LEFT          |
| 34      | ENTER               | MENU SELECT      | ENTER                     | ENTER                     | ENTER                       | -               | -                    | ENTER              | MENU ENTER       | MENU ENTER           | MENU ENTER       | ENTER              | -                | MENU ENTER         |
| 35      | A-E/CAT / A/B/C/D/E | MENU RIGHT       | RIGHT                     | A-E/CAT (+)               | RIGHT                       | -               | -                    | A-E/CAT (+)        | MENU RIGHT       | MENU RIGHT           | MENU RIGHT       | A-E/CAT (+)        | -                | MENU RIGHT         |
| 36      | RETURN / MEMORY     | RETURN           | RETURN                    | MEMORY                    | MEMORY                      | -               | -                    | MEMORY             | RETURN           | RETURN               | RETURN           | MEMORY             | -                | RETURN             |
| 37      | PRESETCH ▼ (DOWN)   | MENU DOWN        | DOWN                      | PRESET (-)                | DOWN                        | -               | -                    | PRESET (-)         | MENU DOWN        | MENU DOWN            | MENU DOWN        | PRESET (-)         | -                | MENU DOWN          |
| 38      | DISPLAY             | SUB MENU         | DISPLAY                   | DISPLAY                   | DISPLAY                     | DISPLAY         | DISPLAY              | DISPLAY            | DISPLAY          | DISPLAY              | DISPLAY          | DISPLAY            | -                | DISPLAY            |
| 39      | VOLUME -            |                  |                           |                           |                             |                 |                      |                    |                  |                      |                  |                    |                  |                    |
| 40      | REC                 | (device)         | -                         | -                         | REC                         | DISC SKIP       | REC                  | -                  | DISC SKIP        | (DVR REC)            | REC              | -                  | -                | REC                |
| 41      | STOP                | (device)         | STOP                      | -                         | STOP                        | STOP            | STOP                 | -                  | STOP             | (DVR STOP)           | STOP             | -                  | -                | (DVR STOP)         |
| 42      | PAUSE               | (device)         | PAUSE                     | -                         | PAUSE                       | PAUSE           | PAUSE                | -                  | PAUSE            | (DVR PAUSE)          | PAUSE            | -                  | -                | (DVR PAUSE)        |
| 43      | PLAY                | (device)         | PLAY                      | -                         | PLAY                        | PLAY            | PLAY                 | -                  | PLAY             | (DVR PLAY)           | PLAY             | -                  | -                | (DVR PLAY)         |
| 44      | REW                 | (device)         | -                         | INFO                      | REW                         | REW             | REW                  | INFO               | REW              | (DVR REW)            | REW              | INFO               | -                | (DVR REW)          |
| 45      | FF                  | (device)         | -                         | EON                       | FF                          | FF              | FF                   | EON                | FF               | (DVR FF)             | FF               | EON                | -                | (DVR FF)           |
| 46      | PTY-SEEK-MODE       | (device)         | SKIP (-)                  | PTY MODE                  | SKIP (-)                    | SKIP (-)        | SKIP (-)             | PTY MODE           | SKIP (-)         | (DVR SKIP -)         | SKIP (-)         | PTY MODE           | -                | (DVR SKIP -)       |
| 47      | ▶\SKIP +            | (device)         | SKIP (+)                  | PTY START                 | SKIP (+)                    | SKIP (+)        | SKIP (+)             | PTY START          | SKIP (+)         | (DVR SKIP +)         | SKIP (+)         | PTY START          | -                | (DVR SKIP +)       |
| 48      | 1. ◀ PRG            | PROG (-)         | P1                        | P1                        | 1                           | 1               | 1                    | P1                 | 1                | 1                    | 1                | P1                 | 1                | 1                  |
| 49      | 2. PRG ▶            | PROG (+)         | P2                        | P2                        | 2                           | 2               | 2                    | P2                 | 2                | 2                    | 2                | P2                 | 2                | 2                  |
| 50      | 3. ENHANCER         | ENHANCER         | P3                        | P3                        | 3                           | 3               | 3                    | P3                 | 3                | 3                    | 3                | P3                 | 3                | 3                  |
| 51      | 4. SUB DECODE       | SUB DECODE       | P4                        | P4                        | 4                           | 4               | 4                    | P4                 | 4                | 4                    | 4                | P4                 | 4                | 4                  |
| 52      | 5. STRAIGHT         | STRAIGHT         | P5                        | P5                        | 5                           | 5               | 5                    | P5                 | 5                | 5                    | 5                | P5                 | 5                | 5                  |
| 53      | 6. DIRECT           | PURE DIRECT      | P6                        | P6                        | 6                           | 6               | 6                    | P6                 | 6                | 6                    | 6                | P6                 | 6                | 6                  |
| 54      | 7. NIGHT            | NIGHT            | P7                        | P7                        | 7                           | 7               | 7                    | P7                 | 7                | 7                    | 7                | P7                 | 7                | 7                  |
| 55      | 8. PARAMETER        | PARAMETER        | P8                        | P8                        | 8                           | 8               | 8                    | P8                 | 8                | 8                    | 8                | P8                 | 8                | 8                  |
| 56      | 9. MULTICH IN       | MULTICH IN       | P9                        | P9                        | 9                           | 9               | 9                    | P9                 | 9                | 9                    | 9                | P9                 | 9                | 9                  |
| 57      | 0. AUDIO SEL        | AUDIO SEL        | P10                       | P10                       | 0                           | 0               | 0                    | P10                | 0                | 0                    | 0                | P10                | 0                | 0                  |
| 58      | +10                 | -                | -                         | -                         | +10                         | +10             | +10                  | -                  | +10              | +10                  | +10              | -                  | -                | +10                |
| 59      | ENT SLEEP           | SLEEP            | P ENTER                   | P ENTER                   | 12                          | INDEX           | INDEX                | P ENTER            | TITLE/INDEX      | ENTER/12             | TITLE/INDEX      | P ENTER            | ENTER            | ENTER/12           |

Advanced setup

This unit has additional menus that are displayed in the front panel display. The advanced setup menu offers additional operations to adjust and customize the way this unit operates. Change the initial settings (indicated in bold under each parameter) to reflect the needs of your listening environment.

Notes

- Only **STANDBY/ON**, **PROGRAM** <I>/<D>, and **STRAIGHT** are effective while you are using the advanced setup menu.
- No other operations can be made while you are using the advanced setup menu.
- The advanced setup menu is only available in the front panel display.

- 1 Press **STANDBY/ON** to set this unit to the standby mode.
- 2 Press and hold **TONE CONTROL** and then press **STANDBY/ON** to turn on this unit.  
This unit turns on, and the advanced setup menu appears in the front panel display.
- 3 Press **PROGRAM** <I>/<D> to select the parameter you want to adjust.  
The name of the selected parameter appears in the front panel display.
- 4 Press **STRAIGHT** repeatedly to change the selected parameter setting.
- 5 Press **STANDBY/ON** to confirm your selection and set this unit to the standby mode.

⚠  
The settings you made are reflected next time you turn on this unit.

- **Speaker impedance** SP IMP. (U.S.A. and Canada models only)  
Use this feature to set the speaker impedance of this unit so that it matches that of your speakers.  
Choices: **8Ω MIN**, 6Ω MIN  
• Select “8Ω MIN” to set the speaker impedance to 8 Ω.  
• Select “6Ω MIN” to set the speaker impedance to 6 Ω.

| SP IMP. | Speaker        | Impedance level                                      |
|---------|----------------|------------------------------------------------------|
| 8Ω MIN  | Front (A or B) | The impedance of each speaker must be 8 Ω or higher. |
|         | Center         |                                                      |
|         | Surround       |                                                      |
| 6Ω MIN  | Front (A or B) | The impedance of each speaker must be 6 Ω or higher. |
|         | Center         |                                                      |
|         | Surround       |                                                      |

- **SIRIUS Satellite Radio Parental Lock code number reset** SSR PIN  
Use this feature to set the code number for the SIRIUS Satellite Radio Parental Lock feature to the initial factory setting.  
Choices: **RESET**, **CANCEL**  
• Select “RESET” to set the code number to the initial factory setting.  
• Select “CANCEL” to set the code number to the initial factory setting.

Note  
Even if you set “SSR PIN” to “RESET”, this unit does not unlock the locked channels. The initial factory setting of the Parental Lock code number is “0000”.

Advanced setup

- **Tuner frequency step** TU (Asia and General models only)  
Use this feature to set the tuner frequency step according to the frequency spacing in your area.  
Choices: AM10/FM100, **AM9/FM50**  
• Select “AM10/FM100” for North, Central and South America.  
• Select “AM9/FM50” for all other areas.

- **Initializing** INIT.  
Use this feature to reset all the parameters of this unit to the initial factory settings.  
Choices: **CANCEL**, **RESET**  
• Select “CANCEL” not to reset any parameters of this unit.  
• Select “RESET” to reset the parameters of this unit.

Notes  
• This setting completely resets all the parameters of this unit including the “SET MENU” parameters. However, the advanced setup menu parameters will not be initialized.  
• The initial factory settings are activated next time you turn on this unit.

ADVANCED  
OPERATION

English

本機の設定を変更する (ADVANCED SETUP)

フロントパネルディスプレイに表示されるメニューを見ながら、さまざまな項目を設定します。アドバンスドセットアップメニューでは、本機の設定を初期設定に戻したり、リモコンIDを変更したりすることができます。お好みに合わせて、設定を変更してください。

ご注意

- アドバンスドセットアップメニューの操作中は、本体の **STANDBY/ON** キー、**PROGRAM** <I>/<D> キー、**STRAIGHT** キー以外は機能しません。
- アドバンスドセットアップメニューの操作中は、他の操作はできません。
- アドバンスドセットアップメニューはフロントパネルディスプレイでのみ操作できます。

- 1 **STANDBY/ON** キーを押して、本機の電源をスタンバイにする。
- 2 **TONE CONTROL** キーを押しながら、もう一度 **STANDBY/ON** キーを押す。  
本機の電源がオンになり、アドバンスドセットアップメニューがフロントパネルディスプレイに表示されます。
- 3 **STRAIGHT** キーを繰り返し押して、設定したい項目を選ぶ。
- 4 **STANDBY/ON** キーを押して、本機の電源をスタンバイにする。  
変更した設定が保存されます。

⚠  
変更した設定は、次回電源を入れたときから有効になります。

- **初期設定に戻す** INIT.  
変更した設定を初期設定に戻します。  
選択項目：CANCEL、RESET  
初期設定：CANCEL  
• 初期設定に戻さない場合は、「CANCEL」を選んでください。  
• すべてを初期設定に戻すには、「RESET」を選んでください。

ご注意  
• 「SET MENU」の設定を含むすべての設定を初期設定に戻します。ただし、アドバンスドセットアップメニューの設定は初期設定に戻りません。  
• 次回電源をオンにしたときにすべての設定が初期設定に戻ります。

**RX-V463/HTR-6140/  
DSP-AX463**

