# AV RECEIVER/AV AMPLIFIER
# RX-V663/HTR-6160/ DSP-AX763
# 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.

RX-V663/HTR-6160/ DSP-AX763

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

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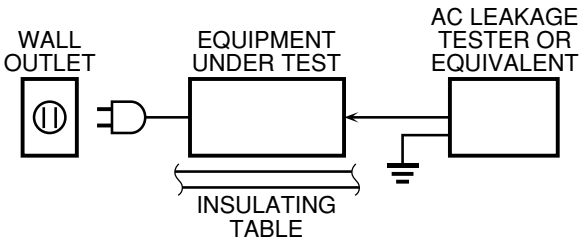
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YAMAHA
YAMAHA CORPORATION
P.O.Box 1, Hamamatsu, Japan
'08.03

## ■ 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 0.15µF.




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




**For U model**
**"CAUTION"**
"F2501, F2502: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 10A, 125V FUSE."

**For C model**
**CAUTION**
F2501, F2502: REPLACE WITH SAME TYPE 10A, 125V FUSE.

**ATTENTION**
F2501, F2502: UTILISER UN FUSIBLE DE RECHANGE DE MÉME TYPE DE 10A, 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。

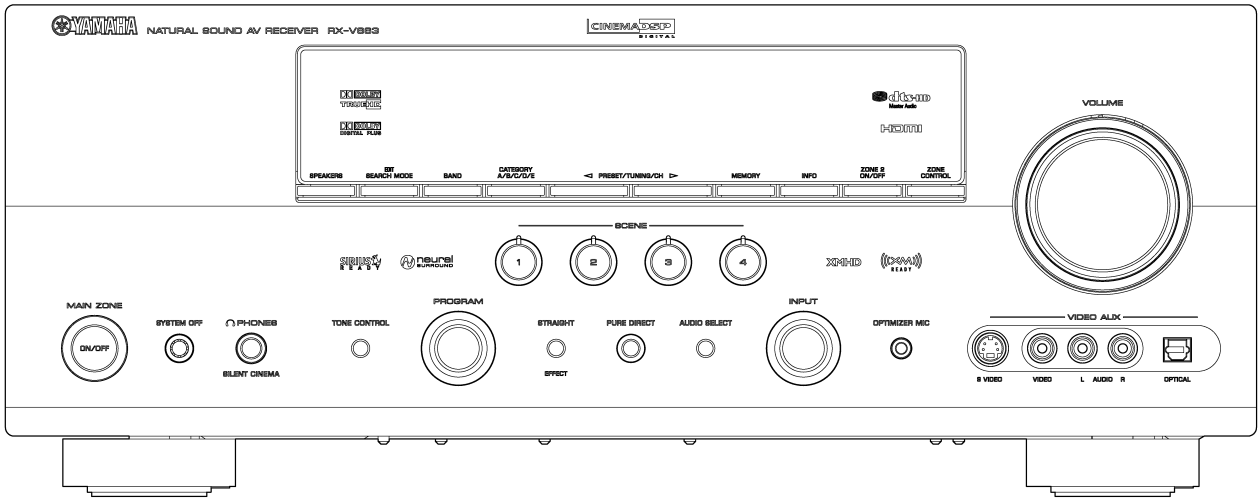
無鉛ハンダにはいくつかの種類がありますが、修理時には下記のような無鉛ハンダの使用を推奨します。

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

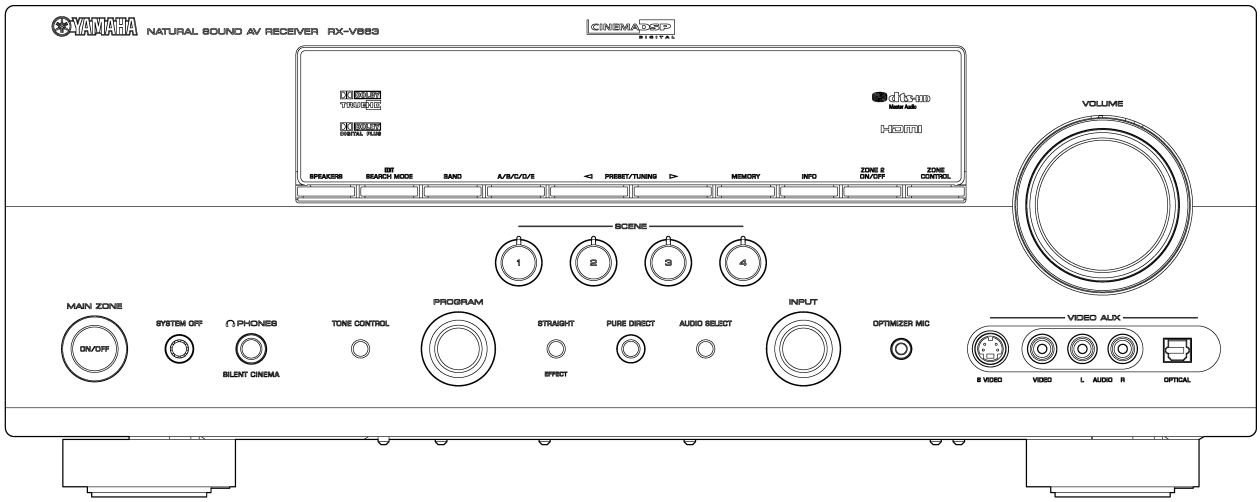
**注意：**
無鉛ハンダの融点温度は通常の鉛入りハンダに比べ30～40℃程度高くなっていますので、それぞれのハンダに合ったハンダごてをご使用ください。

# ■ FRONT PANELS

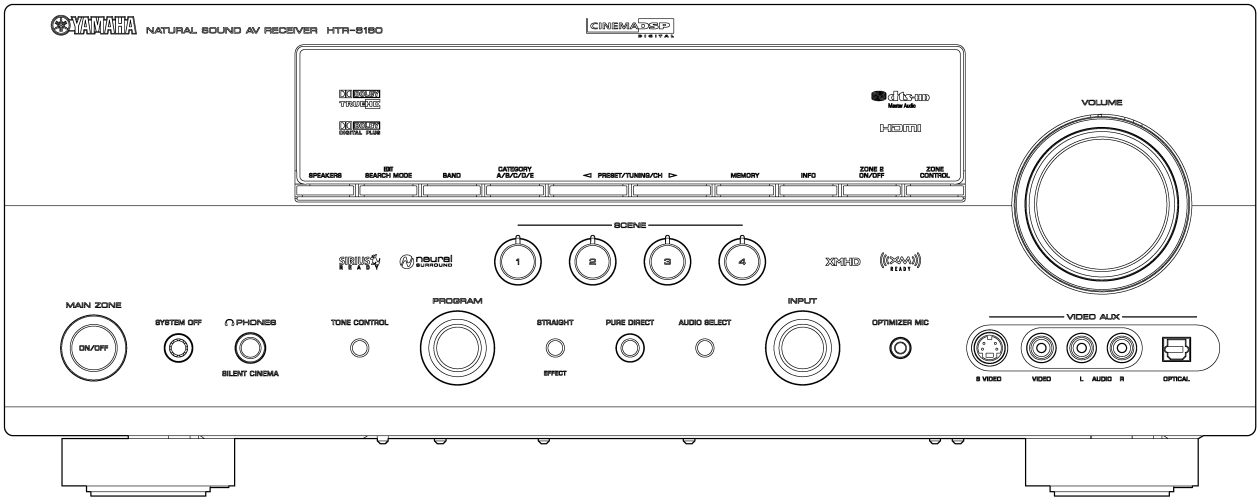
### RX-V663 (U, C models)



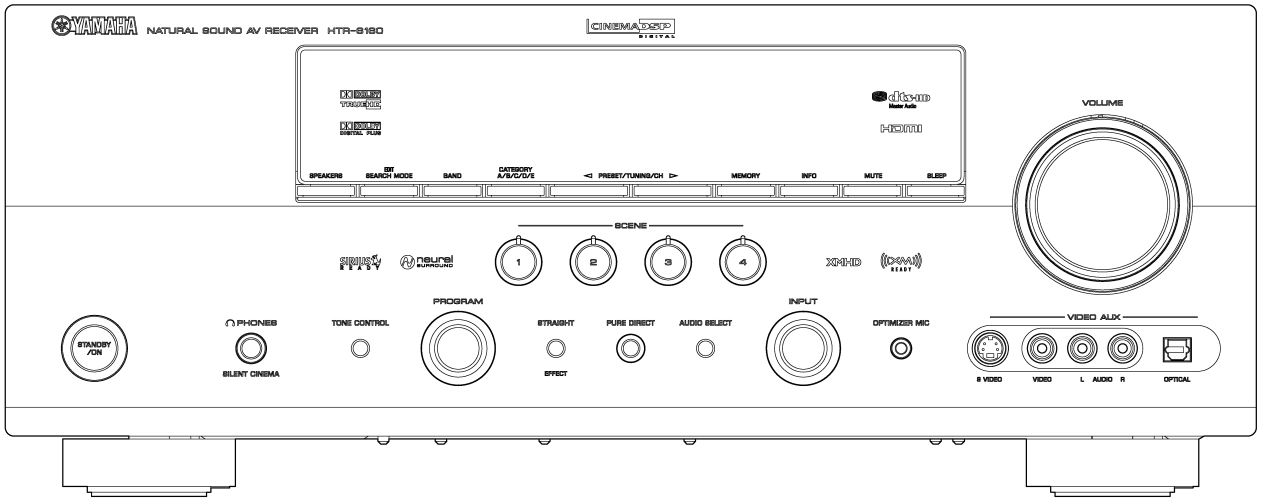

### RX-V663 (R, T, K, A, G, E, F, L models)



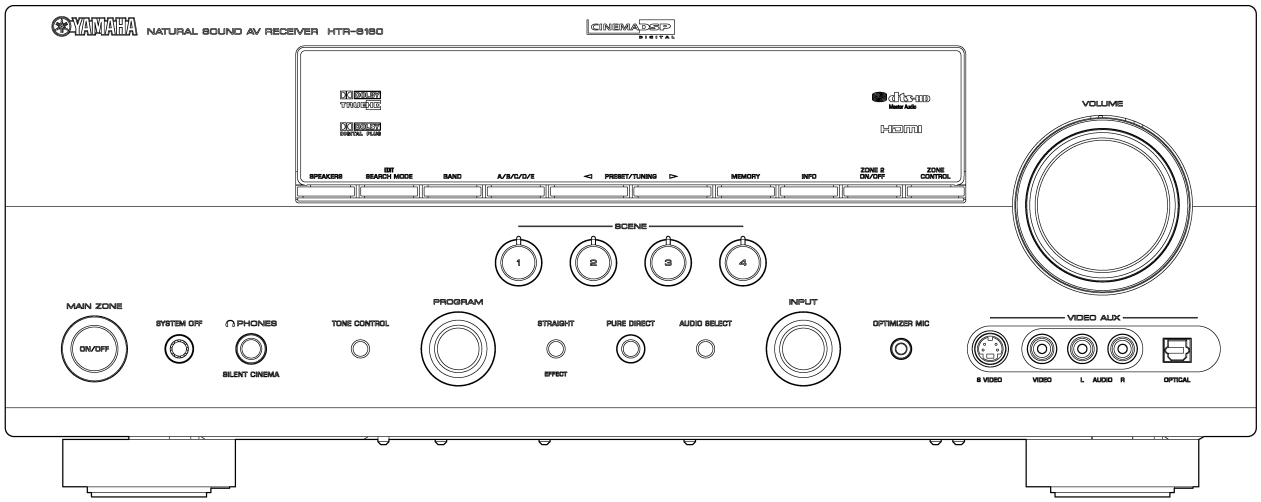

### HTR-6160 (U model)



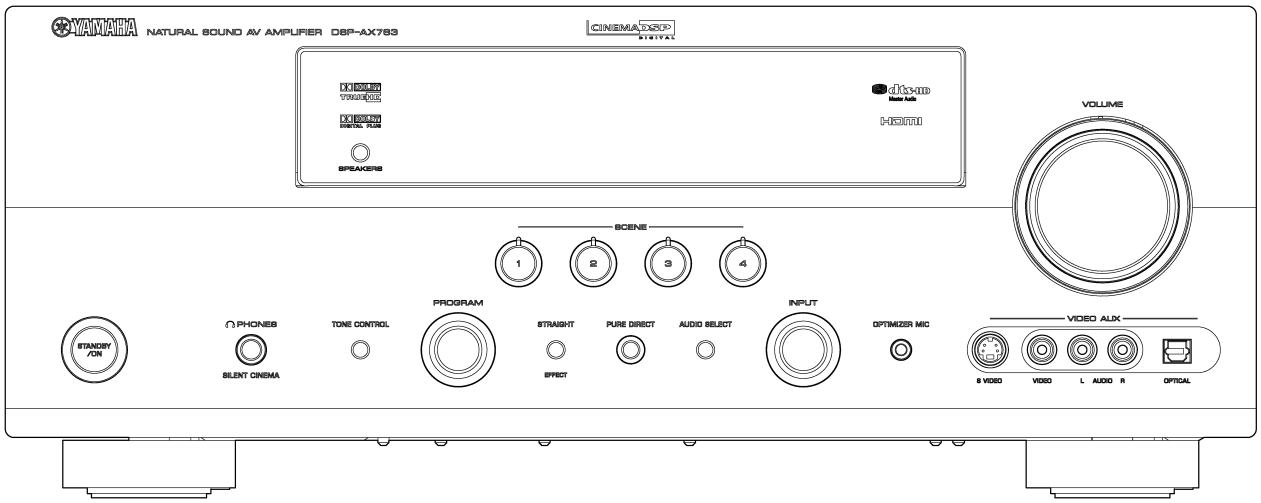
## HTR-6160 (C model)



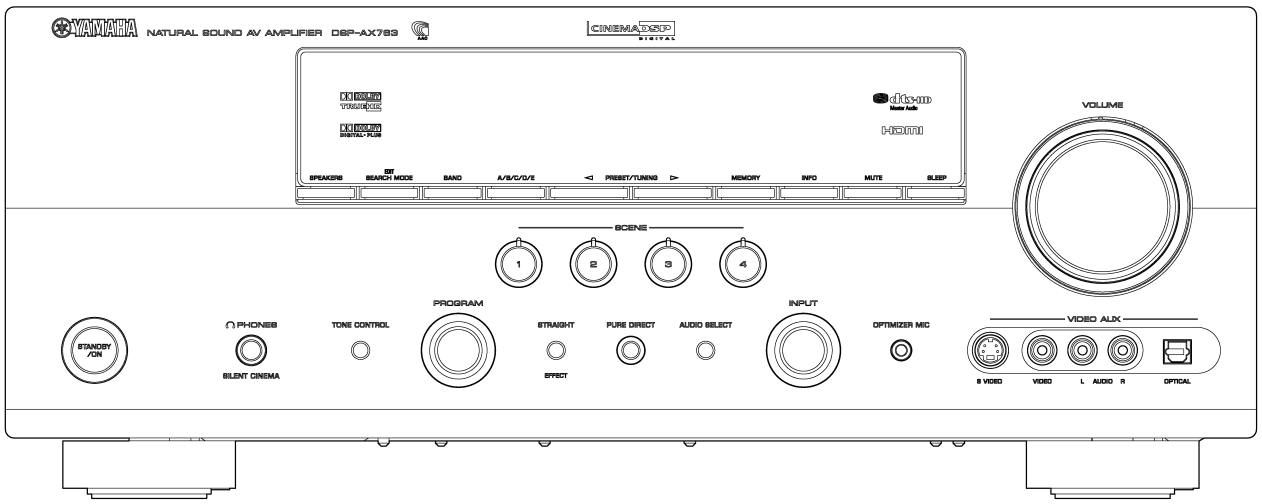

## HTR-6160 (F model)




## DSP-AX763 (B model)

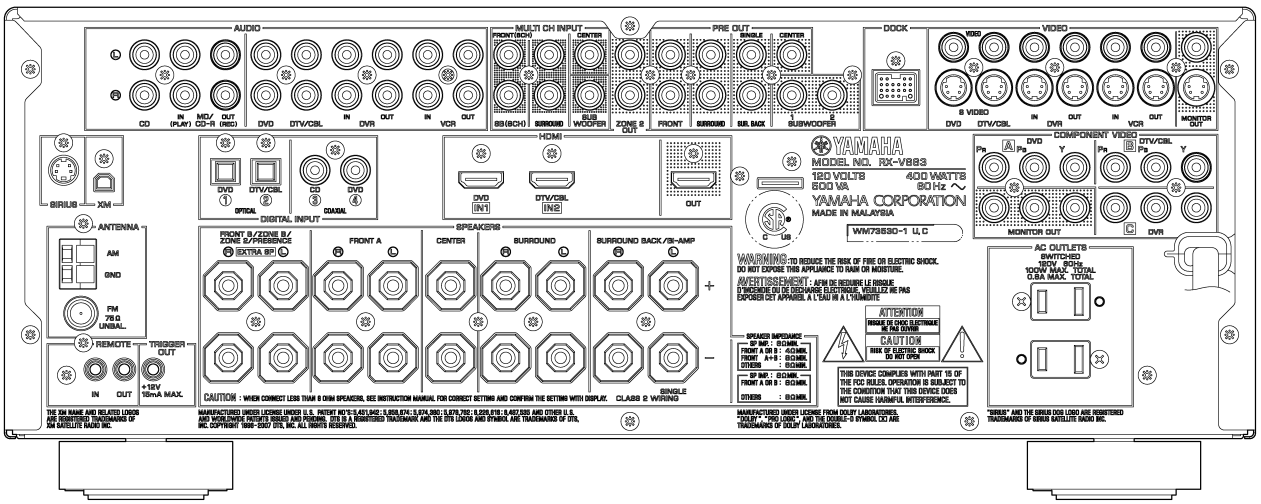


## DSP-AX763 (J model)

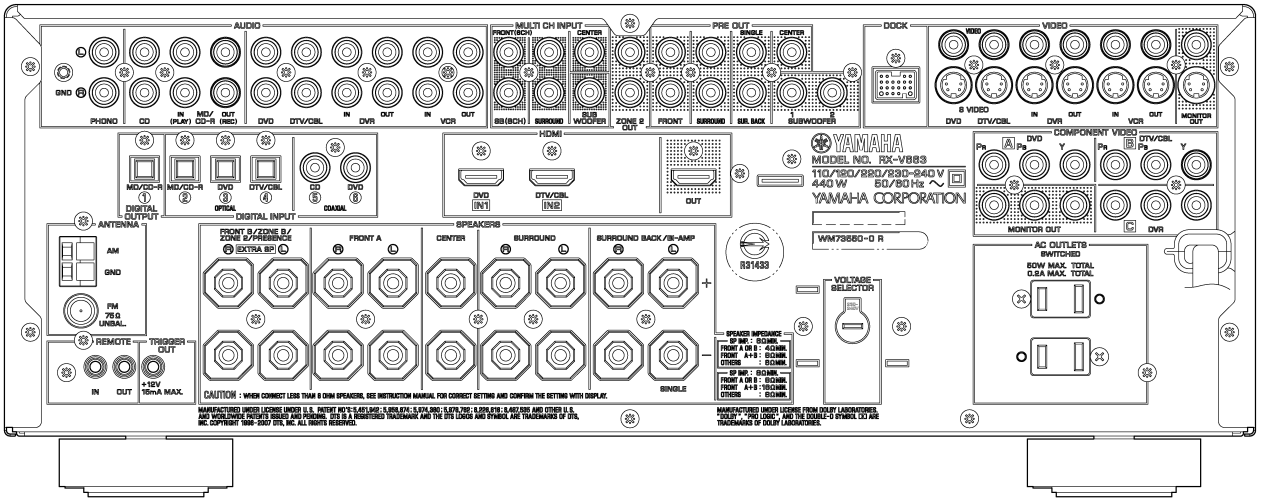


# ■ REAR PANELS

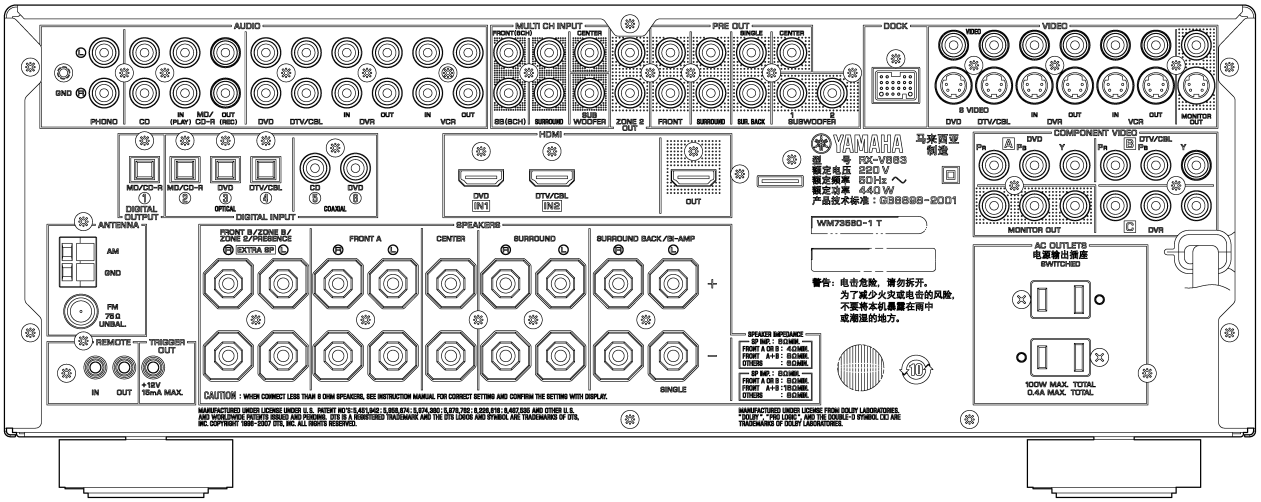
## RX-V663 (U, C models)



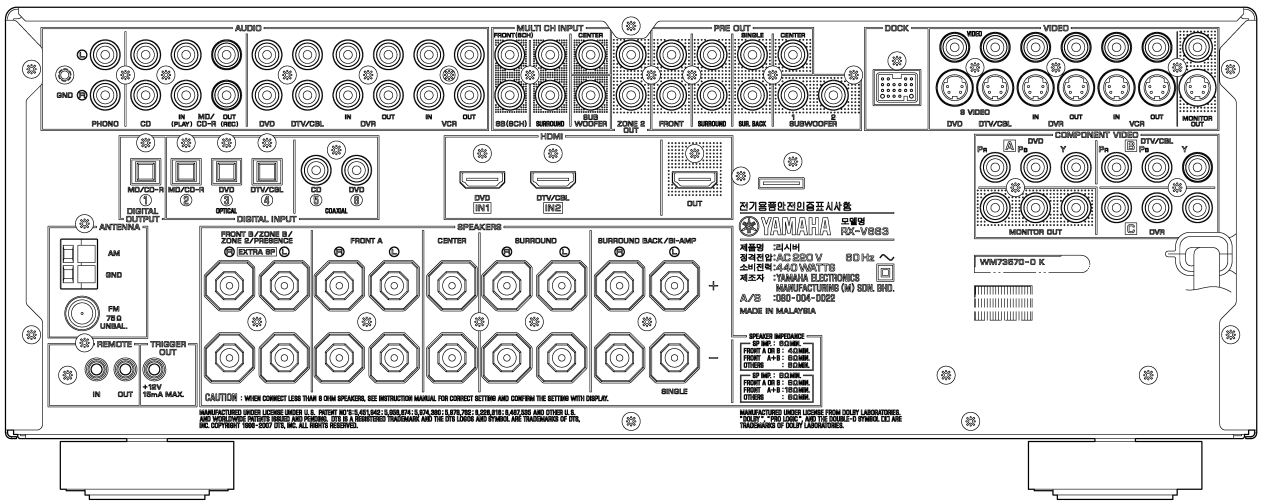

## RX-V663 (R model)



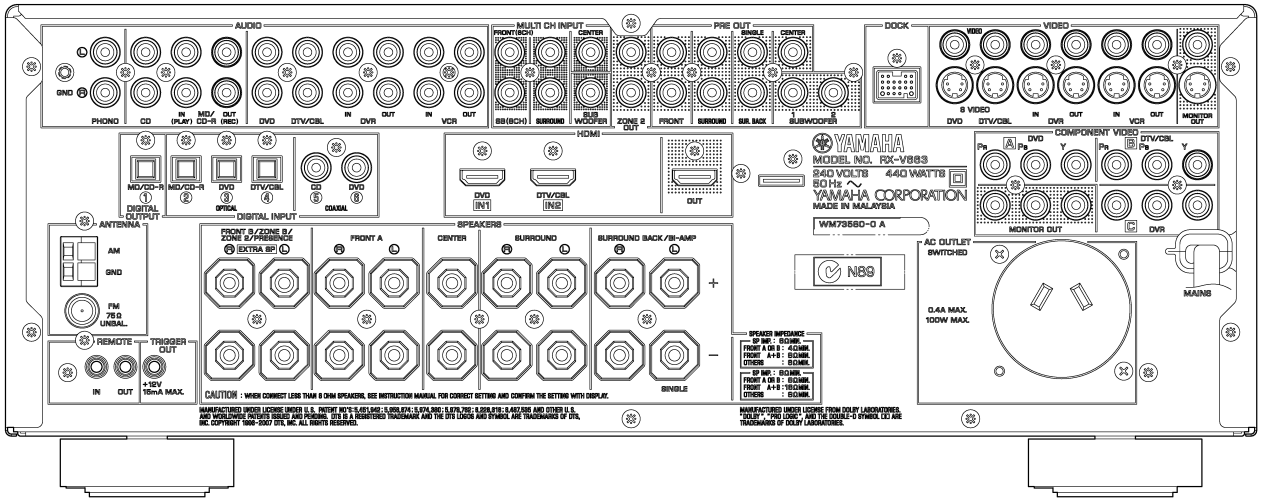

## RX-V663 (T model)



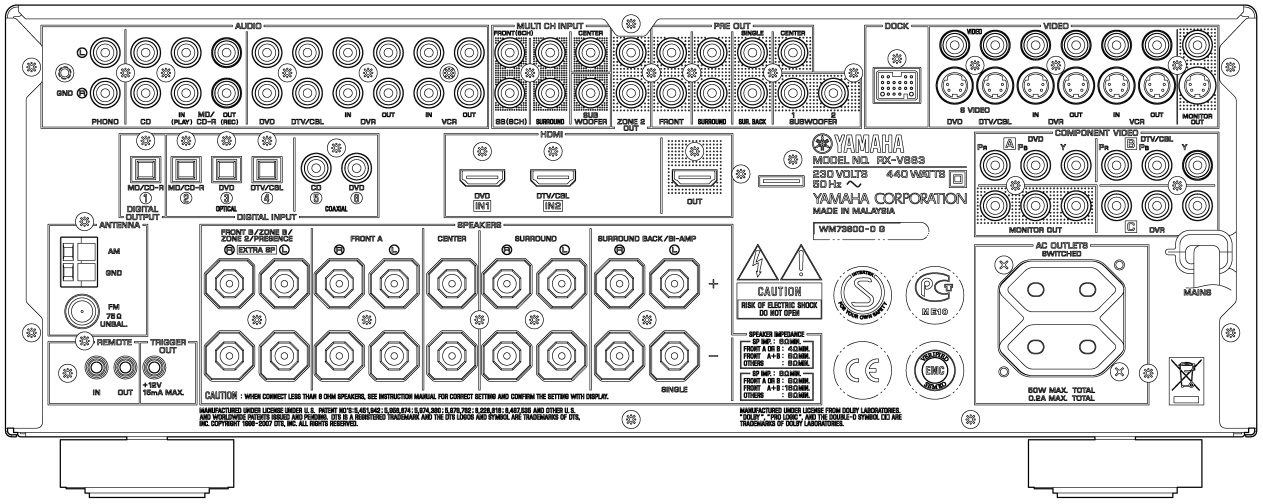
## RX-V663 (K model)



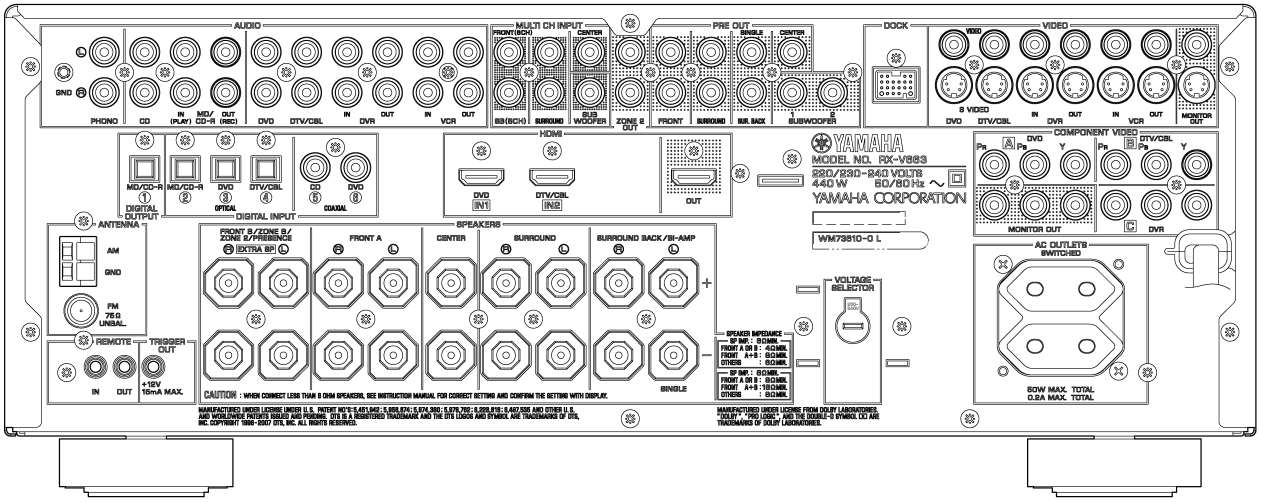

## RX-V663 (A model)



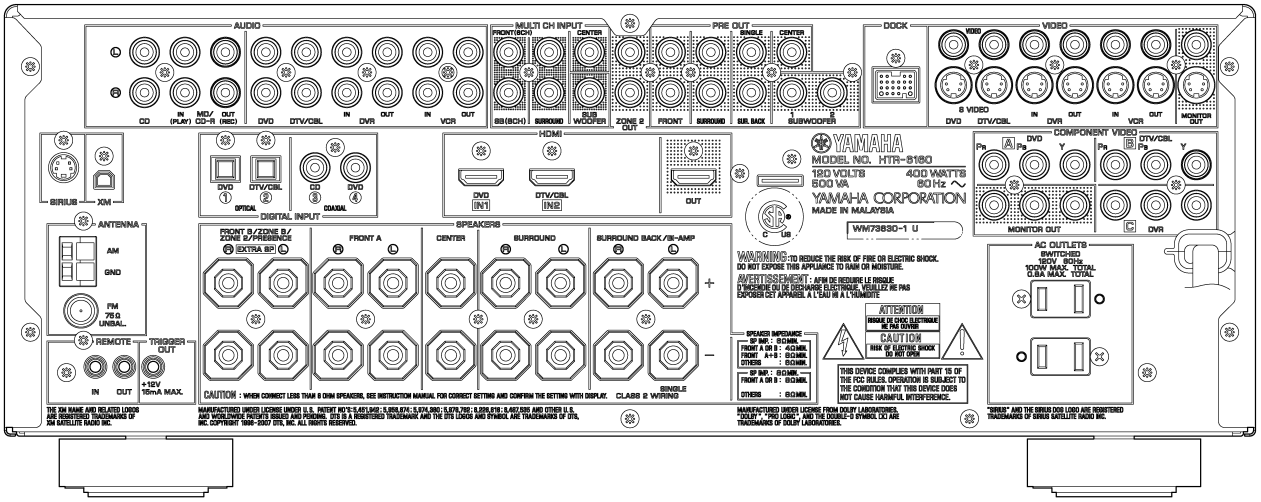

## RX-V663 (G, E, F models)



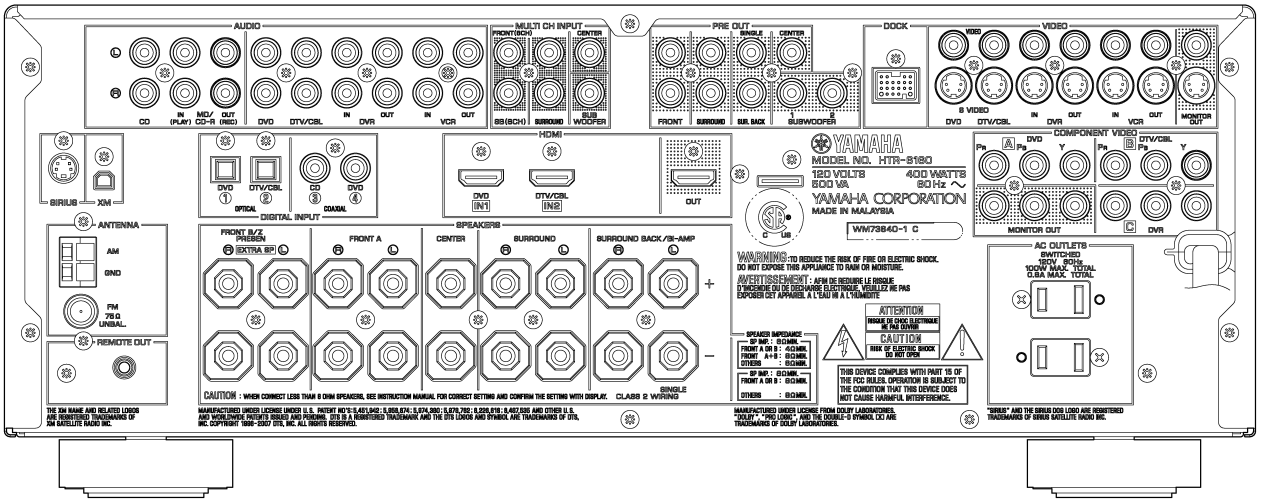
## RX-V663 (L model)



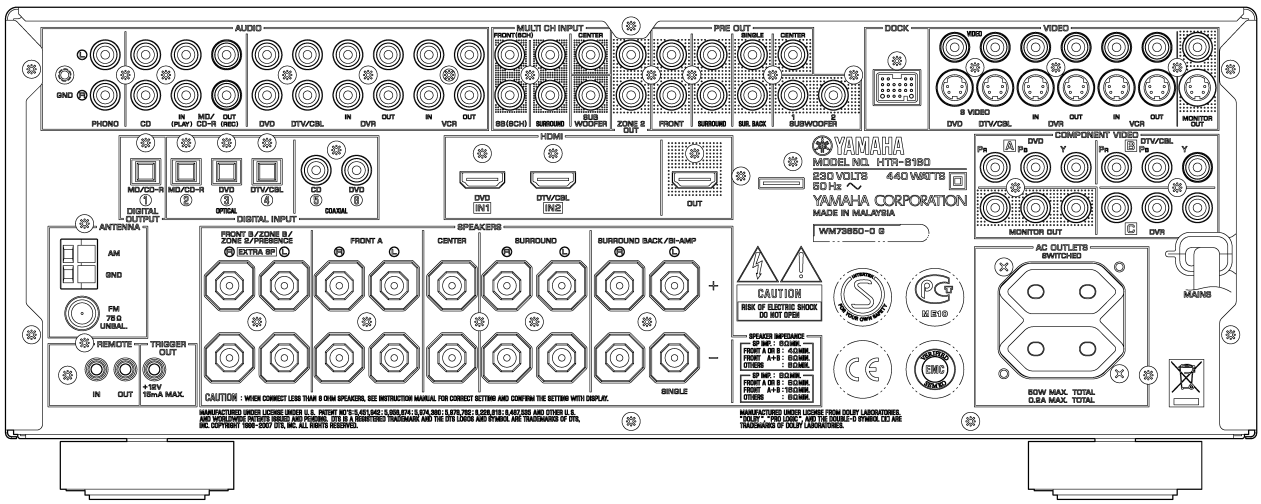

## HTR-6160 (U model)



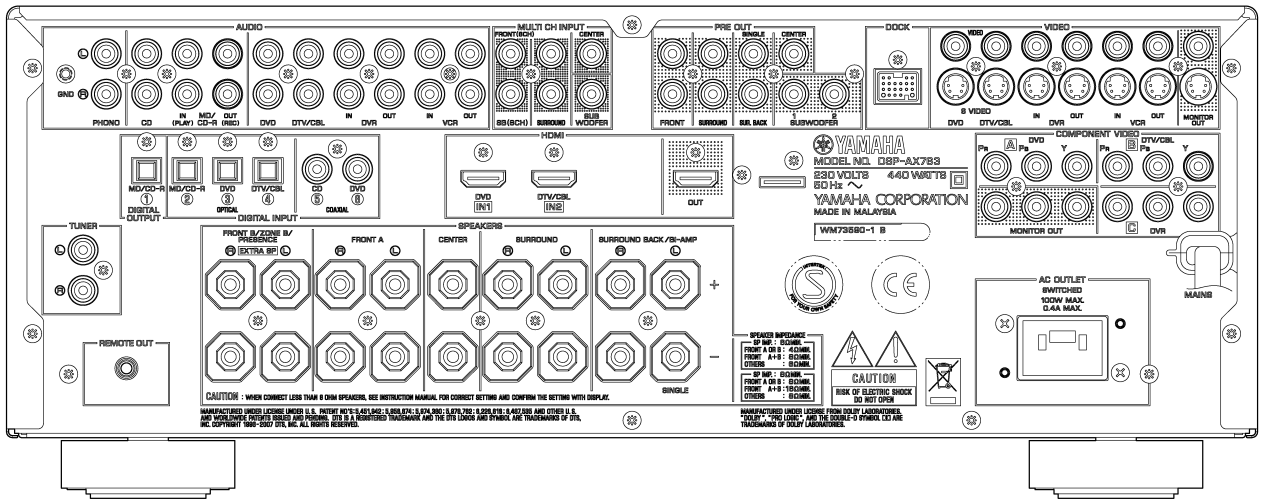

## HTR-6160 (C model)



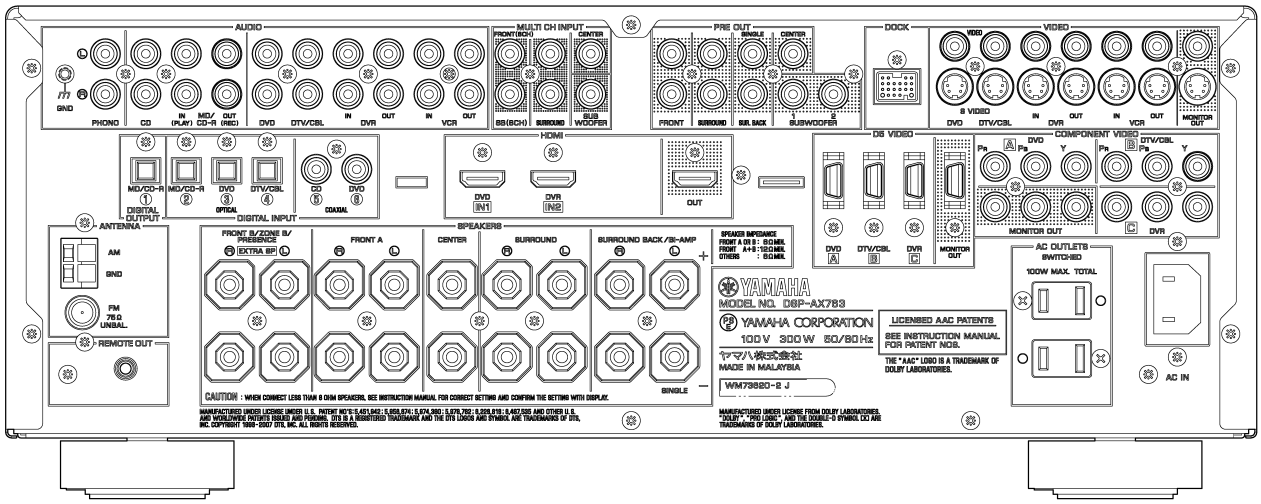
## HTR-6160 (F model)




## DSP-AX763 (B model)

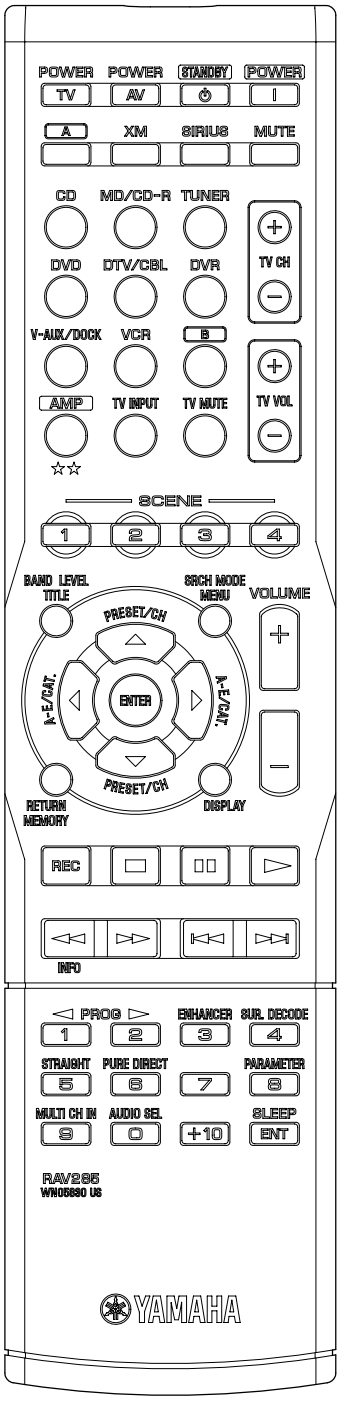



## DSP-AX763 (J model)

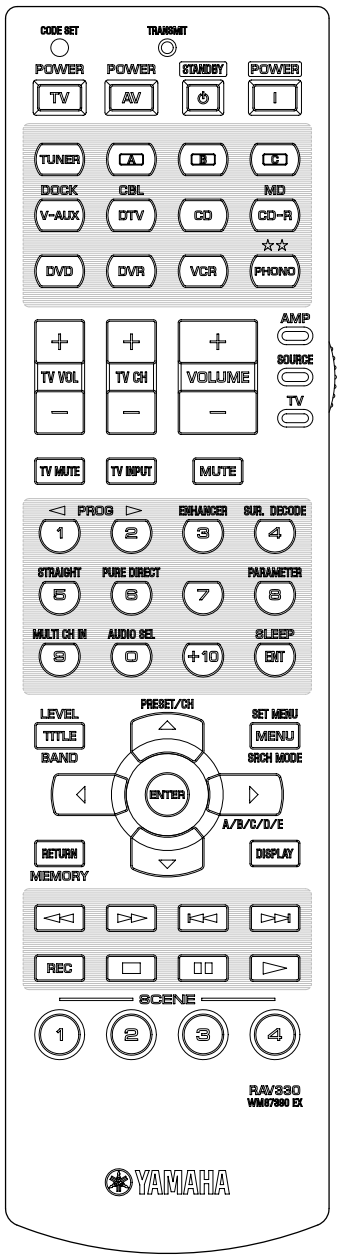


# ■ REMOTE CONTROL PANELS

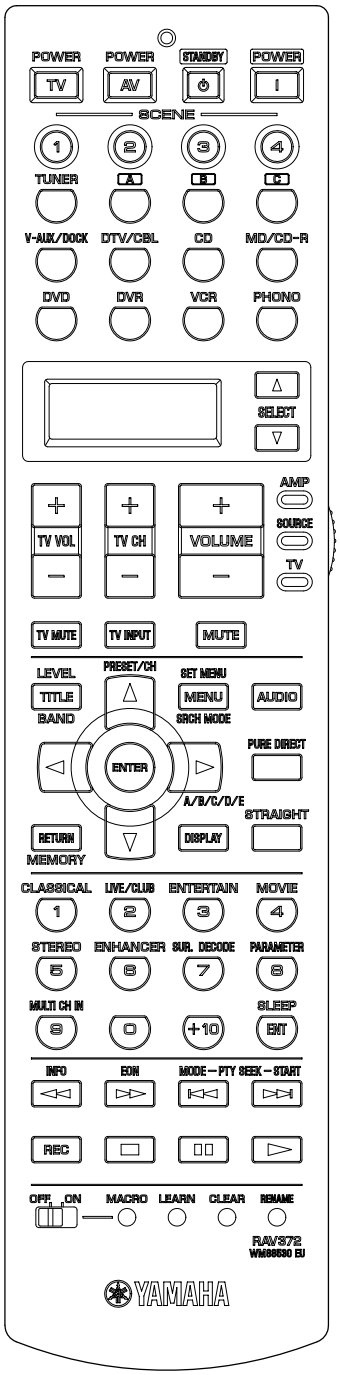
- **RAV285**
  **RX-V663 (U, C models)**
  **HTR-6160 (U, C models)**




- **RAV330**
  **RX-V663 (R, T, A, L models)**
  **DSP-AX763 (J model)**




- **RAV372**
  **RX-V663 (K, G, E, F models)**
  **HTR-6160 (F model)**
  **DSP-AX763 (B 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)**
**[RX-V663/DSP-AX763]** (20 Hz to 20 kHz)
U, C, R, T, K, A, B, G, E, F, L models (0.06 % THD, 8 ohms)
J model (0.09 % THD, 6 ohms)
FRONT L/R ..... 95 W + 95 W
CENTER ..... 95 W
SURROUND L/R ..... 95 W + 95 W
SURROUND BACK L/R ..... 95 W + 95 W
**[HTR-6160]** (1 kHz, 0.7 % THD, 8 ohms)
FRONT L/R ..... 110 W + 110 W
CENTER ..... 110 W
SURROUND L/R ..... 110 W + 110 W
SURROUND BACK L/R ..... 110 W + 110 W

**Maximum Power / 実用最大出力** (JEITA, 1 kHz, 10 % THD)
FRONT L/R
R, T, K, L models (8 ohms) ..... 135 W + 135 W
J model (6 ohms) ..... 135 W + 135 W
CENTER
R, T, K, L models (8 ohms) ..... 135 W
J model (6 ohms) ..... 135 W
SURROUND L/R
R, T, K, L models (8 ohms) ..... 135 W + 135 W
J model (6 ohms) ..... 135 W + 135 W
SURROUND BACK L/R
R, T, K, L models (8 ohms) ..... 135 W + 135 W
J model (6 ohms) ..... 135 W + 135 W

**Max. Power Per Channel**
(SP impedance set: 8 ohms minimum, 1 kHz, 0.7 % THD, 4 ohms)
B, G, E, F, L models
FRONT L/R ..... 145 W + 145 W
CENTER ..... 145 W
SURROUND L/R ..... 145 W + 145 W
SURROUND BACK L/R ..... 145 W + 145 W

**IEC Power** (1 kHz, 0.06 % THD, 8 ohms)
B, G, E, F, L models
FRONT L/R ..... 105 W + 105 W

**Dynamic Power Per Channel / ダイナミックパワー** (IHF)
FRONT L/R (8/6/4/2 ohms)
U, C, R, T, K, A, B, G, E, F, L models ..... 130/165/195/240 W
J model ..... –/135/165/210 W

**Dynamic Headroom**
U, C models (8 ohms) ..... 1.4 dB

**Damping Factor / ダンピングファクタ**
FRONT L/R (20 Hz to 20 kHz, SPEAKER-A, 8 ohms) ..... 120 or more

**Input Sensitivity/Input Impedance / 入力感度／入力インピーダンス** (1 kHz, 100 W/8 ohms)
PHONO (MM)
R, T, K, A, B, G, E, F, L, J models ..... 3.5 mV / 47 k-ohms
CD, etc. ..... 200 mV / 47 k-ohms
MULTI CH INPUT
FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R, SUBWOOFER
..... 200 mV / 47 k-ohms

**Maximum Input Signal Level / 最大許容入力** (1 kHz)
PHONO (MM) (0.1 % THD)
R, T, K, A, B, G, E, F, L, J models ..... 60 mV or more
CD, etc. (Effect on) (0.5 % THD) ..... 2.3 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
PRE OUT (FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R) ..... 1.0 V / 1.2 k-ohms
SUBWOOFER (2ch stereo & FRONT L/R SP: small)
..... 2.0 V / 1.2 k-ohms
**[RX-V863** (U, C, R, T, K, A, G, E, F, L models)**/HTR-6180** (U, F models)**]**
ZONE2 OUT ..... 200 mV / 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, 50 mV, 8 ohms) ..... 150 mV / 100 ohms

**Frequency Response / 周波数特性** (10 Hz to 100 kHz)
CD, etc. to FRONT L/R (Pure direct) ..... +0/-3.0 dB

**RIAA Equalization Deviation / RIAA偏差** (20 Hz to 20 kHz)
PHONO (MM)
R, T, K, A, B, G, E, F, L, J models ..... 0 ± 0.5 dB

**Total Harmonic Distortion / 全高調波歪率** (20 Hz to 20 kHz)
PHONO (MM) to REC OUT (1 V)
R, T, K, A, B, G, E, F, L, J models ..... 0.02 % or less
CD, etc. (2ch stereo) to FRONT L/R SP OUT (50 W, 8 ohms)
..... 0.06 % or less

**Signal to Noise Ratio / 信号対雑音比** (IHF-A network)
PHONO (MM) (Input shorted) to REC OUT
R, T models (5 mV) ..... 86 dB or more
K, A, B, G, E, F, L models (5 mV) ..... 81 dB or more
J model (2.5 mV) ..... 80 dB or more
CD, etc. (Effect off) (Input shorted) to SP OUT
250 mV ..... 100 dB or more

**Residual Noise / 残留ノイズ** (IHF-A network)
FRONT L/R, SP OUT ..... 150 µV or less

**Channel Separation / チャンネルセパレーション** (1 kHz/10 kHz)
PHONO (Input shorted)
R, T, K, A, B, G, E, F, L, J models ..... 60 dB or more/55 dB or more
CD, etc. (Input 5.1 k-ohms shorted) ..... 60 dB or more/45 dB or more

**Volume Control / 可変範囲／ステップ**
..... MUTE/-80 dB to +16.5 dB/0.5 dB step

**Tone Control Characteristics / トーンコントロール特性**
BASS
Boost/Cut ..... ± 10 dB/2 dB (step 50 Hz)
Turnover frequency ..... 350 Hz
TREBLE
Boost/Cut ..... ± 10 dB/2 dB (step 20 kHz)
Turnover frequency ..... 3.5 kHz

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

## ■ Video Section / ビデオ部

**Video Signal Type / ビデオ信号方式**
Gray back
U, C, R, K, J models ..... NTSC
T, A, B, G, E, F, L models ..... PAL
Video conversion ..... NTSC/PAL

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

**S-Video Signal Level / Sビデオ信号**
Y ..... 1 Vp-p / 75 ohms
C ..... 0.286 Vp-p / 75 ohms

**Component Video Signal Level / コンポーネントビデオ信号**
Y ..... 1 Vp-p / 75 ohms
Cb/Cr ..... 0.7 Vp-p / 75 ohms

**D5-Video Signal Level / D5ビデオ信号** (J model)
Y ..... 1 Vp-p / 75 ohms
Cb/Cr ..... 0.7 Vp-p / 75 ohms

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

**Video Signal to Noise Ratio / ビデオ信号対雑音比**
VIDEO CONV. OFF ..... 50 dB or more

**Monitor Out Frequency Response / モニターアウト周波数帯域**
(VIDEO CONV. OFF)
Component video signal level ..... 5 Hz to 100 MHz, -3 dB
D5-video signal level (J model) ..... 5 Hz to 100 MHz, -3 dB

**HDMI** ..... Ver. 1.3a

## ■ 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 µV (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 ..... 400 W / 500 VA
R, T, K, A, B, G, E, F, L models ..... 440 W
J model ..... 300 W

**Standby Power Consumption (reference data) / 待機時消費電力(参考値)**
U, C models ..... 0.8 W
R, T, K, A, B, G, E, F, L, J models ..... 0.1 W

**Maximum Power Consumption** (6ch drive, 10 % THD)
R model ..... 850 W

**AC Outlets / ACアウトレット**
2 switched outlets
U, C, T, J models ..... 100 W max. total
R, G, E, F, L models ..... 50 W max. total
1 switched outlet
A, B models ..... 100 W max.

**Dimensions / 寸法 (W x H x D)**
..... 435 x 171 x 393 mm (17-1/8" x 6-3/4" x 15-1/2")

**Weight / 質量**
..... 11.8 kg (26 lbs)

**Finish / 仕上げ**
**[RX-V663]**
Gold color ..... R, T models
Black color ..... U, C, R, A, G, E, F models
Titanium color ..... K, G, E, F, L models
**[HTR-6160]**
Black color ..... U, C, F models
Titanium color ..... F model
**[DSP-AX763]**
Gold color ..... J model
Black color ..... B, J models
Titanium color ..... B model

**Accessories / 付属品**
Remote control x 1, Batteries (R6, AA, UM-3) x 2 (U, C, R, T, A, L, J models) / (R03, AAA, UM-4) x 4 (K, B, G, E, F models), 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, Power cable x 1 (J model)

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

※ 参考仕様および外観は予告なく変更されることがあります。

***U ..... U.S.A. model*** ***B ..... British model***
***C ..... Canadian model*** ***G ..... European model***
***R ..... General model*** ***E ..... South European model***
***T ..... Chinese model*** ***F ..... Russian model***
***K ..... Korean model*** ***L ..... Singapore model***
***A ..... Australian model*** ***J ..... Japanese model***

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SILENT CINEMA

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「サイレントシネマTM　SILENT CINEMATM」はヤマハ株式会社の登録商標です。

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neural SURROUND

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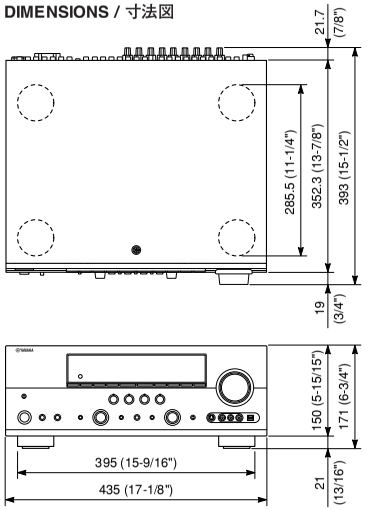
SIRIUS SATELLITE RADIO

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AAC

AACロゴマーク　AACはドルビーラボラトリーズの商標です。

- **DIMENSIONS / 寸法図**




Unit: mm (inch)
単位：mm(インチ)

- **SELECT MENU**

| CATEGORY | SOUND FIELD | PARAMETER ＊3 / Decode Type | DSP Level -6 to +3 dB | Init. Delay 1 to 99 ms | Room Size 0.1 to 2.0 | Liveness 0 to 10 | Sur. Init. Delay 1 to 49 ms | Sur. Room Size 0.1 to 2.0 | Sur. Liveness 0 to 10 | SB. Init. Delay 1 to 49 ms | SB. Room Size 0.1 to 2.0 | SB. Liveness 0 to 10 | Rev. Time 1.0 to 5.0 s | Rev. Delay 0 to 250 ms | Rev. Level 0 to 100 % | Dialogue Lift 0 to 5 | Center Level 0 to 100 % | Surround L Level 0 to 100 % | Surround R Level 0 to 100 % | Sur.Back Level 0 to 100 % | Presence L Level 0 to 100 % | Presence R Level 0 to 100 % | Direct Auto/Off | Effect Level High/Low | Panorama On/Off | Center Width 0 to 7 | Dimension -3 to +3 | Center Image 0.0 to 1.0 | FOCUS 0 to 8 | TruBass 0 to 8 | Initialize |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CLASSICAL | Hall in Munich | | ● | ● | ● | ● | | | | | | | | | | ● | | | | | | | | | | | | | | | ● |
| | Hall in Vienna | | ● | ● | ● | ● | | | | | | | | | | ● | | | | | | | | | | | | | | | ● |
| | Chamber | | ● | ● | | ● | | | | | | | ● | ● | ● | ● | | | | | | | | | | | | | | | ● |
| LIVE/CLUB | Cellar Club | | ● | ● | ● | ● | | | | | | | | | | ● | | | | | | | | | | | | | | | ● |
| | The Roxy Theatre | | ● | ● | ● | ● | | | | | | | ● | ● | ● | ● | | | | | | | | | | | | | | | ● |
| | The Bottom Line | | ● | ● | ● | ● | | | | | | | | | | ● | | | | | | | | | | | | | | | ● |
| ENTERTAINMENT | Sports | | ● | ● | ● | | ● | ● | | ● | ● | | | | | ● | | | | | | | | | | | | | | | ● |
| | Action Game | | ● | ● | ● | | ● | ● | | ● | ● | | | | | ● | | | | | | | | | | | | | | | ● |
| | Roleplaying Game | | ● | ● | ● | | ● | ● | | ● | ● | | | | | ● | | | | | | | | | | | | | | | ● |
| | Music Video | | ● | ● | ● | | ● | ● | | ● | ● | | | | | ● | | | | | | | | | | | | | | | ● |
| MOVIE | Standard | ● ＊1 | ● | | | | ● | ● | ● | ● | ● | ● | | | | ● | | | | | | | | | | | | | | | ● |
| | Spectacle | ● ＊1 | ● | ● | ● | | ● | ● | | ● | ● | | | | | ● | | | | | | | | | | | | | | | ● |
| | Sci-Fi | ● ＊1 | ● | ● | ● | | ● | ● | | ● | ● | | | | | ● | | | | | | | | | | | | | | | ● |
| | Adventure | ● ＊1 | ● | ● | ● | | ● | ● | | ● | ● | | | | | ● | | | | | | | | | | | | | | | ● |
| | Drama | ● ＊1 | ● | ● | ● | | ● | ● | | ● | ● | | | | | ● | | | | | | | | | | | | | | | ● |
| | Mono Movie | | ● | ● | ● | ● | | | | | | | ● | ● | ● | ● | | | | | | | | | | | | | | | ● |
| STEREO | 2ch Stereo | | | | | | | | | | | | | | | | | | | | | | ● | | | | | | | | ● |
| | 7ch Stereo | | | | | | | | | | | | | | | | ● | ● | ● | ○ | ● | ● | | | | | | | | | ● |
| MUSIC ENHANCER | Straight Enhancer | | | | | | | | | | | | | | | | | | | | | | | ● | | | | | | | ● |
| | 7ch Enhancer | | | | | | | | | | | | | | | | | | | | | | | ● | | | | | | | ● |
| SUR. DECODE | Surround Decoder | ● ＊2 | | | | | | | | | | | | | | | | | | | | | | | △ | △ | △ | ▲ | ■ | ■ | ● |
| STRAIGHT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

＊1 : Refer to “＊1 Decode Type”. / ＊1 Decode Typeを参照
＊2 : Refer to “＊2 Decode Type”. / ＊2 Decode Typeを参照
＊3 : No display may be provided, depending on parameters. / パラメータによっては表示されない場合もある

○ : Parameters to use vary whether the number of surround back is one or two but parameters are displayed by the same names while only parameter values are changed. / サラウンドバックの数が1つの場合と2つの場合で使用するパラメータは変わるが、パラメータ名は同じ表示でパラメータ値のみを切換えて表す
△ : Setting is possible only when Pro Logic II x Music is selected using decode type. / Decode TypeでPro Logic II x Music（Pro Logic II Music）を選択時のみ設定可
▲ : Setting is possible only when Neo:6 Music is selected using decode type. / Decode TypeでNeo:6 Musicを選択時のみ設定可
■ : Setting is possible only when CS II Cinema/Music is selected using decode type. / Decode TypeでCS II Cinema/Musicを選択時のみ選択可

**＊1 Decode Type**

| Decode Type | | |
|---|---|---|
| | PL II x Movie | PL II when Surround Back is None. / Surround BackがNoneの場合はPL II |
| | Neo:6 Cinema | |

**＊2 Decode Type**

| Decode Type | | |
|---|---|---|
| | Pro Logic | |
| | PL II x Movie | PL II when Surround Back is None. / Surround BackがNoneの場合はPL II |
| | PL II x Music | PL II when Surround Back is None. / Surround BackがNoneの場合はPL II |
| | PL II x Game | PL II when Surround Back is None. / Surround BackがNoneの場合はPL II |
| | Neo:6 Cinema | |
| | Neo:6 Music | |
| | Neural Sur. | (U, C models) |

- **SCENE TEMPLATE**

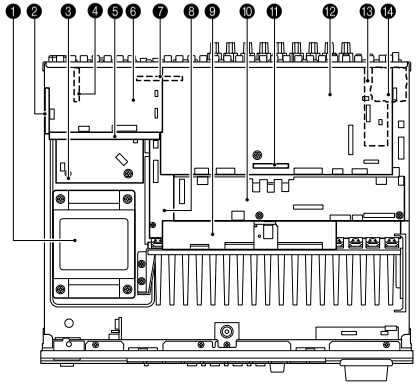
| SCENE name | Contents | | Source | Program | | NIGHT | Select (Default) | |
|---|---|---|---|---|---|---|---|---|
| | | | | Mode | Sub-mode | Mode | U, C models | R, T, K, A, B, G, E, F, L, J models |
| DVD Viewing | DVD | Movie | DVD | STRAIGHT | – | SYSTEM | O (SCENE 1) | O |
| DVD Movie Viewing | | | DVD | MOVIE | Sci-Fi | SYSTEM | O | O (SCENE 1) |
| DVD Live Viewing | | Music Live | DVD | ENTERTAINMENT | Music Video | SYSTEM | O | O |
| DVR Viewing | DVR | | DVR | MOVIE | Drama | SYSTEM | O | O |
| Disc Hi-Fi Listening | DVD-Audio / | Music Disc | DVD | PURE DIRECT | – | SYSTEM | O | O |
| Music Disc Listening | SA-CD / CD | | DVD | STEREO | 2ch Stereo | SYSTEM | O | O (SCENE 2) |
| Disc Listening | | | DVD | STEREO | 7ch Stereo | SYSTEM | O (SCENE 2) | O |
| CD Hi-Fi Listening | CD | Music Disc | CD | PURE DIRECT | – | SYSTEM | O | O |
| CD Listening | | | CD | STEREO | 7ch Stereo | SYSTEM | O | O |
| CD Music Listening | | | CD | STEREO | 2ch Stereo | SYSTEM | O | O |
| Radio Listening | TUNER/RADIO | FM/AM | FM/AM (TUNER) | MUSIC ENHANCER | 7ch Enhancer | SYSTEM | O (SCENE 4) | O (SCENE 4) |
| XM Listening | | XM | XM | MUSIC ENHANCER | 7ch Enhancer | SYSTEM | O | – |
| SIRIUS Listening | | SIRIUS | SIRIUS | MUSIC ENHANCER | 7ch Enhancer | SYSTEM | O | – |
| Dock Listening | DAP | iPod | DOCK (V-AUX) | MUSIC ENHANCER | 7ch Enhancer | SYSTEM | O | O |
| | | Bluetooth | | | | | | |
| TV Viewing | TV | | DTV/CBL | STRAIGHT | – | SYSTEM | O (SCENE 3) | O (SCENE 3) |
| TV Sports Viewing | | | DTV/CBL | ENTERTAINMENT | Sports | SYSTEM | O | O |
| Action Game Playing | GAME | Action | V-AUX | ENTERTAINMENT | Action Game | SYSTEM | O | O |
| RPG Playing | | RPG | V-AUX | ENTERTAINMENT | Roleplaying Game | SYSTEM | O | O |
| LP Record Listening | LP Record | LP | PHONO | PURE DIRECT | – | SYSTEM | – | O |

- **SET MENU TABLE /** セットメニュー

| CATEGORY | MAIN MENU | SUB MENU | SELECT MENU | | | VALUE [INITIAL] |
|---|---|---|---|---|---|---|
| AUTO SETUP | Use this feature to automatically adjust speaker and system parameters.<br>本機に搭載の「YPAO」により、お使いになるスピーカーの配置や性能、お部屋の音響特性を測定し、最適な視聴空間を自動的に設定します。 | | | | | |
| MANUAL SETUP | 1 BASIC MENU | A) SPEAKER SET | EXTRA | FRONT B | | ZONE2 / [FRONT B] / ZONE B / PRNS / NONE |
| | | | BASS OUT | BOTH | | [BOTH] / SWFR / FRONT |
| | | | FRONT | LARGE | | [LARGE] / SMALL |
| | | | CENTER | SMALL | | LARGE / [SMALL] / NONE |
| | | | SUR. L/R | SMALL | | |
| | | | SUR. B | SMLx2 | | LRGx1 / LRGx2 / SMLx1 / [SMLx2] / NONE |
| | | | CROSSOVER | 80Hz | | 40 / 60 / [80] / 90 / 100 / 110 / 120 / 160 / 200 Hz |
| | | | SWFR PHASE | NRM | | [NRM (normal)] / REV (reverse) |
| | | B) SP LEVEL | FL | – – – – –\|–– – – – | | -10.0 to +10.0 dB, [0 dB], 0.5 dB step |
| | | | FR | – – – – –\|–– – – – | | |
| | | | C | – – – – –\|–– – – – | | -10.0 to +10.0 dB, [-1.0 dB], 0.5 dB step |
| | | | SL | – – – – –\|–– – – – | | |
| | | | SR | – – – – –\|–– – – – | | |
| | | | SBL | – – – – –\|–– – – – | | |
| | | | SBR | – – – – –\|–– – – – | | |
| | | | SWFR | – – – – –\|–– – – – | | -10.0 to +10.0 dB, [0 dB], 0.5 dB step |
| | | | PL | – – – – –\|–– – – – | | |
| | | | PR | – – – – –\|–– – – – | | |
| | | C) SP DISTANCE | UNIT | feet | | feet (ft) / meters (m) |
| | | | UNIT: feet — FRONT L | 10.0ft | | feet: 1.0 to 80.0 ft [10.0 ft], 0.5 ft step |
| | | | FRONT R | 10.0ft | | |
| | | | CENTER | 8.5ft | | feet: 1.0 to 80.0 ft [8.5 ft], 0.5 ft step |
| | | | SUR. L | 8.0ft | | feet: 1.0 to 80.0 ft [8.0 ft], 0.5 ft step |
| | | | SUR. R | 8.0ft | | |
| | | | SBL | 8.0ft | | |
| | | | SBR | 8.0ft | | |
| | | | SWFR | 10.0ft | | feet: 1.0 to 80.0 ft [10.0 ft], 0.5 ft step |
| | | | PRNS L | 10.0ft | | |
| | | | PRNS R | 10.0ft | | |
| | | | UNIT: meters — FRONT L | 3.00m | | meters: 0.30 to 24.00 m [3.00 m], 0.10 m step |
| | | | FRONT R | 3.00m | | |
| | | | CENTER | 2.60m | | meters: 0.30 to 24.00 m [2.60 m], 0.10 m step |
| | | | SUR. L | 2.40m | | meters: 0.30 to 24.00 m [2.40 m], 0.10 m step |
| | | | SUR. R | 2.40m | | |
| | | | SBL | 2.40m | | |
| | | | SBR | 2.40m | | |
| | | | SWFR | 3.00m | | meters: 0.30 to 24.00 m [3.00 m], 0.10 m step |
| | | | PRNS L | 3.00m | | |
| | | | PRNS R | 3.00m | | |
| | | D) TEST TONE | > OFF ON | | | [OFF] / ON |
| | 2 VOLUME MENU | ADPTV DRC | OFF | | | AUTO / [OFF] |
| | | ADAPTV DSP | OFF | | | |
| | | MUTE TYP. | FULL | | | [FULL] / -20 dB |
| | | MaxVol. | +16.5dB | | | -30.0 to +15.0 dB / +16.5 dB, [+16.5 dB], 5.0 dB step |
| | | IniVol. | OFF | | | OFF / MUTE / -80.0 to +16.5 dB, [OFF], 0.5 dB step |
| | 3 SOUND MENU | A) EQUALIZER | EQ SELECT | GEQ | | AUTO PEQ / [GEQ] / OFF |
| | | | | CHANNEL | | FRNT L / FRNT R / CENTER / SUR. L / SUR. R / SBL / SBR / SWFR / PRNS L / PRNS R |
| | | | | 63 Hz | – – –\|– – – | -0.6 to +6.0 dB, [0 dB], 0.5 dB step |
| | | | | 160 Hz | – – –\|– – – | |
| | | | | 400 Hz | – – –\|– – – | |
| | | | | 1 kHz | – – –\|– – – | |
| | | | | 2.5 kHz | – – –\|– – – | |
| | | | | 6.3 kHz | – – –\|– – – | |
| | | | | 16 kHz | – – –\|– – – | |
| | | | | TEST TONE | OFF | [OFF] / ON |
| | | B) LFE LEVEL | SP LFE | | | -20 to 0 dB, [0 dB], 1 dB step |
| | | | HP LFE | | | |
| | | C) D. RANGE | SP | | | MIN/AUTO / STD / [MAX] |
| | | | HP | | | |
| | | D) LIPSYNC | HDMI AUTO | OFF | | ON / [OFF] |
| | | | AUTO | – – – ms | | 0 to 240 ms, [0 ms], 1 ms step |
| | | | MANUAL | 0 ms | | |
| | | E) EXTD SUR. | EXTD | AUTO | | [AUTO] / PLIIxMovie / PLIIxMusic / EX/ES / EX / OFF |
| | 4 INPUT MENU (U, C models) (R, T, K, A, B, G, E, F, L, J models) | A) SIRIUS | Items that can be set. / 設定可能項目 : [2], [3], [5] | | | |
| | | B) XM | : [2], [3] | | | |
| | | C) PHONO | : [1], [2], [3], [4] | | | |
| | | D) TUNER | : [2], [3] | | | |
| | | E) CD | : [1], [2], [3], [4] | | | |
| | | F) MD/CD-R | : [1], [2], [3], [4] | | | |
| | | G) DVD | : [1], [2], [3], [4] | | | |
| | | H) DTV/CBL | : [1], [2], [3], [4] | | | |
| | | I) V-AUX | : [1], [2], [3], [4] | | | |
| | | J) DOCK | : [2], [3], [6] | | | |
| | | K) BLUETOOTH | : [2], [3], [7] | | | |
| | | L) DVR | : [1], [2], [3], [4] | | | |
| | | M) VCR | : [1], [2], [3], [4] | | | |
| | | N) MULTI CH | : [2], [3], [8], [9], [10] | | | |
| | | (U, C models) | [1] I/O ASSIGNMENT | COAX. IN | NONE | NONE / CD / DVD |
| | | | | OPT. IN | NONE | NONE / MD/CD-R / DVD / DTV/CBL |
| | | | | OPT. OUT | NONE | NONE / MD/CD-R |
| | | | [2] INPUT RENAME | | | Input is possible to 9 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: # * + , - . / : < > ? |
| | | | [3] V. TRIM | | 0.0dB | -6.0 to +6.0 dB, [0.0 dB], 0.5 dB step |
| | | | [4] DECODER | | AUTO | [AUTO] / DTS |
| | | | [5] PARENTAL LOCK | | | |
| | | | [6] CHARGE | | AUTO | [AUTO] / OFF |
| | | | [7] START PAIRING | | | |
| | | | [8] BGV | | LAST | [LAST] / DVD, DTV/CBL, DVR, VCR, V-AUX / OFF |
| | | | [9] INPUT CH | | 6ch | [6ch] / 8ch |
| | | | [10] FRONT | | DVD | CD / MD/CD-R / [DVD] / DTV/CBL / DVR / VCR / V-AUX<br>＊ Setting is possible only when 8ch is selected using [9 (INPUT CH)]. / [9 (INPUT CH)] で 8ch 選択時のみ設定可 |
| | 5 OPTION MENU | A) DISPLAY SET | DIMMER | 0 | | -4 to 0, [0], 1 step |
| | | | OSD SHIFT | 0 | | -5 (downward) to +5 (upward), [0], 1 step |
| | | | OSD-SOURCE | 30s | | ON / 10s / 30s |
| | | | OSD-AMP | 30s | | |
| | | | FL SCROLL | COTN | | [CONT] / ONCE |
| | | B) VIDEO SET | VIDEO CONV. | ON | | [ON] / OFF |
| | | C) MEMORY GUARD | MEM. GUARD | OFF | | [OFF] / ON |
| | | D) INIT. CONFIG | A. SELECT | AUTO | | [AUTO] / LAST |
| | | | DECODER | AUTO | | |
| | | | EXTD SUR. | AUTO | | |
| | | E) HDMI SET | HDMI CONTROL | OFF | | ON / [OFF] |
| | (RX-V663, HTR-6160: U, F models) | (J model) | S. AUDIO | V663 | | [V663 / 6160 / AX763] / OTHER |
| | | | STANDBY THROUGH | OFF | | ON / [OFF] |
| | | F) ZONE2 SET | MAX VOL. | +16.5dB | | -30.0 to +15.0 dB / +16.5 dB, [+16.5 dB], 5.0 dB step |
| | | | INI. VOL. | OFF | | OFF / MUTE / -80.0 to +16.5 dB, [OFF], 0.5 dB step |
| SIGNAL INFO | AUDIO | FORMAT (Signal format) | | | | Analog / – – – / – – – / – – – / – – – / – – – / – – – |
| | | SAMPLING | | | | |
| | | CHANNEL | | | | |
| | | BITRATE | | | | 3/2/0.1 (front/surround/LFE) |
| | | DIALOG | | | | |
| | | FLAG | | | | DTS, Dolby Digital, or PCM |
| | VIDEO | HDMI SIGNAL | | | | xxx –> xxx |
| | | HDMI RES. | | | | 1080p –> 1080p |
| | | ANALOG RES. | | | | 480/576i |
| | | HDMI ERROR (HDMI MESSAGE) | | | | DEVICE OVER / HDCP ERROR / Out of Res. |

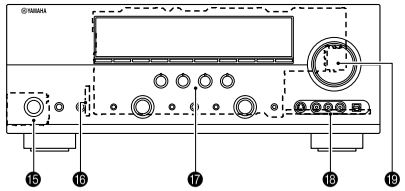
## ■ INTERNAL VIEW

- **Top view**



❶ POWER TRANSFORMER
❷ FUNCTION (6) P.C.B.
❸ FUNCTION (3) P.C.B.
❹ FUNCTION (2) P.C.B. (J model)
❺ VIDEO (2) P.C.B.
❻ VIDEO (1) P.C.B.
❼ FUNCTION (4) P.C.B. (R, L models)
❽ MAIN (1) P.C.B.
❾ MAIN (2) P.C.B.
❿ DIGITAL P.C.B.
⓫ FUNCTION (9) P.C.B.
⓬ FUNCTION (1) P.C.B
⓭ Tuner (U, C, R, T, K, A, G, E, F, L, J models)
⓮ FUNCTION (5) P.C.B. (B model)
⓯ OPERATION (2) P.C.B.
⓰ OPERATION (3) P.C.B.
⓱ OPERATION (1) P.C.B.
⓲ OPERATION (4) P.C.B.
⓳ OPERATION (5) P.C.B.

- **Front view**



## ■ DISASSEMBLY PROCEDURES / 分解手順

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

**1. Removal of Top Cover**
a. Remove 4 screws (①), 5 screws (②) and screw (③). (Fig. 1)
b. Slide the top cover rearward to remove it. (Fig. 1)

**2. Removal of Front Panel Unit**
a. Remove 2 knobs. (Fig. 1)
b. Remove screw (④) and then remove the support top. (Fig. 1)
c. Remove 6 screws (⑤). (Fig. 1)
d. Remove the front panel unit. (Fig. 1)

**3. Removal of Sub Chassis Unit**
a. Remove 2 push rivets (⑥). (Fig. 1)
b. Remove the plate side L and plate side R. (Fig. 1)
c. Remove 2 screws (⑦). (Fig. 1)
d. Remove CB30, CB46, CB63, CB201, CB221 and CB422. (Fig. 1)
e. Remove the sub chassis unit. (Fig. 1)

（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. トップカバーの外し方**
a. ①のネジ4本、②のネジ5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. フロントパネルユニットの外し方**
a. ノブを2個取り外します。（Fig. 1）
b. ④のネジ1本を外し、サポートトップを取り外します。（Fig. 1）
c. ⑤のネジ6本を外します。（Fig. 1）
d. フロントパネルユニットを取り外します。（Fig. 1）

**3. サブシャーシユニットの外し方**
a. ⑥のプッシュリベット2本を外します。（Fig. 1）
b. プレートサイドLおよびプレートサイドRを取り外します。（Fig. 1）
c. ⑦のネジ2本を外します。（Fig. 1）
d. CB30、CB46、CB63、CB201、CB221、CB422を外します。（Fig. 1）
e. サブシャーシユニットを取り外します。（Fig. 1）

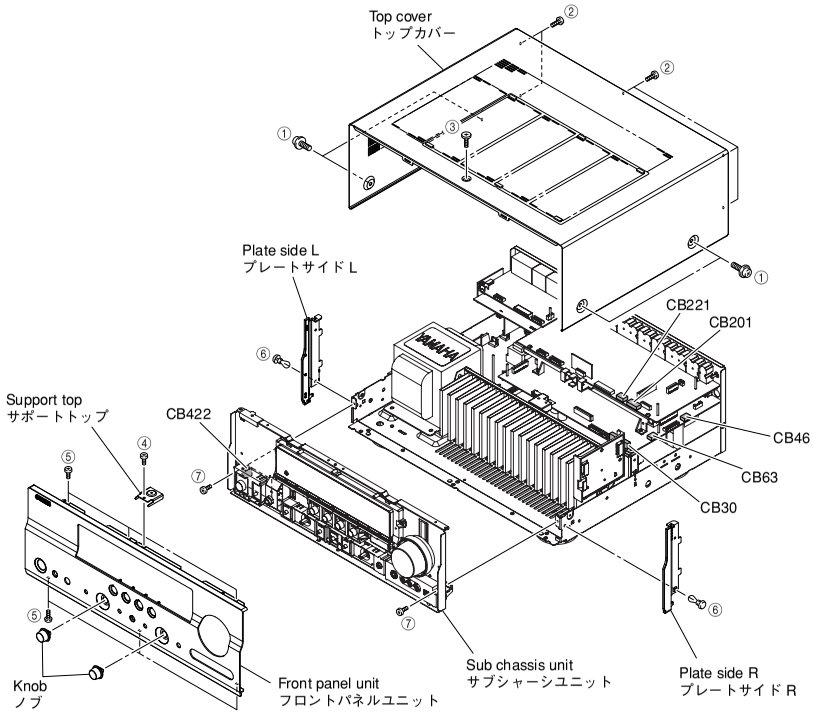



**Fig. 1**

**4. Removal of FUNCTION (1) P.C.B.**

a. Remove 2 push rivets (⑧). (Fig. 2)
b. Remove 10 screws (RX-V663: U, C, R, T, K, A, G, E, F, L models / HTR-6160: U, F models) / 9 screws (HTR-6160: C model / DSP-AX763: B model) (⑨). (Fig. 3)
c. Remove CB205, CB206, CB231, CB232, CB242 (C, R, T, K, A, G, E, F, L models), CB243 (DSP-AX763: B model) and CB302. (Fig. 2)
d. Remove the FUNCTION (1) P.C.B.. (Fig. 2)

**5. Removal of DIGITAL P.C.B.**

a. Remove 2 screws (⑩). (Fig. 2)
b. Remove 9 screws (⑪). (Fig. 3)
c. Remove CB31-33, CB62 and CB80-82. (Fig. 2)
d. Remove the DIGITAL P.C.B.. (Fig. 2)

**4. FUNCTION(1)P.C.B.の外し方**

a. ⑧のプッシュリベット2本を外します。(Fig. 2)
b. ⑨のネジ9本を外します。(Fig. 3)
c. CB205、CB206、CB231、CB232、CB242、CB302を外します。(Fig. 2)
d. FUNCTION(1)P.C.B. を取り外します。(Fig. 2)

**5. DIGITAL P.C.B.の外し方**

a. ⑩のネジ2本を外します。(Fig. 2)
b. ⑪のネジ9本を外します。(Fig. 3)
c. CB31-33、CB38、CB62、CB80-82を外します。(Fig. 2)
d. DIGITAL P.C.B.を取り外します。(Fig. 2)

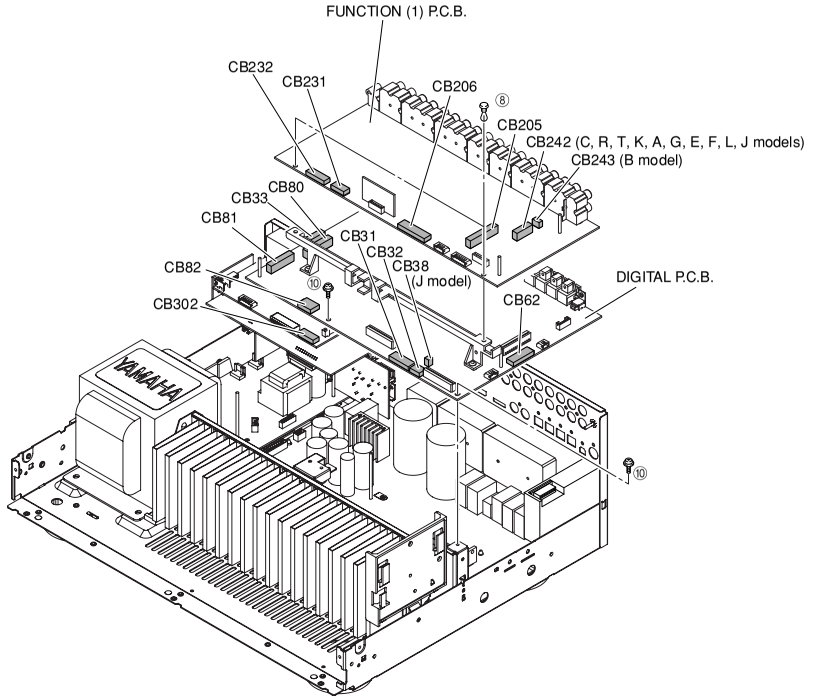
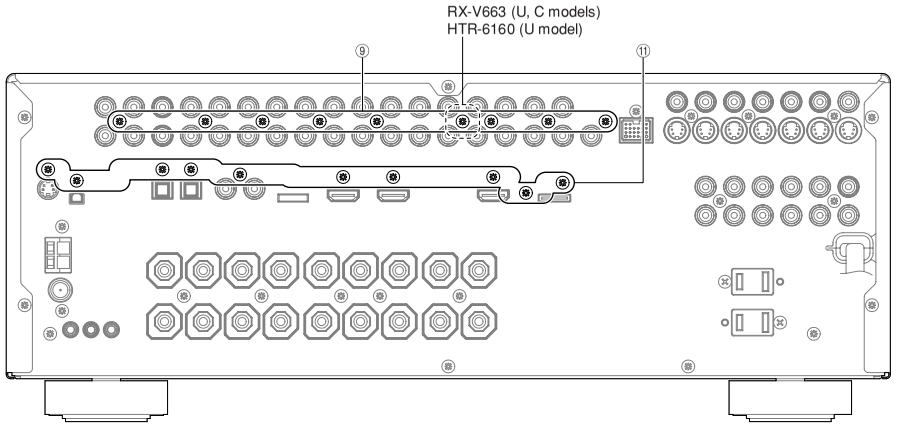



Fig. 2

**RX-V663 (U, C models)**
**HTR-6160 (U, C models)**




**RX-V663 (R, T, K, A, G, E, F, L models)**
**HTR-6160 (F model)**
**DSP-AX763 (B, J models)**

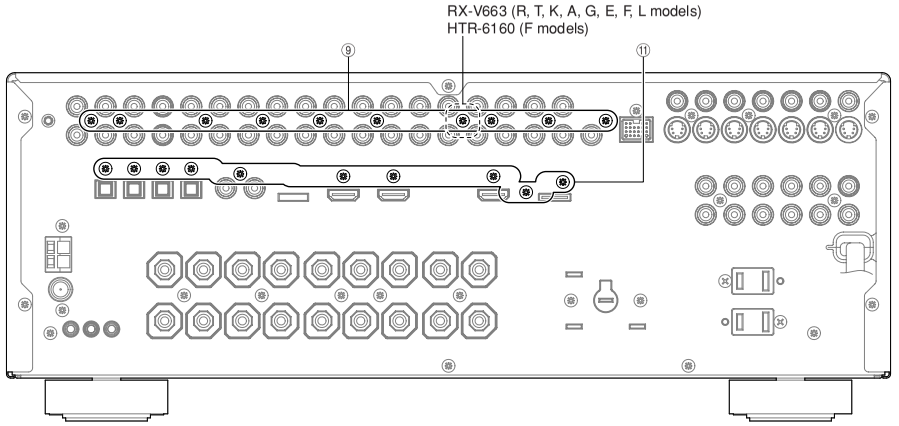



Fig. 3

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

a. Remove 2 screws (⑫) and then remove the FUNCTION (6) P.C.B. which is connected directly to the VIDEO (1) and (2) P.C.B.s with board to board connectors. (Fig. 4)
b. Remove 4 screws (⑬). (Fig. 5)
c. Remove CB303. (Fig. 4)
d. Remove the VIDEO (1) P.C.B.. (Fig. 4)
e. Remove 3 screws (⑭). (Fig. 5)
f. Remove the VIDEO (2) P.C.B.. (Fig. 4)

### 6. VIDEO（1）、（2）P.C.B.の外し方

a. ⑫のネジ2本を外し、FUNCTION（6）P.C.B.を取り外します。（Fig. 4）
ただし、FUNCTION（6）P.C.B.は、VIDEO（1）、（2）P.C.B.に基板対基板コネクターで直接接続されています。（Fig. 4）
b. ⑬のネジ4本を外します。（Fig. 5）
c. CB303を外します。（Fig. 4）
d. VIDEO（1）P.C.B.を取り外します。（Fig. 4）
e. ⑭のネジ6本を外します。（Fig. 5）
f. VIDEO（2）P.C.B.を取り外します。（Fig. 4）

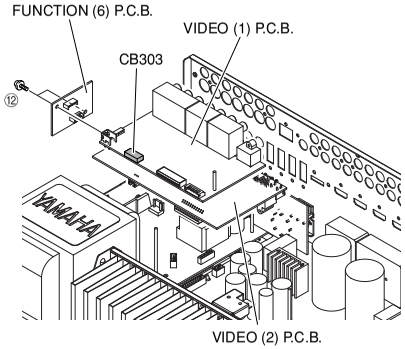



**Fig. 4**

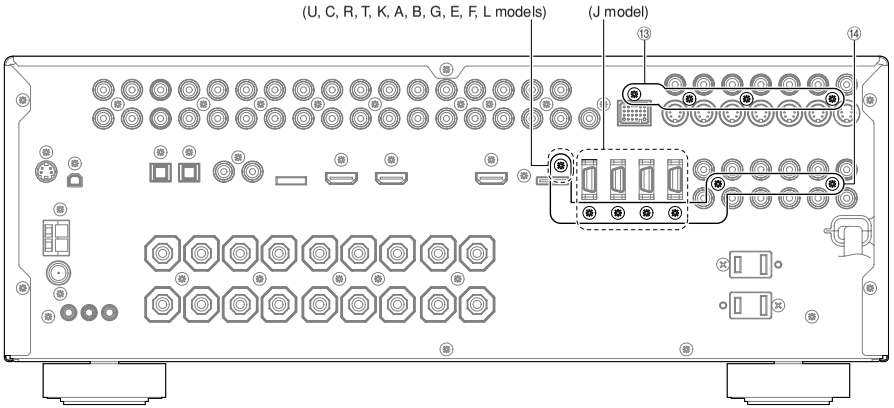



**Fig. 5**

### 7. Removal of AM/FM Tuner (U, C, R, T, K, A, G, E, F, L models)

a. Remove 2 screws (⑮). (Fig. 6)
b. Remove the AM/FM tuner. (Fig. 6)

### 7. AM/FMチューナーの外し方

a. ⑮のネジ2本を外します。（Fig. 6）
b. AM/FMチューナーを取り外します。（Fig. 6）

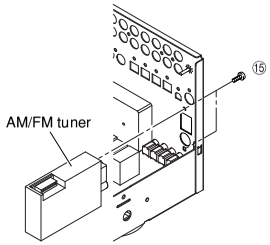



**Fig. 6**

### 8. Removal of FUNCTION (5) P.C.B. (B model)

a. Remove screw (⑯). (Fig. 7)
b. Remove the FUNCTION (5) P.C.B.. (Fig. 7)

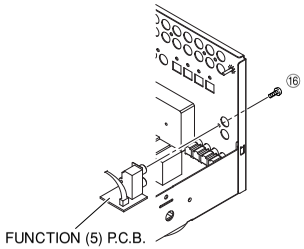



**Fig. 7**

## 9. Removal of Amp Unit

a. Remove 2 screws (⑰), screw (⑱), 2 screws (⑲) and screw (⑳). (Fig. 8)
b. Remove 6 screws (㉑). (Fig. 8)
c. Remove CB100, CB101 and CB251. (Fig. 8)
d. Remove the MAIN (1) and (2) P.C.B.s together with heat sink. (Fig. 8)

## 9. アンプユニットの外し方

a. ⑰のネジ2本、⑱のネジ1本、⑲のネジ2本、⑳のネジ1本を外します。(Fig. 8)
b. ㉑のネジ6本を外します。(Fig. 8)
c. CB100、CB101、CB251を外します。(Fig. 8)
d. MAIN(1)、(2)P.C.B.をヒートシンクと一緒に取り外します。(Fig. 8)

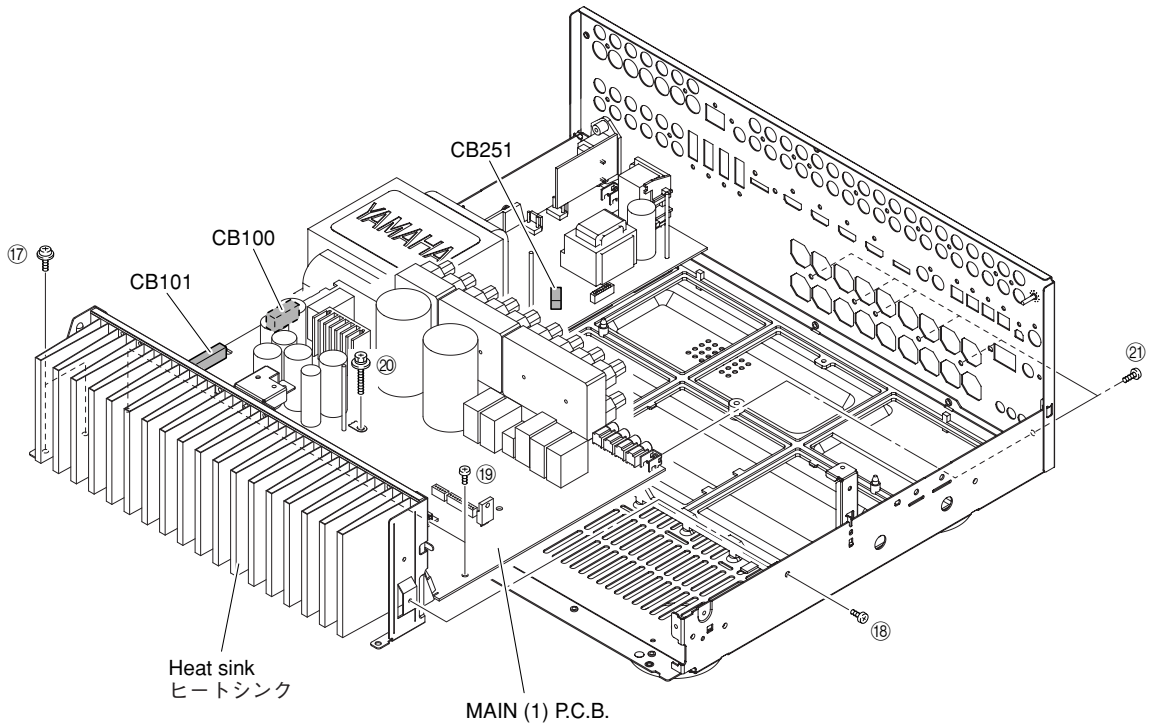



**Fig. 8**

**When checking the P.C.B.:**

- Put the rubber sheet and cloth over the equipment. Then place the FUNCTION(1) P.C.B. upside down on the cloth and check it. (Fig. 9)
- Reconnect all cables (connectors) that have been disconnected.
- When connecting the flexible flat cable, be careful with polarity.
- Be sure to use the extension cable for servicing for the following section. (Fig. 9)
  FUNCTION (1) P.C.B. CB205–DIGITAL P.C.B. CB61:
  MF125400 (25P, 400mm, P=1.25)
- In this unit, the ground of P.C.B.s shown below is connected to the rear panel and chassis.
  When FUNCTION (1) P.C.B. is removed from the rear panel and chassis, connect the ground point to the rear panel or chassis, using a ground lead or the like. (Fig. 9)
  FUNCTION (1) P.C.B.: PJ201 (PHONO)
  FUNCTION (1) P.C.B.: PJ203 (DVD)
  FUNCTION (1) P.C.B.: PJ209 (PRE OUT)
  FUNCTION (1) P.C.B.: PJ294 (SUBWOOFER2)

**P.C.B.チェックをする場合には：**

- 本機の上にゴムシートと布を敷き、その上にFUNCTION(1)P.C.B.を裏返しに置いてチェックします。(Fig. 9)
- 外したケーブル(コネクター)をすべて接続します。
- フラットケーブルを接続する際、極性に注意してください。
- 次の区間は、サービス用延長ケーブルを使用してください。(Fig. 9)
  FUNCTION(1)P.C.B. CB205—DIGITAL P.C.B. CB61：
  MF125400(25P、400mm、P=1.25)
- 本機ではP.C.B.のアースがリアパネルおよびシャーシに接続されています。
  FUNCTION(1)P.C.B.をリアパネルおよびシャーシより取り外した場合、リード線等でアースポイントをリアパネルまたはシャーシに接続してください。(Fig. 9)
  FUNCTION(1)P.C.B.：PJ201(PHONO)
  FUNCTION(1)P.C.B.：PJ203(DVD)
  FUNCTION(1)P.C.B.：PJ209(PRE OUT)
  FUNCTION(1)P.C.B.：PJ294(SUBWOOFER2)

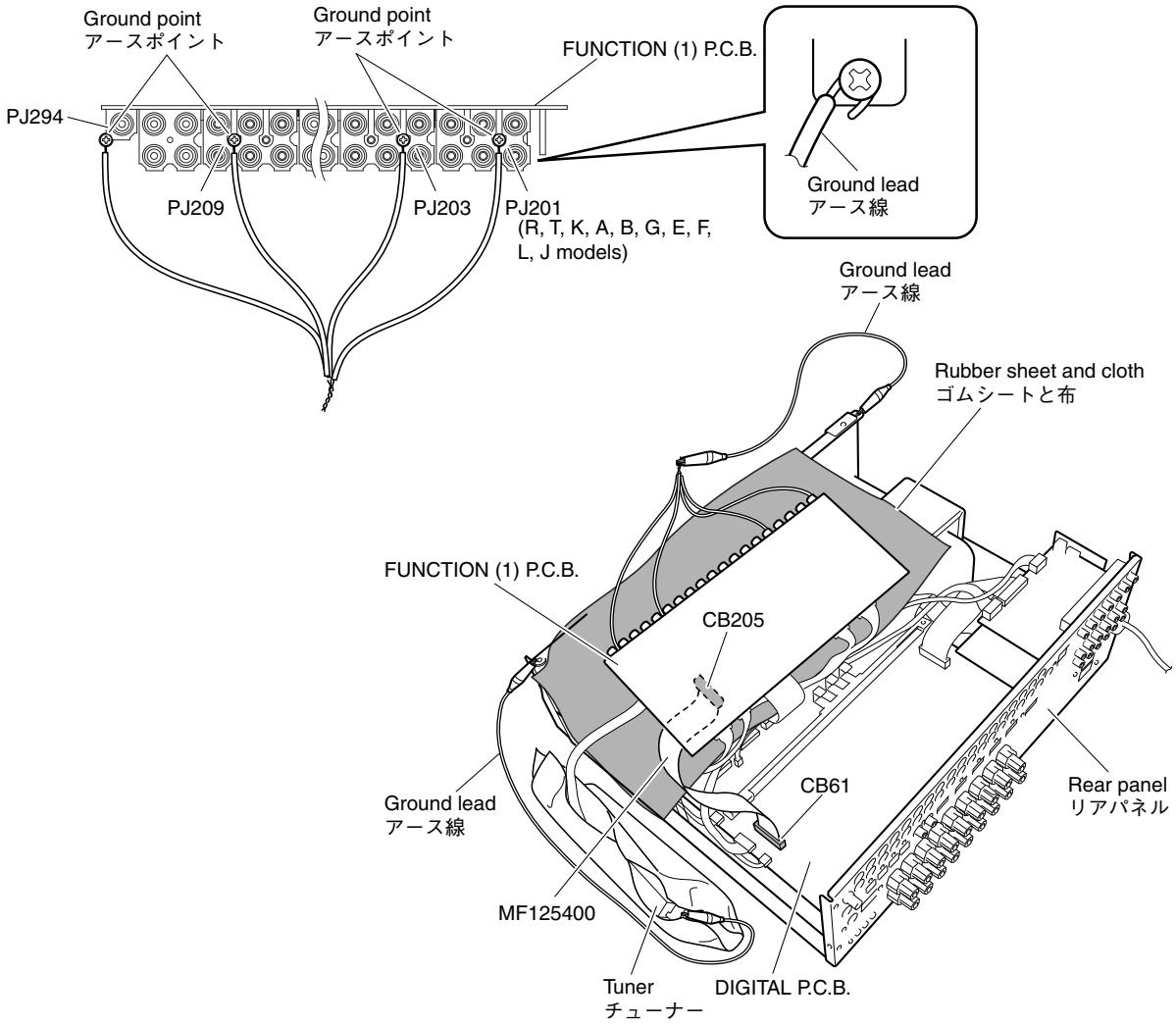



Fig. 9

**When checking the P.C.B.:**

- Put the rubber sheet and cloth over the equipment. Then place the FUNCTION (1) and DIGITAL P.C.B.s upside down on the cloth and check it. (Fig. 10)
- Reconnect all cables (connectors) that have been disconnected.
- When connecting the flexible flat cable, be careful with polarity.
- Be sure to use the extension cable for servicing for the following section. (Fig. 10)
  FUNCTION (1) P.C.B. CB205–DIGITAL P.C.B. CB61:
  MF125400 (25P, 400mm, P=1.25)
  DIGITAL P.C.B. CB80–VIDEO (1) P.C.B. CB305:
  MF126500 (26P, 500mm, P=1.25)
  DIGITAL P.C.B. CB81–VIDEO (2) P.C.B. CB302:
  MF116400 (16P, 400mm, P=1.25)
- In this unit, the ground of P.C.B.s shown below is connected to the rear panel and chassis.
  When FUNCTION (1) P.C.B. is removed from the rear panel and chassis, connect the ground point to the rear panel or chassis, using a ground lead or the like. (Fig. 10)
  FUNCTION (1) P.C.B.: PJ201 (PHONO)
  FUNCTION (1) P.C.B.: PJ203 (DVD)
  FUNCTION (1) P.C.B.: PJ209 (PRE OUT)
  FUNCTION (1) P.C.B.: PJ294 (SUBWOOFER2)
  DIGITAL P.C.B. : ST100
  DIGITAL P.C.B. : PJ41 (DVD COAXIAL INPUT)
  DIGITAL P.C.B. : G100, G300
  DIGITAL P.C.B. : ST41 (XM) (U, C models)

**P.C.B.チェックをする場合には：**

- 本機の上にゴムシートと布を敷き、その上にFUNCTION(1)P.C.B.およびDIGITAL P.C.B.を裏返しに置いてチェックします。(Fig. 10)
- 外したケーブル(コネクター)をすべて接続します。
- フラットケーブルを接続する際、極性に注意してください。
- 次の区間は、サービス用延長ケーブルを使用してください。(Fig. 10)
  FUNCTION(1)P.C.B. CB205－DIGITAL P.C.B. CB61：
  MF125400(25P、400mm、P=1.25)
  DIGITAL P.C.B. CB80－VIDEO(1)P.C.B. CB305：
  MF126500(26P、500mm、P=1.25)
  DIGITAL P.C.B. CB81－VIDEO(2)P.C.B. CB302：
  MF116400(16P、400mm、P=1.25)
- 本機ではP.C.B.のアースがリアパネルおよびシャーシに接続されています。
  FUNCTION(1)P.C.B.をリアパネルおよびシャーシより取り外した場合、リード線等でアースポイントをリアパネルまたはシャーシに接続してください。
  (Fig. 10)
  FUNCTION(1)P.C.B.：PJ201(PHONO)
  FUNCTION(1)P.C.B.：PJ203(DVD)
  FUNCTION(1)P.C.B.：PJ209(PRE OUT)
  FUNCTION(1)P.C.B.：PJ294(SUBWOOFER2)
  DIGITAL P.C.B. ：ST100
  DIGITAL P.C.B. ：PJ41(DVD COAXIAL INPUT)
  DIGITAL P.C.B. ：G100、G300

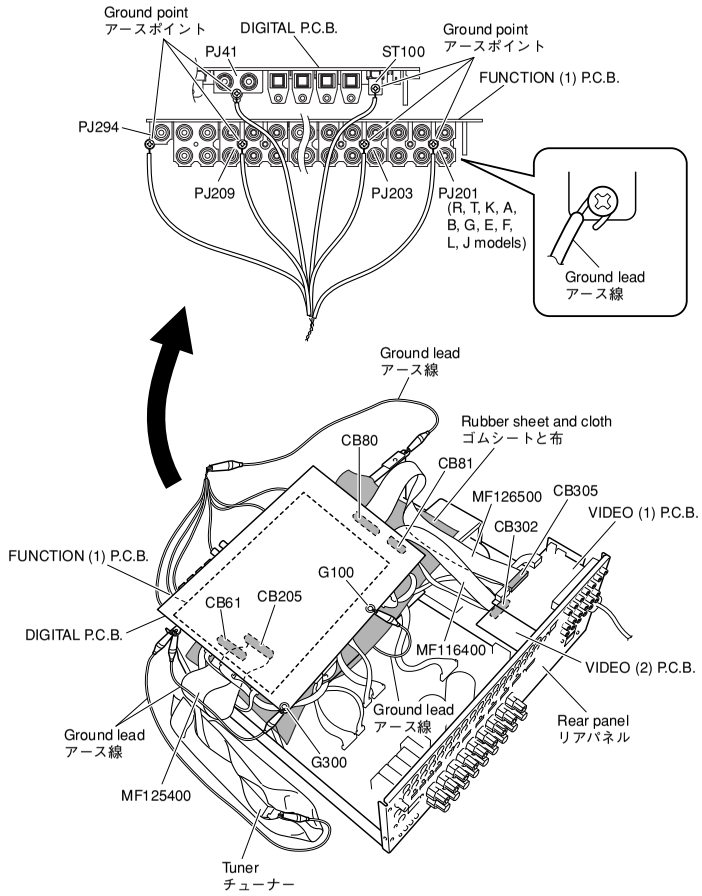



**Fig. 10**

# ■ UPDATING FIRMWARE / ファームウェアの書き込み

**Note)** Updating the firmware restores all the sound field parameters, system memory and tuner preset-ting, etc. to the original factory settings.

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

P.C.B. ass'y DIGITAL P.C.B.
IC30 (Main microprocessor) of DIGITAL P.C.B.
IC51 (TI (DSP) flash ROM) of DIGITAL P.C.B.

There are 2 ways to write the firmware.
- Writing method using the CD:
  Transferring data using CD through digital inputs.
  * When IC30 of DIGITAL P.C.B. is replaced, it is not possible to write the firmware by using the CD.
- Writing method using PC (RS232C):
  Transferring data using PC through serial port (RS232C).

## Writing method using the CD

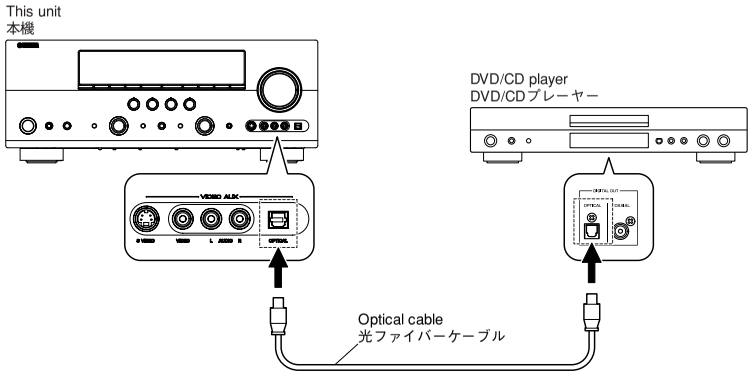
### ● Required Tools

- 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.

### ● Operation Procedures

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

**Example of OPTICAL jack / OPTICAL端子使用例**




**Example of COAXIAL jack / COAXIAL端子使用例**

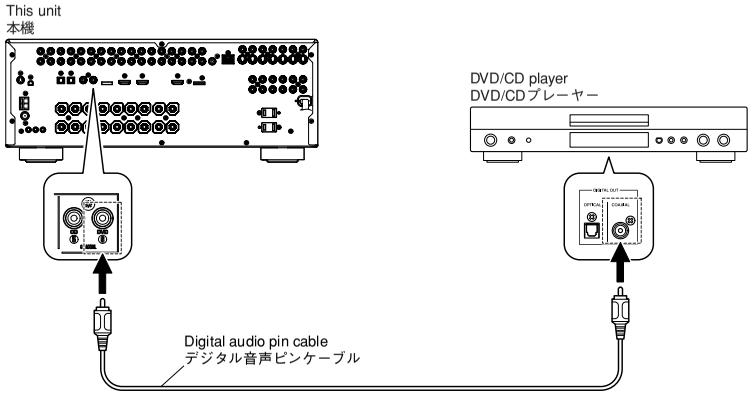



**Fig. 1**

注意）ファームウェアの書き込みを行うと、音場プログラムのパラメーターやシステムメモリー、チューナープリセット等はすべて工場出荷時に初期化されます。

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 ：DIGITAL
DIGITAL P.C.B. ：IC30（メインマイコン）
DIGITAL P.C.B. ：IC51（TI（DSP）FLASH ROM）

ファームウェアを書き込む方法は2通りあります。
- CDを使用して書き込む方法：
  CDを使用して書き込みを行うことができます。
  ※ DIGITAL P.C.B. IC30（メインマイコン）を交換した場合、CDでの書き込みはできません。
- PC（RS232C）を使用して書き込む方法：
  PCを使用して書き込みを行うことができます。

## CDを使用して書き込む方法

### ● 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。

### ● 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）

2. While pressing the “TONE CONTROL” key of this unit, connect the power cable of this unit to the AC outlet. (Fig. 2)
   The FIRMWARE UPDATE mode is activated and “CDDA Upgrader” is displayed. (Fig. 2)

2. 本機の“TONE CONTROL”キーを押しながら、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、“CDDA Upgrader”が表示されます。（Fig. 2）

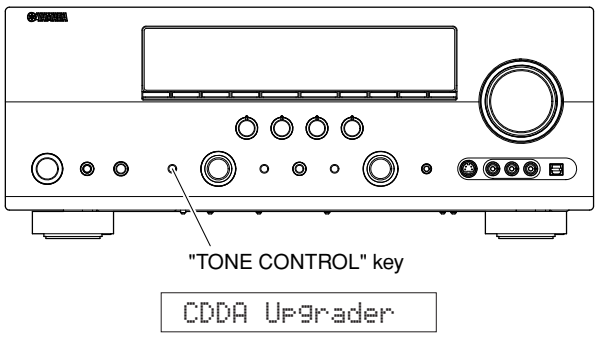



**Fig. 2**

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. Put the firmware CD on 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, “Update Success”, “Please...” and “Power 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、トレーを開きます。
6. ファームウェアCDをトレーに載せ、トレーを閉じます。
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、“Update Success”、“Please...”、“Power off!!”が繰り返し表示されます。（Fig. 3）

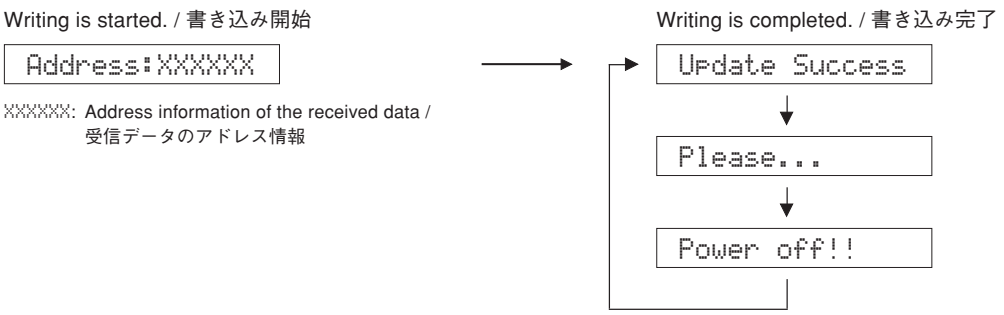



**Fig. 3**

* When the version of the firmware to be written is the same as the one existing in this unit, “Same Version”, “Please...” and “Power 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 written data 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 “MAIN ZONE ON/OFF” (RX-V663 / THR-6160: U, F models) / “STANDBY/ON” (HTR-6160: C model / DSP-AX763) 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 “MAIN ZONE ON/OFF” (RX-V663 / HTR-6160: U, F models) / “STANDBY/ON” (HTR-6160: C model / DSP-AX763) key while simultaneously pressing the “STRAIGHT” and “AUDIO SELECT” keys. (Fig. 4)
   Then the self-diagnostic function is activated.
3. Select the self-diagnostic function menu “23. FACTORY PRESET”.
4. Select the “PRESET RSRV”.

※ 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...”、“Power 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、“操作手順”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、“操作手順”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、トレーを開きます。
11. ファームウェアCDをトレーから外し、トレーを閉じます。
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“23. FACTORY PRESET”を選択します。
4. “PRESET RSRV”を選択します。

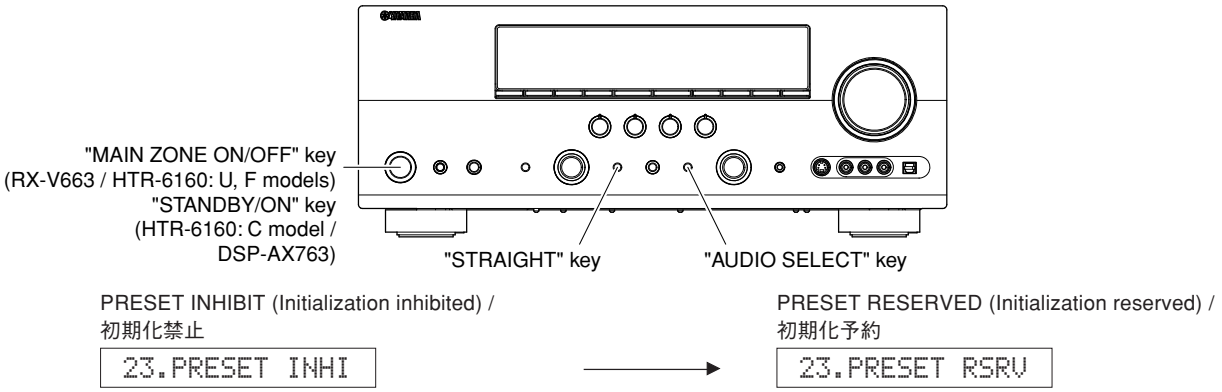



**Fig. 4**

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

● **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.
For more information, refer to “SELF-DIAGNOSTIC FUNCTION”.

1. Reconnect the power cable of this unit to the AC outlet.
2. Press the “MAIN ZONE ON/OFF” (RX-V663 / HTR-6160: U, F models) / “STANDBY/ON” (HTR-6160: C model / DSP-AX763: B model) 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 “24-1. Version”.
   Confirm the displayed firmware version is the same as the written firmware version. (Fig. 5)

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。

● **ファームウェアバージョンおよびチェックサムの確認**

ファームウエアが正しく更新されたことを確認するためにファームウエアバージョンおよびチェックサムをダイアグでチェックします。
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。

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“24-1. 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）

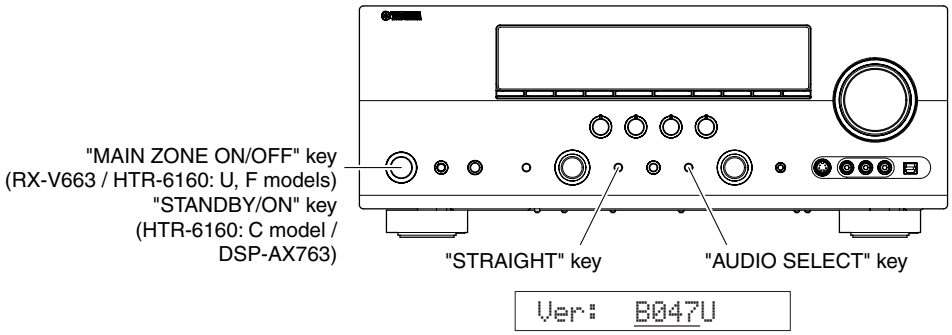



**Fig. 5**

4. Select the self-diagnostic function menu “24-2. All checksum”.
   Confirm the displayed checksum is the same as the written firmware checksum. (Fig. 5)
   (The checksum value is found where downloading is specified to.)

4. ダイアグ“24-2. 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。）

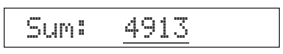



**Fig. 6**

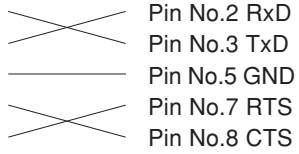
* When the displayed firmware version and checksum are different from written firmware version and checksum, follow the steps from 1 to 13 of “Operation Procedures” again.

※ 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。

## Writing method using PC (RS232C)

### ● Required Tools

- Windows 2000/XP, PC with a serial port (RS232C)
- Firmware downloader program
  For microprocessor:
  DSP_FLASHER_v3.0_M16C80.exe
  For DSP (TI flash ROM):
  DSP_FLASHER Ver2.7.exe
- Firmware
  For microprocessor:
  VX63xxxx.mot
  For DSP (TI flash ROM):
  Vx63_data1_verxxxxxr.hex
- RS232C cross cable “D-sub 9 pin female” (Specifications)




- RS232C conversion adapter (Including flexible flat cable 9P, 300mm) / Part no.: AAX77610

### ● Preparation and precautions before starting the operation

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

### ● Operation Procedures

#### Writing to the microprocessor

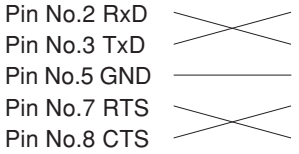
- **Writing firmware**

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

## PC（RS232C）を使用して書き込む方法

### ● 必要なツール

- Windows 2000／XP、シリアルポート（RS232C）付きPC
- ファームウェア書き込み用プログラム
  マイコン用：
  DSP_FLASHER_v3.0_M16C80.exe
  DSP（TI flash ROM）用：
  DSP_FLASHER Ver2.7.exe
- ファームウェア
  マイコン用：
  JX63xxxx.mot
  DSP（TI flash ROM）用：
  Vx63_data1_verxxxxxr.hex
- RS232Cクロスケーブル“D-sub 9pin”メス（仕様）




- RS232C変換アダプター（カード電線 9P、300mm含む）／部品番号：AAX77610

### ● 操作前の準備と注意

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

### ● 操作手順

#### マイコンへの書き込み

- ファームウェアの書き込み

1. 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。

2. Set the switch (SW301) of RS232C conversion adapter to the “FLASH UCOM” side. (Fig. 1)
3. Connect the writing port of this unit to the serial port (RS232C) of the PC with RS232C cross cable, RS232C conversion adapter and flexible flat cable as shown below. (Fig. 1)

2. RS232C変換アダプターのスイッチ（SW301）を“FLASH UCOM”側に設定します。（Fig.1）
3. 本機の書き込み用ポートとPCのシリアルポート（RS232C）を下記のように接続します。（Fig. 1）

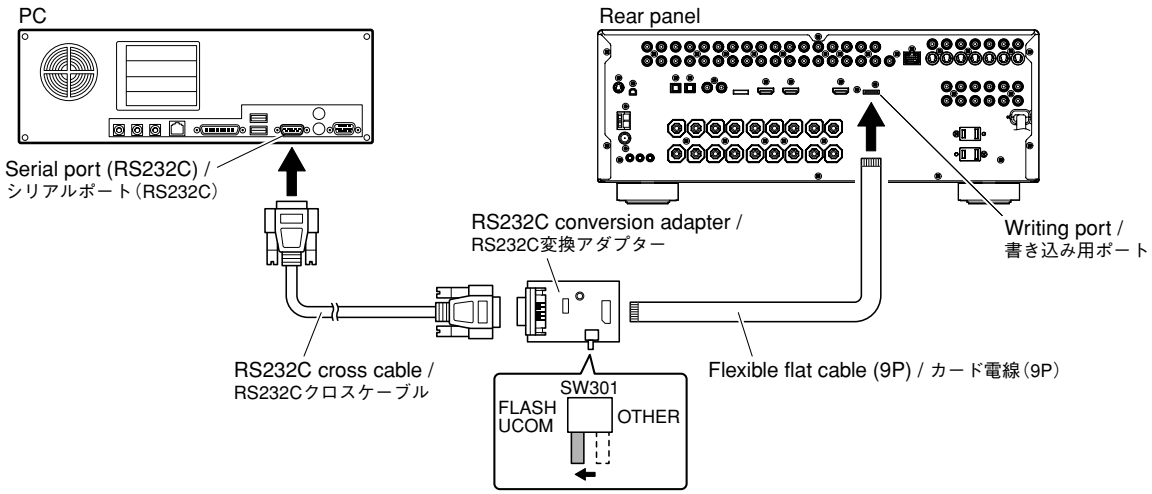



**Fig. 1**

4. Start up “DSP_FLASHER_v3.0_M16C80.exe”. “DSP FLASHER_V3.0” is displayed. (Fig. 2)
5. Click [...]. (Fig. 2)

Select “VX63xxx.mot (Fig. 2)

4. “DSP_FLASHER_v3.0_M16C80.exe”を起動します。“DSP FLASHER_V3.0”が表示されます。（Fig. 2）
5. [...]をクリックします。（Fig. 2）

“JX63xxxx.mot”を選択します。（Fig. 2）

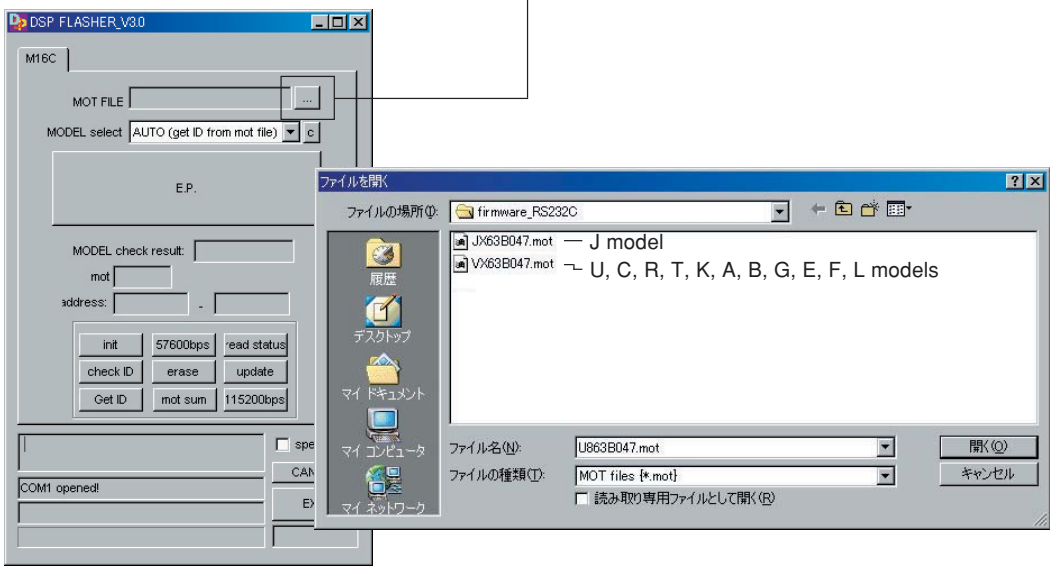



**Fig. 2**

6. Reconnect the power cable of this unit to the AC outlet.
7. Click [E.P.] to start writing. (Fig. 3)
8. When writing is completed, “Program Finished!” is displayed. (Fig. 3)
   Click [OK]. (Fig. 3)
9. Click [EXIT] to end “DSP_FLASHER_v3.0_M16C80.exe”. (Fig. 3)

6. 本機の電源コードをACコンセントに接続します。
7. [E.P.]をクリックし、書き込みを開始します。（Fig. 3）
8. 書き込み完了後、“Program Finished!”が表示されます。（Fig. 3）
   [OK]をクリックします。（Fig. 3）
9. [EXIT]をクリックし、“DSP_FLASHER_v3.0_M16C80.exe”を終了します。（Fig. 3）

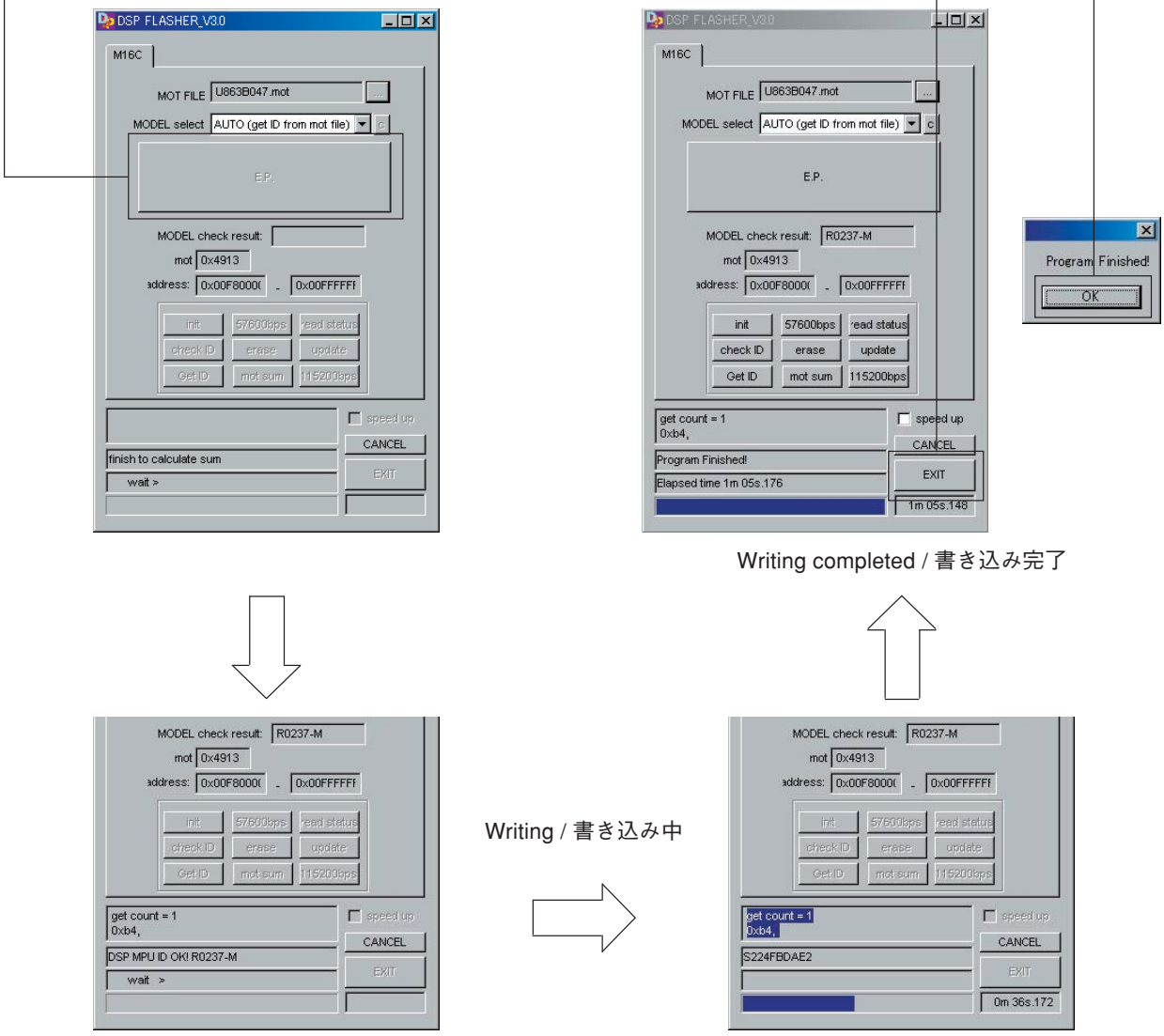



**Fig. 3**

10. Disconnect the power cable of this unit from the AC outlet.
11. Disconnect the RS232C cross cable, RS232C conversion adapter and flexible flat cable.

- **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 “MAIN ZONE ON/OFF” (RX-V663 / HTR-6160: U, F models) / “STANDBY/ON” (HTR-6160: C model / DSP-AX763) key while simultaneously pressing the “STRAIGHT” and “AUDIO SELECT” keys. (Fig. 4)
   Then the self-diagnostic function is activated.
3. Select the self-diagnostic function menu “23. FACTORY PRESET”.
4. Select the “PRESET RSRV”.

10. 本機の電源コードをACコンセントから抜きます。
11. RS232Cクロスケーブル、RS232C変換アダプター、カード電線を取り外します。

- 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“23. FACTORY PRESET”を選択します。
4. “PRESET RSRV”を選択します。

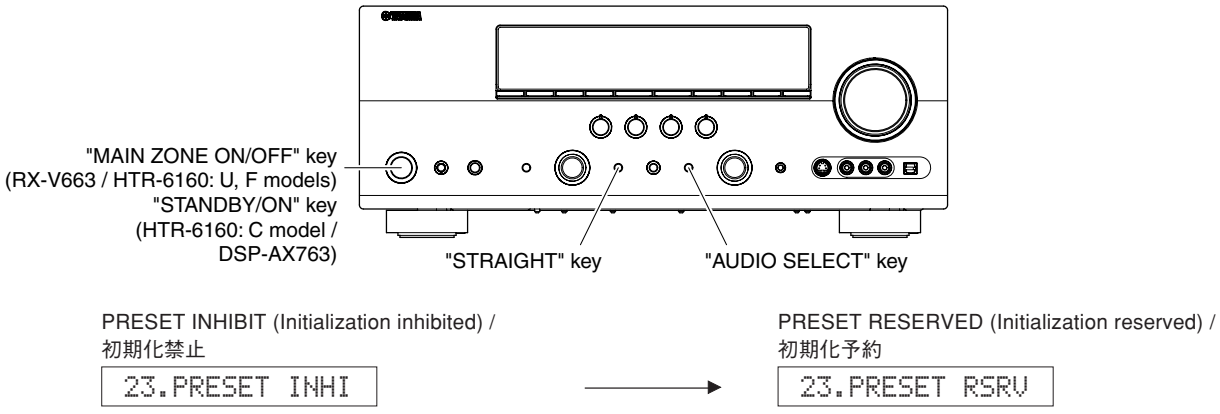



**Fig. 4**

- **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.
For more information, refer to “SELF-DIAGNOSTIC FUNCTION”.

- ファームウェアのバージョンおよびチェックサムの確認

ファームウエアが正しく更新されたことを確認するためにファームウエアバージョンおよびチェックサムをダイアグでチェックします。
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。

1. Reconnect the power cable of this unit to the AC outlet.
2. Press the “MAIN ZONE ON/OFF” (RX-V663 / HTR-6160: U, F models) / “STANDBY/ON” (HTR-6160: C model / DSP-AX763: B model) 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 “24-1. Version”.
   Confirm the displayed firmware version is the same as the written firmware version. (Fig. 5)

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“24-1. 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)

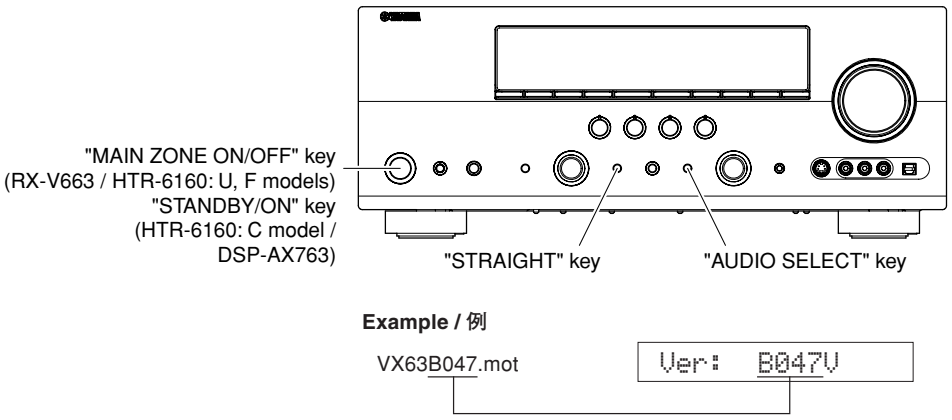



**Fig. 5**

4. Select the self-diagnostic function menu “24-2. All checksum”.
   Confirm the displayed checksum is the same as the written firmware checksum. (Fig. 5)
   (The checksum value is found where downloading is specified to.)

4. ダイアグ“24-2. 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。)




**Fig. 6**

* When the displayed firmware version and checksum are different from written firmware version and checksum, follow the steps from 1 to 11 of “Operation Procedures” again.

※ 表示されたファームウェアのバージョン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11までをもう一度やり直してください。

## Writing to DSP

- **Writing firmware**

1. Turn off the power of this unit and disconnect the power cable from the AC outlet.
2. Set the switch (SW301) of RS232C conversion adapter to the “OTHER” side. (Fig. 1)
3. Connect the writing port of this unit to the serial port (RS232C) of the PC with RS232C cross cable, RS232C conversion adapter and flexible flat cable as shown below. (Fig. 1)

## DSPへの書き込み

- ファームウェアの書き込み

1. 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。
2. RS232C変換アダプターのスイッチ（SW301）を“OTHER”側に設定します。（Fig. 1）
3. 本機の書き込み用ポートとPCのシリアルポート（RS232C）を下記のように接続します。（Fig. 1）

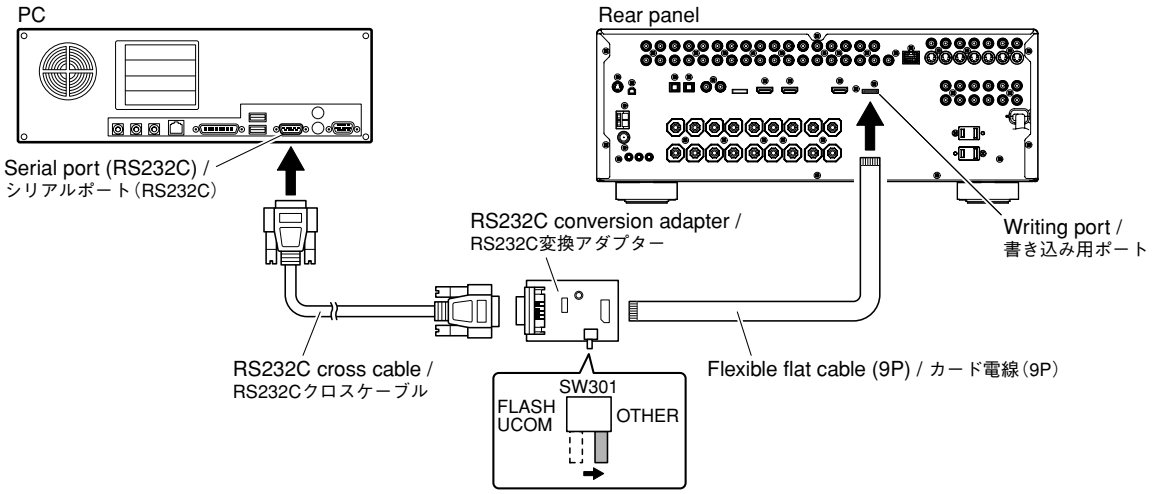



**Fig. 1**

4. Start up “DSP_FLASHER Ver2.7.exe”. “DSP FLASHER_V2.70” is displayed. (Fig. 2)
5. Click [Vx61 DSP]. (Fig. 2)

4. “DSP_FLASHER Ver2.7.exe”を起動します。“DSP FLASHER_V2.70”が表示されます。（Fig. 2）
5. [Vx61 DSP]をクリックします。（Fig. 2）

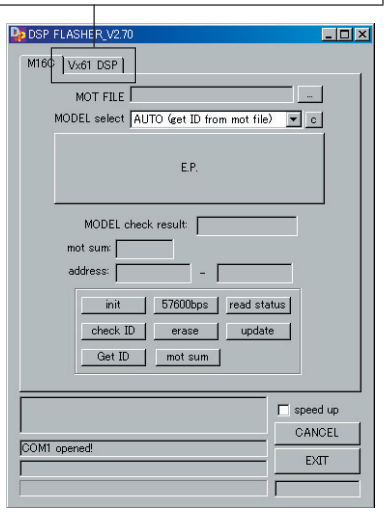



**Fig. 2**

6. Click [...]. (Fig. 3)

Select “Vx63_data1_verxxxxxr.hex”. (Fig. 3)

6. [...]をクリックします。(Fig. 3)

“Vx63_data1_verxxxxxr.hex”を選択します。(Fig. 3)

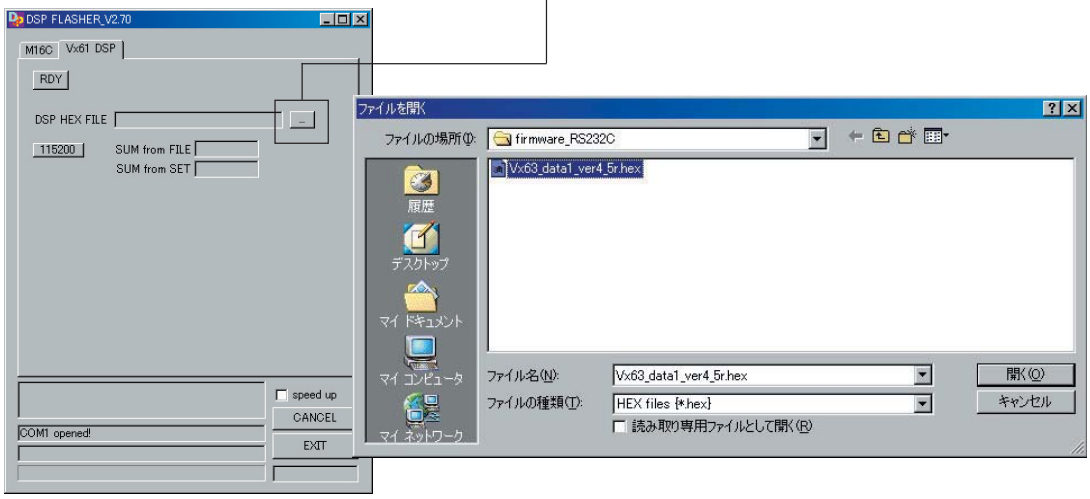



**Fig. 3**

7. Click [RDY]. (Fig. 4)

7. [RDY]をクリックします。(Fig. 4)

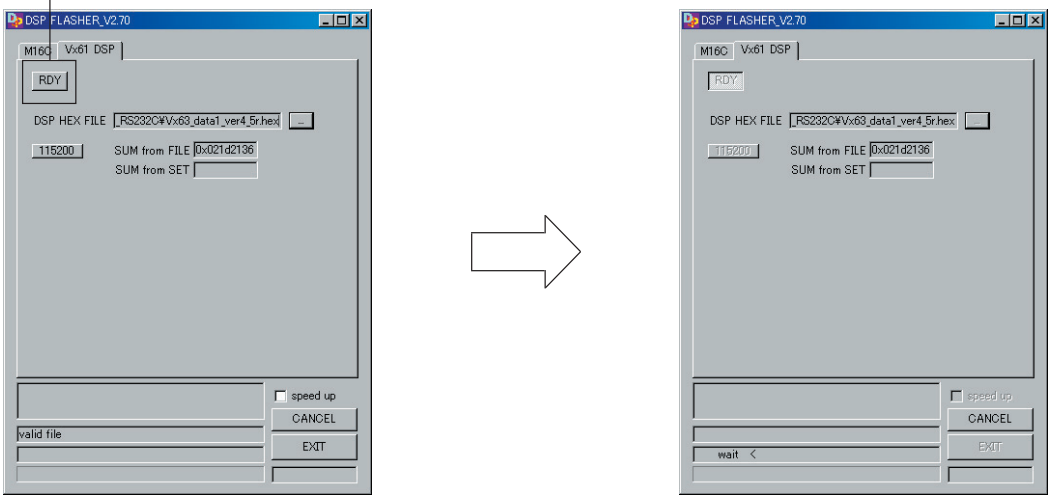
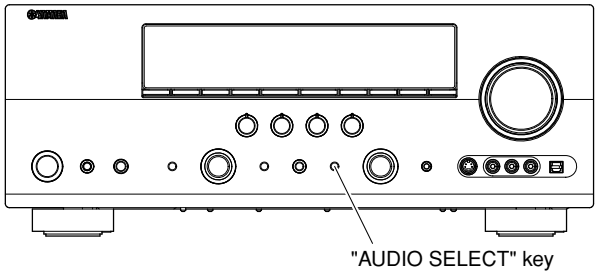
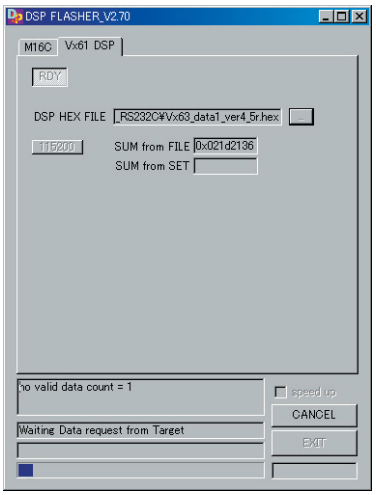



**Fig. 4**

8. Connect the power cable of this unit to the AC outlet while pressing the “AUDIO SELECT” key. (Fig. 5)
   Writing is started automatically. (Fig. 5)

8. 本機の“AUDIO SELECT”キーを押しながら、電源コードをACコンセントに接続します。(Fig. 5)
   自動的に書き込みを開始します。(Fig. 5)



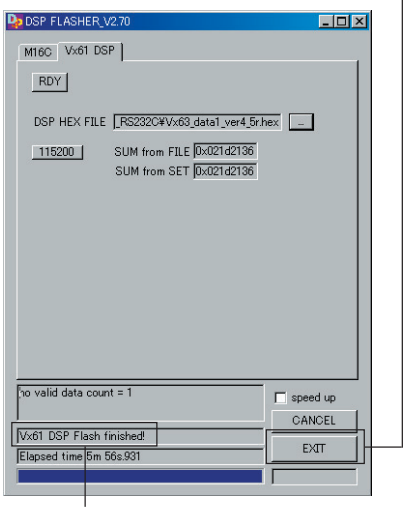




Writing / 書き込み中

**Fig. 5**

9. When writing is completed, “Vx61 DSP Flash finished!” is displayed. (Fig. 6)
10. Click [EXIT] to end “DSP_FLASHER Ver2.7.exe”. (Fig. 6)

9. 書き込み完了後、“Vx61 DSP Flash finished!”が表示されます。（Fig. 6）
10. [EXIT]をクリックし、“DSP_FLASHER Ver2.7.exe”を終了します。（Fig. 6）




When writing is completed, “Vx61 DSP Flash finished!” is displayed.
書き込み完了後、“Vx61 DSP Flash finished!”が表示されます。

**Fig. 6**

11. Disconnect the power cable of this unit from the AC outlet.
12. Disconnect the RS232C cross cable, RS232C conversion adapter and flexible flat cable.

11. 本機の電源コードをACコンセントから抜きます。
12. RS232Cクロスケーブル、RS232C変換アダプター、カード電線を取り外します。

- **Initializing of the main 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 “MAIN ZONE ON/OFF” (RX-V663 / HTR-6160: U, F models) / “STANDBY/ON” (HTR-6160: C model / DSP-AX763: B model) key while simultaneously pressing the “STRAIGHT” and “AUDIO SELECT” keys. (Fig. 7)
     Then the self-diagnostic function is activated.
  3. Select the self-diagnostic function menu “23. FACTORY PRESET”.
  4. Select the “PRESET RSRV”.

- **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. 7)
  3. ダイアグ“23. FACTORY PRESET”を選択します。
  4. “PRESET RSRV”を選択します。

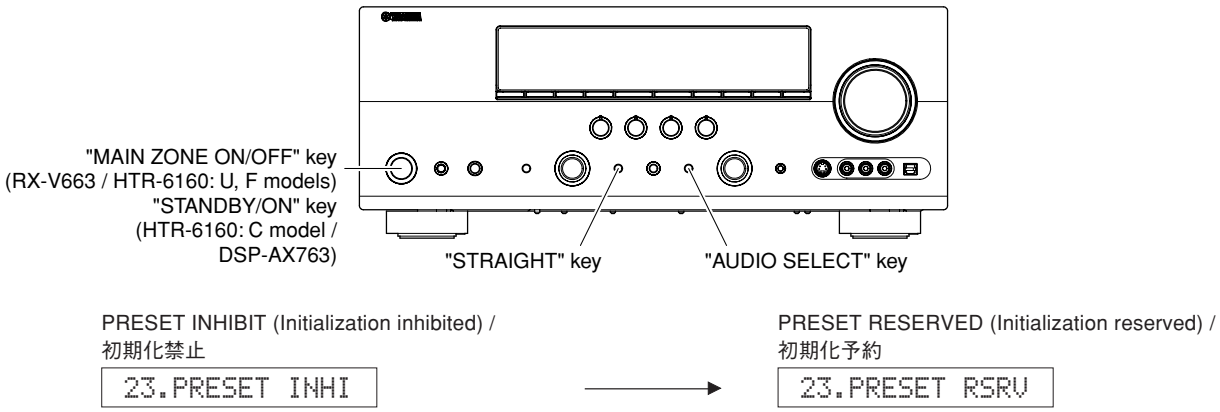



**Fig. 7**

- **Confirmation of firmware version and checksum**

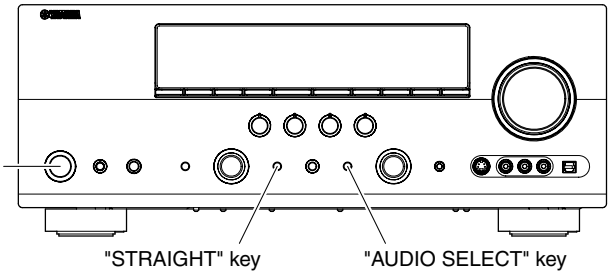
  To confirm that the firmware is updated successfully, check the firmware version and checksum value by using the self-diagnostic function.
  For more information, refer to “SELF-DIAGNOSTIC FUNCTION”.

- **ファームウェアのバージョンおよびチェックサムの確認**

  ファームウエアが正しく更新されたことを確認するためにファームウエアバージョンおよびチェックサムをダイアグでチェックします。
  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。

1. Connect the power cable of this unit to the AC outlet.
2. Press the “MAIN ZONE ON/OFF” (RX-V663 / HTR-6160: U, F models) / “STANDBY/ON” (HTR-6160: C model / DSP-AX763: B model) key while simultaneously pressing the “STRAIGHT” and “AUDIO SELECT” keys. (Fig. 8)
   Then the self-diagnostic function is activated.
3. Select the self-diagnostic function menu “24-3. TI FLASH version”.
   Confirm the displayed firmware version is the same as the written firmware version. (Fig. 8)

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. 8)
3. ダイアグ“24-3. TI FLASH 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. 8)




**Example / 例**

TiVer:04.05r2

**Fig. 8**

4. Select the self-diagnostic function menu “24-4. TI FLASH checksum”.
   Confirm the displayed checksum is the same as the written firmware checksum. (Fig. 9)
   (The checksum value is found where downloading is specified to.)

4. ダイアグ“24-4. TI FLASH 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. 9)
   (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。)

**Example / 例**

TiSum:021D2136

**Fig. 9**

* When the displayed firmware version and checksum are different from written firmware version and checksum, follow the steps from 1 to 12 of “Operation Procedures” again.

※ 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12までをもう一度やり直してください。

## ■ 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 24 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、その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 |
|---|---|---|
| 1 | BYPASS | 1. ANALOG BYPASS |
| | | 2. DSP BYPASS |
| 2 | RAM THR | 1. RAM MARGIN |
| | | 2. RAM FULL BIT |
| 3 | HDMI AUDIO | 1. SPDIF |
| | | 2. Multi |
| | | 3. DSD |
| 4 | SPEAKERS SET | 1. FRONT : SML 0dB |
| | | 2. CENTER : NONE |
| | | 3. LFE/B : FRONT |
| | | 4. PRESENCE Mix-P |
| | | 5. PRESENCE Mix-F |
| | | 6. Zone2 Amp ON |
| | | 7. Bi-AMP |
| | | 8. TONE : MAX |
| | | 9. TONE : MIN |
| 5 | XCH-INPUT | 1. 6ch INPUT 6ohms |
| | | 2. 8ch INPUT 6ohms |
| | | 3. 6ch INPUT 8ohms |
| | | 4. 8ch INPUT 8ohms |
| | | 5. LIMIT |
| 6 | MIC CHECK | 1. MIC CHECK |
| 7 | FL/OSD CHECK | 1. VFD CHECK |
| | | 2. VFD DISP OFF / MONITOR MUTE |
| | | 3. VFD DISP ALL / Conponent MUTE |
| | | 4. VFD DIMMER / OSD CHARACTERS PATTERN |
| | | 5. CHECK PATTERN / OSD CHARACTERS PATTERN |
| 8 | MANUAL TEST | 1. TEST ALL |
| 9 | A/D DATA CHECK | 1. PS1, PS2 |
| | | 2. DC, TH |
| | | 3. IMP, PL |
| | | 4. DST, DK |
| | | 5. K0, K1 |
| 10 | VIDEO CHECK | 1. I2C : XXXXXXXX |
| | | 2. DIGITAL COMPONENT |
| | | 3. DIGITAL CVBS |
| | | 4. DIGITAL Y/C |
| | | 5. ANALOG BYPASS |
| | | 6. TEST PATTERN |
| | | 7. VIDEO INFORMATION |
| 11 | XM STATUS (U, C models) | 1. 1k -1dB/44kHz |
| | | 2. 1k -61dB/44kHz |
| | | 3. MUTE/44kHz |
| | | 4. XM TONE/44kHz |
| | | 5. ISO TONE/44kHz |
| | | 6. 1k -1dB/32kHz |
| | | 7. 1k -61dB/32kHz |
| | | 8. MUTE/32kHz |
| | | 9. XM TONE/32kHz |
| | | 10. ISO TONE/32kHz |
| | | 11. BUS POWER : OFF |
| 12 | SIRIUS (U, C models) | 1. SIRIUS : OK (NG) |
| | | 2. SR : XX XX XX |
| | | 3. SSP : (SIRIUS #0 version) |
| | | 4. MAC : (SIRIUS #1 version) |
| | | 5. ADP : (SIRIUS #2 version) |
| | | 6. PRDID : (Product ID) |
| | | 7. SEQID : (Sequence ID) |
| 13 | HD RADIO (U model) | 1. HD CPU V : XXXXX |
| | | 2. D : XXXXX |
| 14 | DOCK | 1. DOCK : XXXXX |
| | | 2. BT V : – – – – – – – – |
| 15 | HDMI INFORMATION | 1. MN : XXXXXXX |
| | | 2. PI : 312X |
| | | 3. VN : YAMAHA |
| 16 | HDMI SELECT | 1. HDMI NONE |
| | | 2. HDMI IN 1 |
| | | 3. HDMI IN 2 |
| | | 4. HDMI IN 3 |
| | | 5. HDMI UPCONV. |
| | | 6. HDMI UP THR |
| 17 | IF STATUS | 1. DSP STATUS (5 Byte) |
| 18 | DSP BUS CHECK | 1. TI BUS : |
| 19 | RESERVED | |
| 20 | PROTECTION HISTORY | 1. HISTORY 1 |
| | | 2. HISTORY 2 |
| | | 3. HISTORY 3 |
| | | 4. HISTORY 4 |
| 21 | RESERVED | |
| 22 | UPDATE (Not applied to these models. / このモデルには適用されません。) | 1. TI FLASH BOOT |
| | | 2. CEC UPDATE |
| 23 | FACTORY PRESET | 1. PRESET INHI |
| | | 2. PRESET RSRV |
| 24 | ROM VER./SUM/PORT | 1. VERSION DISP |
| | | 2. SUM ALL / PROGRAM |
| | | 3. TI FLASH VERSION (1 Byte) |
| | | 4. TI FLASH SUM (4 Byte) |
| | | 5. CEC VERSION |
| | | 6. XM VERSION (U, C models) |
| | | 7. SIRIUS VERSION (U, C models) |
| | | 8. XX XXX X XXX |

## • Starting Self-Diagnostic Function

Press the “MAIN ZONE ON/OFF” (RX-V663 / HTR-6160: U, F models) / “STANDBY/ON” (HTR-6160: C model / DSP-AX763) 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。

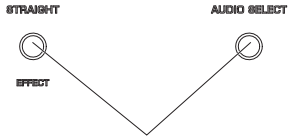
**Keys of this unit / 本機キー**

RX-V663 / HTR-6160 (U, F models)




HTR-6160 (C model) /
DSP-AX763




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 “MAIN ZONE ON/OFF” (RX-V663 / HTR-6160: U, F models) / “STANDBY/ON” (HTR-6160: C model / DSP-AX763) 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.

**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.**

## ● 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。

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. 23 (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 “MAIN ZONE ON/OFF” (RX-V663 / HTR-6160: U, F models) / “STANDBY/ON” (HTR-6160: C model / DSP-AX763: B, J models) 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 version and the protection history) appears for a few seconds followed by the main menu display (1. ANALOG BYPASS).

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

## ● 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（1. ANALOG BYPASS）となります。

**プロテクション履歴が無い場合：**

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




After a few seconds / 数秒後



Main menu display / メインメニュー表示



**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

```
I PROTECT
```

**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 protection function has been activated 3 times continuously, the power will not turn on even when the "MASTER ON/OFF" (RX-V663 / HTR-6160: F model) / "STANDBY/ON" (HTR-6160: U, C models / DSP-AX763) 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 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.**

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

```
DC PRT :xxx G
```

**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**

PS1 PRT:xxx or PS2 PRT:xxx

**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**

TMP PRT:xxx G

**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.

**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。

If the power is turned on with the abnormality unsolved, the protection function works in 1 second to turn off the power.

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.

各プロク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 this 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. 23 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. 23 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 24 main menu items, each them having sub-menu items.

**Main menu selection:**
Select the main menu using “PROGRAM” knob.

**Sub-menu selection:**
Select the sub-menu using “SCENE 2” (forward) / “SCENE 1” (reverse) keys or “PRESET/TUNING >” (forward) / “PRESET/TUNING <” (reverse) keys (U, C, R, T, K, A, G, E, F, L models).

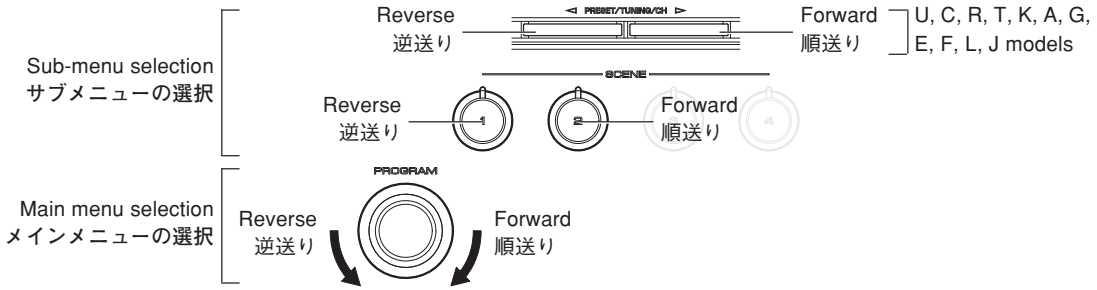
## ● メインメニューとサブメニューの操作

ダイアグにはNo. 1～24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。

**メインニューの選択：**
“PROGRAM”ツマミで選択します。

**サブメニューの選択：**
“SCENE 2”(順送り)、“SCENE 1”(逆送り)キーまたは“PRESET/TUNING＞”(順送り)、“PRESET/TUNING＜”(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
- Speaker relay control of A and B
- 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
・ 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 when starting Self-Diagnostic Function

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

- Master volume: -20 dB
- Input: DVD (MULTI CHANNEL INPUT OFF)
- Effect level: 0 dB
- Main menu: 1. ANALOG BYPASS

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

## ● 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。

・ 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：1. ANALOG BYPASS

ダイアグ解除時にはダイアグ開始前の状態に戻ります。

## • Details of Self-Diagnostic Function menu

### 1. BYPASS

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

**ANALOG BYPASS**

The analog input audio signal is output to FRONT L/R by PURE DIRECT.

## ● ダイアグメニュー詳細

### 1. BYPASS

サブメニュー操作により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PURE DIRECTでFRONT L/Rへ出力します。

1.ANALOG BYPAS

INPUT: DVD ANALOG
SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Input level | Volume | SPEAKER OUT | | | | SUBWOOFER OUTPUT |
|---|---|---|---|---|---|---|
| | | FRONT L/R | CENTER | SURROUND L/R | SURROUND BACK L/R | |
| Both ch, -20 dBm | +6.0 dB | +12.0 dBm | -∞ | -∞ | -∞ | -∞ |

**DSP BYPASS**

The digital input audio signal is output to FRONT L/R by PURE DIRECT.

**DSP BYPASS**

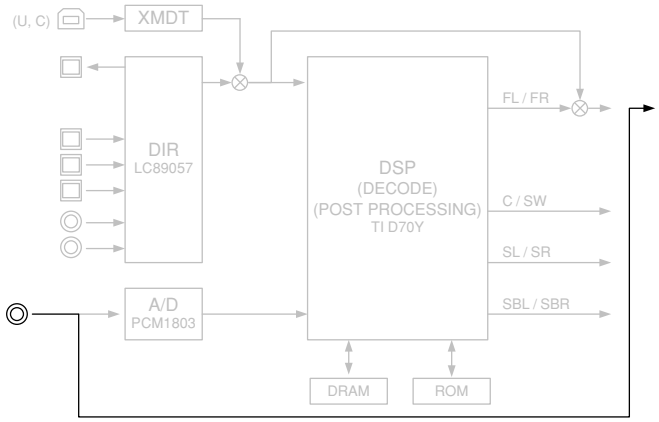
デジタル入力の音声信号をPURE DIRECTでFRONT L/Rへ出力します。

1.DSP BYPASS

INPUT: DVD ANALOG
SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

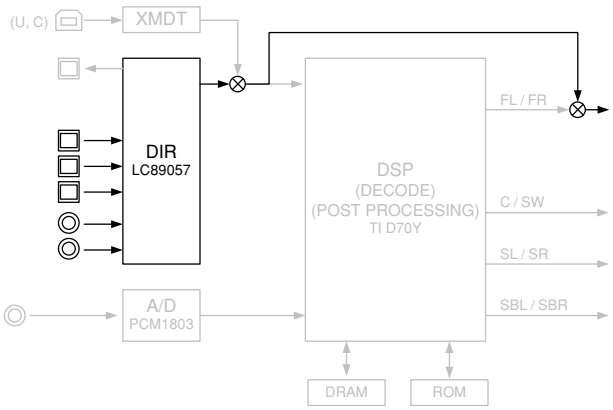
| Input level | Volume | SPEAKER OUT | | | | SUBWOOFER OUTPUT |
|---|---|---|---|---|---|---|
| | | FRONT L/R | CENTER | SURROUND L/R | SURROUND BACK L/R | |
| Both ch, -20 dBm | +6.0 dB | +12.0 dBm | -∞ | -∞ | -∞ | -∞ |

ANALOG BYPASS




(Shaded items not used in this example)

DSP BYPASS




(Shaded items not used in this example)

## 2. RAM THROUGH

Using the sub-menu, it is possible to select MARGIN output or FULL BIT output.

**RAM MARGIN**

The signal is output including the head margin.

## 2. RAM THROUGH

サブメニュー操作によりMARGIN/FULL BITが選択可能です。

**RAM MARGIN**

ヘッドマージンを含んで出力されます。

2.RAM MARGIN

| FRONT L/R | CENTER | SURROUND L/R | SURROUND BACK L/R | SUBWOOFER |
|---|---|---|---|---|
| +9.0 dB | +13.5 dB | +9.0 dB | +7.5 dB | +21.0 dB |

INPUT: DVD ANALOG
SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Input level | Volume | SPEAKER OUT | | | | SUBWOOFER |
|---|---|---|---|---|---|---|
| | | FRONT L/R | CENTER | SURROUND L/R | SURROUND BACK L/R | OUTPUT |
| Both ch, -20 dBm | +6.0 dB | +12.0 dBm | +12.0 dBm | +12.0 dBm | +12.0 dBm | -7.0 dBm |

**RAM FULL BIT**

The signal is output in digital full bit without including the head margin.
The SUBWOOFER signal is output but not in digital full bit.

**RAM FULL BIT**

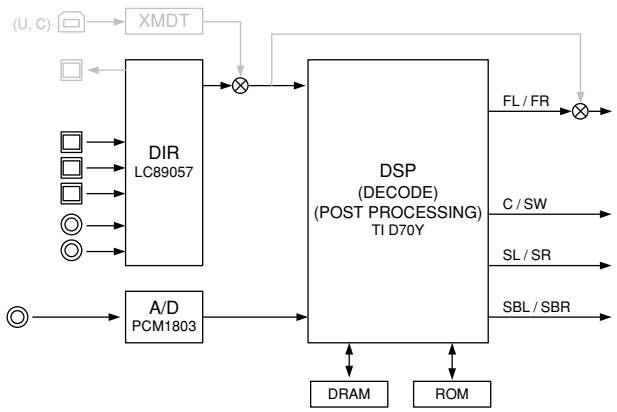
ヘッドマージンを含まず、デジタルフルビットで出力されます。
SUBWOOFERは出力されますが、デジタルフルビットではありません。

2.RAM FULL BIT

| FRONT L/R | CENTER | SURROUND L/R | SURROUND BACK L/R | SUBWOOFER |
|---|---|---|---|---|
| 0 dB | 0 dB | 0 dB | 0 dB | +21.0 dB |

INPUT: DVD ANALOG
SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Input level | Volume | SPEAKER OUT | | | | SUBWOOFER |
|---|---|---|---|---|---|---|
| | | FRONT L/R | CENTER | SURROUND L/R | SURROUND BACK L/R | OUTPUT |
| Both ch, -20 dBm | +6.0 dB | +12.0 dBm | +12.0 dBm | +12.0 dBm | +12.0 dBm | -7.0 dBm |




(Shaded items not used in this example)

When input source is stereo, signal is assigned as below.
2 ch信号入力時、以下のように信号を振り分けて出力します。

Front L → Center / Surround L / Surround Back L, R
Front R → Surround R
Front L +10 dB → SWFR

### 3. HDMI AUDIO

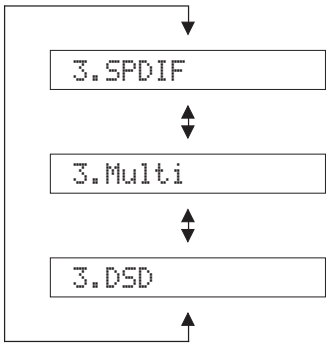
The audio signals input to HDMI IN are selected by the sub-menu and output.

* When selecting “DSD”, be sure to connect an HDMI unit equipped with DSD output function to this unit.

### 3. HDMI AUDIO

HDMI INに入力された音声信号をサブメニューで選択し、出力します。

※“DSD”を選択する場合、必ずDSD出力が可能なHDMI機器を接続してください。




**SPDIF**
SPDIF signal is output.
SPDIF信号を出力します。

**Multi (DVD-Audio)**
Multi signal is output.
Multi信号を出力します。

**DSD (Direct stream digital)**
DSD signal is output.
DSD信号を出力します。

### 4. SPEAKER SET

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

### 4. 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 L/R | CENTER | SURROUND L/R | SURROUND BACK L/R | SUBWOOFER |
|---|---|---|---|---|---|
| FRNT : SML 0dB | SMALL | LARGE | LARGE | LARGE | SWFR |
| CENTER : NONE | LARGE | NONE | LARGE | LARGE | SWFR |
| LFE/B : FRNT | LARGE | SMALL | SMALL | SMALL | FRONT |
| Pres Mix-P | LARGE | LARGE | LARGE | LARGE | SWFR |
| Pres Mix-F | LARGE | LARGE | LARGE | LARGE | SWFR |
| Zone2 Amp ON | LARGE | LARGE | LARGE | NONE (*) | SWFR |
| Bi-AMP | LARGE | LARGE | LARGE | NONE | SWFR |
| TONE : MAX | LARGE | LARGE | LARGE | LARGE | SWFR |
| TONE : MIN | LARGE | LARGE | LARGE | LARGE | SWFR |

(*) ZONE2 L/R (EXTRA SP L/R): LARGE

**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.

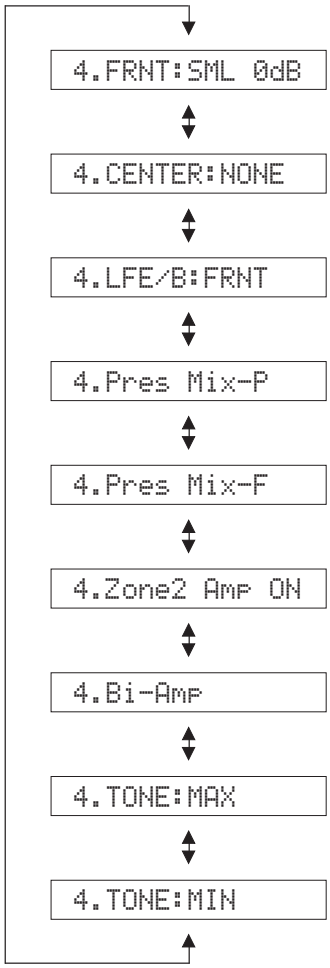
**LARGE：** 低音再生能力の高い(ユニットの大きい)スピーカーを使用するモードです。
全帯域が出力されます。

**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-3 dB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。




**FRONT: SML 0dB**
90 Hz or lower signal is mixed to the channel specified by LFE/BASS and output.
90 Hz以下の信号がLFE/BASSで指定したチャンネルにミックスされて出力します。

**CENTER: NONE**
The CENTER signal is assigned to FRONT L/R.
CENTERの信号をFRONT L/Rに振り分け出力します。

**LFE / BASS: FRONT**
The LFE/BASS signal is assigned to FRONT L/R.
LFE/BASSの信号をFRONT L/Rに振り分け出力します。

**PRESENCE Mix-P**
The PRESENCE L/R signal is increased by 6.0 dB and assigned to FRONT L/R.
PRESENCE L/Rの信号が+6.0 dBされてFRONT L/Rに振り分け出力します。

**PRESENCE Mix-F**
The FRONT L/R signal is increased by 6.0 dB and output.
FRONT L/Rの信号が+6.0 dBされて出力します。

**Zone2 Amp (EXTRA SP) ON**
The ZONE2 L/R (EXTRA SP L/R) signal is output.
EXTRA SP L/Rの信号を出力します。

**Bi-AMP**
The Bi-AMP signal is output.
Bi-AMPの信号を出力します。

**TONE: MAX**
The signal is output with tone control of “BASS +10 dB” and “TREBLE +10 dB”.
トーンコントロール“BASS +10 dB”、“TREBLE +10 dB”で出力します。

**TONE: MIN**
The signal is output with tone control of “BASS -10 dB” and “TREBLE -10 dB”.
トーンコントロール“BASS -10 dB”、“TREBLE -10 dB”で出力します。

INPUT: DVD ANALOG
SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Sub-menu | Input level | Volume | SPEAKER OUT | | | | SUBWOOFER OUTPUT |
|---|---|---|---|---|---|---|---|
| | | | FRONT L/R | CENTER | SURROUND L/R | SURROUND BACK L/R | |
| FRNT : SML 0dB | Both ch, -20 dBm | +6.0 dB | +12.0 dBm | +12.0 dBm | +12.0 dBm | +12.0 dBm | -3.0 dBm |
| CENTER : NONE | Both ch, -20 dBm | +6.0 dB | +9.0 dBm | -∞ | +12.0 dBm | +12.0 dBm | -7.0 dBm |
| LFE/B : FRNT (50 Hz) | Both ch, -20 dBm | +6.0 dB | +25.0 dBm | +3.0 dBm | +3.0 dBm | +3.0 dBm | -∞ |
| Pres Mix-P | Both ch, -20 dBm | +6.0 dB | +12.0 dBm | +12.0 dBm | +12.0 dBm | +12.0 dBm | -7.0 dBm |
| Pres Mix-F | Both ch, -20 dBm | +6.0 dB | +12.0 dBm | +12.0 dBm | +12.0 dBm | +12.0 dBm | -7.0 dBm |
| Zone2 Amp ON | Both ch, -20 dBm | +6.0 dB | +12.0 dBm | +12.0 dBm | +12.0 dBm | -∞ (*) | -7.0 dBm |
| Bi-AMP | Both ch, -20 dBm | +6.0 dB | +12.0 dBm | +12.0 dBm | +18.0 dBm | +12.0 dBm | -7.0 dBm |
| TONE : MAX | Both ch, -20 dBm | +6.0 dB | +12.0 dBm | +12.0 dBm | +12.0 dBm | +12.0 dBm | -7.0 dBm |
| TONE : MIN | Both ch, -20 dBm | +6.0 dB | +11.0 dBm | +12.0 dBm | +12.0 dBm | +12.0 dBm | -7.0 dBm |

(*) ZONE2 L/R (EXTRA SP L/R) SPEAKER OUT: +12.0 dBm

## 5. XCH-INPUT

The input source “MULTI CHANNEL INPUT” is selected.
It is possible to select the 6 ch/8 ch and 6-ohm/8-ohm by using the sub-menu.
When LIM / PLDET / THM menu is selected, it is possible to move to the next self-diagnostic function menu by turning the “PROGRAM” knob of this unit.

## 5. 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 ch/8 ch入力および6オーム/8オームが選択可能です。
LIM / PLDET / THMのメニューにすると、キー操作はできなくなりますが、本機の“PROGRAM”ツマミを回すことにより、次のダイアグメニューに進めることができます。

**6 ch INPUT 6-ohm**

**6 ch INPUT 6-ohm**

```
5.6CH INPUT_6Ω
```

INPUT: MULTI CH INPUT
SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Input level | Volume | SPEAKER OUT | | | | SUBWOOFER |
|---|---|---|---|---|---|---|
| | | FRONT L/R | CENTER | SURROUND L/R | SURROUND BACK L/R | OUTPUT |
| Both ch, -20 dBm | +6.0 dB | +12.0 dBm | +12.0 dBm | +12.0 dBm | -∞ | -18.0 dBm |

**8 ch INPUT 6-ohm**

**8 ch INPUT 6-ohm**

```
5.8CH INPUT_6Ω
```

INPUT: MULTI CH INPUT
SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Input level | Volume | SPEAKER OUT | | | | SUBWOOFER |
|---|---|---|---|---|---|---|
| | | FRONT L/R | CENTER | SURROUND L/R | SURROUND BACK L/R | OUTPUT |
| Both ch, -20 dBm | +6.0 dB | +12.0 dBm | +12.0 dBm | +12.0 dBm | +12.0 dBm | -18.0 dBm |

**6 ch INPUT 8-ohm**

**6 ch INPUT 8-ohm**

```
5.6CH INPUT_8Ω
```

INPUT: MULTI CH INPUT
SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Input level | Volume | SPEAKER OUT | | | | SUBWOOFER |
|---|---|---|---|---|---|---|
| | | FRONT L/R | CENTER | SURROUND L/R | SURROUND BACK L/R | OUTPUT |
| Both ch, -20 dBm | +6.0 dB | +12.0 dBm | +12.0 dBm | +12.0 dBm | -∞ | -18.0 dBm |

**8 ch INPUT 8-ohm**

**8 ch INPUT 8-ohm**

```
5.8CH INPUT_8Ω
```

INPUT: MULTI CH INPUT
SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

| Input level | Volume | SPEAKER OUT | | | | SUBWOOFER |
|---|---|---|---|---|---|---|
| | | FRONT L/R | CENTER | SURROUND L/R | SURROUND BACK L/R | OUTPUT |
| Both ch, -20 dBm | +6.0 dB | +12.0 dBm | +12.0 dBm | +12.0 dBm | +12.0 dBm | -18.0 dBm |

**LIM / PLDET / THM**

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

* Do not change the value settings because this menu is only for the use of development staff.

**PLDET:** Power limiter detection
The A/D conversion value during operation is displayed.
(Reference voltage: 5.0 V=255)

**THM:** Thermo protection detection
The A/D conversion value during operation is displayed.
(Reference voltage: 5.0 V=255)

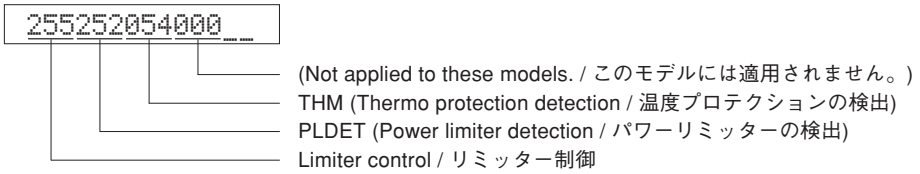
**LIM / PLDET / THM**

**LIM：** LIM（リミッター制御）の設定値

※ 開発スタッフ専用メニューですので、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。
（基準電圧：5.0 V＝255）

**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：5.0 V＝255）

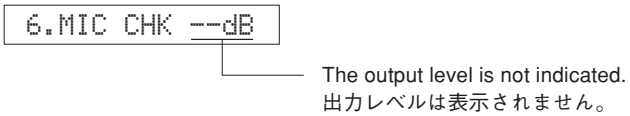



## 6. MIC CHECK

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

## 6. 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。

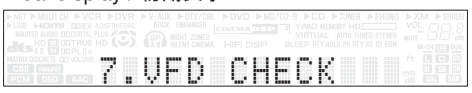


## 7. FL/OSD CHECK

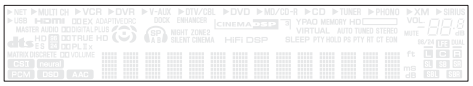
Use this program to check the FL display section and video control section. When checking the video control section, connect a TV monitor to this unit with a component video cable, S video cable and video pin cable.
Selection of the FL display section or video control section varies according to the submenu operation as shown below.
For audio signal processing, use STRAIGHT.

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

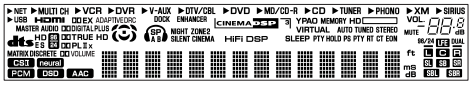
Initial display / 初期表示




All segments OFF / 全セグメント消灯



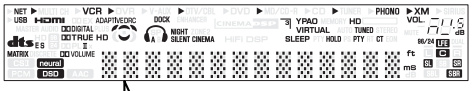
All segments ON (dimmer 100 %) /
全セグメント点灯（ディマー100 %）



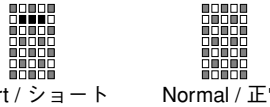
All segments ON (dimmer 50 %) /
全セグメント点灯（ディマー50 %）



Lighting of segments in lattice /
セグメント格子状点灯



Lighting in lattice / 格子状点灯




## 7. FL/OSD CHECK

FL表示部および映像表示部のチェックプログラムです。映像制御部をチェックする場合には、TVモニターと本機をコンポーネント/Dビデオケーブル、Sビデオケーブル、ビデオ用ピンケーブルで接続します。
サブメニュー操作により、FL表示部と映像表示部の選択が以下のように連動して変わります。
オーディオ信号処理はSTRAIGHTです。

**Check of the Video control section. (Monitor out) /**
**映像表示部のチェック（モニター出力）**

Initial display (OSD OFF) /
初期表示（OSD表示オフ）

OSD OFF /
OSD表示オフ

OSD OFF /
OSD表示オフ

OSD characters ON /
OSDキャラクター表示オン

OSD characters ON /
OSDキャラクター表示オン

OSD characters / OSDキャラクター表示



## 8. MANUAL TEST

Noise is output to all channels through the noise generation circuit which is included in the microprocessor. The noise frequency for LFE (SUBWOOFER) is 35 to 80 Hz. Other than that, the noise frequency is 500 to 2 kHz.

**TEST ALL**

Noise is output from all channels.

## 8. MANUAL TEST

マイコンに内蔵されているノイズ発生回路によって、全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。

**TEST ALL**

全チャンネルからノイズを出力します。




## 9. A/D DATA CHECK

This menu is used to display the A/D conversion value of the microprocessor which detects panel keys of this unit and protection functions in using the sub-menu.
During signal processing, the condition before execution is maintained.
When K0/K1 menu is selected, keys become non-operable due to detection of the values of all keys. However, it is possible to move to the next self-diagnostic function menu by turning the PROGRAM knob of this unit.

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

**PS1/PS2**

**PSx:** Power supply voltage protection detection

**PS1**

Voltage detects: AC_BH, AC_BL, AC12, AC5, +10, +5.3H and +XM (U, C models)

Normal value: 110 to 205 (Reference voltage: 5.0 V=255)

**PS2**

Voltage detects: +12, -12, +5V, +5D, +5I and +3.3D

Normal value: 88 to 140 (Reference voltage: 5.0 V=255)

* If PS1 and PS2 are out of the normal value range, the protection function works to turn off the power.

## 9. 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。
信号処理は実行前の状態を維持します。
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“PROGRAM”ツマミを回すことにより、次のダイアグメニューに進めることができます。
※ 図中の数値は参考例です。

**PS1/PS2**

**PSx：** 電源電圧プロテクションの検出

**PS1**

検出電圧： AC_BH、AC_BL、AC12、AC5、+10、+5.3H

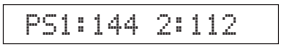
正常値： 110～205（基準電圧：5.0 V＝255）

**PS2**

検出電圧： +12、-12、+5V、+5D、+5I、+3.3D

正常値： 88～140（基準電圧：5.0 V＝255）

※ PS1およびPS2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。



**DC/TH**

**DC:** Power amplifier DC protection detection
Power amplifier DC (DC voltage) output is detected.
Normal value: 5 to 36 (Reference voltage: 5.0 V=255)

**TH:** THM (Thermo protection detection)
Temperature of the heat sink is detected.
Normal value: 0 to 124 (Reference voltage: 5.0 V=255)

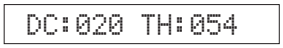
* If THM is out of the normal value range, the protection function works to turn off the power.

**DC/TH**

**DC：** 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： 5～36(基準電圧：5.0 V=255)

**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： 0～124(基準電圧：5.0 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。




**IMP/PL**

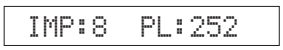
**IMP:** 8 or 4 ohms impedance setup detection
IMP 8: 8 ohms setting
IMP 4: 6 ohms setting

**PL:** PLDET (Power limiter detection)
Power amplifier output voltage detection
The power amplifier output voltage is detected and the power amplifier input voltage is controlled.

**TH/PL**

**IMP：** インピーダンス設定の検出
このモデルには適用されません。

**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
パワーアンプ出力電圧を検出して、パワーアンプ入力電圧を制御します。




U, C, T, K, A, B, G, E, F models (Reference voltage: 5.0 V=255)

| | During normal operation | Value for starting limiter operation | Value for canceling limiter operation |
|---|---|---|---|
| PLDET (8-ohm/6-ohm) | 255 / 255 | 87 / 146 | 125 / 171 |
| LIM (Limiter control) | H | L | H |

R, L models (Reference voltage: 5.0 V=255)

| | During normal operation | Value for starting limiter operation | Value for canceling limiter operation |
|---|---|---|---|
| PLDET (8-ohm/6-ohm) | 255 / 255 | 100 | 131 |
| LIM (Limiter control) | H | L | H |

J model(基準電圧：5.0 V=255)

| | 通常値 | リミッタ動作開始値 | リミッタ動作解除値 |
|---|---|---|---|
| PLDET(8-ohm/6-ohm) | 255 / 255 | 100 | 131 |
| LIM(リミッター制御) | H | L | H |

**DST/DK**

**DST:** Destination detection
(Reference voltage: 5V=255)

**DK:** DOCK type detection
(Reference voltage: 5V=255)

**DST/DK**

**DST：** 仕向けの検出
（基準電圧：5V=255）

**DK：** DOCKタイプの検出
（基準電圧：5V=255）

DST:027DK:252

Destination detection for AD port
Pull-up resistance 10 k-ohms

| Ohm | 0.0 k | 1.2 k | 2.7 k | 4.7 k | 6.8 k | 10.0 k | 15.0 k | 27.0 k | 47.0 k | 100.0 k | – |
|---|---|---|---|---|---|---|---|---|---|---|---|
| V | 0-0.3 | 0.4-0.7 | 0.8-1.3 | 1.4-1.8 | 1.9-2.2 | 2.3-2.7 | 2.8-3.2 | 3.3-3.8 | 3.9-4.3 | 4.4-4.7 | 4.8-5.0 |
| A/D (5 V=255) | 0-13 | 14-40 | 41-68 | 69-92 | 93-115 | 116-140 | 141-170 | 171-198 | 199-221 | 222-243 | 245-255 |
| DEST, 139pin | J | U, C | – | R | T | K | A | B | G, E, F | L | – |

DOCK detection for AD port (IC30 Microprocessor pin no. 128)
Pull-up resistance 10 k-ohms

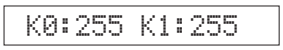
| DOCK type | DOCK (Bluetooth) | Reserved | Reserved | DOCK (iPod) | Reserved | (Develop-ment) | No connect |
|---|---|---|---|---|---|---|---|
| Ohm | 0.56k | 2.7k | 5.6k | 10.0k | 18.0k | 39.0k | – |
| DKID (Pin no. 21) | 5-25 | 50-60 | 85-100 | 120-140 | 150-170 | 195-210 | 245-255 |

**K0/K1**

**K0/K1:** KEY0/KEY1 (Panel key of main unit)
The key will fail to function properly if its A/D conversion value deviates from the specific range. In that case, check the constant of partial pressure resistor, solder condition, etc. with referring to the table below.
(Reference voltage: 5.0 V=100)

**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：5.0 V＝100）




RX-V663 (U, C, R, T, K, A, G, E, F, L models) / HTR-6160 (U, F models)

| Display / 表示 | KEY0 | KEY1 |
|---|---|---|
| 0 - 4 | SYSTEM OFF | Zone2 ON/OFF |
| 5 - 13 | SCENE1 | SCENE3 |
| 14 - 21 | SCENE2 | SCENE4 |
| 22 - 31 | – | ZONE CONTROL |
| 32 - 42 | – | AUDIO SELECT |
| 43 - 53 | STRAIGHT | BAND |
| 54 - 61 | TONE CONTROL | A/B/C/D/E |
| 62 - 68 | SEARCH MODE /EDIT | PRESET < |
| 69 - 75 | – | PRESET > |
| 76 - 82 | SPEAKERS | MEMORY |
| 83 - 89 | PURE DIRECT | INFO |
| 90 - 100 | KEY OFF | KEY OFF |

HTR-6160 (C model) / DSP-AX763 (J model)

| Display / 表示 | KEY0 | KEY1 |
|---|---|---|
| 0 - 4 | – | MUTE |
| 5 - 13 | SCENE1 | SCENE3 |
| 14 - 21 | SCENE2 | SCENE4 |
| 22 - 31 | – | SLEEP |
| 32 - 42 | – | AUDIO SELECT |
| 43 - 53 | STRAIGHT | BAND |
| 54 - 61 | TONE CONTROL | A/B/C/D/E |
| 62 - 68 | SEARCH MODE /EDIT | PRESET < |
| 69 - 75 | – | PRESET > |
| 76 - 82 | SPEAKERS | MEMORY |
| 83 - 89 | PURE DIRECT | INFO |
| 90 - 100 | KEY OFF | KEY OFF |

DSP-AX763 (B model)

| Display / 表示 | KEY0 | KEY1 |
|---|---|---|
| 0 - 4 | – | – |
| 5 - 13 | SCENE1 | SCENE3 |
| 14 - 21 | SCENE2 | SCENE4 |
| 22 - 31 | – | – |
| 32 - 42 | – | AUDIO SELECT |
| 43 - 53 | STRAIGHT | – |
| 54 - 61 | TONE CONTROL | – |
| 62 - 68 | – | – |
| 69 - 75 | – | – |
| 76 - 82 | SPEAKERS | – |
| 83 - 89 | PURE DIRECT | – |
| 90 - 100 | KEY OFF | KEY OFF |

## 10. VIDEO CHECK

The video circuit is checked by the sub-menu operation.

**I2C (Inter integrated circuit) read/write check**

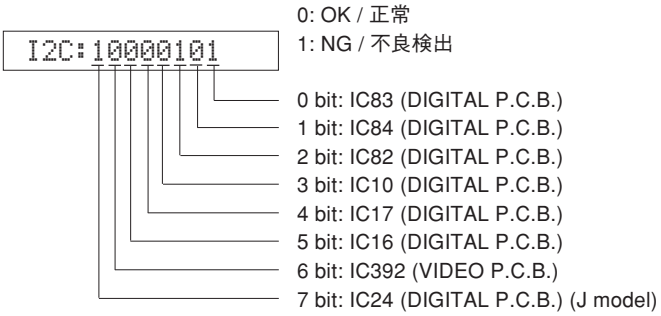
Self-diagnosis is executed to check whether data reading/writing between the microprocessor connected to the 12C line and each IC is done properly or not.

## 10. VIDEO CHECK

サブメニュー操作により、ビデオ回路の確認をします。

**I2C（Inter integrated circuit）read/write 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。

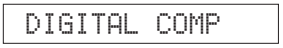



**Digital component**

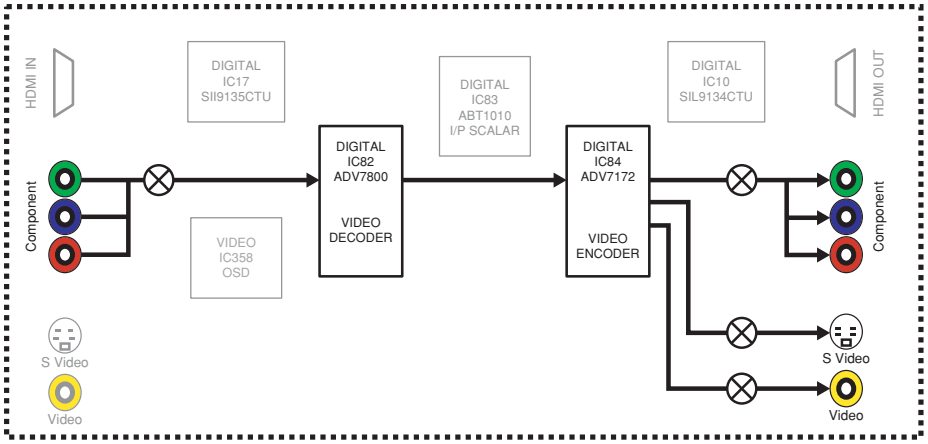
The signal passage as shown below is checked.

**Digital component**

下記の信号経路を確認します。




**Digital Component**

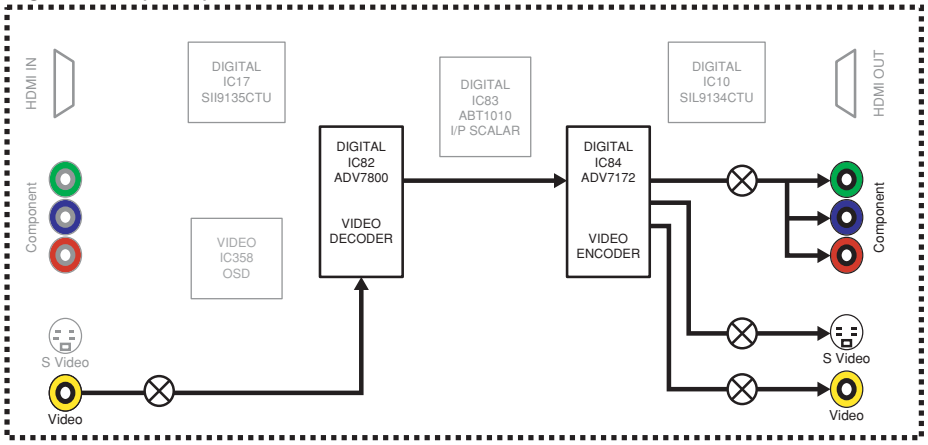


**Digital CVBS (Video)**
The signal passage as shown below is checked.

**Digital CVBS（Video）**
下記の信号経路を確認します。

DIGITAL CVBS

**Digital CVBS (Video)**

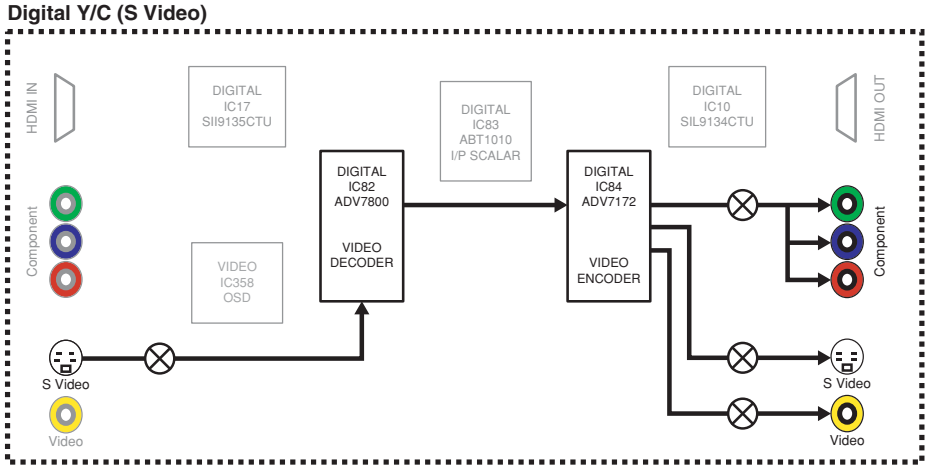



**Digital Y/C (S-Video)**
The signal passage as shown below is checked.

**Digital Y/C（S-Video）**
下記の信号経路を確認します。

DIGITAL Y/C

**Digital Y/C (S Video)**

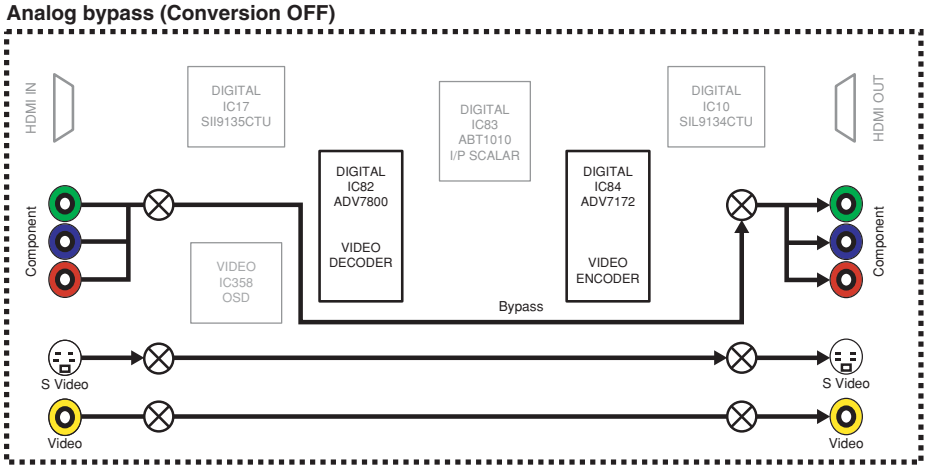


**Analog bypass**
The signal passage as shown below is checked.

**Analog bypass**
下記の信号経路を確認します。

ANALOG BYPASS

**Analog bypass (Conversion OFF)**

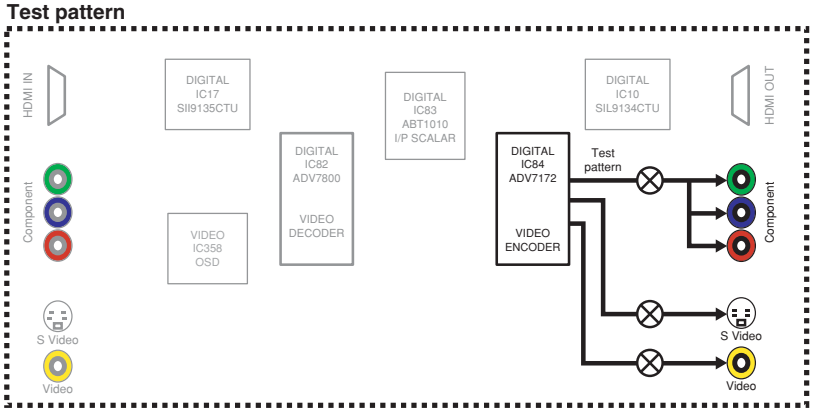



**Test pattern**
The test pattern is output from IC84 (DIGITAL P.C.B.).

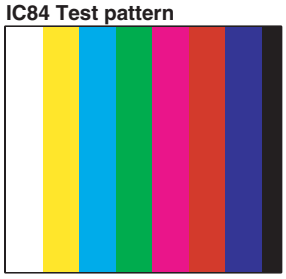
**Test pattern**
IC84（DIGITAL P.C.B.）からテストパターンを出力します。

TEST PATTERN

**Test pattern**




**IC84 Test pattern**



**Video information**
Displays the information of image signals being input.

**Video information**
入力されている映像信号の情報を表示します。

Example / 例

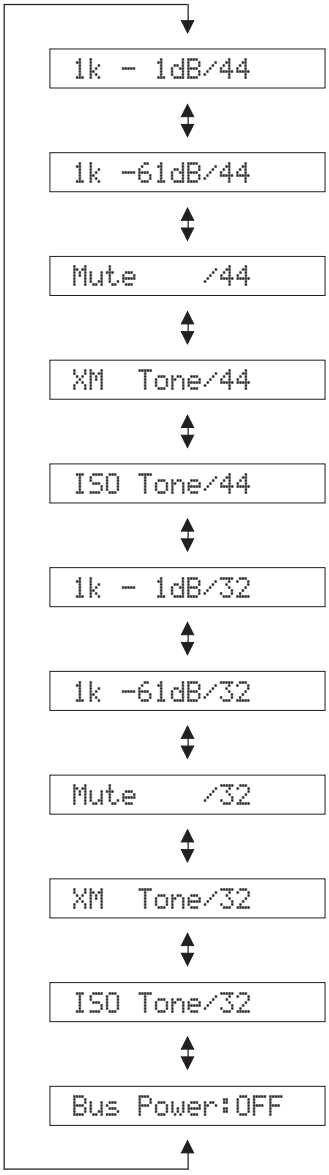
VIDEO IN 480i

## 11. XM STATUS (U, C models)

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

## 11. XM STATUS（U、C models）

このモデルには適用されません。




**1 kHz, -1 dB / 44.1 kHz**
The test tone (1 kHz, -1 dB / 44.1 kHz) is output.

**1 kHz, -61 dB / 44.1 kHz**
The test tone (1 kHz, -61 dB / 44.1 kHz) is output.

**Mute / 44.1 kHz**
No signal is output.

**XM tone / 44.1 kHz**
The XM tone / 44.1 kHz is output.

**ISO tone / 44.1 kHz**
The ISO tone /44.1 kHz is output.

**1 kHz, -1 dB / 32.0 kHz**
The test tone (1 kHz, -1 dB / 32.0 kHz) is output.

**1 kHz, -61 dB / 32.0 kHz**
The test tone (1 kHz, -61 dB / 32.0 kHz) is output.

**Mute / 32.0 kHz**
No signal is output.

**XM tone / 32.0 kHz**
The XM tone / 32.0 kHz is output.

**ISO tone / 32.0 kHz**
The ISO tone / 32.0 kHz is output.

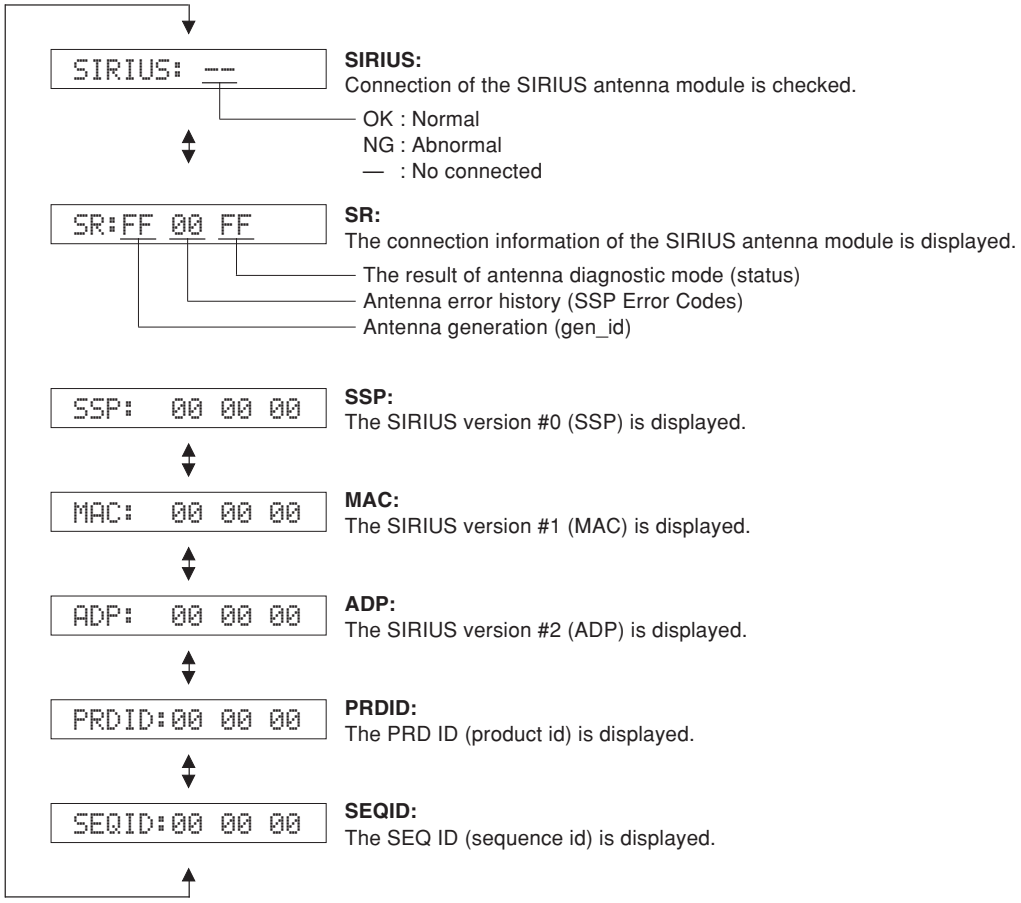
**XM bus power: OFF**
The power of XM radio antenna module is turned off.

## 12. SIRIUS (U, C models)

The SIRIUS version is displayed.

## 12. SIRIUS（U、C models）

このモデルには適用されません。




## 13. HD RADIO (U model)

## 13. HD RADIO（U model）

このモデルには適用されません。

**CPU version**

The sub-microprocessor version in HD radio module is displayed.

**CPU version**

HD CPU V:09.13

**DSP version**

The DSP version in HD radio module is displayed.

**DSP version**

D:DRI-352-V016

## 14. DOCK

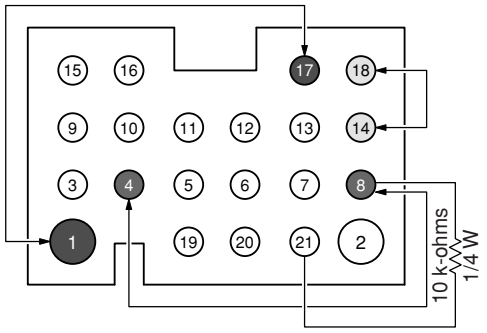
This menu is used to test the DOCK connector without the iPod itself.
After turning off the power, short between pins No. 14 (TX) and No. 18 (RX), between pins No. 1 (PWR) and No. 17 (ACCPOW) and between pins No. 4 (iPDET) and No. 8 (DGND).
Start the self-diagostic function and select the menu.
The check result is displayed according to the following display specifications.

**Note) Be sure to return the shorted locations to their original state.**

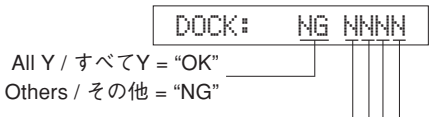
## 14. DOCK

iPod本体無しで、DOCKコネクターの検査を行うメニューです。
電源オフの状態にしてから、DOCKコネクターの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）をショートさせます。
ダイアグを起動してメニューを選択します。
下記表示仕様に従って、チェック結果が表示されます。

注） ショート箇所は、必ず元に戻してください。



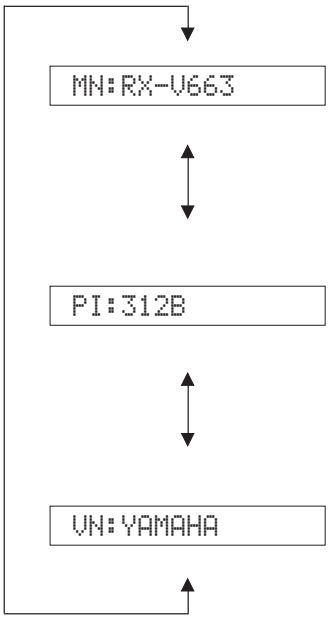

**DOCK**




| Check item / チェック項目 | Short pins / ショートピン | Result / 結果 | | Display / 表示 |
|---|---|---|---|---|
| UART loop back test / UARTループバックテスト | Pins No.14 (TX) – No.18 (RX) | OK | | Y |
| | | NG | | N |
| iPAP (iPod accessory power) detection / iPAP（iPod accessory power）検出 | Pins No.1 (PWR) – No.17 (ACCPOW) | IC30 pin No. 141 | High | Y |
| | | | Low | N |
| iPDET (iPod installation to DOCK) detection / iPDET（iPod installation to DOCK）検出 | Pins No.4 (iPDET) – No.8 (DGND) | IC30 pin No. 4 | Low | Y |
| | | | High | N |
| DKID (DOCK ID) detection / DKID（DOCK ID）検出 | Pins No.21 (DKID) – No.8 (DGND) * 10 k-ohms, 1/4 W pull down | IC30 pin No. 28 | 10 k-ohms, 1/4 W pull down | Y |
| | | | Other | N |

## 15. HDMI INFORMATION

15. HDMI INFORMATION




**HDMI model name**
The model name of this unit written in HDMI module is displayed.
HDMIモジュールに書き込まれている本機のモデル名を表示します。
RX-V663 : (U, C, R, T, K, A, G, E, F, L models)
HTR-6160 : (U, C, F models)
DSP-AX763 : (B, J models)

**HDMI product ID**
The product ID of this unit written in HDMI module is displayed.
HDMIモジュールに書き込まれている本機のプロダクトIDを表示します。
3127: RX-V663 (U, C, R, T, K, A, B, G, E, F, L models)
3124: HTR-6160 (U, C, F models)
3126: DSP-AX763 (B model)
3125: DSP-AX763 (J model)

**HDMI vendor name**
The vendor name “YAMAHA” of this unit written in HDMI module is displayed.
HDMIモジュールに書き込まれている本機のベンダ名“YAMAHA”を表示します。

## 16. HDMI SELECT

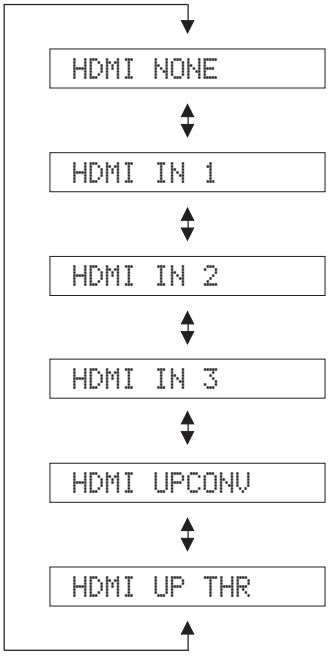
The selected input signal is output to HDMI OUT by the sub-menu operation.

* Support audio is set to “OTHER”.

## 16. 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。

※ SUPPORT AUDIOは“OTHER”に設定されます。




**HDMI none**
No signal is output.
何も出力されません。

**HDMI in 1**
HDMI “IN 1” is output.
HDMI “IN 1”が出力されます。

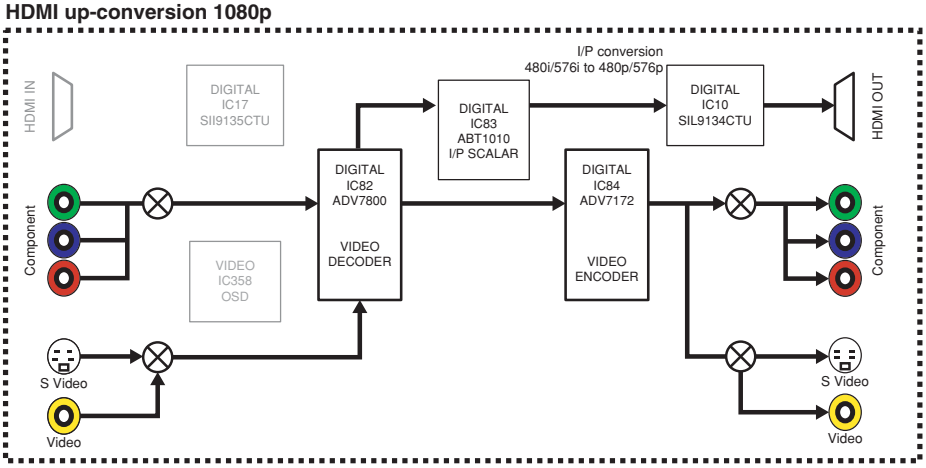
**HDMI in 2**
HDMI “IN 2” is output.
HDMI “IN 2”が出力されます。

**HDMI in 3**
HDMI “IN 3” is output.
HDMI “IN 3”が出力されます。

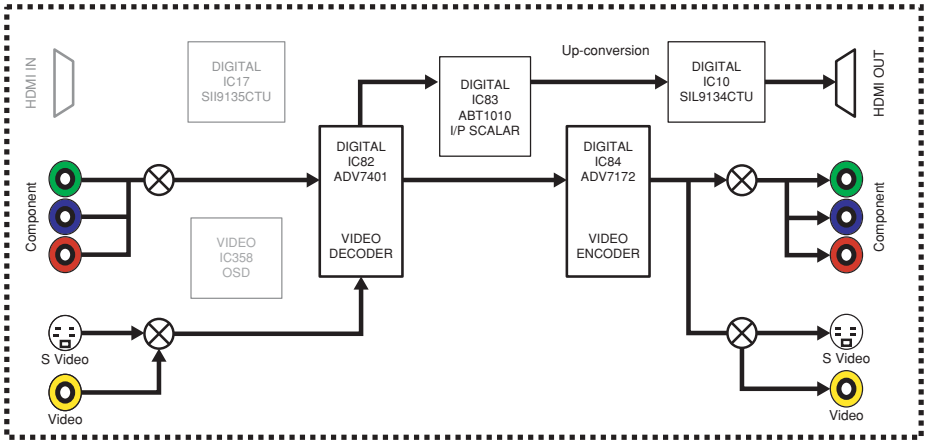
**HDMI up conversion**
The analog video signals are output after undergoing Interlace/Progressive conversion.
アナログ映像信号はI/P変換し、出力されます。

**HDMI up conversion through**
The analog video signals are output after undergoing video up-conversion.
アナログ映像信号がビデオコンバージョンし、出力されます。

**HDMI up-conversion 1080p**




**HDMI up-conversion through**



### 17. IF STATUS (Input function status)

The status information is displayed in the hexadecimal notation one after another by the sub-menu operation.
For signal processing, the status before the sub-menu operation is maintained.

* Mentioning the details is not allowed because this menu is only for the use of development staff.
* The figures in the diagram are given as reference only.

### 17. IF STATUS（Input function status）

サブメニュー操作により、ステータス情報を順次16進数で表示します。
信号処理は、サブメニュー操作前の状態を維持します。

※ 開発スタッフ専用メニューですので、詳細を記述することはできません。
図中の数値は参考例です。

DST:3000020000 **DSP status**

### 18. DSP BUS CHECK

This menu is used to self-diagnose whether or not the bus connection for the TI (DA70Y) and the external ROM/RAM is made properly.

### 18. DSP BUS CHECK

TI（DA70Y）と外付けROM/RAMとのバス接続の正否を自己診断します。

TI BUS:NoEr

**NoEr:** No error detected.
**Boot:** When “Boot” is displayed for a few seconds or “Boot” and “NoEr” are displayed alternately, there is possibility that an error occurs.

**NoEr：** 不良検出なし
**Boot：** “Boot”が数秒間表示されるまたは“Boot”と“NoEr”が交互に表示される場合、異常が発生している可能性があります。

### 19. RESERVED

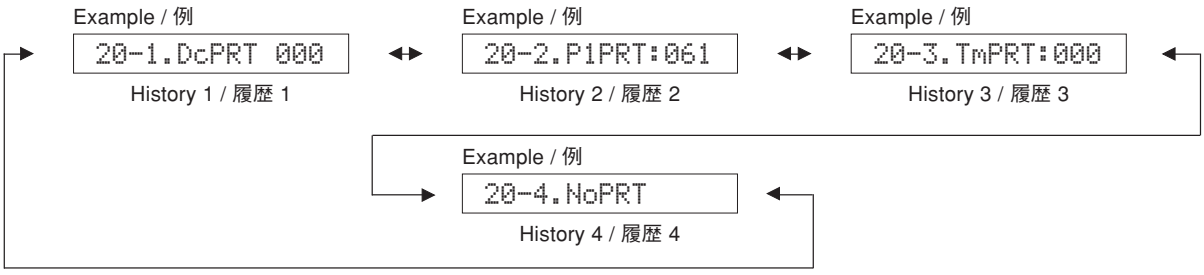
### 19. RESERVED

### 20. PROTECTION HISTORY

Four protection histories are displayed.

### 20. 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。




### 21. RESERVED

### 21. RESERVED

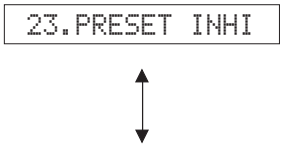
### 22. UPDATE
Not applied to these models.

### 22. UPDATE
このモデルには適用されません。




### 23. 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 BYPASS).

### 23. 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。




**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 user 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 user 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 | | | | | | | | |

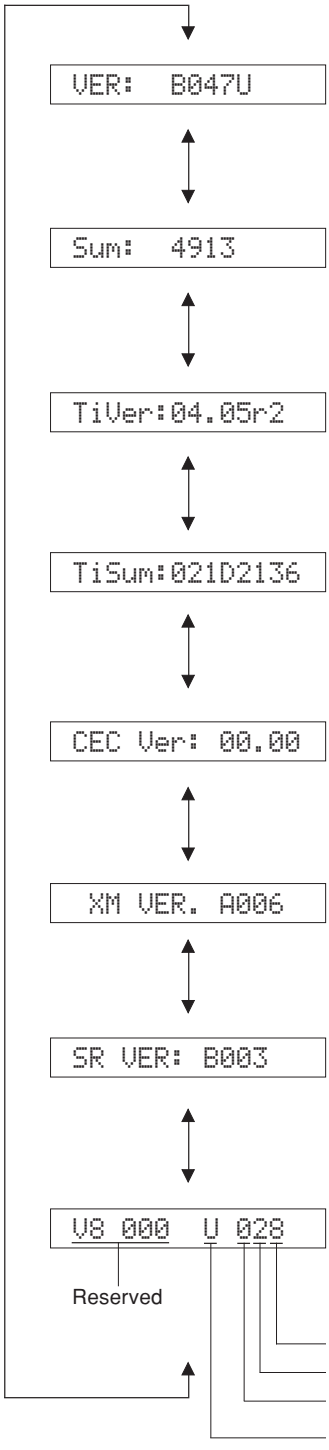
## 24. ROM VER. / SUM / PORT

The firmware version and checksum value 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.

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

## 24. ROM VER. / SUM / PORT

ファームウエアのバージョン、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。
※ 図中の数値は参考例です。




**Version**
Firmware version of microprocessor (IC30 DIGITAL P.C.B.) is displayed.
マイコン(IC30 DIGITAL P.C.B.)のファームウェアのバージョンを表示します。

**All checksum**
Checksum value of microprocessor (IC30 DIGITAL P.C.B.) is displayed.
マイコン(IC30 DIGITAL P.C.B.)のチェックサム値を表示します。

**TI FLASH ROM version**
Firmware version of TI FLASH ROM (IC51 DIGITAL P.C.B.) is displayed.
TI FLASH ROM(IC51 DIGITAL P.C.B.)のファームウェアのバージョンを表示します。

**TI FLASH ROM checksum**
Checksum value of TI FLASH ROM (IC51 DIGITAL P.C.B.) is displayed.
TI FLASH ROM(IC51 DIGITAL P.C.B.)のチェックサム値を表示します。

**CEC version**
Firmware version of CEC (IC24 DIGITAL P.C.B.) is displayed.
CEC(IC24 DIGITAL P.C.B.)のファームウェアのバージョンを表示します。

**XM version (U, C models)**
The version of XM firmware is displayed.
XMのファームウェアのバージョンを表示します。

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

**Port**
The condition of ports for model detection / モデル判別ポートの状態
Model: RX-V663/DSP-AX763/HTR-6160

| | RX-V663/DSP-AX763 | HTR-6160 |
|---|---|---|
| MOD0 | 0 | 1 |
| MOD1 | 1 | 1 |
| MOD2 | 1 | 1 |

Destination: U, C, R, T, K, A, B, G, E, F, L, J

# ■ CONFIRMATION OF IDLING CURRENT OF AMP UNIT / アンプユニットのアイドリング電流の確認

- Right after power is turned on, confirm that the voltage across the terminals of R1303 (SURROUND BACK R ch), R1153 (SURROUND R ch), R1154 (FRONT R ch), R1152 (CENTER), R1150 (FRONT L ch), R1151 (SURROUND L ch), R1149 (SURROUND BACK L ch) are between 0.1 mV and 10.0 mV.
- If measured voltage exceeds 10.0 mV, open (cut off) R1252 (SURROUND BACK R ch), R1112 (SURROUND R ch), R1114 (FRONT R ch), R1110 (CENTER), R1106 (FRONT L ch), R1108 (SURROUND L ch), R1104 (SURROUND BACK L ch) and reconfirm the voltage.

  **Attention**
  If the measured voltage exceeds 10.0 mV after repairing a power amplifier first check for a defective component before cutting the bias resistor.

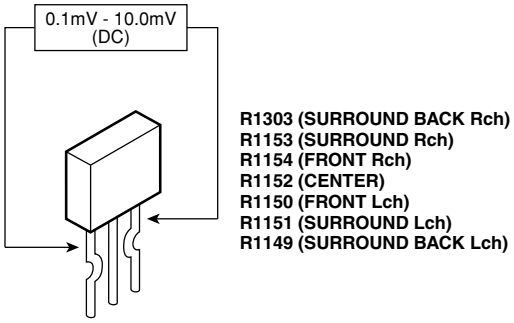
- Confirm that the voltage is 0.2 mV to 15.0 mV after 60 minutes.

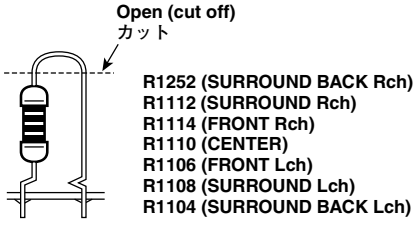
● 電源投入直後、R1303（SURROUND BACK R ch）、R1153（SURROUND R ch）、R1154（FRONT R ch）、R1152（CENTER）、R1150（FRONT L ch）、R1151（SURROUND L ch）、R1149（SURROUND BACK L ch）の端子間電圧を測定し、0.1 mVから10.0 mVの間であることを確認してください。

● 電圧が10.0 mVを超えている場合は、R1252（SURROUND BACK R ch）、R1112（SURROUND R ch）、R1114（FRONT R ch）、R1110（CENTER）、R1106（FRONT L ch）、R1108（SURROUND L ch）、R1104（SURROUND BACK L ch）をカットし、電圧を再確認してください。

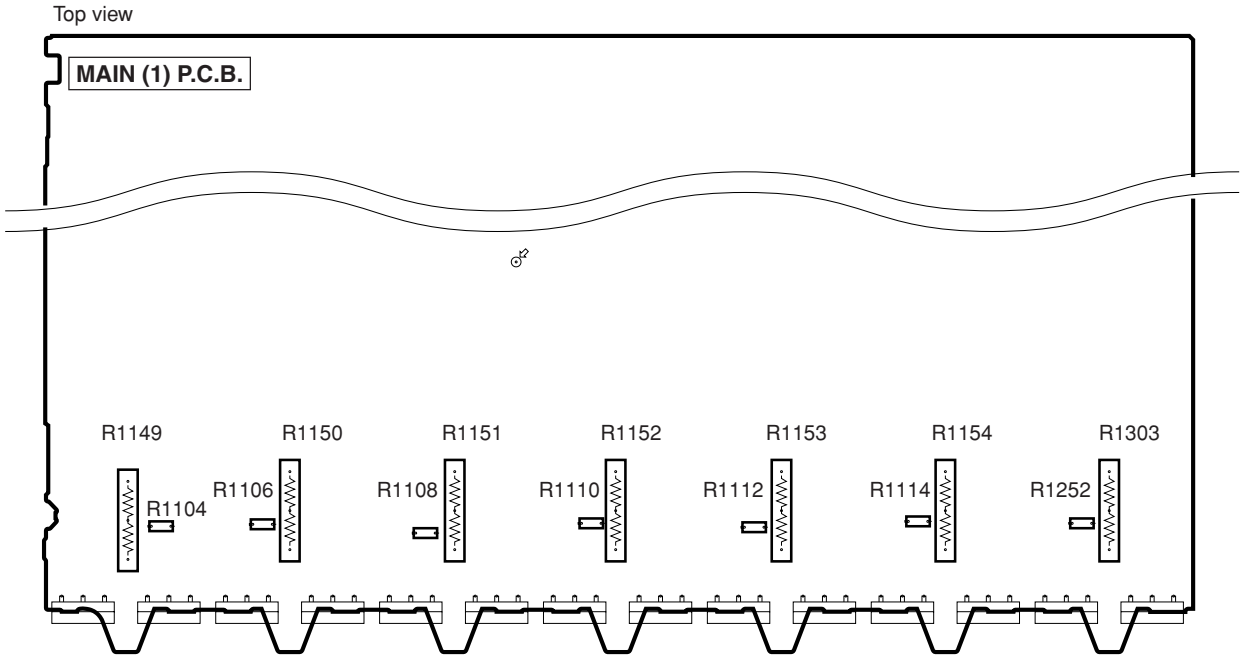
注意
パワーアンプ修理後に10.0 mVを超えている場合は、抵抗をカットする前に故障箇所を調べてください。

● 60分後、電圧が0.2 mV～15.0 mVであることを確認してください。



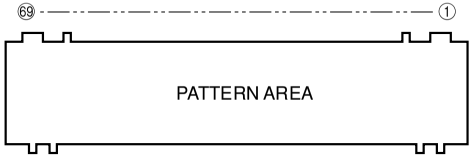

**Rear**




**Front**

# ■ DISPLAY DATA

● V401: 17-BT-32GNK (OPERATION P.C.B.)



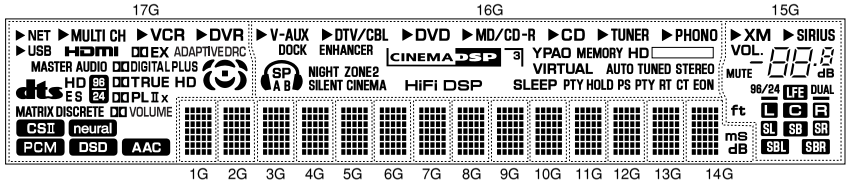

● PIN CONNECTION

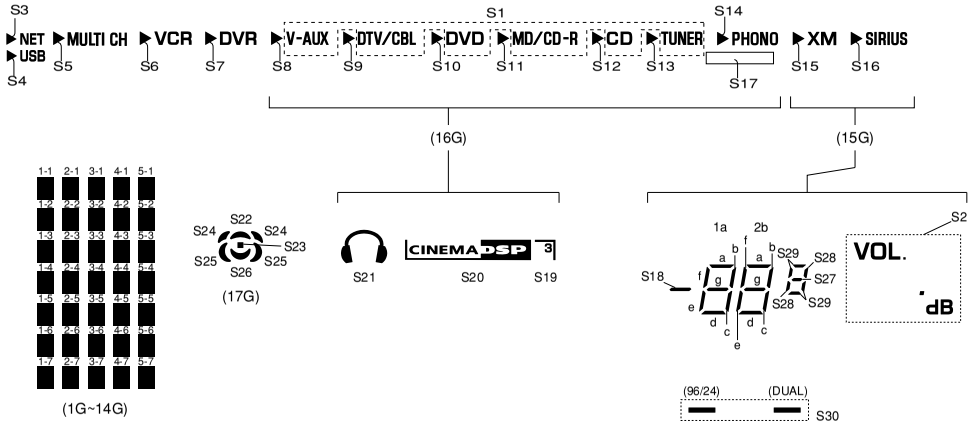
| Pin No. | 69 | 68 | 67 | 66 | 65 | 64 | 63 | 62 | 61 | 60 | 59 | 58 | 57 | 56 | 55 | 54 | 53 | 52 | 51 | 50 | 49 | 48 | 47 | 46 | 45 | 44 | 43 | 42 | 41 | 40 | 39 | 38 | 37 | 36 | 35 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | P32 | P33 | P34 | P35 | P36 | P37 | 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



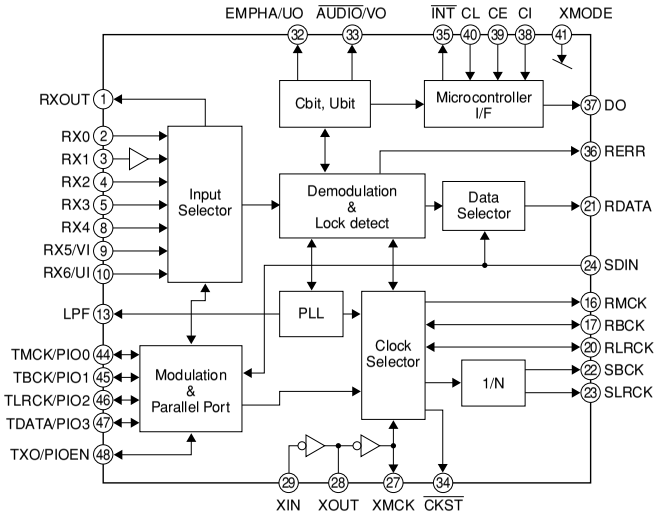




● ANODE CONNECTION

| | 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 | HDMI | ENHANCER | 1e | 1-3 | 1-3 |
| 12P | DD EX | S21 | 1f | 2-3 | 2-3 |
| 13P | ADAPTIVE DRC | 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 | ES | ZONE2 | 2d | 2-4 | 2-4 |
| 18P | 96 24 | SILENT CINEMA | 2e | 3-4 | 3-4 |
| 19P | DD DIGITAL | S20 | 2f | 4-4 | 4-4 |
| 20P | PLUS | 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 | 96/24 | 5-5 | 5-5 |
| 26P | DISCRETE | VIRTUAL | DUAL | 1-6 | 1-6 |
| 27P | DD VOLUME | AUTO | ft | 2-6 | 2-6 |
| 28P | CS II | TUNED | S30 | 3-6 | 3-6 |
| 29P | neural | 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 | PS | SL | 3-7 | 3-7 |
| 34P | S23 | PTY (RT) | SB | 4-7 | 4-7 |
| 35P | S24 | RT | SR | 5-7 | 5-7 |
| 36P | S25 | CT | SBL | ms | – |
| 37P | S26 | EON | SBR | dB | – |

## ■ IC DATA

**IC41:** LC89057W-VF4AD-E (DIGITAL P.C.B.)
Digital audio interface transceiver

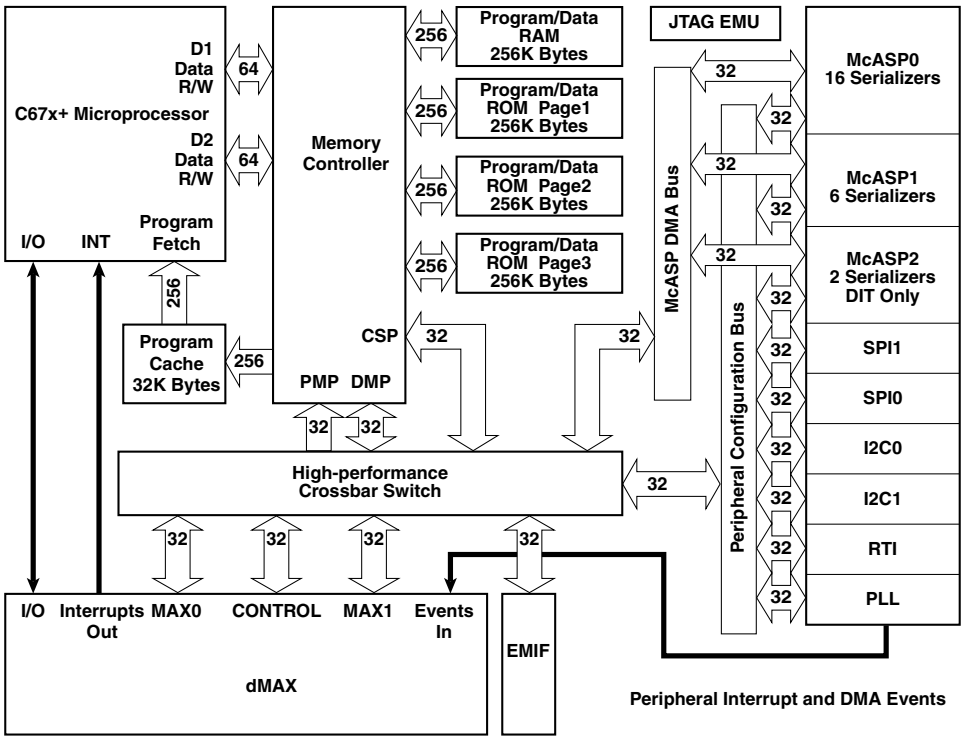


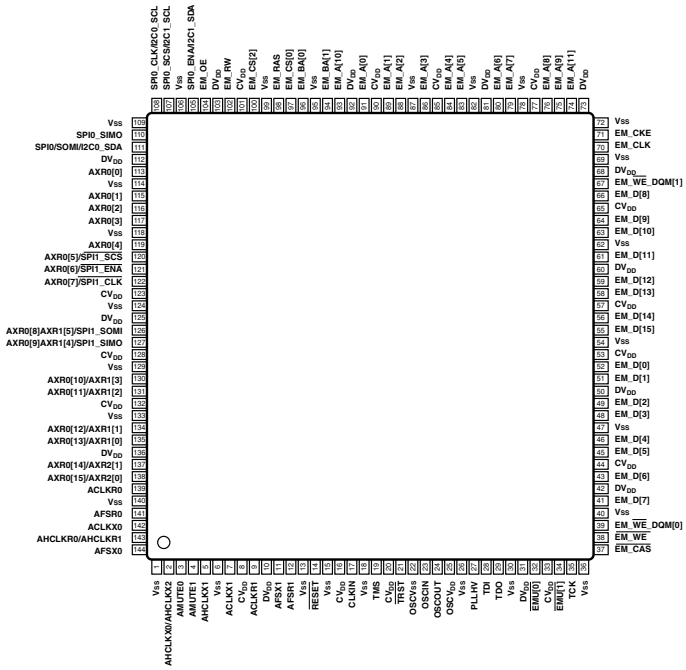

| Pin No. | Function Name | I/O | Detail of Function |
|---|---|---|---|
| 1 | RXOUT | O | Output pin of input bi-phase selection data |
| 2 | RX0 | Is | Input pin of TTL-compatible digital data |
| 3 | RX1 | I | Digital data input pin with built-in amplifier that supports coaxial |
| 4 | RX2 | Is | 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 | $\overline{\text{AUDIO}}$/VO | I/O | Non-PCM detection / V flag output / Chip address setting pin |
| 34 | $\overline{\text{CKST}}$/PT | I/O | Output of clock switch transitional period signal / Preamble B output / Demodulation master or slave function switch pin |
| 35 | $\overline{\text{INT}}$ | 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 | I/O | 512 fs, 256 fs, 128 fs system clock input for modulation or external / General-purpose I/O input/output pin |
| 45 | PIO1 | I/O | 64 fs bit clock input for modulation / General-purpose I/O input/output pin |
| 46 | PIO2 | I/O | fs clock input for modulation / General-purpose I/O input/output pin |
| 47 | PIO3 | I/O | Serial audio data input for modulation / General-purpose I/O input/output pin |
| 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.

**IC44** : D70YE101BRFP266 (DIGITAL P.C.B.)
Floating-point digital signal processors

* No replacement part available. / サービス部品供給なし



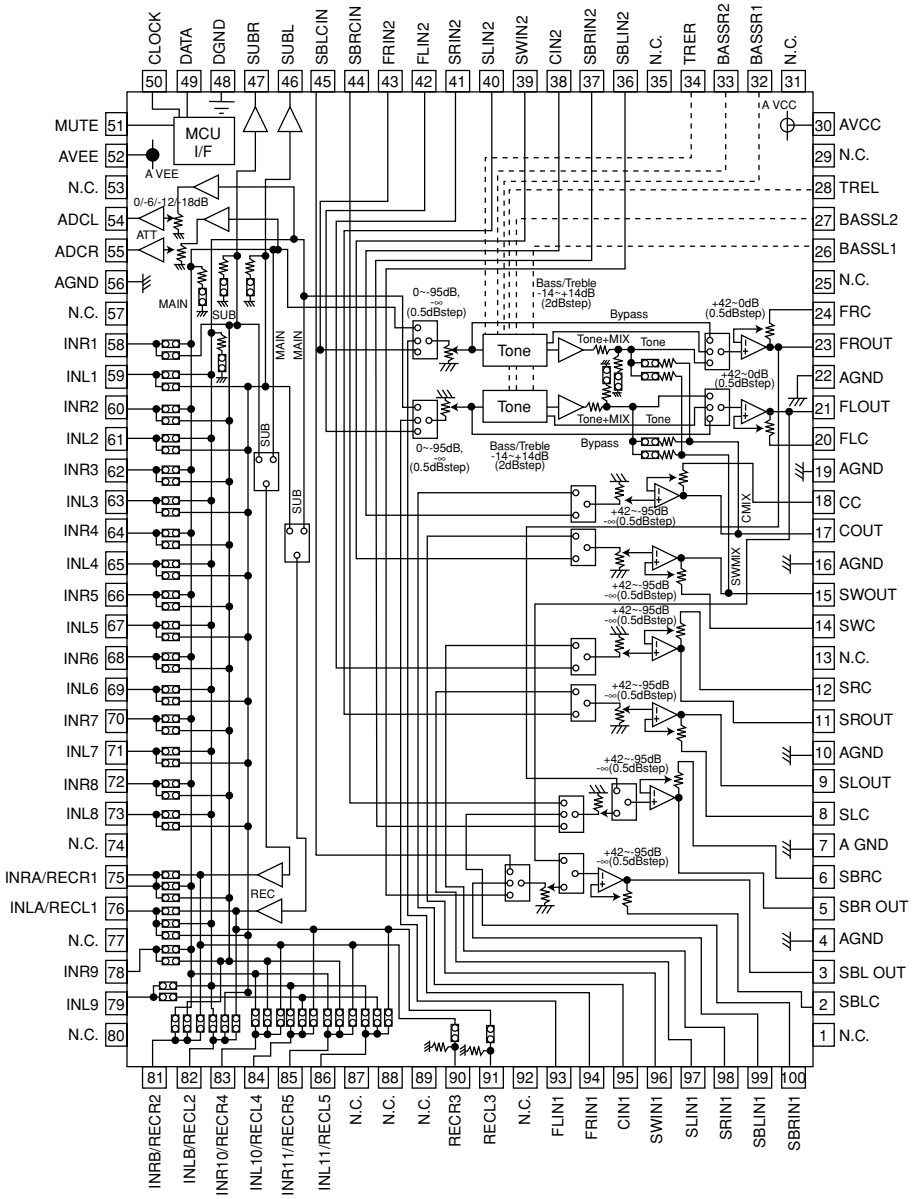
| Pin No. | Function Name | I/O | | | Detail of Function |
|---|---|---|---|---|---|
| | | TYPE(1) | PULL(2) | GPIO(3) | |
| **External memory interface (EMIF) address and control** | | | | | |
| 37 | EM_CAS | O | – | N | SDRAM column address strobe |
| 38 | EM_WE | O | – | N | SDRAM write enable |
| 39 | EM_WE_DQM[0] | O | – | N | Write enable or byte enable for EM_D[7:0] |
| 67 | EM_WE_DQM[1] | O | – | N | Write enable or byte enable for EM_D[15:8] |
| 70 | EM_CLK | O | – | N | SDRAM clock |
| 71 | EM_CKE | O | – | N | SDRAM clock enable |
| 74 | EM_A[11] | O | – | N | EMIF address bus |
| 75 | EM_A[9] | O | – | N | |
| 76 | EM_A[8] | O | – | N | |
| 79 | EM_A[7] | O | – | N | |
| 80 | EM_A[6] | O | – | N | |
| 83 | EM_A[5] | O | – | N | |
| 84 | EM_A[4] | O | – | N | |
| 86 | EM_A[3] | O | – | N | |
| 88 | EM_A[2] | O | – | N | |
| 89 | EM_A[1] | O | – | N | |
| 91 | EM_A[0] | O | – | N | |
| 93 | EM_A[10] | O | – | N | |
| 94 | EM_BA[1] | O | – | N | SDRAM bank address and asynchronous memory low-order address |
| 96 | EM_BA[0] | O | – | N | |
| 97 | EM_CS[0] | O | – | N | SDRAM chip select |
| 98 | EM_RAS | O | – | N | SDRAM row address strobe |
| 100 | EM_CS[2] | O | – | N | Asynchronous memory chip select |
| 102 | EM_RW | O | – | N | Asynchronous memory read/not write (No connected.) |
| 104 | EM_OE | O | – | N | SDRAM output enable |
| **External memory interface (EMIF) data bus** | | | | | |
| 41 | EM_D[7] | I/O | – | N | EMIF data bus [Lower 16-bit] |
| 43 | EM_D[6] | I/O | – | N | |
| 45 | EM_D[5] | I/O | – | N | |
| 46 | EM_D[4] | I/O | – | N | |
| 48 | EM_D[3] | I/O | – | N | |
| 49 | EM_D[2] | I/O | – | N | |
| 51 | EM_D[1] | I/O | – | N | |
| 52 | EM_D[0] | I/O | – | N | |
| 55 | EM_D[15] | I/O | – | N | |
| 56 | EM_D[14] | I/O | – | N | |
| 58 | EM_D[13] | I/O | – | N | |
| 59 | EM_D[12] | I/O | – | N | |
| 61 | EM_D[11] | I/O | – | N | |
| 63 | EM_D[10] | I/O | – | N | |
| 64 | EM_D[9] | I/O | – | N | |
| 66 | EM_D[8] | I/O | – | N | |
| **McASP0, McASP1, McASP2 and SPI1 serial ports** | | | | | |
| 2 | AHCLKX0 | I/O | – | Y | McASP0 and McASP2 transmit master clock |
| 3 | AMUTE0 | O | – | Y | McASP0 mute output |
| 4 | AMUTE1 | O | – | Y | McASP1 mute output |
| 5 | AHCLKX1 | I/O | – | Y | McASP1 transmit master clock |
| 7 | ACLKX1 | I/O | – | Y | McASP1 transmit bit clock |
| 9 | ACLKR1 | I/O | – | Y | McASP1 receive bit clock |
| 11 | AFSX1 | I/O | – | Y | McASP1 transmit frame sync (L/R clock) |
| 12 | AFSR1 | I/O | – | Y | McASP1 receive frame sync (L/R clock) |
| 113 | AXRO[0] | I/O | – | Y | McASP0 serial data 0 |
| 115 | AXR0[1] | I/O | – | Y | McASP0 serial data 1 |
| 116 | AXR0[2] | I/O | – | Y | McASP0 serial data 2 |

| Pin No. | Function Name | I/O | | | Detail of Function |
|---|---|---|---|---|---|
| | | TYPE(1) | PULL(2) | GPIO(3) | |
| 117 | AXR0[3] | I/O | – | Y | McASP0 serial data 3 |
| 119 | AXR0[4] | I/O | – | Y | McASP0 serial data 4 |
| 120 | SPI1_SCS | I/O | – | Y | McASP0 serial data 5 or SPI1 slave chip select |
| 121 | SPI1_ENA | I/O | – | Y | McASP0 serial data 6 or SPI1 enable (Ready) |
| 122 | SPI1_CLK | I/O | – | Y | McASP0 serial data 7 or SPI1 serial clock |
| 126 | SPI1_SOMI | I/O | – | Y | McASP0 serial data 8 or McASP1 serial data 5 or SPI1 data pin slave out master in |
| 127 | SPI1_SIMO | I/O | – | Y | McASP0 serial data 9 or McASP1 serial data 4 or SPI1 data pin slave in master out |
| 130 | AXR0[10] | I/O | – | Y | McASP0 serial data 10 or McASP1 serial data 3 |
| 131 | AXR0[11] | I/O | – | Y | McASP0 serial data 11 or McASP1 serial data 2 |
| 134 | AXR0[12] | I/O | – | Y | McASP0 serial data 12 or McASP1 serial data 1 |
| 135 | AXR0[13] | I/O | – | Y | McASP0 serial data 13 or McASP1 serial data 0 |
| 137 | AXR0[14] | I/O | – | Y | McASP0 serial data 14 or McASP2 serial data 1 |
| 138 | AXR0[15] | I/O | – | Y | McASP0 serial data 15 or McASP2 serial data 0 |
| 139 | ACLKR0 | I/O | – | Y | McASP0 receive bit clock |
| 141 | AFSR0 | I/O | – | Y | McASP0 receive frame sync (L/R clock) |
| 142 | ACLKX0 | I/O | – | Y | McASP0 transmit bit clock |
| 143 | AHCLKR0/AHCLKR1 | I/O | – | Y | McASP0 and McASP1 receive master clock |
| 144 | AFSX0 | I/O | – | Y | McASP0 transmit frame sync (L/R clock) |
| **SPI0, I2C0 and I2C1 serial port pins** | | | | | |
| 105 | SPIO_ENA | I/O | – | Y | SPI0 enable (Ready) or I2C1 serial data |
| 107 | SPIO_ENA | I/O | – | Y | SPI0 slave chip select or I2C1 serial clock |
| 108 | SPIO_CLK | I/O | – | Y | SPI0 serial clock or I2C0 serial clock |
| 110 | SPIO_SIMO | I/O | – | Y | SPI0 data pin slave in master out |
| 111 | SPIO/SOMI | I/O | – | Y | SPI0 data pin slave out master in or I2C0 serial data |
| **Clocks** | | | | | |
| 17 | CLKIN | I | – | N | Alternate clock input (3.3 V LVCMOS input) |
| 22 | OSCVSS | PWR | – | N | oscillator Vss tap point (for filter only) |
| 23 | OSCIN | I | – | N | 1.2 V oscillator input |
| 24 | OSCOUT | O | – | N | 1.2 V oscillator output (No connected.) |
| 25 | OSCVDD | PWR | – | N | oscillator 1.2 V VDD tap point (for filter only) |
| 27 | PLLHV | PWR | – | N | PLL 3.3 V supply input (requires external filter) |
| **Device reset** | | | | | |
| 14 | RESET | I | – | N | Device reset pin |
| **Emulation/JTAG port** | | | | | |
| 19 | TMS | I | IPU | N | Test mode select |
| 21 | TRST | I | IPD | N | Test reset |
| 28 | TDI | I | IPU | N | Test data in |
| 29 | TDO | OZ | IPU | N | Test data out |
| 32 | EMU[0] | I/O | IPU | N | Emulation pin 0 |
| 34 | EMU[1] | I/O | IPU | N | Emulation pin 1 |
| 35 | TCK | I | IPU | N | Test clock |
| **Power pins** | | | | | |
| 8 | CVDD | | | | Core supply |
| 16 | | | | | |
| 20 | | | | | |
| 33 | | | | | |
| 44 | | | | | |
| 53 | | | | | |
| 57 | | | | | |
| 65 | | | | | |
| 77 | | | | | |
| 85 | | | | | |
| 90 | | | | | |
| 101 | | | | | |
| 123 | | | | | |

| Pin No. | Function Name | I/O | | | Detail of Function |
|---|---|---|---|---|---|
| | | TYPE(1) | PULL(2) | GPIO(3) | |
| 128 | CVDD | | | | Core supply |
| 132 | | | | | |
| 10 | DVDD | | | | I/O supply |
| 31 | | | | | |
| 42 | | | | | |
| 50 | | | | | |
| 60 | | | | | |
| 68 | | | | | |
| 73 | | | | | |
| 81 | | | | | |
| 92 | | | | | |
| 103 | | | | | |
| 112 | | | | | |
| 125 | | | | | |
| 136 | | | | | |
| 1 | VSS | | | | Ground |
| 6 | | | | | |
| 13 | | | | | |
| 15 | | | | | |
| 18 | | | | | |
| 26 | | | | | |
| 30 | | | | | |
| 36 | | | | | |
| 40 | | | | | |
| 47 | | | | | |
| 54 | | | | | |
| 62 | | | | | |
| 69 | | | | | |
| 72 | | | | | |
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| 82 | | | | | |
| 87 | | | | | |
| 95 | | | | | |
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| 109 | | | | | |
| 114 | | | | | |
| 118 | | | | | |
| 124 | | | | | |
| 129 | | | | | |
| 133 | | | | | |
| 140 | | | | | |

1) TYPE column refers to pin direction in functional mode. If a pin has more than one function with different directions, the functions are separated with a slash (/).
2) PULL column:
   IPD = Internal Pull-down resistor
   IPU = Internal Pull-up resistor
3) If the GPIO column is 'Y', then in GPIO mode, the pin is configurable as an I/O unless otherwise marked.

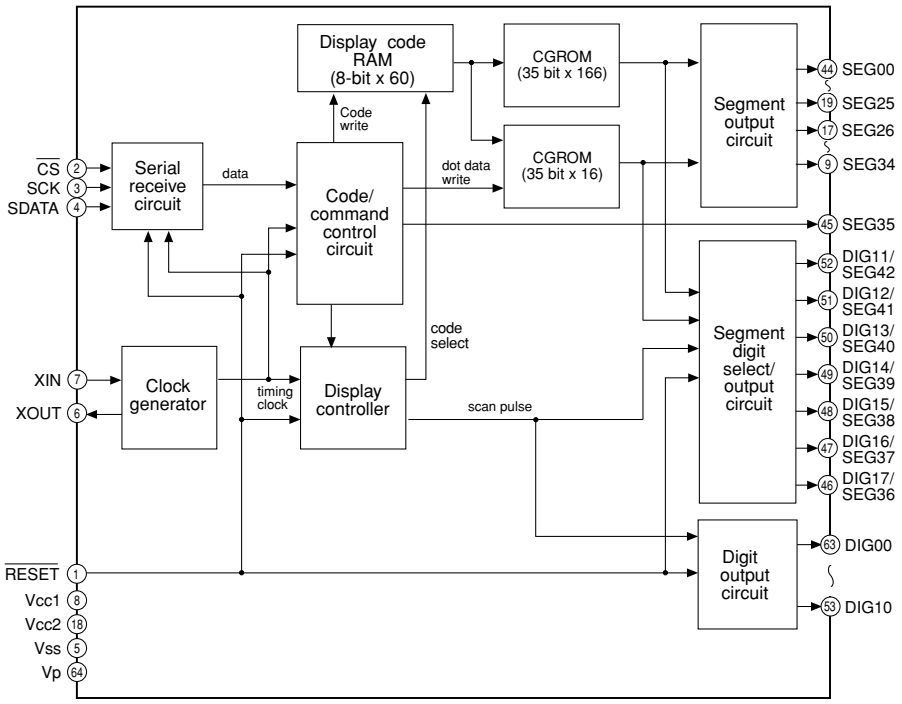
**IC202** : R2A15218FP (FUNCTION P.C.B.)
8 ch electronic volume with 11 input selector and tone control

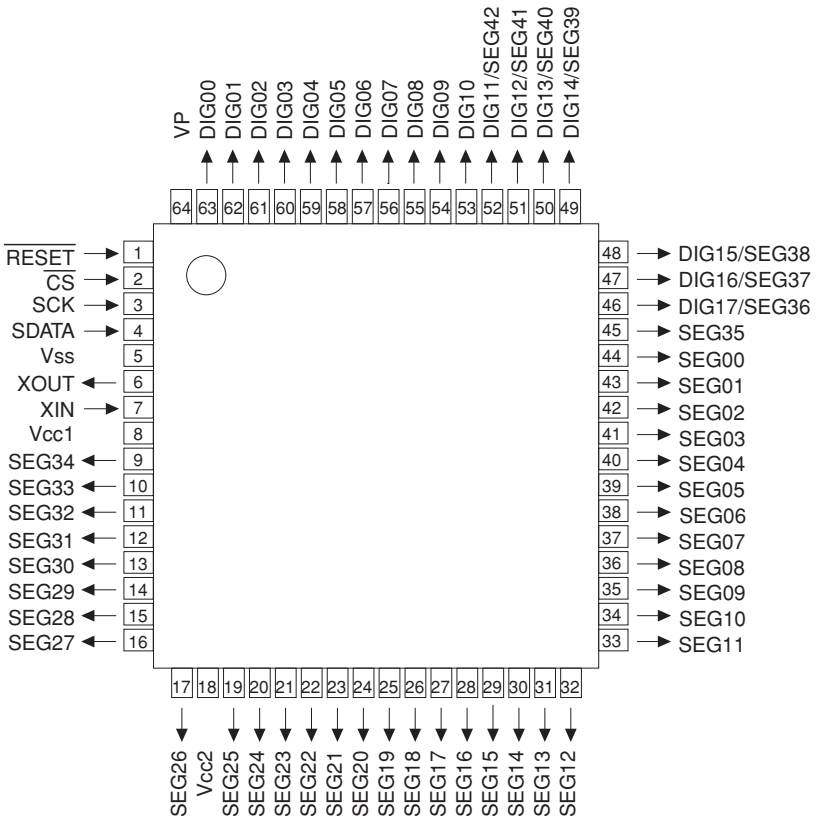


| Pin No. | Function Name | Detail of Function |
|---|---|---|
| 1 | NC | |
| 2 | SBLC | Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume |
| 3 | SBL OUT | Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel |
| 4 | AGND | Analog ground of internal circuit |
| 5 | SBR OUT | 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 | |

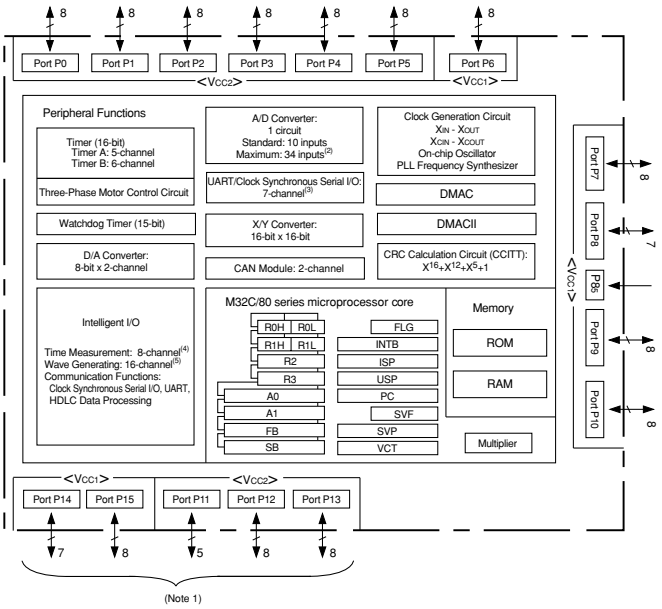
**IC401** : M66003-0131FP (OPERATION P.C.B.)
FL display driver



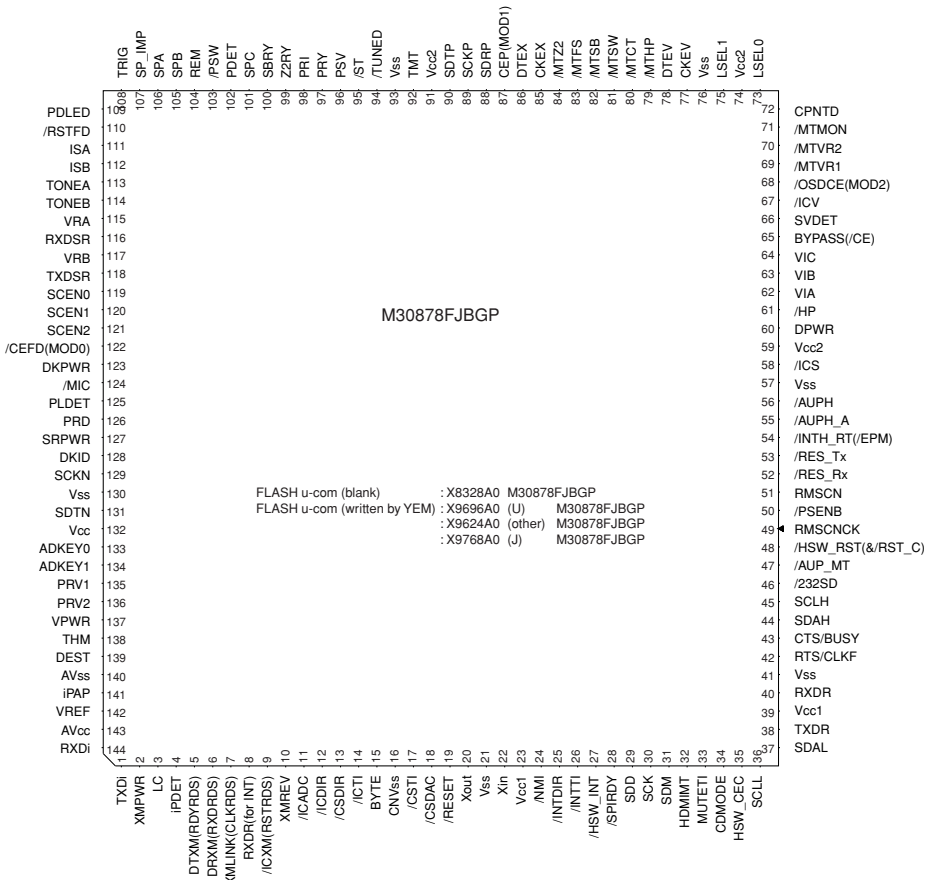



| Pin No. | Port Name | Function Name | I/O | Detail of Function |
|---|---|---|---|---|
| 1 | RESET | /RESET | Reset input | When “L”, M66003 is initialized. |
| 2 | CS | /CEFL | Chip select input | When “L”, communication with the MCU is possible. |
| 3 | SCK | CKFL | Shift clock input | When “H”,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

**IC30** : M30878FJBGP (DIGITAL P.C.B.)
Single chip 16/32-bit microprocessor




NOTES:
1. Ports P11 to P15 are provided in the 144-pin package only.
2. Included in the 144-pin package only. 26 inputs maximum in the 100-pin package.
3. 6-channel available in the 100-pin package.
4. 6-channel available in the 100-pin package.
5. 10-channel available in the 100-pin package.




FLASH u-com (blank) : X8328A0 M30878FJBGP
FLASH u-com (written by YEM) : X9696A0 (U) M30878FJBGP
: X9624A0 (other) M30878FJBGP
: X9768A0 (J) M30878FJBGP

| Pin No. | Port Name | Function Name (P.C.B.) | I/O | | | | | | | Detail of Function |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Power ON | VPWR OFF | STBY Thrh | STBY CEC | 232C ON [232C OFF] | STANDBY [STBY Sleep] | MCU Sleep [Sleep] | |
| 1 | TXD4 | TXDi | SO | | O | | | O | O | Asynchronous data output for iPod |
| 2 | P95 | XMPWR | O | | O | | | O | O | Power control output for XM antenna<br>H: ON, L: OFF (U, C models) |
| 3 | DA1 | LC | DA | | DA | | | I | I | Limiter control output |
| 4 | TB3in | iPDET | TMR | | | | | | O | iPod loaded in DOCK detect<br>Low when iPod is in Dock<br>Stop mode (MCU sleep) when set to event counter |
| 5 | TXD3 | DTXM | SO | | O | | | O | [O] | Asynchronous data output for XM/DT IC (U, C models) |
| | P92 | RDYRDS | I | | I | | | O | [O] | READY input for RDS IC (G model) |
| 6 | RXD3 | DRXM | SI | | I | | | O | [O] | Asynchronous data input for XM/DT IC (U, C models) |
| | | RXDRDS | SI | | I | | | O | O | Synchronous data input for RDS IC (G model) |
| 7 | P90 | XMLINK | I | | O | | | O | O | LINK ACTIVE input for XM/DT IC (U, C models) |
| | CLK3 | CLKRDS | SO | | O | | | O | O | Synchronous clock output for RDS IC (G model)<br>Setting to Low level standby required |
| 8 | INT8 | RXDR | IRQ | | | | | | O | RS-232C reception detect (U, C models)<br>Used for return trigger from stop mode (MCU sleep) / Connect to 40pin |
| 9 | P145 | /ICXM | O | | O | | | O | [O] | Reset output for XM/DT IC (U, C models) |
| | | RSTRDS | O | | O | | | O | [O] | Reset output for RDS IC (G model) |
| 10 | P144 | XMREV | I | | O | | | O | O | ANT_REV input for XM/DT IC<br>High: Non-compatible antenna |
| | | DIRSDO | I | | O | | | O | (O) | DIR DATA input for CDDA writing |
| 11 | P143 | /ICADC | O | | O | | | O | O | AD converter power down |
| 12 | P142 | /ICDIR | O | | O | | | O | O | Initial clear output for DIR |
| 13 | P141 | /CSDIR | CS | | O | | | O | O | Chip select output for DIR |
| 14 | P140 | /ICTI | O | | O | | | O | O | Initial clear output for TI (DA70Y) |
| 15 | BYTE | BYTE | MCU | | MCU | | | MCU | MCU | When set to single chip mode: Vss |
| 16 | CNVss | CNVss | MCU | | MCU | | | MCU | MCU | Processor mode select Low: Single chip mode |
| | | | | | | | | | | High: To Flash included boot mode |
| | | | | | | | | | | To boot mode with hardware resetting of P50=H, P55=L, CNVss=H |
| 17 | P87 | /CSTI | CS | | O | | | O | O | Chip select output for TI (DA70Y) |
| 18 | P86 | /CSDAC | CS | | O | | | O | O | Chip select output for DAC (for both 2ch/8ch) |
| 19 | RESET | /RESET | MCU | | MCU | | | MCU | MCU | Reset |
| 20 | Xout | Xout | MCU | | MCU | | | MCU | MCU | |
| 21 | Vss | Vss | MCU | | MCU | | | MCU | MCU | |
| 22 | Xin | Xin | MCU | | MCU | | | MCU | MCU | |
| 23 | Vcc1 | Vcc | MCU | | MCU | | | MCU | MCU | |
| 24 | NMI | /NMI | MCU | | I | | | | I | Unused, connect to Vcc |
| 25 | INT2 | /INTDIR | IRQ | | O | | | O | O | Interrupt input for DIR |
| 26 | INT1 | /INTTI | IRQ | | O | | | O | O | Interrupt input for TI (DA70Y) |
| 27 | INT0 | /HSW_INT | IRQ | | IRQ | IRQ | | O | O | MATSUSHITA CEC microprocessor (13 pins) interrupt input |
| 28 | P81 | /SPIRDY | I | | O | | | O | O | READY input for TI (DA70Y) |
| | | RWCK | I | | O | | | O | [O] | DIR WCK input for CDDA writing |
| 29 | RXD5 | SDD | SI | | O | | | O | O | Synchronous data input for DIR, TI (DA70Y), DAC |
| | | | | | | | | | | DIR: 4M, LSBF TI: 1M, MSBF |
| 30 | CLK5 | SCK | SO | | O | | | O | O | Synchronous clock output for DIR, TI (DA70Y), DAC |
| 31 | TXD5 | SDM | SO | | O | | | O | O | Synchronous data output for DIR, TI (DA70Y), DAC<br>DIR: 4M, LSBF TI: 1M, MSBF |
| 32 | TA2in | HDMIMT | TMR | | TMR | | | O | O | MDMI AUDIO MUTE input<br>H: Mute |
| 33 | P74 | MUTETI | O | | O | | | O | O | Mute output (High=MUTE) for TI (DA70Y) |
| 34 | P73 | CDMODE | O | | O | | | O | O | CDDA write mote control output |
| | | | | | | | | | | H: CDDA write mode L: Normal operation mote |
| 35 | P72 | HSW_CEC | I | | I | I | | O | O | MATSUSHITA CEC microprocessor (12 pins) interrupt input<br>Reset request from MATSUSHITA microprocessor |

| Pin No. | Port Name | Function Name (P.C.B.) | I/O | | | | | | | Detail of Function |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Power ON | VPWR OFF | STBY Thrh | STBY CEC | 232C ON [232C OFF] | STANDBY [STBY Sleep] | MCU Sleep [Sleep] | |
| 36 | SCL2 | SCLL | SIO | | SIO | SIO | | O | O | I2C clock input/output for HDMI switcher & video switch<br>(100kHz device)<br>Pull up at HDMI block |
| 37 | SDA2 | SDAL | SIO | | SIO | SIO | | O | O | I2C clock input/output for HDMI switcher & video switch<br>(100kHz device)<br>Pull up at HDMI block |
| 38 | TxD1 | TXDR | | | | | SO[O] | | O | RS-232C asynchronous communication data output |
| | | TXDF | | | | | | | | Data output for AF220 |
| 39 | Vcc1 | Vcc | MCU | | MCU | | | MCU | MCU | Power source of microprocessor +5BU |
| 40 | RxD1 | RXDR | | | | | SI [O] | | O | RS-232C asynchronous communication data input<br>Pull Down by 100k-ohms |
| | | RXDF | SI | | | | | | | Data input for AF220 |
| 41 | Vss | Vss | MCU | | MCU | | | MCU | MCU | Ground of microprocessor |
| 42 | P65 | RTS | | | | | O [O] | | O | RS-232C asynchronous communication RTS output |
| | CLK1 | CLKF | SI | | | | | | | Clock input for AF220 |
| 43 | CTS1 | CTS | | | | | SI [O] | | O | RS-232C asynchronous communication CTS input<br>Pull Down by 100k-ohms |
| | RTS1 | BUSY | SO | | | | | | | BUSY output for AF220 |
| 44 | SDA0 | SDAH | SIO | | SIO | | | O | O | HDMI-RX/TX, VIDEO-DEC/ENC I2C clock input/output<br>(400kHz device)<br>Pull up at HDMI block / HDMI Rx,Tx: 5V tolerant |
| 45 | SCL0 | SCLH | SIO | | SIO | | | O | O | HDMI-RX/TX, VIDEO-DEC/ENC I2C data input/output<br>(400kHz device)<br>Pull up at HDMI block / HDMI Rx,Tx: 5V tolerant |
| 46 | P61 | /232SD | | | | | O [O] | | O | 232C driver shut-down control<br>L: Shut down<br>Default High (232C ON) for U, C model<br>Default Low for other than U, C model |
| 47 | P60 | /AUP_MT | O | | O | | | O | O | Audio Up conversion Mute output<br>L: Mute<br>Muted even when audio up conversion is not executed |
| 48 | P137 | /HSW_RST | O | | O | O | | O | O | Reset output for HDMI switcher IC<br>L: Reset |
| 49 | ISCLK2 | RMSCNCK | SO | | O | | | O | O | Clock output for scene select DVD control remote control code generation<br>Unused externally |
| 50 | P135 | PSENB | O | O | O | O | | O | O | MATSUSHITA CEC microprocessor reset |
| 51 | ISTXD2 | RMSCN | SO | | O | | | O | O | Scene select DVD control remote control code output |
| 52 | P57 | /RES_RX | O | | O | | | O | O | Reset output for HDMI Rx IC<br>L: Reset<br>Pull down at HDMI P.C.B. |
| 53 | P56 | /RES_TX | O | | O | | | O | O | Reset output for HDMI Rx IC<br>L: Reset<br>Pull down at HDMI P.C.B. |
| 54 | P55 | /INT_RT | I | | I | | | O | O | HDMI interrupt (Polarity inversion enabled by HDMI Rx,Tx resistor)<br>Connect Rx only<br>Pull up at HDMI P.C.B. |
| | | /EPM | I | | | | | | | 47k-ohms pull down for flash write mode |
| 55 | P54 | /AUPH_A | O | O | O | | | O | O | ADC output / Rx output for selection of audio path to HDMI<br>L: ADC output, H: Rx output<br>High Fix when VPWR OFF |
| 56 | P133 | /AUPH | O | O | O | | | O | O | Video path (Decoder output) to HDMI ON/OFF<br>L: ON, H: HiZ<br>High Fix when VPWR OFF |
| 57 | Vss | Vss | MCU | | MCU | | | MCU | MCU | |

| Pin No. | Port Name | Function Name (P.C.B.) | I/O | | | | | | | Detail of Function |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Power ON | VPWR OFF | STBY Thrh | STBY CEC | 232C ON [232C OFF] | STANDBY [STBY Sleep] | MCU Sleep [Sleep] | |
| 58 | P132 | /ICS | O | O | O | | | O | O | Reset output for VIDEO SCALER IC<br>L: Reset<br>Low Fix when VPWR OFF |
| 59 | Vcc2 | Vcc | MCU | | MCU | | | MCU | MCU | |
| 60 | P131 | CEC_DPWR | O | O | O | | | O | O | ON/OFF control of CEC and DSP power supply<br>H: ON, L: OFF<br>DIR, TI DSP, XMIC resetting executed 50ms after DSP power ON |
| 61 | P130 | /HP | I | | O | | | O | O | Head Phone detect<br>L: Head phone in use |
| 62 | P53 | VIA | O | O | O | | | O | O | CVBS/S input select A<br>Low Fix when VPWR OFF |
| 63 | P52 | VIB | O | O | O | | | O | O | CVBS/S input select B |
| | | | | | | | | | | Low Fix when VPWR OFF |
| 64 | P51 | VIC | O | O | O | | | O | O | CVBS/S input select C |
| | | | | | | | | | | Low Fix when VPWR OFF |
| 65 | P50 | BYPASS | | | | | | | | BYPASS CVBS/S select<br>Low Fix when VPWR OFF<br>Low Fix when Stby Thrh (10/23 changed)<br>Input port when standby / Sleep / Backup |
| | | /CE | I | | | | | | | For flash write mode<br>10k-ohms pull up (+5BU), flash preventive diode |
| 66 | P127 | SVDET | I | O | O | | | O | O | S-Video signal detect<br>Low Fix when VPWR OFF |
| 67 | P126 | /ICV | O | | O | | | O | O | Reset output for VIDEO ENC/DEC IC<br>Low Fix when VPWR OFF |
| 68 | P125 | /OSDCE | CS | O | O | | | O | O | Chip enable output for OSD IC<br>Low Fix when VPWR OFF<br>Data is taken in with PSV port set to High 20ms after resetting is cancelled |
| | | MOD2 | I | | | | | | | Model detect 2 (663/863) |
| 69 | P47 | /MTVR1 | O | O | O | | | O | O | VCR1 MUTE |
| | | | | | | | | | | Low Fix when VPWR OFF |
| 70 | P46 | /MTVR2 | O | O | O | | | O | O | VCR2 MUTE |
| | | | | | | | | | | Low Fix when VPWR OFF |
| 71 | P45 | /MTMON | O | O | O | | | O | O | Monitor MUTE |
| | | | | | | | | | | Low Fix when VPWR OFF |
| 72 | P44 | CPNTD | I | O | O | | | O | O | Component signal detect |
| | | | | | | | | | | Low Fix when VPWR OFF |
| 73 | P43 | LSEL0 | O | O | O | | | O | O | L1 to 3 select 0 |
| | | | | | | | | | | Low Fix when VPWR OFF |
| 74 | Vcc2 | Vcc | MCU | | MCU | | | MCU | MCU | |
| 75 | P42 | LSEL1 | O | O | O | | | O | O | L1 to 3 select 1 |
| | | | | | | | | | | Low Fix when VPWR OFF |
| 76 | Vss | Vss | MCU | | MCU | | | MCU | MCU | |
| 77 | P41 | CKEV | O | | O | | | O | O | PATAPATA synchronous clock output for electronic volume |
| 78 | P40 | DTEV | O | | O | | | O | O | PATAPATA synchronous data output for electronic volume |
| 79 | P37 | /MTHP | O | | O | | | O | O | Mute Head Phone |
| 80 | P36 | /MTCT | O | | O | | | O | O | Mute Center |
| 81 | P35 | /MTSW | O | | O | | | O | O | Mute SW |
| 82 | P34 | /MTSB | O | | O | | | O | O | Mute SBL/SBR |
| 83 | P33 | /MTFS | O | | O | | | O | O | Mute FL/FR/SL/SR |
| 84 | P32 | /MTZ2 | O | | O | | | O | O | Mute Zone2 |
| 85 | P31 | CKEX | O | | O | | | O | O | BATABATA synchronous clock output for expansion input selector |
| 86 | P124 | DTEX | O | | O | | | O | O | BATABATA synchronous data output for expansion input selector |

| Pin No. | Port Name | Function Name (P.C.B.) | I/O | | | | | | | Detail of Function |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Power ON | VPWR OFF | STBY Thrh | STBY CEC | 232C ON [232C OFF] | STANDBY [STBY Sleep] | MCU Sleep [Sleep] | |
| 87 | P123 | CEP | CS | | O | | | O | O | Chip enable output for tuner PLL |
| | | HDRD_N_RST | I | | I | | | I | [ I ] | Reset output for HD Radio<br>Use prohibited, always set to input (HiZ)<br>Data is taken in with PSV port set to High 20ms after resetting is cancelled (U model) |
| | | MOD1 | I | | | | | | | Model detect 1 (net) |
| 88 | RXD6 | SDRP | SI | | I | | | O | O | Synchronous data input for tuner PLL |
| | | HDRD_MISO | SI | | I | | | O | O | Asynchronous data input for HD Radio (U model) |
| 89 | CLK6 | SCKP | SO | | O | | | O | O | Synchronous clock output for tuner PLL |
| 90 | TXD6 | SDTP | SO | | O | | | O | O | Synchronous data output for tuner PLL |
| | | HDRD_MOSI | SO | | O | | | O | O | Asynchronous data output for HD Radio (U model) |
| 91 | Vcc2 | Vcc | MCU | | MCU | | | MCU | MCU | |
| 92 | P30 | TMT | O | | O | | | O | O | TUNER Mute output<br>H: Mute<br>Always Mute when tuner is not selected |
| 93 | Vss | Vss | MCU | | MCU | | | MCU | MCU | Commonly used with ZONE mute being in use when selecting FM/AM band |
| 94 | P27 | /TUNED | I | | I | | | O | O | TUNER TUNED input<br>Pull up to +5S |
| 95 | P26 | /ST | I | | I | | | O | O | TUNER STEREO input<br>Pull up to +5S |
| 96 | P25 | PSV | O | | O | | | [O] | O | +5S ON/OFF control<br>* +5S is OFF in the sleep mode so as to reduce wasteful power consumption when set to low power consumption (Mute circuit, pull up, etc.)<br>* Shifted to sleep mode about 10 seconds after SYSTEM OFF |
| 97 | P24 | PRY | O | | O | | | O | O | Power relay control |
| 98 | P23 | PRI | I | | I | | | O | O | Protection excess current detect |
| 99 | P22 | Z2RY | O | | O | | | O | O | ZONE2 SP relay control<br>Z2RY and SPB must not be High at the same time |
| 100 | P21 | SBRY | O | | O | | | O | O | Surround back SP relay control |
| 101 | P20 | SPC | O | | O | | | O | O | Center & surround SP relay control |
| 102 | INT5 | PDET | IRQ | | | | | | O | Interrupt input for power down detect |
| 103 | INT4 | /PSW | IRQ | | | | | | O | MAIN power/ZONE2 power /SCENE1-4SW interrupt<br>Pressed SW is judged by ADKEY0 and ADKEY1 |
| 104 | INT3 | REM | IRQ | | | | | | O | Remote control pulse input |
| 105 | P14 | SPB | O | | O | | | O | O | Front SP B relay control |
| 106 | P13 | SPA | O | | O | | | O | O | Front SP A relay control |
| 107 | P12 | SP_IMP | O | | O | | | O | O | ±B voltage control by impedance selection<br>Power consumption is reduced because B voltage becomes Low<br>Low (Relay OFF, B voltage High) when set to 8 ohm, High (Relay ON, B voltage Low) when set to 6 ohms and temperature rises |
| 108 | P11 | TRIG | O | | O | | | O | O | DC TRIGGER output |
| 109 | P10 | PDLED | O | | O | | | O | O | Pure direct LED |
| 110 | P07 | /RSTFD | O | | O | | | O | O | Reset output for FL driver |
| 111 | P06 | ISA | I | | O | | | O | O | Rotary A for input selector |
| 112 | P05 | ISB | I | | O | | | O | O | Rotary B for input selector |
| 113 | P04 | TONEA | I | | O | | | O | O | Rotary A for TONE/PROGRAM |
| 114 | P114 | TONEB | I | | O | | | O | O | Rotary B for TONE/PROGRAM |
| 115 | P113 | VRA | I | | O | | | O | O | |
| 116 | ISRXD1 | RXDSR | SI | | O | | | O | O | Rotary A for volume<br>Asynchronous communication data input for SIRIUS radio<br>Serial communication is 5V TTL/CMOS logic level<br>Pull Down by 100k-ohms |
| 117 | P111 | VRB | I | | O | | | O | O | Rotary B for volume |

| Pin No. | Port Name | Function Name (P.C.B.) | I/O | | | | | | | Detail of Function |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Power ON | VPWR OFF | STBY Thrh | STBY CEC | 232C ON [232C OFF] | STANDBY [STBY Sleep] | MCU Sleep [Sleep] | |
| 118 | ISTXD1 | TXDSR | SO | | O | | | O | O | Asynchronous communication data output for SIRIUS radio<br>Serial communication is 5V TTL/CMOS logic level (U, C models) |
| 119 | P03 | SCEN0 | O | | O | | | O | O | SCENE button LED control 0 |
| 120 | P02 | SCEN1 | O | | O | | | O | O | SCENE button LED control 1 |
| 121 | P01 | SCEN2 | O | | O | | | O | O | SCENE button LED control 2 |
| 122 | P00 | /CEFD | CS | | O | | | O | O | Chip enable output for FL driver<br>Data is taken in with PSV port set to High 20 ms after resetting is cancelled |
| | | MOD0 | I | | | | | | | Model detect 0 (RX/HTR) |
| 123 | P157 | DKPWR | O | | O | | | O | O | DOCK power control output / H: ON, L: OFF |
| 124 | P156 | /MIC | I | | O | | | O | O | MIC detect |
| 125 | AN155 | PLDET | AD | | AD | | | O | O | SP output level detect for AD power limiter |
| | | | | | | | | | | Refer to the limiter setting table |
| 126 | AN154 | PRD | AD | | AD | | | O | O | AD protection power amplifier DC detect |
| | | | | | | | | | | Refer to the protection setting table |
| 127 | P153 | /SRPWR | O | | I | | | I | I | SIRIUS radio power enable output |
| | | | | | | | | | | L: Power ON HiZ: Power OFF |
| | | | | | | | | | | Used as input port because SIRIUS power turns ON if set to Low Fix when in |
| | | | | | | | | | | the Standby/Sleep mode (U, C models) |
| 128 | AN152 | DKID | AD | | AD | | | AD | O | AD Dock ID judgment |
| | | | | | | | | | | The type of Dock being connected is judged and operation is changed |
| 129 | ISCLK0 | SCKN | SO | | O | | | O | O | Synchronous clock output for FL DRIVER IC |
| | | | SO | | O | | | O | O | Synchronous clock output for OSD IC |
| | | | | | | | | | | Include 1k-ohms in the series to make applicable to pure direct |
| 130 | Vss | Vss | MCU | | MCU | | | MCU | MCU | |
| 131 | ISTXD0 | SDTN | SO | | O | | | O | O | Synchronous data output for FL DRIVER IC |
| | | | SO | | O | | | O | O | Synchronous data output for OSD IC |
| | | | | | | | | | | Include 1k-ohms in the series to make applicable to pure direct |
| 132 | Vcc1 | Vcc | MCU | | MCU | | | MCU | MCU | |
| 133 | AN7 | ADKEY0 | AD | | AD | | | [ I ] | O | AD KEY1 for taking in AD value |
| 134 | AN6 | ADKEY1 | AD | | AD | | | [ I ] | O | AD KEY0 for taking in AD value |
| 135 | AN5 | PRV1 | AD | | AD | | | O | O | AD protection power voltage detect1 |
| 136 | AN4 | PRV2 | AD | | AD | | | O | O | AD protection power voltage detect2 |
| 137 | P103 | VPWR | O | | O | | | O | O | CIDEO power control |
| | | | | | | | | | | Low when VIDEO OFF |
| | | | | | | | | | | Set according to specifications of pure direct and return to Low Fix when in |
| | | | | | | | | | | Standby/Sleep mode |
| 138 | AN2 | THM | AD | | AD | | | O | O | AD temperature detect |
| | | | | | | | | | | Refer to the protection setting table |
| 139 | AN1 | DEST | AD | | AD | | | O | O | AD destination discrimination |
| | | | | | | | | | | Data is taken in when resetting is cancelled |
| 140 | AVss | AVss | MCU | | MCU | | | MCU | MCU | |
| 141 | P100 | iPAP | I | | I | | | I | O | iPod accessory power detect |
| | | | | | | | | | | Becomes Low while iPod is booting (for about 2 seconds) |
| | | | | | | | | | | Identification executed when booting is judged as completed |
| 142 | Vref | VREF | MCU | | MCU | | | MCU | MCU | |
| 143 | AVcc | AVcc | MCU | | MCU | | | MCU | MCU | |
| 144 | RXD4 | RXDi | SI | | I | | | I | O | Asynchronous data input for iPod |

Standby --- All Zone power OFF, Master ON
MCUSleep --- Low current consumption state at Master OFF

Key detection for AD port
Key input (A/D) pull-up resistance 10 k-ohms
RX-V663 (U, C, R, T, K, A, G, E, F, L models), HTR-6160 (U, F models)

| Ohm | 0 | +1.0 k | +1.0 k | +1.5 k | +2.2 k | +3.3 k | +4.7 k | +4.7 k | +6.8 k | +10.0 k | +22.0 k |
|---|---|---|---|---|---|---|---|---|---|---|---|
| V | 0-0.23 | 0.24-0.64 | 0.65-1.06 | 1.07 - 1.55 | 1.56-2.09 | 2.10-2.62 | 2.63-3.06 | 3.07-3.40 | 3.41-3.73 | 3.74-4.07 | 4.08-4.45 |
| ADKEY0 (133 pin) | SYSTEM OFF | SCENE1 | SCENE2 | – | – | STRAIGHT | TONE CONTROL | SEARCH MODE / EDIT | – | SPEAKERS | PURE DIRECT |
| ADKEY1 (134 pin) | Zone2 ON/OFF | SCENE3 | SCENE4 | ZONE CONTROL | AUDIO SELECT | FM/AM | A/B/C/D/E | PRESET < | PRESET > | MEMORY | INFO |

HTR-6160 (C model), DSP-AX763 (J model)

| Ohm | 0 | +1.0 k | +1.0 k | +1.5 k | +2.2 k | +3.3 k | +4.7 k | +4.7 k | +6.8 k | +10.0 k | +22.0 k |
|---|---|---|---|---|---|---|---|---|---|---|---|
| V | 0-0.23 | 0.24-0.64 | 0.65-1.06 | 1.07-1.55 | 1.56-2.09 | 2.10-2.62 | 2.63-3.06 | 3.07-3.40 | 3.41-3.73 | 3.74-4.07 | 4.08-4.45 |
| ADKEY0 (133 pin) | – | SCENE1 | SCENE2 | – | – | STRAIGHT | TONE CONTROL | SEARCH MODE /EDIT | – | SPEAKERS | PURE DIRECT |
| ADKEY1 (134 pin) | MUTE | SCENE3 | SCENE4 | SLEEP | AUDIO SELECT | FM/AM | A/B/C/D/E | PRESET < | PRESET > | MEMORY | INFO |

DSP-AX763 (B model)

| Ohm | 0 | +1.0 k | +1.0 k | +1.5 k | +2.2 k | +3.3 k | +4.7 k | +4.7 k | +6.8 k | +10.0 k | +22.0 k |
|---|---|---|---|---|---|---|---|---|---|---|---|
| V | 0-0.23 | 0.24-0.64 | 0.65-1.06 | 1.07-1.55 | 1.56-2.09 | 2.10-2.62 | 2.63-3.06 | 3.07-3.40 | 3.41-3.73 | 3.74-4.07 | 4.08-4.45 |
| ADKEY0 (133 pin) | – | SCENE1 | SCENE2 | – | – | STRAIGHT | TONE CONTROL | – | – | SPEAKERS | PURE DIRECT |
| ADKEY1 (134 pin) | – | SCENE3 | SCENE4 | – | AUDIO SELECT | – | – | – | – | – | – |

Destination detection for AD port
Pull-up resistance 10 k-ohms

| Ohm | 0.0 k | 1.2 k | 2.7 k | 4.7 k | 6.8 k | 10.0 k | 15.0 k | 27.0 k | 47.0 k | 100.0 k | – |
|---|---|---|---|---|---|---|---|---|---|---|---|
| V | 0-0.3 | 0.4-0.7 | 0.8-1.3 | 1.4-1.8 | 1.9-2.2 | 2.3-2.7 | 2.8-3.2 | 3.3-3.8 | 3.9-4.3 | 4.4-4.7 | 4.8-5.0 |
| A/D (5 V=255) | 0-13 | 14-40 | 41-68 | 69-92 | 93-115 | 116-140 | 141-170 | 171-198 | 199-221 | 222-243 | 245-255 |
| DEST, 139pin | J | U, C | – | R | T | K | A | B | G, E, F | L | – |

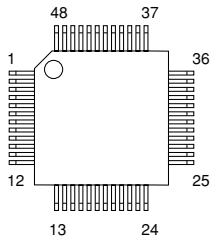
Model detection
1: Pull-up / 0: Pull-down

| Model | RX-V663/DSP-AX763 | HTR-6160 |
|---|---|---|
| /CEFD/MOD0 (122 pin) | 0 | 1 |

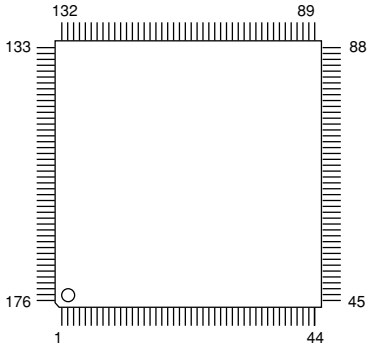
# ■ PIN CONNECTION DIAGRAMS

## ICs

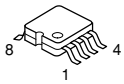
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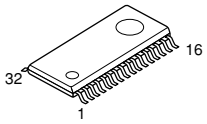

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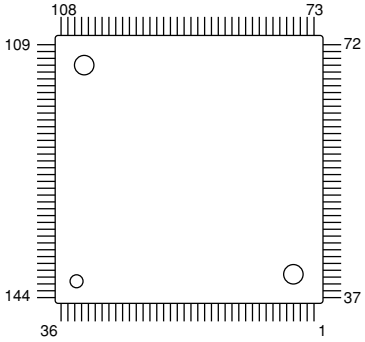

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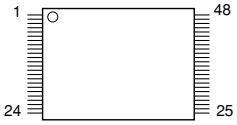

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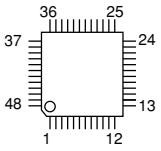

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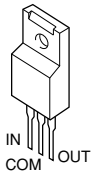

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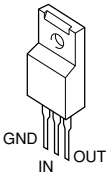

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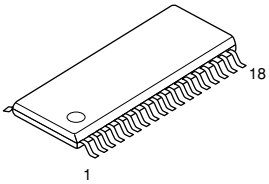

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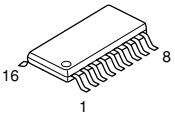

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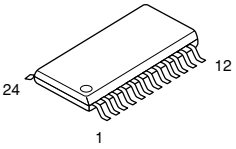

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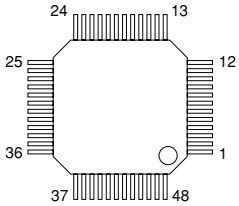

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PCM1781DBQR



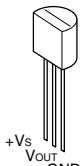

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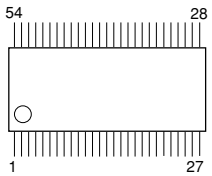

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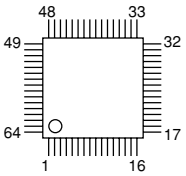

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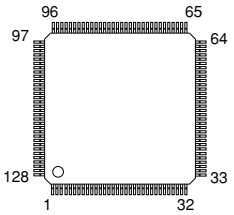

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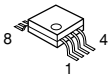

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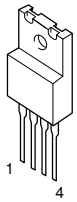

MN103SFD7G




NJM2068MD-TE2

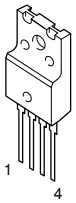



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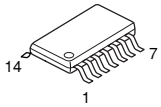

1. VIN
2. VOUT
3. GND
4. ON/OFF CONTROL

NJM2388F09
NJM2396F33

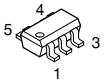



1. VIN
2. VOUT
3. GND
4. ON/OFF CONTROL

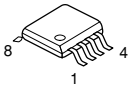
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TC74VHCU04FT



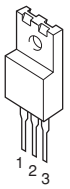

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NJM4565M

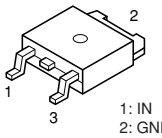


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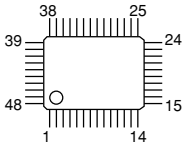

1: INPUT
2: GND
3: OUTPUT

NJM78M05DL1A

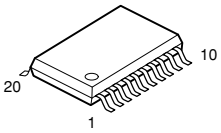



1: IN
2: GND
3: OUT

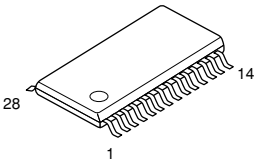
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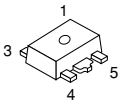

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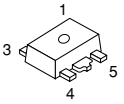

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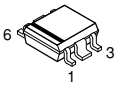



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R1172H331D-T1-F

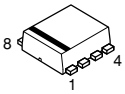



1: CE
2: GND
3: NC
4: $V_{DD}$
5: $V_{OUT}$

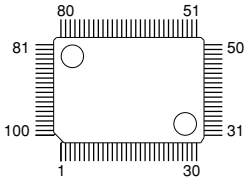
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R1172S181B-E2-F
R1172S331B-E2-F



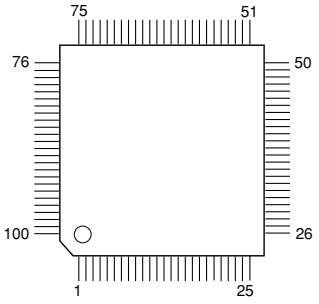

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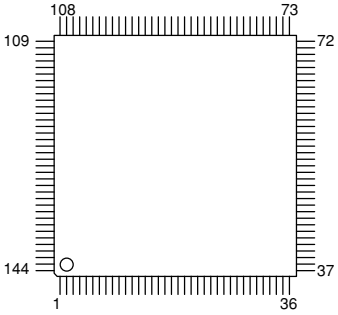

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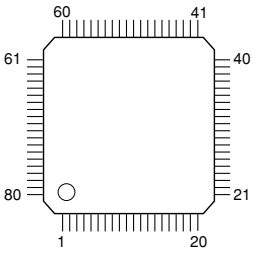

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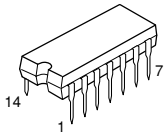

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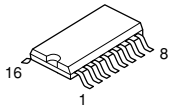

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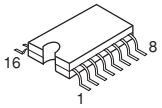

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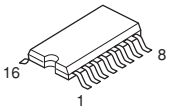

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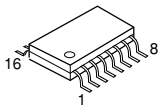

TC74HC4051AFEL
TC74HC4052AF



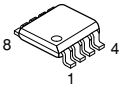

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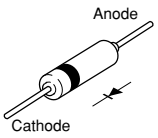
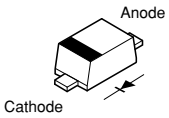
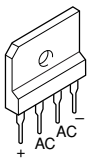
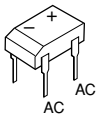
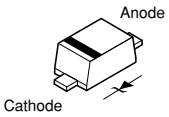
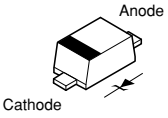
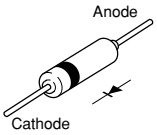
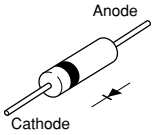
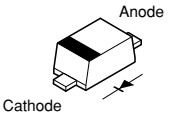
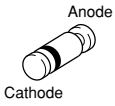
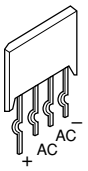
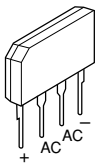
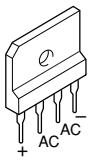
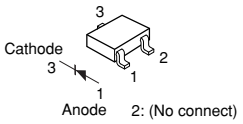

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TC7WZ32FK

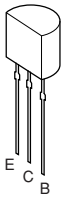


## Diodes

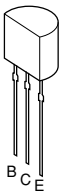
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<td>1SS355<br>1SS380<br>  </td>
<td>D6SBN20<br>  </td>
<td>DB105<br>  </td>
<td>MA8024-(TX) 2.4V<br>  </td>
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<td>MA8030-L 2.9V<br>MA8036 3.6V<br>MA8051-M 5.1V<br>MA8056-M 5.6V<br>MA8068-M 6.8V<br>MA8075-H 7.7V<br>MA8091-L 8.8V<br>MA8091-M 9.1V<br>MA8100-H 10.3V<br>MA8100-M 10.0V<br>  </td>
<td>MTZJ2.4B<br>MTZJ5.1C<br>MTZJ6.2B<br>MTZJ13B<br>MTZJ15B<br>MTZJ30A<br>  </td>
<td>RB441Q-40<br>  </td>
<td>RB500V-40<br>RB501V-40<br>  </td>
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<td>RLZ7.5B 7.5V<br>  </td>
<td>RS103-B-D-V50<br>  </td>
<td>RS203M-B-C-J80<br>  </td>
<td>RS403M<br>RS603M<br>  </td>
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## Transistors

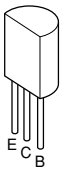
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2SC2240




2N5551C-AT



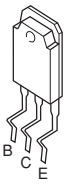

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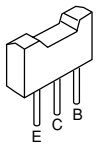

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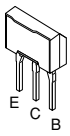

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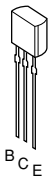

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2SA1770S/T-AN




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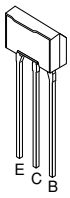

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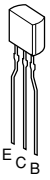

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2SC3326-B (TE85R, F)
2SC4081 T106
2SD1938F
KTA1504S
KTC3875S



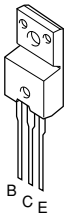

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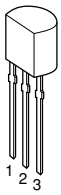

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2SD2014

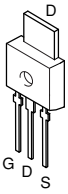



2SK246-Y (TPE2, F)




1: Source
2: Gate
3: Drain

2SK3850




3LN01C-TB-E

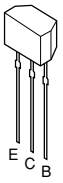



DTA114EKA
DTA143EKA
DTA144EKA
DTC114EKA
DTC124EKA
DTC144EKA

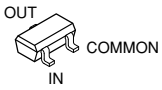



1: GND
2: IN
3: OUT

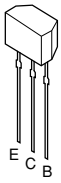
KRA102M-AT/P



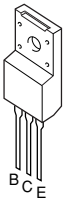

KRA102S-RTK/P
KRC102S-RTK
KRC104S-RTK




KRC102M-AT




KTA1046-Y-U/P

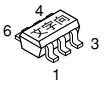



RSR025P03TL




1: GATE
2: SOURCE
3: DRAIN

μPA672T-T1-A

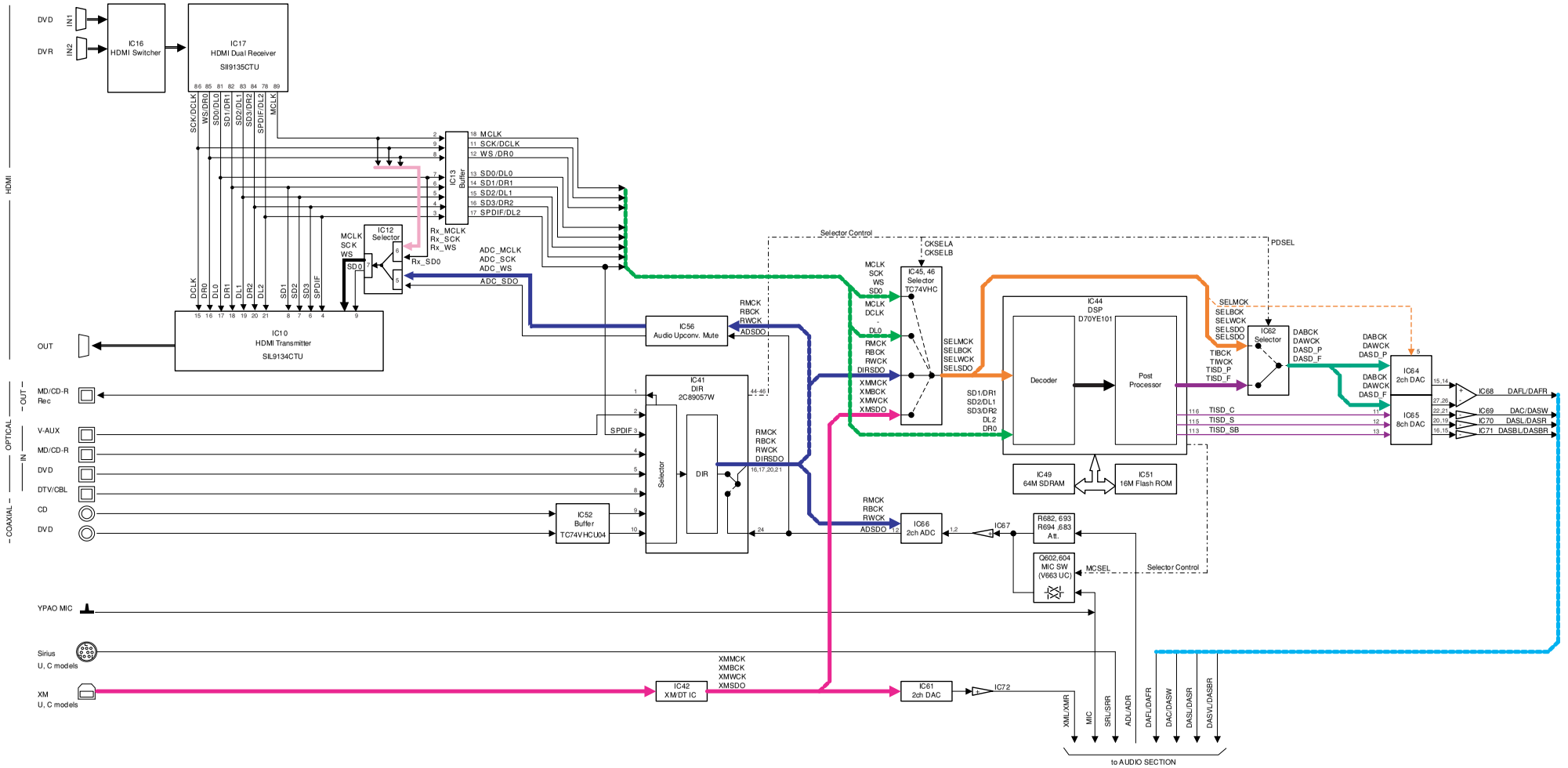



1. Source 1 (S1)
2. Gate 1 (G1)
3. Drain 2 (D2)
4. Source 2 (S2)
5. Gate 2 (G2)
6. Drain 1 (D1)

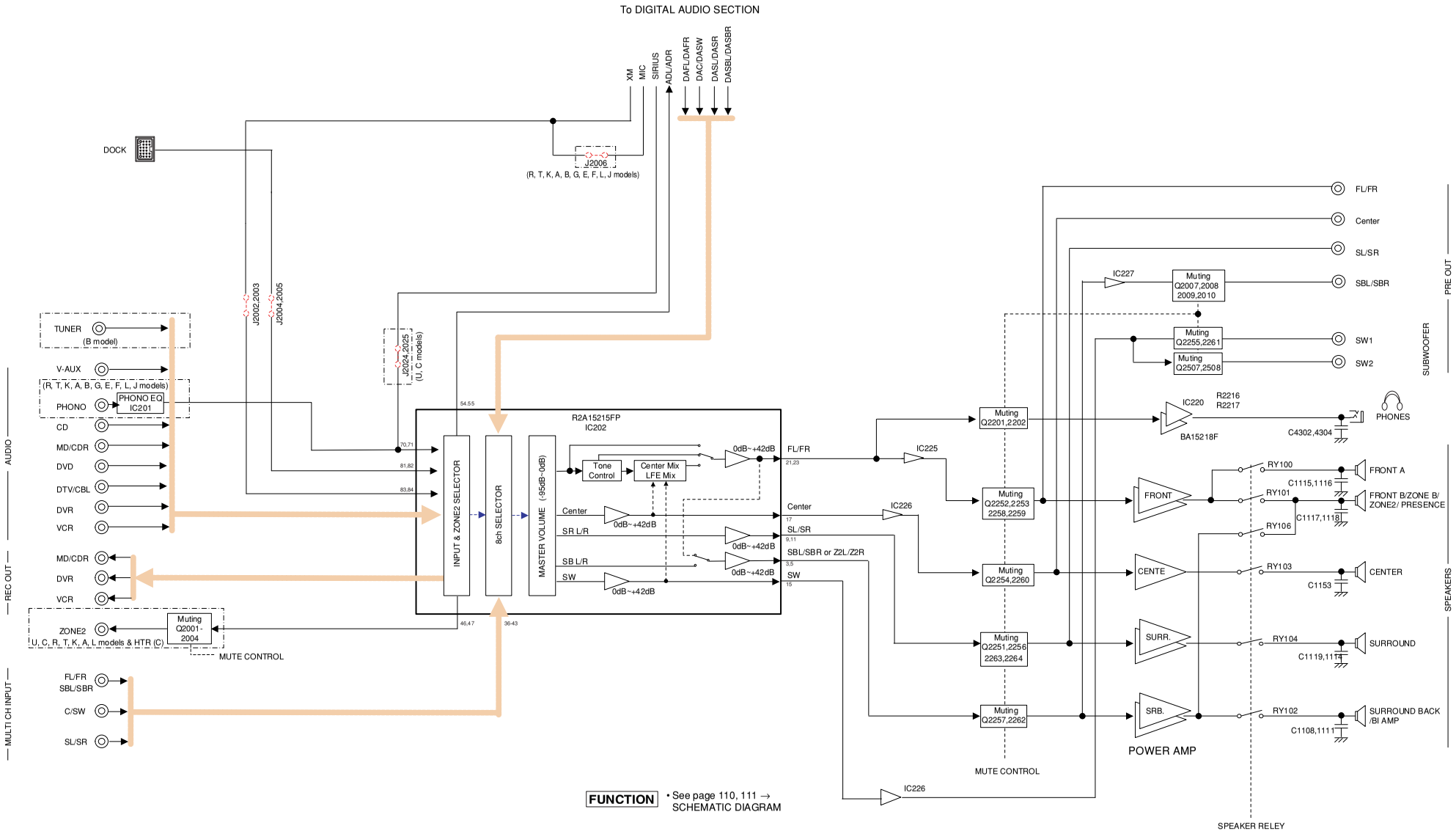
# ■ BLOCK DIAGRAMS

## AUDIO (DIGITAL) SECTION BLOCK DIAGRAM

**DIGITAL** • See page 105-109 →
SCHEMATIC DIAGRAM

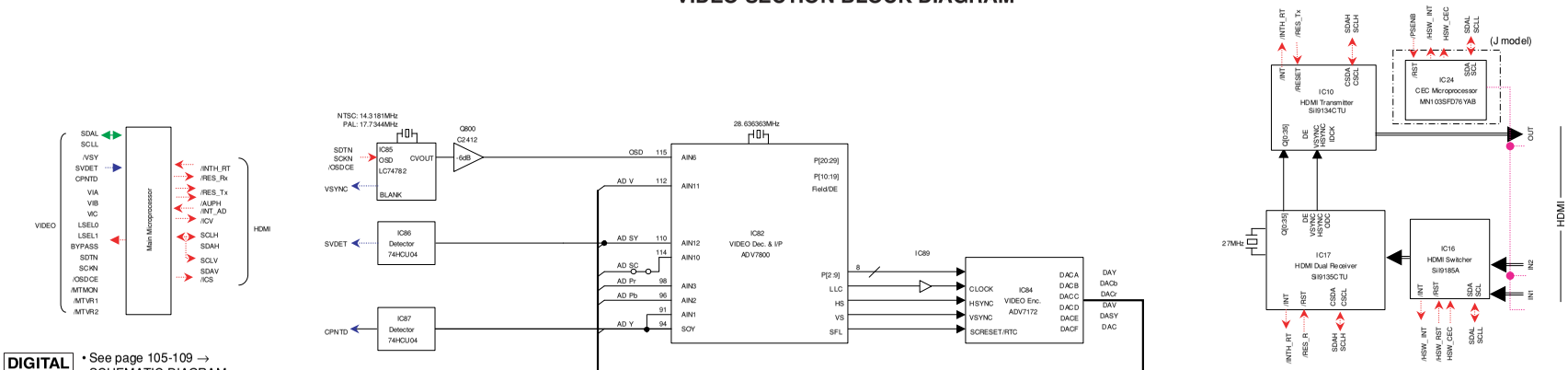


# AUDIO (ANALOG) SECTION BLOCK DIAGRAM

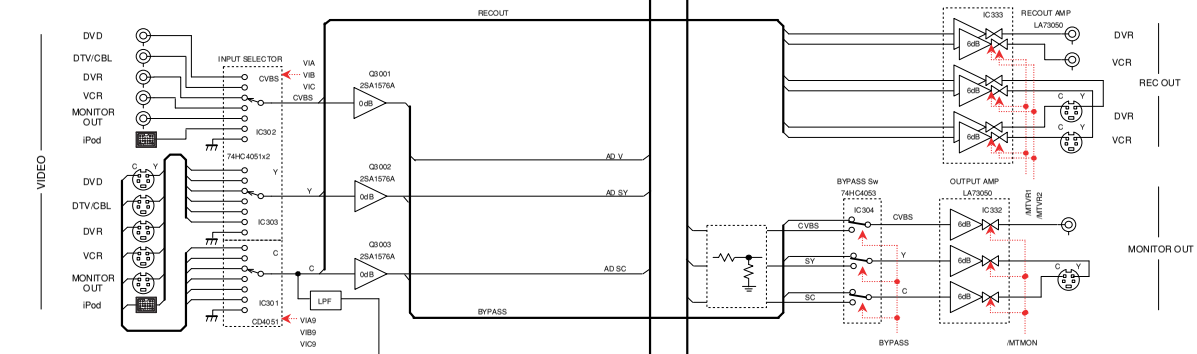



**FUNCTION** • See page 110, 111 → SCHEMATIC DIAGRAM

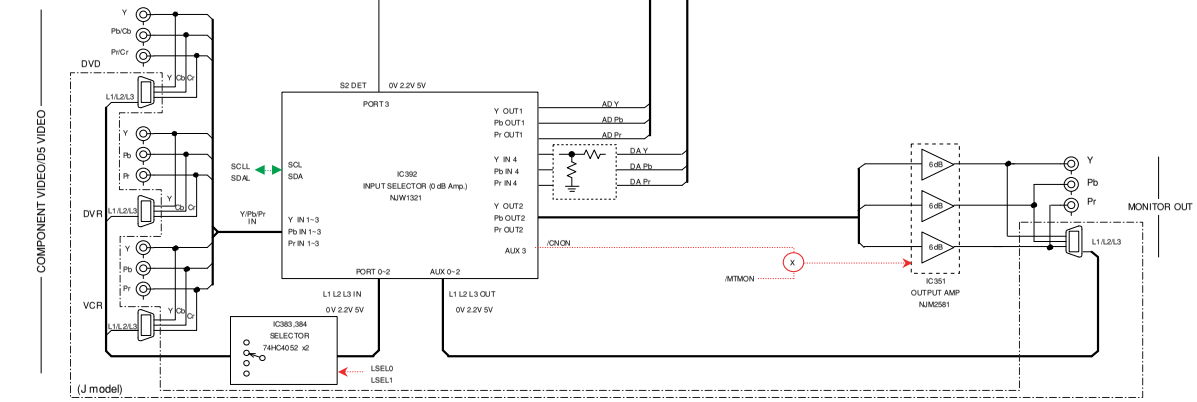
# VIDEO SECTION BLOCK DIAGRAM




**DIGITAL** • See page 105-109 →
SCHEMATIC DIAGRAM

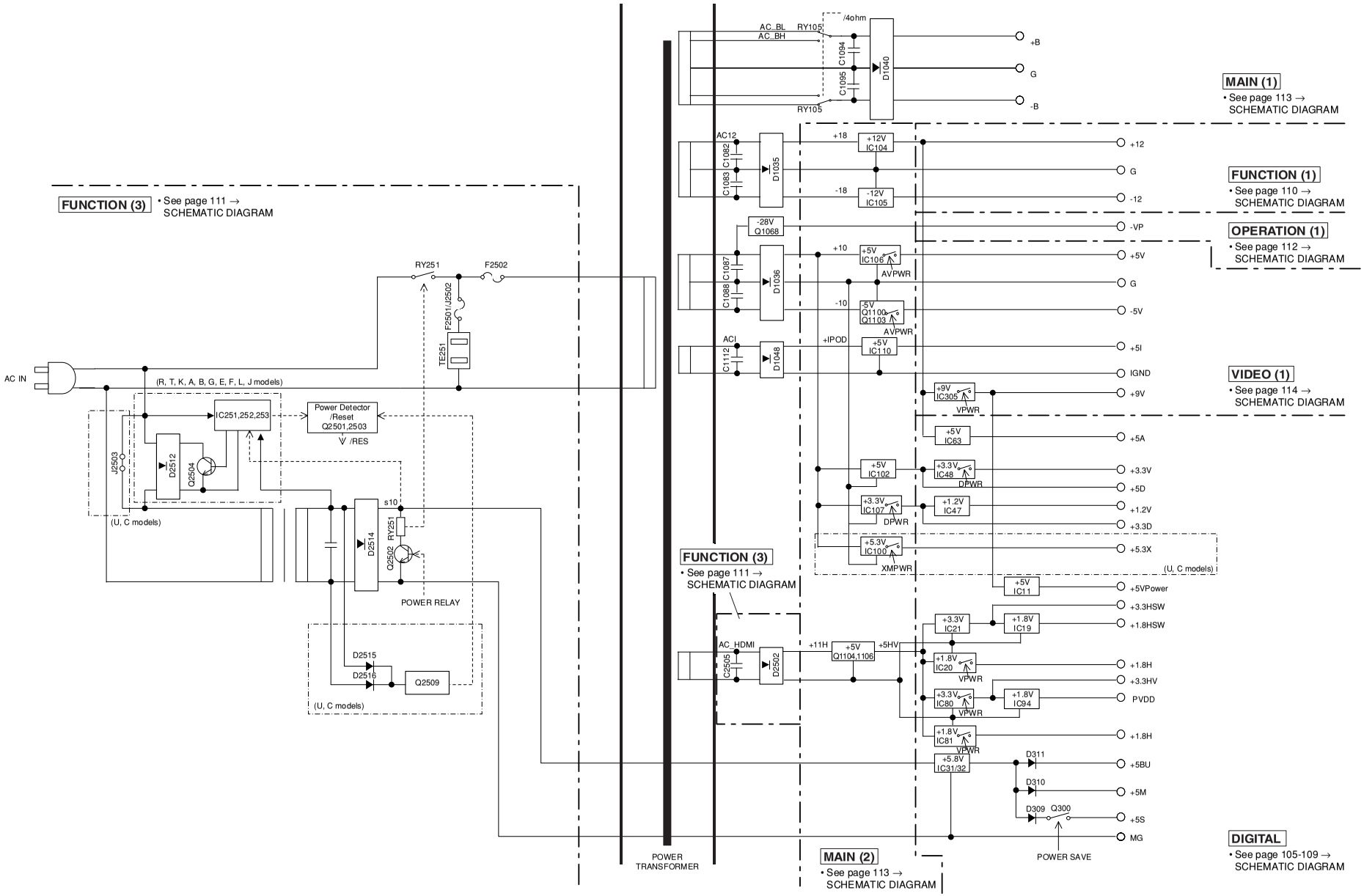


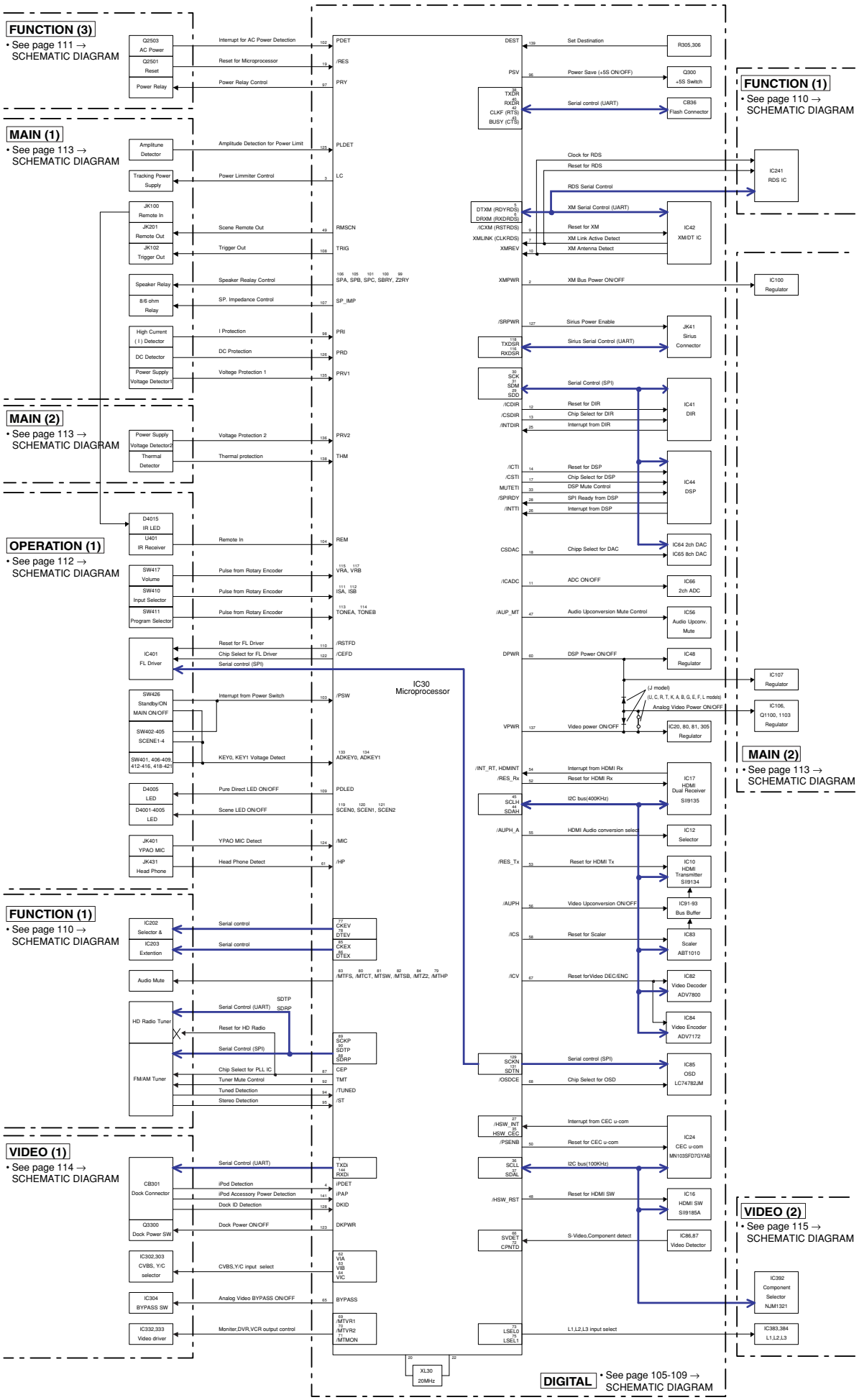

**VIDEO (1)** • See page 114 →
SCHEMATIC DIAGRAM




**VIDEO (2)** • See page 115 →
SCHEMATIC DIAGRAM

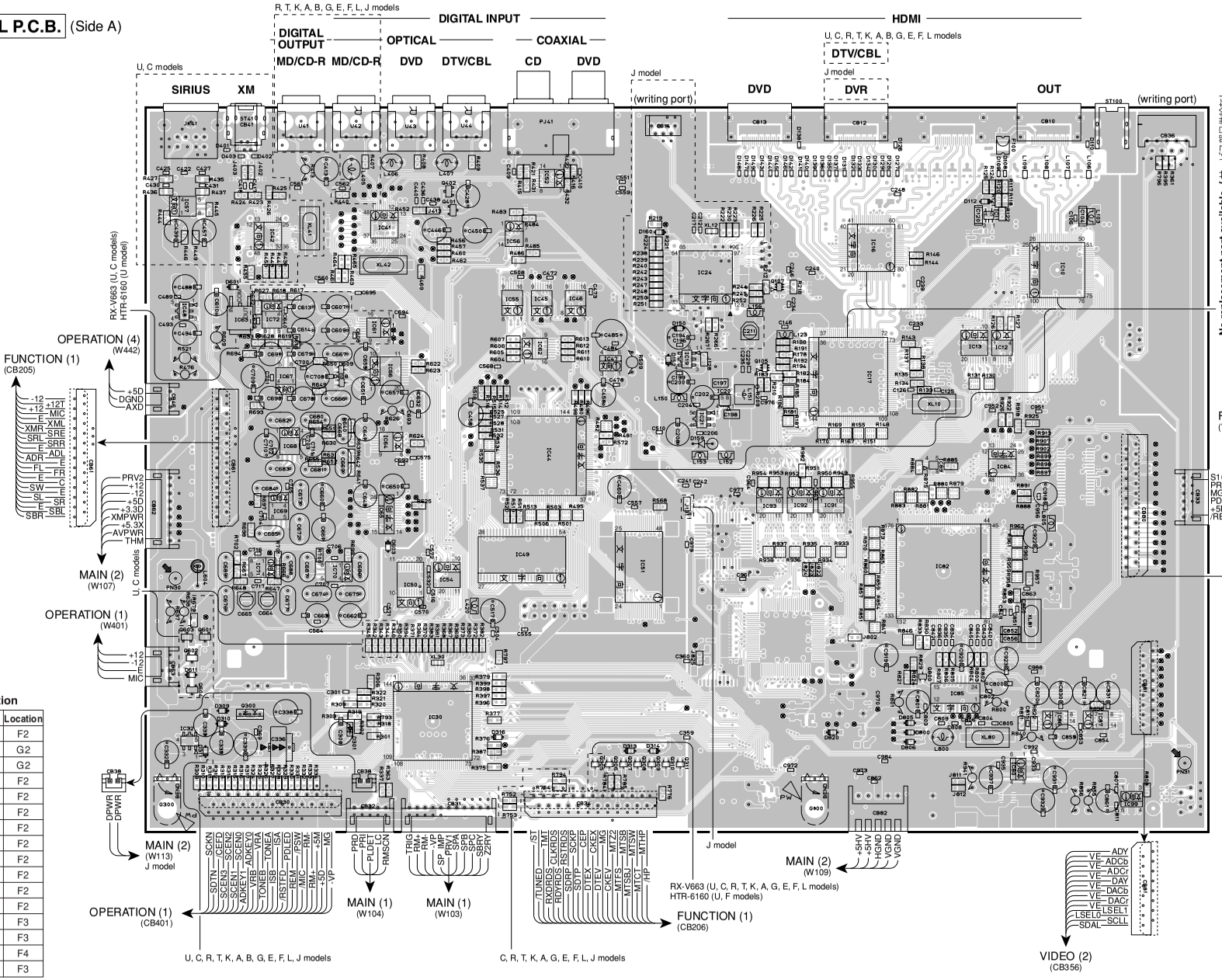
# POWER SECTION BLOCK DIAGRAM




FUNCTION (3)
• See page 111 → SCHEMATIC DIAGRAM
MAIN (1)
• See page 113 → SCHEMATIC DIAGRAM
MAIN (2)
• See page 113 → SCHEMATIC DIAGRAM
OPERATION (1)
• See page 112 → SCHEMATIC DIAGRAM
FUNCTION (1)
• See page 110 → SCHEMATIC DIAGRAM
VIDEO (1)
• See page 114 → SCHEMATIC DIAGRAM
IC30 Microprocessor
XL30 20MHz
DIGITAL
• See page 105-109 → SCHEMATIC DIAGRAM
FUNCTION (1)
• See page 110 → SCHEMATIC DIAGRAM
MAIN (2)
• See page 113 → SCHEMATIC DIAGRAM
VIDEO (2)
• See page 115 → SCHEMATIC DIAGRAM
CONTROL SECTION BLOCK DIAGRAM
RX-V663/HTR-6160/DSP-AX763

# ■ PRINTED CIRCUIT BOARDS

**DIGITAL P.C.B.** (Side A)



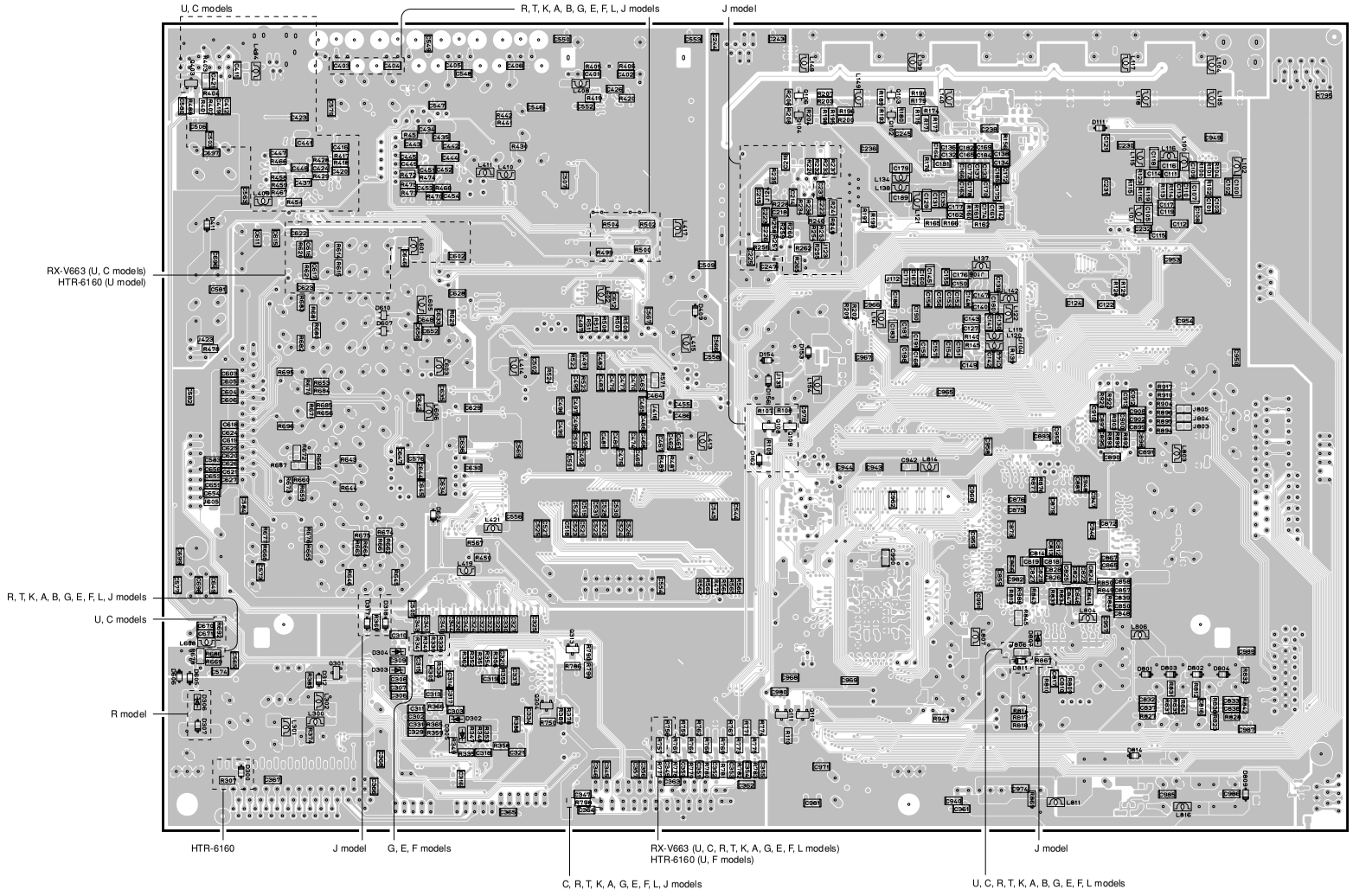

| Ref no. | Location | Ref no. | Location |
|---|---|---|---|
| D301 | D6 | IC21 | F4 |
| D309 | C6 | IC24 | F3 |
| D310 | C6 | IC30 | D6 |
| D311 | C6 | IC32 | C6 |
| D313 | E6 | IC41 | D3 |
| D314 | F6 | IC42 | C3 |
| D316 | E6 | IC44 | E4 |
| D401 | C2 | IC45 | E3 |
| D402 | C2 | IC46 | E3 |
| D403 | C2 | IC47 | E3 |
| D601 | C3 | IC48 | C3 |
| D603 | D5 | IC49 | E5 |
| D608 | D3 | IC50 | D5 |
| D609 | D3 | IC51 | D5 |
| D611 | C5 | IC52 | E2 |
| D800 | G6 | IC54 | D5 |
| D805 | G6 | IC55 | E3 |
| D806 | G6 | IC56 | E3 |
| D820 | G6 | IC57 | C2 |
| IC10 | H3 | IC61 | D3 |
| IC11 | H2 | IC62 | E3 |
| IC12 | H3 | IC63 | C3 |
| IC13 | H3 | IC64 | D4 |
| IC16 | G3 | IC65 | D4 |
| IC17 | G3 | IC66 | D3 |
| IC19 | F3 | IC67 | C3 |
| IC20 | F4 | IC68 | C4 |

- **Semiconductor Location**

| Ref no. | Location | Ref no. | Location |
|---|---|---|---|
| D108 | H2 | D138 | F2 |
| D109 | H2 | D139 | G2 |
| D110 | H2 | D140 | G2 |
| D112 | H2 | D141 | F2 |
| D126 | G2 | D142 | F2 |
| D127 | G2 | D143 | F2 |
| D128 | G2 | D144 | F2 |
| D129 | G2 | D145 | F2 |
| D130 | G2 | D146 | F2 |
| D131 | G2 | D147 | F2 |
| D132 | G2 | D148 | F2 |
| D133 | G2 | D149 | F2 |
| D134 | G2 | D150 | F3 |
| D135 | G2 | D152 | F3 |
| D136 | G2 | D159 | F4 |
| D137 | G2 | D160 | F3 |

| Ref no. | Location | Ref no. | Location |
|---|---|---|---|
| IC69 | C4 | Q107 | F3 |
| IC70 | D5 | Q300 | C6 |
| IC71 | C5 | Q305 | E6 |
| IC72 | C3 | Q306 | E6 |
| IC80 | H6 | Q307 | E6 |
| IC82 | G5 | Q308 | E6 |
| IC84 | H4 | Q309 | F6 |
| IC85 | G5 | Q310 | F6 |
| IC86 | H6 | Q311 | F6 |
| IC87 | H6 | Q401 | D2 |
| IC89 | G4 | Q402 | D2 |
| IC91 | G4 | Q601 | C5 |
| IC92 | F4 | Q602 | C5 |
| IC93 | F4 | Q603 | C5 |
| IC99 | I6 | Q604 | C5 |
| Q105 | F3 | Q800 | G5 |

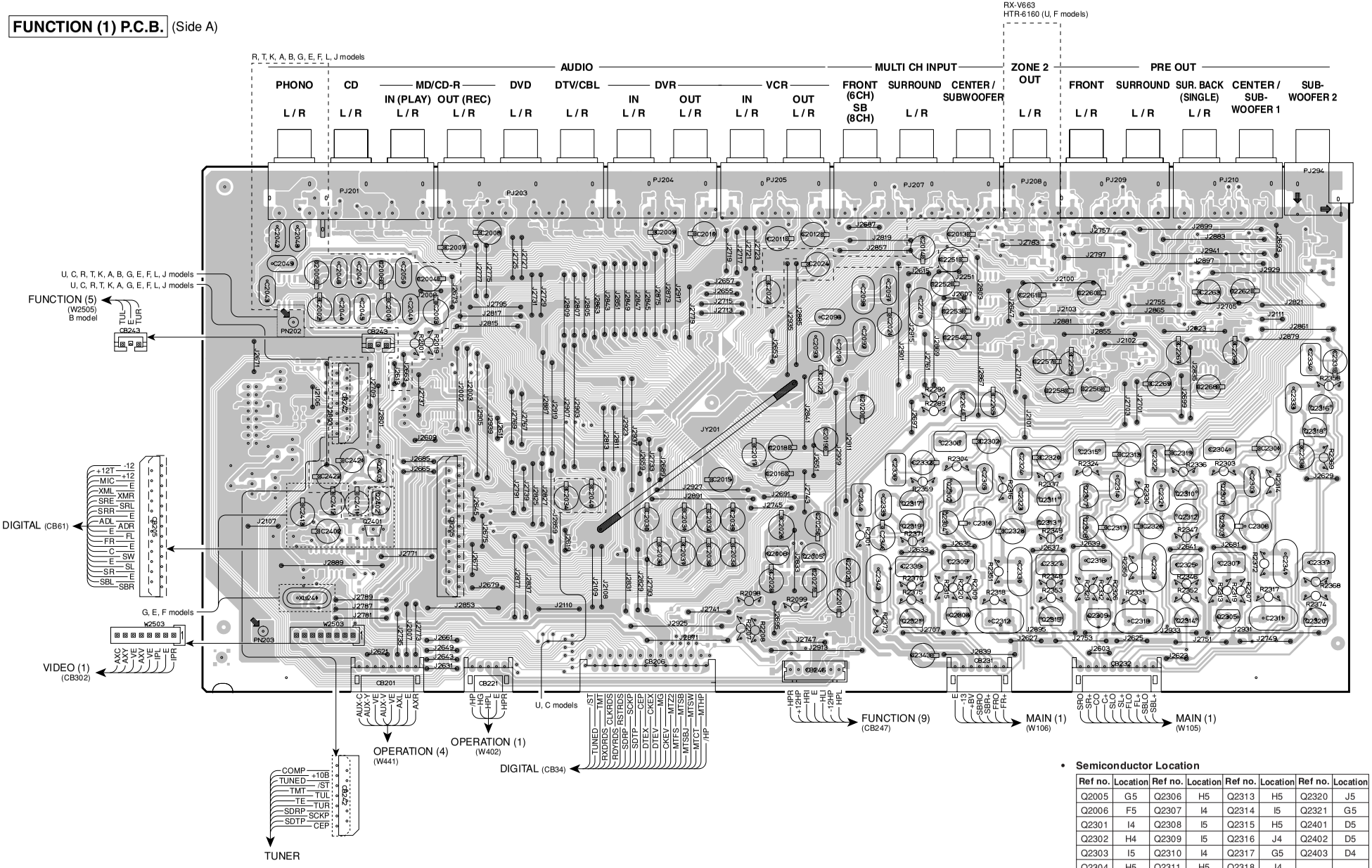
## DIGITAL P.C.B. (Side B)




- **Semiconductor Location**

| Ref no. | Location | Ref no. | Location |
|---|---|---|---|
| D111 | H2 | D610 | D3 |
| D153 | F4 | D801 | H5 |
| D154 | F4 | D802 | H5 |
| D156 | F4 | D803 | H5 |
| D162 | F4 | D804 | H5 |
| D300 | C6 | D807 | G5 |
| D302 | D6 | D809 | H6 |
| D303 | D5 | D811 | G5 |
| D304 | D5 | D814 | H6 |
| D305 | D6 | Q102 | F2 |
| D306 | C6 | Q103 | F2 |
| D307 | C6 | Q104 | F2 |
| D312 | C5 | Q106 | F2 |
| D317 | D5 | Q108 | F4 |
| D318 | D5 | Q109 | F4 |
| D409 | E3 | Q110 | F6 |
| D411 | C3 | Q111 | F6 |
| D604 | D5 | Q301 | C5 |
| D605 | C5 | Q304 | E6 |
| D606 | C5 | Q313 | E5 |
| D607 | D4 | Q403 | C2 |

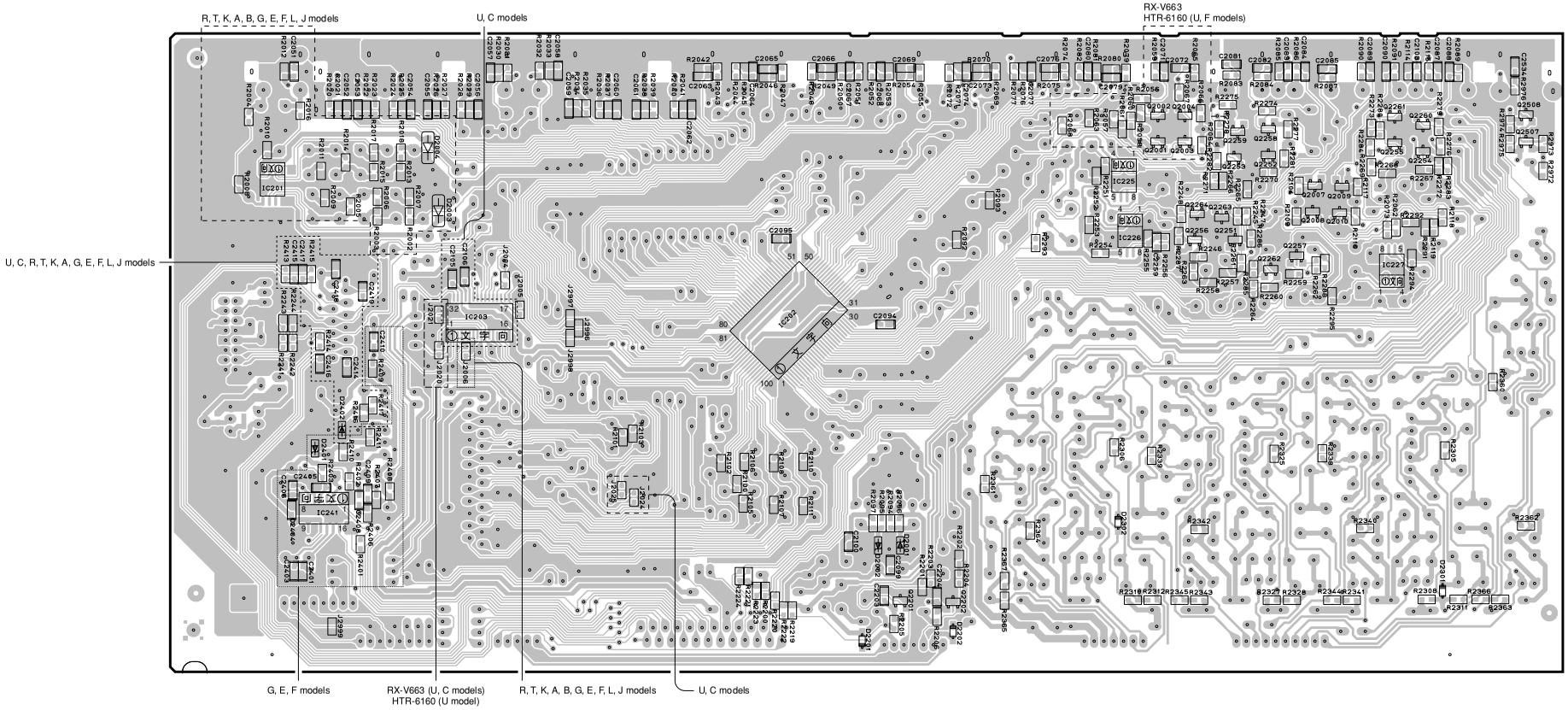
## FUNCTION (1) P.C.B. (Side A)




- **Semiconductor Location**

| Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location |
|---|---|---|---|---|---|---|---|
| Q2005 | G5 | Q2306 | H5 | Q2313 | H5 | Q2320 | J5 |
| Q2006 | F5 | Q2307 | I4 | Q2314 | I5 | Q2321 | G5 |
| Q2301 | I4 | Q2308 | I5 | Q2315 | H5 | Q2401 | D5 |
| Q2302 | H4 | Q2309 | I5 | Q2316 | J4 | Q2402 | D5 |
| Q2303 | I5 | Q2310 | I4 | Q2317 | G5 | Q2403 | D4 |
| Q2304 | H5 | Q2311 | H5 | Q2318 | J4 | | |
| Q2305 | I5 | Q2312 | I5 | Q2319 | G5 | | |

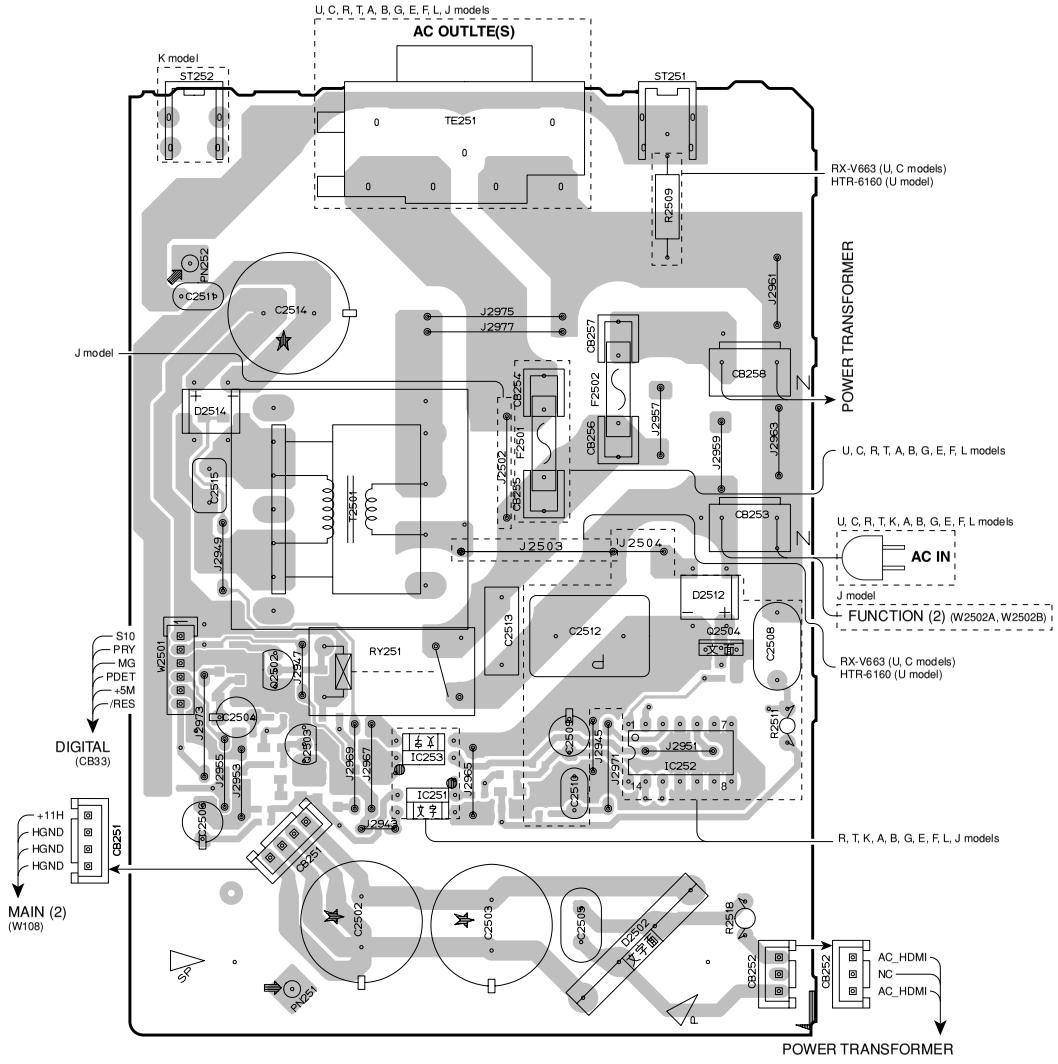
## FUNCTION (1) P.C.B. (Side B)



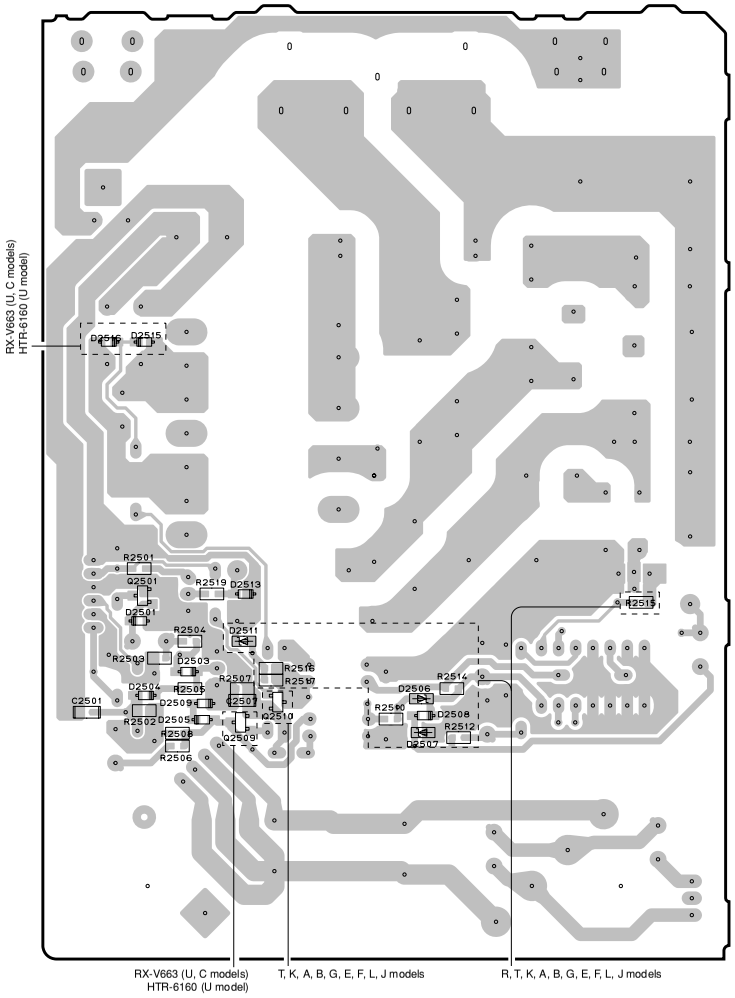

- **Semiconductor Location**

| Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location |
|---|---|---|---|---|---|---|---|---|---|---|---|
| D2001 | F5 | D2402 | C4 | Q2002 | G3 | Q2201 | F5 | Q2256 | H3 | Q2263 | H3 |
| D2002 | F5 | IC202 | E4 | Q2003 | H3 | Q2202 | F5 | Q2257 | H4 | Q2264 | H3 |
| D2201 | F6 | IC225 | G3 | Q2004 | H3 | Q2251 | H3 | Q2258 | H3 | Q2507 | I3 |
| D2202 | F6 | IC226 | G3 | Q2007 | H3 | Q2252 | H3 | Q2259 | H3 | Q2508 | I3 |
| D2301 | I5 | IC227 | I4 | Q2008 | H3 | Q2253 | H3 | Q2260 | I3 | | |
| D2302 | G5 | IC241 | C5 | Q2009 | H3 | Q2254 | I3 | Q2261 | I3 | | |
| D2401 | C5 | Q2001 | G3 | Q2010 | H3 | Q2255 | I3 | Q2262 | H4 | | |

## FUNCTION (3) P.C.B. (Side A)




## FUNCTION (3) P.C.B. (Side B)



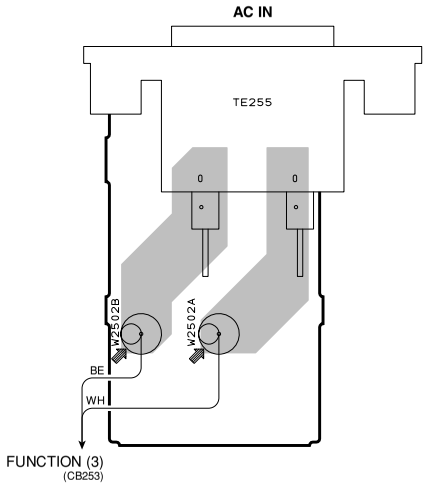

- **Semiconductor Location**

| Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location |
|---|---|---|---|---|---|---|---|---|---|---|---|
| D2501 | G5 | D2505 | G5 | D2509 | G5 | D2514 | B3 | IC252 | D5 | Q2503 | B5 |
| D2502 | D6 | D2506 | H5 | D2511 | G5 | D2515 | G3 | IC253 | C5 | Q2504 | D5 |
| D2503 | G5 | D2507 | H5 | D2512 | D4 | D2516 | G3 | Q2501 | G5 | Q2509 | G5 |
| D2504 | G5 | D2508 | H5 | D2513 | G5 | IC251 | C5 | Q2502 | B5 | Q2510 | G5 |

| Circuit No. | RX-V663 | RX-V663/HTR-6160/DSP-AX763 |
|---|---|---|
| | C | U, C, R, T, K, A, B, G, E, F, L, J |
| J2945, 2951 | O | X |

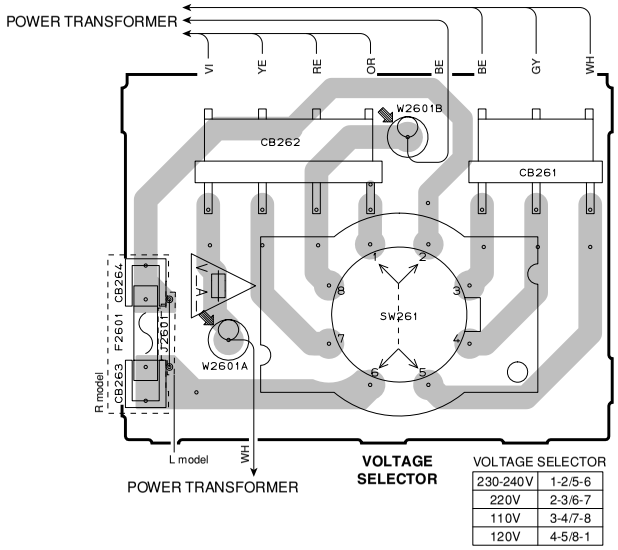
## FUNCTION (2) P.C.B. (Side A)

J model




## FUNCTION (4) P.C.B. (Side A)

R, L models

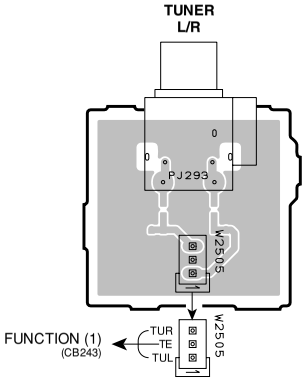



VOLTAGE SELECTOR

| | |
|---|---|
| 230-240V | 1-2/5-6 |
| 220V | 2-3/6-7 |
| 110V | 3-4/7-8 |
| 120V | 4-5/8-1 |

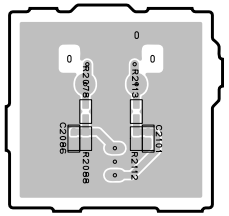
## FUNCTION (5) P.C.B. (Side A)

B model

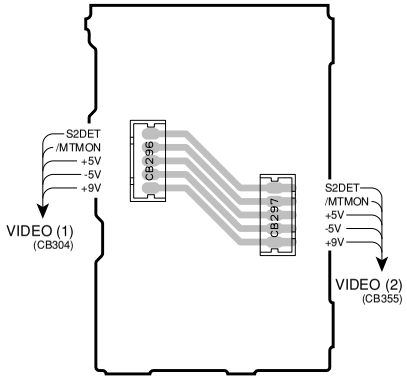



## FUNCTION (5) P.C.B. (Side B)

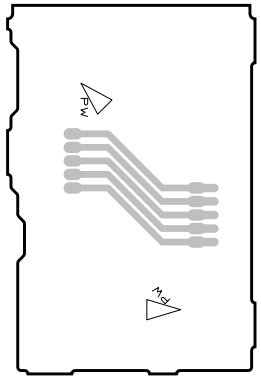
B model



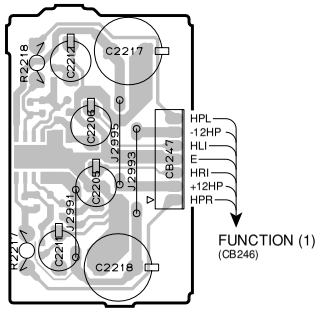
## FUNCTION (6) P.C.B. (Side A)



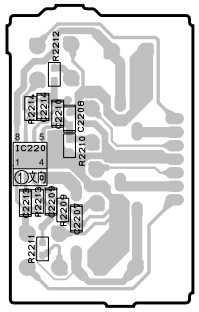

## FUNCTION (6) P.C.B. (Side B)



## FUNCTION (9) P.C.B. (Side A)



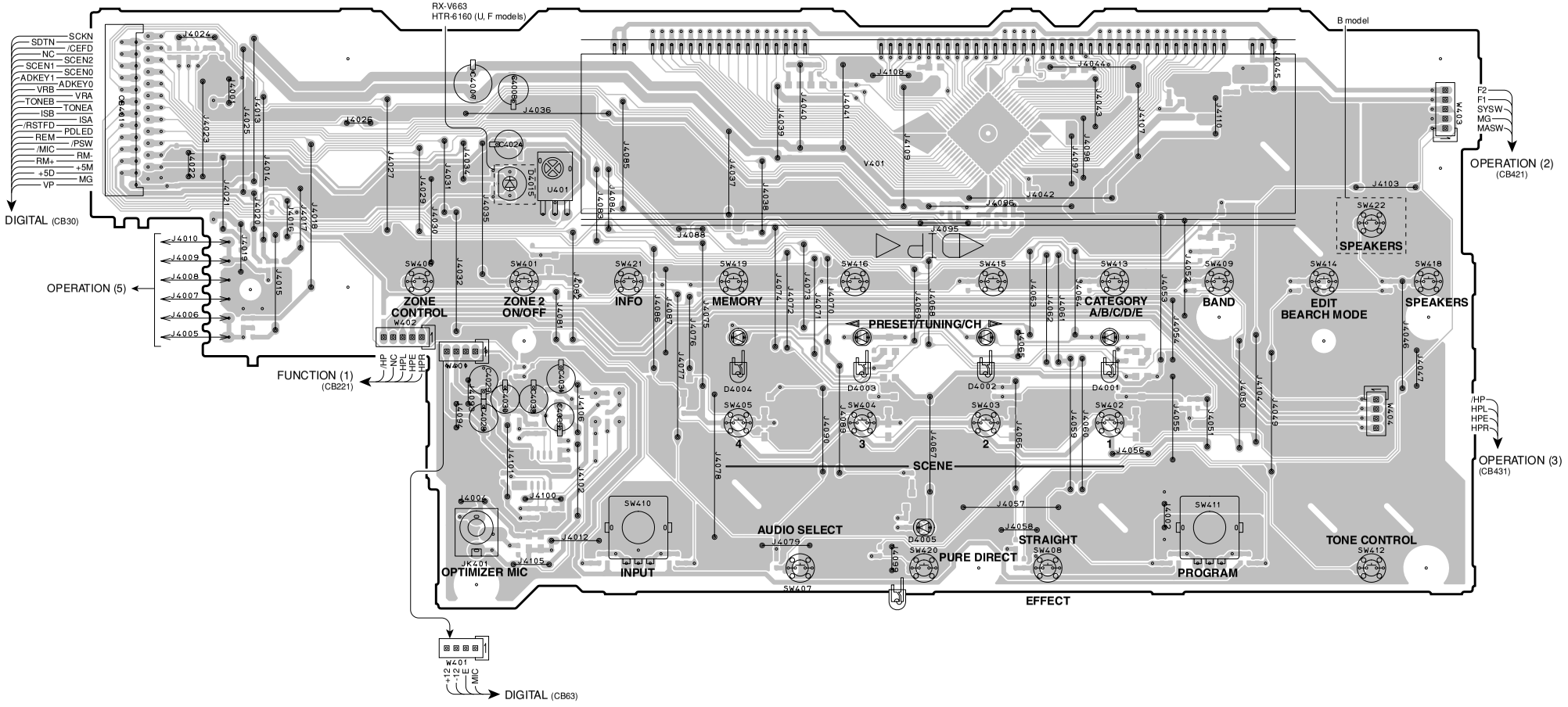

## FUNCTION (9) P.C.B. (Side B)




- **Semiconductor Location**

| Ref no. | Location |
|---|---|
| IC220 | H6 |

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

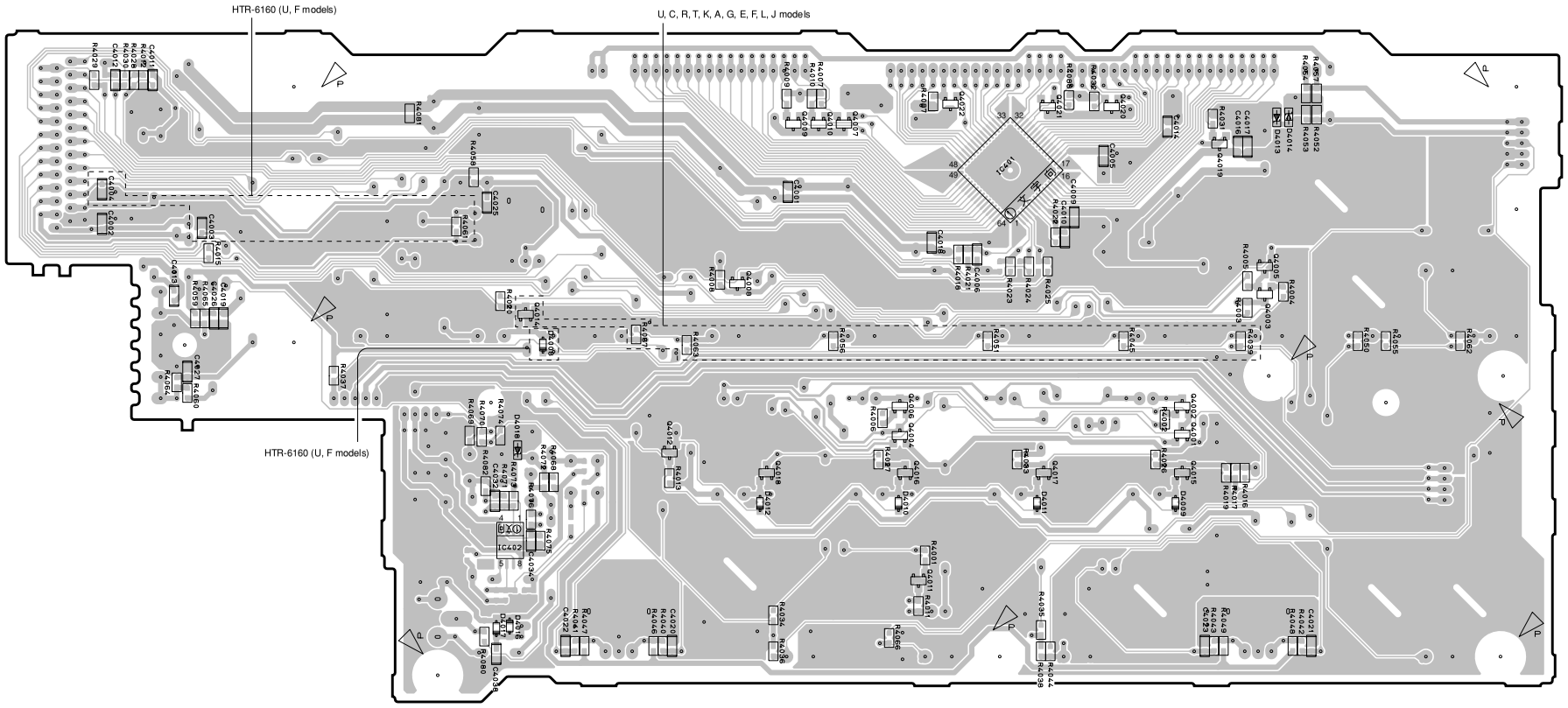



- **Semiconductor Location**

| Ref no. | Location | Ref no. | Location | Ref no. | Location |
|---|---|---|---|---|---|
| D4001 | H4 | D4003 | F4 | D4005 | F5 |
| D4002 | G4 | D4004 | E4 | D4015 | D3 |

| Circuit No. | U, C, R, T, K, A, G, E, L, J | B |
|---|---|---|
| SW401, 406, 409, 413-416, 418, 419, 421 | O | X |

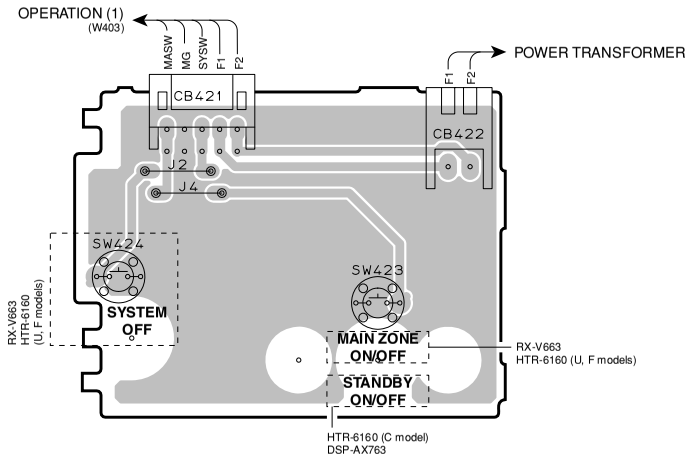
## OPERATION (1) P.C.B. (Side B)



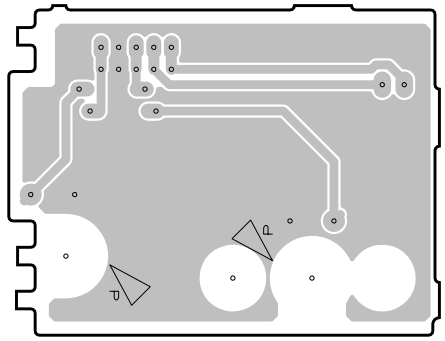

- **Semiconductor Location**

| Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location |
|---|---|---|---|---|---|---|---|
| D4008 | D4 | D4018 | D5 | Q4007 | F3 | Q4017 | G5 |
| D4009 | H5 | IC401 | G3 | Q4008 | E4 | Q4018 | F5 |
| D4010 | F5 | IC402 | D5 | Q4009 | F3 | Q4019 | H3 |
| D4011 | G5 | Q4001 | H4 | Q4010 | F3 | Q4020 | G3 |
| D4012 | E5 | Q4002 | H4 | Q4011 | F5 | Q4021 | G3 |
| D4013 | H3 | Q4003 | H4 | Q4012 | E5 | Q4022 | G3 |
| D4014 | H3 | Q4004 | F4 | Q4014 | D4 | | |
| D4016 | D6 | Q4005 | H4 | Q4015 | H5 | | |
| D4017 | D6 | Q4006 | F4 | Q4016 | F5 | | |

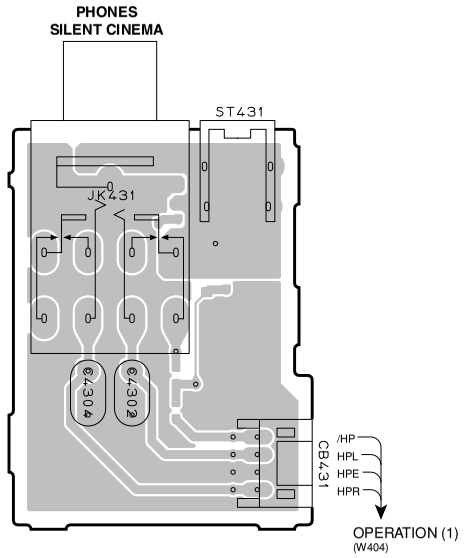
## OPERATION (2) P.C.B. (Side A)



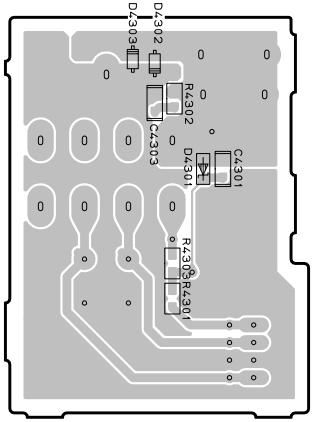

## OPERATION (2) P.C.B. (Side B)



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



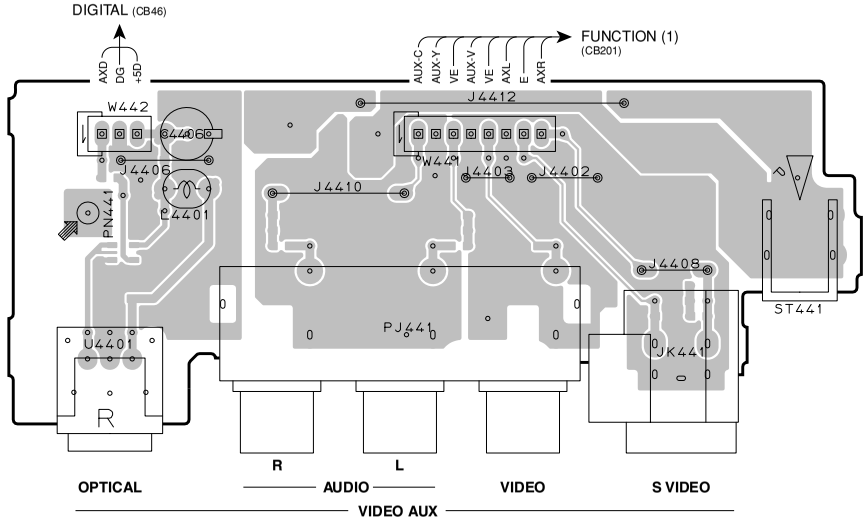

## OPERATION (3) P.C.B. (Side B)



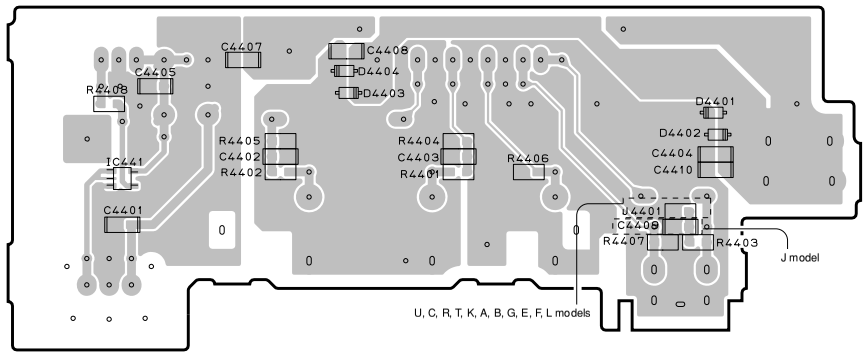

- **Semiconductor Location**

| Ref no. | Location |
|---|---|
| D4301 | H6 |
| D4302 | H5 |
| D4303 | H5 |

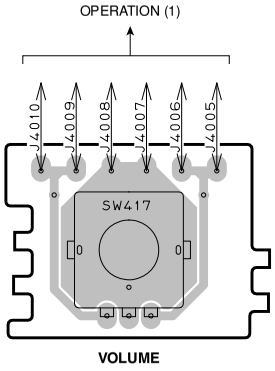
## OPERATION (4) P.C.B. (Side A)




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




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



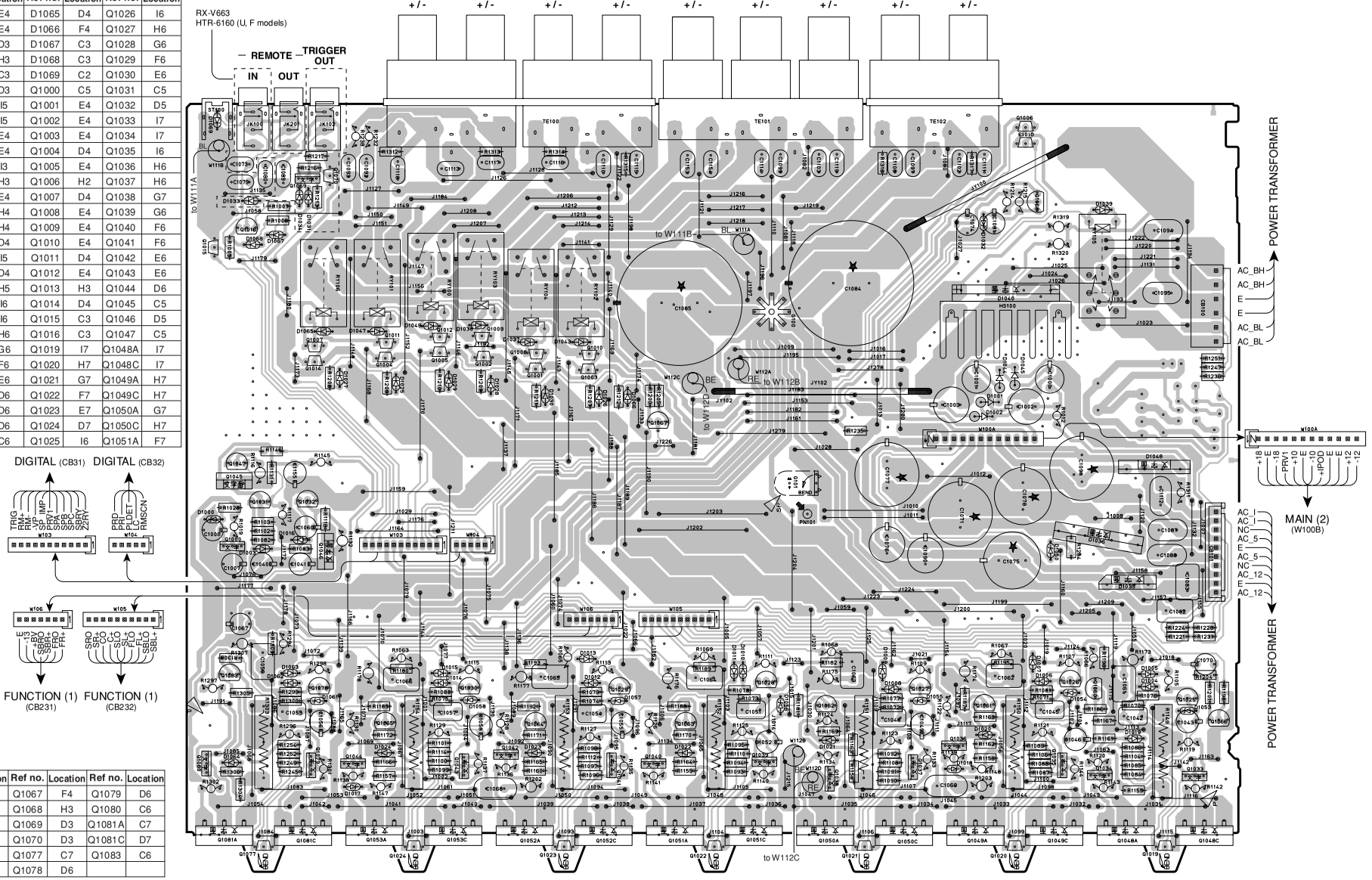

- **Semiconductor Location**

| Ref no. | Location |
|---|---|
| D4401 | I3 |
| D4402 | I3 |
| D4403 | H3 |
| D4404 | H3 |
| IC441 | G3 |

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

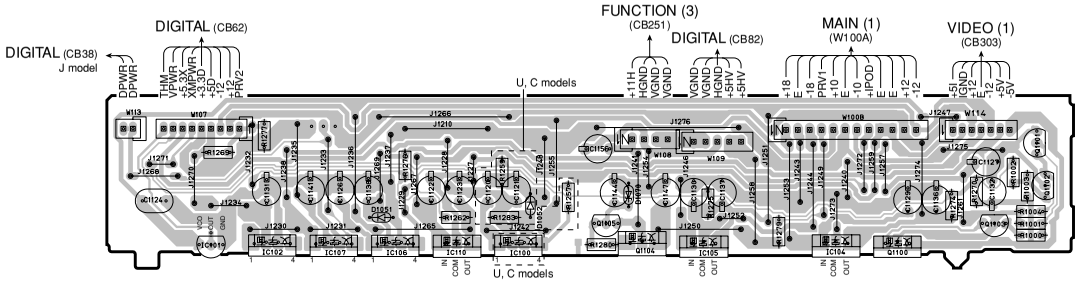
- **Semiconductor Location**

| Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location |
|---|---|---|---|---|---|---|---|
| D1000 | C5 | D1029 | E4 | D1065 | D4 | Q1026 | I6 |
| D1001 | H4 | D1030 | E4 | D1066 | F4 | Q1027 | H6 |
| D1002 | H4 | D1031 | D3 | D1067 | C3 | Q1028 | G6 |
| D1003 | C5 | D1032 | H3 | D1068 | C3 | Q1029 | F6 |
| D1004 | I6 | D1033 | C3 | D1069 | C2 | Q1030 | E6 |
| D1005 | I6 | D1034 | D3 | Q1000 | C5 | Q1031 | C5 |
| D1006 | H6 | D1035 | I5 | Q1001 | E4 | Q1032 | D5 |
| D1007 | H6 | D1036 | I5 | Q1002 | E4 | Q1033 | I7 |
| D1008 | G6 | D1037 | E4 | Q1003 | E4 | Q1034 | I7 |
| D1009 | G6 | D1038 | E4 | Q1004 | D4 | Q1035 | I6 |
| D1010 | F6 | D1039 | I3 | Q1005 | E4 | Q1036 | H6 |
| D1011 | F6 | D1040 | H3 | Q1006 | H2 | Q1037 | H6 |
| D1012 | E6 | D1043 | E4 | Q1007 | D4 | Q1038 | G7 |
| D1013 | E6 | D1044 | H4 | Q1008 | E4 | Q1039 | G6 |
| D1014 | E6 | D1045 | H4 | Q1009 | E4 | Q1040 | F6 |
| D1015 | E6 | D1047 | D4 | Q1010 | E4 | Q1041 | F6 |
| D1016 | D5 | D1048 | I5 | Q1011 | D4 | Q1042 | E6 |
| D1017 | D7 | D1049 | D4 | Q1012 | E4 | Q1043 | E6 |
| D1018 | H6 | D1050 | H5 | Q1013 | H3 | Q1044 | D6 |
| D1019 | I6 | D1053 | I6 | Q1014 | D4 | Q1045 | C5 |
| D1020 | H6 | D1054 | I6 | Q1015 | C3 | Q1046 | D5 |
| D1021 | G6 | D1055 | H6 | Q1016 | C3 | Q1047 | C5 |
| D1022 | F6 | D1056 | G6 | Q1019 | I7 | Q1048A | I7 |
| D1023 | E6 | D1057 | F6 | Q1020 | H7 | Q1048C | I7 |
| D1024 | D6 | D1058 | E6 | Q1021 | G7 | Q1049A | H7 |
| D1025 | D4 | D1061 | D6 | Q1022 | F7 | Q1049C | H7 |
| D1026 | F4 | D1062 | D6 | Q1023 | E7 | Q1050A | G7 |
| D1027 | D4 | D1063 | D6 | Q1024 | D7 | Q1050C | H7 |
| D1028 | E4 | D1064 | C6 | Q1025 | I6 | Q1051A | F7 |




| Ref no. | Location | Ref no. | Location | Ref no. | Location | Ref no. | Location |
|---|---|---|---|---|---|---|---|
| Q1051C | G7 | Q1061 | H6 | Q1067 | F4 | Q1079 | D6 |
| Q1052A | E7 | Q1062 | G6 | Q1068 | H3 | Q1080 | C6 |
| Q1052C | F7 | Q1063 | F6 | Q1069 | D3 | Q1081A | C7 |
| Q1053A | D7 | Q1064 | E6 | Q1070 | D3 | Q1081C | D7 |
| Q1053C | E7 | Q1065 | D6 | Q1077 | C7 | Q1083 | C6 |
| Q1060 | I6 | Q1066 | I6 | Q1078 | D6 | | |

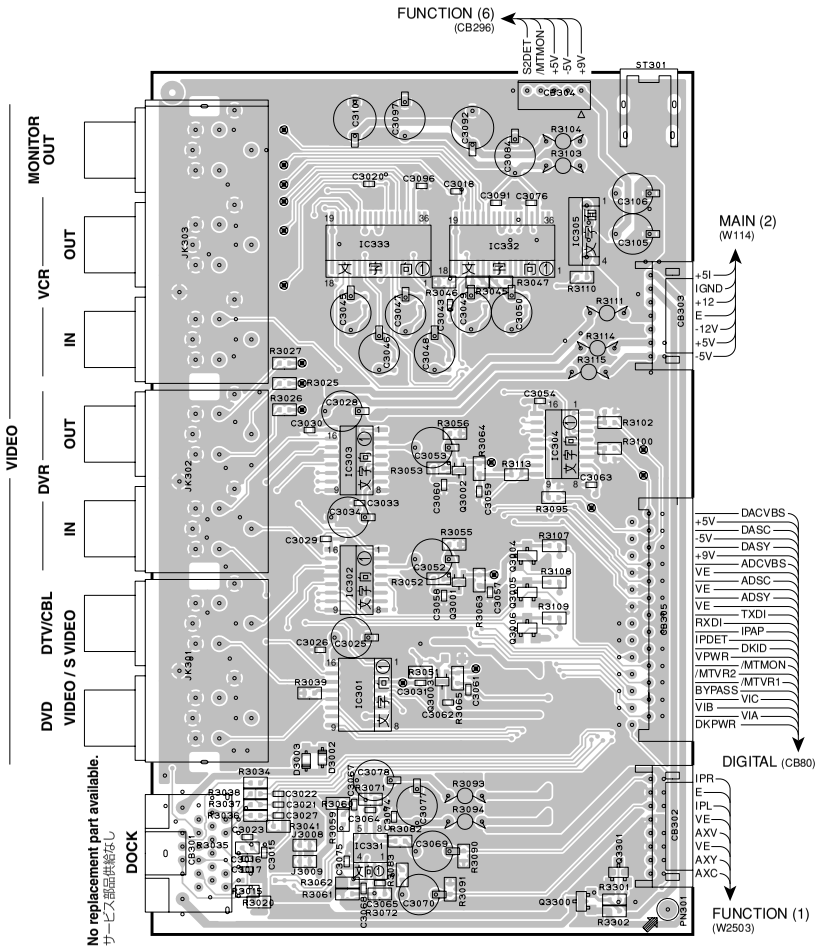
## MAIN (2) P.C.B. (Side A)



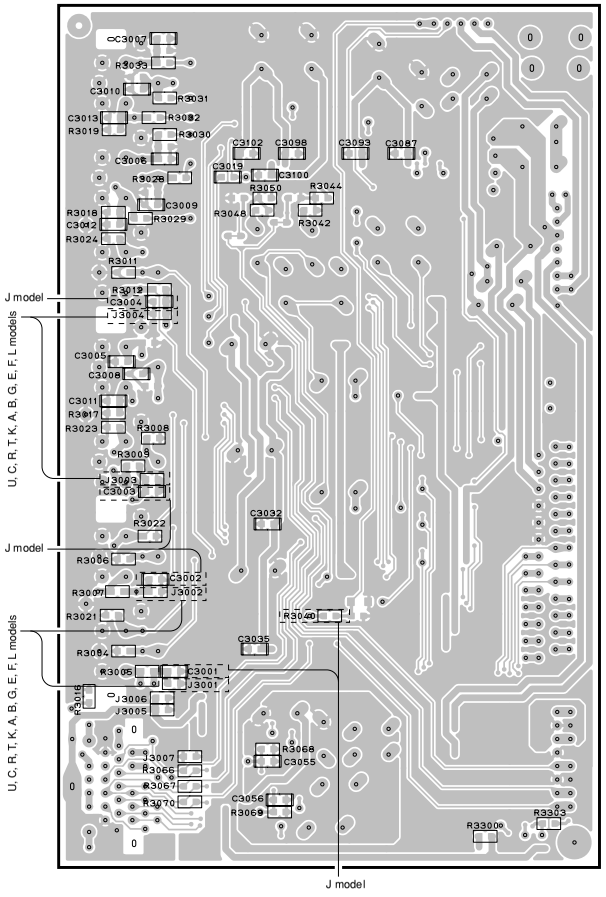

- **Semiconductor Location**

| Ref no. | Location | Ref no. | Location |
|---|---|---|---|
| D1051 | E4 | IC107 | D4 |
| D1052 | E4 | IC110 | E4 |
| D1070 | F4 | Q1100 | G4 |
| IC100 | E4 | Q1101 | H4 |
| IC101 | D4 | Q1102 | H4 |
| IC102 | D4 | Q1103 | H4 |
| IC104 | G4 | Q1104 | F4 |
| IC105 | F4 | Q1105 | F4 |
| IC106 | E4 | | |

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



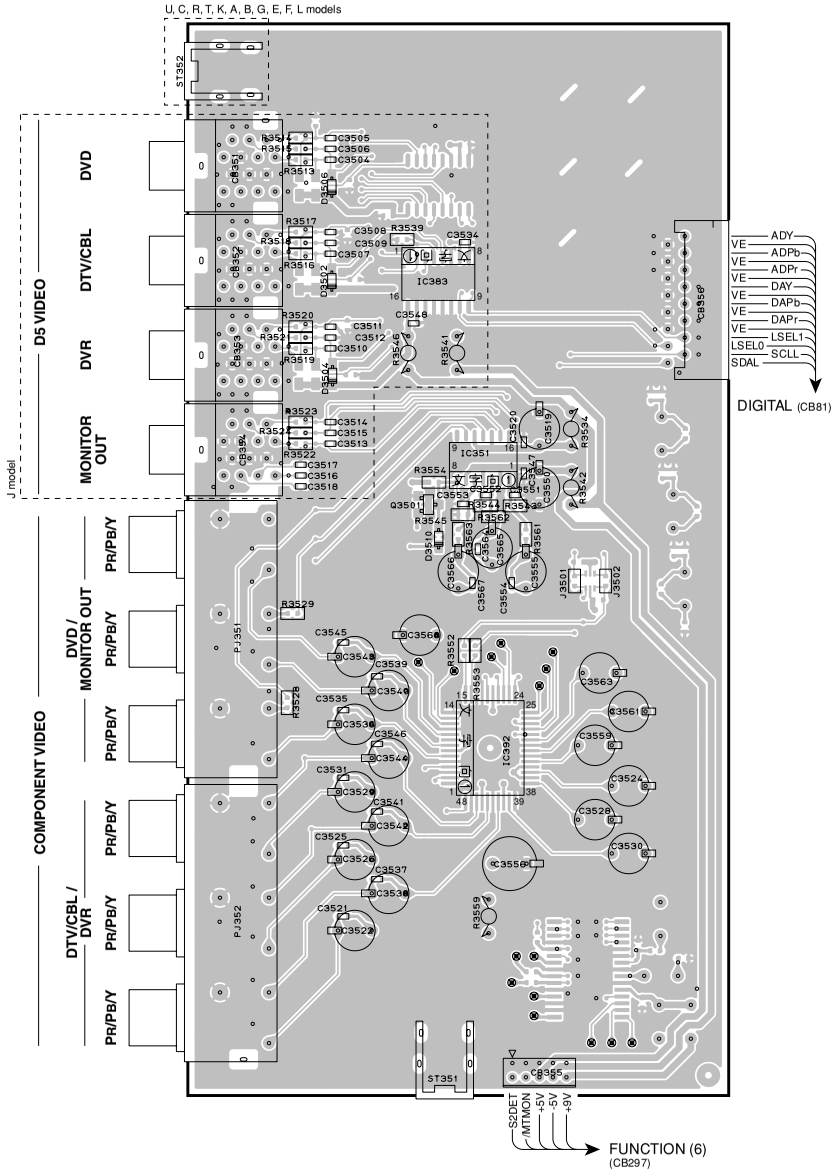

## VIDEO (1) P.C.B. (Side B)



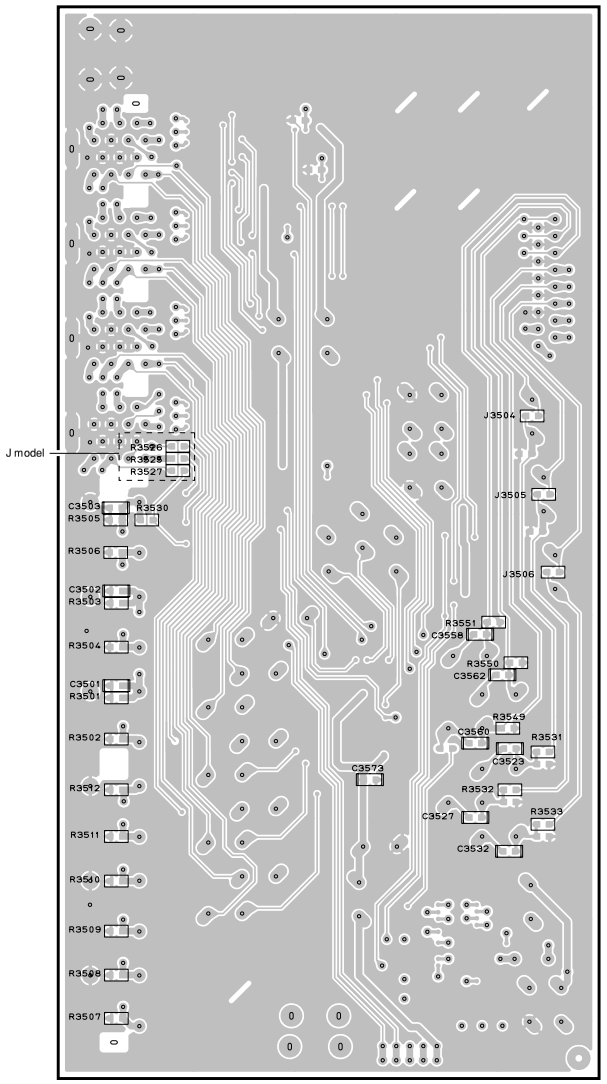

- **Semiconductor Location**

| Ref no. | Location | Ref no. | Location |
|---|---|---|---|
| D3002 | C6 | IC333 | C3 |
| D3003 | B6 | Q3001 | C5 |
| IC301 | C5 | Q3002 | C4 |
| IC302 | C5 | Q3003 | C5 |
| IC303 | C4 | Q3004 | D5 |
| IC304 | D4 | Q3005 | D5 |
| IC305 | D3 | Q3006 | D5 |
| IC331 | C6 | Q3300 | D6 |
| IC332 | C3 | Q3301 | D6 |

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




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




- **Semiconductor Location**

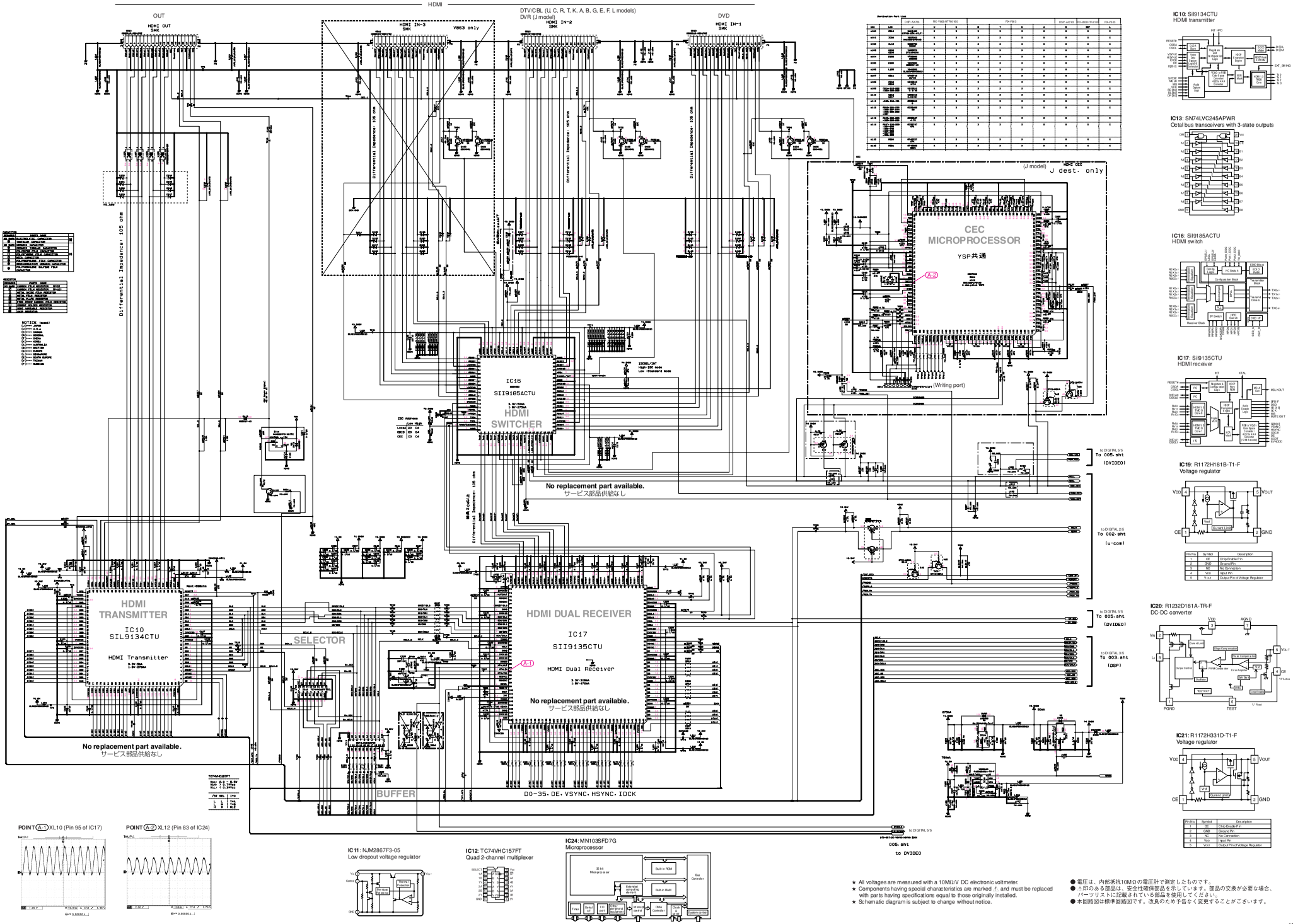
| Ref no. | Location |
|---|---|
| D3502 | C3 |
| D3504 | C3 |
| D3506 | C2 |
| D3510 | C4 |
| IC351 | C4 |
| IC383 | C3 |
| IC392 | C5 |
| Q3501 | C4 |

## MEMO

## MEMO

# ■SCHEMATIC DIAGRAMS

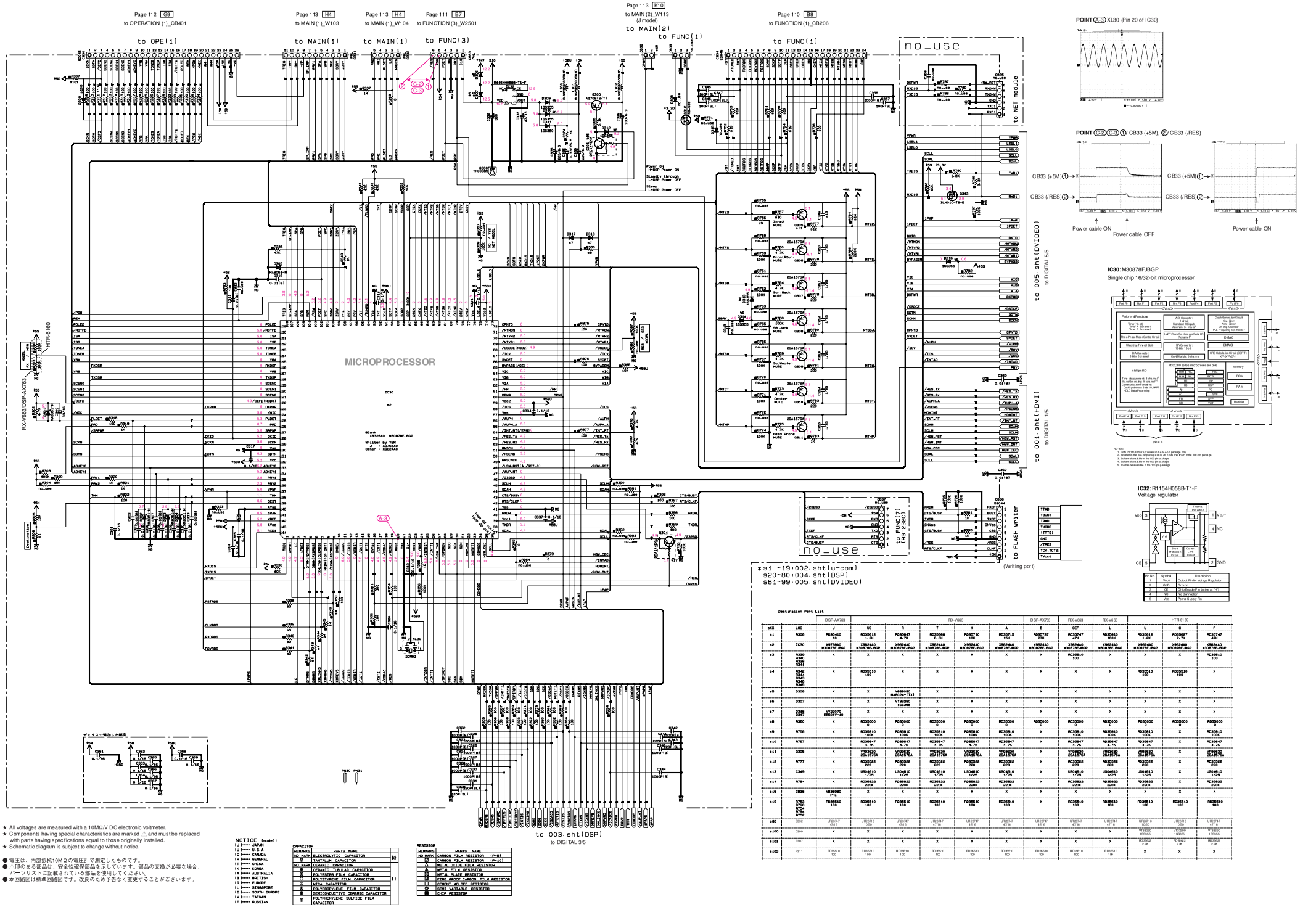
## DIGITAL 1/5




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★ Components having special characteristics are marked ! and must be replaced with parts having specifications equal to those originally installed.
★ Schematic diagram is subject to change without notice.

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# DIGITAL 2/5




Destination Part List

| | | DSP-AX763 | RX-V663 | | | | | DSP-AX763 | RX-V663 | RX-V663 | HTR-6160 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ★★★ | LOC | J | UC | R | T | K | A | B | GEF | L | U | C | F |
| ★1 | R306 | RD35410 10 | RD35612 1.8K | RD35647 4.7K | RD35668 8.8K | RD35710 10K | RD35715 15K | RD35727 27K | RD35747 47K | RD35810 100K | RD35612 1.8K | RD35627 2.7K | RD35747 47K |
| ★2 | IC30 | X978A0 M30878FJBGP | X962A40 M30878FJBGP | X962A40 M30878FJBGP | X962A40 M30878FJBGP | X962A40 M30878FJBGP | X962A40 M30878FJBGP | X962A40 M30878FJBGP | X962A40 M30878FJBGP | X962A40 M30878FJBGP | X962A40 M30878FJBGP | X962A40 M30878FJBGP | X962A40 M30878FJBGP |
| ★3 | R339 R340 R336 R341 | X | X | X | X | X | X | X | X | RD35510 100 | X | X | RD35510 100 |
| ★4 | R342 R344 R343 R345 R346 | X | RD35510 100 | X | X | X | X | X | X | X | RD35510 100 | RD35510 100 | X |
| ★5 | D306 | X | X | V896090 MA8024-(TX) | X | X | X | X | X | X | X | X | X |
| ★6 | D307 | X | X | V733290 1SS355 | X | X | X | X | X | X | X | X | X |
| ★7 | D318 D317 | VV20070 RB051Y-40 | X | X | X | X | X | X | X | X | X | X | X |
| ★8 | R360 | X | RD35000 0 | RD35000 0 | RD35000 0 | RD35000 0 | RD35000 0 | RD35000 0 | RD35000 0 | RD35000 0 | RD35000 0 | RD35000 0 | RD35000 0 |
| ★9 | R755 | X | RD35810 100K | RD35810 100K | RD35810 100K | RD35810 100K | RD35810 100K | X | RD35810 100K | RD35810 100K | RD35810 100K | X | RD35810 100K |
| ★10 | R757 | X | RD35647 4.7K | RD35647 4.7K | RD35647 4.7K | RD35647 4.7K | RD35647 4.7K | X | RD35647 4.7K | RD35647 4.7K | RD35647 4.7K | X | RD35647 4.7K |
| ★11 | Q305 | X | V896030 2SA1576A | V896030 2SA1576A | V896030 2SA1576A | V896030 2SA1576A | V896030 2SA1576A | X | V896030 2SA1576A | V896030 2SA1576A | V896030 2SA1576A | X | V896030 2SA1576A |
| ★12 | R777 | X | RD35612 220 | RD35612 220 | RD35612 220 | RD35612 220 | RD35612 220 | X | RD35612 220 | RD35612 220 | RD35612 220 | X | RD35612 220 |
| ★13 | C349 | X | U924610 1/25 | U924610 1/25 | U924610 1/25 | U924610 1/25 | U924610 1/25 | X | U924610 1/25 | U924610 1/25 | U924610 1/25 | X | U924610 1/25 |
| ★14 | R784 | X | RD35622 220K | RD35622 220K | RD35622 220K | RD35622 220K | RD35622 220K | X | RD35622 220K | RD35622 220K | RD35622 220K | X | RD35622 220K |
| ★15 | CB36 | VB36080 PH2 | X | X | X | X | X | X | X | X | X | X | X |
| ★19 | R753 R758 R754 R756 R752 | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 | X | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 |
| ★80 | D302 | UR357 4116 | UR357 1050 | UR357 4116 | UR357 4116 | UR357 4116 | UR357 4116 | UR357 4116 | UR357 4116 | UR357 4116 | UR357 1050 | UR357 4116 | UR357 4116 |
| ★100 | D300 | X | X | X | X | X | X | X | X | X | X | X | X |
| ★101 | R807 | X | X | X | X | X | X | X | X | X | RD35612 2.2K | RD35622 2.2K | RD35622 2.2K |
| ★102 | R811 | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 | X | X | X |

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

CAPACITOR

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

RESISTOR

| REMARKS | PARTS NAME |
|---|---|
| NO MARK | CARBON FILM RESISTOR (F=5) |
| ⚠ | CARBON FILM RESISTOR (F=10) |
| ⚠ | METAL OXIDE FILM RESISTOR |
| ⚠ | METAL FILM RESISTOR |
| ⚠ | METAL PLATE RESISTOR |
| ⚠ | FIRE PROOF CARBON FILM RESISTOR |
| ⚠ | CEMENT MOLDED RESISTOR |
| ⚠ | SEMI VARIABLE RESISTOR |
| ⚠ | CHIP RESISTOR |

# DIGITAL 3/5

Page 112 H2
to OPERATION (4)_W442

s1 -19:002.sht(u-com)
★s20-80:004.sht(DSP)
s81-99:005.sht(DVIDEO)

to DIGITAL 2/5
to 002.sht(u-com)

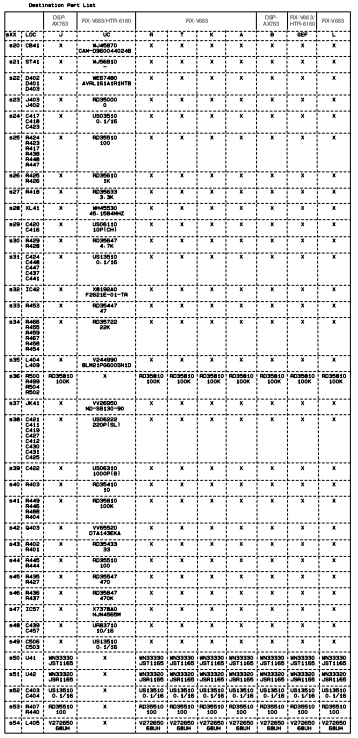
to DIGITAL 4/5
to 004.sht(AD-DA)

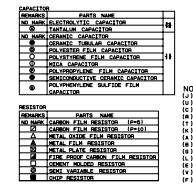
to 001.sht(HDMI)
to DIGITAL 1/5

SIRIUS
XM
DIGITAL INPUT — OPTICAL / COAXIAL — DIGITAL OUTPUT
RX-V663/DSP-AX763 / HTR-6160

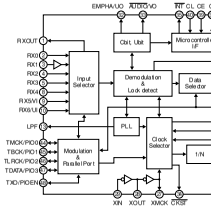
XM/DT IC
DIR
DSP
SELECTOR
REGULATOR
DIGITAL IN
ANALOG IN
PL/PR
FL/FR
C
SL/SR
SBL/SBR
64M SDRAM
16M FLASH ROM
(U, C models)

No replacement part available.
サービス部品供給なし

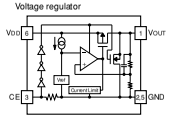



**IC41**: LC89057W-VF4AD-E
Digital audio interface transceiver

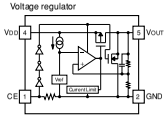



**IC47**: R1172S121D-E2-F
Voltage regulator



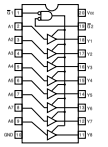

| Pin No. | Symbol | Description |
|---|---|---|
| 1 | VOUT | Output Pin of Voltage Regulator |
| 2, 5 | GND | Ground Pin |
| 3 | CE | Chip Enable Pin |
| 4 | NC | No Connection |
| 6 | VDD | Input Pin |

**IC48**: R1172H331D-T1-F
Voltage regulator

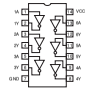



| Pin No. | Symbol | Description |
|---|---|---|
| 1 | CE | Chip Enable Pin |
| 2 | GND | Ground Pin |
| 3 | NC | No Connection |
| 4 | VDD | Input Pin |
| 5 | VOUT | Output Pin of Voltage Regulator |

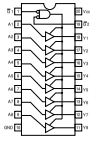
**IC50**: TC74VHC541FT
Octal bus buffer



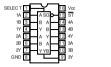
**IC52**: TC74VHCU04FT
Hex inverters



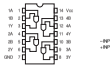
**IC54**: TC74VHCT541AFT
Octal bus buffer



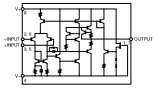
**IC55**: TC74VHC157FT
Quad 2-channel multiplexer



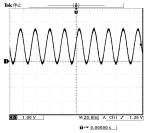
**IC56**: TC74VHC08FT
Quad 2-input AND gate



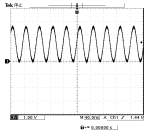
**IC57**: NJM4565M
Dual operational amplifier




**POINT** (B-1) XL41 (Pin 28 of IC42)



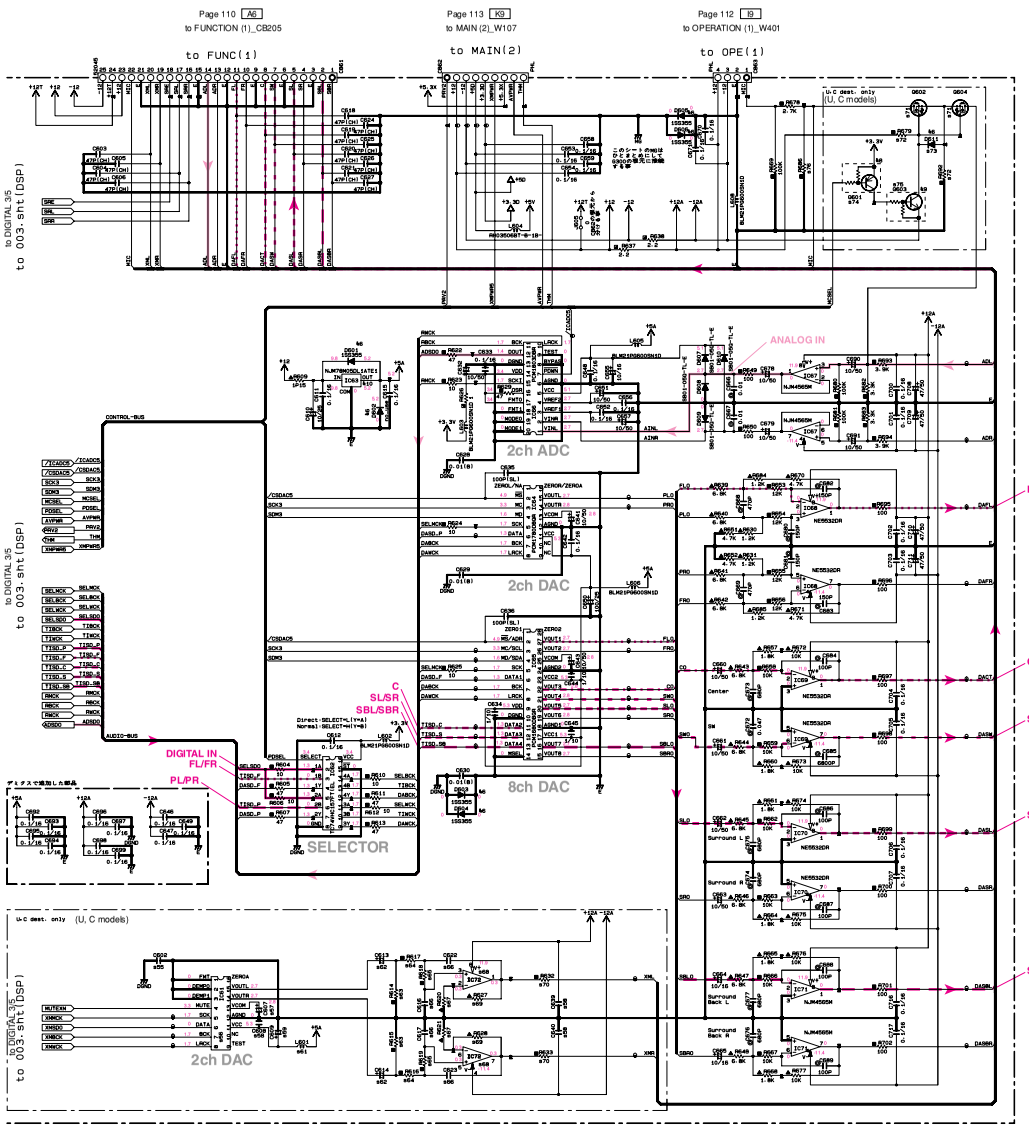
**POINT** (B-2) XL42 (Pin 29 of IC41)



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

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

# DIGITAL 4/5




s1 ~19:002.sht(u-com)
*s20~80:004.sht(DSP)
s81~99:005.sht(DVIDEO)

Destination Part List

| eXX | LOC | DSP-AX763 | RX-V663/HTR-6160 | RX-V663 | | | | DSP-AX763 | RX-V663/HTR-6160 | RX-V663 | HTR-6160 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | J | UC | R | T | K | A | B | 9EF | L | C |
| e55 | D502 | X | U006410<br>0.01UF | X | X | X | X | X | X | X | X |
| e56 | IC81 | X | X727580<br>PCM1780DBQR | X | X | X | X | X | X | X | X |
| e57 | D507 | X | UR2710<br>10/1W | X | X | X | X | X | X | X | X |
| e58 | D540<br>D538<br>D539 | X | UR13510<br>0.1/1W | X | X | X | X | X | X | X | X |
| e59 | D509 | X | UR21810<br>100/6.3 | X | X | X | X | X | X | X | X |
| e61 | L601 | X | V244990<br>ELM21PG000H1D | X | X | X | X | X | X | X | X |
| e62 | D513<br>D514 | X | UR83747<br>47/1W | X | X | X | X | X | X | X | X |
| e63 | R615<br>R614 | X | RD3710<br>10K | X | X | X | X | X | X | X | X |
| e64 | R617<br>R616 | X | RD3639<br>3.9K | X | X | X | X | X | X | X | X |
| e65 | R618<br>R619 | X | RD3627<br>2.7K | X | X | X | X | X | X | X | X |
| e66 | D522<br>D523<br>D516<br>D517 | X | UR18310<br>100GF | X | X | X | X | X | X | X | X |
| e67 | R620<br>R621 | X | RF35633<br>3.9K | X | X | X | X | X | X | X | X |
| e68 | IC72 | X | X727840<br>NJM4565M | X | X | X | X | X | X | X | X |
| e69 | R627<br>R628 | X | RF36615<br>1.5K | X | X | X | X | X | X | X | X |
| e70 | R633<br>R632 | X | RD3610<br>1K | X | X | X | X | X | X | X | X |
| e71 | Q604<br>Q602 | X | MN16410<br>DH6215-TB-E | X | X | X | X | X | X | X | MN16410<br>DH6215-TB-E |
| e72 | R692<br>R679 | X | RD3810<br>100K | X | X | X | X | X | X | X | RD3810<br>100K |
| e73 | D611 | X | VT33290<br>1SS355 | X | X | X | X | X | X | X | VT33290<br>1SS355 |
| e74 | Q601 | X | VV09500<br>DTA114EKA | X | X | X | X | X | X | X | VV09500<br>DTA114EKA |
| e75 | Q603 | X | VV09350<br>DTC124EKA | X | X | X | X | X | X | X | VV09350<br>DTC124EKA |
| e76 | R686 | RD3747<br>47K | X | RD3747<br>47K | RD3747<br>47K | RD3747<br>47K | RD3747<br>47K | RD3747<br>47K | RD3747<br>47K | RD3747<br>47K | X |

Interchangeable Parts at Manufacture-Stage

| Mark | Reference Parts Number | Parts Name |
|---|---|---|
| ¤1 | U41 | JST1065<br>GP1FAV61TK0F |
| ¤2 | U42~44 | JSR1165<br>GP1FAV51RK0F |
| ¤3 | | |
| ¤4 | IC49 | M12L64164A-5TG<br>K4S641632K-UC60D00 |
| ¤5 | Q402 | 2SC3326(A/B)<br>2SC3326(B)<br>2SC2536A(A/B)<br>2SD2704(A)<br>2SD1328(F)ST<br>KTC2875-B |
| ¤6 | D112~150~152~154~156~162<br>300~307~309~315~312~314<br>316~409~411~601<br>603~606~611~800~806<br>809~811~814~820 | 1SS355<br>MA2J111GDL<br>KDS160~RTK/P |
| ¤7 | Q401 | DTC114EKA<br>KRC102S~RTK/P |
| ¤8 | Q601 | DTA114EKA<br>KRA102S~RTK/P |
| ¤9 | Q603 | DTC124EKA<br>KRC103S~RTK/P |
| ¤10 | IC83 | NJM78M05DL1ATE1<br>KIA78M05P |
| ¤11 | | |
| ¤12 | | |
| ¤13 | | |
| ¤14 | | |
| ¤15 | Q109~111~301 | DTC144EKA<br>KRC104S~RTK/P |
| ¤16 | | |
| ¤17 | Q304 | DTA144EKA<br>KRA104S~RTK/P |
| ¤18 | D401~403 | AVRL161A1R1NTB<br>SDV1608M100C050VPT |
| ¤19 | | |

CAPACITOR

| REMARKS | PARTS NAME |
|---|---|
| NO MARK | ELECTROLYTIC CAPACITOR |
| ⊗ | TANTALUM CAPACITOR |
| NO MARK | CERAMIC CAPACITOR |
| ❀ | CERAMIC TUBULAR CAPACITOR |
| ⊗ | POLYESTER FILM CAPACITOR |
| ⊗ | POLYSTYRENE FILM CAPACITOR |
| ⊗ | MICA CAPACITOR |
| ⊗ | POLYPROPYLENE FILM CAPACITOR |
| ● | SEMICONDUCTIVE CERAMIC CAPACITOR |
| ⊗ | POLYPHENYLENE SULFIDE FILM CAPACITOR |

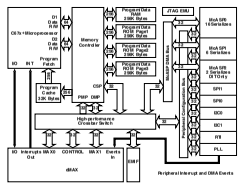
RESISTOR

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

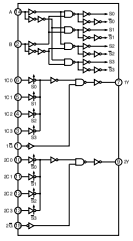
NOTICE (model)
(J)····· JAPAN
(U)····· U.S.A
(C)····· CANADA
(R)····· GENERAL
(T)····· CHINA
(K)····· KOREA
(A)····· AUSTRALIA
(B)····· BRITISH
(G)····· EUROPE
(L)····· SINGAPORE
(E)····· SOUTH EUROPE
(V)····· TAIWAN
(F)····· RUSSIAN

## IC BLOCK DIAGRAMS DIGITAL 3/5

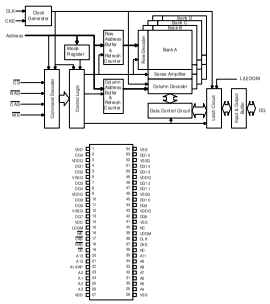
**IC44**: D70YE101BRFP266
Floating-point digital signal processors



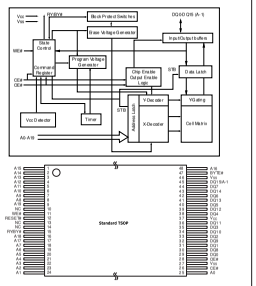
**IC45, 46**: TC74VHC153FT
Dual 4-channel multiplexer



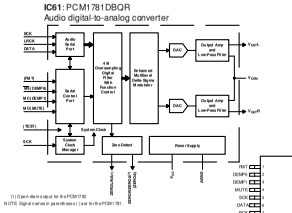
**IC49**: M12L64164A-5TG
1M x 16-bit x 4 banks synchronous DRAM



**IC51**: EN29LV160AB-70TCP
16 M-bit flash memory boot sector flash memory, CMOS 3.0 V-only



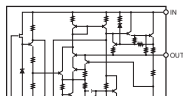
**IC61**: PCM1781DBQR
Audio digital-to-analog converter



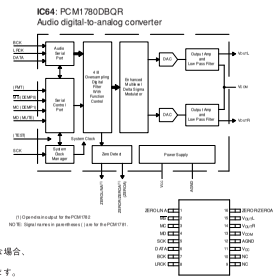
**IC62**: TC74VHC157FT
Quad 2-channel multiplexer



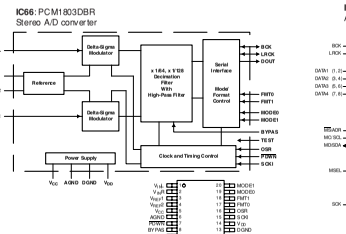
**IC63**: NJM78M05DL1A
Voltage regulator



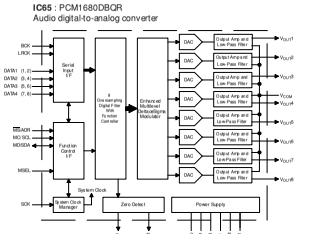
**IC64**: PCM1780DBQR
Audio digital-to-analog converter



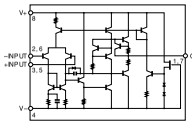
**IC66**: PCM1803DBR
Stereo A/D converter



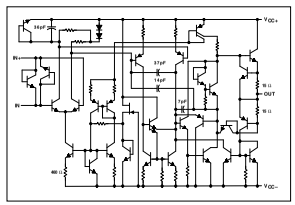
**IC65**: PCM1680DBQR
Audio digital-to-analog converter



**IC67, 71, 72**: NJM4565M
Dual operational amplifier



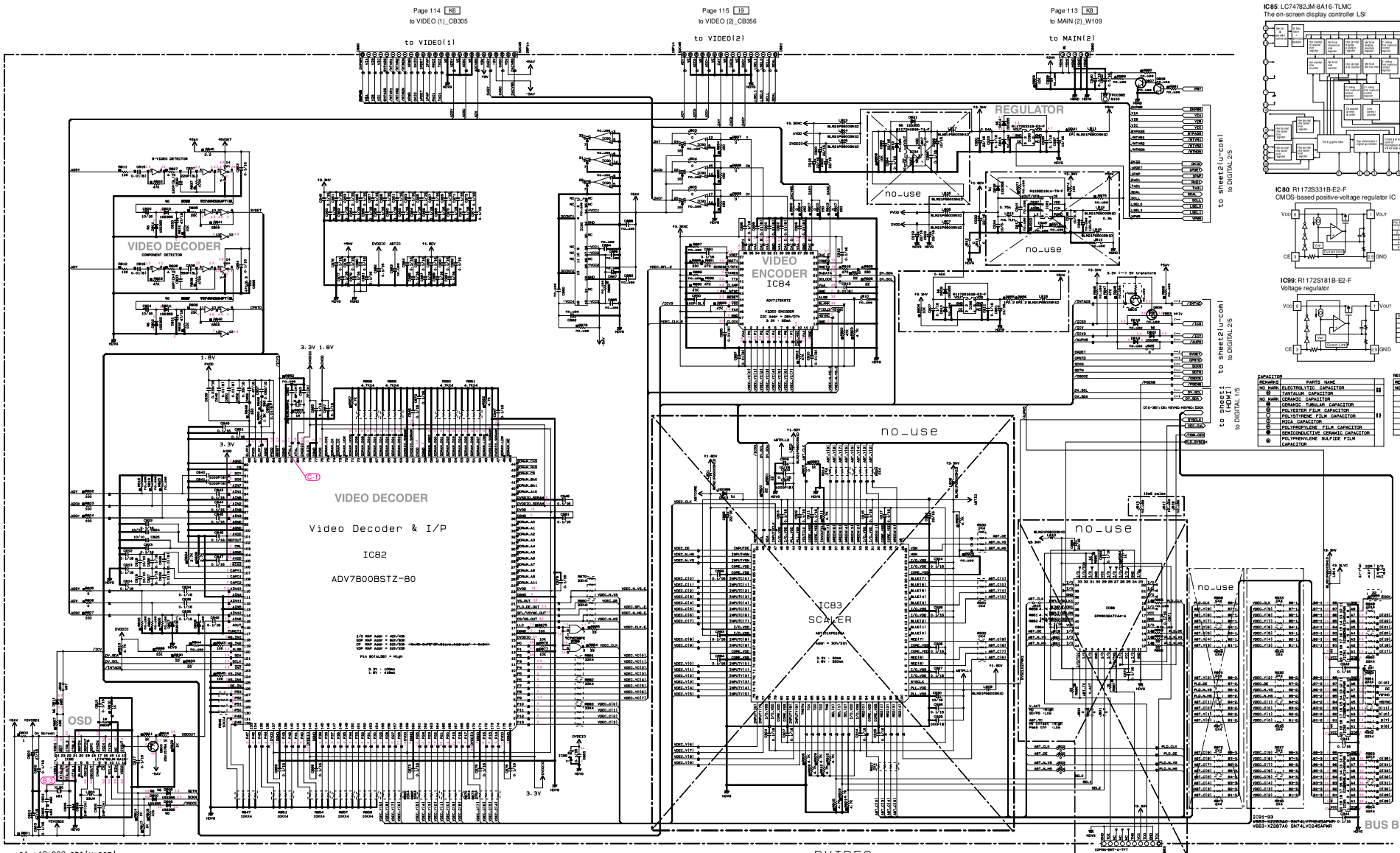
**IC68-70**: NE5532DR
Dual low-noise operational amplifiers



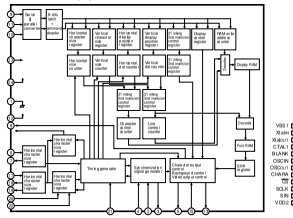
★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.
★ Components having special characteristics are marked ⚠ and must be replaced with parts having specifications equal to those originally installed.
★ Schematic diagram is subject to change without notice.

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

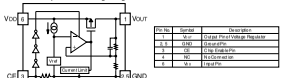
## DIGITAL 5/5




IC85: LC74782JM-8A16-TLMC
The on-screen display controller LSI

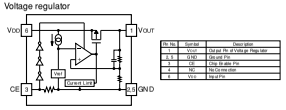


IC80: R1172S331B-E2-F
CMOS-based positive-voltage regulator IC



| Pin No. | Symbol | Description |
|---|---|---|
| 1 | VOUT | Output Pin of Voltage Regulator |
| 2, 3 | GND | Ground Pin |
| 4 | CE | Chip Enable Pin |
| 5 | NC | No Connection |
| 6 | VIN | Input Pin |

IC99: R1172S181B-E2-F
Voltage regulator



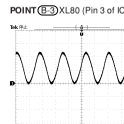
| Pin No. | Symbol | Description |
|---|---|---|
| 1 | VOUT | Output Pin of Voltage Regulator |
| 2, 3 | GND | Ground Pin |
| 4 | CE | Chip Enable Pin |
| 5 | NC | No Connection |
| 6 | VIN | Input Pin |

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

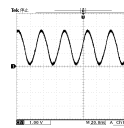
| RESISTOR | |
|---|---|
| REMARKS | PARTS NAME |
| NO MARK | CARBON FILM RESISTOR (5%) |
| ☑ | CARBON FILM RESISTOR (1%) |
| △ | METAL OXIDE FILM RESISTOR |
| ▲ | METAL FILM RESISTOR |
| ▲ | METAL PLATE RESISTOR |
| ▲ | FIRE PROOF CARBON FILM RESISTOR |
| ◎ | CEMENT MOLDED RESISTOR |
| ⊗ | SEMI VARIABLE RESISTOR |
| ■ | CHIP RESISTOR |

NOTICE (Model)
(U)•••• JAPAN
(U)•••• U.S.A
(C)•••• CANADA
(N)•••• GENERAL
(T)•••• CHINA
(K)•••• KOREA
(A)•••• AUSTRALIA
(E)•••• BRITISH
(G)•••• EUROPE
(L)•••• SINGAPORE
(E)•••• SOUTH EUROPE
(Y)•••• TAIWAN
(R)•••• RUSSIAN

POINT B-3 XL80 (Pin 3 of IC85)



POINT C-1 XL81 (Pin 81 of IC82)

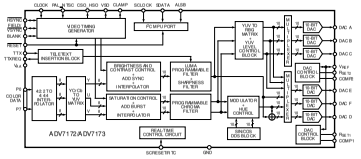


s1 ~19:002.sht(u-com)
s20~80:004.sht(DSP)
*s81~99:005.sht(DVIDEO)

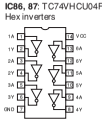
Destination Part List

| | | DSP-AX763 | RX-V663/HTR-6160 | RX-V663 | | | DSP-AX763 | RX-V663/HTR-6160 | RX-V663 |
|---|---|---|---|---|---|---|---|---|---|
| xxx | LOC | J | UC | R | T | K | A | B | 6BF |
| ref1 | XL80 | VC3S500-4FT256C | VC3S500-4FT256C | VC3S500-4FT256C | VC3S500-4FT256C | VC3S500-4FT256C | VC3S500-4FT256C | VC3S500-4FT256C | VC3S500-4FT256C |
| ref2 | CB54 | USB0630-BF12H | USB0630-BF12H | USB0630-BF12H | USB0630-BF12H | USB0630-BF12H | USB0630-BF12H | USB0630-BF12H | USB0630-BF12H |
| ref3 | CB05 | USB0110-BF12H | USB0110-BF12H | USB0640-BF12H | USB0640-BF12H | USB0640-BF12H | USB0640-BF12H | USB0640-BF12H | USB0640-BF12H |
| ref4 | CB06 | USB0630-BF12H | USB0630-BF12H | USB0630-BF12H | USB0630-BF12H | USB0630-BF12H | USB0630-BF12H | USB0630-BF12H | USB0630-BF12H |
| ref5 | DB11 | YT3230-EB0808 | X | X | X | X | X | X | X |
| ref6 | RB67 | RB3R47-ATN | X | X | X | X | X | X | X |
| ref7 | JB06 | X | RD39000-0 | RD39000-0 | RD39000-0 | RD39000-0 | RD39000-0 | RD39000-0 | RD39000-0 |

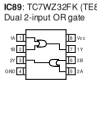
IC84: ADV7173KSTZ
Digital PAL/NTSC video encoder



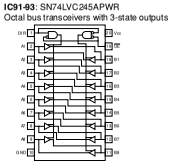
IC86, 87: TC74VHCU04FT
Hex inverters



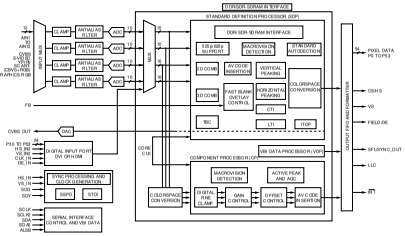
IC89: TC7WZ32FK (TE85L, F)
Dual 2-input OR gate



IC91-93: SN74LVC245APWR
Octal bus transceivers with 3-state outputs



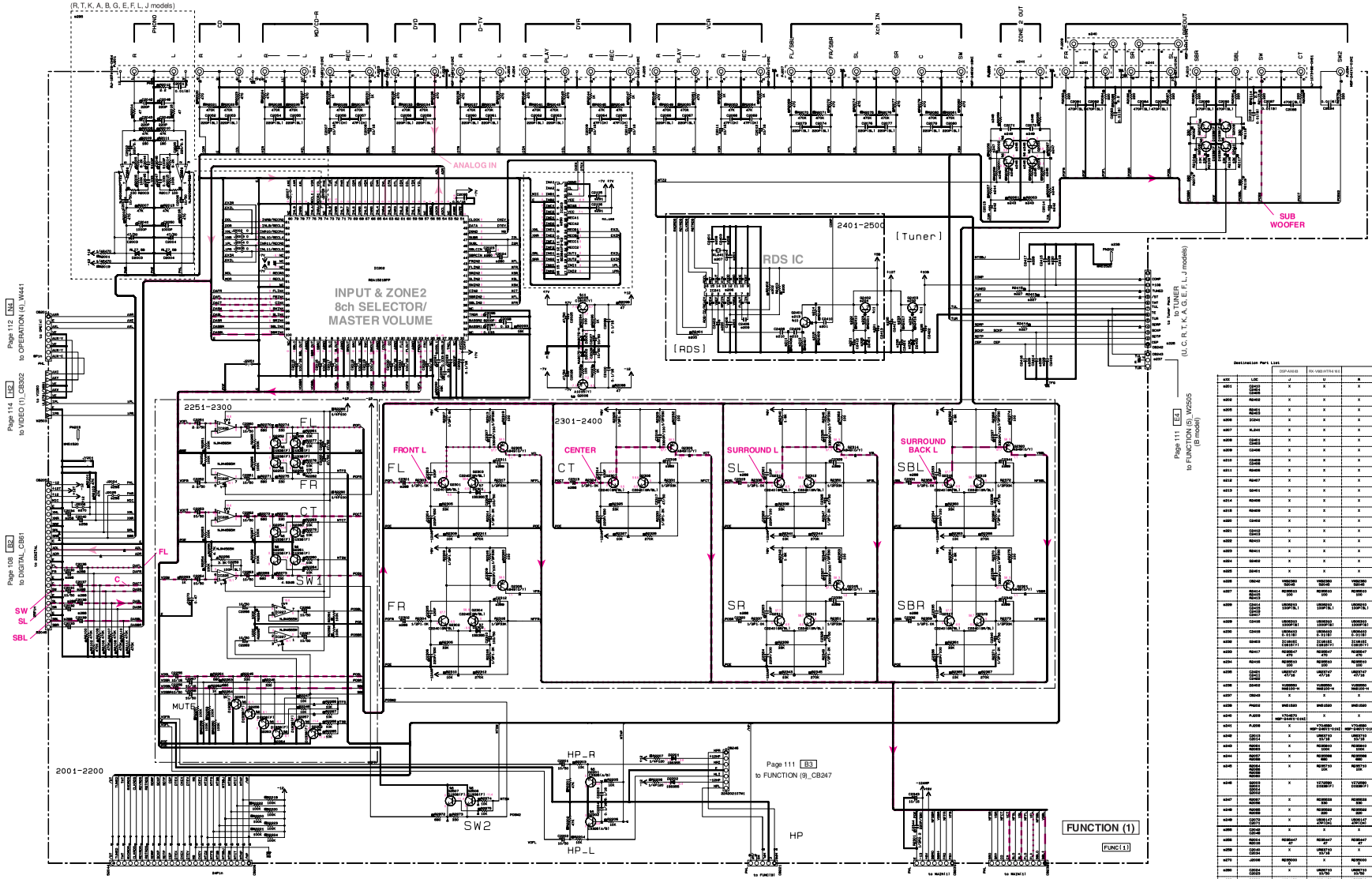
IC82: ADV7800BSTZ-80
10-bit, SDTV/HDTV 3D comb filter, video decoder and graphics digitizer



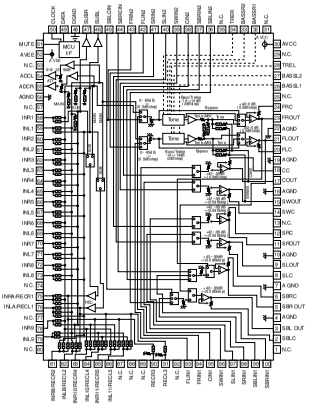
★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.
★ Components having special characteristics are marked !, and must be replaced with parts having specifications equal to those originally installed.
★ Schematic diagram is subject to change without notice.

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

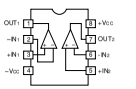
# FUNCTION 1/2



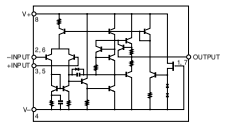

**IC202**: R2A15218FP
8-channel electronic volume with 11 input selector and tone control



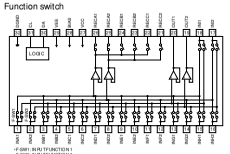
**IC201**: NJM2068MD-TE2
Dual operational amplifier



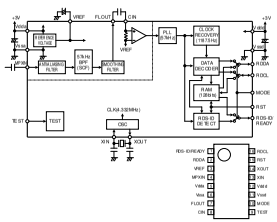
**IC225-227**: NJM4565M
Dual operational amplifier



**IC203**: BD3841FS
Function switch



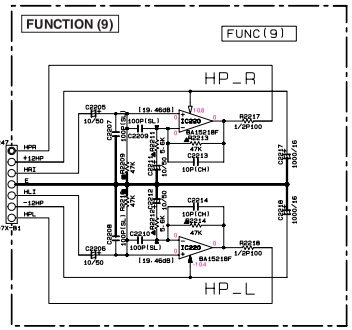
**IC241**: LC72725KM-UY-TLM-E
RDS signal demodulation IC

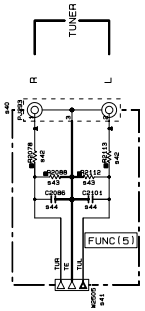


★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.
★ Components having special characteristics are marked ⚠ and must be replaced with parts having specifications equal to those originally installed.
★ Schematic diagram is subject to change without notice.

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

## FUNCTION 2/2




**FUNCTION (5)**
B model

CAPACITOR

| REMARKS | PARTS NAME | |
|---|---|---|
| NO MARK | ELECTROLYTIC CAPACITOR | ||
| ⊗ | TANTALUM CAPACITOR | ||
| NO MARK | CERAMIC CAPACITOR | ||
| ⊛ | CERAMIC TUBULAR CAPACITOR | ||
| ◎ | POLYESTER FILM CAPACITOR | ||
| ○ | POLYSTYRENE FILM CAPACITOR | ||
| ① | MICA CAPACITOR | ||
| ⊙ | POLYPROPYLENE FILM CAPACITOR | ||
| ● | SEMICONDUCTIVE CERAMIC CAPACITOR | ||

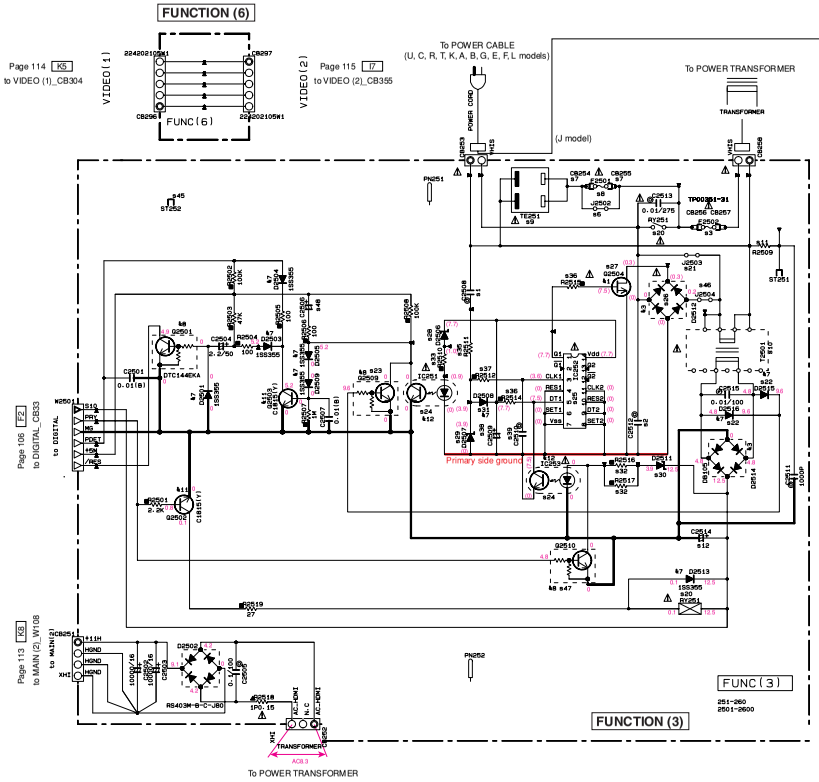
RESISTOR

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

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

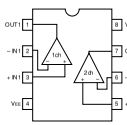
Destination Part List

| aXX | LOC | J | U | P | C | T | A | B | GEF | L | K |
|---|---|---|---|---|---|---|---|---|---|---|---|
| s1 | C2508 | WJ36120 0.047/400 | x | WJ36180 0.022/630 | x | WJ36180 0.022/630 | WJ36180 0.022/630 | WJ36180 0.022/630 | WJ36180 0.022/630 | WJ36180 0.022/630 | WJ36180 0.022/630 |
| s2 | C2512 | WB09630 0.1/400 | x | WQ25760 0.047/800 | x | WQ25760 0.047/800 | WQ25760 0.047/800 | WQ25760 0.047/800 | WQ25760 0.047/800 | WQ25760 0.047/800 | WQ25760 0.047/800 |
| s3 | F2502 | WS41080 10A125V | WS41080 10A125V | WS41080 10A125V | WS41080 10A125V | KB00078 T5AL250V | KB00078 T5AL250V | KB00078 T5AL250V | KB00078 T5AL250V | KB00078 T5AL250V | KB00078 T5AL250V |
| s4 | TE255 | WB78260 R-30190(26) | x | x | x | x | x | x | x | x | x |
| s5 | W2502B W2502A | V941190 VH-ST | x | x | x | x | x | x | x | x | x |
| s6 | J2502 | VN50000 | x | x | x | x | x | x | x | x | x |
| s7 | CB254 CB255 | x | WN10300 TP00351-31 | WN10300 TP00351-31 | WN10300 TP00351-31 | WN10300 TP00351-31 | WN10300 TP00351-31 | WN10300 TP00351-31 | WN10300 TP00351-31 | WN10300 TP00351-31 | x |
| s8 | F2501 | x | WS41080 10A125V | VT94290 T2.5AH250V | WS41080 10A125V | VT94290 T2.5AH250V | VT94290 T2.5AH250V | VT94290 T2.5AH250V | VT94290 T2.5AH250V | VT94290 T2.5AH250V | x |
| s9 | TE251 | VU54310 S2-7647-214 | VU54310 S2-7647-214 | VS86740 – | VU54310 S2-7647-214 | VS86740 – | VT91500 – | VU54330 – | VU54340 – | VU54340 – | x |
| s10 | T2501 | XW60A0 XW605 | XW60A0 – | X6351A0 – | XW60A0 XW605 | XW60A0 – | XW60A0 – | XW60A0 – | XW60A0 – | XW60A0 – | XW60A0 – |
| s11 | R2509 | x | V673000 1/2P2.2M | x | V673000 1/2P2.2M | x | x | x | x | x | x |
| s12 | C2514 | UU24933 3300/25 | UU24933 3300/25 | W004730 – | UU24933 3300/25 | UU24933 3300/25 | UU24933 3300/25 | UU24933 3300/25 | UU24933 3300/25 | UU24933 3300/25 | UU24933 3300/25 |
| s13 | J2601 | x | x | x | x | x | x | x | x | VN50000 – | x |
| s14 | SW251 | x | x | W549370 RB140245 | x | x | x | x | x | W007370 RB140254 | x |
| s15 | CB261 | x | x | V937780 63P55-YH | x | x | x | x | x | V937780 63P55-YH | x |
| s16 | CB262 | x | x | V937790 64P75-YH | x | x | x | x | x | V937790 64P75-YH | x |
| s17 | CB264 CB263 | x | x | WN10300 TP00351-31 | x | x | x | x | x | x | x |
| s18 | W2501A W2501B | x | x | W579700 VH-ST | x | x | x | x | x | W579700 VH-ST | x |
| s19 | F2601 | x | x | KB00078 T5AL250V | x | x | x | x | x | x | x |
| s20 | RY251 | WJ44660 ALK7321.M01 | WJ44660 ALK7321.M01 | V936690 DLS901-01M10.25 | WJ44660 ALK7321.M01 | WJ44660 ALK7321.M01 | WJ44660 ALK7321.M01 | WJ44660 ALK7321.M01 | WJ44660 ALK7321.M01 | WJ44660 ALK7321.M01 | WJ44660 ALK7321.M01 |
| s21 | J2503 | x | VN50000 | x | VN50000 | x | x | x | x | x | x |
| s22 | D2515 D2516 | x | VT33290 1SS355 | x | VT33290 1SS355 | x | x | x | x | x | x |
| s23 | D2509 | x | VV65570 DTC144EKA | x | VV65570 DTC144EKA | x | x | x | x | x | x |
| s24 | IC253 IC251 | VB10050 TLP421GR | x | VB10050 TLP421GR | x | VB10050 TLP421GR | VB10050 TLP421GR | VB10050 TLP421GR | VB10050 TLP421GR | VB10050 TLP421GR | VB10050 TLP421GR |
| s25 | IC252 | IG00118 TC4013BP | x | IG00118 TC4013BP | x | IG00118 TC4013BP | IG00118 TC4013BP | IG00118 TC4013BP | IG00118 TC4013BP | IG00118 TC4013BP | IG00118 TC4013BP |
| s26 | D2512 | WH47170 DB105 | x | WH47170 DB105 | x | WH47170 DB105 | WH47170 DB105 | WH47170 DB105 | WH47170 DB105 | WH47170 DB105 | WH47170 DB105 |
| s27 | Q2504 | WC74120 K3850-E | x | WC74120 K3850-E | x | WC74120 K3850-E | WC74120 K3850-E | WC74120 K3850-E | WC74120 K3850-E | WC74120 K3850-E | WC74120 K3850-E |
| s28 | D2506 | VU99380 MA8068-M | x | VU99380 MA8068-M | x | VU99380 MA8068-M | VU99380 MA8068-M | VU99380 MA8068-M | VU99380 MA8068-M | VU99380 MA8068-M | VU99380 MA8068-M |
| s29 | D2507 | VU99540 MA8100-M | x | VU99540 MA8100-M | x | VU99540 MA8100-M | VU99540 MA8100-M | VU99540 MA8100-M | VU99540 MA8100-M | VU99540 MA8100-M | VU99540 MA8100-M |
| s30 | D2511 | VU99490 MA8091-L | x | VU99490 MA8091-L | x | VU99490 MA8091-L | VU99490 MA8091-L | VU99490 MA8091-L | VU99490 MA8091-L | VU99490 MA8091-L | VU99490 MA8091-L |
| s31 | D2508 | VT33290 1SS355 | x | VT33290 1SS355 | x | VT33290 1SS355 | VT33290 1SS355 | VT33290 1SS355 | VT33290 1SS355 | VT33290 1SS355 | VT33290 1SS355 |
| s32 | R2517 R2516 | RD35622 2.2K | x | RD35622 2.2K | x | RD35622 2.2K | RD35622 2.2K | RD35622 2.2K | RD35622 2.2K | RD35622 2.2K | RD35622 2.2K |
| s33 | R2510 | RD35510 100 | x | RD35510 100 | x | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 | RD35510 100 |
| s35 | R2511 | HF35622 1/2P2.2K | x | HF35622 1/2P2.2K | x | HF35622 1/2P2.2K | HF35622 1/2P2.2K | HF35622 1/2P2.2K | HF35622 1/2P2.2K | HF35622 1/2P2.2K | HF35622 1/2P2.2K |
| s36 | R2514 R2515 | RD35622 220K | x | RD35622 220K | x | RD35622 220K | RD35622 220K | RD35622 220K | RD35622 220K | RD35622 220K | RD35622 220K |
| s37 | R2512 | RD35910 1M | x | RD35910 1M | x | RD35910 1M | RD35910 1M | RD35910 1M | RD35910 1M | RD35910 1M | RD35910 1M |
| s38 | C2509 | UR86610 1/50 | x | UR86610 1/50 | x | UR86610 1/50 | UR86610 1/50 | UR86610 1/50 | UR86610 1/50 | UR86610 1/50 | UR86610 1/50 |
| s39 | C2510 | UA65347 4700F | x | UA65347 4700F | x | UA65347 4700F | UA65347 4700F | UA65347 4700F | UA65347 4700F | UA65347 4700F | UA65347 4700F |
| s40 | PJ293 | x | x | x | x | x | x | WD61270 MSP-042Y-01NI | x | x | x |
| s41 | W2505 | x | x | x | x | x | x | WD75660 SAN-PH | x | x | x |
| s42 | R2078 R2113 | x | x | x | x | x | x | RD35547 470 | x | x | x |
| s43 | R2088 R2112 | x | x | x | x | x | x | RD35847 470K | x | x | x |
| s44 | C2101 C2086 | x | x | x | x | x | x | US06147 47P(CH) | x | x | x |
| s45 | ST252 | x | x | x | x | x | x | x | x | x | V404050 – |
| s46 | J2504 | VN50000 | x | VN50000 | x | VN50000 | VN50000 | VN50000 | VN50000 | VN50000 | VN50000 |
| s47 | Q2510 | VV65570 DTC144EKA | x | x | x | VV65570 DTC144EKA | VV65570 DTC144EKA | VV65570 DTC144EKA | VV65570 DTC144EKA | VV65570 DTC144EKA | VV65570 DTC144EKA |
| s48 | C2506 | UR86622 2.2/50 | UR86610 1/50 | UR86622 2.2/50 | UR86610 1/50 | UR86622 2.2/50 | UR86622 2.2/50 | UR86622 2.2/50 | UR86622 2.2/50 | UR86622 2.2/50 | UR86622 2.2/50 |

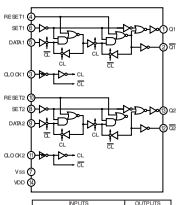



| VOLTAGE SELECTOR | |
|---|---|
| 230-240V | 1-2/5-6 |
| 220V | 2-3/6-7 |
| 110V | 3-4/7-8 |
| 120V | 4-5/8-1 |

**IC220**: BA15218F
Dual high slew rate, low noise operational amplifier




**IC252**: TC4013BP
Dual D-type flip flop




| INPUTS | | | | OUTPUTS | |
|---|---|---|---|---|---|
| RESET | SET | DATA | CK | Q | Q |
| H | L | x | x | H | L |
| L | H | x | x | L | H |
| H | H | x | x | H | H |
| L | L | L | ↑ | L | H |
| L | L | H | ↑ | H | L |
| L | L | x | L | Q0 | Q0 |

↑ : Low to High level change
Q0 : No change

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

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● 本回路図は標準回路図です。改良のため予告なく変更することがございます。

# OPERATION

RESISTOR

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

CAPACITOR

| REMARKS | PARTS NAME |
|---|---|
| ⊗ | TANTALUM CAPACITOR |
| NO MARK | CERAMIC CAPACITOR |
| ◉ | CERAMIC TUBULAR CAPACITOR |
| ◎ | POLYESTER FILM CAPACITOR |
| ○ | POLYSTYRENE FILM CAPACITOR |
| Ⓘ | MICA CAPACITOR |
| Ⓟ | POLYPROPYLENE FILM CAPACITOR |
| ● | SEMICONDUCTIVE CERAMIC CAPACITOR |

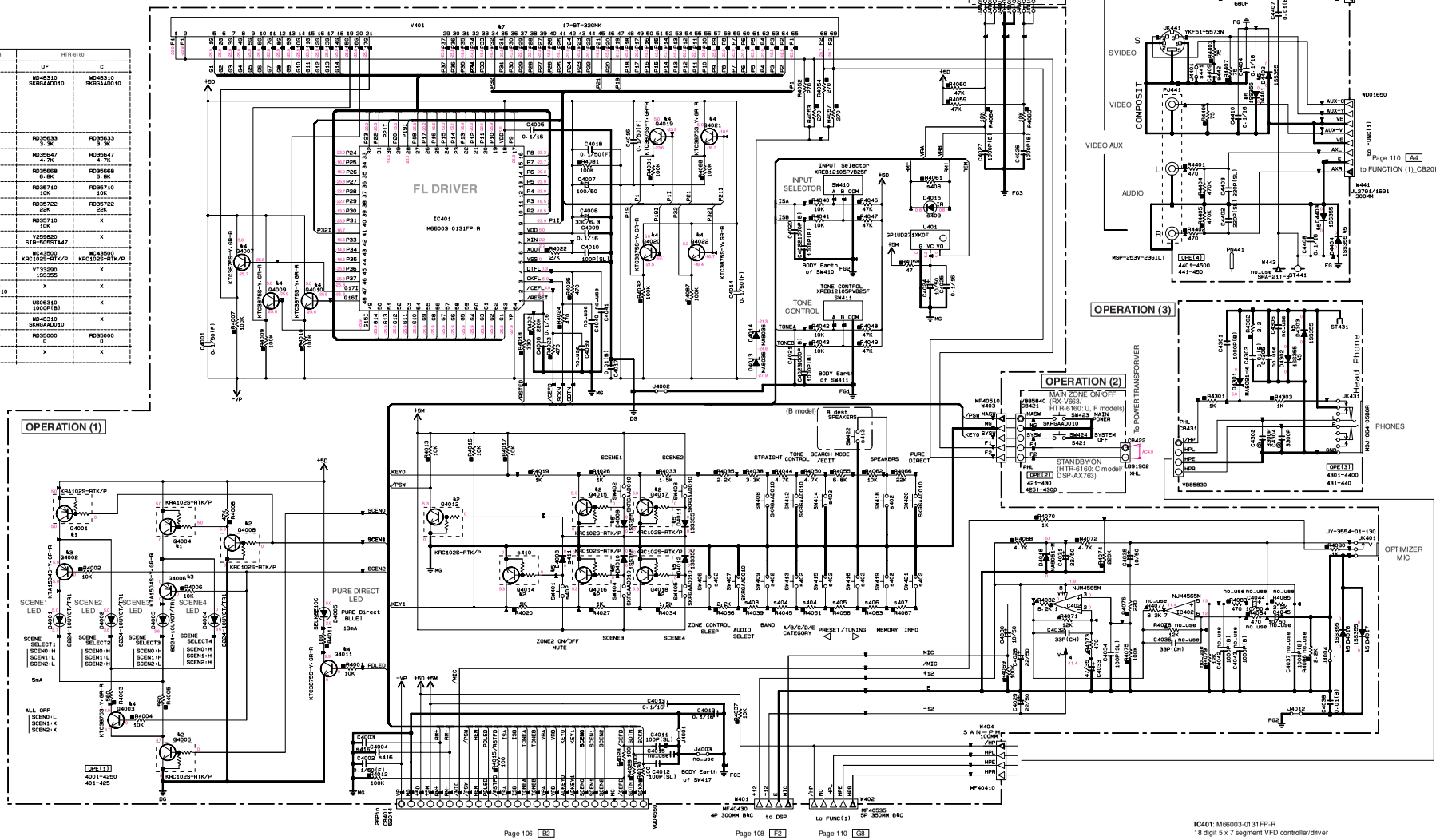
NOTICE (model)
(J)····· JAPAN
(U)····· U.S.A
(C)····· CANADA
(A)····· GENERAL
(T)····· CHINA
(K)····· KOREA
(A)····· AUSTRALIA
(B)····· BRITISH
(G)····· EUROPE
(L)····· SINGAPORE
(E)····· SOUTH EUROPE
(V)····· TAIWAN
(F)····· RUSSIAN

Destination Part List

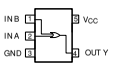
| | | DSP-AX763 | RX-V663 | DSP-AX763 | HTR-6160 | |
|---|---|---|---|---|---|---|
| sXX | LOC | J | UCRTKA6EFL | B | UF | C |
| s402 | SW415<br>SW419<br>SW416<br>SW421<br>SW418<br>SW414<br>SW401<br>SW413<br>SW409<br>SW406 | WD48310<br>SKR6AAD010 | WD48310<br>SKR6AAD010 | X | WD48310<br>SKR6AAD010 | WD48310<br>SKR6AAD010 |
| s403 | R4039 | RD35633<br>3.3K | RD35633<br>3.3K | X | RD35633<br>3.3K | RD35633<br>3.3K |
| s404 | R4045<br>R4051 | RD35647<br>4.7K | RD35647<br>4.7K | X | RD35647<br>4.7K | RD35647<br>4.7K |
| s405 | R4056 | RD35668<br>6.8K | RD35668<br>6.8K | X | RD35668<br>6.8K | RD35668<br>6.8K |
| s406 | R4063 | RD35710<br>10K | RD35710<br>10K | X | RD35710<br>10K | RD35710<br>10K |
| s407 | R4067 | RD35722<br>22K | RD35722<br>22K | X | RD35722<br>22K | RD35722<br>22K |
| s408 | R4061 | X | RD35710<br>10K | X | RD35710<br>10K | X |
| s409 | D4015 | X | V259820<br>SIR-505ST1A47 | X | V259820<br>SIR-505ST1A47 | X |
| s410 | G4014 | WC43500<br>KRC102S-RTK/P | WC43500<br>KRC102S-RTK/P | X | WC43500<br>KRC102S-RTK/P | WC43500<br>KRC102S-RTK/P |
| s411 | D4008 | X | VT33290<br>1SS355 | X | VT33290<br>1SS355 | X |
| s413 | SW422 | X | X | WD48310<br>SKR6AAD010 | X | X |
| s416 | C4003<br>C4004 | X | US06310<br>1000P(B) | X | US06310<br>1000P(B) | X |
| S421 | SW424 | X | WD48310<br>SKR6AAD010 | X | WD48310<br>SKR6AAD010 | X |
| s441 | J4401 | X | RD35000<br>0 | RD35000<br>0 | RD35000<br>0 | RD35000<br>0 |
| s442 | C4409 | US13510<br>0.1/16 | X | X | X | X |

Interchangeable Parts at Manufacture-Stage

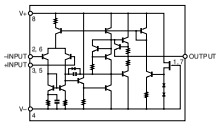
| Mark | Reference Parts Number | Parts Name |
|---|---|---|
| k1 | G4001-4004 | KRA102S-RTK/P<br>DTA114EKA |
| k2 | G4005-4008,4012-G4014-4018 | KRC102S-RTK/P<br>DTC114EKA |
| k3 | G4002-4006 | KTA1504S-Y,GR-RTK/P<br>A1037AM(A/R/S) |
| k4 | G4003-4007,4009-4011,4019-4022 | KTC3875S-Y,GR-RTK/P<br>C2412(G/R/S)<br>2SA1015(GR/R/S) |
| k5 | D4008-4012,4015-4017<br>4303-4305,4401-4404 | 1SS355<br>MA2J111(GL)<br>KDS160-RTK/P |
| k6 | IC441 | TC7SET32FU<br>SN74AHCT1G32DCKR |
| k7 | V401 | 17-BT-320NK<br>HNA-17MM06T |



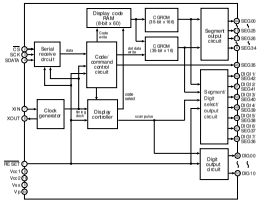

**IC441**: TC7SET32FU
2-input OR gate




**IC402**: NJM4565M
Dual operational amplifier



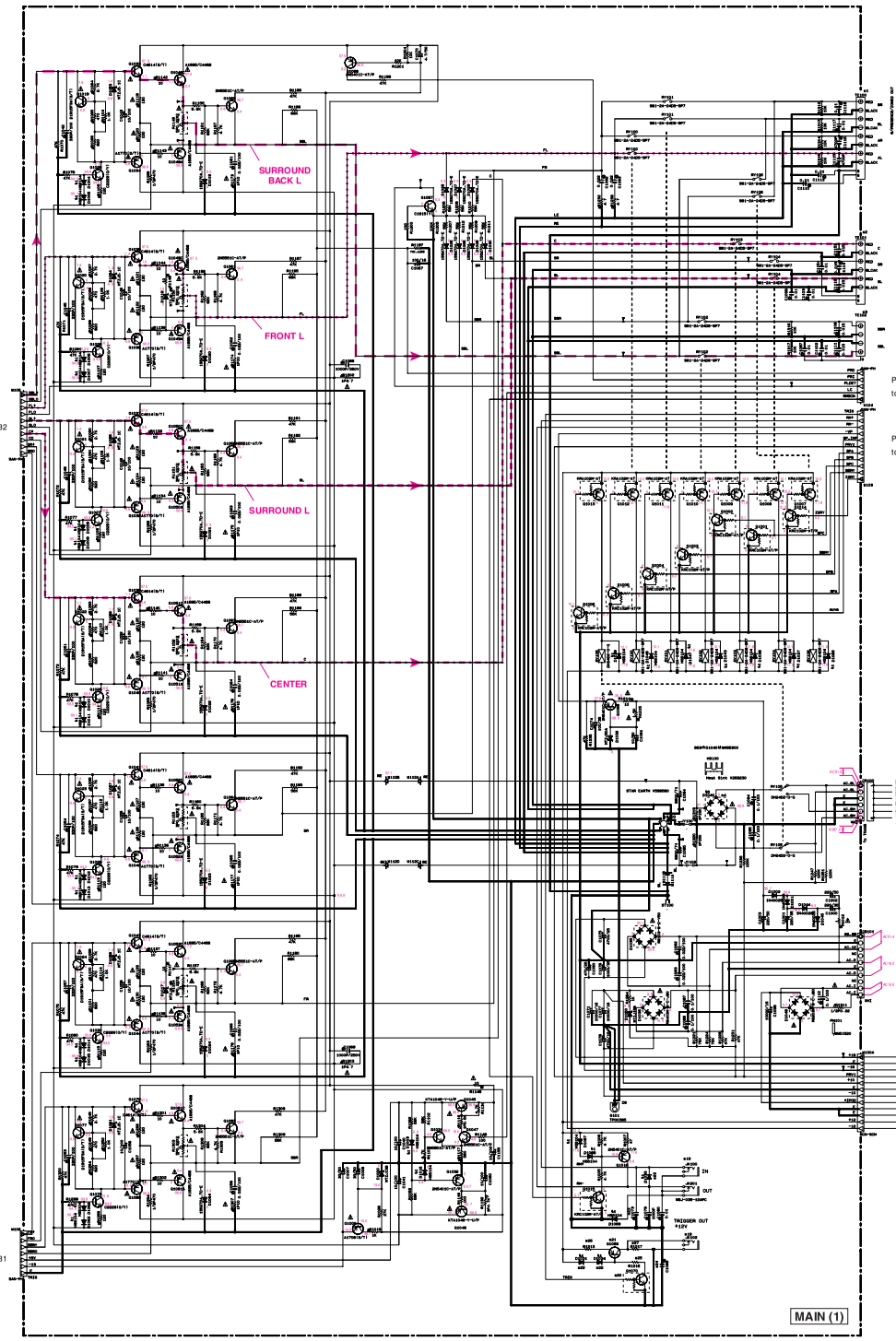

**IC401**: M66003-0131FP-R
18 digit 5 x 7 segment VFD controller/driver

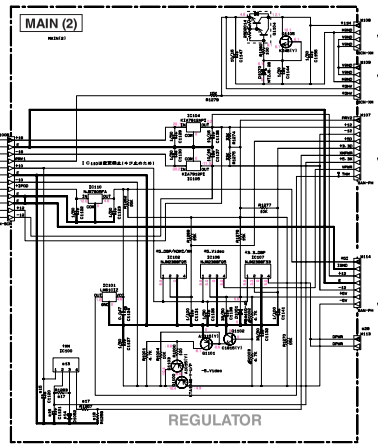


★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.
★ Components having special characteristics are marked ⚠ and must be replaced with parts having specifications equal to those originally installed.
★ Schematic diagram is subject to change without notice.

● 電圧は、内部抵抗10MΩの電圧計で測定したものです。
● ⚠印のある部品は、安全性確保部品を示しています。部品の交換が必要な場合、パーツリストに記載されている部品を使用してください。
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## MAIN




Page 111 B9
to FUNCTION (3)_CB251

Page 109 J2
to DIGITAL_CB82

Page 108 D2
to DIGITAL_CB62

Page 114 K3
to VIDEO (1)_CB303

Page 106 H2
to DIGITAL_CB38
(J model)

Destination Part List

| | | DSP-AX763 | RX-V663/HTR-6160 | RX-V663 | RV-V663/HTR-6160 | DSP-AX763 | HTR-6160 |
|---|---|---|---|---|---|---|---|
| 001 | LOC | 9MAT000 | US 9MAT000 | RTA 9MAT070 | VALUE 9MAT000 | A 9MAT000 | A 9MAT000 |
| 01 | TC100 | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# |
| 02 | TC101 | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# |
| 03 | TC102 | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# | M30624G-U0FP# LTM30210-U02FP# |
| 04 | D1040 | MB91870 MB91870-V-J-JE1 | MB91870 MB91870-V-J-JE1 | MB91870 MB91870-V-J-JE1 | MB91870 MB91870-V-J-JE1 | MB91870 MB91870-V-J-JE1 | MB91870 MB91870-V-J-JE1 |
| 013 | D2300 | X | MA8068 MA8068-M | X | X | X | MA8068 MA8068-M |
| 014 | D1900 | X | MA8068 MA8068-M | X | X | X | MA8068 MA8068-M |
| 015 | D1100 | X | UPA2712T1J UPA2712T1J | X | X | X | UPA2712T1J UPA2712T1J |
| 016 | D1101 | X | UPA2712T1J UPA2712T1J | X | X | X | UPA2712T1J UPA2712T1J |
| 017 | D1803 D1807 | X | HP-4010 4D | X | X | X | HP-4010 4D |
| 018 | D1809 | X | HP-4004T 4 TH | X | X | X | HP-4004T 4 TH |
| 019 | IK200 IK201 | X | VS-6057S VS-6057S-10APE | VS-6057S VS-6057S-10APE | VS-6057S VS-6057S-10APE | X | X |
| 020 | D1070 | X | VS-6056S VS-6056S-10APE | VS-6057S VS-6057S-10APE | VS-6056S VS-6056S-10APE | X | X |
| 021 | D1090 | X | UPA2001T1J UPA2001T1J | UPA2001T1J UPA2001T1J | UPA2001T1J UPA2001T1J | X | X |
| 022 | D1202 D1203 D1204 D1205 | X | MA8056 MA8056 | MA8056 MA8056 | MA8056 MA8056 | X | X |
| 023 | D1070 | X | 4SS52F 4SS52F | 4SS52F 4SS52F | 4SS52F 4SS52F | X | X |
| 024 | D1080 | X | UHD402 4-01 | UHD402 4-01 | UHD402 4-01 | X | X |
| 025 | D1010 | X | HP-4004T 4 TH | HP-4004T 4 TH | HP-4004T 4 TH | X | X |
| 026 | D1015 | X | HP-4010T 4T | HP-4010T 4T | HP-4010T 4T | X | X |
| 027 | D1017 | X | HP-4002D 2DA | HP-4002D 2DA | HP-4002D 2DA | X | X |
| 028 | D113 | MA10007 | X | X | X | X | X |

Interchangeable Parts at Manufacture-Stage

| Mark | Reference Parts Number | Parts Name |
|---|---|---|
| N1 | D1000~1010, 1030~1038 1050~1057, 1060~1068, 1070 1547, 1548, 1560~1568 1600, 1607~1608 | MA8068 MA8068 MA8068 MA8068 |

RESISTOR

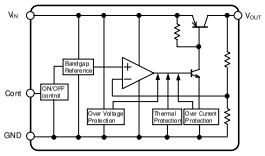
| REMARKS | PARTS NAME |
|---|---|
| NO MARK | CARBON FILM RESISTOR (5%) |
| NO MARK | CARBON FILM RESISTOR (1%) |
| ▲ | METAL OXIDE FILM RESISTOR |
| △ | METAL FILM RESISTOR |
| ◇ | METAL PLATE RESISTOR |
| ◆ | FINE PROOF CARBON FILM RESISTOR |
| ○ | CEMENT MOLDED RESISTOR |
| ● | MINI VARIABLE RESISTOR |
| ■ | CHIP RESISTOR |

CAPACITOR

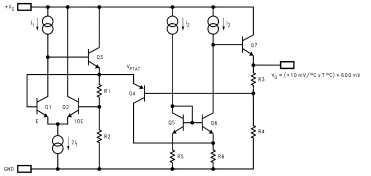
| REMARKS | PARTS NAME | |
|---|---|---|
| NO MARK | ELECTROLYTIC CAPACITOR | |
| ▲ | TANTALUM CAPACITOR | |
| NO MARK | CERAMIC CAPACITOR | |
| ● | CERAMIC TUBULAR CAPACITOR | |
| ● | POLYESTER FILM CAPACITOR | |
| ○ | POLYSTYRENE FILM CAPACITOR | |
| ◇ | MICA CAPACITOR | |
| ◆ | POLYPROPYLENE FILM CAPACITOR | |
| ■ | SEMICONDUCTIVE CERAMIC CAPACITOR | |

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

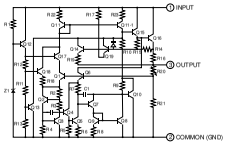
**IC100, 102, 106**: NJM2388F05
Low dropout voltage regulator with ON/OFF control



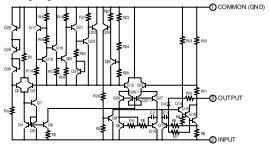

**IC101**: LM61CIZ
Temperature sensor



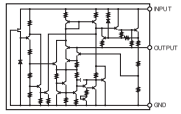
**IC104**: KIA7812API
Voltage regulator




**IC105**: KIA7912PI
Voltage regulator



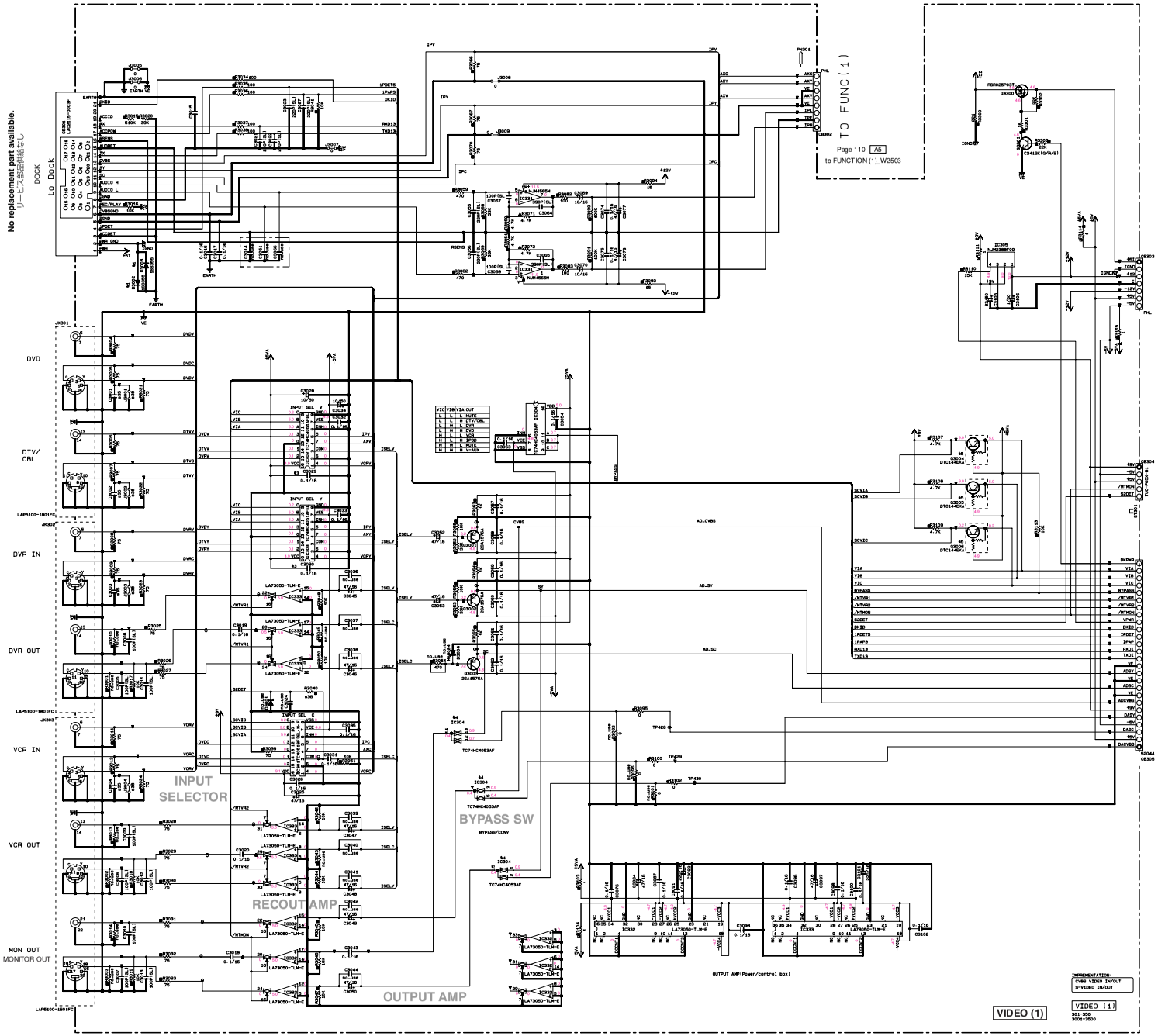

**IC110**: NJM7805FA
3-terminal positive voltage regulator




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

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# VIDEO 1/2




Interchangeable Parts at Manufacture-Stage

| Mark | Reference Parts Number | Parts Name |
|---|---|---|
| &1 | D3003-3003-3502-3504 3506 | 1SS355 MA3J116DL K28160-RTK/P |
| &2 | IC303 | TC74HC4052AF(EL-F) MM74HC4052BJK-NL |
| &3 | IC302-303 | TC74HC4051AFEL MM74HC4051BJK-NL |
| &4 | IC304 | TC74HC4053AF(EL-F) MM74HC4053BJK-NL |
| &5 | Q3004-3006 | DTC144EKA KRC104S-RTK/P |
| &6 | Q3501 | KRC102S-RTK/P DTC114EKA |

Destination Part List

| AXX | LOC | J | UCRTKA5BEFL |
|---|---|---|---|
| &35 | C3004 C3006 C3501 C3502 | UB13510 0.1/16 | X |
| &36 | R3040 | RD3B510 16 | X |
| &38 | J3002 J3003 J3005 | X | RD3B000 0 |

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

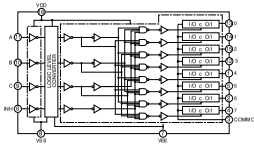
RESISTOR

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

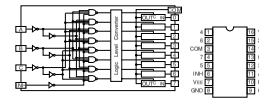
CAPACITOR

| REMARKS | PARTS NAME | |
|---|---|---|
| NO MARK | ELECTROLYTIC CAPACITOR | ‡‡ |
| ⊗ | TANTALUM CAPACITOR | |
| NO MARK | CERAMIC CAPACITOR | ‡ |
| ◉ | CERAMIC TUBULAR CAPACITOR | |
| ⊗ | POLYESTER FILM CAPACITOR | |
| ○ | POLYSTYRENE FILM CAPACITOR | |
| ⓘ | MICA CAPACITOR | |
| ⊛ | POLYPROPYLENE FILM CAPACITOR | |
| ● | SEMICONDUCTIVE CERAMIC CAPACITOR | |

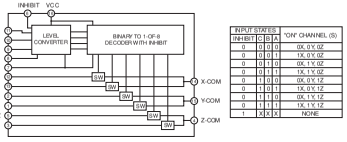
**IC301**: TC4051BF
Multiplexer/demultiplexer



**IC302, 303**: TC74HC4051AFEL
8-channel analog multiplexer/demultiplexer

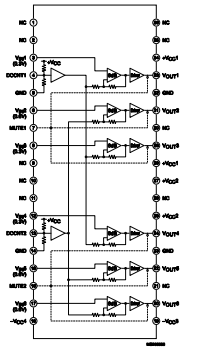


**IC304**: TC74HC4053AF
Analog multiplexer/demultiplexer

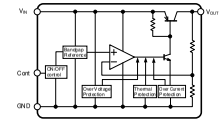


| INPUT STATES | | | "ON" CHANNEL (S) |
|---|---|---|---|
| INHIBIT | C | B | A | |
| 0 | 0 | 0 | 0 | 0X, 0Y, 0Z |
| 0 | 0 | 0 | 1 | 1X, 0Y, 0Z |
| 0 | 0 | 1 | 0 | 0X, 1Y, 0Z |
| 0 | 0 | 1 | 1 | 1X, 1Y, 0Z |
| 0 | 1 | 0 | 0 | 0X, 0Y, 1Z |
| 0 | 1 | 0 | 1 | 1X, 0Y, 1Z |
| 0 | 1 | 1 | 0 | 0X, 1Y, 1Z |
| 0 | 1 | 1 | 1 | 1X, 1Y, 1Z |
| 1 | X | X | X | NONE |

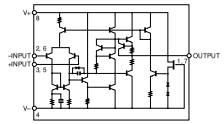
**IC332, 333**: LA73050-TLM-E
6-channel 75-ohm video driver



**IC305**: NJM2388F09
Low dropout voltage regulator with ON/OFF control



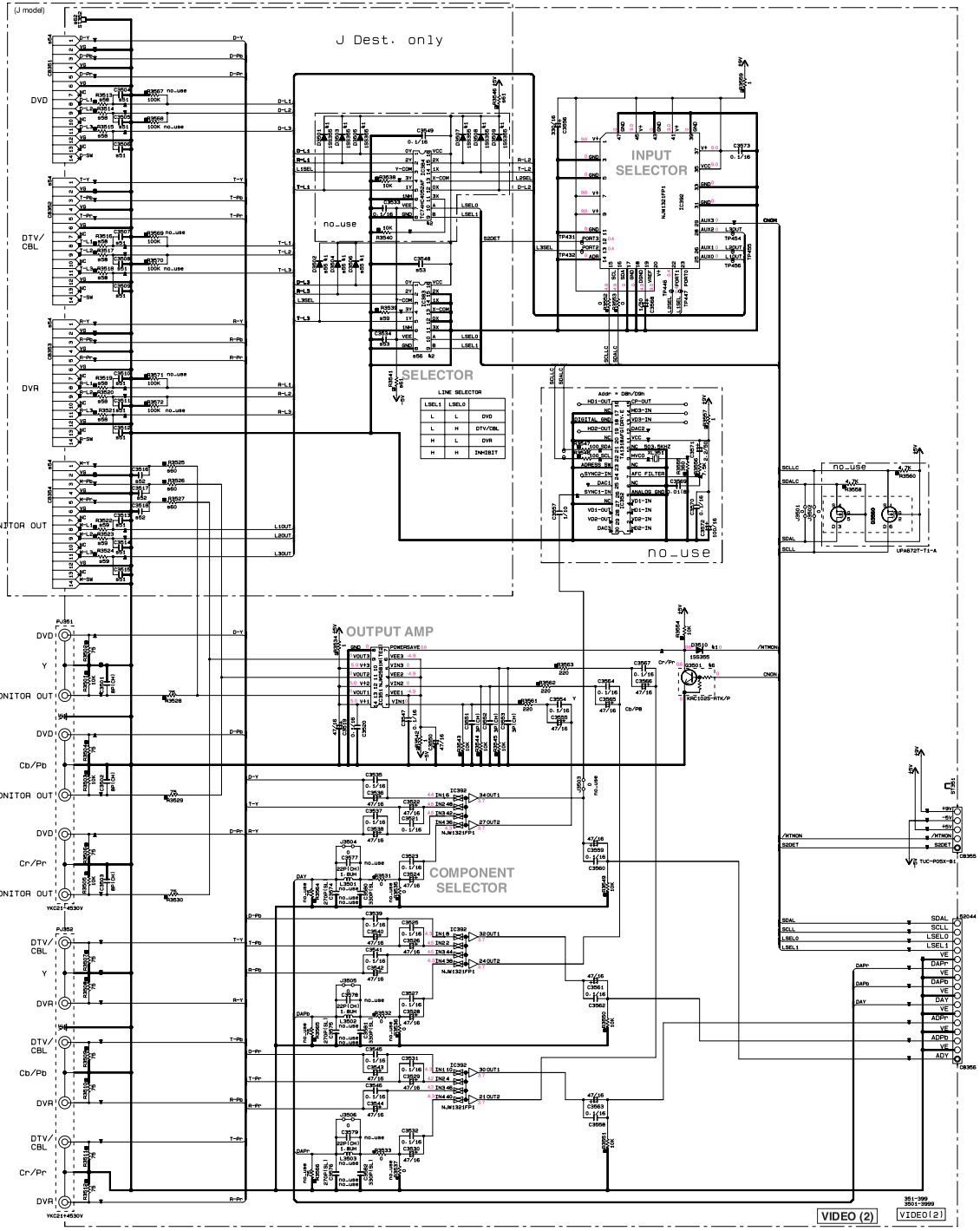
**IC331**: NJM4565M
Dual operational amplifier



★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.
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## VIDEO 2/2




TO FUNC(6)
Page 111 C5
to FUNCTION (6)_CB297

TO DIGITAL
Page 109 G2
to DIGITAL_CB81

Destination Part List

| sXX | LOC | ∴ | UORTKA88EPL |
|---|---|---|---|
| s51 | C3513<br>C3514<br>C3515<br>C3516<br>C3517<br>C3524<br>C3525<br>C3526<br>C3527<br>C3528<br>C3529<br>C3530 | US06410<br>0.01/B7 | X |
| s52 | C3518<br>C3519<br>C3520<br>C3521<br>C3522<br>C3523 | US06080<br>8P/CH | X |
| s53 | C3548<br>C3549 | US13510<br>0.1/16 | X |
| s54 | CB354<br>CB353<br>CB352<br>CB351 | WD39840<br>VKF45-3011 | X |
| s55 | D3506<br>D3504<br>D3502 | VT33290 | X |
| s56 | IC383 | XS79040 | X |
| s58 | R3513<br>R3514<br>R3521<br>R3515<br>R3518<br>R3517<br>R3519<br>R3516<br>R3520 | RD39540<br>100 | X |
| s59 | R3524<br>R3523<br>R3522<br>R3525 | RD35710<br>10K | X |
| s60 | R3526<br>R3535<br>R3527 | RD35475<br>75 | X |
| s61 | R3541<br>R3546 | HV75310<br>1 | X |
| s62 | ST352 | X | V404050 |

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

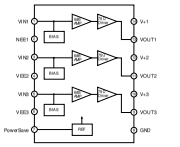
CAPACITOR

| REMARKS | PARTS NAME |
|---|---|
| NO MARK | ELECTROLYTIC CAPACITOR |
| ⊗ | TANTALUM CAPACITOR |
| NO MARK | CERAMIC CAPACITOR |
| ◉ | CERAMIC TUBULAR CAPACITOR |
| ◎ | POLYESTER FILM CAPACITOR |
| ○ | POLYSTYRENE FILM CAPACITOR |
| ① | MICA CAPACITOR |
| ⓟ | POLYPROPYLENE FILM CAPACITOR |
| ● | SEMICONDUCTIVE CERAMIC CAPACITOR |

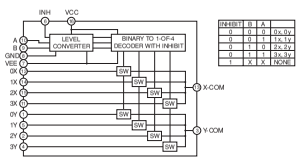
RESISTOR

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

**IC351**: NJM2581M
Video amplifier

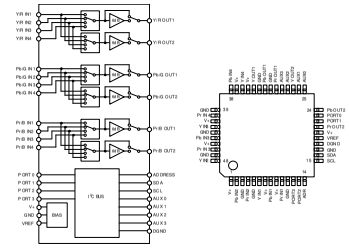


**IC383**: TC74HC4052AF
Analog multiplexer/demultiplexer



| INHIBIT | B | A | |
|---|---|---|---|
| 0 | 0 | 0 | 0x, 0y |
| 0 | 0 | 1 | 1x, 1y |
| 0 | 1 | 0 | 2x, 2y |
| 0 | 1 | 1 | 3x, 3y |
| 1 | X | X | NONE |

**IC392**: NJW1321FP1
Wide band video switch with I²C bus



★ All voltages are measured with a 10MΩ/V DC electronic voltmeter.
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★ Schematic diagram is subject to change without notice.

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

# ■ REPLACEMENT PARTS LIST

## • ELECTRICAL COMPONENT PARTS

### WARNING

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

## P.C.B. DIGITAL

| | Ref No. | Part No. | Description | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|
| * | | WN252300 | P.C.B. DIGITAL | 763 | J | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | | WN252400 | P.C.B. DIGITAL | 663 | U | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | | WN254200 | P.C.B. DIGITAL | 6160 | U | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | | WN252400 | P.C.B. DIGITAL | 663 | C | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | | WN254300 | P.C.B. DIGITAL | 6160 | C | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | | WN253000 | P.C.B. DIGITAL | 663 | R | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | | WN253100 | P.C.B. DIGITAL | 663 | T | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | | WN253200 | P.C.B. DIGITAL | 663 | K | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | | WN253300 | P.C.B. DIGITAL | 663 | A | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | | WN253400 | P.C.B. DIGITAL | 763 | B | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | | WN254000 | P.C.B. DIGITAL | 663 | GEF | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | | WN254400 | P.C.B. DIGITAL | 6160 | F | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | | WN254100 | P.C.B. DIGITAL | 663 | L | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | CB10 | WM462600 | CN.HDMI 19P SE | | | コネクタ ＨＤＭＩ | |
| * | CB12-13 | WM462600 | CN.HDMI 19P SE | | | コネクタ ＨＤＭＩ | |
| | CB14 | WA014300 | CN 7P SE FMN | | J | ＦＭＮコネクター | |
| | CB30 | VN520900 | CN.BS.PIN 52045 26P TE | | | ＦＦＣコネクター | |
| | CB31 | VB389600 | CN.BS.PIN 11P | | | コネクタベースポスト | |
| | CB32 | VB858400 | CN.BS.PIN 5P | | | ベースピン | |
| | CB33 | VB858500 | CN.BS.PIN 6P | | | ベースピン | |
| | CB34 | VP127700 | CN 24P | | | コネクター | |
| | CB36 | VQ044400 | CN.BS.PIN 9P | | | ＦＦＣコネクター | |
| | CB38 | VB389800 | CN.BS.PIN 2P | | | ベースピン | |
| * | CB41 | WJ458700 | CN.XM 4P, CAM-D96 | | UC | ＸＭコネクタ | |
| | CB46 | VB858200 | CN.BS.PIN 3P | | | ベースピン | |
| | CB61 | VP082900 | CN.BS.PIN 25P | | | ＦＦＣコネクター | |
| | CB62 | VB858800 | CN.BS.PIN 9P | | | ベースピン | |
| | CB63 | VB858300 | CN.BS.PIN 4P | | | コネクタベースポスト | |
| | CB80 | VN520900 | CN.BS.PIN 52045 26P TE | | | ＦＦＣコネクター | |
| | CB81 | VM859700 | CN.BS.PIN 16P | | | ＦＦＣコネクター | |
| | CB82 | LB919050 | CN.BS.PIN 5P | | | ベース付ポスト | |
| | C100 | WD758300 | C.CE.CHP 10uF 10V | | | チップセラコン | |
| | C101-103 | US135100 | C.CE.CHP 0.1uF 16V | | | チップセラコン | |
| | C104-105 | WD758300 | C.CE.CHP 10uF 10V | | | チップセラコン | |
| | C106 | US063100 | C.CE.CHP 1000pF 50V B | | | チップセラコン | |
| | C107 | WD758300 | C.CE.CHP 10uF 10V | | | チップセラコン | |
| | C108-115 | US135100 | C.CE.CHP 0.1uF 16V | | | チップセラコン | |
| | C116 | WD758300 | C.CE.CHP 10uF 10V | | | チップセラコン | |
| | C117 | US135100 | C.CE.CHP 0.1uF 16V | | | チップセラコン | |
| | C118 | WD758300 | C.CE.CHP 10uF 10V | | | チップセラコン | |
| | C119 | US135100 | C.CE.CHP 0.1uF 16V | | | チップセラコン | |
| | C120 | WD758300 | C.CE.CHP 10uF 10V | | | チップセラコン | |
| | C121-122 | US135100 | C.CE.CHP 0.1uF 16V | | | チップセラコン | |
| | C124 | US135100 | C.CE.CHP 0.1uF 16V | | | チップセラコン | |
| | C125-126 | US061150 | C.CE.CHP 15pF 50V B | | | チップセラコン | |
| | C127 | US135100 | C.CE.CHP 0.1uF 16V | | | チップセラコン | |
| | C129 | WD758300 | C.CE.CHP 10uF 10V | | | チップセラコン | |
| | C130-134 | US135100 | C.CE.CHP 0.1uF 16V | | | チップセラコン | |
| | C135-138 | US061100 | C.CE.CHP 10pF 50V B | | | チップセラコン | |
| | C139-144 | US135100 | C.CE.CHP 0.1uF 16V | | | チップセラコン | |
| | C145 | WD758300 | C.CE.CHP 10uF 10V | | | チップセラコン | |
| | C146 | US063100 | C.CE.CHP 1000pF 50V B | | | チップセラコン | |
| | C147-149 | US135100 | C.CE.CHP 0.1uF 16V | | | チップセラコン | |
| | C150 | US063100 | C.CE.CHP 1000pF 50V B | | | チップセラコン | |
| | C151-157 | US135100 | C.CE.CHP 0.1uF 16V | | | チップセラコン | |

※ New Parts ＊新規部品

## P.C.B. DIGITAL

| Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|
| C158 | US063100 | C.CE.CHP | 1000pF 50V B | | | チップセラコン | |
| C159-160 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C161-166 | US061100 | C.CE.CHP | 10pF 50V B | | | チップセラコン | |
| C167-168 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C169-170 | US061100 | C.CE.CHP | 10pF 50V B | | | チップセラコン | |
| C171 | US063100 | C.CE.CHP | 1000pF 50V B | | | チップセラコン | |
| C172 | US061100 | C.CE.CHP | 10pF 50V B | | | チップセラコン | |
| C173-175 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C176 | WD758300 | C.CE.CHP | 10uF 10V | | | チップセラコン | |
| C177-178 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C179-180 | WD758300 | C.CE.CHP | 10uF 10V | | | チップセラコン | |
| C181-182 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C183 | WD758300 | C.CE.CHP | 10uF 10V | | | チップセラコン | |
| C184-188 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C189 | WD758300 | C.CE.CHP | 10uF 10V | | | チップセラコン | |
| C190 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C191 | US064100 | C.CE.CHP | 0.01uF 50V B | | | チップセラコン | |
| C194 | UR837220 | C.EL | 22uF 16V | | | ケミコン | |
| C196 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C197-198 | V5333500 | C.CE.CHP | 10uF 6.3V | | | チップセラコン | |
| C199 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C200 | UR837100 | C.EL | 10uF 16V | | | ケミコン | |
| C202 | UR837220 | C.EL | 22uF 16V | | | ケミコン | |
| C204 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C206 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C208 | UR837100 | C.EL | 10uF 16V | | | ケミコン | |
| C211 | UF037100 | C.EL.CHP | 10uF 16V | | J | チップケミコン | |
| C212 | US064100 | C.CE.CHP | 0.01uF 50V B | | J | チップセラコン | |
| C214-215 | US135100 | C.CE.CHP | 0.1uF 16V | | J | チップセラコン | |
| C216 | US126100 | C.CE.CHP | 1uF 10V | | J | チップセラコン | |
| C217 | US064100 | C.CE.CHP | 0.01uF 50V B | | J | チップセラコン | |
| C218 | US126100 | C.CE.CHP | 1uF 10V | | J | チップセラコン | |
| C222-223 | US135100 | C.CE.CHP | 0.1uF 16V | | J | チップセラコン | |
| C225-226 | US135100 | C.CE.CHP | 0.1uF 16V | | J | チップセラコン | |
| C229-248 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C300 | UR837330 | C.EL | 33uF 16V | | | ケミコン | |
| C301 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C302-303 | US064100 | C.CE.CHP | 0.01uF 50V B | | | チップセラコン | |
| C306-311 | US064100 | C.CE.CHP | 0.01uF 50V B | | | チップセラコン | |
| C313 | US064100 | C.CE.CHP | 0.01uF 50V B | | | チップセラコン | |
| C314-315 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C316 | US064100 | C.CE.CHP | 0.01uF 50V B | | | チップセラコン | |
| C317-321 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C322-328 | US063100 | C.CE.CHP | 1000pF 50V B | | | チップセラコン | |
| C329 | US062220 | C.CE.CHP | 220pF 50V B | | | チップセラコン | |
| C330 | US063100 | C.CE.CHP | 1000pF 50V B | | | チップセラコン | |
| C331 | US062220 | C.CE.CHP | 220pF 50V B | | | チップセラコン | |
| C332 | UR237470 | C.EL | 47uF 16V | | JRTKABGEFL | ケミコン | |
| C332 | UR267100 | C.EL | 10uF 50V | | UC | ケミコン | |
| C333 | UR237470 | C.EL | 47uF 16V | | | ケミコン | |
| C334 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C335 | UR218220 | C.EL | 220uF 6.3V | | | ケミコン | |
| C336 | WB165500 | C.EL | 0.33F 5.5V | | | ゴールドキャパシタ | |
| C337 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| C338 | UR218330 | C.EL | 330uF 6.3V | | | ケミコン | |

✻ New Parts ＊新規部品

## P.C.B. DIGITAL

| Ref No. | Part No. | Description | | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| C339 | UR218220 | C.EL | 220uF | 6.3V | | | ケミコン | |
| C340 | US063100 | C.CE.CHP | 1000pF | 50V B | | | チップセラコン | |
| C341 | US062220 | C.CE.CHP | 220pF | 50V B | | | チップセラコン | |
| C342 | US063100 | C.CE.CHP | 1000pF | 50V B | | | チップセラコン | |
| C343 | US062220 | C.CE.CHP | 220pF | 50V B | | | チップセラコン | |
| C344 | US063100 | C.CE.CHP | 1000pF | 50V B | | | チップセラコン | |
| C345-347 | US062100 | C.CE.CHP | 100pF | 50V B | | | チップセラコン | |
| C349 | US046100 | C.CE.CHP | 1uF | 25V | 663 | UCRTKAGEFL | チップセラコン | |
| C349 | US046100 | C.CE.CHP | 1uF | 25V | 6160 | UF | チップセラコン | |
| C350 | US046100 | C.CE.CHP | 1uF | 25V | | | チップセラコン | |
| C350-351 | US046100 | C.CE.CHP | 1uF | 25V | | | チップセラコン | |
| C351-352 | US046100 | C.CE.CHP | 1uF | 25V | | | チップセラコン | |
| C352-353 | US046100 | C.CE.CHP | 1uF | 25V | | | チップセラコン | |
| C353-354 | US046100 | C.CE.CHP | 1uF | 25V | | | チップセラコン | |
| C354-355 | US046100 | C.CE.CHP | 1uF | 25V | | | チップセラコン | |
| C355 | US046100 | C.CE.CHP | 1uF | 25V | | | チップセラコン | |
| C356 | US063100 | C.CE.CHP | 1000pF | 50V B | | | チップセラコン | |
| C357 | US062100 | C.CE.CHP | 100pF | 50V B | | | チップセラコン | |
| C359-360 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C361-369 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C401-402 | US061220 | C.CE.CHP | 22pF | 50V B | | | チップセラコン | |
| C403 | US135100 | C.CE.CHP | 0.1uF | 16V | 763, 663 | JRTKABGEFL | チップセラコン | |
| C403 | US135100 | C.CE.CHP | 0.1uF | 16V | 6160 | F | チップセラコン | |
| C404 | US135100 | C.CE.CHP | 0.1uF | 16V | 763, 663 | JRTKABGEFL | チップセラコン | |
| C404 | US135100 | C.CE.CHP | 0.1uF | 16V | 6160 | F | チップセラコン | |
| C405-406 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C409-410 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C411-412 | US062220 | C.CE.CHP | 220pF | 50V B | | UC | チップセラコン | |
| C413 | UR067470 | C.EL | 47uF | 50V | | | ケミコン | |
| C416 | US061100 | C.CE.CHP | 10pF | 50V B | | UC | チップセラコン | |
| C417-418 | US035100 | C.CE.CHP | 0.1uF | 16V B | | UC | チップセラコン | |
| C419 | US062220 | C.CE.CHP | 220pF | 50V B | | UC | チップセラコン | |
| C420 | US061100 | C.CE.CHP | 10pF | 50V B | | UC | チップセラコン | |
| C421 | US062220 | C.CE.CHP | 220pF | 50V B | | UC | チップセラコン | |
| C422 | US063100 | C.CE.CHP | 1000pF | 50V B | | UC | チップセラコン | |
| C423 | US035100 | C.CE.CHP | 0.1uF | 16V B | | UC | チップセラコン | |
| C424 | US135100 | C.CE.CHP | 0.1uF | 16V | | UC | チップセラコン | |
| C425 | US062220 | C.CE.CHP | 220pF | 50V B | | UC | チップセラコン | |
| C426 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C427 | US062220 | C.CE.CHP | 220pF | 50V B | | UC | チップセラコン | |
| C428 | UR238100 | C.EL | 100uF | 16V | | | ケミコン | |
| C430-431 | US062220 | C.CE.CHP | 220pF | 50V B | | UC | チップセラコン | |
| C434-435 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C436 | US035100 | C.CE.CHP | 0.1uF | 16V B | | | チップセラコン | |
| C437 | US135100 | C.CE.CHP | 0.1uF | 16V | | UC | チップセラコン | |
| C438 | WJ343900 | C.CE.CHP | 0.33uF | 10V | | | チップセラコン | |
| C439 | UR837100 | C.EL | 10uF | 16V | | UC | ケミコン | |
| C440 | US044220 | C.CE.CHP | 0.022uF | 25V B | | | チップセラコン | |
| C441 | US135100 | C.CE.CHP | 0.1uF | 16V | | UC | チップセラコン | |
| C442-444 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C445 | US062100 | C.CE.CHP | 100pF | 50V B | | | チップセラコン | |
| C446 | UR067470 | C.EL | 47uF | 50V | | | ケミコン | |
| C447-448 | US135100 | C.CE.CHP | 0.1uF | 16V | | UC | チップセラコン | |
| C449 | US062100 | C.CE.CHP | 100pF | 50V B | | | チップセラコン | |
| C450 | UR067470 | C.EL | 47uF | 50V | | | ケミコン | |

※ New Parts ＊新規部品

## P.C.B. DIGITAL

| Ref No. | Part No. | Description | | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| C451-452 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C453-454 | US060800 | C.CE.CHP | 8pF | 50V B | | | チップセラコン | |
| C455 | US062100 | C.CE.CHP | 100pF | 50V B | | | チップセラコン | |
| C456 | UU297220 | C.EL | 22uF | 100V | | | ケミコン | |
| C457 | UR837100 | C.EL | 10uF | 16V | | UC | ケミコン | |
| C458 | UU297220 | C.EL | 22uF | 100V | | | ケミコン | |
| C460 | UR067100 | C.EL | 10uF | 50V | | | ケミコン | |
| C461 | US126100 | C.CE.CHP | 1uF | 10V | | | チップセラコン | |
| C462-470 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C472-475 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C477 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C478 | WG251600 | C.CE.CHP | 4.7uF | 6.3V | | | チップセラコン | |
| C479-483 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C484 | WG251600 | C.CE.CHP | 4.7uF | 6.3V | | | チップセラコン | |
| C485 | UR219100 | C.EL | 1000uF | 6.3V | | | ケミコン | |
| C486 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C487 | US062680 | C.CE.CHP | 680pF | 50V B | | | チップセラコン | |
| C488 | UR267470 | C.EL | 47uF | 50V | | | ケミコン | |
| C489 | WG251600 | C.CE.CHP | 4.7uF | 6.3V | | | チップセラコン | |
| C490-493 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C494 | UR067470 | C.EL | 47uF | 50V | | | ケミコン | |
| C495-502 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C503 | US135100 | C.CE.CHP | 0.1uF | 16V | | UC | チップセラコン | |
| C504-505 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C506 | US135100 | C.CE.CHP | 0.1uF | 16V | | UC | チップセラコン | |
| C507-508 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C509-510 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C516 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C517 | UR067470 | C.EL | 47uF | 50V | | | ケミコン | |
| C518 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C519 | US063100 | C.CE.CHP | 1000pF | 50V B | | | チップセラコン | |
| C520-521 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C522-524 | US063100 | C.CE.CHP | 1000pF | 50V B | | | チップセラコン | |
| C525-526 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C527-529 | US063100 | C.CE.CHP | 1000pF | 50V B | | | チップセラコン | |
| C530-532 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C544-577 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C579-584 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C602 | US064100 | C.CE.CHP | 0.01uF | 50V B | 663 | UC | チップセラコン | |
| C602 | US064100 | C.CE.CHP | 0.01uF | 50V B | 6160 | U | チップセラコン | |
| C603-606 | US061470 | C.CE.CHP | 47pF | 50V B | | | チップセラコン | |
| C607 | UR237100 | C.EL | 10uF | 16V | 663 | UC | ケミコン | |
| C607 | UR237100 | C.EL | 10uF | 16V | 6160 | U | ケミコン | |
| C608 | US135100 | C.CE.CHP | 0.1uF | 16V | 663 | UC | チップセラコン | |
| C608 | US135100 | C.CE.CHP | 0.1uF | 16V | 6160 | U | チップセラコン | |
| C609 | UR218100 | C.EL | 100uF | 6.3V | 663 | UC | ケミコン | |
| C609 | UR218100 | C.EL | 100uF | 6.3V | 6160 | U | ケミコン | |
| C610 | UR067100 | C.EL | 10uF | 50V | | | ケミコン | |
| C611-612 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C613 | UR837470 | C.EL | 47uF | 16V | 663 | UC | ケミコン | |
| C613 | UR837470 | C.EL | 47uF | 16V | 6160 | U | ケミコン | |
| C614 | UR837470 | C.EL | 47uF | 16V | 663 | UC | ケミコン | |
| C614 | UR837470 | C.EL | 47uF | 16V | 6160 | U | ケミコン | |
| C615 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C616 | US163100 | C.CE.CHP | 1000pF | 50V | 663 | UC | チップセラコン | |

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| Ref No. | Part No. | Description | | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| C616 | US163100 | C.CE.CHP | 1000pF | 50V | 6160 | U | チップセラコン | |
| C617 | US163100 | C.CE.CHP | 1000pF | 50V | 663 | UC | チップセラコン | |
| C617 | US163100 | C.CE.CHP | 1000pF | 50V | 6160 | U | チップセラコン | |
| C618-621 | US061470 | C.CE.CHP | 47pF | 50V B | | | チップセラコン | |
| C622 | US163100 | C.CE.CHP | 1000pF | 50V | 663 | UC | チップセラコン | |
| C622 | US163100 | C.CE.CHP | 1000pF | 50V | 6160 | U | チップセラコン | |
| C623 | US163100 | C.CE.CHP | 1000pF | 50V | 663 | UC | チップセラコン | |
| C623 | US163100 | C.CE.CHP | 1000pF | 50V | 6160 | U | チップセラコン | |
| C624-627 | US061470 | C.CE.CHP | 47pF | 50V B | | | チップセラコン | |
| C628-630 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C632 | UR067100 | C.EL | 10uF | 50V | | | ケミコン | |
| C633 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C634 | US126100 | C.CE.CHP | 1uF | 10V | | | チップセラコン | |
| C635-636 | US062100 | C.CE.CHP | 100pF | 50V B | | | チップセラコン | |
| C639 | US135100 | C.CE.CHP | 0.1uF | 16V | 663 | UC | チップセラコン | |
| C639 | US135100 | C.CE.CHP | 0.1uF | 16V | 6160 | U | チップセラコン | |
| C640 | US135100 | C.CE.CHP | 0.1uF | 16V | 663 | UC | チップセラコン | |
| C640 | US135100 | C.CE.CHP | 0.1uF | 16V | 6160 | U | チップセラコン | |
| C641 | UR067100 | C.EL | 10uF | 50V | | | ケミコン | |
| C642 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C643 | UR067100 | C.EL | 10uF | 50V | | | ケミコン | |
| C644-645 | US126100 | C.CE.CHP | 1uF | 10V | | | チップセラコン | |
| C646-649 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C650 | UR348100 | C.EL | 100uF | 25V | | | ケミコン | |
| C651 | UR067100 | C.EL | 10uF | 50V | | | ケミコン | |
| C652-654 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C655 | WK041800 | C.EL | 10uF | 16V | | | ケミコン | |
| C656 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C657 | UR067100 | C.EL | 10uF | 50V | | | ケミコン | |
| C658-659 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C660-663 | UR267100 | C.EL | 10uF | 50V | | | ケミコン | |
| C664-665 | UF037100 | C.EL.CHP | 10uF | 16V | | | チップケミコン | |
| C666-667 | UA654100 | C.MYLAR | 0.01uF | 50V J | | | マイラーコン | |
| C668-669 | UA652470 | C.MYLAR | 470pF | 50V J | | | マイラーコン | |
| C670-671 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C672 | UA654470 | C.MYLAR | 0.047uF | 50V J | | | マイラーコン | |
| C673-677 | UA652680 | C.MYLAR | 680pF | 50V J | | | マイラーコン | |
| C678-679 | UR067100 | C.EL | 10uF | 50V | | | ケミコン | |
| C680-683 | UA652150 | C.MYLAR | 150pF | 50V J | | | マイラーコン | |
| C684 | UA652100 | C.MYLAR | 100pF | 50V J | | | マイラーコン | |
| C685 | UA653680 | C.MYLAR | 6800pF | 50V J | | | マイラーコン | |
| C686-689 | UA652100 | C.MYLAR | 100pF | 50V J | | | マイラーコン | |
| C690-691 | UR267100 | C.EL | 10uF | 50V | | | ケミコン | |
| C692-707 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C708-709 | UR067470 | C.EL | 47uF | 50V | | | ケミコン | |
| C710-711 | UR267470 | C.EL | 47uF | 50V | | | ケミコン | |
| C716-717 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C800-801 | UR237470 | C.EL | 47uF | 16V | | | ケミコン | |
| C802-803 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C804 | US060800 | C.CE.CHP | 8pF | 50V B | | JUCRK | チップセラコン | |
| C804 | US060300 | C.CE.CHP | 3pF | 50V B | | TABGEFL | チップセラコン | |
| C805 | US061100 | C.CE.CHP | 10pF | 50V B | | JUCRK | チップセラコン | |
| C805 | US060400 | C.CE.CHP | 4pF | 50V B | | TABGEFL | チップセラコン | |
| C806 | US060500 | C.CE.CHP | 5pF | 50V B | | JUCRK | チップセラコン | |
| C806 | US060300 | C.CE.CHP | 3pF | 50V B | | TABGEFL | チップセラコン | |

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| Ref No. | Part No. | Description | | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| C807 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C808-809 | US061240 | C.CE.CHP | 24pF | 50V B | | | チップセラコン | |
| C810-814 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C815-816 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C817 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C818-819 | WD758300 | C.CE.CHP | 10uF | 10V | | | チップセラコン | |
| C820-821 | UR837100 | C.EL | 10uF | 16V | | | ケミコン | |
| C822-823 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C824-825 | WD758300 | C.CE.CHP | 10uF | 10V | | | チップセラコン | |
| C826-827 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C828-829 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C830-831 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | |
| C832 | US062120 | C.CE.CHP | 120pF | 50V B | | | チップセラコン | |
| C833 | US061220 | C.CE.CHP | 22pF | 50V B | | | チップセラコン | |
| C834-836 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C837 | US062220 | C.CE.CHP | 220pF | 50V B | | | チップセラコン | |
| C838 | US062560 | C.CE.CHP | 560pF | 50V B | | | チップセラコン | |
| C839 | US034390 | C.CE.CHP | 0.039uF | 16V B | | | チップセラコン | |
| C840-841 | US063100 | C.CE.CHP | 1000pF | 50V B | | | チップセラコン | |
| C842-847 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C848 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C849 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C850 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C851 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C852 | VZ243400 | C.CE.CHP | 0.33uF | 16V | | | チップセラコン | |
| C853-854 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C855 | UR218470 | C.EL | 470uF | 6.3V | | | ケミコン | |
| C856 | VZ281900 | C.CE.CHP | 0.47uF | 16V K | | | チップセラ | |
| C857 | US034820 | C.CE.CHP | 0.082uF | 16V K | | | チップセラコン | |
| C858 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C859 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C860 | US060800 | C.CE.CHP | 8pF | 50V B | | | チップセラコン | |
| C861 | UR837100 | C.EL | 10uF | 16V | | | ケミコン | |
| C862 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C863 | US060700 | C.CE.CHP | 7pF | 50V B | | | チップセラコン | |
| C865-867 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C872-873 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C875-876 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C879 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C881 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C883 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C890 | US062100 | C.CE.CHP | 100pF | 50V B | | | チップセラコン | |
| C891 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C895 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C897 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C898 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C899-900 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C902 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C908 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C910 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C912 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | |
| C913 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | |
| C918-920 | UR237220 | C.EL | 22uF | 16V | | | ケミコン | |
| C922-923 | UR237220 | C.EL | 22uF | 16V | | | ケミコン | |
| C931-932 | UR837220 | C.EL | 22uF | 16V | | | ケミコン | |

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| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| | C933 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| | C935 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| | C937 | UR837100 | C.EL | 10uF 16V | | | ケミコン | |
| | C940 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| | C942-944 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| | C946-974 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| | C976-982 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| | C984-992 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | |
| | D108-110 | WE674800 | DIODE | AVRL161A1R1NTB | | | チップバリスタ | |
| | D111 | VV220700 | DIODE.SHOT | RB501V-40 | | | ショットキーダイオード | |
| | D112 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D126 | WE674800 | DIODE | AVRL161A1R1NTB | | | チップバリスタ | |
| | D127-134 | WH641900 | ESD | PESD0603-140 | | | ポリマーＥＳＤ | |
| | D135-138 | WE674800 | DIODE | AVRL161A1R1NTB | | | チップバリスタ | |
| | D139-146 | WH641900 | ESD | PESD0603-140 | | | ポリマーＥＳＤ | |
| | D147-149 | WE674800 | DIODE | AVRL161A1R1NTB | | | チップバリスタ | |
| | D150 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D152-154 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D156 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D159 | VV307700 | DIODE | 1N4002S | | | ダイオード | |
| | D160 | V2376600 | DIODE.SHOT | RB500V-40 | | J | ショットキーダイオード | |
| | D162 | VT332900 | DIODE | 1SS355 | | J | ダイオード | |
| | D300 | VT332900 | DIODE | 1SS355 | 6160 | | ダイオード | |
| | D301-305 | VU992600 | DIODE.ZENR | MA8051-M 5.1V | | | ツェナーダイオード | |
| | D306 | V8960900 | DIODE.ZENR | MA8024-(TX) 2.4V | | R | ツェナーダイオード | |
| | D307 | VT332900 | DIODE | 1SS355 | | R | ダイオード | |
| | D309-310 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D311 | VV833200 | DIODE | 1SS380 | | | ダイオード | |
| | D312-314 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D316 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D317-318 | VV220700 | DIODE.SHOT | RB501V-40 | | J | ショットキーダイオード | |
| | D401-403 | WE674800 | DIODE | AVRL161A1R1NTB | | UC | チップバリスタ | |
| | D409 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D411 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D601 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D603-606 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D607-610 | WB081800 | DIODE.SHOT | SB01-05Q | | | ショットキーダイオード | |
| | D611 | VT332900 | DIODE | 1SS355 | | UC | ダイオード | |
| | D800-806 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D807 | VU990500 | DIODE.ZENR | MA8030-L 2.9V | | | ツェナーダイオード | |
| | D809 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D814 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | D820 | VT332900 | DIODE | 1SS355 | | | ダイオード | |
| | F100 | V2997600 | SW.POLY | SMDC050-02 | | | ポリスイッチ | |
| | IC11 | X7741A00 | IC | NJM2867F3-05(TE1) | | | 電源ＩＣ | |
| | IC12 | X0199B00 | IC | TC74VHC157FT(EL,K) | | | ロジックＩＣ | |
| | IC13 | XZ287A00 | IC | SN74LVC245APWR | | | ロジックＩＣ | |
| * | IC19 | X9460A00 | IC | R1172H181B-T1-F | | | 電源ＩＣ | |
| * | IC20 | X8986A00 | IC | R1232D181A-TR-F | | | ＤＣ－ＤＣコンバータ | |
| | IC21 | X8194A00 | IC | R1172H331D-T1-F | | | 電源ＩＣ | |
| * | IC24 | X9370D00 | IC.CEC | MN103SFD7GYAC CPU | written | J | ＩＣ ＣＰＵ | |
| | IC30 | X8328A00 | IC.CPU | M30878FJBGP | boot only | | ＩＣ ＣＰＵ | |
| * | IC32 | X9428A00 | IC | R1154H058B-T1-F | | | 電源ＩＣ | |
| | IC41 | X7746A00 | IC | LC89057W-VF4AD-E | | | ＩＣ | |
| * | IC42 | X8192A00 | IC | F2621E-01-TR | | UC | ＩＣ | |

※ New Parts ＊新規部品

## P.C.B. DIGITAL

| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| | IC45-46 | XV894A00 | IC | TC74VHC153FT MULTI | | | ロジックＩＣ | |
| | IC47 | X7195A00 | IC | R1172S121D-E2-F | | | 電源ＩＣ | |
| | IC48 | X8194A00 | IC | R1172H331D-T1-F | | | 電源ＩＣ | |
| * | IC49 | X9625A00 | IC | M12L64164A-5TG | | | メモリＩＣ　６４Ｍ | |
| * | IC50 | X4964B00 | IC | TC74VHC541FT(EL,K) | | | ロジックＩＣ | |
| * | IC51 | X9627A00 | IC.MEMORY | EN29LV160AB-70TCP | written | | メモリＩＣ　１６Ｍ | |
| | IC52 | XZ509A00 | IC | TC74VHCU04FT INVER | | | ロジックＩＣ | |
| * | IC54 | XZ744B00 | IC | TC74VHCT541AFT | | | ロジックＩＣ | |
| | IC55 | X0199B00 | IC | TC74VHC157FT(EL,K) | | | ロジックＩＣ | |
| * | IC56 | XV891B00 | IC | TC74VHC08FT(EL,K) | | | ロジックＩＣ | |
| | IC57 | X7378A00 | IC | NJM4565M(TE1) | | UC | アンプＩＣ | |
| | IC61 | X7375A00 | IC | PCM1781DBQR | 663 | UC | ＩＣ | |
| | IC61 | X7375A00 | IC | PCM1781DBQR | 6160 | U | ＩＣ | |
| | IC62 | X0199B00 | IC | TC74VHC157FT(EL,K) | | | ロジックＩＣ | |
| | IC63 | XS534A00 | IC | NJM78M05DL1A | | | 電源ＩＣ | |
| | IC64 | X7356A00 | IC | PCM1780DBQR | | | ＩＣ | |
| | IC65 | X7355A00 | IC | PCM1680DBQR | | | ＩＣ | |
| | IC66 | X7357A00 | IC | PCM1803DBR | | | ＩＣ | |
| | IC67 | X7378A00 | IC | NJM4565M(TE1) | | | アンプＩＣ | |
| | IC68-70 | X5482A00 | IC | NE5532DR OP AMP | | | アンプＩＣ | |
| | IC71 | X7378A00 | IC | NJM4565M(TE1) | | | アンプＩＣ | |
| | IC72 | X7378A00 | IC | NJM4565M(TE1) | 663 | UC | アンプＩＣ | |
| | IC72 | X7378A00 | IC | NJM4565M(TE1) | 6160 | U | アンプＩＣ | |
| | IC80 | X8897A00 | IC | R1172S331B-E2-F | | | 電源ＩＣ | |
| * | IC82 | X9393A00 | IC | ADV7800BSTZ-80 | | | ＩＣビデオデコーダ | |
| | IC84 | X6671A00 | IC | ADV7172KSTZ | | | ＩＣ | |
| | IC85 | X7818A00 | IC | LC74782JM-8A16-TLM | | | ＩＣ | |
| | IC86-87 | XZ509A00 | IC | TC74VHCU04FT INVER | | | ロジックＩＣ | |
| | IC89 | X8531A00 | IC | TC7WZ32FK | | | ロジックＩＣ | |
| | IC91-93 | XZ287A00 | IC | SN74LVC245APWR | | | ロジックＩＣ | |
| | IC99 | X7887A00 | IC | R1172S181B-E2-F | | | 電源ＩＣ | |
| | JK41 | VV269500 | CN | 8P DIN | | UC | 複合コネクタ | |
| | PJ41 | V5715300 | JACK.PIN | 2P OR/OR | | | ピンジャック | |
| * | PN30-31 | WN515200 | PIN | L=70 ♯20 | | | スタイルピン | |
| | Q102-104 | VQ986700 | TR | 2SC4081 T106 | | | トランジスタ | |
| | Q105 | WE834500 | FET | UPA672T-T1-A | | | ＦＥＴ | |
| | Q106 | VQ986700 | TR | 2SC4081 T106 | | | トランジスタ | |
| | Q107 | WE834500 | FET | UPA672T-T1-A | | | ＦＥＴ | |
| | Q108-109 | VV655700 | TR.DGT | DTC144EKA | | J | デジタルトランジスタ | |
| | Q110-111 | VV655700 | TR.DGT | DTC144EKA | | | デジタルトランジスタ | |
| | Q300 | VP872600 | TR | 2SA1708 S,T | | | トランジスタ | |
| | Q301 | VV655700 | TR.DGT | DTC144EKA | | | デジタルトランジスタ | |
| | Q304 | VV655300 | TR.DGT | DTA144EKA | | | デジタルトランジスタ | |
| | Q305 | VR936300 | TR | 2SA1576A T106 | 663 | UCRTKAGEFL | トランジスタ | |
| | Q305 | VR936300 | TR | 2SA1576A T106 | 6160 | UF | トランジスタ | |
| | Q306-311 | VR936300 | TR | 2SA1576A T106 | | | トランジスタ | |
| | Q313 | WH445000 | FET | 3LN01C-TB-E | | | ＦＥＴ | |
| | Q401 | VV655400 | TR.DGT | DTC114EKA | | | デジタルトランジスタ | |
| | Q402 | VD303700 | TR | 2SC3326 A,B | | | トランジスタ | |
| | Q403 | VV655200 | TR.DGT | DTA143EKA | | UC | デジタルトランジスタ | |
| | Q601 | VV655000 | TR.DGT | DTA114EKA | | UC | デジタルトランジスタ | |
| * | Q602 | WN164100 | FET | 5HN01C-TB-E | | UC | ＦＥＴ | |
| | Q603 | VV655500 | TR.DGT | DTC124EKA | | UC | デジタルトランジスタ | |
| * | Q604 | WN164100 | FET | 5HN01C-TB-E | | UC | ＦＥＴ | |
| | Q800 | VR936300 | TR | 2SA1576A T106 | | | トランジスタ | |

※ New Parts　＊ 新規部品

## P.C.B. DIGITAL and P.C.B. FUNCTION

| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| | R413 | HV753100 | R.CAR.FP | 1Ω 1/4W | 763,663 | | 不燃化カーボン抵抗 | |
| | R413 | HF353100 | R.CAR | 1Ω 1/2W | 6180 | | カーボン抵抗 | |
| | R476 | HV753100 | R.CAR.FP | 1Ω 1/4W | | | 不燃化カーボン抵抗 | |
| | R509 | V8070000 | R.MTL.FLM | 1Ω 1W | | | 金属被膜抵抗 | |
| | R521 | V8070000 | R.MTL.FLM | 1Ω 1W | | | 金属被膜抵抗 | |
| | R609 | V8070400 | R.MTL.FLM | 15Ω 1W | | | 金属被膜抵抗 | |
| | R626 | HV753100 | R.CAR.FP | 1Ω 1/4W | | | 不燃化カーボン抵抗 | |
| | R637-638 | HV753220 | R.CAR.FP | 2.2Ω 1/4W | | | 不燃化カーボン抵抗 | |
| | R800-801 | HV753100 | R.CAR.FP | 1Ω 1/4W | | | 不燃化カーボン抵抗 | |
| | R840 | HV753220 | R.CAR.FP | 2.2Ω 1/4W | | | 不燃化カーボン抵抗 | |
| | R855-856 | VP939600 | R.MTL.FLM | 2.2Ω 1W | | | 金属被膜抵抗 | |
| | R941 | VP939500 | R.MTL.FLM | 1Ω 1W | | | 金属被膜抵抗 | |
| | ST100 | V4040500 | SCR.TERM | M3 | | | スクリュー／ターミナル | |
| * | U41 | WN333300 | CN.PHOTO.T | 1P JST1165 | | JRTKABGEFL | 光ファイバー送信器 | |
| * | U42 | WN333200 | CN.PHOTO.R | 1P JSR1165 | | JRTKABGEFL | 光ファイバー受信器 | |
| * | U43-44 | WN333200 | CN.PHOTO.R | 1P JSR1165 | | | 光ファイバー受信器 | |
| | XL10 | WH625000 | RSNR.CRYS | 27MHz | | | 水晶振動子 | |
| | XL12 | WM227900 | RSNR.CE | 10MHz | | J | セラミック振動子 | |
| | XL30 | WF997400 | RSNR.CE | 20MHz | | | セラミック振動子 | |
| * | XL41 | WH455300 | RSNR.CRYS | 45.1584MHz | | UC | 水晶振動子 | |
| | XL42 | V3625700 | RSNR.CRYS | 24.576MHz | | | 水晶振動子 | |
| | XL80 | WD280800 | RSNR.CRYS | 14.31818MHz | | JUCRK | 水晶振動子 | |
| * | XL80 | WD280900 | RSNR.CRYS | 17.734475MHz | | TABGEFL | 水晶振動子 | |
| | XL81 | VZ772700 | RSNR.CRYS | 28.63636MHz | | | 水晶振動子 | |
| * | | WN373100 | P.C.B. | FUNCTION | | J | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | | WN374200 | P.C.B. | FUNCTION | 663,6160 | U | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | | WN374200 | P.C.B. | FUNCTION | 663 | C | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | | WN374300 | P.C.B. | FUNCTION | 6160 | C | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | | WN373400 | P.C.B. | FUNCTION | | R | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | | WN373500 | P.C.B. | FUNCTION | | T | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | | WN373600 | P.C.B. | FUNCTION | | K | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | | WN373700 | P.C.B. | FUNCTION | | A | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | | WN373800 | P.C.B. | FUNCTION | | B | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | | WN373900 | P.C.B. | FUNCTION | 663,6160 | GEF | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | | WN374000 | P.C.B. | FUNCTION | | L | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| | CB201 | VB858700 | CN.BS.PIN | 8P | | | ベースピン | 01 |
| | CB205 | VP082900 | CN.BS.PIN | 25P | | | ＦＦＣコネクター | 02 |
| | CB206 | VP798200 | CN.BS.PIN | 24P | | | ＦＦＣコネクター | 01 |
| | CB221 | VB858400 | CN.BS.PIN | 5P | | | ベースピン | 01 |
| | CB231 | VB858600 | CN.BS.PIN | 7P | | | ベースピン | 01 |
| | CB232 | VB858900 | CN.BS.PIN | 10P | | | ベースピン | 01 |
| | CB242 | VM923600 | CN.BS.PIN | 13P | | JUCRTKAGEFL | ＦＦＣコネクター | 01 |
| | CB243 | VB389900 | CN.BS.PIN | 3P | | B | ベースピン | 01 |
| * | CB244 | WK835300 | CN.BS.PIN | 16P YDW200-16 | | U | コネクター | |
| | CB245 | LB918030 | CN.BS.PIN | 3P | | U | ベース付ポスト | 01 |
| | CB246 | V7825700 | CN | 7P TE TUC SERIES | | | コネクタープラグ | |
| | CB247 | V7827400 | SOCKET | 7P TE TUC SERIES | | | コネクターソケット | |
| | CB251 | LB918040 | CN.BS.PIN | 4P | | | ベース付ポスト | 01 |
| | CB252 | LB918030 | CN.BS.PIN | 3P | | | ベース付ポスト | 01 |
| ⚠ | CB253 | VG879900 | CN.BS.PIN | 2P | | | ベースピン | 01 |
| * | CB254-255 | WN103000 | CLIP.FUSE | TP00351-31 | | UCRTABGEFL | ヒューズクリップ | |
| * | CB256-257 | WN103000 | CLIP.FUSE | TP00351-31 | | | ヒューズクリップ | |

※ New Parts ＊ 新規部品

# P.C.B. FUNCTION

| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| ⚠ | CB258 | VG879900 | CN.BS.PIN | 2P | | | ベースピン | 01 |
| | CB261 | V9377800 | CN.BS.PIN | 3P | | RL | ベース付ポスト | |
| | CB262 | V9377900 | CN.BS.PIN | 4P | | RL | ベース付ポスト | |
| * | CB263-264 | WN103000 | CLIP.FUSE | TP00351-31 | | R | ヒューズクリップ | |
| | CB296-297 | V7825500 | CN | 5P TE TUC SERIES | | | コネクタープラグ | 01 |
| | C2001 | UR267100 | C.EL | 10uF 50V | | JRTKABGEFL | ケミコン | |
| | C2002 | UR218220 | C.EL | 220uF 6.3V | | JRTKABGEFL | ケミコン | |
| | C2003-2004 | UR267470 | C.EL | 47uF 50V | | JRTKABGEFL | ケミコン | 01 |
| | C2005 | UR218220 | C.EL | 220uF 6.3V | | JRTKABGEFL | ケミコン | |
| | C2006 | UR267100 | C.EL | 10uF 50V | | JRTKABGEFL | ケミコン | |
| | C2007-2012 | UR837100 | C.EL | 10uF 16V | | | ケミコン | 01 |
| | C2013 | UR837100 | C.EL | 10uF 16V | 663 | UCRTKAGEFL | ケミコン | 01 |
| | C2013 | UR837100 | C.EL | 10uF 16V | 6160 | UF | ケミコン | 01 |
| | C2014 | UR837100 | C.EL | 10uF 16V | 663 | UCRTKAGEFL | ケミコン | 01 |
| | C2014 | UR837100 | C.EL | 10uF 16V | 6160 | UF | ケミコン | 01 |
| | C2015-2016 | UR238100 | C.EL | 100uF 16V | | | ケミコン | |
| | C2017-2018 | UR838100 | C.EL | 100uF 16V | | | ケミコン | 01 |
| | C2019-2022 | UR238100 | C.EL | 100uF 16V | | | ケミコン | |
| | C2023 | UR267100 | C.EL | 10uF 50V | 663 | UCRTKAGEFL | ケミコン | |
| | C2023 | UR267100 | C.EL | 10uF 50V | 6160 | UF | ケミコン | |
| | C2024 | UR267100 | C.EL | 10uF 50V | 663 | UCRTKAGEFL | ケミコン | |
| | C2024 | UR267100 | C.EL | 10uF 50V | 6160 | UF | ケミコン | |
| | C2025-2026 | UR267470 | C.EL | 47uF 50V | | | ケミコン | 01 |
| | C2027-2028 | UR267100 | C.EL | 10uF 50V | | | ケミコン | |
| | C2030 | WK041800 | C.EL | 10uF 16V | | JUCBGEF | ケミコン | 01 |
| | C2030 | UR237100 | C.EL | 10uF 16V | | RTKAL | ケミコン | |
| | C2031 | UR267100 | C.EL | 10uF 50V | | | ケミコン | |
| | C2032 | WK041800 | C.EL | 10uF 16V | | JUCBGEF | ケミコン | 01 |
| | C2032 | UR237100 | C.EL | 10uF 16V | | RTKAL | ケミコン | |
| | C2033 | WK041800 | C.EL | 10uF 16V | | JUCBGEF | ケミコン | 01 |
| | C2033 | UR237100 | C.EL | 10uF 16V | | RTKAL | ケミコン | |
| | C2034 | UR837100 | C.EL | 10uF 16V | | UC | ケミコン | 01 |
| | C2036 | WK041800 | C.EL | 10uF 16V | | JUCBGEF | ケミコン | 01 |
| | C2036 | UR237100 | C.EL | 10uF 16V | | RTKAL | ケミコン | |
| | C2037 | WK041800 | C.EL | 10uF 16V | | JUCBGEF | ケミコン | 01 |
| | C2037 | UR237100 | C.EL | 10uF 16V | | RTKAL | ケミコン | |
| | C2038 | WK041800 | C.EL | 10uF 16V | | JUCBGEF | ケミコン | 01 |
| | C2038 | UR237100 | C.EL | 10uF 16V | | RTKAL | ケミコン | |
| | C2039 | WK041800 | C.EL | 10uF 16V | | JUCBGEF | ケミコン | 01 |
| | C2039 | UR237100 | C.EL | 10uF 16V | | RTKAL | ケミコン | |
| | C2040 | UR837100 | C.EL | 10uF 16V | | UC | ケミコン | 01 |
| | C2041 | UA653100 | C.MYLAR | 1000pF 50V J | | JRTKABGEFL | マイラーコン | 03 |
| | C2042 | UA652220 | C.MYLAR | 220pF 50V J | | KABGEFL | マイラーコン | 01 |
| | C2043 | UA652220 | C.MYLAR | 220pF 50V J | | JRTKABGEFL | マイラーコン | 01 |
| | C2044 | UA653910 | C.MYLAR | 9100pF 50V J | | JRTKABGEFL | マイラーコン | 01 |
| | C2045 | UA654330 | C.MYLAR | 0.033uF 50V J | | JRTKABGEFL | マイラーコン | 01 |
| | C2046 | UA653910 | C.MYLAR | 9100pF 50V J | | JRTKABGEFL | マイラーコン | 01 |
| | C2047 | UA654330 | C.MYLAR | 0.033uF 50V J | | JRTKABGEFL | マイラーコン | 01 |
| | C2048 | UA652220 | C.MYLAR | 220pF 50V J | | KABGEFL | マイラーコン | 01 |
| | C2049 | UA652220 | C.MYLAR | 220pF 50V J | | JRTKABGEFL | マイラーコン | 01 |
| | C2050 | UA653100 | C.MYLAR | 1000pF 50V J | | JRTKABGEFL | マイラーコン | 03 |
| | C2051 | US064100 | C.CE.CHP | 0.01uF 50V B | | JRTKABGEFL | チップセラコン | 01 |
| | C2052-2055 | US062220 | C.CE.CHP | 220pF 50V B | | | チップセラコン | 01 |
| | C2056-2057 | US061470 | C.CE.CHP | 47pF 50V B | | | チップセラコン | 01 |
| | C2058-2063 | US062220 | C.CE.CHP | 220pF 50V B | | | チップセラコン | 01 |

※ New Parts ＊ 新規部品

## P.C.B. FUNCTION

| | Ref No. | Part No. | Description | | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|---|
| | C2064-2065 | US061470 | C.CE.CHP | 47pF | 50V B | | | チップセラコン | 01 |
| | C2066-2067 | US062220 | C.CE.CHP | 220pF | 50V B | | | チップセラコン | 01 |
| | C2068-2069 | US061470 | C.CE.CHP | 47pF | 50V B | | | チップセラコン | 01 |
| | C2071 | US061470 | C.CE.CHP | 47pF | 50V B | 663 | UCRTKAGEFL | チップセラコン | 01 |
| | C2071 | US061470 | C.CE.CHP | 47pF | 50V B | 6160 | UF | チップセラコン | 01 |
| | C2072 | US061470 | C.CE.CHP | 47pF | 50V B | 663 | UCRTKAGEFL | チップセラコン | 01 |
| | C2072 | US061470 | C.CE.CHP | 47pF | 50V B | 6160 | UF | チップセラコン | 01 |
| | C2073-2074 | US062220 | C.CE.CHP | 220pF | 50V B | | | チップセラコン | 01 |
| | C2076-2077 | US062220 | C.CE.CHP | 220pF | 50V B | | | チップセラコン | 01 |
| | C2079-2080 | US062220 | C.CE.CHP | 220pF | 50V B | | | チップセラコン | 01 |
| | C2081-2082 | US062470 | C.CE.CHP | 470pF | 50V B | | | チップセラコン | 01 |
| | C2083 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | 01 |
| | C2084-2085 | US062470 | C.CE.CHP | 470pF | 50V B | | | チップセラコン | 01 |
| | C2086 | US061470 | C.CE.CHP | 47pF | 50V B | | B | チップセラコン | 01 |
| | C2087 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | 01 |
| | C2088-2090 | US062470 | C.CE.CHP | 470pF | 50V B | | | チップセラコン | 01 |
| | C2091 | UA654330 | C.MYLAR | 0.033uF | 50V J | | | マイラーコン | 01 |
| | C2092 | VR169000 | C.MYLAR | 0.33uF | 50V | | | マイラーコン | 01 |
| | C2093 | UA653820 | C.MYLAR | 8200pF | 50V J | | | マイラーコン | 01 |
| | C2094-2095 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| | C2096 | UA653820 | C.MYLAR | 8200pF | 50V J | | | マイラーコン | 01 |
| | C2097 | UA654330 | C.MYLAR | 0.033uF | 50V J | | | マイラーコン | 01 |
| | C2098 | VR169000 | C.MYLAR | 0.33uF | 50V | | | マイラーコン | 01 |
| | C2099-2100 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| | C2101 | US061470 | C.CE.CHP | 47pF | 50V B | | B | チップセラコン | 01 |
| | C2103 | US064100 | C.CE.CHP | 0.01uF | 50V B | | | チップセラコン | 01 |
| | C2201-2202 | UR267100 | C.EL | 10uF | 50V | | | ケミコン | |
| | C2203-2204 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| | C2205-2206 | UR267100 | C.EL | 10uF | 50V | | | ケミコン | |
| | C2207-2210 | US062100 | C.CE.CHP | 100pF | 50V B | | | チップセラコン | 01 |
| | C2211-2212 | UR267100 | C.EL | 10uF | 50V | | | ケミコン | |
| | C2213-2214 | US061100 | C.CE.CHP | 10pF | 50V B | | | チップセラコン | 01 |
| | C2217-2218 | UR239100 | C.EL | 1000uF | 16V | | | ケミコン | |
| | C2251-2252 | UR266220 | C.EL | 2.2uF | 50V | | | ケミコン | |
| | C2253-2254 | UR267100 | C.EL | 10uF | 50V | | | ケミコン | |
| | C2255 | UR837100 | C.EL | 10uF | 16V | | | ケミコン | 01 |
| | C2256 | UR267100 | C.EL | 10uF | 50V | | | ケミコン | |
| | C2257 | UR837100 | C.EL | 10uF | 16V | | | ケミコン | 01 |
| | C2258 | UR267100 | C.EL | 10uF | 50V | | | ケミコン | |
| | C2259 | US062100 | C.CE.CHP | 100pF | 50V B | | | チップセラコン | 01 |
| | C2260-2263 | UR267100 | C.EL | 10uF | 50V | | | ケミコン | |
| | C2264-2265 | UR267470 | C.EL | 47uF | 50V | | | ケミコン | 01 |
| | C2266-2269 | UR267100 | C.EL | 10uF | 50V | | | ケミコン | |
| | C2270 | VR169200 | C.MYLAR | 0.47uF | 50V | | | マイラーコン | 01 |
| | C2301 | WK041800 | C.EL | 10uF | 16V | | JUCBGEF | ケミコン | 01 |
| | C2301 | UR237100 | C.EL | 10uF | 16V | | RTKAL | ケミコン | |
| | C2302 | WK041800 | C.EL | 10uF | 16V | | JUCBGEF | ケミコン | 01 |
| | C2302 | UR237100 | C.EL | 10uF | 16V | | RTKAL | ケミコン | |
| | C2303 | UA652120 | C.MYLAR | 120pF | 50V J | | | マイラーコン | |
| | C2304 | WE100900 | C.PP | 220pF | 630V | | | ＰＰコン | |
| | C2305 | UA652120 | C.MYLAR | 120pF | 50V J | | | マイラーコン | |
| | C2306 | WE100900 | C.PP | 220pF | 630V | | | ＰＰコン | |
| * | C2307 | WE102300 | C.PP | 3300pF | 100V | | | ＰＰコン | |
| | C2308 | UR068100 | C.EL | 100uF | 50V | | | ケミコン | 01 |
| * | C2309 | WE102300 | C.PP | 3300pF | 100V | | | ＰＰコン | |

※ New Parts ＊新規部品

## P.C.B. FUNCTION

| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| | C2310 | UR068100 | C.EL | 100uF 50V | | | ケミコン | 01 |
| | C2311 | WE100200 | C.PP | 22pF 630V | | JUCBGEF | ＰＰコン | 01 |
| | C2311 | WG211700 | C.CE | 22pF 500V | | RTKAL | セラコン | 01 |
| | C2312 | WE100200 | C.PP | 22pF 630V | | JUCBGEF | ＰＰコン | 01 |
| | C2312 | WG211700 | C.CE | 22pF 500V | | RTKAL | セラコン | 01 |
| | C2313 | WK041800 | C.EL | 10uF 16V | | JUCBGEF | ケミコン | 01 |
| | C2313 | UR237100 | C.EL | 10uF 16V | | RTKAL | ケミコン | |
| | C2314 | UA652120 | C.MYLAR | 120pF 50V J | | | マイラーコン | |
| | C2315 | WE100900 | C.PP | 220pF 630V | | | ＰＰコン | |
| * | C2316 | WE102300 | C.PP | 3300pF 100V | | | ＰＰコン | |
| | C2317 | UR067470 | C.EL | 47uF 50V | | | ケミコン | 01 |
| | C2318 | WE100200 | C.PP | 22pF 630V | | JUCBGEF | ＰＰコン | 01 |
| | C2318 | WG211700 | C.CE | 22pF 500V | | RTKAL | セラコン | 01 |
| | C2319 | WK041800 | C.EL | 10uF 16V | | JUCBGEF | ケミコン | 01 |
| | C2319 | UR237100 | C.EL | 10uF 16V | | RTKAL | ケミコン | |
| | C2320 | WK041800 | C.EL | 10uF 16V | | JUCBGEF | ケミコン | 01 |
| | C2320 | UR237100 | C.EL | 10uF 16V | | RTKAL | ケミコン | |
| | C2321 | UA652120 | C.MYLAR | 120pF 50V J | | | マイラーコン | |
| * | C2322 | WN164200 | C.PP | 220pF 100V | | | ＰＰコン | |
| | C2323 | UA652120 | C.MYLAR | 120pF 50V J | | | マイラーコン | |
| * | C2324 | WN164200 | C.PP | 220pF 100V | | | ＰＰコン | |
| * | C2325 | WN164900 | C.PP | 3300pF 100V | | | ＰＰコン | |
| | C2326 | UR067470 | C.EL | 47uF 50V | | | ケミコン | 01 |
| * | C2327 | WN164900 | C.PP | 3300pF 100V | | | ＰＰコン | |
| | C2328 | UR067470 | C.EL | 47uF 50V | | | ケミコン | 01 |
| | C2329 | WE100200 | C.PP | 22pF 630V | | JUCBGEF | ＰＰコン | 01 |
| | C2329 | WG211700 | C.CE | 22pF 500V | | RTKAL | セラコン | 01 |
| | C2330 | WE100200 | C.PP | 22pF 630V | | JUCBGEF | ＰＰコン | 01 |
| | C2330 | WG211700 | C.CE | 22pF 500V | | RTKAL | セラコン | 01 |
| | C2331 | WK041800 | C.EL | 10uF 16V | | JUCBGEF | ケミコン | 01 |
| | C2331 | UR237100 | C.EL | 10uF 16V | | RTKAL | ケミコン | |
| | C2332 | WK041800 | C.EL | 10uF 16V | | JUCBGEF | ケミコン | 01 |
| | C2332 | UR237100 | C.EL | 10uF 16V | | RTKAL | ケミコン | |
| | C2333 | UA652120 | C.MYLAR | 120pF 50V J | | | マイラーコン | |
| * | C2334 | WN164200 | C.PP | 220pF 100V | | | ＰＰコン | |
| | C2335 | UA652120 | C.MYLAR | 120pF 50V J | | | マイラーコン | |
| * | C2336 | WN164200 | C.PP | 220pF 100V | | | ＰＰコン | |
| * | C2337 | WN164900 | C.PP | 3300pF 100V | | | ＰＰコン | |
| | C2338 | UR067470 | C.EL | 47uF 50V | | | ケミコン | 01 |
| * | C2339 | WN164900 | C.PP | 3300pF 100V | | | ＰＰコン | |
| | C2340 | UR067470 | C.EL | 47uF 50V | | | ケミコン | 01 |
| | C2341 | WE100200 | C.PP | 22pF 630V | | JUCBGEF | ＰＰコン | 01 |
| | C2341 | WG211700 | C.CE | 22pF 500V | | RTKAL | セラコン | 01 |
| | C2342 | WE100200 | C.PP | 22pF 630V | | JUCBGEF | ＰＰコン | 01 |
| | C2342 | WG211700 | C.CE | 22pF 500V | | RTKAL | セラコン | 01 |
| | C2343 | WK041800 | C.EL | 10uF 16V | | | ケミコン | 01 |
| | C2344 | WE100900 | C.PP | 220pF 630V | | | ＰＰコン | |
| | C2401 | US061270 | C.CE.CHP | 27pF 50V B | | GEF | チップセラコン | 01 |
| | C2402 | UR237100 | C.EL | 10uF 16V | | GEF | ケミコン | |
| | C2403 | US061270 | C.CE.CHP | 27pF 50V B | | GEF | チップセラコン | 01 |
| | C2404-2405 | US135100 | C.CE.CHP | 0.1uF 16V | | GEF | チップセラコン | 01 |
| | C2406 | US062560 | C.CE.CHP | 560pF 50V B | | GEF | チップセラコン | 01 |
| | C2408-2409 | US062330 | C.CE.CHP | 330pF 50V B | | GEF | チップセラコン | 01 |
| | C2410 | US135100 | C.CE.CHP | 0.1uF 16V | | GEF | チップセラコン | 01 |
| | C2411 | UR237470 | C.EL | 47uF 16V | | JUCRTKAGEFL | ケミコン | 01 |

※ New Parts ＊ 新規部品

# P.C.B. FUNCTION

| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| | C2412-2413 | UR237470 | C.EL | 47uF 16V | | GEF | ケミコン | 01 |
| | C2414-2415 | US062100 | C.CE.CHP | 100pF 50V B | | JUCRTKAGEFL | チップセラコン | 01 |
| | C2416 | US063100 | C.CE.CHP | 1000pF 50V B | | JUCRTKAGEFL | チップセラコン | 01 |
| | C2417 | US062100 | C.CE.CHP | 100pF 50V B | | JUCRTKAGEFL | チップセラコン | 01 |
| | C2418 | US064100 | C.CE.CHP | 0.01uF 50V B | | JUCRTKAGEFL | チップセラコン | 01 |
| | C2419 | US062100 | C.CE.CHP | 100pF 50V B | | JUCRTKAGEFL | チップセラコン | 01 |
| | C2421-2422 | UR237470 | C.EL | 47uF 16V | | JUCRTKAGEFL | ケミコン | 01 |
| | C2501 | US064100 | C.CE.CHP | 0.01uF 50V B | | | チップセラコン | 01 |
| | C2502-2503 | UR03A100 | C.EL | 10000uF 16V | | | ケミコン | |
| | C2504 | WJ335500 | C.EL | 2.2uF 50V | | | ケミコン | |
| | C2505 | VR324900 | C.MYLAR | 0.1uF 100V | | | マイラーコン | 01 |
| | C2506 | WJ335500 | C.EL | 2.2uF 50V | | JRTKABGEFL | ケミコン | |
| | C2506 | UR866100 | C.EL | 1uF 50V | | UC | ケミコン | 01 |
| | C2507 | US064100 | C.CE.CHP | 0.01uF 50V B | | | チップセラコン | 01 |
| | C2508 | WJ361200 | C.POL.MTL | 0.047uF 400V | | J | メタライズドポリコン | |
| | C2508 | WJ361800 | C.POL.MTL | 0.022uF 630V | | RTKABGEFL | メタライズドポリコン | |
| | C2509 | UR866100 | C.EL | 1uF 50V | | JRTKABGEFL | ケミコン | 01 |
| | C2510 | UA653470 | C.MYLAR | 4700pF 50V J | | JRTKABGEFL | マイラーコン | 01 |
| | C2511 | UA653100 | C.MYLAR | 1000pF 50V J | | | マイラーコン | 03 |
| | C2512 | WB696300 | C.POL.MTL | 0.1uF 400V | | J | メタライズドポリコン | |
| | C2512 | WD257600 | C.PP | 0.047uF 800V | | RTKABGEFL | ＰＰコン | |
| ⚠ | C2513 | V6185300 | C.CE.SAFTY | 0.01uF 275V | | | 規格認定コンデンサ | 01 |
| | C2514 | UU249330 | C.EL | 3300uF 25V | | JUCTKABGEFL | ケミコン　ＦＷ | 04 |
| | C2514 | WD047300 | C.EL | 3300uF 50V | | R | ケミコン　ＫＭＱ | |
| | C2515 | WE102900 | C.PP | 0.01uF 100V | | | ＰＰコン | |
| | C2534 | US064100 | C.CE.CHP | 0.01uF 50V B | | | チップセラコン | 01 |
| | D2001-2002 | VU994300 | DIODE.ZENR | MA8075-H 7.7V | | | ツェナーダイオード | 01 |
| | D2003-2004 | VV659300 | DIODE.ZENR | RLZ7.5B 7.5V | | | ツェナーダイオード | 01 |
| | D2201-2202 | VT332900 | DIODE | 1SS355 | | | ダイオード | 01 |
| | D2301-2302 | VT332900 | DIODE | 1SS355 | | | ダイオード | 01 |
| | D2401 | VU993000 | DIODE.ZENR | MA8056-M 5.6V | | GEF | ツェナーダイオード | 01 |
| | D2402 | VU995500 | DIODE.ZENR | MA8100-H 10.3V | | JUCRTKAGEFL | ツェナーダイオード | 02 |
| | D2501 | VT332900 | DIODE | 1SS355 | | | ダイオード | 01 |
| | D2502 | WJ286700 | DIODE.BRG | RS403M 4A 140V | | | ダイオートブリッジ | 03 |
| | D2503-2505 | VT332900 | DIODE | 1SS355 | | | ダイオード | 01 |
| | D2506 | VU993800 | DIODE.ZENR | MA8068-M 6.8V | | JRTKABGEFL | ツェナーダイオード | 01 |
| | D2507 | VU995400 | DIODE.ZENR | MA8100-M 10V | | JRTKABGEFL | ツェナーダイオード | |
| | D2508 | VT332900 | DIODE | 1SS355 | | JRTKABGEFL | ダイオード | 01 |
| | D2509 | VT332900 | DIODE | 1SS355 | | | ダイオード | 01 |
| | D2511 | VU994900 | DIODE.ZENR | MA8091-L 8.8V | | JRTKABGEFL | ツェナーダイオード | |
| ⚠ | D2512 | WH471700 | DIODE.BRG | DB105 1A 600V | | | ダイオートブリッジ | 02 |
| ⚠ | D2512 | WH471700 | DIODE.BRG | DB105 1A 600V | | JRTKABGEFL | ダイオートブリッジ | 02 |
| | D2513 | VT332900 | DIODE | 1SS355 | | | ダイオード | 01 |
| | D2514 | WH471700 | DIODE.BRG | DB105 1A 600V | | | ダイオートブリッジ | 02 |
| | D2515-2516 | VT332900 | DIODE | 1SS355 | | UC | ダイオード | 01 |
| ⚠ | F2501 | WG410800 | FUSE | 10A 125V | | UC | ヒユーズ | 01 |
| ⚠ | F2501 | VT942900 | FUSE | T2.5A 250V | | RTABGEFL | ヒューズ | 01 |
| ⚠ | F2502 | WG410800 | FUSE | 10A 125V | | JUCR | ヒユーズ | 01 |
| ⚠ | F2502 | KB000780 | FUSE | T5A 250V | | TKABGEFL | ヒューズ | 02 |
| ⚠ | F2601 | KB000780 | FUSE | T5A 250V | | R | ヒューズ | 02 |
| | IC201 | X3505A00 | IC | NJM2068MD-TE2 | | JRTKABGEFL | アンプＩＣ | 02 |
| | IC202 | X8155B00 | IC | R2A15218FP | | | ＩＣ | |
| | IC220 | XS377A00 | IC | BA15218F OP AMP | | | アンプＩＣ | 01 |
| | IC225-227 | X7378A00 | IC | NJM4565M(TE1) | | | アンプＩＣ | 01 |
| * | IC241 | X8235A00 | IC | LC72725KM | | GEF | ＩＣ | |

✻ New Parts　＊ 新規部品

# P.C.B. FUNCTION

| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| ⚠ | IC251 | V8100500 | PHOT.CPL | TLP421 GR | | JRTKABGEFL | フォトカプラ | 01 |
| ⚠ | IC252 | IG001180 | IC | TC4013BP FF | | JRTKABGEFL | ロジックＩＣ | 05 |
| ⚠ | IC253 | V8100500 | PHOT.CPL | TLP421 GR | | JRTKABGEFL | フォトカプラ | 01 |
| * | PJ201 | WN303900 | JACK.PIN | RJ-1074+09-0H54A | | JRTKABGEFL | ピンジャック 6P | |
| | PJ202 | V7046700 | JACK.PIN | 4P MSP-244V1-01NI | | UC | ピンジャック | 03 |
| | PJ203 | V7046800 | JACK.PIN | 6P MSP-246V1-01NI | | | ピンジャック | 04 |
| | PJ204-205 | V7046700 | JACK.PIN | 4P MSP-244V1-01NI | | | ピンジャック | 03 |
| | PJ207 | V7190400 | JACK.PIN | 6P | | | ピンジャック | 03 |
| | PJ208 | V7046800 | JACK.PIN | 6P MSP-246V1-01NI | 663 | UCRTKAGEFL | ピンジャック | 04 |
| | PJ208 | V7046800 | JACK.PIN | 6P MSP-246V1-01NI | 6160 | UF | ピンジャック | 04 |
| | PJ209 | V7046700 | JACK.PIN | 4P MSP-244V1-01NI | 663 | JB | ピンジャック | 03 |
| | PJ209 | V7046700 | JACK.PIN | 4P MSP-244V1-01NI | 6160 | C | ピンジャック | 03 |
| | PJ210 | WG674900 | JACK.PIN | 4P | | | ピンジャック 4P | 02 |
| | PJ293 | WC612700 | JACK.PIN | 2P | | B | ピンジャック | |
| | PJ294 | V7189700 | JACK.PIN | 1P | | | ピンジャック | 01 |
| | Q2001 | VZ725900 | TR | 2SD1938F S,T | 663 | UCRTKAGEFL | トランジスタ | 01 |
| | Q2001 | VZ725900 | TR | 2SD1938F S,T | 6160 | UF | トランジスタ | 01 |
| | Q2002 | VZ725900 | TR | 2SD1938F S,T | 663 | UCRTKAGEFL | トランジスタ | 01 |
| | Q2002 | VZ725900 | TR | 2SD1938F S,T | 6160 | UF | トランジスタ | 01 |
| | Q2003 | VZ725900 | TR | 2SD1938F S,T | 663 | UCRTKAGEFL | トランジスタ | 01 |
| | Q2003 | VZ725900 | TR | 2SD1938F S,T | 6160 | UF | トランジスタ | 01 |
| | Q2004 | VZ725900 | TR | 2SD1938F S,T | 663 | UCRTKAGEFL | トランジスタ | 01 |
| | Q2004 | VZ725900 | TR | 2SD1938F S,T | 6160 | UF | トランジスタ | 01 |
| | Q2005 | IC181510 | TR | 2SC1815 Y | | | トランジスタ | 01 |
| | Q2006 | IA101510 | TR | 2SA1015 Y | | | トランジスタ | 01 |
| | Q2007-2010 | VZ725900 | TR | 2SD1938F S,T | | | トランジスタ | 01 |
| | Q2201-2202 | VD303700 | TR | 2SC3326 A,B | | | トランジスタ | 01 |
| | Q2251-2264 | VZ725900 | TR | 2SD1938F S,T | | | トランジスタ | 01 |
| | Q2301-2304 | IC224030 | TR | 2SC2240 GR,BL | | | トランジスタ | 01 |
| | Q2305-2306 | V3966800 | TR | 2SA949 O,Y | | | トランジスタ | 02 |
| | Q2307-2308 | IC224030 | TR | 2SC2240 GR,BL | | | トランジスタ | 01 |
| | Q2309 | V3966800 | TR | 2SA949 O,Y | | | トランジスタ | 02 |
| | Q2310-2313 | IC224030 | TR | 2SC2240 GR,BL | | | トランジスタ | 01 |
| | Q2314-2315 | V3966800 | TR | 2SA949 O,Y | | | トランジスタ | 02 |
| | Q2316-2319 | IC224030 | TR | 2SC2240 GR,BL | | | トランジスタ | 01 |
| | Q2320-2321 | V3966800 | TR | 2SA949 O,Y | | | トランジスタ | 02 |
| | Q2401 | IC174020 | TR | 2SC1740S QRS | | GEF | トランジスタ | 01 |
| | Q2402 | IC181510 | TR | 2SC1815 Y | | GEF | トランジスタ | 01 |
| | Q2403 | IC181510 | TR | 2SC1815 Y | | JUCRTKAGEFL | トランジスタ | 01 |
| | Q2501 | VV655700 | TR.DGT | DTC144EKA | | | デジタルトランジスタ | 01 |
| | Q2502-2503 | IC181510 | TR | 2SC1815 Y | | | トランジスタ | 01 |
| ⚠ | Q2504 | WC741200 | FET | 2SK3850 | | JRTKABGEFL | ＦＥＴ | 03 |
| | Q2507-2508 | VZ725900 | TR | 2SD1938F S,T | | | トランジスタ | 01 |
| | Q2509 | VV655700 | TR.DGT | DTC144EKA | | UC | デジタルトランジスタ | 01 |
| | Q2510 | WC435100 | TR.DGT | KRC104S-RTK | | JTKABGEFL | デジタルトランジスタ | 01 |
| | R2001 | HV755470 | R.CAR.FP | 470Ω 1/4W | | JRTKABGEFL | 不燃化カーボン抵抗 | 01 |
| | R2019 | HV755470 | R.CAR.FP | 470Ω 1/4W | | JRTKABGEFL | 不燃化カーボン抵抗 | 01 |
| | R2098-2099 | HV754470 | R.CAR.FP | 47Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R2207-2208 | HV755120 | R.CAR.FP | 120Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R2217-2218 | HF355100 | R.CAR | 100Ω 1/2W | | | カーボン抵抗 | |
| | R2289-2290 | HV755100 | R.CAR.FP | 100Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R2301 | HF353220 | R.CAR | 2.2Ω 1/2W | | | カーボン抵抗 | |
| | R2303-2304 | HF356100 | R.CAR | 1KΩ 1/2W | | | カーボン抵抗 | |
| | R2307 | HF356180 | R.CAR | 1.8KΩ 1/2W | | | カーボン抵抗 | |
| | R2309 | HF356180 | R.CAR | 1.8KΩ 1/2W | | | カーボン抵抗 | |

※ New Parts ＊ 新規部品

## P.C.B. FUNCTION and P.C.B. OPERATION

| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| | R2313 | HF355330 | R.CAR | 330Ω 1/2W | | | カーボン抵抗 | |
| | R2314 | HF356120 | R.CAR | 1.2KΩ 1/2W | | | カーボン抵抗 | |
| | R2315 | HF355330 | R.CAR | 330Ω 1/2W | | | カーボン抵抗 | |
| | R2316 | HF356120 | R.CAR | 1.2KΩ 1/2W | | | カーボン抵抗 | |
| | R2317-2318 | HF357330 | R.CAR | 33KΩ 1/2W | | | カーボン抵抗 | |
| | R2319-2320 | HV755100 | R.CAR.FP | 100Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R2324 | HF356100 | R.CAR | 1KΩ 1/2W | | | カーボン抵抗 | |
| | R2326 | HF356180 | R.CAR | 1.8KΩ 1/2W | | | カーボン抵抗 | |
| | R2329 | HF355330 | R.CAR | 330Ω 1/2W | | | カーボン抵抗 | |
| | R2330 | HF356120 | R.CAR | 1.2KΩ 1/2W | | | カーボン抵抗 | |
| | R2331 | HF357330 | R.CAR | 33KΩ 1/2W | | | カーボン抵抗 | |
| | R2332 | HV755100 | R.CAR.FP | 100Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R2336-2337 | HF356100 | R.CAR | 1KΩ 1/2W | | | カーボン抵抗 | |
| | R2346 | HF355330 | R.CAR | 330Ω 1/2W | | | カーボン抵抗 | |
| | R2347 | HF356120 | R.CAR | 1.2KΩ 1/2W | | | カーボン抵抗 | |
| | R2348 | HF355330 | R.CAR | 330Ω 1/2W | | | カーボン抵抗 | |
| | R2349 | HF356120 | R.CAR | 1.2KΩ 1/2W | | | カーボン抵抗 | |
| | R2350-2351 | HF357330 | R.CAR | 33KΩ 1/2W | | | カーボン抵抗 | |
| | R2352-2353 | HV755100 | R.CAR.FP | 100Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R2358-2359 | HF356100 | R.CAR | 1KΩ 1/2W | | | カーボン抵抗 | |
| | R2368 | HF355330 | R.CAR | 330Ω 1/2W | | | カーボン抵抗 | |
| | R2369 | HF356120 | R.CAR | 1.2KΩ 1/2W | | | カーボン抵抗 | |
| | R2370 | HF355330 | R.CAR | 330Ω 1/2W | | | カーボン抵抗 | |
| | R2371 | HF356120 | R.CAR | 1.2KΩ 1/2W | | | カーボン抵抗 | |
| | R2372-2373 | HF357330 | R.CAR | 33KΩ 1/2W | | | カーボン抵抗 | |
| | R2374-2375 | HV755100 | R.CAR.FP | 100Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R2509 | V6730000 | R.CAR. | 2.2MΩ 1/2W | | UC | 放電抵抗 | 01 |
| | R2511 | HF356220 | R.CAR | 2.2KΩ 1/2W | | JRTKABGEFL | カーボン抵抗 | |
| ⚠ | R2518 | WJ787400 | R.MTL.FLM | 0.15Ω 1W | | | 金属被膜抵抗 | |
| ⚠ | RY251 | WJ446600 | RELAY | DC ALKT321 M01 | | JUCTKABGEFL | 電源リレー ＴＶ－８ | 04 |
| ⚠ | RY251 | V9366900 | RELAY | DLS9D1-0(M)0.25W | | R | リレー ９Ｖ ＴＶ－８ | 05 |
| | ST251 | V4040500 | SCR.TERM | M3 | | | スクリュー／ターミナル | 01 |
| | ST252 | V4040500 | SCR.TERM | M3 | | K | スクリュー／ターミナル | 01 |
| ⚠ | SW261 | WB493700 | VOLT.SELCT | R8140246 | | R | 電圧切替器 | |
| ⚠ | SW261 | WD073700 | VOLT.SELCT | R8140254 | | L | 電圧切替器 | |
| ⚠ | T2501 | XW605A00 | TRANS.PWR | | | J | 電源トランス | 04 |
| ⚠ | T2501 | XW606A00 | TRANS.PWR | | | UC | 電源トランス | 04 |
| ⚠ | T2501 | X6351A00 | TRANS.PWR | | | R | 電源トランス | |
| ⚠ | T2501 | XW608A00 | TRANS.PWR | | | TKABGEFL | 電源トランス | |
| | TE251 | VU543100 | OUTLET.AC | 2P | | JUC | ＡＣアウトレット | 03 |
| | TE251 | V5867400 | OUTLET.AC | 2P | | RT | ＡＣアウトレット | 03 |
| | TE251 | VT915000 | OUTLET.AC | 1P | | A | ＡＣアウトレット | 06 |
| | TE251 | VU543300 | OUTLET.AC | 1P | | B | ＡＣアウトレット | 05 |
| | TE251 | VU543400 | OUTLET.AC | 2P | | GEFL | ＡＣアウトレット | 05 |
| | TE255 | WB782600 | AC INLET | R-30190(26) | | J | ＡＣインレット ２Ｐ | |
| | XL241 | V2731100 | RSNR.CRYS | 4.332M HC-49/U | | GEF | 水晶振動子 | |
| * | 3-1 | WN378100 | P.C.B. | OPERATION | 763 | J | ＰＣＢ ＯＰＥＲＡＴＩＯＮ | |
| * | 3-1 | WN378200 | P.C.B. | OPERATION | 663,6160 | URTKAGEFL | ＰＣＢ ＯＰＥＲＡＴＩＯＮ | |
| * | 3-1 | WN378200 | P.C.B. | OPERATION | 663 | C | ＰＣＢ ＯＰＥＲＡＴＩＯＮ | |
| * | 3-1 | WN378400 | P.C.B. | OPERATION | 6160 | C | ＰＣＢ ＯＰＥＲＡＴＩＯＮ | |
| * | 3-1 | WN378300 | P.C.B. | OPERATION | 763 | B | ＰＣＢ ＯＰＥＲＡＴＩＯＮ | |
| | CB401 | VQ045500 | CN.BS.PIN | 26P | | | ＦＦＣコネクター | 02 |

※ New Parts ＊新規部品

## P.C.B. OPERATION

| Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|
| CB421 | VB858400 | CN.BS.PIN | 5P | | | ベースピン | 01 |
| CB422 | LB919020 | CN.BS.PIN | 2P | | | ベース付ポスト | 01 |
| CB431 | VB858300 | CN.BS.PIN | 4P | | | コネクタベースポスト | 01 |
| C4001-4002 | US065100 | C.CE.CHP | 0.1uF 50V B | | | チップセラコン | 01 |
| C4003 | US063100 | C.CE.CHP | 1000pF 50V B | 663 | UCRTKAGEFL | チップセラコン | 01 |
| C4003 | US063100 | C.CE.CHP | 1000pF 50V B | 6160 | UF | チップセラコン | 01 |
| C4004 | US063100 | C.CE.CHP | 1000pF 50V B | 663 | UCRTKAGEFL | チップセラコン | 01 |
| C4004 | US063100 | C.CE.CHP | 1000pF 50V B | 6160 | UF | チップセラコン | 01 |
| C4005-4006 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| C4007 | UR068100 | C.EL | 100uF 50V | | | ケミコン | 01 |
| C4008 | UR218330 | C.EL | 330uF 6.3V | | | ケミコン | |
| C4009 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| C4010-4012 | US062100 | C.CE.CHP | 100pF 50V B | | | チップセラコン | 01 |
| C4013 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| C4014 | US065100 | C.CE.CHP | 0.1uF 50V B | | | チップセラコン | 01 |
| C4016 | US065100 | C.CE.CHP | 0.1uF 50V B | | | チップセラコン | 01 |
| C4017 | US064100 | C.CE.CHP | 0.01uF 50V B | | | チップセラコン | 01 |
| C4018 | US065100 | C.CE.CHP | 0.1uF 50V B | | | チップセラコン | 01 |
| C4019 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| C4020-4023 | US063100 | C.CE.CHP | 1000pF 50V B | | | チップセラコン | 01 |
| C4024 | UR267100 | C.EL | 10uF 50V | | | ケミコン | |
| C4025 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| C4026-4027 | US063100 | C.CE.CHP | 1000pF 50V B | | | チップセラコン | 01 |
| C4028-4029 | UR267220 | C.EL | 22uF 50V | | | ケミコン | 01 |
| C4030 | UR867100 | C.EL | 10uF 50V | | | ケミコン | 01 |
| C4031 | UR867220 | C.EL | 22uF 50V | | | ケミコン | 01 |
| C4032 | US061330 | C.CE.CHP | 33pF 50V B | | | チップセラコン | 01 |
| C4033 | UR257470 | C.EL | 47uF 35V | | | ケミコン | 01 |
| C4034 | US062100 | C.CE.CHP | 100pF 50V B | | | チップセラコン | 01 |
| C4035 | UR867100 | C.EL | 10uF 50V | | | ケミコン | 01 |
| C4038 | US064100 | C.CE.CHP | 0.01uF 50V B | | | チップセラコン | 01 |
| C4301 | US063100 | C.CE.CHP | 1000pF 50V B | | | チップセラコン | 01 |
| C4302 | UA653330 | C.MYLAR | 3300pF 50V J | | | マイラーコン | 01 |
| C4303 | US064100 | C.CE.CHP | 0.01uF 50V B | | | チップセラコン | 01 |
| C4304 | UA653330 | C.MYLAR | 3300pF 50V J | | | マイラーコン | 01 |
| C4401 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| C4402-4403 | US062220 | C.CE.CHP | 220pF 50V B | | | チップセラコン | 01 |
| C4404-4405 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| C4406 | UR067100 | C.EL | 10uF 50V | | | ケミコン | 01 |
| C4407 | US064100 | C.CE.CHP | 0.01uF 50V B | | | チップセラコン | 01 |
| C4408 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| C4409 | US135100 | C.CE.CHP | 0.1uF 16V | | J | チップセラコン | 01 |
| C4410 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| D4001-4004 | WJ249600 | LED | ORANGE | | | ＬＥＤ | 01 |
| D4005 | WG760400 | LED | SELK6E10C BLUE | | | ＬＥＤ | 04 |
| D4008 | VT332900 | DIODE | 1SS355 | 663 | UCRTKAGEFL | ダイオード | 01 |
| D4008 | VT332900 | DIODE | 1SS355 | 6160 | UF | ダイオード | 01 |
| D4009-4012 | VT332900 | DIODE | 1SS355 | | | ダイオード | 01 |
| D4013-4014 | VU991000 | DIODE.ZENR | MA8036 3.6V | | | ツェナーダイオード | 01 |
| D4015 | V2598200 | LED | SIR-505ST | 663 | UCRTKAGEFL | ＬＥＤ | 01 |
| D4015 | V2598200 | LED | SIR-505ST | 6160 | UF | ＬＥＤ | 01 |
| D4016-4017 | VT332900 | DIODE | 1SS355 | | | ダイオード | 01 |
| D4018 | VU992600 | DIODE.ZENR | MA8051-M 5.1V | | | ツェナーダイオード | 01 |
| D4301 | VU995000 | DIODE.ZENR | MA8091-M 9.1V | | | ツェナーダイオード | |
| D4302-4303 | VT332900 | DIODE | 1SS355 | | | ダイオード | 01 |

✻ New Parts ＊新規部品

## P.C.B. OPERATION and P.C.B. MAIN

| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| | D4401-4404 | VT332900 | DIODE | 1SS355 | | | ダイオード | 01 |
| | IC401 | X6386A00 | IC | M66003-0131FP | | | ＩＣ | 07 |
| | IC402 | X7378A00 | IC | NJM4565M(TE1) | | | アンプＩＣ | 01 |
| | IC441 | XW814A00 | IC | TC7SET32FU | | | ロジックＩＣ | 01 |
| | JK401 | WC814400 | JACK.MNI | JY-3554-01-130 | | | ミニジャック | 02 |
| | JK431 | V9408200 | JACK.PHONE | MSJ-064-05B GR | | | ホーンジャック | 03 |
| | JK441 | V2589500 | CN.DIN | 1P | | | ミニＤＩＮコネクタ | 02 |
| | PJ441 | V7190100 | JACK.PIN | 3P | | | ピンジャック | 04 |
| | Q4001 | WC434800 | TR.DGT | KRA102S-RTK/P | | | デジタルトランジスタ | 01 |
| | Q4002 | WC529500 | TR | KTA1504S Y GR RTK | | | トランジスタ | |
| | Q4003 | WC529400 | TR | KTC3875S Y GR RTK | | | トランジスタ | 01 |
| | Q4004 | WC434800 | TR.DGT | KRA102S-RTK/P | | | デジタルトランジスタ | 01 |
| | Q4005 | WC435000 | TR.DGT | KRC102S-RTK | | | デジタルトランジスタ | 01 |
| | Q4006 | WC529500 | TR | KTA1504S Y GR RTK | | | トランジスタ | |
| | Q4007 | WC529400 | TR | KTC3875S Y GR RTK | | | トランジスタ | 01 |
| | Q4008 | WC435000 | TR.DGT | KRC102S-RTK | | | デジタルトランジスタ | 01 |
| | Q4009-4011 | WC529400 | TR | KTC3875S Y GR RTK | | | トランジスタ | 01 |
| | Q4012 | WC435000 | TR.DGT | KRC102S-RTK | | | デジタルトランジスタ | 01 |
| | Q4014 | WC435000 | TR.DGT | KRC102S-RTK | | JUCRTKAGEFL | デジタルトランジスタ | 01 |
| | Q4015-4018 | WC435000 | TR.DGT | KRC102S-RTK | | | デジタルトランジスタ | 01 |
| | Q4019-4022 | WC529400 | TR | KTC3875S Y GR RTK | | | トランジスタ | 01 |
| | ST431 | V4040500 | SCR.TERM | M3 | | | スクリュー／ターミナル | 01 |
| | ST441 | WA246200 | SCR.TERM | 3.5 | | | スクリューターミナル | |
| | SW401 | WD483100 | SW.TACT | SKRGAAD010 | | JUCRTKAGEFL | タクト　ＳＷ | 01 |
| | SW402-405 | WD483100 | SW.TACT | SKRGAAD010 | | | タクト　ＳＷ | 01 |
| | SW406 | WD483100 | SW.TACT | SKRGAAD010 | | JUCRTKAGEFL | タクト　ＳＷ | 01 |
| | SW407-408 | WD483100 | SW.TACT | SKRGAAD010 | | | タクト　ＳＷ | 01 |
| | SW409 | WD483100 | SW.TACT | SKRGAAD010 | | JUCRTKAGEFL | タクト　ＳＷ | 01 |
| | SW410-411 | V9266400 | SW.RT.ENC | XREB12105PVB25F | | | ロータリーエンコーダ | 02 |
| | SW412 | WD483100 | SW.TACT | SKRGAAD010 | | | タクト　ＳＷ | 01 |
| | SW413-416 | WD483100 | SW.TACT | SKRGAAD010 | | JUCRTKAGEFL | タクト　ＳＷ | 01 |
| | SW417 | V9597100 | SW.RT.ENC | EC12E2460802 | | | ロータリーエンコーダ | 04 |
| | SW418-419 | WD483100 | SW.TACT | SKRGAAD010 | | JUCRTKAGEFL | タクト　ＳＷ | 01 |
| | SW420 | WD483100 | SW.TACT | SKRGAAD010 | | | タクト　ＳＷ | 01 |
| | SW421 | WD483100 | SW.TACT | SKRGAAD010 | | JUCRTKAGEFL | タクト　ＳＷ | 01 |
| | SW422 | WD483100 | SW.TACT | SKRGAAD010 | | B | タクト　ＳＷ | 01 |
| | SW423 | WD483100 | SW.TACT | SKRGAAD010 | | | タクト　ＳＷ | 01 |
| | SW424 | WD483100 | SW.TACT | SKRGAAD010 | 663 | UCRTKAGEFL | タクト　ＳＷ | 01 |
| | SW424 | WD483100 | SW.TACT | SKRGAAD010 | 6160 | UF | タクト　ＳＷ | 01 |
| | U401 | V8210200 | L.DTCT | GP1UD271XK | | | リモコン受光ユニット | 03 |
| | U4401 | WH169900 | CN.PHOTO.R | 1P GP1FAV51RK0F | | | 光ファイバー受信器 | 04 |
| * | V401 | WN049000 | FL.DSPLY | 17-BT-32GNK | | | 螢光表示管 | |
| | | V6880300 | SHEET | | | | シート／ＦＬ | |
| | | V6007100 | SPACER.FL | 4.6/10/32 | | | スペーサ　ＦＬ | |
| * | | WN372500 | P.C.B. | MAIN | | J | ＰＣＢ　ＭＡＩＮ | |
| * | | WN372600 | P.C.B. | MAIN | | U | ＰＣＢ　ＭＡＩＮ | |
| * | | WN372600 | P.C.B. | MAIN | 663 | C | ＰＣＢ　ＭＡＩＮ | |
| * | | WN373000 | P.C.B. | MAIN | 6160 | C | ＰＣＢ　ＭＡＩＮ | |
| * | | WN372700 | P.C.B. | MAIN | | RTA | ＰＣＢ　ＭＡＩＮ | |
| * | | WN372800 | P.C.B. | MAIN | | KGEFL | ＰＣＢ　ＭＡＩＮ | |
| * | | WN372900 | P.C.B. | MAIN | | B | ＰＣＢ　ＭＡＩＮ | |
| | CB100 | LB932060 | CN.BS.PIN | 6P | | | ベースポスト | 01 |

※ New Parts　＊新規部品

## P.C.B. MAIN

| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| | CB101 | LB918100 | CN.BS.PIN | 10P | | | ベース付ポスト | 02 |
| | C1000-1001 | UR058220 | C.EL | 220uF 35V | | | ケミコン | 01 |
| | C1002-1003 | UR268220 | C.EL | 220uF 50V | | | ケミコン | 01 |
| | C1007-1008 | UR267330 | C.EL | 33uF 50V | | | ケミコン | 01 |
| | C1040-1041 | UR297100 | C.EL | 10uF 100V | | | ケミコン | |
| * | C1042 | WN164300 | C.PP | 330pF 100V | | | ＰＰコン | |
| | C1043 | UR397100 | C.EL | 10uF 100V | | | ケミコン | 03 |
| * | C1045 | WN164300 | C.PP | 330pF 100V | | | ＰＰコン | |
| | C1046 | UR397100 | C.EL | 10uF 100V | | | ケミコン | 03 |
| * | C1048 | WN164300 | C.PP | 330pF 100V | | | ＰＰコン | |
| | C1049 | UR397100 | C.EL | 10uF 100V | | | ケミコン | 03 |
| * | C1051 | WN164300 | C.PP | 330pF 100V | | | ＰＰコン | |
| | C1052 | UR397100 | C.EL | 10uF 100V | | | ケミコン | 03 |
| * | C1053-1054 | WN164300 | C.PP | 330pF 100V | | | ＰＰコン | |
| | C1055-1056 | UR397100 | C.EL | 10uF 100V | | | ケミコン | 03 |
| * | C1057 | WN164300 | C.PP | 330pF 100V | | | ＰＰコン | |
| | C1058 | UR397100 | C.EL | 10uF 100V | | | ケミコン | 03 |
| * | C1059 | WN165500 | C.PP | 0.022uF 100V | | | ＰＰコン | |
| | C1060 | UR297100 | C.EL | 10uF 100V | | | ケミコン | |
| * | C1061-1066 | WN165500 | C.PP | 0.022uF 100V | | | ＰＰコン | |
| | C1067 | UR838100 | C.EL | 100uF 16V | | | ケミコン | 01 |
| * | C1068-1069 | WN156000 | C.PP | 1000pF 250V | | | ＰＰコン | |
| | C1070 | UR866470 | C.EL | 4.7uF 50V | | | ケミコン | 01 |
| | C1071 | UR03A100 | C.EL | 10000uF 16V | | | ケミコン | |
| | C1073 | UA653100 | C.MYLAR | 1000pF 50V J | 663 | UCRTKAGEFL | マイラーコン | 03 |
| | C1073 | UA653100 | C.MYLAR | 1000pF 50V J | 6160 | UF | マイラーコン | 03 |
| | C1074 | UR058100 | C.EL | 100uF 35V | | | ケミコン | 01 |
| | C1075 | UR049470 | C.EL | 4700uF 25V | | | ケミコン | |
| * | C1076 | UR049100 | C.EL | 1000uF 25V | | | ケミコン | |
| | C1077 | UR03A100 | C.EL | 10000uF 16V | | | ケミコン | |
| | C1078 | UR039470 | C.EL | 4700uF 16V | | | ケミコン | 03 |
| | C1079 | UA653100 | C.MYLAR | 1000pF 50V J | | | マイラーコン | 03 |
| | C1080 | UA654100 | C.MYLAR | 0.01uF 50V J | | | マイラーコン | 01 |
| | C1081 | UR267100 | C.EL | 10uF 50V | | | ケミコン | |
| * | C1082-1083 | WN165500 | C.PP | 0.022uF 100V | | | ＰＰコン | |
| * | C1084-1085 | WN331300 | C.EL | 6800uF 71V | | | ケミコン | |
| | C1087-1088 | VR324900 | C.MYLAR | 0.1uF 100V | | | マイラーコン | 01 |
| | C1089 | UA654100 | C.MYLAR | 0.01uF 50V J | 663 | UCRTKAGEFL | マイラーコン | 01 |
| | C1089 | UA654100 | C.MYLAR | 0.01uF 50V J | 6160 | UF | マイラーコン | 01 |
| * | C1090 | UR048470 | C.EL | 470uF 25V | | | ケミコン | |
| | C1092-1093 | UA654220 | C.MYLAR | 0.022uF 50V J | | | マイラーコン | 01 |
| | C1094-1095 | VR324900 | C.MYLAR | 0.1uF 100V | | | マイラーコン | 01 |
| | C1097 | UA654100 | C.MYLAR | 0.01uF 50V J | | | マイラーコン | 01 |
| | C1098 | WG601900 | C.EL | 10000uF 16V | | | ケミコン | 04 |
| | C1099 | UA654100 | C.MYLAR | 0.01uF 50V J | | | マイラーコン | 01 |
| | C1102-1103 | UA654100 | C.MYLAR | 0.01uF 50V J | | | マイラーコン | 01 |
| | C1108 | UA654150 | C.MYLAR | 0.015uF 50V J | | | マイラーコン | 01 |
| | C1110 | UA654100 | C.MYLAR | 0.01uF 50V J | | | マイラーコン | 01 |
| | C1111 | UA654150 | C.MYLAR | 0.015uF 50V J | | | マイラーコン | 01 |
| ⚠ | C1112 | VR324900 | C.MYLAR | 0.1uF 100V | | | マイラーコン | 01 |
| | C1113 | UA654100 | C.MYLAR | 0.01uF 50V J | | | マイラーコン | 01 |
| | C1114 | UA654150 | C.MYLAR | 0.015uF 50V J | | | マイラーコン | 01 |
| | C1115-1116 | UA653470 | C.MYLAR | 4700pF 50V J | | | マイラーコン | 01 |
| | C1117-1118 | UA654100 | C.MYLAR | 0.01uF 50V J | | | マイラーコン | 01 |
| | C1119 | UA654150 | C.MYLAR | 0.015uF 50V J | | | マイラーコン | 01 |

✻ New Parts ＊新規部品

## P.C.B. MAIN

| Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|
| C1120 | UR266100 | C.EL | 1uF 50V | | UC | ケミコン | 01 |
| C1121 | UR237470 | C.EL | 47uF 16V | | UC | ケミコン | 01 |
| C1122-1123 | UR266100 | C.EL | 1uF 50V | | | ケミコン | 01 |
| C1124 | UA654470 | C.MYLAR | 0.047uF 50V J | | | マイラーコン | 01 |
| C1126-1127 | UR266100 | C.EL | 1uF 50V | | | ケミコン | 01 |
| C1129-1130 | UR266100 | C.EL | 1uF 50V | | | ケミコン | 01 |
| C1131 | WN896900 | C.EL | 1uF 100V | | J | ケミコン | |
| C1131 | UU296100 | C.EL | 1uF 100V | | UCRTKABGEFL | ケミコン | 01 |
| C1132 | WN896800 | C.EL | 33uF 50V | | J | ケミコン | |
| C1132 | UR267330 | C.EL | 33uF 50V | | UCRTKABGEFL | ケミコン | 01 |
| C1136 | WN951300 | C.EL | 10uF 16V | | J | ケミコン | |
| C1136 | WK041800 | C.EL | 10uF 16V | | UCRTKABGEFL | ケミコン | 01 |
| C1137 | WN951300 | C.EL | 10uF 16V | | J | ケミコン | |
| C1137 | WK041800 | C.EL | 10uF 16V | | UCRTKABGEFL | ケミコン | 01 |
| C1138 | WN896800 | C.EL | 33uF 50V | | J | ケミコン | |
| C1138 | UR267330 | C.EL | 33uF 50V | | UCRTKABGEFL | ケミコン | 01 |
| C1141 | WN896900 | C.EL | 1uF 100V | | J | ケミコン | |
| C1141 | UU296100 | C.EL | 1uF 100V | | UCRTKABGEFL | ケミコン | 01 |
| C1144 | UR266100 | C.EL | 1uF 50V | | | ケミコン | 01 |
| C1147 | WN951300 | C.EL | 10uF 16V | | J | ケミコン | |
| C1147 | WK041800 | C.EL | 10uF 16V | | UCRTKABGEFL | ケミコン | 01 |
| C1153 | UA654150 | C.MYLAR | 0.015uF 50V J | | | マイラーコン | 01 |
| C1154 | UA654100 | C.MYLAR | 0.01uF 50V J | | | マイラーコン | 01 |
| C1155 | UR297100 | C.EL | 10uF 100V | | | ケミコン | |
| C1156 | UR266100 | C.EL | 1uF 50V | | | ケミコン | 01 |
| D1000 | VG440500 | DIODE.ZENR | MTZJ13B 13V | | | ツェナーダイオード | 01 |
| D1001-1002 | VV307700 | DIODE | 1N4002S | | | ダイオード | 01 |
| D1003-1016 | VD631600 | DIODE | 1SS133,176 | | | ダイオード | 01 |
| D1017-1018 | VG435500 | DIODE.ZENR | MTZJ2.4B 2.4V | | | ツェナーダイオード | 01 |
| D1019-1030 | VN008700 | DIODE | 1SS270A | | | ダイオード | 01 |
| D1031 | VD631600 | DIODE | 1SS133,176 | 663 | UCRTKAGEFL | ダイオード | 01 |
| D1031 | VD631600 | DIODE | 1SS133,176 | 6160 | UF | ダイオード | 01 |
| D1032 | VG443200 | DIODE.ZENR | MTZJ30A 30V | | | ツェナーダイオード | 01 |
| D1033 | VD631600 | DIODE | 1SS133,176 | 663 | UCRTKAGEFL | ダイオード | 01 |
| D1033 | VD631600 | DIODE | 1SS133,176 | 6160 | UF | ダイオード | 01 |
| D1034 | VD631600 | DIODE | 1SS133,176 | 663 | UCRTKAGEFL | ダイオード | 01 |
| D1034 | VD631600 | DIODE | 1SS133,176 | 6160 | UF | ダイオード | 01 |
| ⚠ D1035 | WB121700 | DIODE.BRG | RS103 1.0A 200V | | | ダイオードブリツジ | 01 |
| ⚠ D1036 | WJ286700 | DIODE.BRG | RS403M 4A 140V | | | ダイオートブリッジ | 03 |
| D1037-1039 | VD631600 | DIODE | 1SS133,176 | | | ダイオード | 01 |
| * ⚠ D1040 | WB212700 | DIODE.BRG | RS603M 6A 200V | | JUCKBGEFL | ダイオードブリッジ | |
| ⚠ D1040 | WK611100 | DIODE.BRG | D6SBN20 6A 200V | | RTA | ダイオードブリッジ | |
| D1043 | VD631600 | DIODE | 1SS133,176 | | | ダイオード | 01 |
| D1044-1045 | VV307700 | DIODE | 1N4002S | | | ダイオード | 01 |
| D1047 | VD631600 | DIODE | 1SS133,176 | | | ダイオード | 01 |
| ⚠ D1048 | WH487300 | DIODE.BRG | RS203M 2.0A 200V | | | ダイオードブリッジ | 02 |
| D1049 | VD631600 | DIODE | 1SS133,176 | | | ダイオード | 01 |
| D1050 | VG440800 | DIODE.ZENR | MTZJ15B 15V | | | ツェナーダイオード | 01 |
| D1051 | VU647200 | DIODE.SHOT | RB441Q-40 T-77 | | | ショットキーダイオード | 01 |
| D1052 | VU647200 | DIODE.SHOT | RB441Q-40 T-77 | | UC | ショットキーダイオード | 01 |
| D1053-1058 | VG437500 | DIODE.ZENR | MTZJ5.1C 5.1V | | | ツェナーダイオード | 01 |
| D1061 | VG437500 | DIODE.ZENR | MTZJ5.1C 5.1V | | | ツェナーダイオード | 01 |
| D1062-1063 | VD631600 | DIODE | 1SS133,176 | | | ダイオード | 01 |
| D1064 | VN008700 | DIODE | 1SS270A | | | ダイオード | 01 |
| D1065 | VD631600 | DIODE | 1SS133,176 | | | 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 |
|---|---|---|---|---|---|---|---|---|
| | D1066 | VN008700 | DIODE | 1SS270A | | | ダイオード | 01 |
| | D1067-1069 | VD631600 | DIODE | 1SS133,176 | | | ダイオード | 01 |
| | D1070 | VG438000 | DIODE.ZENR | MTZJ6.2B 6.2V | | | ツェナーダイオード | 01 |
| | G100 | V5995800 | PLATE.GND | | | | アースプレート | |
| | IC100 | X6143A00 | IC | NJM2388F05 5.0V | | UC | 電源ＩＣ | 04 |
| | IC101 | X0515A00 | IC | LM61CIZ THERMAL | | | 電源ＩＣ | 03 |
| | IC102 | X6143A00 | IC | NJM2388F05 5.0V | | | 電源ＩＣ | 04 |
| | IC104 | X4153A00 | IC | KIA7812API | | | 電源ＩＣ | 02 |
| | IC105 | X4154A00 | IC | KIA7912PI | | | 電源ＩＣ | |
| | IC106 | X6143A00 | IC | NJM2388F05 5.0V | | | 電源ＩＣ | 04 |
| | IC107 | X6248A00 | IC | NJM2388F33 | | | 電源ＩＣ | 04 |
| | IC110 | XJ607A00 | IC | NJM7805FA 5V | | | ＩＣ | 02 |
| | JK100 | V9435700 | JACK.MNI | MSJ-035-12APC | 663 | UCRTKAGEFL | モノラル ミニジャック | 01 |
| | JK100 | V9435700 | JACK.MNI | MSJ-035-12APC | 6160 | UF | モノラル ミニジャック | 01 |
| | JK102 | V9435700 | JACK.MNI | MSJ-035-12APC | 663 | UCRTKAGEFL | モノラル ミニジャック | 01 |
| | JK102 | V9435700 | JACK.MNI | MSJ-035-12APC | 6160 | UF | モノラル ミニジャック | 01 |
| | JK201 | V9435700 | JACK.MNI | MSJ-035-12APC | | | モノラル ミニジャック | 01 |
| * | PN101 | WN515200 | PIN | L=70 ♯20 | | | スタイルピン | |
| ⚠ | Q1000 | VP872600 | TR | 2SA1708 S,T | | | トランジスタ | 01 |
| | Q1001-1006 | WC529200 | TR.DGT | KRC102M-AT | | | デジタルトランジスタ | 01 |
| | Q1007-1013 | WC398500 | TR.DGT | KRA102M-AT | | | デジタルトランジスタ | 01 |
| | Q1014-1015 | WC529200 | TR.DGT | KRC102M-AT | | | デジタルトランジスタ | 01 |
| | Q1016 | WC397700 | TR | 2N5401C-AT | | | トランジスタ | |
| ⚠ | Q1019-1024 | VK432900 | TR | 2SD1915F S,T | | | トランジスタ | 01 |
| | Q1025-1030 | VR325600 | TR | 2SC2229 O,Y | | | トランジスタ | 01 |
| | Q1031 | WC398400 | TR | 2N5551C-AT | | | トランジスタ | 01 |
| | Q1032 | WC397700 | TR | 2N5401C-AT | | | トランジスタ | |
| ⚠ | Q1033 | V4096100 | TR | 2SC4614 S,T | | | トランジスタ | 02 |
| ⚠ | Q1034 | V4096000 | TR | 2SA1770 S,T | | | トランジスタ | 03 |
| ⚠ | Q1035 | V4096100 | TR | 2SC4614 S,T | | | トランジスタ | 02 |
| ⚠ | Q1036 | V4096000 | TR | 2SA1770 S,T | | | トランジスタ | 03 |
| ⚠ | Q1037 | V4096100 | TR | 2SC4614 S,T | | | トランジスタ | 02 |
| ⚠ | Q1038 | V4096000 | TR | 2SA1770 S,T | | | トランジスタ | 03 |
| ⚠ | Q1039 | V4096100 | TR | 2SC4614 S,T | | | トランジスタ | 02 |
| ⚠ | Q1040 | V4096000 | TR | 2SA1770 S,T | | | トランジスタ | 03 |
| ⚠ | Q1041 | V4096100 | TR | 2SC4614 S,T | | | トランジスタ | 02 |
| ⚠ | Q1042 | V4096000 | TR | 2SA1770 S,T | | | トランジスタ | 03 |
| ⚠ | Q1043 | V4096100 | TR | 2SC4614 S,T | | | トランジスタ | 02 |
| ⚠ | Q1044 | V4096000 | TR | 2SA1770 S,T | | | トランジスタ | 03 |
| ⚠ | Q1045-1046 | WG538600 | TR | KTA1046-Y-U/P | | | トランジスタ | 02 |
| | Q1047 | WC398400 | TR | 2N5551C-AT | | | トランジスタ | 01 |
| ⚠ | Q1048-1053 | VR355900 | TR.PAIR | A1695/C4468 OPY | (IX630850,IX630860) | | ペアトランジスタ | 07 |
| | Q1060-1065 | WC398400 | TR | 2N5551C-AT | | | トランジスタ | 01 |
| | Q1066 | WC397700 | TR | 2N5401C-AT | | | トランジスタ | |
| | Q1067 | IC181510 | TR | 2SC1815 Y | | | トランジスタ | 01 |
| ⚠ | Q1068 | WC397700 | TR | 2N5401C-AT | | | トランジスタ | |
| | Q1069 | VP872600 | TR | 2SA1708 S,T | 663 | UCRTKAGEFL | トランジスタ | 01 |
| | Q1069 | VP872600 | TR | 2SA1708 S,T | 6160 | UF | トランジスタ | 01 |
| | Q1070 | WC529200 | TR.DGT | KRC102M-AT | 663 | UCRTKAGEFL | デジタルトランジスタ | 01 |
| | Q1070 | WC529200 | TR.DGT | KRC102M-AT | 6160 | UF | デジタルトランジスタ | 01 |
| ⚠ | Q1077 | VK432900 | TR | 2SD1915F S,T | | | トランジスタ | 01 |
| | Q1078 | VR325600 | TR | 2SC2229 O,Y | | | トランジスタ | 01 |
| ⚠ | Q1079 | V4096100 | TR | 2SC4614 S,T | | | トランジスタ | 02 |
| ⚠ | Q1080 | V4096000 | TR | 2SA1770 S,T | | | トランジスタ | 03 |
| ⚠ | Q1081 | VR355900 | TR.PAIR | A1695/C4468 OPY | (IX630850,IX630860) | | ペアトランジスタ | 07 |

＊New Parts ＊新規部品

## P.C.B. MAIN

| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| | Q1083 | WC398400 | TR | 2N5551C-AT | | | トランジスタ | 01 |
| | Q1100 | WG538600 | TR | KTA1046-Y-U/P | | | トランジスタ | 02 |
| | Q1101 | IA101510 | TR | 2SA1015 Y | | | トランジスタ | 01 |
| | Q1102 | IC181510 | TR | 2SC1815 Y | | | トランジスタ | 01 |
| | Q1103 | IA101510 | TR | 2SA1015 Y | | | トランジスタ | 01 |
| | Q1104 | WF691400 | TR | 2SD2014 | | | トランジスタ | 03 |
| | Q1105 | IE102620 | FET | 2SK246 Y | | | ＦＥＴ | 01 |
| | R1002-1003 | WG728000 | R.MTL.FLM | 4.7KΩ 1/4W | | | 金属被膜抵抗 | 01 |
| ⚠ | R1012 | HV753100 | R.CAR.FP | 1Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R1019 | HV756100 | R.CAR.FP | 1KΩ 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R1063 | HF355470 | R.CAR | 470Ω 1/2W | | | カーボン抵抗 | |
| | R1065-1069 | HF355470 | R.CAR | 470Ω 1/2W | | | カーボン抵抗 | |
| | R1084 | WG727400 | R.MTL.FLM | 2.7KΩ 1/4W | | | 金属被膜抵抗 | 01 |
| | R1085 | WG725600 | R.MTL.FLM | 470Ω 1/4W | | | 金属被膜抵抗 | 01 |
| | R1086 | WG726200 | R.MTL.FLM | 820Ω 1/4W | | | 金属被膜抵抗 | 01 |
| | R1087 | WG727400 | R.MTL.FLM | 2.7KΩ 1/4W | | | 金属被膜抵抗 | 01 |
| | R1088 | WG725600 | R.MTL.FLM | 470Ω 1/4W | | | 金属被膜抵抗 | 01 |
| | R1089 | WG726200 | R.MTL.FLM | 820Ω 1/4W | | | 金属被膜抵抗 | 01 |
| | R1090 | WG727400 | R.MTL.FLM | 2.7KΩ 1/4W | | | 金属被膜抵抗 | 01 |
| | R1091 | WG725600 | R.MTL.FLM | 470Ω 1/4W | | | 金属被膜抵抗 | 01 |
| | R1092 | WG726200 | R.MTL.FLM | 820Ω 1/4W | | | 金属被膜抵抗 | 01 |
| | R1093 | WG727400 | R.MTL.FLM | 2.7KΩ 1/4W | | | 金属被膜抵抗 | 01 |
| | R1094 | WG725600 | R.MTL.FLM | 470Ω 1/4W | | | 金属被膜抵抗 | 01 |
| | R1095 | WG726200 | R.MTL.FLM | 820Ω 1/4W | | | 金属被膜抵抗 | 01 |
| | R1096 | WG727400 | R.MTL.FLM | 2.7KΩ 1/4W | | | 金属被膜抵抗 | 01 |
| | R1097 | WG725600 | R.MTL.FLM | 470Ω 1/4W | | | 金属被膜抵抗 | 01 |
| | R1098 | WG726200 | R.MTL.FLM | 820Ω 1/4W | | | 金属被膜抵抗 | 01 |
| | R1099 | WG727400 | R.MTL.FLM | 2.7KΩ 1/4W | | | 金属被膜抵抗 | 01 |
| | R1100 | WG725600 | R.MTL.FLM | 470Ω 1/4W | | | 金属被膜抵抗 | 01 |
| | R1101 | WG726200 | R.MTL.FLM | 820Ω 1/4W | | | 金属被膜抵抗 | 01 |
| * | R1104 | WG726400 | R.MTL.FLM | 1KΩ 1/4W | | | 金属被膜抵抗 | |
| | R1105 | HV755120 | R.CAR.FP | 120Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| * | R1106 | WG726400 | R.MTL.FLM | 1KΩ 1/4W | | | 金属被膜抵抗 | |
| | R1107 | HV755120 | R.CAR.FP | 120Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| * | R1108 | WG726400 | R.MTL.FLM | 1KΩ 1/4W | | | 金属被膜抵抗 | |
| | R1109 | HV755120 | R.CAR.FP | 120Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| * | R1110 | WG726400 | R.MTL.FLM | 1KΩ 1/4W | | | 金属被膜抵抗 | |
| | R1111 | HV755120 | R.CAR.FP | 120Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| * | R1112 | WG726400 | R.MTL.FLM | 1KΩ 1/4W | | | 金属被膜抵抗 | |
| | R1113 | HV755120 | R.CAR.FP | 120Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| * | R1114 | WG726400 | R.MTL.FLM | 1KΩ 1/4W | | | 金属被膜抵抗 | |
| | R1115 | HV755120 | R.CAR.FP | 120Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R1116 | V8072100 | R.MTL.OXD | 5.6KΩ 1W | | | 酸化金属被膜抵抗 | |
| | R1117 | HV755560 | R.CAR.FP | 560Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| ⚠ | R1119-1130 | HV755120 | R.CAR.FP | 120Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R1132 | V8072000 | R.MTL.OXD | 4.7KΩ 1W | | | 酸化金属被膜抵抗 | |
| ⚠ | R1133-1145 | HV754100 | R.CAR.FP | 10Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R1147-1148 | HV754100 | R.CAR.FP | 10Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| ⚠ | R1149-1150 | WG471300 | R.WW | 0.22Ωx2 5W | RF-5EGKR22 | | セメント抵抗 | |
| * ⚠ | R1151 | WM216400 | R.WW | 0.22Ω 3W | | | セメント抵抗 | |
| ⚠ | R1152 | WG471300 | R.WW | 0.22Ωx2 5W | RF-5EGKR22 | | セメント抵抗 | |
| * ⚠ | R1153 | WM216400 | R.WW | 0.22Ω 3W | | | セメント抵抗 | |
| ⚠ | R1154 | WG471300 | R.WW | 0.22Ωx2 5W | RF-5EGKR22 | | セメント抵抗 | |
| ⚠ | R1173-1178 | V8070300 | R.MTL.FLM | 10Ω 1W | | | 金属被膜抵抗 | |
| ⚠ | R1202-1203 | V8070200 | R.MTL.FLM | 4.7Ω 1W | | | 金属被膜抵抗 | |

※ 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 |
|---|---|---|---|---|---|---|---|---|
| ⚠ | R1214 | HV754100 | R.CAR.FP | 10Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| ⚠ | R1215 | HV756150 | R.CAR.FP | 1.5KΩ 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R1232 | HV753470 | R.CAR.FP | 4.7Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R1238 | HV753470 | R.CAR.FP | 4.7Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R1245 | WG727400 | R.MTL.FLM | 2.7KΩ 1/4W | | | 金属被膜抵抗 | 01 |
| | R1249 | WG725600 | R.MTL.FLM | 470Ω 1/4W | | | 金属被膜抵抗 | 01 |
| * | R1252 | WG726400 | R.MTL.FLM | 1KΩ 1/4W | | | 金属被膜抵抗 | |
| | R1254 | WG726200 | R.MTL.FLM | 820Ω 1/4W | | | 金属被膜抵抗 | 01 |
| | R1294 | HF355470 | R.CAR | 470Ω 1/2W | | | カーボン抵抗 | |
| ⚠ | R1296-1298 | HV755120 | R.CAR.FP | 120Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| | R1301-1302 | HV754100 | R.CAR.FP | 10Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| ⚠ | R1303 | WG471300 | R.WW | 0.22Ωx2 5W | RF-5EGKR22 | | セメント抵抗 | |
| ⚠ | R1307 | V8070300 | R.MTL.FLM | 10Ω 1W | | | 金属被膜抵抗 | |
| | R1311 | HL002220 | R.MTL.OXD | 0.22Ω 1/2W | | | 酸化金属被膜抵抗 | 01 |
| * | R1319-1320 | V8072400 | R.MTL.OXD | 15KΩ 1W | | | 酸化金属被膜抵抗 | |
| | RY100-104 | WJ122400 | RELAY | 981-2A-24DS-SP7 | | | リレー 24V | 04 |
| | RY105 | WE648700 | RELAY | DC DH24D2-0-Q | | | リレー 24V | 06 |
| | RY106 | WJ122400 | RELAY | 981-2A-24DS-SP7 | | | リレー 24V | 04 |
| | ST100 | V4040500 | SCR.TERM | M3 | | | スクリュー／ターミナル | 01 |
| | TE100 | WH963400 | TERM.SP | 8P LTS0810-0020FM | | JUCRTA | スピーカーターミナル | 07 |
| * | TE100 | WH963500 | TERM.SP | 8P LTS0810-0021FM | | KBGEFL | スピーカーターミナル | |
| | TE101 | WH963200 | TERM.SP | 6P LTS0610-0014FM | | JUCRTA | スピーカーターミナル | 07 |
| * | TE101 | WH963300 | TERM.SP | 6P LTS0610-0015FM | | KBGEFL | スピーカーターミナル | |
| | TE102 | WH963000 | TERM.SP | 4P LTS0410-0015FM | | JUCRTA | スピーカーターミナル | 05 |
| * | TE102 | WH963100 | TERM.SP | 4P LTS0410-0016FM | | KBGEFL | スピーカーターミナル | |
| | | WE774200 | SCR.BND.HD | 3x10 MFZN2W3 | | | バインドBタイトネジ | 01 |
| * | | WN374400 | P.C.B. | VIDEO | | J | PCB VIDEO | |
| * | | WN374500 | P.C.B. | VIDEO | | UCRTKABGEF | PCB VIDEO | |
| | CB302 | VB858700 | CN.BS.PIN | 8P | | | ベースピン | 01 |
| | CB303 | VB858600 | CN.BS.PIN | 7P | | | ベースピン | 01 |
| | CB304 | V7827200 | SOCKET | 5P TE TUC SERIES | | | コネクターソケット | |
| | CB305 | VQ045500 | CN.BS.PIN | 26P | | | FFCコネクター | 02 |
| | CB351-354 | WD398400 | CN.DIN | 14P YKF45-3011 | | J | DINコネクタ | 05 |
| | CB355 | V7827200 | SOCKET | 5P TE TUC SERIES | | | コネクターソケット | |
| | CB356 | VQ044700 | CN.BS.PIN | 16P | | | FFCコネクター | 01 |
| | C3001-3004 | US135100 | C.CE.CHP | 0.1uF 16V | | J | チップセラコン | 01 |
| | C3005-3013 | US062100 | C.CE.CHP | 100pF 50V B | | | チップセラコン | 01 |
| | C3015-3020 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| | C3021-3023 | US062220 | C.CE.CHP | 220pF 50V B | | | チップセラコン | 01 |
| | C3025 | UR237470 | C.EL | 47uF 16V | | | ケミコン | 01 |
| | C3026 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| | C3027 | US062220 | C.CE.CHP | 220pF 50V B | | | チップセラコン | 01 |
| | C3028 | UR267100 | C.EL | 10uF 50V | | | ケミコン | |
| | C3029-3033 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| | C3034 | UR267100 | C.EL | 10uF 50V | | | ケミコン | |
| | C3035 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| | C3043 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| | C3045-3050 | UR837470 | C.EL | 47uF 16V | | | ケミコン | 01 |
| | C3052-3053 | UR837470 | C.EL | 47uF 16V | | | ケミコン | 01 |
| | C3054 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| | C3055-3056 | US062220 | C.CE.CHP | 220pF 50V B | | | チップセラコン | 01 |
| | C3057-3063 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |

※ New Parts ＊新規部品

## P.C.B. VIDEO

| Ref No. | Part No. | Description | | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| C3064-3065 | US062390 | C.CE.CHP | 390pF | 50V B | | | チップセラコン | 01 |
| C3067-3068 | US062100 | C.CE.CHP | 100pF | 50V B | | | チップセラコン | 01 |
| C3069-3070 | UR837100 | C.EL | 10uF | 16V | | | ケミコン | 01 |
| C3074-3076 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3077-3078 | UR237470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3084 | UR237470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3087 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3091 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3092 | UR238220 | C.EL | 220uF | 16V | | | ケミコン | 01 |
| C3093 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3096 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3097 | UR237470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3098 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3100 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3101 | UR238220 | C.EL | 220uF | 16V | | | ケミコン | 01 |
| C3102 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3105 | UR267330 | C.EL | 33uF | 50V | | | ケミコン | 01 |
| C3106 | UR266100 | C.EL | 1uF | 50V | | | ケミコン | 01 |
| C3501-3503 | US060800 | C.CE.CHP | 8pF | 50V B | | | チップセラコン | 01 |
| C3504-3515 | US064100 | C.CE.CHP | 0.01uF | 50V B | | J | チップセラコン | 01 |
| C3516-3518 | US060800 | C.CE.CHP | 8pF | 50V B | | J | チップセラコン | 01 |
| C3519 | UR237470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3520-3521 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3522 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3523 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3524 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3525 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3526 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3527 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3528-3530 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3531-3532 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3534 | US135100 | C.CE.CHP | 0.1uF | 16V | | J | チップセラコン | 01 |
| C3535 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3536 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3537 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3538 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3539 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3540 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3541 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3542-3544 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3545-3547 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3548 | US135100 | C.CE.CHP | 0.1uF | 16V | | J | チップセラコン | 01 |
| C3550 | UR237470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3551-3553 | US060300 | C.CE.CHP | 3pF | 50V B | | | チップセラコン | 01 |
| C3554 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3555 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3556 | UR238330 | C.EL | 330uF | 16V | | | ケミコン | 01 |
| C3558 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3559 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3560 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3561 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3562 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3563 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |
| C3564 | US135100 | C.CE.CHP | 0.1uF | 16V | | | チップセラコン | 01 |
| C3565-3566 | UR837470 | C.EL | 47uF | 16V | | | ケミコン | 01 |

※ New Parts ＊新規部品

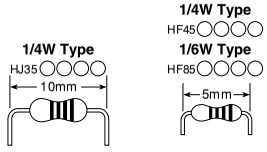
## P.C.B. VIDEO

| Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|
| C3567 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| C3568 | UR866100 | C.EL | 1uF 50V | | | ケミコン | 01 |
| C3573 | US135100 | C.CE.CHP | 0.1uF 16V | | | チップセラコン | 01 |
| D3002-3003 | VT332900 | DIODE | 1SS355 | | | ダイオード | 01 |
| D3502 | VT332900 | DIODE | 1SS355 | | J | ダイオード | 01 |
| D3504 | VT332900 | DIODE | 1SS355 | | J | ダイオード | 01 |
| D3506 | VT332900 | DIODE | 1SS355 | | J | ダイオード | 01 |
| D3510 | VT332900 | DIODE | 1SS355 | | | ダイオード | 01 |
| IC301 | X8083A00 | IC | TC4051BF | | | ロジックＩＣ | 02 |
| IC302-303 | XY549A00 | IC | TC74HC4051AFEL | | | ロジックＩＣ | 02 |
| IC304 | XY879A00 | IC | TC74HC4053AF(EL) | | | ロジックＩＣ | 03 |
| IC305 | X8274A00 | IC | NJM2388F09 | | | 電源ＩＣ | |
| IC331 | X7378A00 | IC | NJM4565M(TE1) | | | アンプＩＣ | 01 |
| IC332-333 | X6742A00 | IC | LA73050-TLM-E | | | アンプＩＣ | 04 |
| IC351 | X2904A00 | IC | NJM2581M VIDEO AMP | | | アンプＩＣ | 06 |
| IC383 | XS790A00 | IC | TC74HC4052AF MPX | | J | ロジックＩＣ | 02 |
| IC392 | X6757A00 | IC | NJW1321FP1 | | | ＩＣ | 08 |
| JK301-302 | WD396100 | JACK.PIN | LAP5100-1801FC | | | ピンジャック | 04 |
| JK303 | WD396300 | JACK.PIN | LAP5100-1601FC | | | ピンジャック | 04 |
| PJ351-352 | WG471900 | JACK.PIN | 6P | | | ピンジャック 6Ｐ | 03 |
| * PN301 | WN515200 | PIN | L=70 #20 | | | スタイルピン | |
| Q3001-3003 | VR936300 | TR | 2SA1576A T106 | | | トランジスタ | 01 |
| Q3004-3006 | VV655700 | TR.DGT | DTC144EKA | | | デジタルトランジスタ | 01 |
| Q3300 | WH628700 | FET | RSR025P03TL | | | ＦＥＴ | |
| Q3301 | VV556400 | TR | 2SC2412K Q,R,S | | | トランジスタ | 01 |
| Q3501 | WC435000 | TR.DGT | KRC102S-RTK | | | デジタルトランジスタ | 01 |
| R3093-3094 | HV754150 | R.CAR.FP | 15Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| R3103-3104 | HV753100 | R.CAR.FP | 1Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| R3111 | HV753100 | R.CAR.FP | 1Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| R3114-3115 | HV753100 | R.CAR.FP | 1Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| R3534 | HV753100 | R.CAR.FP | 1Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| R3541 | HV753100 | R.CAR.FP | 1Ω 1/4W | | J | 不燃化カーボン抵抗 | 01 |
| R3542 | HV753100 | R.CAR.FP | 1Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| R3546 | HV753100 | R.CAR.FP | 1Ω 1/4W | | J | 不燃化カーボン抵抗 | 01 |
| R3559 | HV753100 | R.CAR.FP | 1Ω 1/4W | | | 不燃化カーボン抵抗 | 01 |
| ST301 | V4040500 | SCR.TERM | M3 | | | スクリュー／ターミナル | 01 |
| ST351 | V4040500 | SCR.TERM | M3 | | | スクリュー／ターミナル | 01 |
| ST352 | V4040500 | SCR.TERM | M3 | | UCRTKABGEFL | スクリュー／ターミナル | 01 |

※ New Parts ＊新規部品

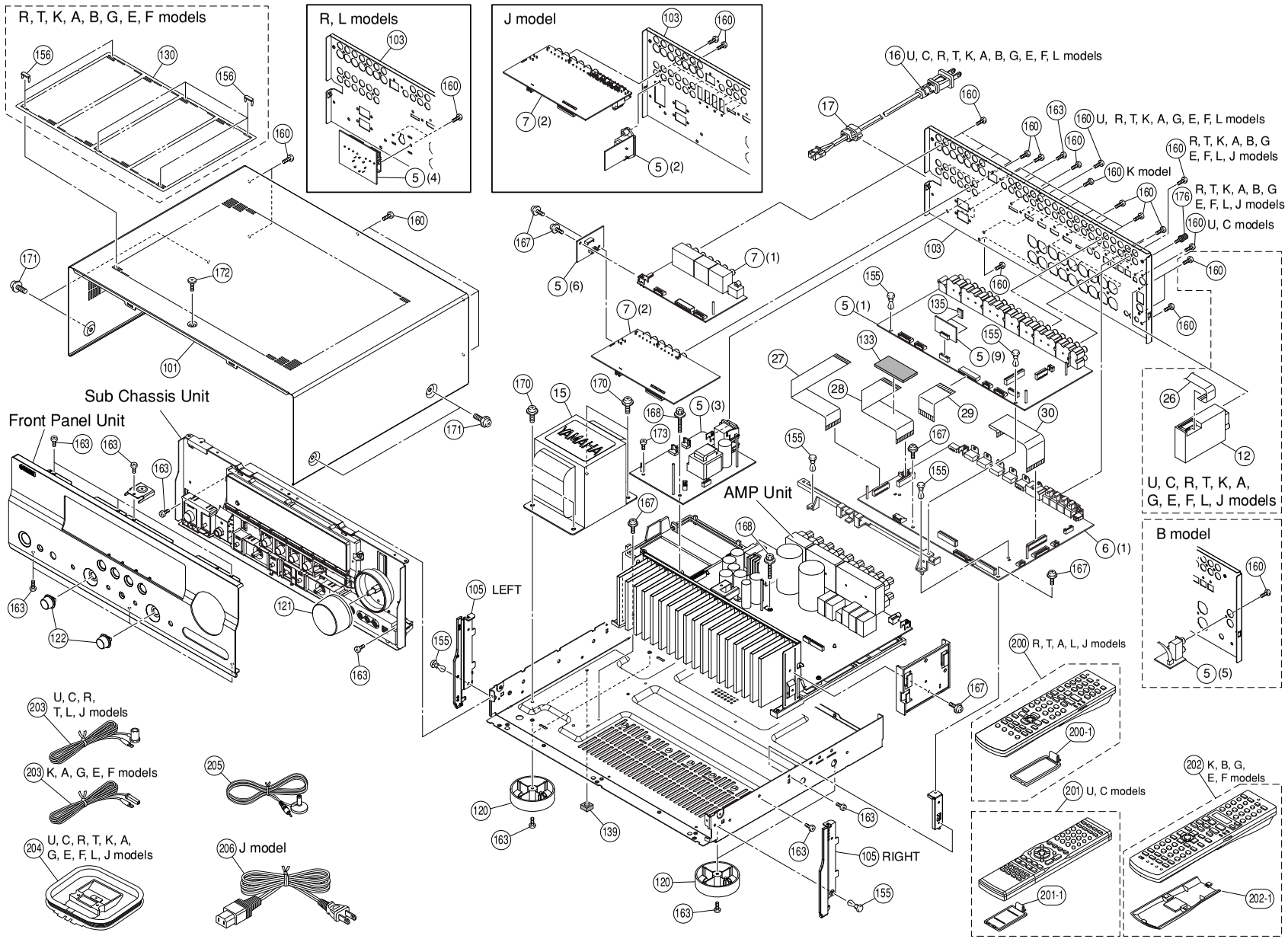
## Chip Resistors

| 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



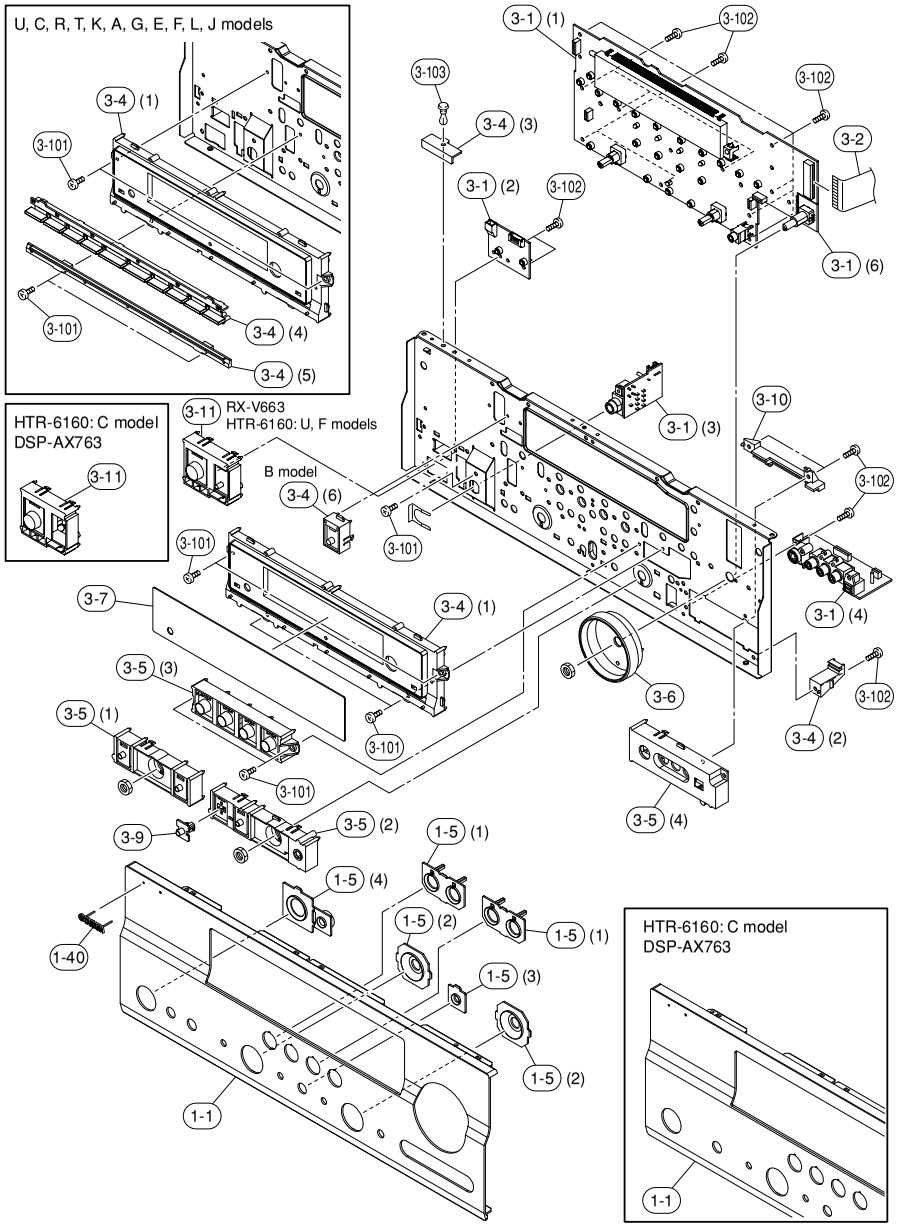
| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| * | 5 | WN373100 | P.C.B. ASS'Y | FUNCTION | | J | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | 5 | WN374200 | P.C.B. ASS'Y | FUNCTION | | U | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | 5 | WN374200 | P.C.B. ASS'Y | FUNCTION | V663 | C | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | 5 | WN374300 | P.C.B. ASS'Y | FUNCTION | 6160 | C | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | 5 | WN373400 | P.C.B. ASS'Y | FUNCTION | | R | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | 5 | WN373500 | P.C.B. ASS'Y | FUNCTION | | T | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | 5 | WN373600 | P.C.B. ASS'Y | FUNCTION | | K | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | 5 | WN373700 | P.C.B. ASS'Y | FUNCTION | | A | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | 5 | WN373800 | P.C.B. ASS'Y | FUNCTION | | B | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | 5 | WN373900 | P.C.B. ASS'Y | FUNCTION | | GEF | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | 5 | WN374000 | P.C.B. ASS'Y | FUNCTION | | L | ＰＣＢ ＦＵＮＣＴＩＯＮ | |
| * | 6 | WN252300 | P.C.B. ASS'Y | DIGITAL | | J | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 6 | WN252400 | P.C.B. ASS'Y | DIGITAL | V663 | U | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 6 | WN254200 | P.C.B. ASS'Y | DIGITAL | 6160 | U | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 6 | WN252400 | P.C.B. ASS'Y | DIGITAL | V663 | C | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 6 | WN254300 | P.C.B. ASS'Y | DIGITAL | 6160 | C | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 6 | WN253000 | P.C.B. ASS'Y | DIGITAL | | R | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 6 | WN253100 | P.C.B. ASS'Y | DIGITAL | | T | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 6 | WN253200 | P.C.B. ASS'Y | DIGITAL | | K | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 6 | WN253300 | P.C.B. ASS'Y | DIGITAL | | A | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 6 | WN253400 | P.C.B. ASS'Y | DIGITAL | | B | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 6 | WN254000 | P.C.B. ASS'Y | DIGITAL | V663 | GEF | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 6 | WN254400 | P.C.B. ASS'Y | DIGITAL | 6160 | F | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 6 | WN254100 | P.C.B. ASS'Y | DIGITAL | | L | ＰＣＢ ＤＩＧＩＴＡＬ | |
| * | 7 | WN374400 | P.C.B. ASS'Y | VIDEO | | J | ＰＣＢ ＶＩＤＥＯ | |
| * | 7 | WN374500 | P.C.B. ASS'Y | VIDEO | | UCRTKABGEFL | ＰＣＢ ＶＩＤＥＯ | |
| | 12 | WB877200 | AM/FM TUNER | FAE381-J07F | | J | ＡＭ／ＦＭチューナー | 12 |
| | 12 | WB877300 | AM/FM TUNER | FAE381-A07F | | UCRTL | ＡＭ／ＦＭチューナー | |
| | 12 | WB877400 | AM/FM TUNER | FAE481-E07F | | KAGEF | ＡＭ／ＦＭチューナー | |
| * ⚠ | 15 | X9525A00 | POWER TRANSFORMER | | | J | 電源トランス | |
| * ⚠ | 15 | X9529A00 | POWER TRANSFORMER | | | UC | 電源トランス | |
| * ⚠ | 15 | X9530A00 | POWER TRANSFORMER | | | RL | 電源トランス | |
| * ⚠ | 15 | X9568A00 | POWER TRANSFORMER | | | TK | 電源トランス | |
| * ⚠ | 15 | X9569A00 | POWER TRANSFORMER | | | A | 電源トランス | |
| * ⚠ | 15 | X9528A00 | POWER TRANSFORMER | | | BGEF | 電源トランス | |
| ⚠ | 16 | V9293500 | 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 | V9293600 | POWER CABLE | 2m | | GEFL | 電源コード | |
| | 17 | V2438700 | CORD STOPPER | 10P1 | | UCRTKABGEFL | コードストッパー | 02 |
| | 26 | MF113120 | FLEXIBLE FLAT CABLE | 13P 120mm P=1.25 | | JUCRTKAGEFL | カード電線 Ｃ＆Ｃ | 01 |
| * | 27 | WP241800 | FLEXIBLE FLAT CABLE | 16P 140mm P=1.25 | | | カード電線 Ｃ＆Ｃ | |
| * | 28 | WP242100 | FLEXIBLE FLAT CABLE | 26P 120mm P=1.25 | | | カード電線 Ｃ＆Ｃ | |
| | 29 | MF124070 | FLEXIBLE FLAT CABLE | 24P 70mm P=1.25 | | | カード電線 Ｃ＆Ｃ | 01 |
| * | 30 | WP242000 | FLEXIBLE FLAT CABLE | 25P 120mm P=1.25 | | | カード電線 Ｃ＆Ｃ | |
| | 101 | WG364700 | TOP COVER | | GD | | トップカバー | 11 |
| | 101 | WG364600 | TOP COVER | | BL | | トップカバー | |
| | 101 | WG364800 | TOP COVER | | TI | | トップカバー | |
| * | 103 | WM736200 | REAR PANEL | | AX763 | J | リヤパネル | |
| * | 103 | WM735300 | REAR PANEL | | V663 | UC | リヤパネル | |
| * | 103 | WM735500 | REAR PANEL | | V663 | R | リヤパネル | |
| * | 103 | WM735600 | REAR PANEL | | V663 | T | リヤパネル | |
| * | 103 | WM735700 | REAR PANEL | | V663 | K | リヤパネル | |
| * | 103 | WM735800 | REAR PANEL | | V663 | A | リヤパネル | |
| * | 103 | WM735900 | REAR PANEL | | AX763 | B | リヤパネル | |
| * | 103 | WM736000 | REAR PANEL | | V663 | GEF | リヤパネル | |
| * | 103 | WM736100 | REAR PANEL | | V663 | L | リヤパネル | |

＊New Parts ＊新規部品

| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| * | 103 | WM736300 | REAR PANEL | | 6160 | U | リヤパネル | |
| * | 103 | WM736400 | REAR PANEL | | 6160 | C | リヤパネル | |
| * | 103 | WM736500 | REAR PANEL | | 6160 | F | リヤパネル | |
| | 105 | WK437600 | PLATE SIDE | | GD | | プレートサイド | |
| | 105 | WK437500 | PLATE SIDE | | BL | | プレートサイド | |
| | 105 | WK437700 | PLATE SIDE | | TI | | プレートサイド | |
| | 112 | WM738000 | SUPPORT PCB/F | | | | サポートＰＣＢ／Ｆ | |
| | 120 | V0042500 | LEG | D60xH21 GD | GD | | レッグ | 03 |
| | 120 | VS025000 | LEG | D60xH21 HS | BL, TI | | レッグ | 02 |
| * | 121 | WM737800 | KNOB D50 | | GD | | ノブＤ５０ | |
| * | 121 | WM737700 | KNOB D50 | | BL | | ノブＤ５０ | |
| * | 121 | WM737900 | KNOB D50 | | TI | | ノブＤ５０ | |
| | 122 | WJ182100 | KNOB D20 | PROGRAM/INPUT | GD | | ノブＤ２０ | 02 |
| | 122 | WJ182000 | KNOB D20 | PROGRAM/INPUT | BL | | ノブＤ２０ | |
| | 122 | WJ182200 | KNOB D20 | PROGRAM/INPUT | TI | | ノブＤ２０ | |
| | 131 | WK667900 | SHEET TOP | | | RTKABGEF | シート トップ | |
| | 133 | V6742300 | DAMPER | 3/30/60 | | | ダンパー | |
| | 135 | WE812900 | DAMPER | 18x12 t=2 | | | ダンパー | |
| | 139 | WC879000 | DAMPER | SCREW MASK | | | ダンパー | |
| | 155 | V0368600 | PUSH RIVET | P3555-B | | | プッシュリベット | 01 |
| | 156 | WJ053800 | RIVET TOP | | | RTKABGEF | リベットトップ | |
| | 160 | WE774100 | BIND HEAD BONDING B-T. SCREW | 3x8 MFZN2B3 | | | ボンディングＢタイトネジ | 01 |
| | 163 | WE774300 | BIND HEAD B-TIGHT SCREW | 3x8 MFZN2W3 | | | バインドＢタイトネジ | 01 |
| | 167 | WF002600 | PW HEAD B-TIGHT SCREW | 3x8 MFZN2W3 | | | ＰＷヘッドＢタイトネジ | 01 |
| | 168 | WH010900 | SCREW IC | 3x20 MFZN2W3 | | | スクリュー ＩＣ | |
| | 170 | WE774700 | BIND HEAD S-TIGHT SCREW | 4x10 MFZN2W3 | | | バインドＳタイトネジ | 01 |
| | 171 | VD069600 | PW HEAD S-TIGHT SCREW | 4x8-10 MFNI33 | GD, TI | | ＰＷヘッドＳタイトネジ | 01 |
| | 171 | VH313200 | PW HEAD S-TIGHT SCREW | 4x8-10 MFNI3BL | BL | | ＰＷヘッドＳタイトネジ | 01 |
| | 172 | WE200400 | DISH HEAD B-TIGHT SCREW | 3x6 MFNI33 | GD, TI | | ＤＩＳＨ Ｂタイトネジ | 01 |
| | 172 | WE200500 | DISH HEAD B-TIGHT SCREW | 3x6 MFNI3BL | BL | | ＤＩＳＨ Ｂタイトネジ | 01 |
| | 173 | WE774800 | BIND HEAD P-TIGHT SCREW | 3x8 MFZN2W3 | | | バインドＰタイトネジ | 01 |
| | 176 | AA627310 | GROUND TERMINAL | | | JRTABGEF | ＧＮＤターミナル | 01 |
| | | | ACCESSORIES | | | | 付属品 | |
| * | 200 | WM873900 | REMOTE CONTROL | RAV330 | | JRTAL | リモコン | |
| | 200-1 | AAX76600 | BATTERY COVER | | UR76EC6103A | JRTAL | 電池蓋 | 04 |
| * | 201 | WN058300 | REMOTE CONTROL | RAV285 | | UC | リモコン | |
| | 201-1 | AAX82380 | BATTERY COVER | | CG-2209 | UC | 電池蓋 | |
| * | 202 | WM885300 | REMOTE CONTROL | RAV372 | | KBGEF | リモコン | |
| | 202-1 | AAX59640 | BATTERY COVER | | 3139 238 08051 | KBGEF | 電池蓋 | 02 |
| | 203 | V6267000 | INDOOR FM ANTENNA | 1.4m 1pc | | JUCRTL | ＦＭ簡易アンテナ | 03 |
| | 203 | VQ147100 | INDOOR FM ANTENNA | 1.4m 1pc | | KAGEF | ＦＭ簡易アンテナ | 02 |
| | 204 | VR248500 | AM LOOP ANTENNA | 1.0m 1pc | | JUCRTKAGEFL | ＡＭループアンテナ | 03 |
| | 205 | WJ264300 | OPTIMIZER MICROPHONE | 6m 1pc | | | オプティマイザーマイク | 08 |
| ⚠ | 206 | WA642300 | POWER CABLE | 2m 1pc | | J | 電源コード | 07 |
| | | | BATTERY | R6,AA,UM-3 2pcs | | JRTAL | 単３乾電池 | |
| | | | BATTERY | R03,AAA,UM-4 2pcs | | UC | 単４乾電池 | |
| | | | BATTERY | R03,AAA,UM-4 4pcs | | KBGEF | 単４乾電池 | |
| | | | SERVICE TOOLS | | | | サービス用部品 | |
| | | AAX77610 | RS232C CONVERSION ADAPTER | with CABLE(9P) | | | ＲＳ２３２Ｃ変換アダプタ | |
| | | MF116400 | FLEXIBLE FLAT CABLE | 16P 400mm P=1.25 | | | カード電線 Ｃ＆Ｃ | |
| | | MF125400 | FLEXIBLE FLAT CABLE | 25P 400mm P=1.25 | | | カード電線 Ｃ＆Ｃ | |
| | | MF126500 | FLEXIBLE FLAT CABLE | 26P 500mm P=1.25 | | | カード電線 Ｃ＆Ｃ | |

＊New Parts ＊新規部品

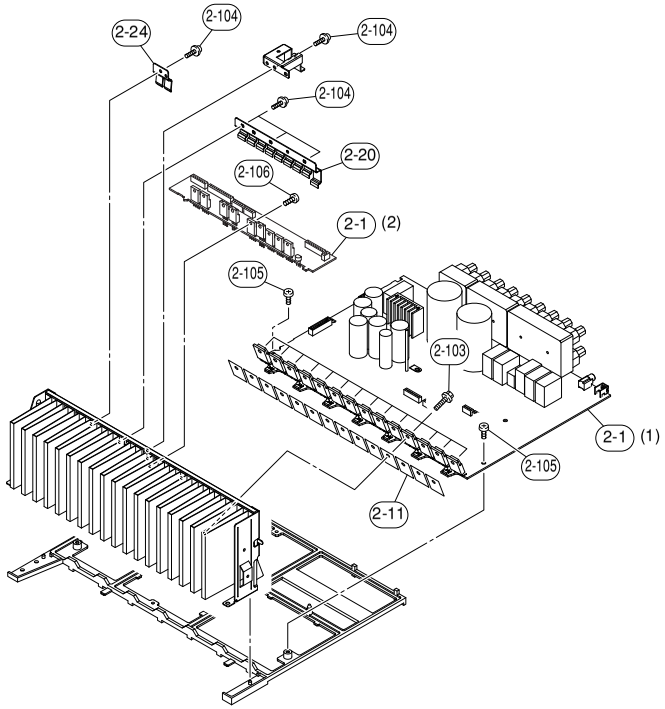
## • FRONT PANEL and SUB CHASSIS UNIT




| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| * | 1-1 | WM739300 | FRONT PANEL | | AX763GD | J | フロントパネル | |
| * | 1-1 | WM739200 | FRONT PANEL | | V663GD | RT | フロントパネル | |
| * | 1-1 | WM958800 | FRONT PANEL | | AX763BL | J | フロントパネル | |
| * | 1-1 | WM738600 | FRONT PANEL | | V663BL | UC | フロントパネル | |
| * | 1-1 | WM738700 | FRONT PANEL | | V663BL | RAGEF | フロントパネル | |
| * | 1-1 | WM958700 | FRONT PANEL | | AX763BL | B | フロントパネル | |
| * | 1-1 | WM739900 | FRONT PANEL | | V663TI | KGEFL | フロントパネル | |
| * | 1-1 | WM740000 | FRONT PANEL | | AX763TI | B | フロントパネル | |
| * | 1-1 | WM738800 | FRONT PANEL | | 6160BL | U | フロントパネル | |
| * | 1-1 | WN083300 | FRONT PANEL | | 6160BL | C | フロントパネル | |
| * | 1-1 | WM738900 | FRONT PANEL | | 6160BL | F | フロントパネル | |
| * | 1-1 | WM740100 | FRONT PANEL | | 6160TI | | フロントパネル | |
| * | 1-5 | WM740600 | ESCUTCHEON ASS'Y | | GD | | エスカッションＡＳＳＹ | |
| * | 1-5 | WM740500 | ESCUTCHEON ASS'Y | | BL | | エスカッションＡＳＳＹ | |
| * | 1-5 | WM740700 | ESCUTCHEON ASS'Y | | TI | | エスカッションＡＳＳＹ | |
| | 1-40 | V6034200 | EMBLEM | | GD | | エンブレム | 03 |
| | 1-40 | V6034100 | EMBLEM | | BL, TI | | エンブレム | 03 |
| * | 3-1 | WN378100 | P.C.B. ASS'Y | OPERATION | | J | ＰＣＢ　ＯＰＥＲＡＴＩＯＮ | |
| * | 3-1 | WN378200 | P.C.B. ASS'Y | OPERATION | | URTKAGEFL | ＰＣＢ　ＯＰＥＲＡＴＩＯＮ | |
| * | 3-1 | WN378200 | P.C.B. ASS'Y | OPERATION | V863 | C | ＰＣＢ　ＯＰＥＲＡＴＩＯＮ | |
| * | 3-1 | WN378400 | P.C.B. ASS'Y | OPERATION | 6180 | C | ＰＣＢ　ＯＰＥＲＡＴＩＯＮ | |
| * | 3-1 | WN378300 | P.C.B. ASS'Y | OPERATION | | B | ＰＣＢ　ＯＰＥＲＡＴＩＯＮ | |
| * | 3-2 | WP242200 | FLEXIBLE FLAT CABLE | 26P 250mm P=1.25 | | | カード電線　Ｃ＆Ｃ | |
| | 3-4 | WJ183200 | SUBPANEL | | | JUCRTKAGEFL | サブパネル | 04 |
| * | 3-4 | WJ183300 | SUBPANEL | | | B | サブパネル | |
| * | 3-5 | WM741300 | BUTTON CASE 863 | | GD | | ボタンケース８６３ | |
| * | 3-5 | WM741100 | BUTTON CASE 863 | | BL | | ボタンケース８６３ | |
| * | 3-5 | WM741400 | BUTTON CASE 863 | | TI | | ボタンケース８６３ | |
| * | 3-6 | WM737500 | ESCUTCHEON VOL | | GD | | エスカッションＶＯＬ | |
| * | 3-6 | WM737400 | ESCUTCHEON VOL | | BL | | エスカッションＶＯＬ | |
| * | 3-6 | WM737600 | ESCUTCHEON VOL | | TI | | エスカッションＶＯＬ | |
| * | 3-7 | WM741800 | SHEET WINDOW | | | J | シートウインドウ | |
| * | 3-7 | WN081600 | SHEET WINDOW | | | U | シートウインドウ | |
| * | 3-7 | WN081600 | SHEET WINDOW | | V863 | C | シートウインドウ | |
| * | 3-7 | WM741900 | SHEET WINDOW | | 6160 | C | シートウインドウ | |
| * | 3-7 | WM741600 | SHEET WINDOW | | | RTKAGEFL | シートウインドウ | |
| * | 3-7 | WM741700 | SHEET WINDOW | | | B | シートウインドウ | |
| | 3-9 | WJ184100 | LENS BUTTON | | | | ボタンレンズ | 01 |
| | 3-10 | WJ917000 | SUPPORT AUX | | GD | | サポートＡＵＸ | 01 |
| | 3-10 | WJ916900 | SUPPORT AUX | | BL | | サポートＡＵＸ | |
| | 3-10 | WJ917100 | SUPPORT AUX | | TI | | サポートＡＵＸ | |
| * | 3-11 | WM736900 | BUTTON STANDBY | | AX863GD | | ボタン　スタンバイ | |
| * | 3-11 | WM736700 | BUTTON STANDBY | | AX863BL | | ボタン　スタンバイ | |
| * | 3-11 | WM737100 | BUTTON STANDBY | | AX863TI | | ボタン　スタンバイ | |
| * | 3-11 | WM736700 | BUTTON STANDBY | | 6160BL | C | ボタン　スタンバイ | |
| * | 3-11 | WM736800 | BUTTON MAIN | | V863GD | | ボタン　ＭＡＩＮ | |
| * | 3-11 | WM736600 | BUTTON MAIN | | V863BL | | ボタン　ＭＡＩＮ | |
| * | 3-11 | WM737000 | BUTTON MAIN | | V863TI | | ボタン　ＭＡＩＮ | |
| * | 3-11 | WM736600 | BUTTON MAIN | | 6160BL | UF | ボタン　ＭＡＩＮ | |
| * | 3-11 | WM737000 | BUTTON MAIN | | 6160TI | | ボタン　ＭＡＩＮ | |
| | 3-101 | WE774300 | BIND HEAD B-TIGHT SCREW | 3x8 MFZN2W3 | | | バインドＢタイトネジ | 01 |
| | 3-102 | WE774800 | BIND HEAD P-TIGHT SCREW | 3x8 MFZN2W3 | | | バインドＰタイトネジ | 01 |
| | 3-103 | VQ368600 | PUSH RIVET | P3555-B | | | プッシュリベット | 01 |

＊New Parts　＊新規部品

## • AMP UNIT



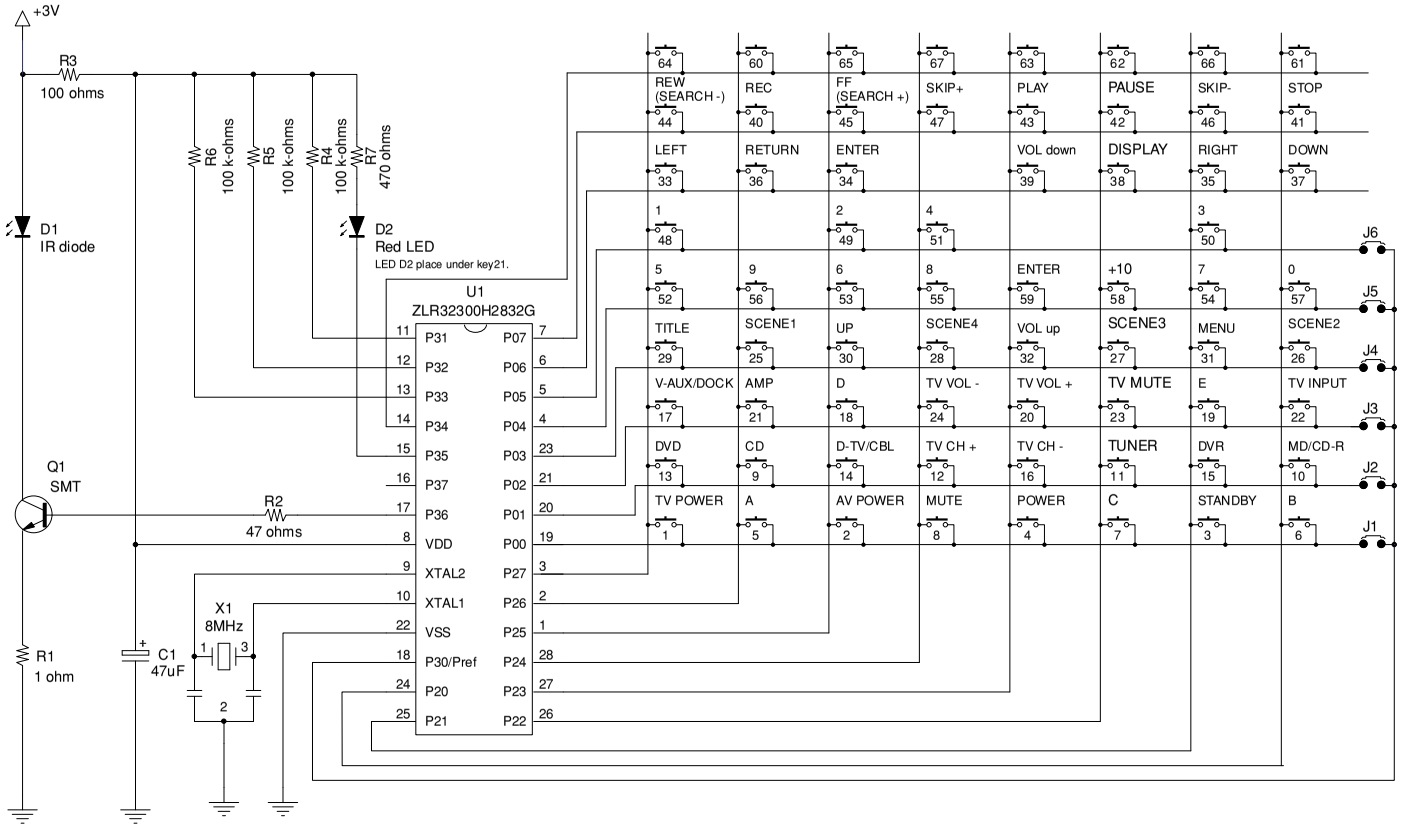

| | Ref No. | Part No. | Description | | Remarks | Markets | 部 品 名 | ランク |
|---|---|---|---|---|---|---|---|---|
| * | 2-1 | WN372500 | P.C.B. ASS'Y | MAIN | | J | ＰＣＢ　ＭＡＩＮ | |
| * | 2-1 | WN372600 | P.C.B. ASS'Y | MAIN | | U | ＰＣＢ　ＭＡＩＮ | |
| * | 2-1 | WN372600 | P.C.B. ASS'Y | MAIN | V663 | C | ＰＣＢ　ＭＡＩＮ | |
| * | 2-1 | WN373000 | P.C.B. ASS'Y | MAIN | 6160 | C | ＰＣＢ　ＭＡＩＮ | |
| * | 2-1 | WN372700 | P.C.B. ASS'Y | MAIN | | RTA | ＰＣＢ　ＭＡＩＮ | |
| * | 2-1 | WN372800 | P.C.B. ASS'Y | MAIN | | KGEFL | ＰＣＢ　ＭＡＩＮ | |
| * | 2-1 | WN372900 | P.C.B. ASS'Y | MAIN | | B | ＰＣＢ　ＭＡＩＮ | |
| * | 2-11 | WM280900 | MICA SHEET | TBM-51W | | | マイカシート | |
| | 2-20 | WG440600 | SUPPORT TR-8P | | | | サポートＴＲ－８Ｐ | 04 |
| | 2-24 | WJ402000 | SUPPORT TR-2P | | | | サポートＴＲ－２Ｐ | 01 |
| * | 2-103 | WM220800 | HEXAGONAL HEAD B-TIGHT SCREW | 3x15 SP MFZN2W3 | | | ６角Ｂタイトネジ | |
| | 2-104 | WF002600 | PW HEAD B-TIGHT SCREW | 3x8 MFZN2W3 | | | ＰＷヘッドＢタイトネジ | 01 |
| | 2-105 | WE774800 | BIND HEAD P-TIGHT SCREW | 3x8 MFZN2W3 | | | バインドＰタイトネジ | 01 |
| | 2-106 | WE774300 | BIND HEAD B-TIGHT SCREW | 3x8 MFZN2W3 | | | バインドＢタイトネジ | 01 |

＊New Parts　＊新規部品

# ■ REMOTE CONTROL

## ● RAV285 (U, C models)

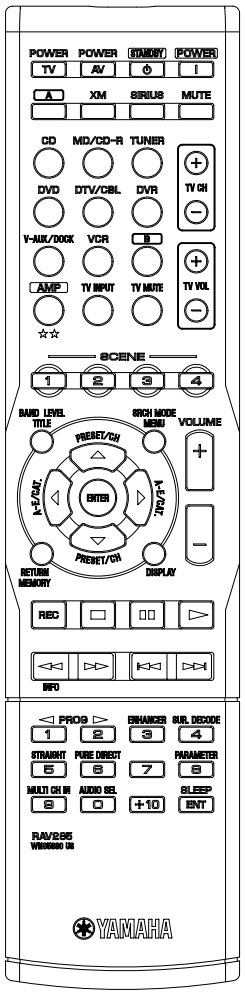
### • SCHEMATIC DIAGRAM



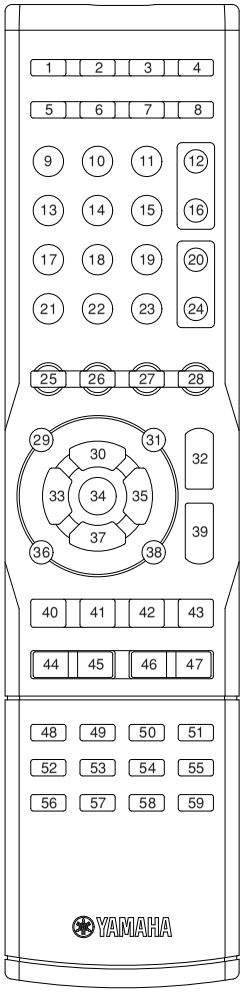

| | RAV285 |
|---|---|
| J1 | X |
| J2 | X |
| J3 | X |
| J4 | X |
| J5 | X |
| J6 | O |

### • PANELS

**RAV285** (U, C models)



- **KEY NO. LAYOUT**

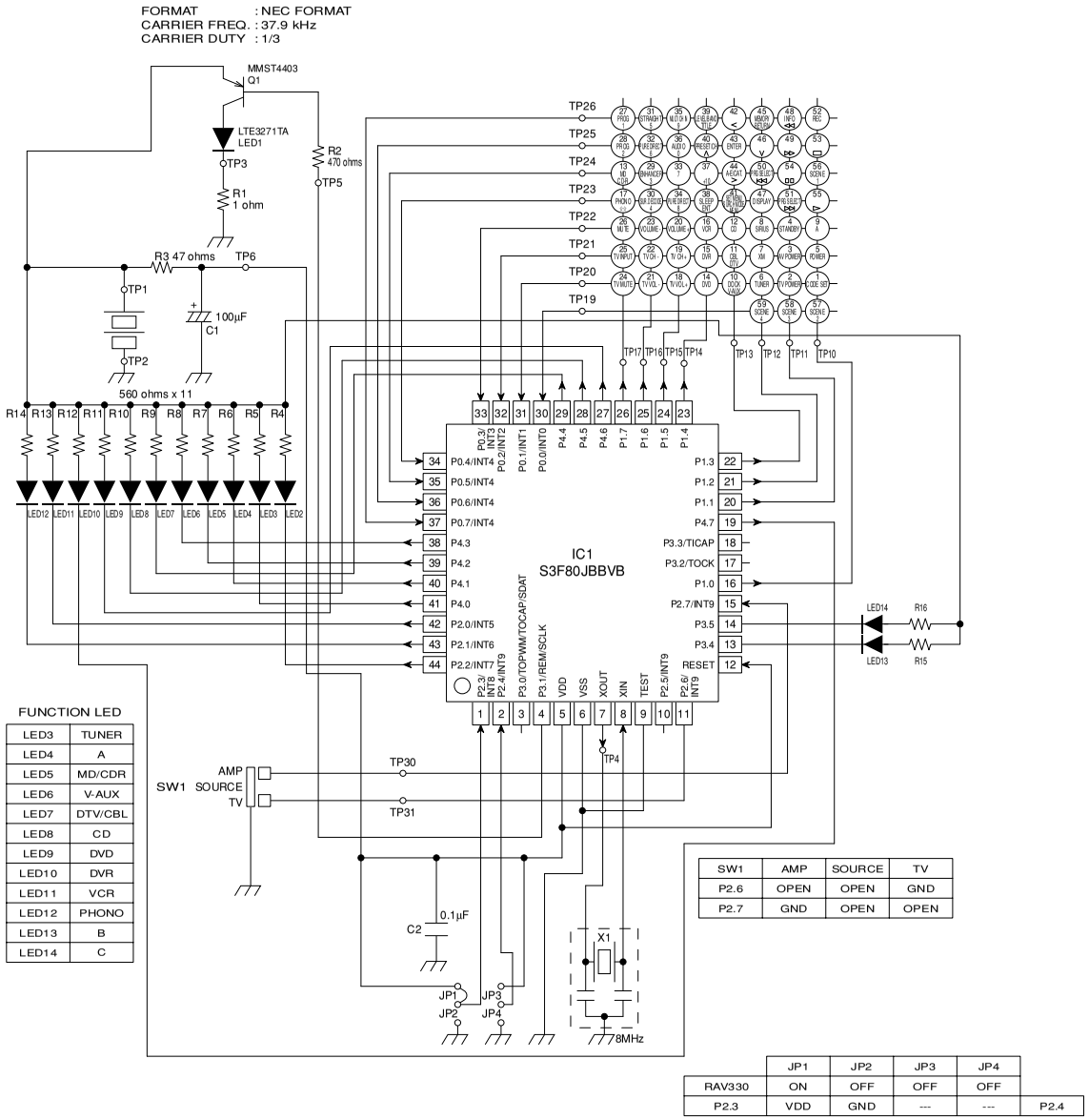



- **KEY CODE**

| Key No. | Label | Command key | AMP ID1 | AMP ID2 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | TV POWER | – | (TV POWER) | (TV POWER) | (TV POWER) | (TV POWER) | (TV POWER) | (TV POWER) | (TV POWER) | – | (TV POWER) | (TV POWER) | (TV POWER) | TV POWER |
| 2 | AV POWER | – | (device) | (device) | 79-60 | 7F-80 | D1-1B | – | 7C-80 | (DVR POWER) | 048.012 | 7F01-00 | – | (DVR POWER) |
| 3 | STANDBY | O | 7E-7F | 7E-7F81 | STANDBY | | | | | | | | | |
| 4 | POWER | O | 7E-7E | 7E-7E80 | POWER | | | | | | | | | |
| 5 | A | O | 7F01-3F | 7F01-3FC1 | A | | | | | | | | | |
| 6 | B | O | 7A-B4 | 7A-B44A | B | | | | | | | | | |
| 7 | C | O | 7A-39 | 7A-39C7 | C | | | | | | | | | |
| 8 | MUTE | O | 7A-1C | 7A-1CE2 | MUTE | | | | | | | | | |
| 9 | CD | O | 7A-15 | 7A-15EB | CD | | | | | | | | | |
| 10 | MD/CD-R | O | 7A-C9 | 7A-C937 | MD/CD-R | | | | | | | | | |
| 11 | TUNER | O | 7A-16 | 7A-16E8 | TUNER | | | | | | | | | |
| 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 +) |
| 13 | DVD | O | 7A-C1 | 7A-C13F | DVD | | | | | | | | | |
| 14 | D-TV/CBL | O | 7A-54 | 7A-54AA | DTV/CBL | | | | | | | | | |
| 15 | DVR | O | 7A-13 | 7A-13ED | DVR | | | | | | | | | |
| 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 -) |
| 17 | V-AUX/DOCK | O | 7A-55 | 7A-55AB | V-AUX (/DOCK) | | | | | | | | | |
| 18 | D | O | 7A-0F | 7A-0FF1 | VCR | | | | | | | | | |
| 19 | E | O | 7A-14 | 7A-14EA | PHONO | | | | | | | | | |
| 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 +) |
| 21 | AMP | O | | | Enter into AMP mode | | | | | | | | | |
| | | | | | 9 | 10 | 11 (ID1) | 11 (ID2) | 13 | 14 | 15 | 17 | 18 | 19 |
| | | | | | CD | MD/CD-R | TUNER | TUNER | DVD | DTV/CBL | DVR | V-AUX/DOCK | VCR | PHONO |
| 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 |
| 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 |
| 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 - |
| 25 | SCENE 1 | O | 7A-007F | 7A-007E | SCENE SELECT | | | | | | | | | |
| 26 | SCENE 2 | O | 7A-037C | 7A-037D | SCENE SELECT | | | | | | | | | |
| 27 | SCENE 3 | O | 7A-0679 | 7A-0678 | SCENE SELECT | | | | | | | | | |
| 28 | SCENE 4 | O | 7A-0976 | 7A-0977 | SCENE SELECT | | | | | | | | | |
| 29 | TITLE | – | 7A-86 | 7A-8678 | – | – | 7A-AE | 7A-AE50 | 7C-B1 | – | 048.200 | 7F01-0D | – | – |
| 30 | UP | – | 7A-9D | 7A-9D63 | – | – | 7A-10 | 7A-10EE | 7C-B4 | – | 048.088 | 7F01-0E | – | – |
| 31 | MENU | – | 7A-84 | 7A-847A | – | – | 7A-AB | 7A-AB55 | 7C-B2 | – | 048.084 | 7F01-0F | – | – |
| 32 | VOL up | O | 7A-1A | 7A-1AE4 | VOL UP | | | | | | | | | |
| 33 | LEFT | – | 7A-9F | 7A-9F61 | – | – | 7A-AC | 7A-AC52 | 7C-B5 | – | 048.090 | 7F01-10 | – | – |
| 34 | ENTER | – | 7A-DE | 7A-DE20 | – | – | 7A-AD | 7A-AD53 | 7C-B8 | – | 048.092 | 7F01-11 | – | – |
| 35 | RIGHT | – | 7A-9E | 7A-9E60 | – | – | 7A-12 | 7A-12EC | 7C-B6 | – | 048.091 | 7F01-12 | – | – |
| 36 | RETURN | – | 7A-AA | 7A-AA54 | – | – | 7A-AF | 7A-AF51 | 7C-B7 | – | 048.131 | 7F01-13 | – | – |
| 37 | DOWN | – | 7A-9C | 7A-9C62 | – | – | 7A-11 | 7A-11EF | 7C-B3 | – | 048.089 | 7F01-14 | – | – |
| 38 | DISPLAY | – | 7A-C2 | 7A-C23C | 79-0A | 7F-9E | 7A-B0 | 7A-B04E | 7C-A6 | – | 048.015 | 7F01-15 | – | – |
| 39 | VOL down | O | 7A-1B | 7A-1BE5 | VOL DOWN | | | | | | | | | |
| 40 | REC | – | (device) | (device) | 7A-4F | – | – | – | 7C-8B | (DVR REC) | 048.055 | 7F01-16 | – | (DVR REC) |
| 41 | STOP | – | (device) | (device) | 7A-09 | 7F-84 | – | – | 7C-85 | (DVR STOP) | 048.049 | 7F01-1D | – | (DVR STOP) |
| 42 | PAUSE | – | (device) | (device) | 7A-09 | 7F-83 | – | – | 7C-83 | (DVR PAUSE) | 048.048 | 7F01-1A | – | (DVR PAUSE) |
| 43 | PLAY | – | (device) | (device) | 7A-08 | 7F-82 | – | – | 7C-82 | (DVR PLAY) | 048.044 | 7F01-1E | – | (DVR PLAY) |
| 44 | REW (SEARCH -) | – | (device) | (device) | 7A-0D | 7F-88 | 7A-A4 | 7A-A45A | 7C-86 | (DVR REW) | 048.041 | 7F01-17 | – | (DVR REW) |
| 45 | FF (SEARCH +) | – | (device) | (device) | 7A-0C | 7F-89 | 7A-A5 | 7A-A55B | 7C-87 | (DVR FF) | 048.040 | 7F01-18 | – | (DVR FF) |
| 46 | SKIP - | – | (device) | (device) | 7A-0B | 7F-86 | 7A-A6 | 7A-A658 | 7C-B9 | (DVR SKIP-) | 048.033 | 7F01-1B | – | (DVR SKIP-) |
| 47 | SKIP + | – | (device) | (device) | 7A-0A | 7F-87 | 7A-A7 | 7A-A759 | 7C-AB | (DVR SKIP+) | 048.032 | 7F01-1C | – | (DVR SKIP+) |
| 48 | 1 | – | 7A-59 | 7A-59A7 | 79-11 | 7F-91 | 7A-E5 | 7A-E51B | 7C-94 | – | 048.001 | 7F01-01 | – | – |
| 49 | 2 | – | 7A-58 | 7A-58A6 | 79-12 | 7F-92 | 7A-E6 | 7A-E618 | 7C-95 | – | 048.002 | 7F01-02 | – | – |
| 50 | 3 | – | 7A-94 | 7A-946A | 79-13 | 7F-93 | 7A-E7 | 7A-E719 | 7C-96 | – | 048.003 | 7F01-03 | – | – |
| 51 | 4 | – | 7A-8D | 7A-8D73 | 79-14 | 7F-94 | 7A-E8 | 7A-E816 | 7C-97 | – | 048.004 | 7F01-04 | – | – |
| 52 | 5 | – | 7A-56 | 7A-56A8 | 79-15 | 7F-95 | 7A-E9 | 7A-E917 | 7C-98 | – | 048.005 | 7F01-05 | – | – |
| 53 | 6 | – | 7A-DD | 7A-DD23 | 79-16 | 7F-96 | 7A-EA | 7A-EA14 | 7C-99 | – | 048.006 | 7F01-06 | – | – |
| 54 | 7 | – | 7A-95 | 7A-956B | 79-17 | 7F-97 | 7A-EB | 7A-EB15 | 7C-9A | – | 048.007 | 7F01-07 | – | – |
| 55 | 8 | – | 7A-C4 | 7A-C43A | 79-18 | 7F-98 | 7A-EC | 7A-EC12 | 7C-9B | – | 048.008 | 7F01-08 | – | – |
| 56 | 9 | – | 7A-87 | 7A-8779 | 79-19 | 7F-99 | 7A-B1 | 7A-B14F | 7C-9C | – | 048.009 | 7F01-09 | – | – |
| 57 | 0 | – | 7A-C3 | 7A-C33D | 79-10 | 7F-90 | 7A-B2 | 7A-B24C | 7C-93 | – | 048.000 | 7F01-0A | – | – |
| 58 | +10 | – | – | – | 79-1A | 7F-9A | – | – | 7C-9D | – | – | 7F01-0B | – | – |
| 59 | ENTER | – | 7A-57 | 7A-57A9 | 79-0B | 7F-8A | 7A-B3 | 7A-B34D | 7C-9E | – | – | 7F01-0C | – | – |

## ● RAV330 (R, T, A, L, J models)

### • SCHEMATIC DIAGRAM

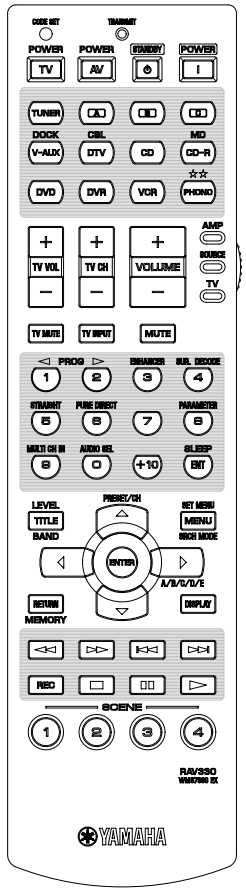



| SW1 | AMP | SOURCE | TV |
|---|---|---|---|
| P2.6 | OPEN | OPEN | GND |
| P2.7 | GND | OPEN | OPEN |

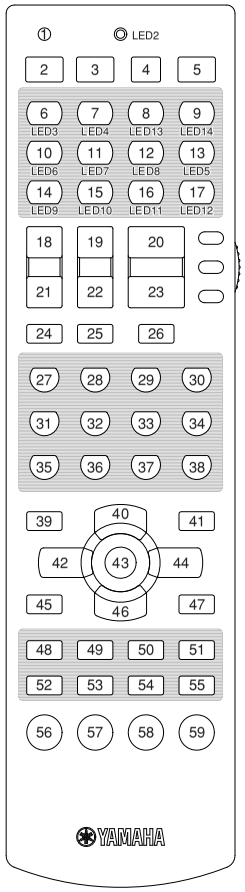
| | JP1 | JP2 | JP3 | JP4 | |
|---|---|---|---|---|---|
| RAV330 | ON | OFF | OFF | OFF | |
| P2.3 | VDD | GND | --- | --- | P2.4 |

### • PANELS

**RAV330** (R, T, A, L, J models)



## • KEY LAYOUT




## • KEY CODE

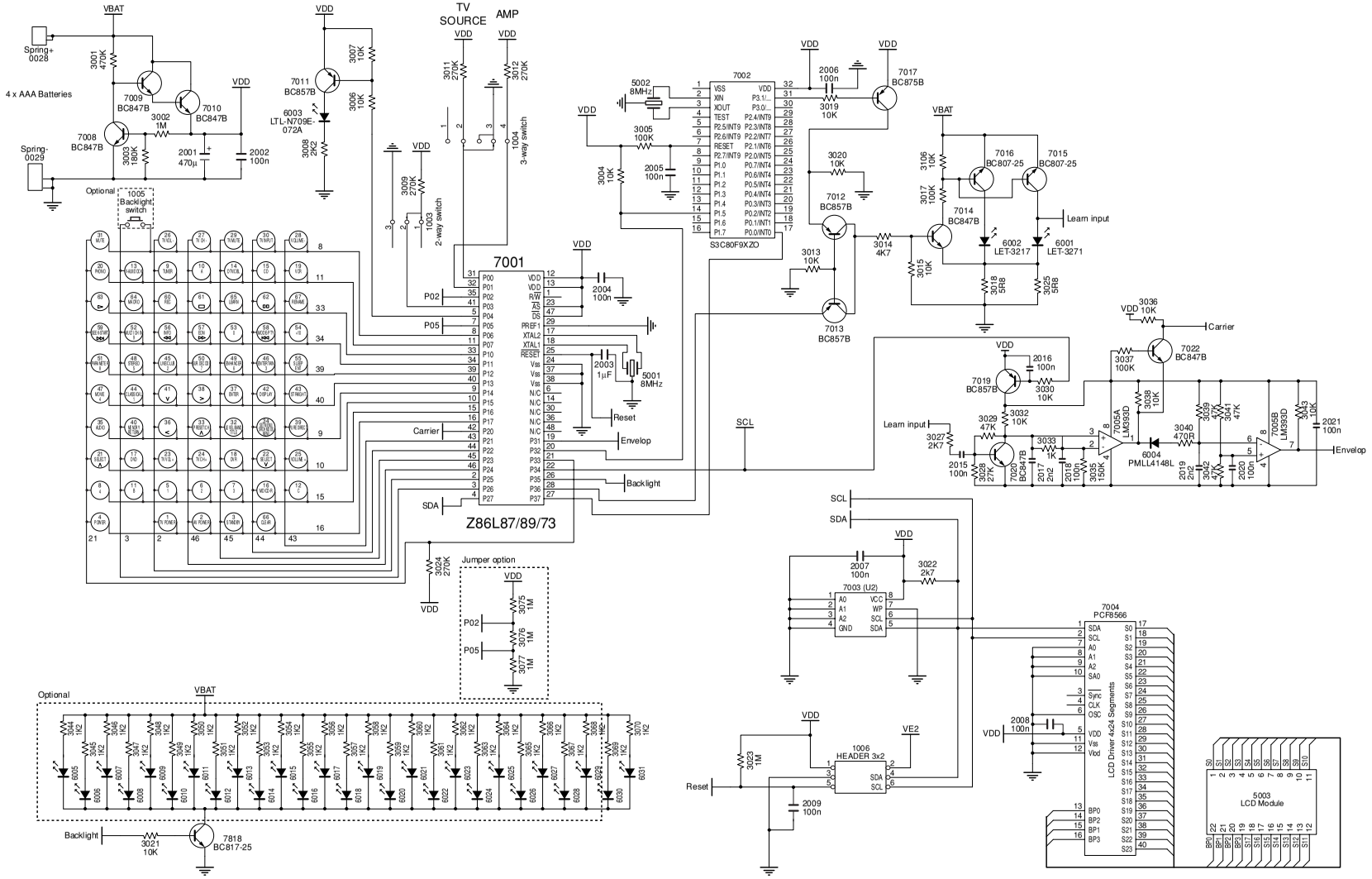
| No. | Label | Yamaha Receiver | | | | Yamaha LD | Yamaha D-tuner | | | Yamaha Misc Audio | | Yamaha DVD | Yamaha DVD-R | Yamaha Tape | Universal CD-R | Yamaha CD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ID1 | | ID2 | | [40127] | [82915] R2915 | [82918] R2918 | [82176] | [82981] M2981 | [82982] M2982 | [42543] Y2543 | [52544] Y2544 | [70542] | [71292] | [62907] D2907 |
| | | MAIN | ZONE2 | MAIN | ZONE2 | N-1 | | | N-2 | N-2 | N-2 | N-1 | P | | N-1 | N-1 |
| – | TRANSMIT (LED) | | | | | | | | | | | | | | | |
| 1 | CODE SET | – | – | – | – | | | | | | | | | | | |
| 4 | STANDBY | 7E-7F | 7E-BB | 7E-7F81 | 7E-BB45 | | | | | | | | | | | |
| 5 | POWER | 7E-7E | 7E-BA | 7E-7E80 | 7E-BA44 | | | | | | | | | | | |
| 6 | TUNER | 7A-16 | 7A-D2 | 7A-16E8 | 7A-D22C | | | | | | | | | | | |
| 7 | A | 7A-B4 | 7A-B8 | 7A-B44A | 7A-B846 | | | | | | | | | | | |
| 8 | B | 7A-39 | 7A-3A | 7A-39C7 | 7A-3AC4 | | | | | | | | | | | |
| 9 | C | 7F01-3F | 7F01-40 | 7F01-3FC1 | 7F01-40BE | | | | | | | | | | | |
| 10 | V-AUX/DOCK | 7A-55 | 7A-D8 | 7A-55AB | 7A-D826 | | | | | | | | | | | |
| 11 | DTV/CBL | 7A-54 | 7A-D9 | 7A-54AA | 7A-D927 | | | | | | | | | | | |
| 12 | CD | 7A-15 | 7A-D1 | 7A-15EB | 7A-D12F | | | | | | | | | | | |
| 13 | MD/CD-R | 7A-C9 | 7A-CF | 7A-C937 | 7A-CF31 | | | | | | | | | | | |
| 14 | DVD | 7A-C1 | 7A-CD | 7A-C13F | 7A-CD33 | | | | | | | | | | | |
| 15 | DVR | 7A-13 | 7A-D7 | 7A-13ED | 7A-D729 | | | | | | | | | | | |
| 16 | VCR | 7A-0F | 7A-D6 | 7A-0FF1 | 7A-D628 | | | | | | | | | | | |
| 17 | PHONO | 7A-14 | 7A-D0 | 7A-14EA | 7A-D02E | | | | | | | | | | | |
| 2 | TV POWER | | | | | | | | | | | | | | | |
| 3 | AV POWER | | | | | | D1-1B | – | 7F01-D0 | 7F01-00 | 7F01-20 | 7C-80 | 048-012 | | 7F-80 | 79-60 |
| 18 | TV VOL. up | | | | | | | | | | | | | | | |
| 19 | TV CH up | | | | | | | | | | | | | | | |
| 20 | VOL. up | 7A-1A | 7A-DA | 7A-1AE4 | 7A-DA24 | | | | | | | | | | | |
| 21 | TV VOL. down | | | | | | | | | | | | | | | |
| 22 | TV CH down | | | | | | | | | | | | | | | |
| 23 | VOL. down | 7A-1B | 7A-DB | 7A-1BE5 | 7A-DB25 | | | | | | | | | | | |
| 24 | TV MUTE | | | | | | | | | | | | | | | |
| 25 | TV INPUT | | | | | | | | | | | | | | | |
| 26 | MUTE | 7A-1C | 7A-DC | 7A-1CE2 | 7A-DC22 | | | | | | | | | | | |
| 27 | PROG - | 7A-59 | | 7A-59A7 | | 7C-17 | 7A-E5 | 7A-61 | 7F01-D1 | 7F01-01 | 7F01-21 | 7C-94 | 048.001 | | 7F-91 | 79-11 |
| 28 | PROG + | 7A-58 | | 7A-58A6 | | 7C-18 | 7A-E6 | 7A-62 | 7F01-D2 | 7F01-02 | 7F01-22 | 7C-95 | 048.002 | | 7F-92 | 79-12 |
| 29 | ENHANCER | 7A-94 | | 7A-946A | | 7C-19 | 7A-E7 | 7A-63 | 7F01-D3 | 7F01-03 | 7F01-23 | 7C-96 | 048.003 | | 7F-93 | 79-13 |
| 30 | SUR.DECODE | 7A-8D | | 7A-8D73 | | 7C-1A | 7A-E8 | 7A-64 | 7F01-D4 | 7F01-04 | 7F01-24 | 7C-97 | 048.004 | | 7F-94 | 79-14 |
| 31 | STRAIGHT | 7A-56 | | 7A-56A8 | | 7C-1B | 7A-E9 | 7A-65 | 7F01-D5 | 7F01-05 | 7F01-25 | 7C-98 | 048.005 | | 7F-95 | 79-15 |
| 32 | PURE DIRECT | 7A-DD | | 7A-DD23 | | 7C-1C | 7A-EA | 7A-66 | 7F01-D6 | 7F01-06 | 7F01-26 | 7C-99 | 048.006 | | 7F-96 | 79-16 |
| 33 | – | 7A-95 | | 7A-956B | | 7C-1D | 7A-EB | 7A-67 | 7F01-D7 | 7F01-07 | 7F01-27 | 7C-9A | 048.007 | | 7F-97 | 79-17 |
| 34 | PARAMETER | 7A-C4 | | 7A-C43A | | 7C-1E | 7A-EC | 7A-68 | 7F01-D8 | 7F01-08 | 7F01-28 | 7C-9B | 048.008 | | 7F-98 | 79-18 |
| 35 | MULTI CH IN | 7A-87 | | 7A-8779 | | 7C-1F | 7A-B1 | 7A-69 | 7F01-D9 | 7F01-09 | 7F01-29 | 7C-9C | 048.009 | | 7F-99 | 79-19 |
| 36 | AUDUO SEL | 7A-C3 | | 7A-C33D | | 7C-16 | 7A-B2 | 7A-60 | 7F01-DA | 7F01-0A | 7F01-2A | 7C-93 | 048.000 | | 7F-90 | 79-10 |
| 37 | – | – | | – | | 7C-5D | | | 7F01-DB | 7F01-0B | 7F01-2B | 7C-9D | | | 7F-9A | 79-1A |
| 38 | SLEEP | 7A-57 | | 7A-57A9 | | 7C-15 | 7A-B3 | 7A-BF | 7F01-DC | 7F01-0C | 7F01-2C | 7C-9E | | | 7F-8A | 79-0B |
| 39 | LEVEL | 7A-86 | | 7A-8678 | | | 7A-AE | 7A-70 | 7F01-DD | 7F01-0D | 7F01-2D | 7C-B1 | 048.200 | | | |
| 40 | Up | 7A-9D | | 7A-9D63 | | | 7A-10 | 7A-6A | 7F01-E1 | 7F01-0E | 7F01-2E | 7C-B4 | 048.088 | | | |
| 41 | SET MENU | 7A-84 | | 7A-847A | | | 7A-AB | 7A-6D | 7F01-DE | 7F01-0F | 7F01-2F | 7C-B2 | 048.084 | | | |
| 42 | Left | 7A-9F | | 7A-9F61 | | | 7A-AC | 7A-6E | 7F01-E2 | 7F01-10 | 7F01-30 | 7C-B5 | 048.090 | | | |
| 43 | ENTER | 7A-DE | | 7A-DE20 | | | 7A-AD | 7A-6F | 7F01-E3 | 7F01-11 | 7F01-31 | 7C-B8 | 047.092 | | | |
| 44 | Right | 7A-9E | | 7A-9E60 | | | 7A-12 | 7A-6C | 7F01-E4 | 7F01-12 | 7F01-32 | 7C-B6 | 048.091 | 7A-06 | | |
| 45 | RETURN | 7A-AA | | 7A-AA54 | | | 7A-AF | 7A-71 | 7F01-DF | 7F01-13 | 7F01-33 | 7C-B7 | 048.131 | | | |
| 46 | Down | 7A-9C | | 7A-9C62 | | | 7A-11 | 7A-6B | 7F01-E5 | 7F01-14 | 7F01-34 | 7C-B3 | 048.089 | | | |
| 47 | DISPLAY | 7A-C2 | | 7A-C23C | | 7C-13 | 7A-B0 | 7A-72 | 7F01-E0 | 7F01-15 | 7F01-35 | 7C-A6 | 048.015 | | 7F-9E | 79-0A |
| 48 | REW (Search) | | | | | 7C-06 | 7A-A4 | 7A-3D | 7F01-EA | 7F01-17 | 7F01-37 | 7C-86 | 048.041 | 7A-01 | 7F-88 | 7A-0D |
| 49 | FF (Search) | | | | | 7C-07 | 7A-A5 | 7A-3E | 7F01-EB | 7F01-18 | 7F01-38 | 7C-87 | 048.040 | 7A-02 | 7F-89 | 7A-0C |
| 50 | CHP/Skip- | | | | | 7C-02 | 7A-A6 | 7A-3F | 7F01-EC | 7F01-1B | 7F01-3B | 7C-B9 | 048.033 | 7A-07 | 7F-86 | 7A-0B |
| 51 | CHP/Skip+ | | | | | 7C-03 | 7A-A7 | 7A-EF | 7F01-ED | 7F01-1C | 7F01-3C | 7C-BA | 048.032 | 7A-40 | 7F-87 | 7A-0A |
| 52 | REC | | | | | | | | 7F01-E6 | 7F01-16 | 7F01-36 | 7C-8B | 048.055 | 7A-04 | | 7A-4F |
| 53 | Stop | | | | | 7C-5B | | | 7F01-E9 | 7F01-1D | 7F01-3D | 7C-85 | 048.049 | 7A-03 | 7F-84 | 7A-09 |
| 54 | Pause | | | | | 7C-5A | | | 7F01-E7 | 7F01-1A | 7F01-3A | 7C-83 | 048.048 | | 7F-83 | 7A-09 |
| 55 | Play | | | | | 7C-05 | | | 7F01-E8 | 7F01-1E | 7F01-3E | 7C-82 | 048.044 | 7A-00 | 7F-82 | 7A-08 |
| 56 | SCENE1 | 7A-007F | 7A-017E | 7A-007E | 7A-017F | | | | | | | | | | | |
| 57 | SCENE2 | 7A-037C | 7A-047B | 7A-037D | 7A-047A | | | | | | | | | | | |
| 58 | SCENE3 | 7A-0679 | 7A-0778 | 7A-0678 | 7A-0779 | | | | | | | | | | | |
| 59 | SCENE4 | 7A-0976 | 7A-0A75 | 7A-0977 | 7A-0A74 | | | | | | | | | | | |

| Mode | Default Device |
|---|---|
| Receiver (Slide switch-AMP) | 00001-Yamaha Receiver |
| CD (Default-slide switch Source) | 62907-Yamaha CD |
| MD/CD | 71292-Yamaha CD-R |
| XM | 82918-Yamaha Digital Tuner *1 |
| SIRIUS | 82176-Yamaha Digital Tuner *1 |
| DVD | 42543-Yamaha DVD |
| DTV/CBL | None (can be set as a DVD, DVD-R, VCR, PVR, TV, CBL, SAT, LD, CD, CD-R, MD, Tape and Tuner) |
| TUNER | 82915-Yamaha Tuner |
| VCR | None (can be set as a DVD, DVD-R, VCR, PVR, TV, CBL, SAT, LD, CD, CD-R, MD, Tape and Tuner) |
| DVR | 52544-Yanmaha DVD-R |
| V-AUX/DOCK | 82981-Yamaha MISC Audio |
| NET | 82982-Yamaha MISC Audio |
| PHONO | None (can be set as a DVD, DVD-R, VCR, PVR, TV, CBL, SAT, LD, CD, CD-R, MD, Tape and Tuner) |
| TV (slide switch-TV) | N/A |

Note *1: Default ID will vary upon jumper setting.

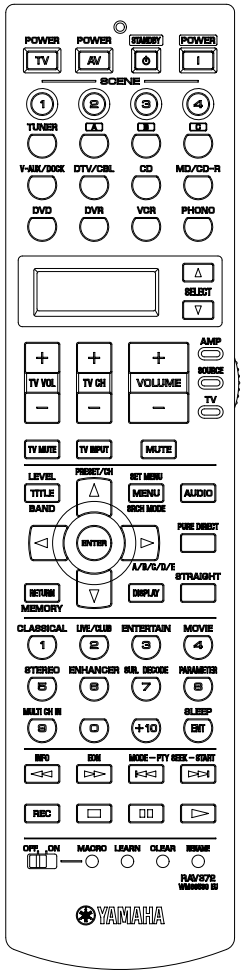
## ● RAV372 (K, B, G, E, F models)

### • SCHEMATIC DIAGRAM

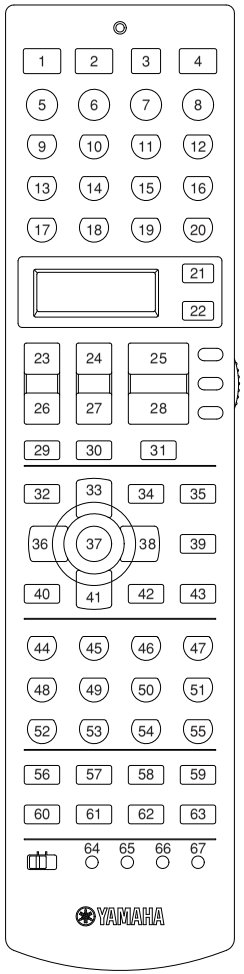



### • PANELS

**RAV372** (K, B, G, E, F models)



## • KEY LAYOUT




## • KEY CODE

| No. | Label | Area | Learn | Macro | Luminous | AMP library 2001 (default) MAIN | ZONE2 | ZONE3 | ALL | AMP library 2002 MAIN | ZONE2 | ZONE3 | ALL | Linked with IR signal | LCD Display 5 letters | 3 letters | Default Preset Library | Brand | Brand No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | LED | – | – | – | – | – | – | – | – | – | – | – | – | | | | | | |
| | SW2 (MACRO ON/OFF) | | | | | | | | | | | | | OFF / ON | | | | | |
| 3 | STANDBY | 1 | O | O | O | 7E-7F | 7E-BB | 7A-EE | 7A-1E | 7E-7F81 | 7E-BB45 | 7A-EE10 | 7A-1EE0 | Power STANDBY / Macro feature | | STB | | | |
| 4 | POWER on | 1 | O | O | O | 7E-7E | 7E-BA | 7A-ED | 7A-1D | 7E-7E80 | 7E-BA44 | 7A-ED13 | 7A-1DE3 | Power ON / Macro feature | | PWR | | | |
| 5 | SCENE 1 | 1 | O | – | O | 7A-007F | 7A-017E | 7A-027D | | 7A-007E | 7A-017F | 7A-027C | | Output IR signal & Change device mode | | | | | |
| 6 | SCENE 2 | 1 | O | – | O | 7A-037C | 7A-047B | 7A-057A | | 7A-037D | 7A-047A | 7A-057B | | Output IR signal & Change device mode | | | | | |
| 7 | SCENE 3 | 1 | O | – | O | 7A-0679 | 7A-0778 | 7A-0877 | | 7A-0678 | 7A-0779 | 7A-0876 | | Output IR signal & Change device mode | | | | | |
| 8 | SCENE 4 | 1 | O | – | O | 7A-0976 | 7A-0A75 | 7A-0B74 | | 7A-0977 | 7A-0A74 | 7A-0B75 | | Output IR signal & Change device mode | | | | | |
| 9 | TUNER | 1 | O | O | – | 7A-16 | 7A-D2 | 7A-F3 | | 7A-16E8 | 7A-D22C | 7A-F30D | | Output IR signal & Change device mode / Macro feature & Change device mode | TUNER | TUN | TUNER | YAMAHA3 | 2602 |
| 10 | A | 1 | O | O | – | 7A-B4 | 7A-B8 | 7A-B9 | | 7A-B44A | 7A-B846 | 7A-B947 | | Output IR signal & Change device mode / Macro feature & Change device mode | XM | XM | TUNER | YAMAHA5 | 2604 |
| | | 1 | O | O | – | – | – | – | | – | – | – | | Change device mode / Macro feature & Change device mode | TAPE | TAPE | TAPE | YAMAHA1 | 2700 |
| 11 | B | 1 | O | O | – | 7A-39 | 7A-3A | 7A-3B | | 7A39C7 | 7A-3AC4 | 7F3BC5 | | Output IR signal & Change device mode / Macro feature & Change device mode | SAT | SAT | TUNER | YAMAHA9 | NEW-1 |
| | | 1 | O | O | – | – | – | – | | – | – | – | | Change device mode / Macro feature & Change device mode | LD | LD | LD | YAMAHA | 2200 |
| 12 | C | 1 | O | O | – | 7F01-3F | 7F01-40 | 7F01-41 | | 7F01-3FC1 | 7F01-40BE | 7F01-40BF | | Output IR signal & Change device mode / Macro feature & Change device mode | USB | USB | TUNER | YAMAHA8 | 2607 |
| | | 1 | O | O | – | 7F01-3F | 7F01-40 | 7F01-41 | | 7F01-3FC1 | 7F01-40BE | 7F01-40BF | | Output IR signal & Change device mode / Macro feature & Change device mode | NET | NET | TUNER | YAMAHA8 | 2607 |
| 13 | V-AUX/DOCK | 1 | O | O | – | 7A-55 | 7A-D8 | 7A-F0 | | 7A-55AB | 7A-D826 | 7A-F00E | | Output IR signal & Change device mode / Macro feature & Change device mode | V-AUX | AUX | TUNER | YAMAHA7 | 2606 |
| 14 | DTV/CBL | 1 | O | O | – | 7A-54 | 7A-D9 | 7A-F6 | | 7A-54AA | 7A-D927 | 7A-F608 | | Output IR signal & Change device mode / Macro feature & Change device mode | DTV | DTV | TV | nothing | nothing |
| 15 | CD | 1 | O | O | – | 7A-15 | 7A-D1 | 7A-F2 | | 7A-15EB | 7A-D12F | 7A-F20C | | Output IR signal & Change device mode / Macro feature & Change device mode | CD | CD | CD | YAMAHA1 | 2300 |
| 16 | MD/CD-R | 1 | O | O | – | 7A-C9 | 7A-CF | – | | 7A-C937 | 7A-CF31 | – | | Output IR signal & Change device mode / Macro feature & Change device mode | CD-R | CDR | CD-R | YAMAHA | 2400 |
| 17 | DVD | 1 | O | O | – | 7A-C1 | 7A-CD | 7A-FC | | 7A-C13F | 7A-CD33 | 7A-FC02 | | Output IR signal & Change device mode / Macro feature & Change device mode | DVD | DVD | DVD | YAMAHA1 | 2100 |
| 18 | DVR | 1 | O | O | – | 7A-13 | 7A-D7 | 7A-FA | | 7A-13ED | 7A-D729 | 7A-FA04 | | Output IR signal & Change device mode / Macro feature & Change device mode | DVR | DVR | DVR | YAMAHA | 2807 |
| 19 | VCR | 1 | O | O | – | 7A-0F | 7A-D6 | 7A-F9 | | 7A-0FF1 | 7A-D628 | 7A-F907 | | Output IR signal & Change device mode / Macro feature & Change device mode | VCR | VCR | VCR | nothing | nothing |
| 20 | PHONO | 1 | O | O | – | 7A-14 | 7A-C0 | 7A-F1 | | 7A-14EA | 7A-D02E | 7A-F10F | | Output IR signal & Change device mode / Macro feature & Change device mode | PHONO | PHO | TV | nothing | nothing |
| 21 | SELECT up | 1 | – | – | O | – | – | – | – | – | – | – | – | Select device mode (up) | | | | | |
| 22 | SELECT down | 1 | – | – | O | – | – | – | – | – | – | – | – | Select device mode (down) | | | | | |

| | SW1 (AMP/SOURCE/TV) | | | | | AMP | | | | | | | | SOURCE 9 TUNER | 10 XM | 10 TAPE | 11 SAT | 11 LD | 12 NET | 13 V-AUX/DOCK | 14 DTV/CBL | 15 CD | 16 MD/CD-R | 17 DVD | 18 DVR | 19 VCR | 20 PHONO | Option OPTN | TV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | TV POWER | 16 | O | – | O | – | | | | – | | | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 2 | AV POWER | 16 | O | – | O | Punch to SOURCE | | | | Punch to SOURCE | | | | D1-1B | – | – | 7F01-D0 | – | 7F01-20 | 7F01-00 | – | 79-60 | 7F-80 | 7C-80 | AA5A A5AA | – | – | – | Punch to SOURCE |
| 23 | TV VOL up | 16 | O | – | O | – | | | | – | | | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 24 | TV CH up | 16 | O | – | O | – | | | | – | | | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 25 | VOL up | 1 | O | – | O | 7A-1A | 7A-DA | 7A-FD | | 7A-1AE4 | 7A-DA24 | 7A-FD03 | | Punch to AMP mode | | | | | | | | | | | | | | | |
| 26 | TV VOL down | 16 | O | – | O | – | | | | – | | | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 27 | TV CH down | 16 | O | – | O | – | | | | – | | | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 28 | VOL down | 1 | O | – | O | 7A-1B | 7A-DB | 7A-FE | | 7A-1BE5 | 7A-DB25 | 7A-FE00 | | Punch to AMP mode | | | | | | | | | | | | | | | |
| 29 | TV mute | 16 | O | – | O | – | | | | – | | | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 30 | TV input | 16 | O | – | O | – | | | | – | | | | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 31 | MUTE | 1 | O | – | O | 7A-1C | 7A-DC | 7A-FF | | 7A-1CE2 | 7A-DC22 | 7A-FE01 | | Punch to AMP mode | | | | | | | | | | | | | | | |
| 32 | TITLE | 16 | O | – | O | 7A-86 | – | – | | 7A-8678 | – | – | | 7A-AE | 7A-70 | – | 7F01-DD | – | 7F01-2D | 7F01-0D | – | – | – | 7C-B1 | AA5A A9A5 | – | – | – | – |
| 33 | Up | 16 | O | – | O | 7A-9D | – | – | | 7A-9D63 | – | – | | 7A-10 | 7A-6A | – | 7F01-E1 | – | 7F01-2E | 7F01-0E | – | – | – | 7C-B4 | AA5A A966 | – | – | – | – |
| 34 | MENU | 16 | O | – | O | 7A-84 | – | – | | 7A-847A | – | – | | 7A-AB | 7A-6D | – | 7F01-DE | – | 7F01-2F | 7F01-0F | – | – | – | 7C-B2 | AA5A A A666 | – | – | – | – |
| 35 | AUDIO | 16 | O | – | O | 7A-C3 | – | – | | 7A-C33D | – | – | | – | – | – | 7F01-EE | 7C-12 | 7F01-39 | 7F01-19 | – | – | – | 7C-AD | AA5A 95A5 | – | – | – | – |
| 36 | Left | 16 | O | – | O | 7A-9F | – | – | | 7A-9F61 | – | – | | 7A-AC | 7A-6E | – | 7F01-E2 | – | 7F01-30 | 7F01-10 | – | – | – | 7C-B5 | AA5A 9966 | – | – | – | – |
| 37 | ENTER | 16 | O | – | O | 7A-DE | – | – | | 7A-DE20 | – | – | | 7A-AD | 7A-6F | – | 7F01-E3 | – | 7F01-31 | 7F01-11 | – | – | – | 7C-B8 | AA5A A566 | – | – | – | – |
| 38 | Right | 16 | O | – | O | 7A-9E | – | – | | 7A-9E60 | – | – | | 7A-12 | 7A-6C | 7A-06 | 7F01-E4 | – | 7F01-32 | 7F01-12 | – | – | – | 7C-B6 | AA5A 5966 | – | – | – | – |
| 39 | PURE DIRECT | 1 | O | – | O | 7A-DD | – | – | | 7A-DD23 | – | – | | Punch to AMP mode | | | | | | | | | | | | | | | |
| 40 | RETURN | 16 | O | – | O | 7A-AA | – | – | | 7A-AA54 | – | – | | 7A-AF | 7A-71 | – | 7F01-DF | – | 7F01-33 | 7F01-13 | – | – | – | 7C-B7 | AA5A 5AA9 | – | – | – | – |
| 41 | Down | 16 | O | – | O | 7A-9C | – | – | | 7A-9C62 | – | – | | 7A-11 | 7A-6B | – | 7F01-E5 | – | 7F01-34 | 7F01-14 | – | – | – | 7C-B3 | AA5A 6966 | – | – | – | – |
| 42 | DISPLAY | 16 | O | – | O | 7A-C2 | – | – | | 7A-C23C | – | – | | 7A-B0 | 7A-72 | – | 7F01-E0 | 7C-13 | 7F01-35 | 7F01-15 | – | 79-0A | 7F-9E | 7C-A6 | AA5A 55AA | – | – | – | – |
| 43 | STRAIGHT | 1 | O | – | O | 7A-56 | – | – | | 7A-56AB | – | – | | Punch to AMP mode | | | | | | | | | | | | | | | |
| 44 | 1 | 16 | O | – | – | 7A-88 | – | – | | 7A-8876 | – | – | | 7A-E5 | 7A-61 | – | 7F01-D1 | 7C-17 | 7F01-21 | 7F01-01 | – | 79-11 | 7F-91 | 7C-94 | AA5A 6AA6 | – | – | – | – |
| 45 | 2 | 16 | O | – | – | 7A-89 | – | – | | 7A-8977 | – | – | | 7A-E6 | 7A-62 | – | 7F01-D2 | 7C-18 | 7F01-22 | 7F01-02 | – | 79-12 | 7F-92 | 7C-95 | AA5A 9AA6 | – | – | – | – |
| 46 | 3 | 16 | O | – | – | 7A-8A | – | – | | 7A-8A74 | – | – | | 7A-E7 | 7A-63 | – | 7F01-D3 | 7C-19 | 7F01-23 | 7F01-03 | – | 79-13 | 7F-93 | 7C-96 | AA5A 5AA6 | – | – | – | – |
| 47 | 4 | 16 | O | – | – | 7A-8B | – | – | | 7A-8B75 | – | – | | 7A-E8 | 7A-64 | – | 7F01-D4 | 7C-1A | 7F01-24 | 7F01-04 | – | 79-14 | 7F-94 | 7C-97 | AA5A A6AA | – | – | – | – |
| 48 | 5 | 16 | O | – | – | 7A-8C | – | – | | 7A-8C72 | – | – | | 7A-E9 | 7A-65 | – | 7F01-D5 | 7C-1B | 7F01-25 | 7F01-05 | – | 79-15 | 7F-95 | 7C-98 | AA5A 66AA | – | – | – | – |
| 49 | 6 | 16 | O | – | – | 7A-94 | – | – | | 7A-946A | – | – | | 7A-EA | 7A-66 | – | 7F01-D6 | 7C-1C | 7F01-26 | 7F01-06 | – | 79-16 | 7F-96 | 7C-99 | AA5A 96AA | – | – | – | – |
| 50 | 7 | 16 | O | – | – | 7A-8D | – | – | | 7A-8D73 | – | – | | 7A-EB | 7A-67 | – | 7F01-D7 | 7C-1D | 7F01-27 | 7F01-07 | – | 79-17 | 7F-97 | 7C-9A | AA5A 56AA | – | – | – | – |
| 51 | 8 | 16 | O | – | – | 7A-C4 | – | – | | 7A-C43A | – | – | | 7A-EC | 7A-68 | – | 7F01-D8 | 7C-1E | 7F01-28 | 7F01-08 | – | 79-18 | 7F-98 | 7C-9B | AA5A A9AA | – | – | – | – |
| 52 | 9 | 16 | O | – | – | 7A-87 | – | – | | 7A-8779 | – | – | | 7A-B1 | 7A-69 | – | 7F01-D9 | 7C-1F | 7F01-29 | 7F01-09 | – | 79-19 | 7F-99 | 7C-9C | AA5A 69AA | – | – | – | – |
| 53 | 0 | 16 | O | – | – | 7A-95 | – | – | | 7A-956B | – | – | | 7A-B2 | 7A-60 | – | 7F01-DA | 7C-16 | 7F01-2A | 7F01-0A | – | 79-10 | 7F-90 | 7C-93 | AA5A AAAA | – | – | – | – |
| 54 | +10 | 16 | O | – | – | – | – | – | | – | – | – | | – | – | – | 7F01-DB | 7C-5D | 7F01-2B | 7F01-0B | – | 79-1A | 7F-9A | 7C-9D | – | – | – | – | – |
| 55 | ENT | 16 | O | – | – | 7A-57 | – | – | | 7A-57A9 | – | – | | 7A-B3 | 7A-BF | – | 7F01-DC | 7C-15 | 7F01-2C | 7F01-0C | – | 79-0B | 7F-8A | 7C-9E | – | – | – | – | – |
| 56 | REW (SEARCH) | 16 | O | – | – | Punch to SOURCE | | | | Punch to SOURCE | | | | 7A-A4 | 7A-3D | 7A-01 | 7F01-EA | 7C-06 | 7F01-37 | 7F01-17 | – | 7A-0D | 7F-88 | 7C-86 | AA5A 699A | – | – | – | Punch to SOURCE |
| 57 | FF (SEARCH) | 16 | O | – | – | Punch to SOURCE | | | | Punch to SOURCE | | | | 7A-A5 | 7A-3E | 7A-02 | 7F01-EB | 7C-07 | 7F01-38 | 7F01-18 | – | 7A-0C | 7F-89 | 7C-87 | AA5A A99A | – | – | – | Punch to SOURCE |
| 58 | CHP/SKIP- | 16 | O | – | – | Punch to SOURCE | | | | Punch to SOURCE | | | | 7A-A6 | 7A-3F | 7A-07 | 7F01-EC | 7C-02 | 7F01-3B | 7F01-1B | – | 7A-0B | 7F-86 | 7C-B9 | AA5A 6A6A | – | – | – | Punch to SOURCE |
| 59 | CHP/SKIP+ | 16 | O | – | – | Punch to SOURCE | | | | Punch to SOURCE | | | | 7A-A7 | 7A-EF | 7A-40 | 7F01-ED | 7C-03 | 7F01-3C | 7F01-1C | – | 7A-0A | 7F-87 | 7C-BA | AA5A AA9A | – | – | – | Punch to SOURCE |
| 60 | REC | 16 | O | – | – | Punch to SOURCE | | | | Punch to SOURCE | | | | – | – | 7A-04 | 7F01-E6 | – | 7F01-36 | 7F01-16 | – | 7A-4F | – | 7C-8B | AA5A 565A | – | – | – | Punch to SOURCE |
| 61 | STOP | 16 | O | – | – | Punch to SOURCE | | | | Punch to SOURCE | | | | – | – | 7A-03 | 7F01-E9 | 7C-5B | 7F01-3D | 7F01-1D | – | 7A-09 | 7F-84 | 7C-85 | AA5A 6A5A | – | – | – | Punch to SOURCE |
| 62 | PAUSE | 16 | O | – | – | Punch to SOURCE | | | | Punch to SOURCE | | | | – | – | – | 7F01-E7 | 7C-5A | 7F01-3A | 7F01-1A | – | 7A-09 | 7F-83 | 7C-83 | AA5A AA5A | – | – | – | Punch to SOURCE |
| 63 | PLAY | 16 | O | – | – | Punch to SOURCE | | | | Punch to SOURCE | | | | – | – | 7A-00 | 7F01-E8 | 7C-05 | 7F01-3E | 7F01-1E | – | 7A-08 | 7F-82 | 7C-82 | AA5A A59A | – | – | – | Punch to SOURCE |
| 64 | MACRO | – | – | – | – | – | can not use | | | – | can not use | | | Change to MACRO mode | | | | | | | | | | | | | | | |
| 65 | LEARN | – | – | – | – | – | can not use | | | – | can not use | | | Change to LEARNING or PRESET mode | | | | | | | | | | | | | | | |
| 66 | CLEAR | – | – | – | – | – | can not use | | | – | can not use | | | Change to CLEAR mode (Macro clear, Rename clear, Preset clear, All key clear) | | | | | | | | | | | | | | | |
| 67 | RE-NAME | – | – | – | – | – | can not use | | | – | can not use | | | Change to RE-NAME mode | | | | | | | | | | | | | | | |

# 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***

- The settings you make are reflected next time you press **MAIN ZONE ON/OFF** to turn on this unit.
- Only **MAIN ZONE ON/OFF**, **SYSTEM OFF**, **TONE CONTROL** and the **PROGRAM** selector 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.

## *Using the advanced setup*

**1 Press SYSTEM OFF on the front panel to set this unit to the standby mode.**

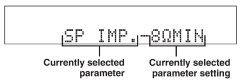
**2 Press and hold TONE CONTROL and then press MAIN ZONE ON/OFF to turn on this unit.**

This unit turns on, and the advanced setup menu appears in the front panel display.




**3 Rotate the PROGRAM selector to select the parameter you want to adjust.**

The name of the selected parameter appears in the front panel display.




**4 Press TONE CONTROL repeatedly to change the selected parameter setting.**

**5 Press SYSTEM OFF to save the new setting 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.

Use this feature to set the speaker impedance of this unit so that it matches that of your speakers.
Choices: **8Ω MIN**, 6ΩMIN

- Select "8ΩMIN" to set the speaker impedance to 8 Ω.
- Select "6ΩMIN" to set the speaker impedance to 6 Ω.

| SP IMP. | Speaker | Impedance level |
|---|---|---|
| 8ΩMIN | Front | If you use one set (A or B), the impedance of each speaker must be 8 Ω or higher. |
| | | If you use two sets (A and B), the impedance of each speaker must be 16 Ω or higher.* |
| | Center | The impedance of each speaker must be 8 Ω or higher. |
| | Surround | |
| | Surround back | |
| 6ΩMIN | Front | If you use one set (A or B), the impedance of each speaker must be 4 Ω or higher. |
| | | If you use two sets (A and B), the impedance of each speaker must be 8 Ω or higher. |
| | Center | The impedance of each speaker must be 6 Ω or higher. |
| | Surround | |
| | Surround back | |

* The Canada model cannot use two separate speaker systems (A and B) simultaneously when "SP IMP." is set to "8ΩMIN".

## REMOTE CONTROL RAV285

*Advanced setup*

### ■ Remote control AMP ID REMOTE AMP

Use this feature to set the AMP ID of this unit for remote control recognition. This feature is useful when you operate this unit and the other Yamaha receivers/ amplifiers in the same room separately.
Choices: **ID1**, ID2

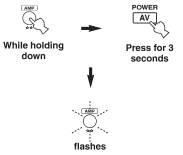
- Select "ID1" when the remote control AMP ID code is set to "5019".
- Select "ID2" when the remote control AMP ID code is set to "5020".

**Setting remote control AMP ID codes**

You need to set the remote control AMP ID code for the remote control.

**1 While pressing and holding AMP on the remote control, press AV POWER for more than 3 seconds.**

**AMP** flashes twice.




**2 Press the numeric buttons to enter the code number "5019" or "5020".**

When the setting succeeds, **AMP** flashes twice; however, when it does not, **AMP** flashes repeatedly.

| AMP ID code *1 | Function | Remote control AMP ID *2 |
|---|---|---|
| 5019 (initial setting) | To operate this unit using the default code. | ID1 (initial setting) |
| 5020 | To operate this unit using an alternative code. | ID2 |

*1 The remote control setting
*2 The setting of this unit

### ■ Remote control TUNER ID REMOTE TU

Use this feature to set the TUNER ID of this unit for remote control recognition.
Choices: **ID1**, ID2

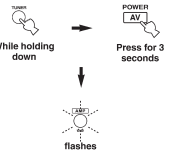
- Select "ID1" when the remote control TUNER ID code is set to "5007".
- Select "ID2" when the remote control TUNER ID code is set to "5016".

**Setting remote control TUNER ID codes**

You need to set the remote control TUNER ID library code for the remote control.

**1 While pressing and holding TUNER on the remote control, press AV POWER for more than 3 seconds.**

**AMP** flashes twice.




**2 Press the numeric buttons to enter the code number "5007" or "5016".**

When the setting succeeds, **AMP** flashes twice; however, when it does not, **AMP** flashes repeatedly.

| TUNER ID code *1 | Function | Remote control TUNER ID *2 |
|---|---|---|
| 5007 (initial setting) | To operate this unit using the default code. | ID1 (initial setting) |
| 5016 | To operate this unit using an alternative code. | ID2 |

*1 The remote control setting
*2 The setting of this unit

## REMOTE CONTROL RAV285

*Advanced setup*

### ■ Remote control XM ID REMOTE XM (U.S.A. and Canada models only)

Use this feature to set the XM ID of this unit for remote control recognition.
Choices: **ID1**, ID2

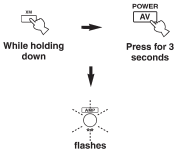
- Select "ID1" when the remote control XM ID code is set to "5009".
- Select "ID2" when the remote control XM ID code is set to "5015".

**Setting remote control XM ID codes**

You need to set the remote control XM ID code for the remote control.

**1 While pressing and holding XM on the remote control, press AV POWER for more than 3 seconds.**

**AMP** flashes twice.




**2 Press the numeric buttons to enter the code number "5009" or "5015".**

When the setting succeeds, **AMP** flashes twice; however, when it does not, **AMP** flashes repeatedly.

| XM ID code *1 | Function | Remote control XM ID *2 |
|---|---|---|
| 5009 (initial setting) | To operate this unit using the default code. | ID1 (initial setting) |
| 5015 | To operate this unit using an alternative code. | ID2 |

*1 The remote control setting
*2 The setting of this unit

### ■ Remote control SIRIUS ID REMOTE SR (U.S.A. and Canada models only)

Use this feature to set the SIRIUS ID of this unit for remote control recognition.
Choices: **ID1**, ID2

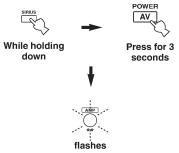
- Select "ID1" when the remote control SIRIUS ID code is set to "5017".
- Select "ID2" when the remote control SIRIUS ID code is set to "5018".

**Setting remote control SIRIUS ID codes**

You need to set the remote control SIRIUS ID code for the remote control.

**1 While pressing and holding SIRIUS on the remote control, press AV POWER for more than 3 seconds.**

**AMP** flashes twice.




**2 Press the numeric buttons to enter the code number "5017" or "5018".**

When the setting succeeds, **AMP** flashes twice; however, when it does not, **AMP** flashes repeatedly.

| SIRIUS ID code *1 | Function | Remote control SIRIUS ID *2 |
|---|---|---|
| 5017 (initial setting) | To operate this unit using the default code. | ID1 (initial setting) |
| 5018 | To operate this unit using an alternative code. | ID2 |

*1 The remote control setting
*2 The setting of this unit

## REMOTE CONTROL RAV330

*Advanced setup*

### ■ Remote control AMP ID REMOTE AMP

Use this feature to set the AMP ID of this unit for remote control recognition. This feature is useful when you operate this unit and the other Yamaha receivers/ amplifiers in the same room separately.
Choices: **ID1**, ID2

- Select "ID1" when the remote control AMP ID code is set to "00001".
- Select "ID2" when the remote control AMP ID code is set to "00002".

**Setting remote control AMP ID codes**

You need to set the remote control AMP ID code for the remote control.

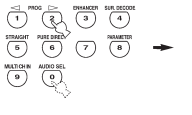
**1 Press CODE SET using a ballpoint pen or a similar object.**

The **TRANSMIT** indicator on the remote control flashes twice.




**2 Press the numeric buttons to enter the code number "00001" or "00002".**

The **TRANSMIT** indicator on the remote control flashes twice, and the AMP ID code is changed.




| AMP ID code *1 | Function | Remote control AMP ID *2 |
|---|---|---|
| 00001 (initial setting) | To operate this unit using the default code. | ID1 (initial setting) |
| 00002 | To operate this unit using an alternative code. | ID2 |

*1 The remote control setting
*2 The setting of this unit

### ■ Remote control TUNER ID REMOTE TU

Use this feature to set the TUNER ID of this unit for remote control recognition.
Choices: **ID1**, ID2

- Select "ID1" when the remote control TUNER ID code is set to "82915".
- Select "ID2" when the remote control TUNER ID code is set to "82178".

**Setting remote control TUNER ID codes**

You need to set the remote control TUNER ID library code for the remote control.

**1 Press TUNER to select "TUNER" as the input source.**



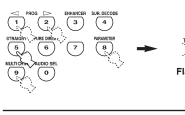
**2 Press CODE SET using a ballpoint pen or a similar object.**

The **TRANSMIT** indicator on the remote control flashes twice.




**3 Press the numeric buttons to enter the code number "82915" or "82178".**

The **TRANSMIT** indicator on the remote control flashes twice, and the TUNER ID code is changed.




| TUNER ID code *1 | Function | Remote control TUNER ID *2 |
|---|---|---|
| 82915 (initial setting) | To operate this unit using the default code. | ID1 (initial setting) |
| 82178 | To operate this unit using an alternative code. | ID2 |

*1 The remote control setting
*2 The setting of this unit

## REMOTE CONTROL RAV330

*Advanced setup*

### ■ Remote control XM ID REMOTE XM (U.S.A. and Canada models only)

Use this feature to set the XM ID of this unit for remote control recognition.
Choices: **ID1**, ID2
- Select "ID1" when the remote control XM ID code is set to "82918".
- Select "ID2" when the remote control XM ID code is set to "82179".

**Setting remote control XM ID codes**

You need to set the remote control XM ID code for the remote control.

**1 Press XM to select "XM" as the input source.**



**2 Press CODE SET using a ballpoint pen or a similar object.**

The **TRANSMIT** indicator on the remote control flashes twice.




**3 Press the numeric buttons to enter the code number "82918" or "82179".**

The **TRANSMIT** indicator on the remote control flashes twice, and the XM ID code is changed.




| XM ID code *1 | Function | Remote control XM ID *2 |
|---|---|---|
| 82918 (initial setting) | To operate this unit using the default code. | ID1 (initial setting) |
| 82179 | To operate this unit using an alternative code. | ID2 |

*1 The remote control setting
*2 The setting of this unit

### ■ Remote control SIRIUS ID REMOTE SR (U.S.A. and Canada models only)

Use this feature to set the SIRIUS ID of this unit for remote control recognition.
Choices: **ID1**, ID2
- Select "ID1" when the remote control SIRIUS ID code is set to "82176".
- Select "ID2" when the remote control SIRIUS ID code is set to "82177".

**Setting remote control SIRIUS ID codes**

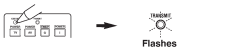
You need to set the remote control SIRIUS ID code for the remote control.

**1 Press TUNER to select "SIRIUS" as the input source.**



**2 Press CODE SET using a ballpoint pen or a similar object.**

The **TRANSMIT** indicator on the remote control flashes twice.




**3 Press the numeric buttons to enter the code number "82176" or "82177".**

The **TRANSMIT** indicator on the remote control flashes twice, and the SIRIUS ID code is changed.




| SIRIUS ID code *1 | Function | Remote control SIRIUS ID *2 |
|---|---|---|
| 82176 (initial setting) | To operate this unit using the default code. | ID1 (initial setting) |
| 82177 | To operate this unit using an alternative code. | ID2 |

*1 The remote control setting
*2 The setting of this unit

ADVANCED OPERATION

English

## REMOTE CONTROL RAV372

*Advanced setup*

### ■ Remote control AMP ID REMOTE AMP

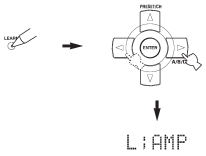
Use this feature to set the AMP ID of this unit for remote control recognition. This feature is useful when you operate this unit and the other Yamaha receivers/amplifiers in the same room separately.
Choices: **ID1**, ID2
- Select "ID1" when the remote control AMP ID code is set to "2201".
- Select "ID2" when the remote control AMP ID code is set to "2202".

**Setting remote control AMP ID codes**

You need to set the remote control AMP ID code for the remote control.

**1 Set the operation mode selector to AMP or SOURCE.**

**2 Press and hold LEARN for about 3 seconds using a ballpoint pen or similar object and then press ◁ / ▷ repeatedly until "L;AMP" appears in the display window on the remote control.**



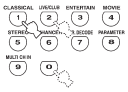

*Notes*

- Be sure to press and hold **LEARN** for at least 3 seconds, otherwise the learning process will start.
- If you do not complete each of the following steps within 30 seconds, the setting mode will be automatically canceled. In this case, start over from step 1.

**3 Press ENTER.**

The four-digit code set for the selected input area appears in the display window on the remote control.

**4 Press the numeric buttons to enter the four-digit remote control code for the input area you want to use.**



**Remote control AMP ID codes**

Select one of the following codes to set the remote control AMP ID code for the input area you want to use.

| AMP ID code (remote control setting) | Function | Remote control AMP ID |
|---|---|---|
| 2201 (initial setting) | To operate this unit using the default code. | ID1 (initial setting) |
| 2202 | To operate this unit using an alternative code. | ID2 |

**5 Press ENTER to set the number.**

"OK" appears in the display window if setting was successful.
"NG" appears in the display window if the setting was unsuccessful. In this case, start over from step 1.

**6 Press LEARN again to exit from the setup mode.**



## REMOTE CONTROL RAV372

*Advanced setup*

### ■ Remote control TUNER ID REMOTE TU

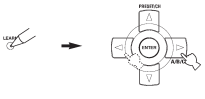
Use this feature to set the TUNER ID of this unit for remote control recognition.
Choices: **ID1**, ID2
- Select "ID1" when the remote control TUNER ID code is set to "2602".
- Select "ID2" when the remote control TUNER ID code is set to "2610".

**Setting remote control TUNER ID codes**

You need to set the remote control TUNER ID library code for the remote control.

**1 Set the operation mode selector to AMP or SOURCE and then press TUNER on the remote control to select the tuner to change the remote control ID.**

**2 Press and hold LEARN for about 3 seconds using a ballpoint pen or similar object and the ◁ / ▷ repeatedly until "L;TUN" and "TUNER" appear in the display window on the remote control.**



*Notes*

- Be sure to press and hold **LEARN** for at least 3 seconds, otherwise the learning process will start.
- If you do not complete each of the following steps within 30 seconds, the setting mode will be automatically canceled. In this case, start over from step 1.

**3 Press ENTER.**

The four-digit code set for the selected input area appears in the display window on the remote control.

**4 Press the numeric buttons to enter the four-digit remote control code for the input area you want to use.**



**Remote control tuner ID codes**

Select one of the following codes to set the remote control tuner ID code for the input area you want to use.

| Tuner ID code (remote control setting) | Function | Remote control tuner ID |
|---|---|---|
| 2602 (initial setting) | To operate this unit using the default code. | ID1 (initial setting) |
| 2610 | To operate this unit using an alternative code. | ID2 |

**5 Press ENTER to set the number.**

"OK" appears in the display window if setting was successful.
"NG" appears in the display window if the setting was unsuccessful. In this case, start over from step 1.

**6 Press LEARN again to exit from the setup mode.**



ADVANCED OPERATION

English

*Advanced setup*

### ■ SIRIUS Satellite Radio Parental Lock personal identification number reset SR PIN

Use this feature to set the code number (personal identification number) for the SIRIUS Satellite Radio Parental Lock feature to the initial factory setting. This feature is useful when you forget or want to change the current code number.
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 "SR PIN" to "RESET", this unit does not unlock the locked channels. The initial factory setting of the Parental Lock code number is "0000".

### ■ Bi-amplifier setting BI-AMP

Use this feature to activate or deactivate the bi-amplifier function.
Choices: ON, **OFF**
- Select "ON" if you want to activate the bi-amplifier function. "SUR.B L/R SP" is set to "NONE" automatically, and this unit outputs the front channel audio signals at the SURROUND BACK/BI-AMP speaker terminals.
- Select "OFF" if you want to deactivate the bi-amplifier function.

*Note*

When "BI-AMP" is set to "ON", you can only select "FRONT B" or "NONE" in "EXTRA SP ASSIGN".

### ■ SCENE IR code setting SCENE IR

Use this feature to output the remote control signals at the REMOTE OUT jack automatically when this unit is in the SCENE mode.
Choices: **ON**, OFF
- Select "ON" when the component connected to the REMOTE OUT jack is the Yamaha component and has the capability of the SCENE control signals. This unit automatically sends the remote control signals to the component.
- Select "OFF" when the component connected to the REMOTE OUT jack is not the Yamaha component and does not have the capability of the SCENE control signals.

*Note*

If noises are output when you operate the SCENE function, set "SCENE IR" to "OFF".

### ■ 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.

### ■ Parameter initialization INIT

Use this feature to reset the parameters of this unit to the initial factory settings. You can select the category of parameters to be initialized.
Choices: DSP PARAM, VIDEO, ALL, **CANCEL**
- Select "DSP PARAM" to initialize all the parameters of the sound field programs.
- Select "VIDEO" to initialize the parameters in "VIDEO SET" and "OSD SHIFT" in "DISPLAY SET".
- Select "ALL" to initialize all the parameters of this unit.
- Select "CANCEL" to cancel the initialization procedure.

*Notes*

- The advanced setup menu parameters are not initialized.
- Use "INITIALIZE" in the sound field program menu to initialize the parameters of the desired program.

ADVANCED OPERATION

English

## Resetting the system

Use this feature to reset all the parameters of this unit to the initial factory settings.

***Notes***

- This procedure 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.

☼
To cancel the initialization procedure at any time without making any changes, press **SYSTEM OFF** on the front panel.

**1 Press SYSTEM OFF on the front panel to set this unit to the standby mode.**

**2 Press and hold TONE CONTROL and then press MAIN ZONE ON/OFF to turn on this unit.**
This unit turns on, and the advanced setup menu appears in the front panel display.




**3 Rotate the PROGRAM selector to select "INIT".**

**4 Press TONE CONTROL repeatedly to select "ALL".**

☼
Select "CANCEL" to cancel the initialization procedure without making any changes.

**5 Press SYSTEM OFF to confirm your selection and set this unit to the standby mode.**

ADDITIONAL INFORMATION

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。アドバンスト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。各項目の初期設定は、太字で記載しています。

**ご注意**

- 変更した設定は、STANDBY/ON キーを押して本機の電源を入れ直したときから有効になります。
- アドバンストセットアップメニューの操作中は、本体の STANDBY/ON キー、TONE CONTROL キー、PROGRAM セレクター以外は機能しません。
- アドバンスト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。
- アドバンスト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。

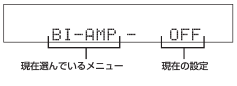
### アドバンストセットアップメニューの操作手順

**1 本体の 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、アドバンスト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 PROGRAM セレクターを回して、設定したいメニューを選ぶ。**
フロントパネルディスプレイにメニューが表示されます。




**4 TONE CONTROL キーを繰り返し押して、設定したい項目を選ぶ。**

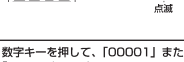
**5 STANDBY/ON キーを押して、本機の電源をスタンバイにする。**
変更した設定が保存されます。

☼
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。

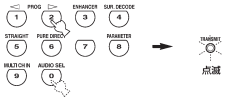
**■ アンプ用リモコン ID 設定** REMOTE AMP
本体のアンプ操作用リモコン ID を、リモコンのアンプ操作用コードの設定に合わせて切り替えます。本機を設置している部屋で別のヤマハ製アンプをお使いの場合に、本機のリモコン操作でもう 1 台のアンプが動作するのを防止します。
選択項目：**ID1**、ID2
- リモコンのアンプ操作用コードを「00001」に設定しているときは、「ID1」を選んでください。
- リモコンのアンプ操作用コードを「00002」に設定しているときは、「ID2」を選んでください。

**リモコンのアンプ操作用コードを変更する**
リモコンのアンプ操作用コードをアンプ操作用リモコン ID に合わせて変更します。

**1 CODE SET ボタンを、ボールペンなどの先の細いもので押す。**
TRANSMIT インジケーターが 2 回点滅します。




**2 数字キーを押して、「00001」または「00002」と入力する。**
TRANSMIT インジケーターが 2 回点滅し、アンプ操作用コードが変更されます。




応用操作

本機の設定を変更する（ADVANCED SETUP）

| アンプ ID コード *1 | 機能 | アンプ用リモコン ID *2 |
|---|---|---|
| 00001（初期設定） | 初期設定のコードを使って操作します。 | ID1（初期設定） |
| 00002 | 別コードを使って操作します。 | ID2 |

*1 リモコン側の設定
*2 本体側の設定

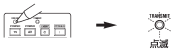
**■ チューナー用リモコン ID 設定** REMOTE TU
本体のチューナー操作用リモコン ID を、リモコンのチューナー操作用コードの設定に合わせて切り替えます。
選択項目：**ID1**、ID2
- リモコンのチューナー操作用コードを「82915」に設定しているときは、「ID1」を選んでください。
- リモコンのチューナー操作用コードを「82178」に設定しているときは、「ID2」を選んでください。

**リモコンのチューナー操作用コードを変更する**
リモコンのチューナー操作用コードをチューナー操作用 ID に合わせて変更します。

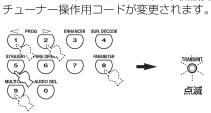
**1 TUNER キーを押して、入力をチューナーに切り替える。**




**2 CODE SET ボタンを、ボールペンなどの先の細いもので押す。**
TRANSMIT インジケーターが 2 回点滅します。




**3 数字キーを押して、「82915」または「82178」と入力する。**
TRANSMIT インジケーターが 2 回点滅し、チューナー操作用コードが変更されます。




| チューナー ID コード *1 | 機能 | チューナー用リモコン ID *2 |
|---|---|---|
| 82915（初期設定） | 初期設定のコードを使って操作します。 | ID1（初期設定） |
| 82178 | 別コードを使って操作します。 | ID2 |

*1 リモコン側の設定
*2 本体側の設定

**■ バイアンプ設定** BI-AMP
SURROUND BACK/BI-AMP 端子を使って、バイアンプ接続するかしないかを設定します。

選択項目：ON、**OFF**
- バイアンプ接続する場合は、「ON」を選んでください。「SUR. B L/R SP」が自動的に「NONE」に設定され、本機の SURROUND BACK/BI-AMP 端子からはフロントチャンネル信号が出力されます。
- バイアンプ接続しない場合は、「OFF」を選んでください。

**ご注意**
「BI-AMP」を「ON」に設定した場合、「EXTRA SP ASSIGN」の「PRESENCE」は選べません。

**■ SCENE 選択時の IR 出力設定** SCENE IR
SCENE（シーン）キーを押したときに、本機リアパネルの REMOTE OUT 端子からコントロール信号を出力するかしないかを設定します。
選択項目：**ON**、OFF
- 本機の REMOTE OUT 端子に接続した機器が SCENE コントロール信号の受信機能を持つヤマハ製機器の場合は、「ON」を選んでください。本機は自動的に、接続した機器にコントロール信号を伝送します。
- 本機の REMOTE OUT 端子に接続した機器がヤマハ製機器でない場合や、SCENE コントロール信号の受信機能を持たない場合は、「OFF」を選んでください。

**ご注意**
SCENE 機能を操作しているときにノイズが出力される場合は、「OFF」に設定してください。

■ 初期設定に戻す INIT

変更した設定を初期設定に戻します。初期設定に戻す項目を選んでください。

選択項目：DSP PARAM、VIDEO、ALL、CANCEL

- 音場プログラムを初期設定に戻すには、「DSP PARAM」を選んでください。
- 「DISPLAY SET」の「VIDEO SET」、および「OSD SHIFT」を初期設定に戻すには、「VIDEO」を選んでください。
- すべてを初期設定に戻すには、「ALL」を選んでください。
- 初期設定に戻さない場合は、「CANCEL」を選んでください。

**ご注意**

音場プログラムごとに音場パラメーターを初期設定に戻すには、音場パラメーター「INITIALIZE」で設定してください。



## すべての設定を初期設定に戻す

変更したセットメニューの設定や音場パラメーター、プリセットした FM ／ AM 放送局などをすべて初期設定に戻します。

**ご注意**

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。

初期化操作を中止するには、フロントパネルの **STANDBY/ON** キーを押してください。

**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 STANDBY/ON キーを押す。**

本機の電源がオンになり、フロントパネルディスプレイにアドバンストセットアップメニューが表示されます。




**3 PROGRAM セレクターを回して、「INIT」を選ぶ。**

**4 TONE CONTROL キーを繰り返し押して、「ALL」を選ぶ。**

初期設定に戻さない場合は、「CANCEL」を選んでください。

**5 STANDBY/ON キーを押して、本機の電源をスタンバイにする。**

すべての設定が初期設定に戻ります。

## Using Bluetooth™ components

You can connect a Yamaha Bluetooth adapter (such as YBA-10, sold separately) to the DOCK terminal of this unit and enjoy the music contents stored in your Bluetooth component (such as a portable music player) without wiring between this unit and the Bluetooth component. You need to perform "pairing" the connected Bluetooth adapter and your Bluetooth component in advance.

### *Pairing the Bluetooth™ adapter and your Bluetooth™ component*

Pairing must be performed when using a Bluetooth component with the Bluetooth adapter connected to this unit for the first time or if the pairing data has been deleted. "Pairing" refers to the operation of registering a Bluetooth component for Bluetooth communications.

- You only need the pairing operation for the first time that you use the Bluetooth component with the Bluetooth adapter.
- Pairing requires operations on this unit and on the other component with which Bluetooth communications are to be established. If necessary, refer to the other component's operating instructions.

There are two pairing methods: pairing by using "START PAIRING" in "SET MENU" and quick pairing.

■ **Pairing by using "SET MENU"**

Use this feature to perform pairing with the video monitor. Select "START PAIRING" in "INPUT MENU".

■ **Quick pairing**

To ensure security, a time limit of 8 minutes is set for the pairing operation. You are recommended to read and fully understand all the instructions before starting.

**1 Rotate the Ⓡ INPUT selector (or press ④V-AUX/DOCK) to select "V-AUX" as the input source.**

**2 Turn on the Bluetooth component you want to pair with.**

**3 Press and hold ⓒ BAND (or ⑦ BAND) for 3 seconds.**

Once the Bluetooth adapter starts pairing, "Searching..." appears for a moment. While the Bluetooth adapter is in the pairing mode, DOCK indicator flashes in the front panel display.

To cancel the pairing, press ⓒ BAND (or ⑦ BAND) again.

*Note*

If the Bluetooth adapter is not connected to the DOCK terminal of this unit, "No BT adapter" appears in the front panel display.

**4 Check that the Bluetooth component detects the Bluetooth adapter.**

If the Bluetooth component detects the Bluetooth adapter, "YBA-10 YAMAHA" (example) appears in the Bluetooth device list.

**5 Select the Bluetooth adapter in the Bluetooth device list and then enter the pass key "0000" on the Bluetooth component.**

When the pairing procedure is successful, "Completed" appears in the front panel display.

*Note*

The Yamaha Bluetooth adapter can be paired with up to eight Bluetooth components. When pairing is conducted successfully with a ninth component and the pairing data is registered, the pairing data for the least recently used other component is cleared.

### *Playback of the Bluetooth™ component*

**1 Rotate the Ⓡ INPUT selector (or press ④V-AUX/DOCK) to select "V-AUX" as the input source.**

**2 Start playback of your Bluetooth component.**

When the connected Bluetooth adapter detects the Bluetooth component, "BT connected" and the DOCK indicator appears in the front panel display.

- When you press ⑧ ENTER on the remote control, the connected Bluetooth adapter searches and connect to the last connected Bluetooth component. If the Bluetooth adapter cannot find the Bluetooth component, "Not found" appears in the front panel display.
- To disconnect the Bluetooth adapter from the Bluetooth component, press ⑨ RETURN.

## Bluetooth® 機器を再生する

ヤマハ製 Bluetooth アダプター（別売 YBA-10 など）を DOCK 端子に接続すれば、本機と Bluetooth 機器（ポータブルオーディオプレーヤーなど）をケーブルで接続することなく、Bluetooth 機器に保存した音楽ファイルを再生できます。再生する前に、Bluetooth アダプターと Bluetooth 機器を「ペアリング」してください。

### Bluetooth® アダプターと Bluetooth® 機器をペアリングする

Bluetooth 機器を Bluetooth アダプターを使って本機で再生する前に、「ペアリング」を行います。本機能をはじめて使う場合や、ペアリングしたデータが消去された場合は、必ず行ってください。「ペアリング」とは、Bluetooth で通信するために Bluetooth 機器を登録することです。

- ペアリングは、Bluetooth 機器と Bluetooth アダプターをはじめて使うときのみ必要です。
- Bluetooth で通信できるようにするには、本機および Bluetooth 機器の両方でペアリングしてください。必要に応じて Bluetooth 機器の取扱説明書もご覧ください。

本機では、セットメニュー「START PAIRING」と、クイックペアリングの 2 種類の方法でペアリングできます。

■ **セットメニューでペアリングする**

モニターに表示されるメニューを見ながらペアリングします。「INPUT MENU」の「START PAIRING」を選んでください。

■ **クイックペアリングでペアリングする**

セキュリティー確保のため、ペアリングできる時間は 8 分に制限されています。以下の手順を一通り読んでから操作に移ることをおすすめします。

**1 ⓪ INPUT セレクターを回して（または操作機器選択スイッチ（⑯）で SOURCE を選び、④V-AUX キーを押して）、V-AUX を入力選択する。**

**2 ペアリングしたい Bluetooth 機器の電源をオンにする。**

**3 ⓒ BAND キー（または ⑦ BAND キー）を、約 3 秒間押し続ける。**

フロントパネルディスプレイに「Searching...」と一時的に表示され、DOCK インジケーターが点滅します。

ペアリングをキャンセルするには、再度 ⓒ BAND キー（または ⑦ BAND キー）を押します。

**ご注意**

Bluetooth アダプターが DOCK 端子に接続されていない場合は、フロントパネルディスプレイに「No BT Adapter」と表示されます。

**4 Bluetooth 機器が Bluetooth アダプターを認識していることを確認する。**

Bluetooth 機器が Bluetooth アダプターを認識している場合は、Bluetooth デバイスリストに「YBA-10 YAMAHA」（例）と表示されます。

**5 Bluetooth デバイスリストから Bluetooth アダプターを選び、Bluetooth 機器にパスキー「0000」を入力する。**

正しくペアリングされた場合は、フロントパネルディスプレイに「Completed」と表示されます。

**ご注意**

ヤマハ製 Bluetooth アダプターは 8 台までの Bluetooth 機器とペアリングできます。9 台目の機器が正しくペアリングされ、ペアリングデータが登録された場合、最初にペアリングした機器のデータは消去されます。

### Bluetooth® 機器の再生を楽しむ

**1 ⓪ INPUT セレクターを回して（または操作機器選択スイッチ（⑯）で SOURCE を選び、④V-AUX キーを押して）、V-AUX を入力選択する。**

**2 Bluetooth 機器の再生を開始する。**

接続した Bluetooth アダプターが Bluetooth 機器を認識すると、フロントパネルディスプレイに「BT connected」と表示され、DOCK インジケーターが点灯します。

- ⑧ ENTER キーを押すと、接続した Bluetooth アダプターは最後に接続していた Bluetooth 機器を検索し、接続します。Bluetooth アダプターが Bluetooth 機器を検索できなかった場合は、フロントパネルディスプレイに「Not found」と表示されます。
- Bluetooth アダプターと Bluetooth 機器の接続を解除するには、⑨ RETURN キーを押してください。

# RX-V663/HTR-6160/
# DSP-AX763

YAMAHA