

DIGITAL HOME THEATER SYSTEM YHT-290/195 AV RECEIVER

RX-V363/HTR-6130

SERVICE MANUAL

YHT-290 consists of HTR-6130 and NS-P270D. (C model)

YHT-195 consists of HTR-6130 and NS-P270D. (R, K, A, L models)

NS-P270D consists of NX-E270, NX-C270 and SW-P270.

This service manual is for RX-V363/HTR-6130.

For NX-E270, NX-C270 and SW-P270 service manual, please refer to the following service manual:

NX-P270/NX-P276: 101000

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.

CONTENTS

| | | | |
|--------------------------------|-------|-------------------------------|-------|
| TO SERVICE PERSONNEL | 2 | DISPLAY DATA | 38-39 |
| FRONT PANELS | 3-4 | IC DATA | 40-55 |
| REAR PANELS | 4-9 | BLOCK DIAGRAMS | 56-57 |
| REMOTE CONTROL PANELS | 9 | PRINTED CIRCUIT BOARDS | 58-71 |
| SPECIFICATIONS | 10-12 | PIN CONNECTION DIAGRAMS | 72 |
| INTERNAL VIEW | 13 | SCHEMATIC DIAGRAMS | 73-83 |
| DISASSEMBLY PROCEDURES | 14-16 | REPLACEMENT PARTS LIST | 85-95 |
| UPDATING FIRMWARE | 17-19 | REMOTE CONTROL | 96-98 |
| SELF DIAGNOSTIC FUNCTION | 20-37 | Advanced setup | 99 |



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This Service Manual uses recycled paper.

101084

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YAMAHA

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

'08.02

■ TO SERVICE PERSONNEL

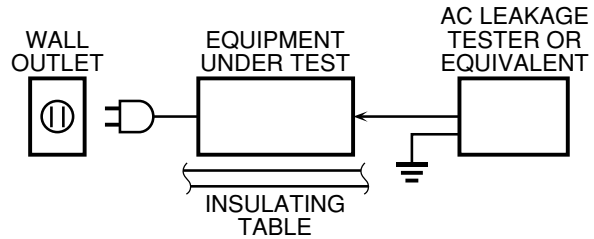
1. Critical Components Information

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”

“F2251: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 6A, 125V FUSE.”

For C model

CAUTION

F2251: REPLACE WITH SAME TYPE 6A, 125V FUSE.

ATTENTION

F2251: UTILISER UN FUSIBLE DE RECHANGE DE MÊME TYPE DE 6A, 125V.

WARNING: CHEMICAL CONTENT NOTICE!

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

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

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

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

About lead free solder

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.

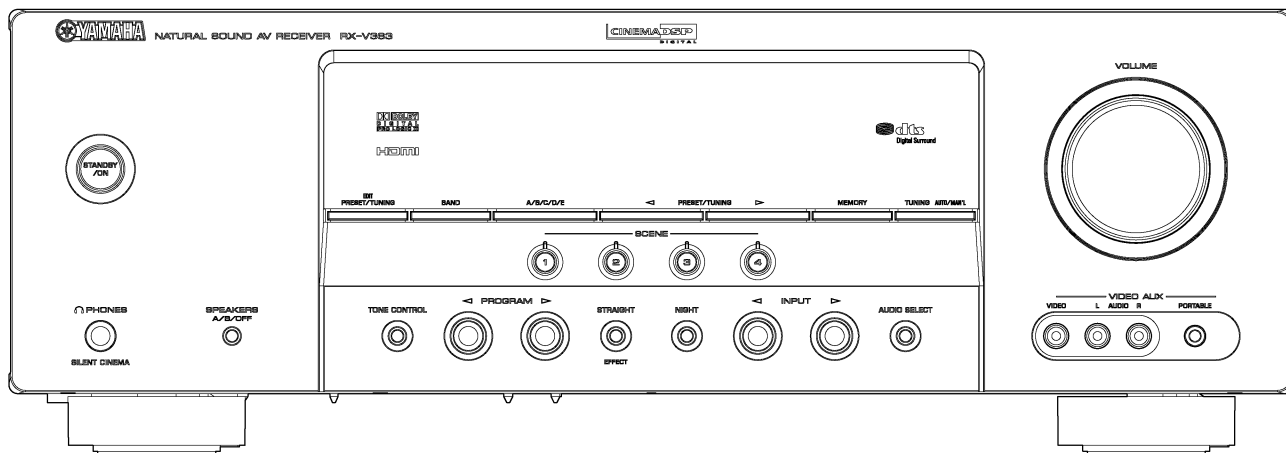
- Sn + Ag + Cu (tin + silver + copper)
- Sn + Cu (tin + copper)
- Sn + Zn + Bi (tin + zinc + bismuth)

Caution:

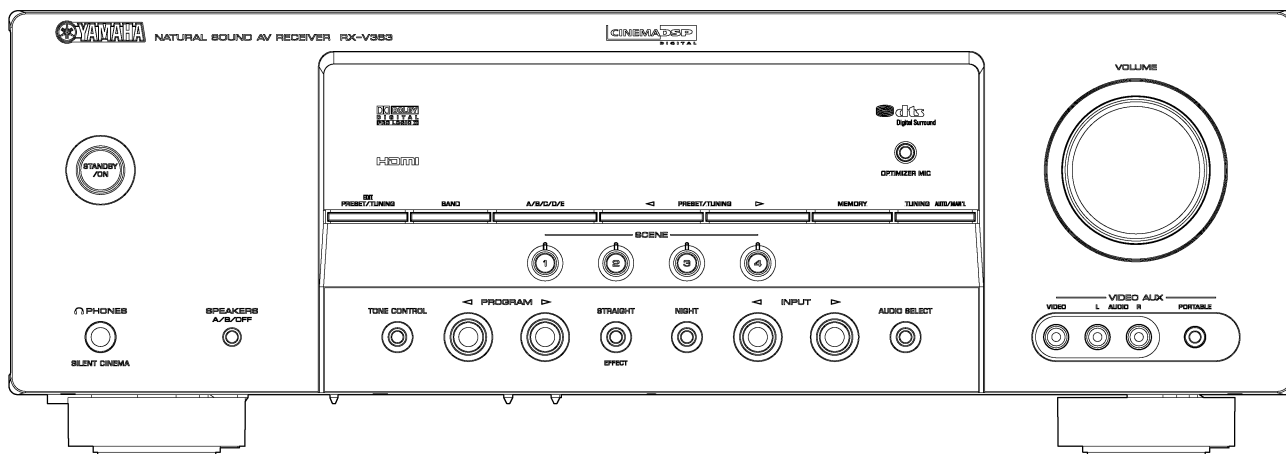
As the melting point temperature of the lead free solder is about 30°C to 40°C (50°F to 70°F) higher than that of the lead solder, be sure to use a soldering iron suitable to each solder.

FRONT PANELS

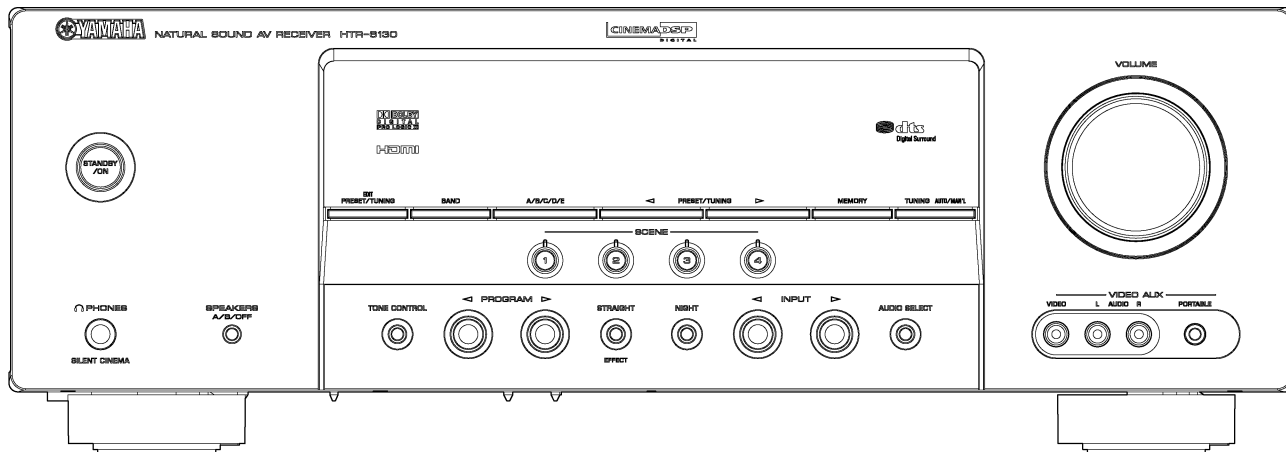
RX-V363 (U, C, T models)



RX-V363 (R, K, A, B, G, E, F, L models)

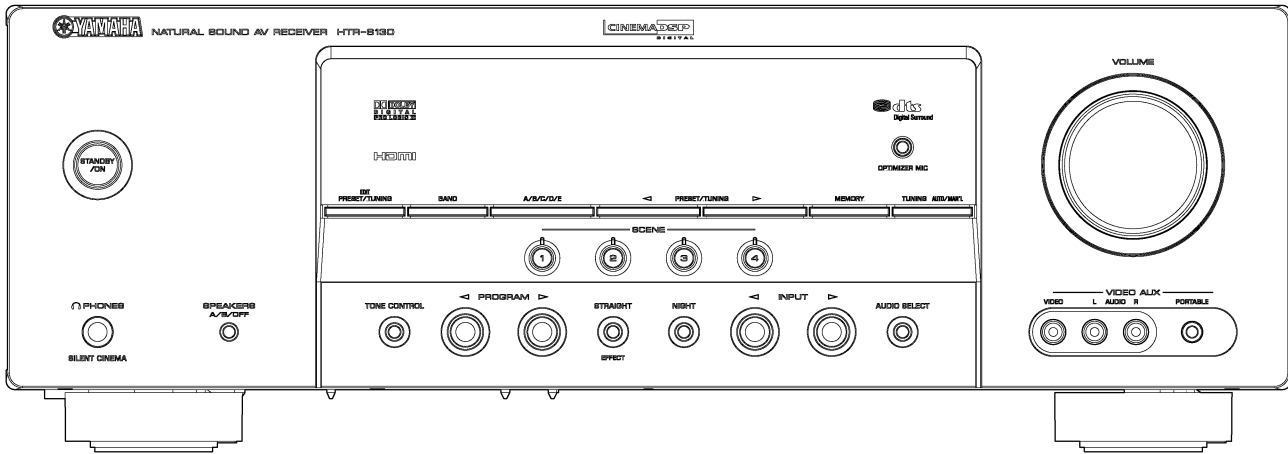


HTR-6130 (U, C, T models)



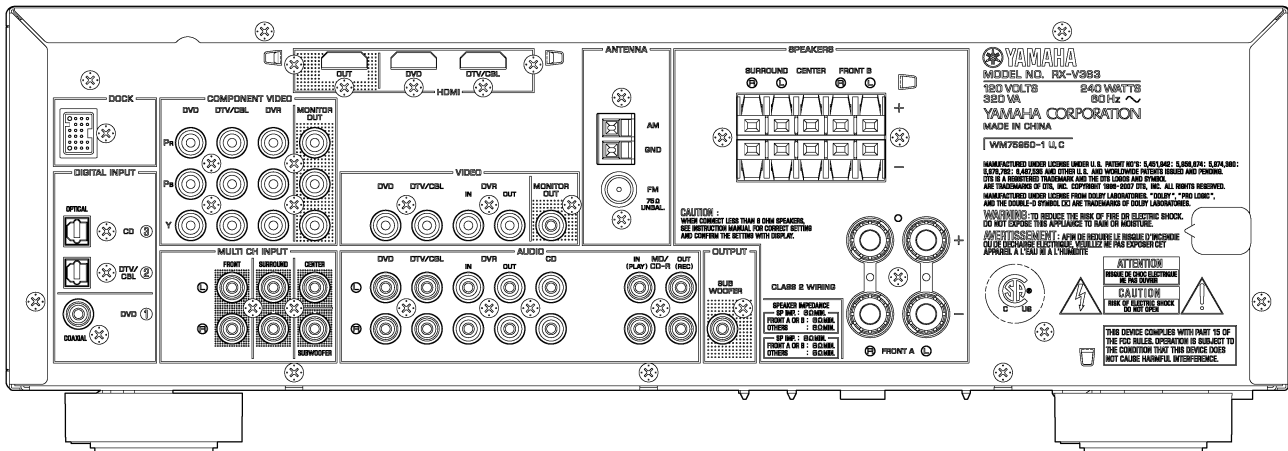
RX-V363/HTR-6130

HTR-6130 (R, K, A, G, E, F, L models)

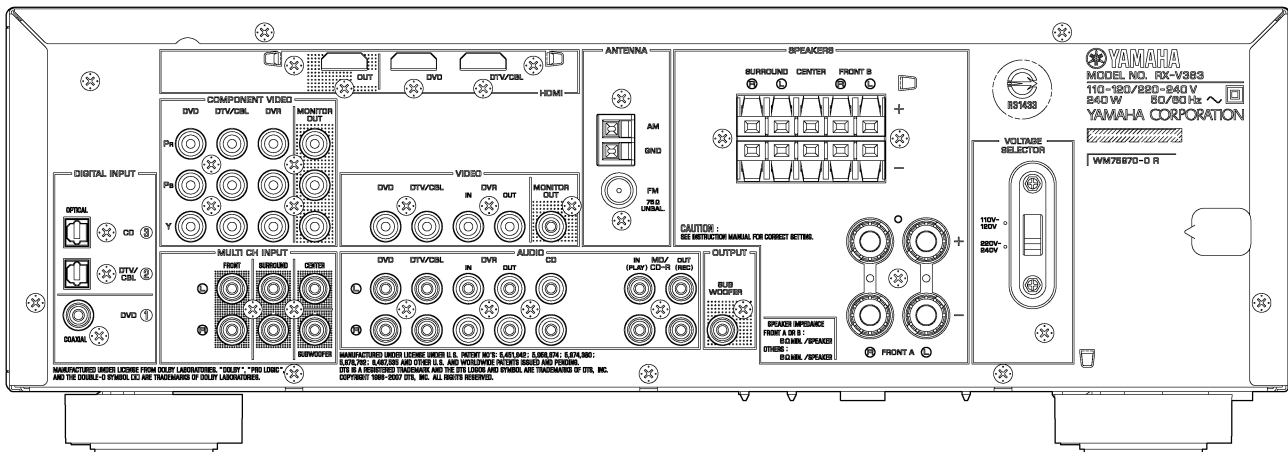


REAR PANELS

RX-V363 (U, C models)

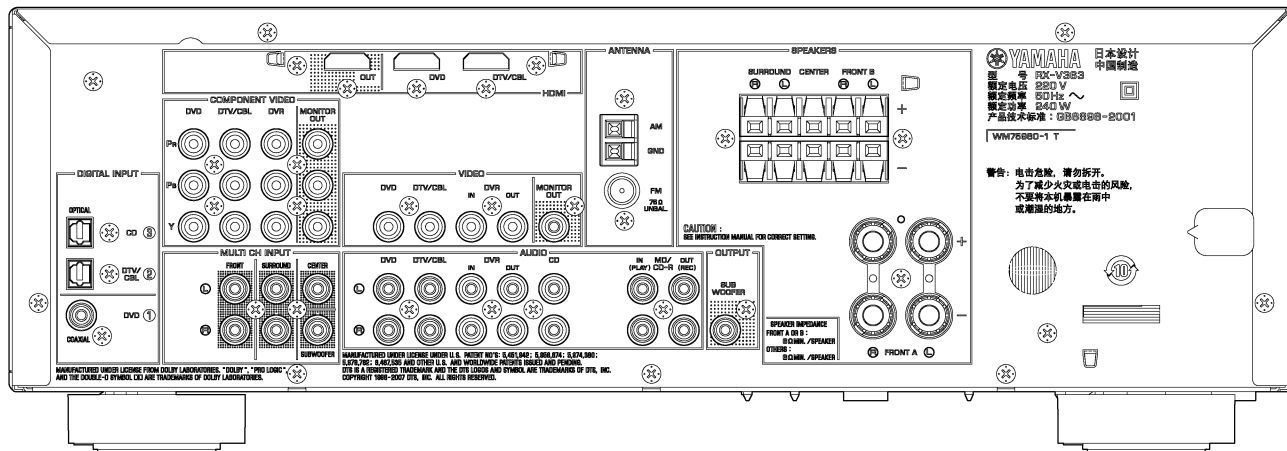


RX-V363 (R model)

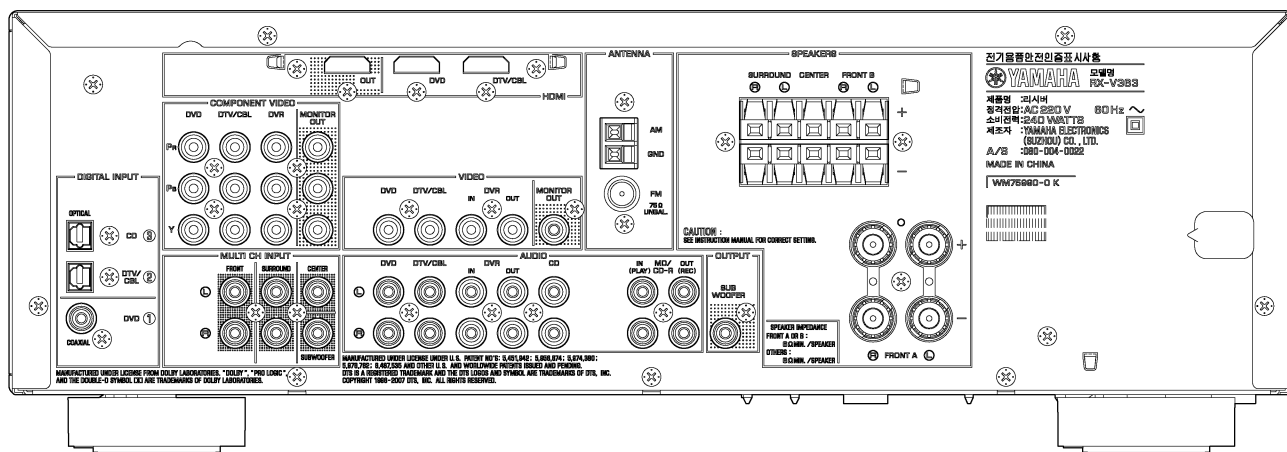


RX-V363/HTR-6130

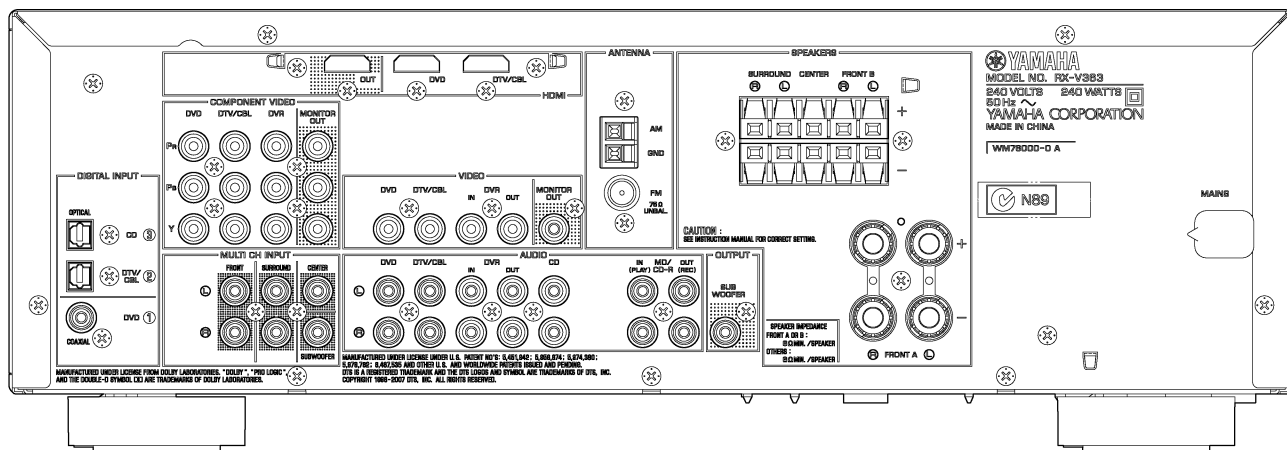
RX-V363 (T model)



RX-V363 (K model)

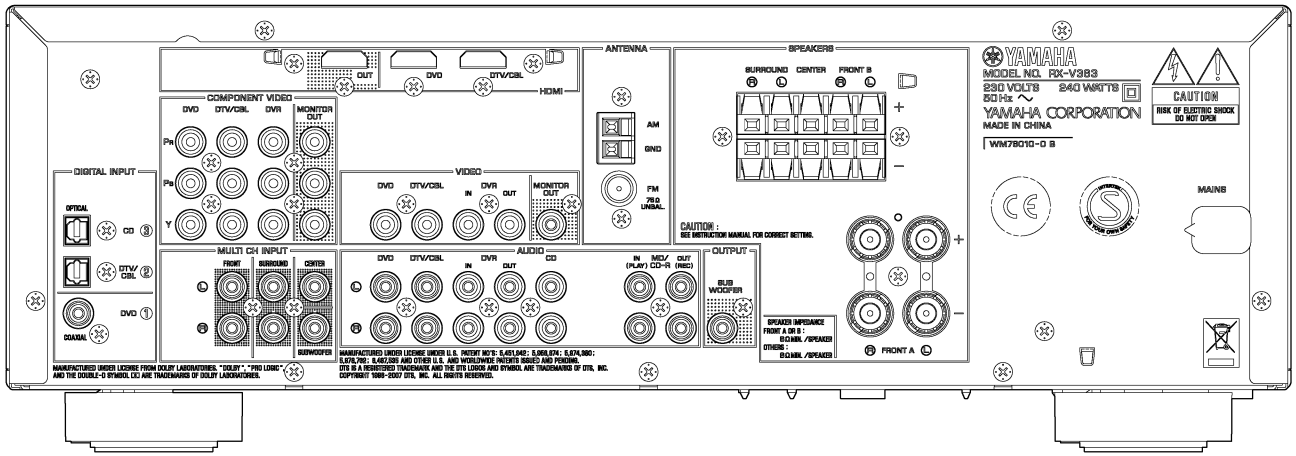


RX-V363 (A model)

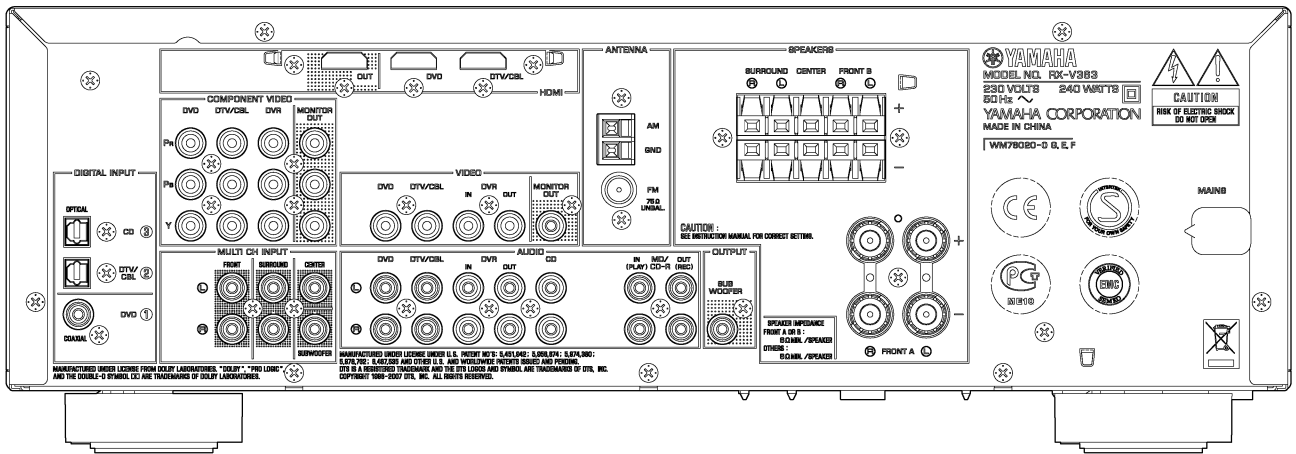


RX-V363/HTR-6130

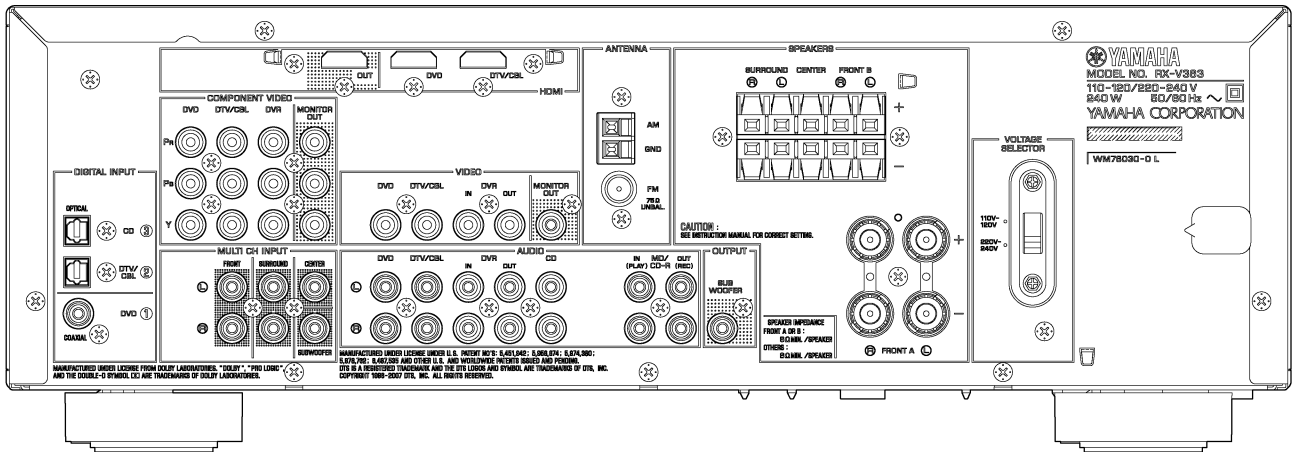
RX-V363 (B model)



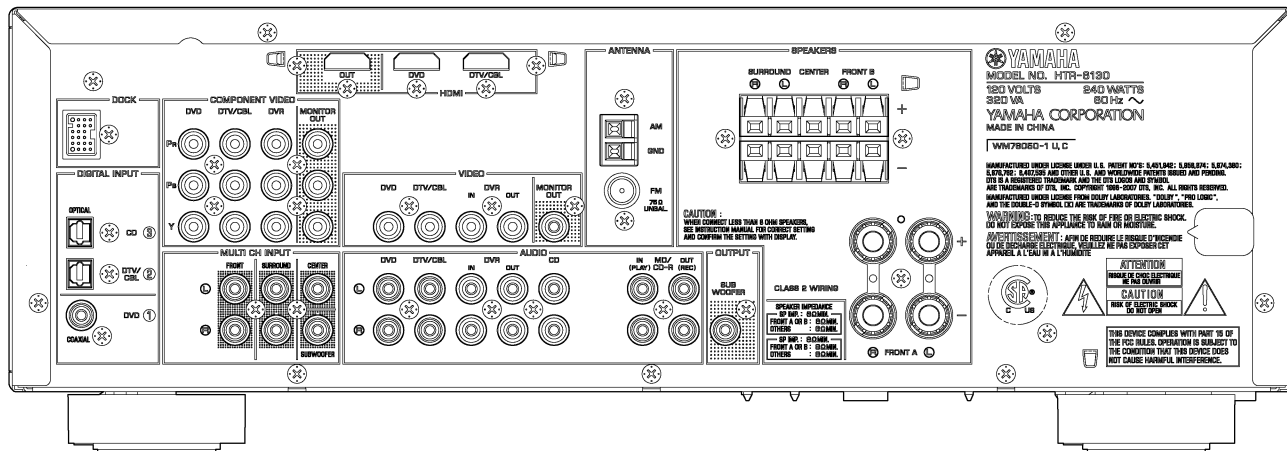
RX-V363 (G, E, F models)



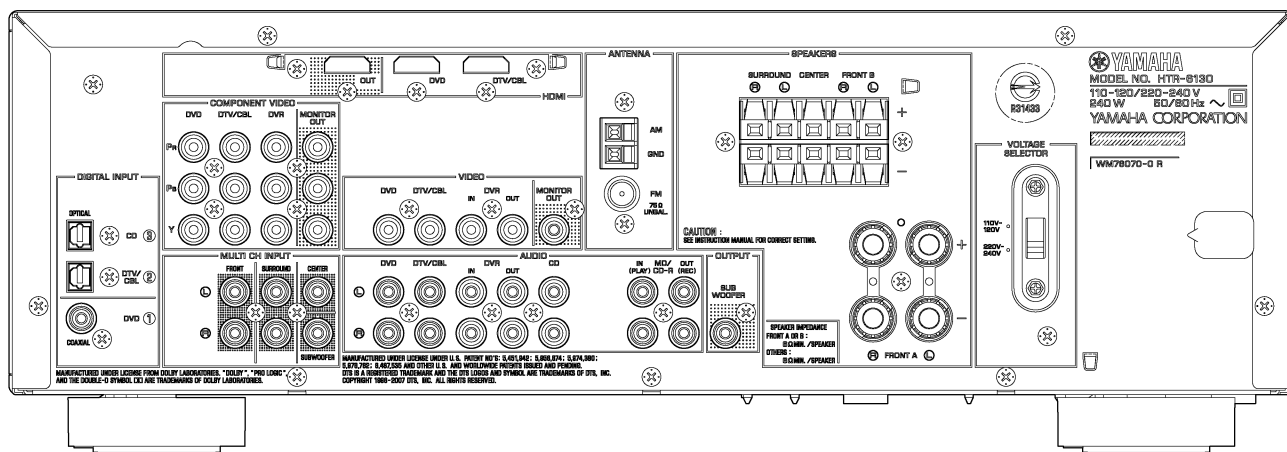
RX-V363 (L model)



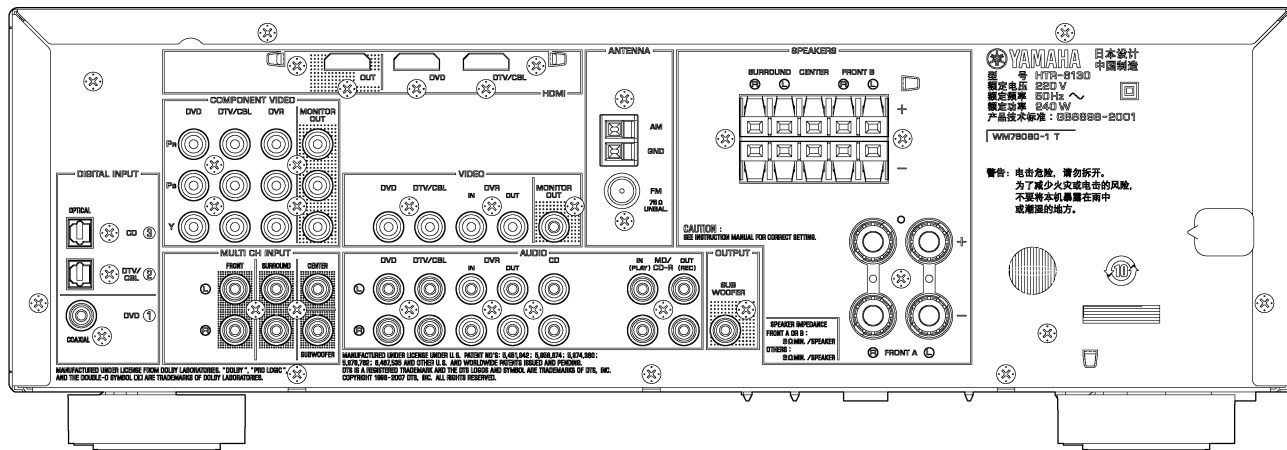
HTR-6130 (U, C models)



HTR-6130 (R model)

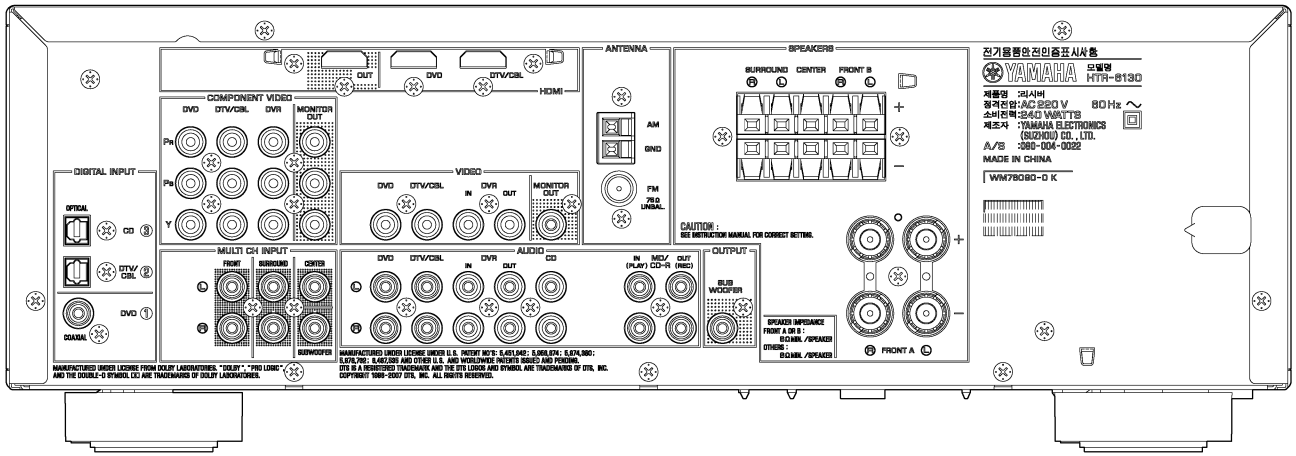


HTR-6130 (T model)

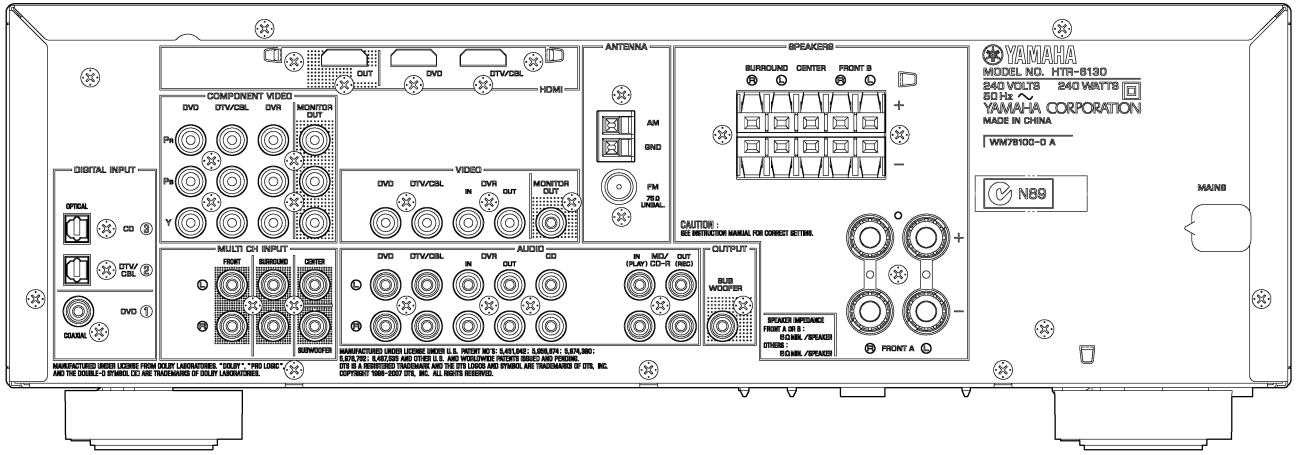


RX-V363/HTR-6130

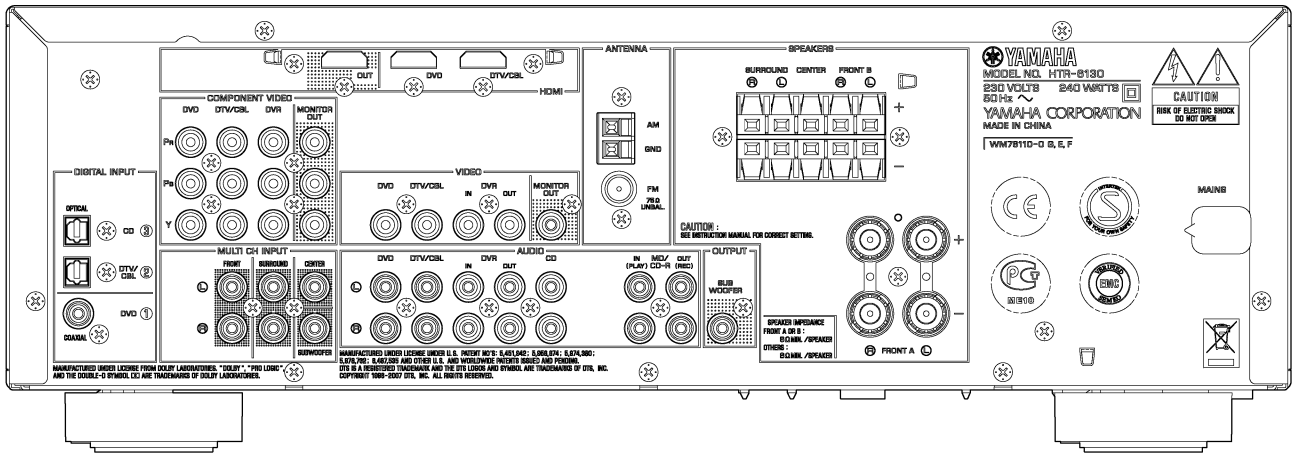
HTR-6130 (K model)



HTR-6130 (A model)

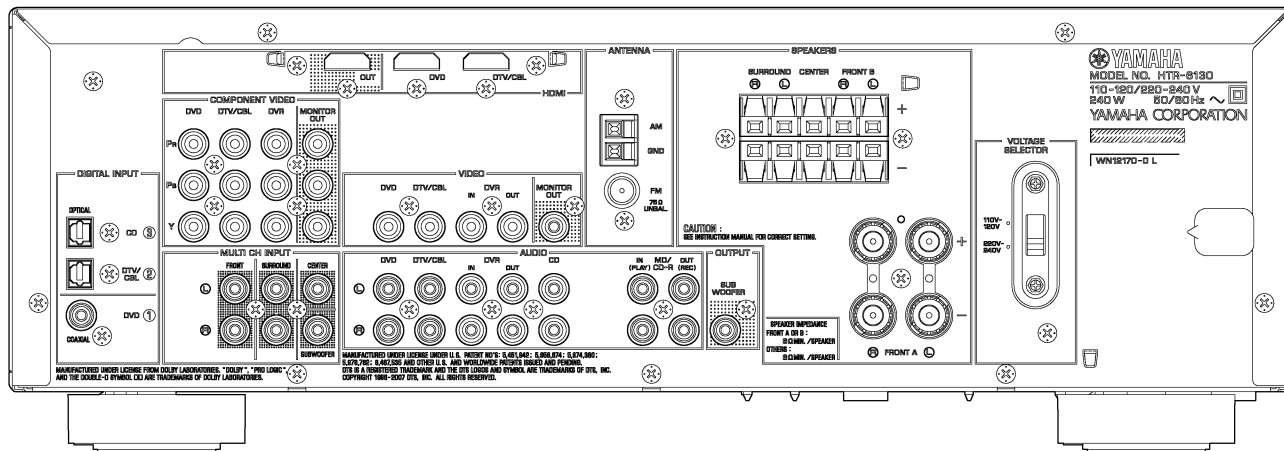


HTR-6130 (G, E, F models)



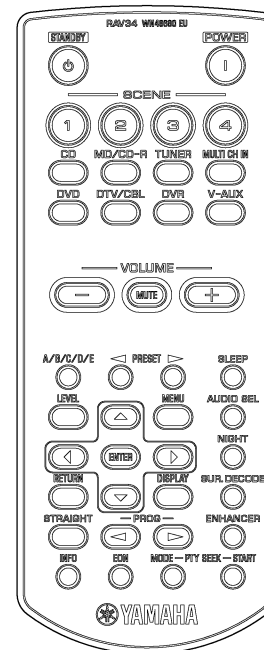
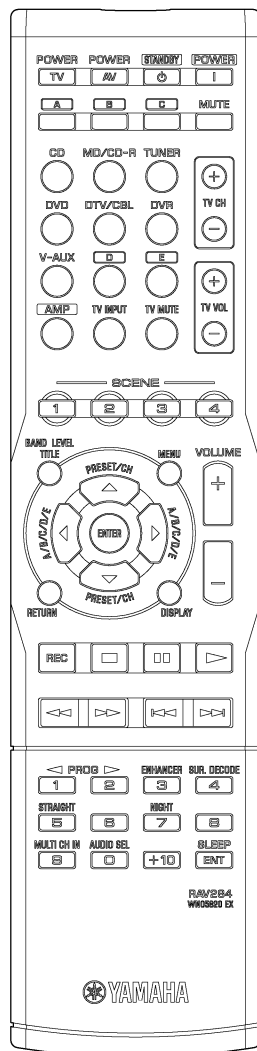
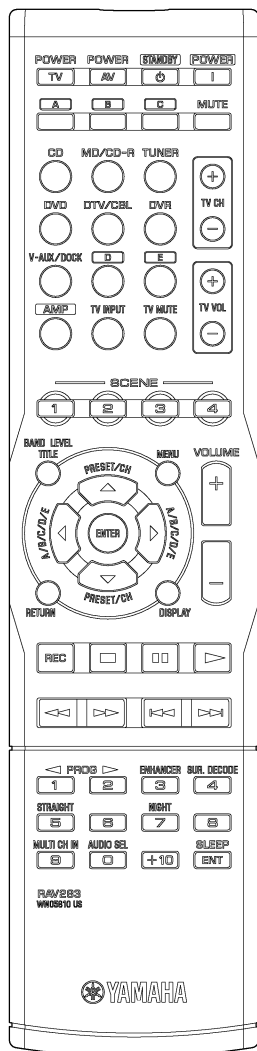
RX-V363/HTR-6130

HTR-6130 (L model)



■ REMOTE CONTROL PANELS

- RAV283
RX-V363 (U, C models)
HTR-6130 (U, C models)
- RAV284
RX-V363 (R, T, K, A, L models)
HTR-6130 (R, T, K, A, L models)
- RAV34
RX-V363 (B, G, E, F models)
HTR-6130 (G, E, F models)



RX-V363/HTR-6130

■ SPECIFICATIONS

■ Audio Section

Minimum RMS Output Power (Power Amp. Section)

(1 kHz, 0.9 % THD)
 FRONT L/R, CENTER, SURROUND L/R
 U, C models (8 ohms) 100 W/ch
 R, T, K, A, B, G, E, F, L models (6 ohms) 100 W/ch

Maximum Power (JEITA) (1 kHz, 10 % THD)

FRONT L/R, CENTER, SURROUND L/R
 U, C models (8 ohms) 135 W/ch
 R, T, K, A, L models (6 ohms) 135 W/ch

Max. Power Per Channel [B, G, E, F models]

(1 kHz, 0.7 % THD, 4 ohms)
 FRONT L/R, CENTER, SURROUND L/R.... 105 W or more

IEC Power [B, G, E, F models]

(1 kHz, 0.1 % THD, 6 ohms)
 MAIN L/R 90 W or more

Dynamic Power Per Channel (IHF) (FRONT L/R)

U, C models
 (8/6/4/2 ohms) 110/130/160/180 W
 R, T, K, A, B, G, E, F, L models
 (6/4/2 ohms) 105/130/150 W

Dynamic Headroom

U, C models (8 ohms) 0.41 dB

Input Sensitivity/Input Impedance

(1 kHz, 100 W / 6 ohms)
 CD, etc. 200 mV / 47 k-ohms
 MULTI CH INPUT
 FRONT L/R, CENTER, SURROUND L/R, SUBWOOFER
 200 mV / 47 k-ohms

Maximum Input Signal (1 kHz, 0.5 % THD, Effect on)

CD, etc. 2.0 V or more

Output Level/Output Impedance

REC OUT 200 mV / 1.2 k-ohms
 SUBWOOFER (2 ch STEREO and FRONT SP: Small)
 4 V / 1.2 k-ohms

Headphone Jack Rated Output/Impedance

CD, etc. (1 kHz, 200 mV, 8 ohms) 400 mV / 470 ohms

Frequency Response

(10 Hz to 100 kHz)
 CD, etc. to FRONT L/R 0 / -3.0 dB
 (10 Hz to 20 kHz)
 V-AUX to FRONT L/R 0 / -3.0 dB

Total Harmonic Distortion (1 kHz, 50 W)

CD, etc. (2ch stereo) to FRONT L/R SP OUT
 U, C models (8 ohms) 0.06 % or less
 R, T, K, A, B, G, E, F, L models (6 ohms) 0.06 % or less

Signal to Noise Ratio (IHF-A Network)

CD, etc. (STEREO) to Input shorted SP OUT
 200 mV 98 dB or more
 250 mV 100 dB or more

Residual Noise (IHF-A Network)

FRONT L/R SP OUT 170 µV or less

Channel Separation

CD, etc. (Input 5.1 k-ohms shorted, 1 kHz / 10 kHz)
 60 dB or more / 45 dB or more

Tone Control Characteristics

BASS
 Boost/Cut ±10 dB (100 Hz)
 TREBLE
 Boost/Cut ±10 dB (20 kHz)

Filter Characteristics

FRONT, CENTER, SURROUND, SURROUND BACK small (H.P.F.)
 fc=40/60/80/90/100/110/120/160/200 Hz, 12 dB/oct.
 SUBWOOFER (L.P.F.)
 fc=40/60/80/90/100/110/120/160/200 Hz, 24 dB/oct.

■ Video Section

Video Signal Type (Gray back)

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

Composite Video Signal Level

..... 1 Vp-p / 75 ohms

Component Signal Level

Y 1 Vp-p / 75 ohms

Video Maximum Input Level

..... 1.5 Vp-p or more

Signal to Noise Ratio (IHF)

..... 50 dB or more

Monitor Out Frequency Response

Component video signal 5 Hz to 60 MHz, -3 dB

■ FM Section

Tuning Range

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, B, G, E, F models 87.50 to 108.00 MHz

50dB Quieting Sensitivity (IHF) (1 kHz, 100 % Mod.)

Mono 2.8 µV (20.2 dBf)

Signal to Noise Ratio (IHF)

Mono / Stereo 73 dB / 70 dB

Harmonic Distortion (1 kHz)

Mono / Stereo 0.5 % / 0.5 %

Antenna Input 75 ohms unbalanced

■ AM Section

Tuning Range

U, C models 530 to 1,710 kHz
 R, L models 530 to 1,710 / 531 to 1,611 kHz
 T, K, A, B, G, E, F models 531 to 1,611 kHz

Antenna Input Loop antenna

RX-V363/HTR-6130

■ General

Power Supply

U, C models AC 120 V, 60 Hz
 R, L models AC 110-120/220-240 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

Power Consumption

U, C models 240 W / 320 VA
 R, T, K, A, B, G, E, F, L models 240 W

Standby Power Consumption (reference data)

U, C, T, K, A, B, G, E, F models 0.8 W

Maximum Power Consumption (5 ch drive, 10 % THD)

R, L models 530 W

Dimensions (W x H x D)

..... 435 x 151 x 317.6 mm (17-1/8" x 5-15/16" x 12-1/2")

Weight 8.0 kg (17 lbs. 10 oz.)

Finish

[RX-V363]

Gold color T, L models
 Black color U, C, R, A, B, G, E, F, L models
 Silver color R, A, G, E, F, L models
 Titanium color K, B, G, F, L models

[HTR-6130]

Gold color T model
 Black color U, C, R, A, G, F, L models
 Silver color U, R, K, A, G, E, F, L models

Accessories Remote control x 1

Batteries (R03, AAA, UM-4) x 2
 Indoor FM antenna x 1
 AM loop antenna x 1
 Optimizer microphone x 1 (R, K, A, B, G, E, F, L models)

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

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



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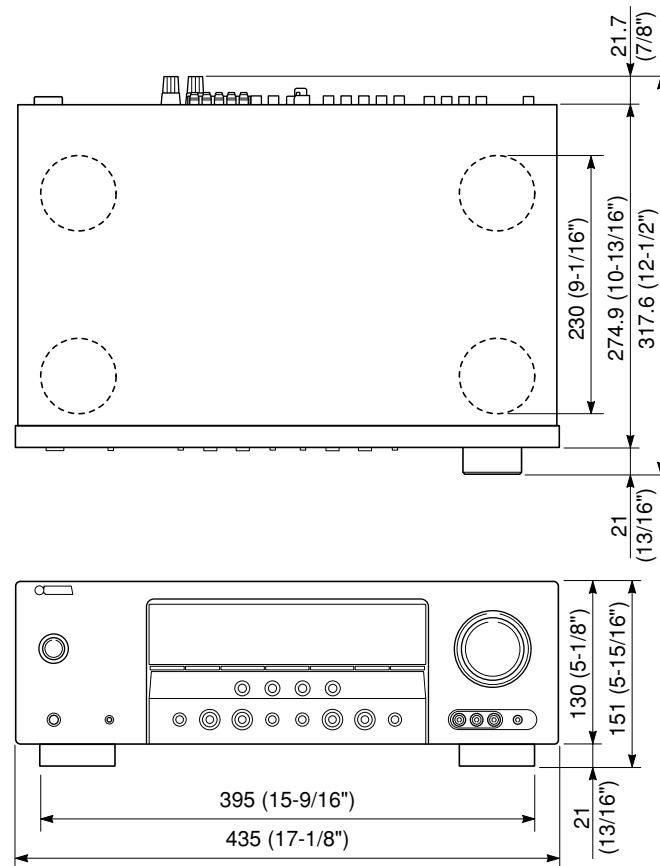
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• DIMENSIONS



Unit: mm (inch)

• SCENE TEMPLATE

| SCENE name | Contents | | Source | Program | | NIGHT Mode | Select (Default) | |
|----------------------|------------------------|------------|---------------|----------------|----------------|------------|------------------|----------------------------------|
| | | | | Mode | Sub-mode | | U, C models | R, T, K, A, B, G, E, F, L models |
| DVD Viewing | DVD | Movie | DVD | STRAIGHT | – | SYSTEM | O (SCENE 1) | O |
| DVD Movie Viewing | | | DVD | MOVIE | Movie Dramatic | SYSTEM | O | O (SCENE 1) |
| DVD Live Viewing | | | | Music Live | DVD | MUSIC | Pop/Rock | SYSTEM |
| DVR Viewing | DVR | | DVR | MOVIE | Movie Dramatic | SYSTEM | O | O |
| Music Disc Listening | DVD-Audio / SA-CD / CD | Music Disc | DVD | STEREO | 2ch Stereo | SYSTEM | O | O (SCENE 2) |
| Disc Listening | | | DVD | STEREO | 5ch Stereo | SYSTEM | O (SCENE 2) | O |
| CD Listening | CD | Music Disc | CD | STEREO | 5ch 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 | Music Enh. 5ch | SYSTEM | O (SCENE 4) | O (SCENE 4) |
| DOCK Listening | DAP | iPod | DOCK | MUSIC ENHANCER | Music Enh. 5ch | SYSTEM | O | – |
| | | Bluetooth | (V-AUX) | | | | | |
| TV Viewing | TV | | DTV/CBL | STRAIGHT | – | SYSTEM | O (SCENE 3) | O (SCENE 3) |
| TV Sports Viewing | | | DTV/CBL | ENTERTAINMENT | TV Sports | SYSTEM | O | O |
| Game Playing | GAME | | V-AUX | ENTERTAINMENT | Game | SYSTEM | O | O |

• SOUND/SURROUND SELECT MENU

Sound Field Parameters

| | | DSP LEVEL | MUSIC ENHANCER |
|-----------|----------------|-----------------|----------------|
| | | MIN, [MID], MAX | LOW, [HIGH] |
| STEREO | 2ch Stereo | | |
| | 5ch Stereo | | |
| MUSIC | Pop/Rock | O | |
| | Hall | O | |
| | Jazz | O | |
| ENTERTAIN | Game | O | |
| | TV Sports | O | |
| MOVIE | Movie Spacious | O | |
| | Movie Dramatic | O | |
| ENHANCER | Music Enh. 2ch | | O |
| | Music Enh. 5ch | | O |

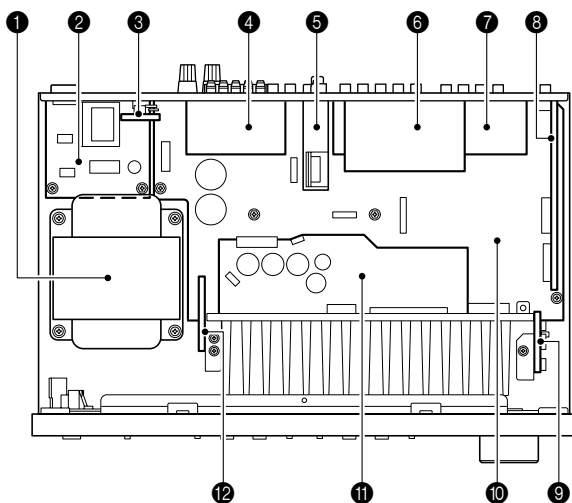
Surround Decoders

| DECODING FORMAT | | PANORAMA | DIMENSION | CENTER WIDTH |
|------------------|--------------------------|-----------|---------------|--------------------------|
| | | ON, [OFF] | -3, [STD], +3 | 0, 1, 2, [3], 4, 5, 6, 7 |
| DOLBY DIGITAL | Dolby Digital | | | |
| | DTS | | | |
| DOLBY DIGITAL II | Dolby Pro Logic | | | |
| | Dolby Pro Logic II Music | O | O | O |
| | Dolby Pro Logic II Movie | | | |
| | Dolby Pro Logic II Game | | | |

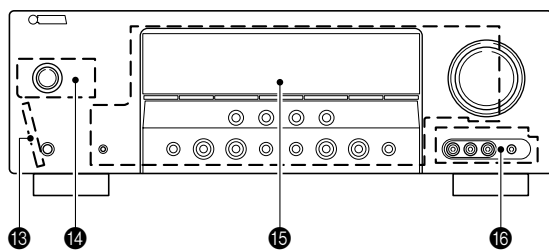
• SET MENU TABLE

| CATEGORY | MAIN MENU | SUB MENU | SELECT MENU | VALUE [INITIAL] | | |
|---|---------------|----------------|--------------------|---|--|----------------------------------|
| BASIC SETUP (U, C, T models) | | ROOM | : M | S / [M] / L | | |
| | | SUBWOOFER | : YES | [YES] / NONE | | |
| | | SPEAKERS | : 5 spk | 2 spk / 3 spk / 4 spk / [5 spk] | | |
| | | SET / [CANCEL] | | | | |
| | | CHECK | : Test Tone | | | |
| | | CHECK OK? | | [YES] / NO | | |
| | | FL | | | | |
| | | FR | | | | |
| | | C | | | | |
| | | SL | | | | |
| | | SR | | | | |
| | | SWFR | | | | |
| | | | | | -10 to +10 dB, [0 dB], 1 dB step | |
| AUTO SETUP (R, K, A, B, G, E, F, L models) | | | | | | |
| Use this feature to automatically adjust speaker and system parameters. | | | | | | |
| MANUAL SETUP | 1 SOUND MENU | A) SPEAKER SET | FRONT B | : FRONT | [FRONT] / ZONE B | |
| | | | FRONT | : LARGE | [LARGE] / SMALL | |
| | | | CENTER | : SML | NONE / [SML] / LRG | |
| | | | SUR. L/R | : SML | NONE / [SML] / LRG | |
| | | | BASS OUT | : BOTH | SWFR / FRNT / [BOTH] | |
| | | | CROSSOVER | : 80 Hz | 40 / 60 / [80] / 90 / 100 / 110 / 120 / 160 / 200 Hz | |
| | | | SWFR PHASE | : NRM | [NRM] / REV | |
| | | | FL | | | |
| | | | FR | | | |
| | | | C | | | |
| | | | SL | | | |
| | | | SR | | | |
| | | | SWFR | | | |
| | | | | | | -10 to +10 dB, [0 dB], 1 dB step |
| | | | | | | feet (ft) / meters (m) |
| | | | | feet : 1.0 to 80.0 ft, [10.0 ft], 0.5 ft step | | |
| | | | | feet : 1.0 to 80.0 ft, [8.0 ft], 0.5 ft step | | |
| | | | | feet : 1.0 to 80.0 ft, [10.0 ft], 0.5 ft step | | |
| | | | | meters : 0.30 to 24.00 m, [3.00 m], 0.10 m step | | |
| | | | | meters : 0.30 to 24.00 m, [2.40 m], 0.10 m step | | |
| | | | | meters : 0.30 to 24.00 m, [3.00 m], 0.10 m step | | |
| | | | | [OFF] / ON | | |
| | D) CENTER GEQ | | | TEST | : > OFF ON | |
| | | | | 100 Hz | -- -- 0 dB | |
| | | | | 300 Hz | -- -- 0 dB | |
| | | | | 1 kHz | -- -- 0 dB | |
| | | | | 3 kHz | -- -- 0 dB | |
| | | | | 10 kHz | -- -- 0 dB | |
| | | | | SP LFE | : 0 dB | |
| | | | | HP LFE | : 0 dB | |
| | | | | SP D. R. | : MAX | |
| | | | | HP D. R. | : MAX | |
| | E) LIFE LEVEL | | | MUTE TYP | : FULL | |
| | | | A. DELAY | : 0 ms | | |
| | | | MAX VOL. | : +16 dB | | |
| | | | INI. VOL. | : OFF | | |
| | | | IN (1) [COAXIAL] | : DVD | | |
| | | | IN (2) [OPTICAL] | : CD | | |
| | | | IN (3) [OPTICAL] | : DTV/CBL | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| F) D. RANGE | | | CD / DVD / DTV/CBL | | | |
| | | | CD / DVD / DTV/CBL | | | |
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| | | | CD / DVD / DTV/CBL | | | |
| G) AUDIO SET | | | CD / DVD / DTV/CBL | | | |
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| | | | CD / DVD / DTV/CBL | | | |
| A) INPUT MENU | | | CD / DVD / DTV/CBL | | | |
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| | | | CD / DVD / DTV/CBL | | | |
| B) INPUT RENAME | | | CD / DVD / DTV/CBL | | | |
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| | | | CD / DVD / DTV/CBL | | | |
| C) VOLUME TRIM | | | CD / DVD / DTV/CBL | | | |
| | | | CD / DVD / DTV/CBL | | | |
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| | | | CD / DVD / DTV/CBL | | | |
| D) DECODER MODE | | | CD / DVD / DTV/CBL | | | |
| | | | CD / DVD / DTV/CBL | | | |
| | | | CD / DVD / DTV/CBL | | | |
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| | | | CD / DVD / DTV/CBL | | | |
| E) MULTI CH SET | | | CD / DVD / DTV/CBL | | | |
| | | | CD / DVD / DTV/CBL | | | |
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| | | | CD / DVD / DTV/CBL | | | |
| | | | CD / DVD / DTV/CBL | | | |
| 3 OPTION MENU | | | CD / DVD / DTV/CBL | | | |
| | | | CD / DVD / DTV/CBL | | | |
| | | | CD / DVD / DTV/CBL | | | |
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| | | | CD / DVD / DTV/CBL | | | |
| | | | CD / DVD / DTV/CBL | | | |
| | | | CD / DVD / DTV/CBL | | | |
| SIGNAL INFO | | | CD / DVD / DTV/CBL | | | |
| | | | CD / DVD / DTV/CBL | | | |
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| | | | CD / DVD / DTV/CBL | | | |
| | | | CD / DVD / DTV/CBL | | | |

INTERNAL VIEW



- ❶ Power Transformer
- ❷ OPERATION (3) P.C.B.
- ❸ OPERATION (5) P.C.B. (R, L models)
- ❹ MAIN (3) P.C.B.
- ❺ Tuner
- ❻ HDMI P.C.B.
- ❼ OPERATION (4) P.C.B.
- ❽ DSP P.C.B.
- ❾ MAIN (4) P.C.B.
- ❿ MAIN (1) P.C.B.
- ⓫ OPERATION (2) P.C.B.
- ⓬ OPERATION (11) P.C.B.
- ⓭ OPERATION (6) P.C.B.
- ⓮ OPERATION (10) P.C.B.
- ⓯ OPERATION (1) P.C.B.
- ⓰ OPERATION (7) P.C.B.



■ DISASSEMBLY PROCEDURES

(Remove parts in the order as numbered.)

Disconnect the power cable from the AC outlet.

1. Removal of Top Cover

- Remove 4 screws (①), 4 screws (②) and 1 screw (③). (Fig. 1)
- Slide the top cover rearward to remove it. (Fig. 1)

2. Removal of Front Panel Unit

- Remove 6 screws (④). (Fig. 1)
- Remove CB192, CB234, CB261 and CB408. (Fig. 1)
- Release hook and then remove the front panel unit. (Fig. 1)

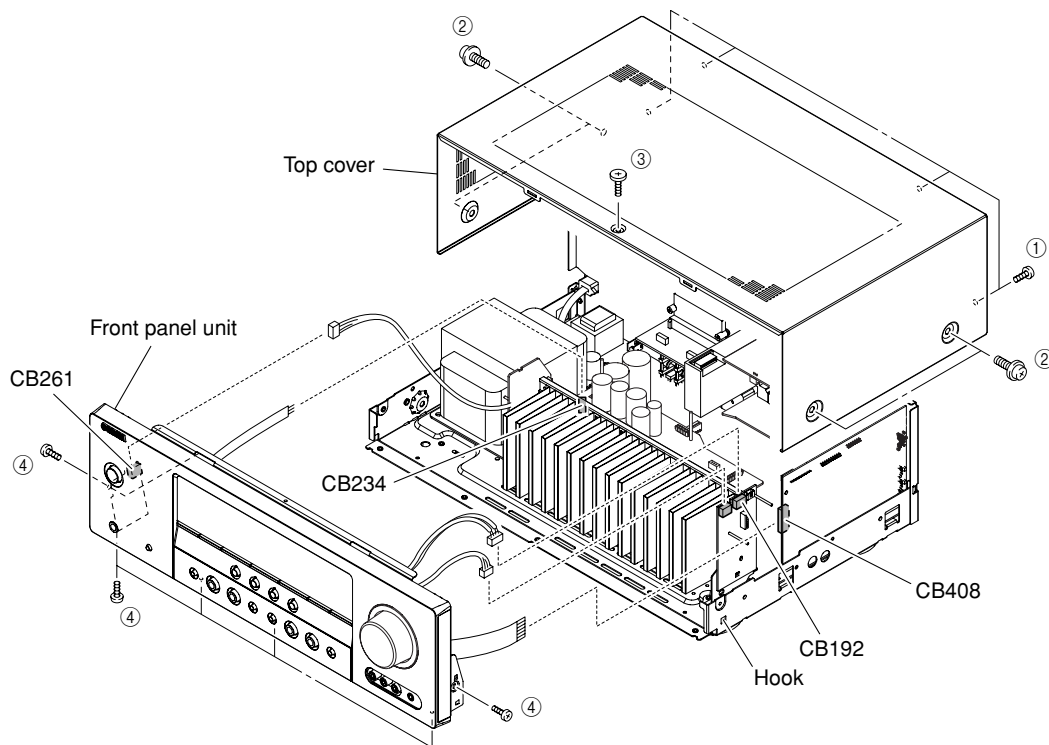


Fig. 1

3. Removal of HDMI P.C.B.

- a. Remove CB904 and CB905. (Fig. 2)
- b. Remove 5 screws (⑤). (Fig. 3)
- c. Remove HDMI P.C.B.. (Fig. 2)

4. Removal of OPERATION (4) P.C.B.

- a. Remove CB193 and CB182. (Fig. 2)
- b. Remove 7 screws (⑥). (Fig. 3)
- c. Remove OPERATION (4) P.C.B.. (Fig. 2)

5. Removal of DSP P.C.B.

- a. Remove 18 screws (⑦), 3 screws (⑧) and 2 screws (⑨) (R, L models). (Fig. 3)
- b. Remove cord stopper. (Fig. 2)
- c. Remove rear panel. (Fig. 2)
- d. Remove screw (⑩). (Fig. 2)
- e. Remove CB512 and CB516. (Fig. 2)
- f. Remove the DSP P.C.B. which is connected directly to the MAIN (1) P.C.B. with board-to-board connectors. (Fig. 2)

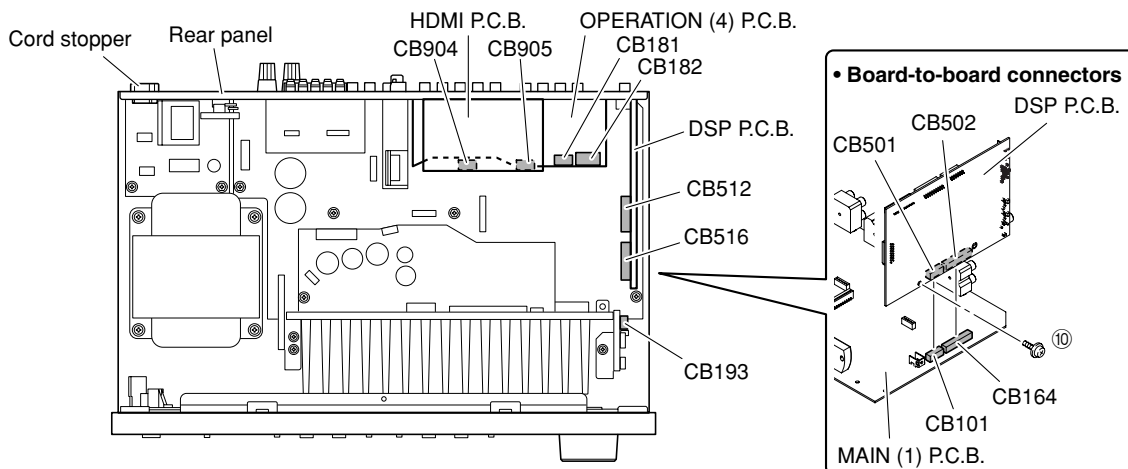


Fig. 2

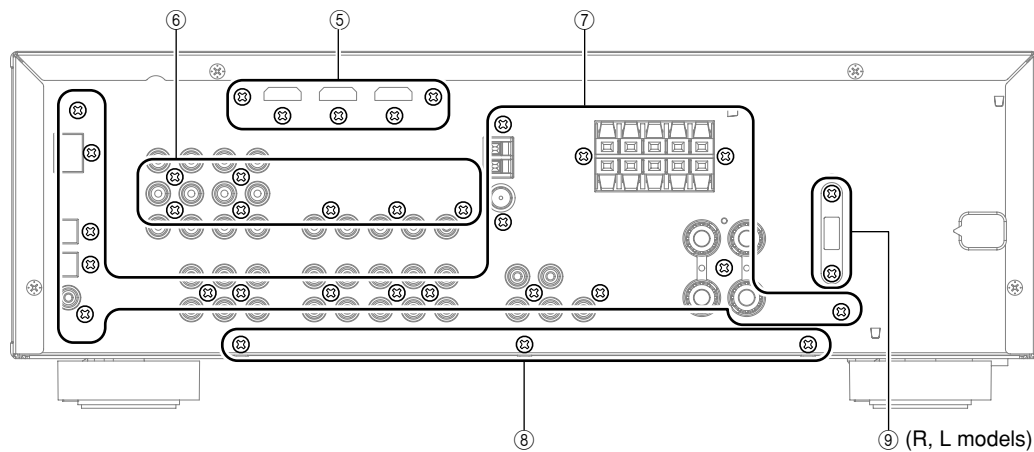


Fig. 3

When checking the P.C.B.

- a. Remove the Top cover. (Fig. 1)
 - b. Remove 3 screws (⑧). (Fig. 3)
 - c. Remove 5 screws (⑪) and 4 screws (⑫). (Fig. 4)
 - d. Place the P.C.B.s (with rear panel) upright. (Fig. 5)
 - e. Connect the ground of heat sink, rear panel and MAIN (1) P.C.B. (G103, G104, G105 and ST101) to the chassis with a ground lead or the like. (Fig. 5)
- Use the extension cable for connection for the following connectors. (Fig. 6)
 DSP P.C.B. CB408 – OPERATION (1) P.C.B. CB202: MF117350 (17P, 300mm)

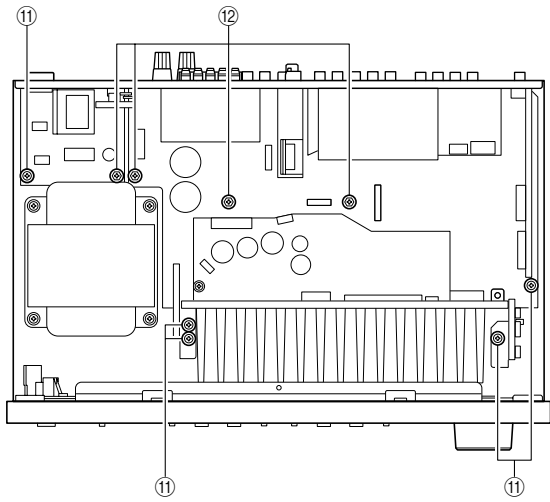


Fig. 4

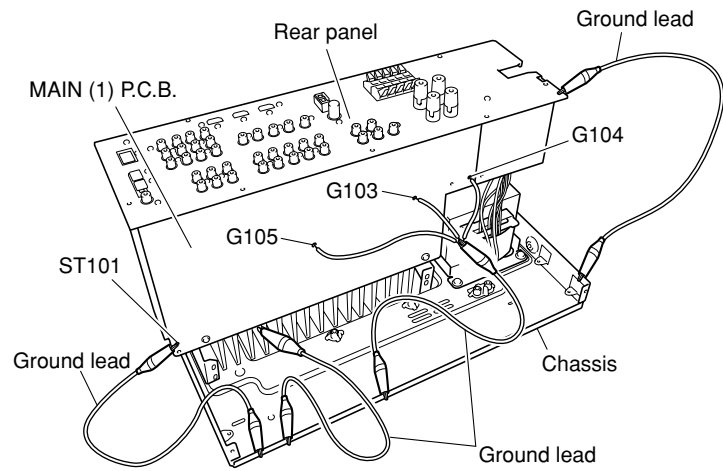


Fig. 5

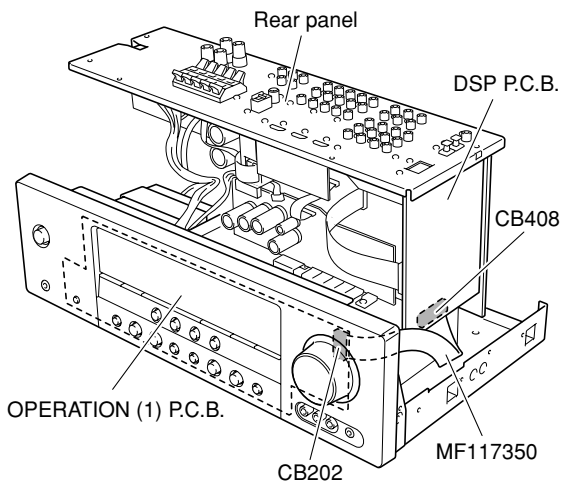


Fig. 6

■ UPDATING FIRMWARE

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

- DSP P.C.B.
- IC201 (DSP P.C.B.)

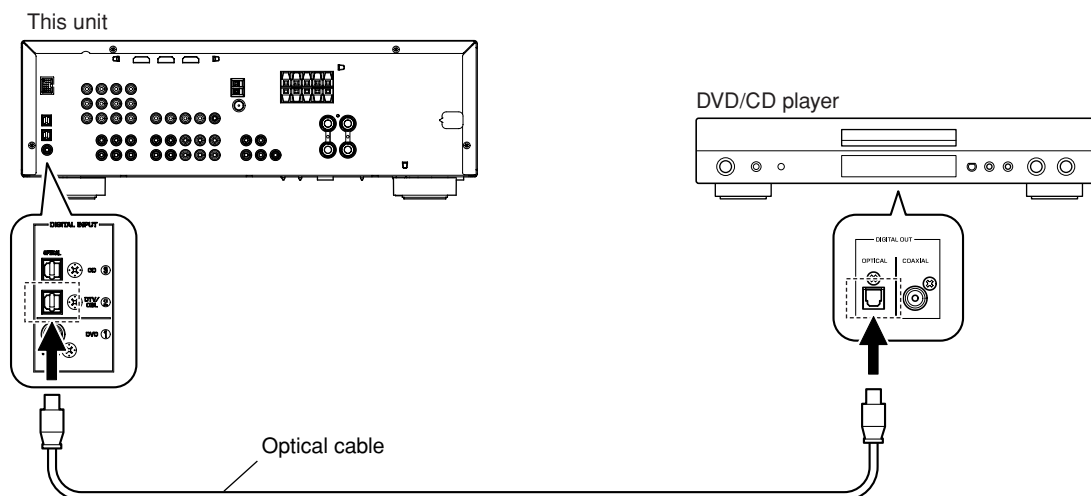
● Required Tools

- 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 connection between digital OPTICAL jacks



Example of connection between digital COAXIAL jacks

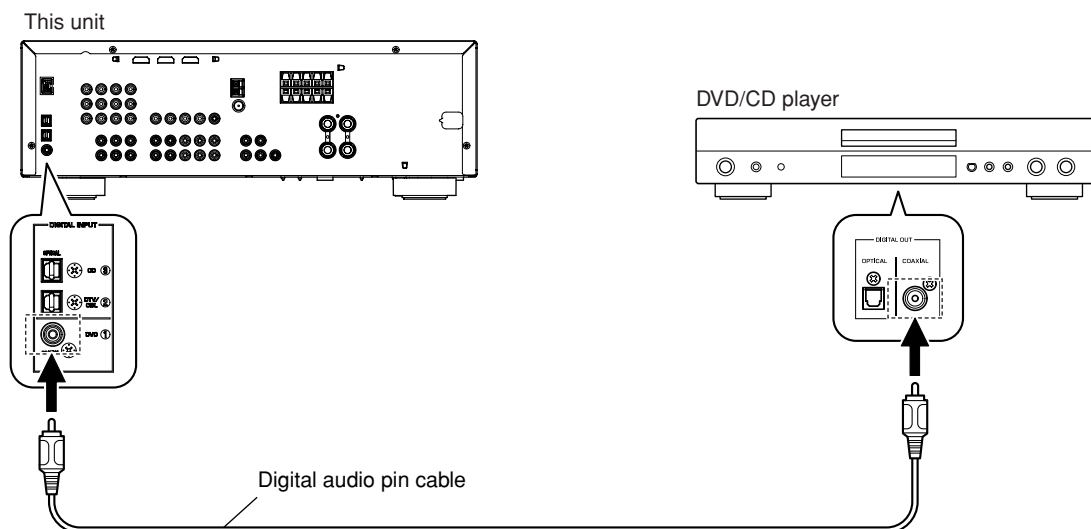


Fig. 1

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

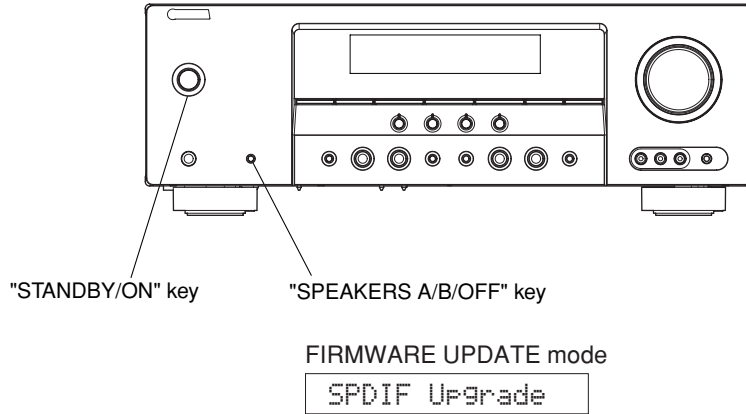


Fig. 2

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



Fig. 3

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

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

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

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

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

● Confirmation of firmware version and checksum

To confirm that the firmware is updated successfully, check the firmware version and checksum value by using the self-diagnostic function menu "14. ROM VER/SUM".

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

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

● Initializing of this unit

- * After updating the firmware, be sure to initialize this unit.

1. Connect the power cable of this unit to the AC outlet.
2. Press the "STANDBY/ON" key while simultaneously pressing the "STRAIGHT" and "AUDIO SELECT" keys. (Fig. 5)
The self-diagnostic function is activated.
3. Select the main menu "13. FACTORY PRESET".
4. Select the "PRESET RSRV".

PRESET INHIBIT (Initialization inhibited)

13.PRESET INHI



PRESET RESERVED (Initialization reserved)

13.PRESET RSRV

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

■ SELF DIAGNOSTIC FUNCTION

This unit has self diagnosis functions that are intended for inspection, measurement and location of faulty point.

There are 14 main menu items, each of which has sub-menu items.

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

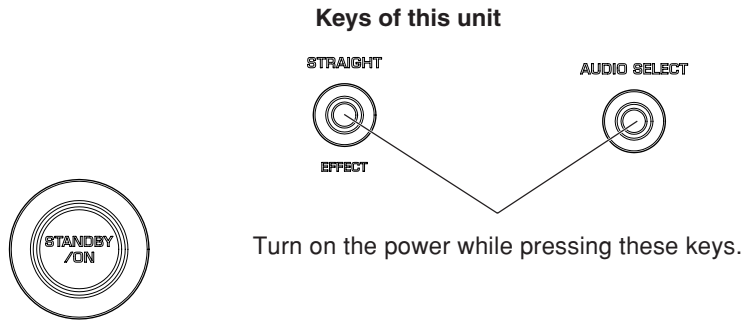
Note that not all menu items listed will apply to the models covered in this service manual.

| No. | Main menu | Sub-menu |
|-----|---------------|-------------------------|
| 1 | BYPASS | ANALOG BYPASS |
| | | DSP BYPASS |
| 2 | AUDIO CHECK | AUDIO CHECK |
| | | MUTE ALL |
| | | MUTE SYSTEM IC |
| | | MUTE TRUNSIATOR |
| 3 | SPEAKERS SET | FRNT : SML 0dB |
| | | CENTER : NONE |
| | | LFE/B : FRNT |
| | | TONE : MAX |
| | | TONE : MIN |
| 4 | 6CH-INPUT | 6ch INPUT 6-ohm |
| | | 6ch INPUT 8-ohm |
| | | LIM : , PLDET : , THM : |
| 5 | MIC CHECK | MIC CHECK |
| 6 | FL CHECK | VFD CHECK |
| | | VFD DISP OFF |
| | | VFD DISP ALL |
| | | VFD DIMMER |
| | | CHECK PATTERN |
| 7 | TEST TONE | TEST ALL |
| | | TEST FRNT L |
| | | TEST CENTER |
| | | TEST FRNT R |
| | | TEST SURR R |
| | | TEST SURR L |
| | | TEST LFE |
| 8 | PROTECTION | PRD L : xxx |
| | | PRD H : xxx |
| | | PRV L : xxx |
| | | PRV H : xxx |
| | | THM : xxx |
| | | PLDET8_L : xxx |
| | | PLDET8_H : xxx |
| | | PLDET6_L : xxx |
| | | PLDET6_H : xxx |
| | | PRI : xxx |
| | | PDET : xxx |
| | | |
| 9 | AD DATA CHECK | PD : xxx PV : xxx |
| | | TH : xxx PL : xxx |
| | | PI : xxx DE : xxx |
| | | K0 : xxx K1 : xxx |

| No. | Main menu | Sub-menu |
|-----|--------------------|---|
| 10 | PROTECTION HISTORY | History 1 History 2 History 3 History 4 |
| 11 | iPod | DOCK : xxx DOCK ignore |
| 12 | SOFT SW | SW MODE MODEL DESTINATION TUNER DESTINATION VIDEO FORMAT AAC YPAO RDS DOCK (iPod) |
| 13 | FACTORY PRESET | PRESET INHI PRESET RSRV |
| 14 | ROM VER/SUM | TOTAL VERSION CRC14 ALL program CRC16 apprication & standby (Main program CRC16) CRC16 SPI F/W update code CRC16 S/PDIF/ F/W update code FLASH ROM Read/Write check SDRAM Read/Write check EEPROM Read/Write check |

• **Starting Self-diagnostic Function**

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



• **Starting Self-diagnostic Function in the protection cancel mode**

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

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

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

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.

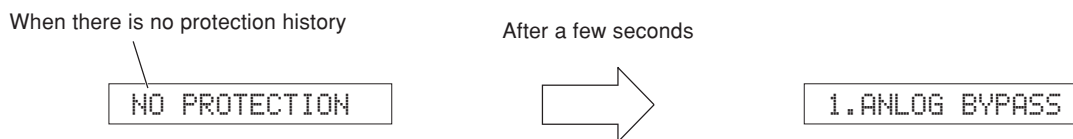
• **Canceling Self-diagnostic Function**

1. Before canceling self-diagnostic function, execute setting for FACTORY PRESET of main menu No.13 (Memory initialization inhibited or Memory initialized).
 - * In order to keep the user memory stored, be sure to select PRESET INHIBITED (Memory initialization inhibited).
2. Turn off the power by pressing the “STANDBY/ON” key of this unit.

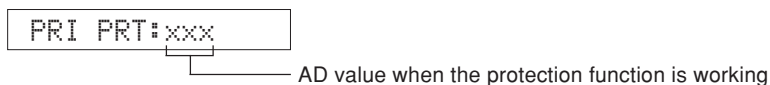
• **Display provided when Self-diagnostic Function started**

On the FL display of this unit, an opening message (including the protection history) appears for a few seconds followed by the self-diagnostic function menu display (1. ANALOG BYPASS).

When there is no history of protection function:



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



Cause: An excessive current flowed through the power amplifier.

Supplementary information:

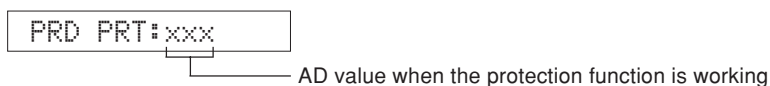
As current of the power amplifier is detected, the abnormal channel can be identified by checking the current detect transistor.

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.

Note)

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

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



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 about 3 seconds to turn off the power.

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

PRV PRT:xxx

AD value when the protection function is working

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 about 1 second to turn off the power.

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

THM PRT:xxx

AD value when the protection function is working

Cause: The temperature of the heat sink is excessive.

Supplementary information:

The protection function worked due to the temperature limit being exceeded.

Causes could be poor ventilation or a defect related to the thermal sensor.

If the power is turned on with the abnormality unsolved, the protection function works in about 1 second to turn off the power. For detection of each protection function, refer to main menu described later.

History of protection function

When the protection function has worked, its history is stored in memory with a backup.

Even if no abnormality is noted while servicing the unit, an abnormality which has occurred previously can be defined as long as the backup data has been stored.

The history of the protection function is cleared when self-diagnostic function is cancelled by selecting PRESET RESERVED (Memory initialized) of main menu No. 13 or when the backup data is erased.

- **Operation procedure of Main menu and Sub-menu**

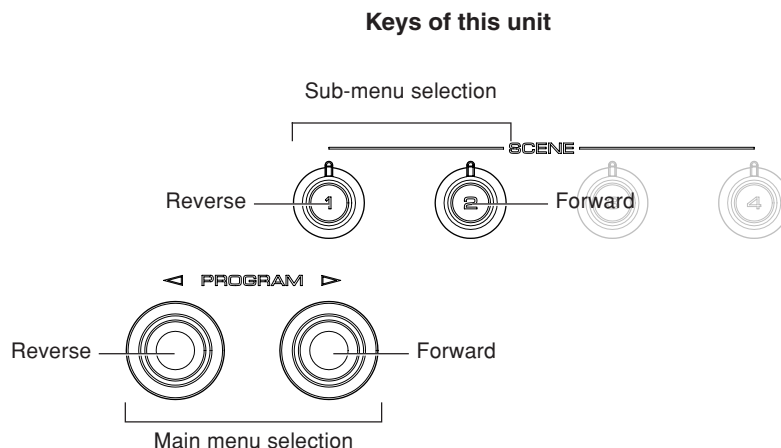
There are 14 menu items, each of having sub-menu items.

Main menu selection:

Select the menu using “>” (forward) and “<” (reverse) keys of PROGRAM.

Sub-menu selection:

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



- **Functions in Self-Diagnostic Function mode**

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

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

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

- **Initial settings used to start Self-Diagnostic Function**

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

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

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

• 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 sound signal is output to FRONT L/R with EFFECT OFF.

1. ANALOG BYPASS

INPUT: DVD ANALOG

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

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

DSP BYPASS

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

1. DSP BYPASS

INPUT: DVD ANALOG

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

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

2. AUDIO CHECK

The input sound signal is output.

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

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

R ch: SURROUND R

2. AUDIO CHECK

INPUT: DVD ANALOG

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

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

MUTE ALL

2. MUTE ALL

MUTE SYSTEM IC

2. MUTE SYS IC

MUTE TRANSISTOR

2. MUTE TR

3. SPEAKER SET

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

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

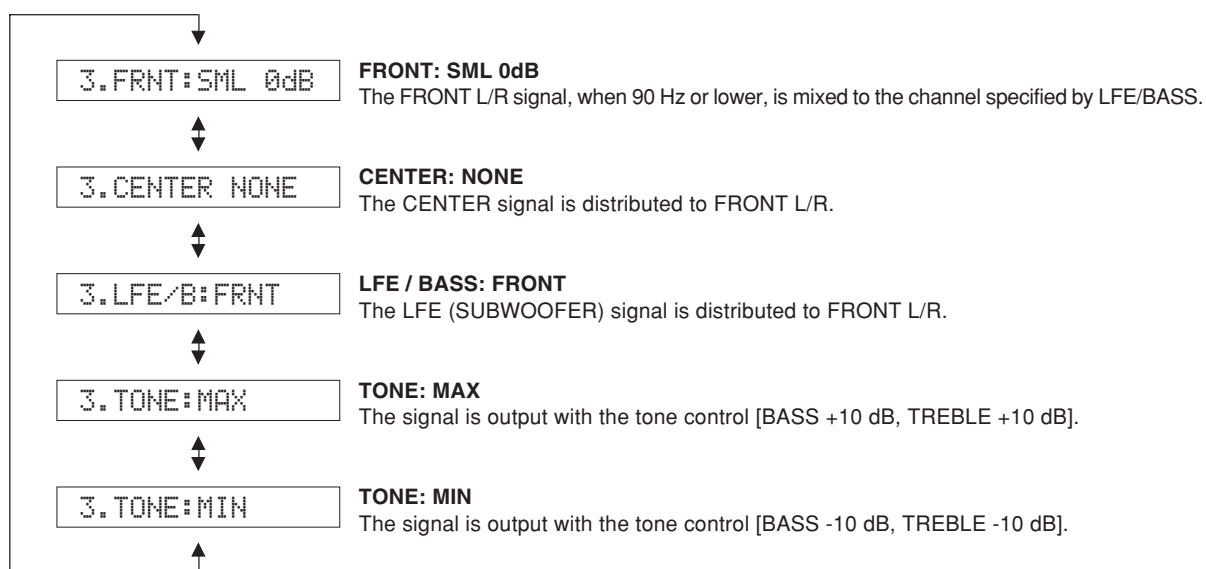
LARGE: This mode is used for a speaker with high bass reproduction performance (a large unit). Full bandwidth signals are output.

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

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

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

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



INPUT: DVD ANALOG

SPEAKER OUT: 1 kHz, SUBWOOFER OUTPUT: 50 Hz

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

4. 6CH INPUT

The input source [MULTI CHANNEL INPUT] is selected.
It is possible to select the 6-ohm/8-ohm by using the sub-menu.

6 ch INPUT 6-ohm

4.6ch INPUT 6Ω

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

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

6 ch INPUT 8-ohm

4.6ch INPUT 8Ω

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

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

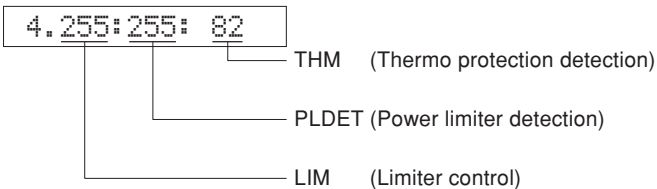
LIM/PLDET/THM

LIM: Setting value of LIM (Limiter control)

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

PLDET: Power limiter detection
The A/D conversion value during operation is displayed.

THM: Thermo protection detection
The A/D conversion value during operation is displayed.
(Reference voltage: 3.3 V=255)



5. MIC CHECK

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

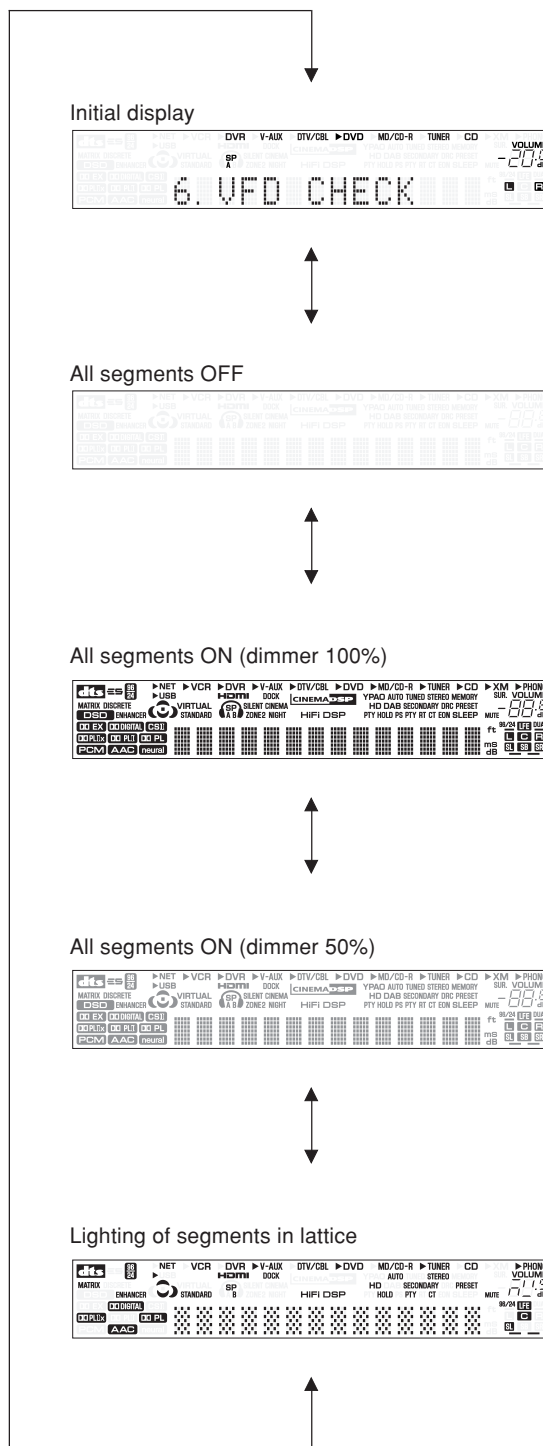
5.MIC CHECK

RX-V363/HTR-6130

6. FL CHECK

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

Checking FL display section



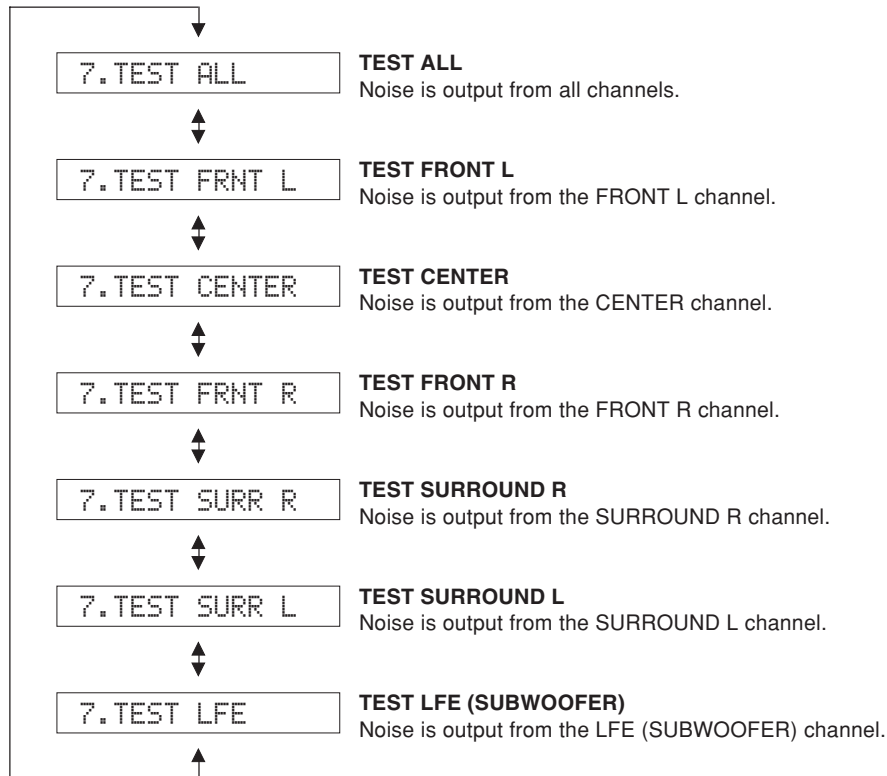
RX-V369/HTR-6130

7. TEST TONE

The outputs the noise through the channels specified by the submenu.

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

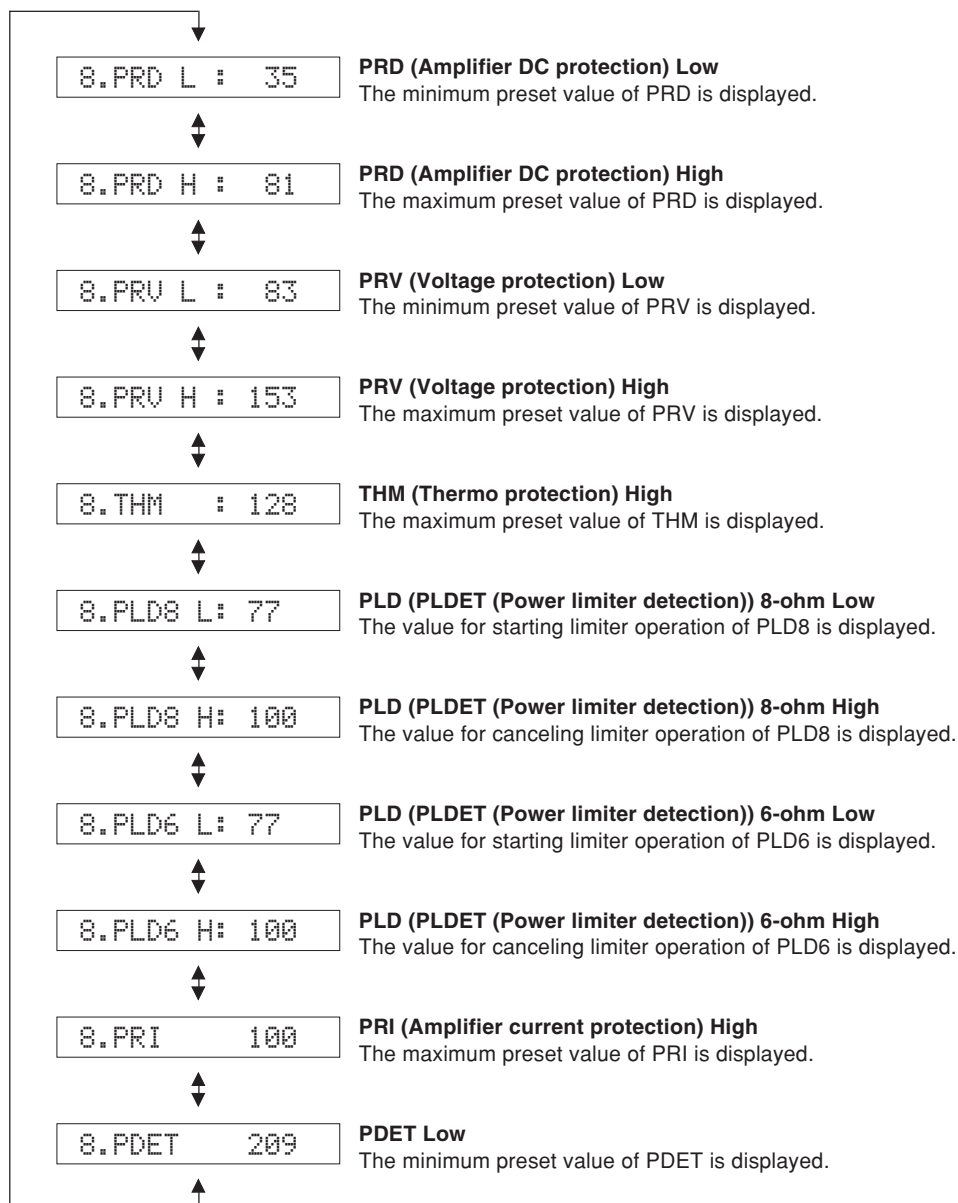
Other than that, the noise frequency is 500 to 2 kHz.



8. PROTECTION

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

(Reference voltage: 3.3 V=255)



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.

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

Signal processing is maintained in the status before execution.

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

PD/PV

PD: PRD (Power amplifier DC protection detection)
The output of power amplifier DC (DC voltage) is detected.
Normal value: 35 to 81 (Reference voltage: 3.3 V=255)

PV: PRV (Voltage protection detection)
Voltage detects: ACL, AC2, 10V, S9, +12,
-12, +5V and VP
Normal value: 84 to 153 (Reference voltage: 3.3 V=255)

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

PD: 57 PV:128

TH/PL

TH: THM (Thermo protection detection)
The temperature of the heat sink is detected.
Normal value: 0 to 124 (Reference voltage: 3.3 V=255)

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

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

TH: 77 PL:255

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

| | During normal operation | Value for starting limiter operation | Value for canceling limiter operation |
|---------------------|-------------------------|--------------------------------------|---------------------------------------|
| PLDET | 255 | 77 | 100 |
| LIM H: 255 / L: 102 | H | L | H |

(LIM: Limiter control)

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

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

(LIM: Limiter control)

PI/DE

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

DE: PDET (Sub-trans power detection)
Normal value: 209 to 255 (Reference voltage: 3.3 V=255)

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

PI: 12 DE:255

K0/K1**K0/K1:** KEY0/KEY1 (Panel key of this unit)

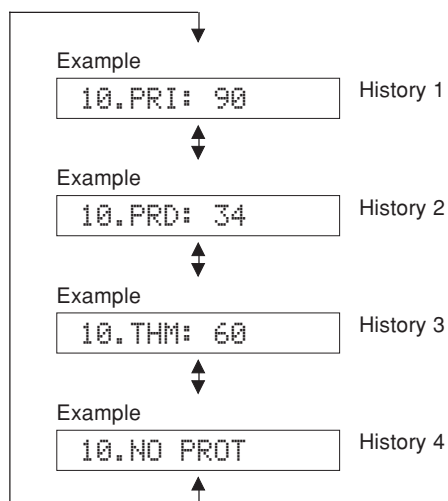
The key will fail to function properly if its A/D conversion value deviates more than ± 4 from reference value. In that case, check the constant of partial pressure resistor, solder condition, etc. with referring to the table below. (Reference voltage: 3.3 V=255)

K0:255 K1:255

| Display | KEY0 | KEY1 |
|-------------|--------------|-----------------|
| 23 \pm 4 | SCENE 1 | SCENE 3 |
| 42 \pm 4 | SCENE 2 | SCENE 4 |
| 66 \pm 4 | PROGRAM < | DIRECT |
| 92 \pm 4 | PROGRAM > | AUDIO SELECT |
| 120 \pm 4 | STRAIGHT | INPUT < |
| 147 \pm 4 | TONE CONTROL | INPUT > |
| 165 \pm 4 | SEARCH MODE | PRESET/TUNING < |
| 182 \pm 4 | FM/AM | PRESET/TUNING > |
| 198 \pm 4 | A/B/C/D/E | MEMORY |
| 217 \pm 4 | SPEAKERS | TUNING |
| 255 | (KEY OFF) | (KEY OFF) |

10. PROTECTION HISTORY

Four protection histories are displayed.

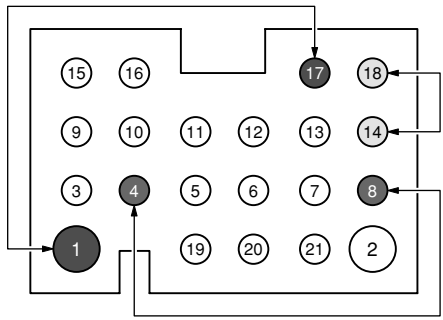


11. iPod (U, C models)

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

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

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



DOCK CONNECTOR

11.DOCK=NG NNN
 All Y = "OK"
 Others = "NG"

| Check item | Result | Display |
|---|---|---------|
| UART loop back test | OK | Y |
| | NG | N |
| iPAP (iPod accessory power) detection | IC402 pin No. 1 High | Y |
| | Low | N |
| iPDET (iPod installation to DOCK) detection | IC402 pin No. 12 Low (iPod universal dock) | Y |
| | High (Bluetooth adapter) | N |

DOCK ignore

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

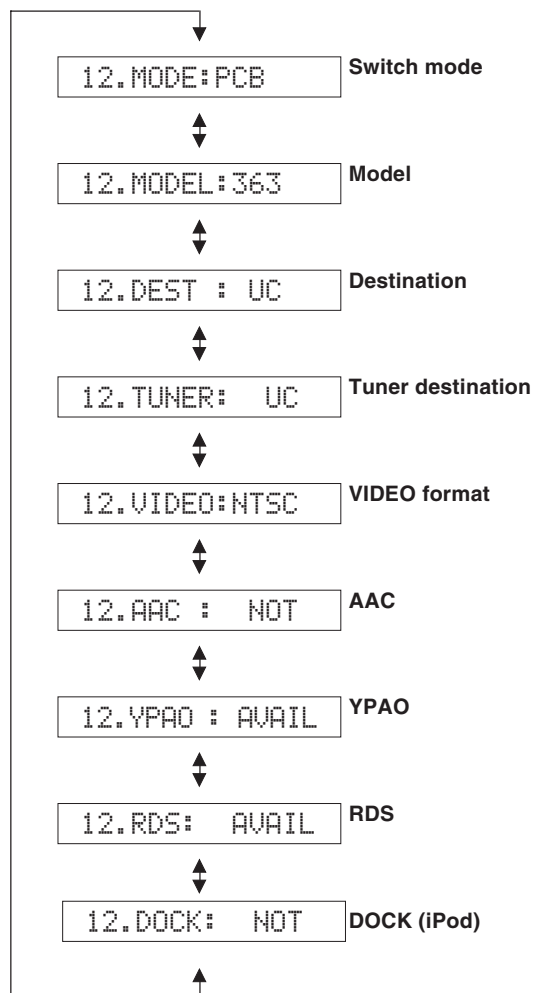
11.DOCK IGNORE

12. SOFT SW

Note) Do not change the function settings because this menu is only for the use of development staff.

This menu is used to change the function of this unit by switching the function settings on P.C.B. through the software.

* Mentioning the details is not allowed because this menu is only for the use of development staff.



13. FACTORY PRESET

This menu is used to reserve and inhibit initialization of the back-up RAM.

The signals are processed using EFFECT OFF (The L/R signal is output using ANALOG BYPASS).

13.PRESET INHI

PRESET INHIBIT (Initialization inhibited)

Back-up RAM initialization is not executed. Select this sub-menu to protect the values set by the user.



13.PRESET RSRV

PRESET RESERVED (Initialization reserved)

Initialization of the back-up RAM 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 RAM. Any protection history will be cleared.

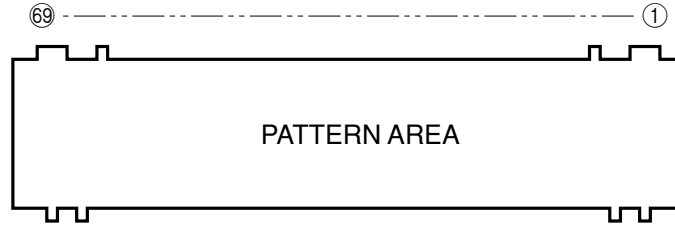
CAUTION: Before setting to the PRESET RESERVED, write down the existing preset memory content of the tuner in a table as shown below.

(This is because setting to the PRESET RESERVED will cause the user memory content of the tuner to be erased.)

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

■ DISPLAY DATA

● V2001 : 17-BT-29GNK (OPERATION P.C.B.)



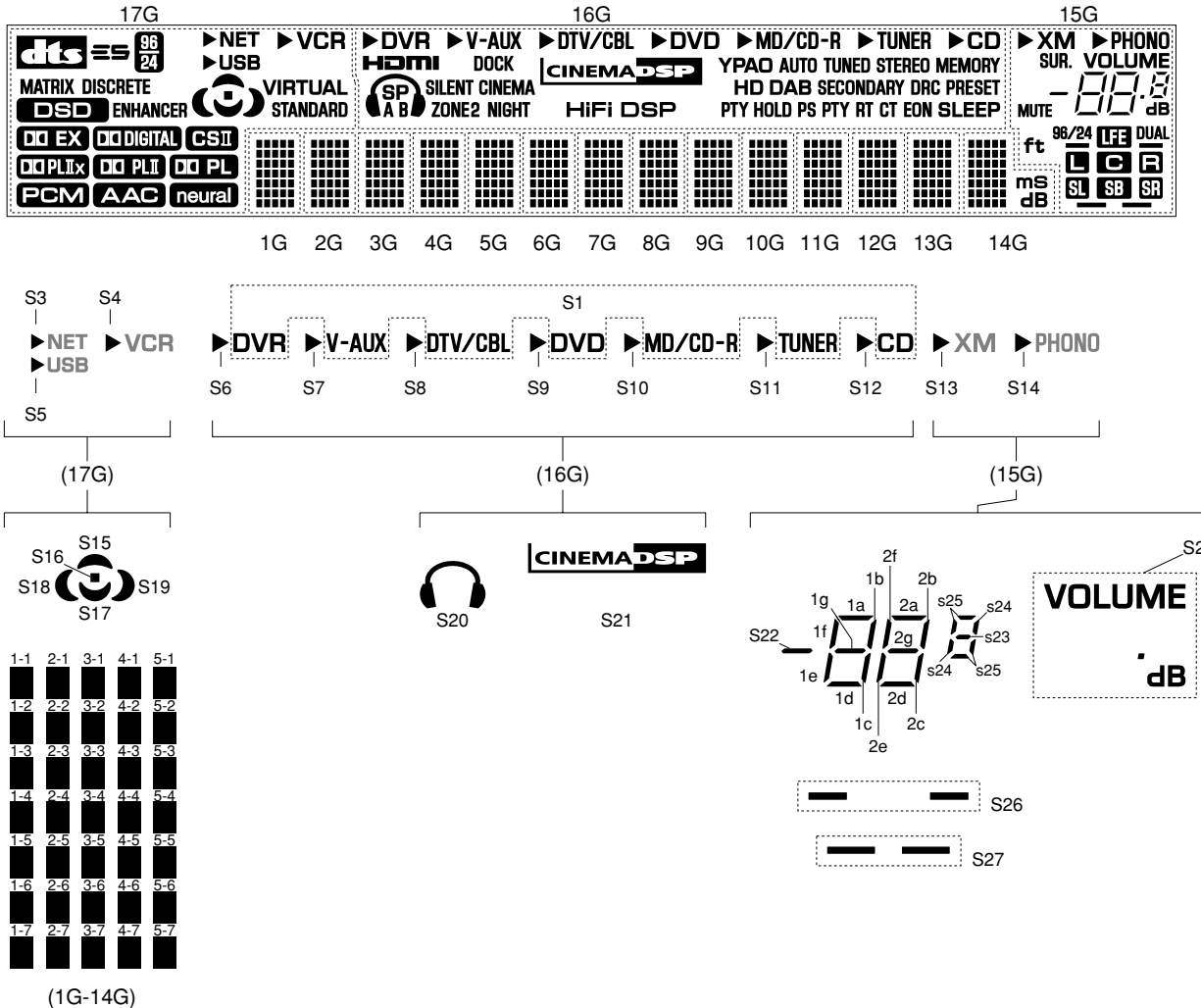
● PIN CONNECTION

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 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

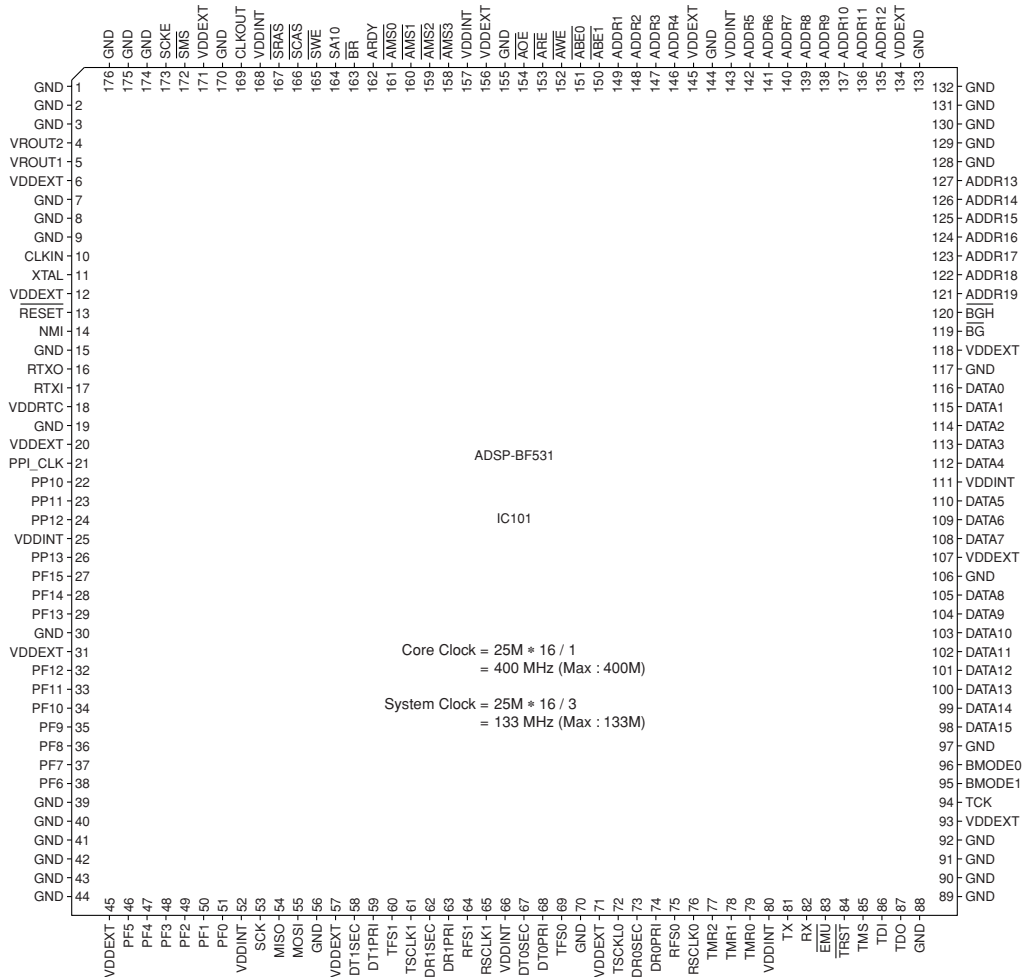
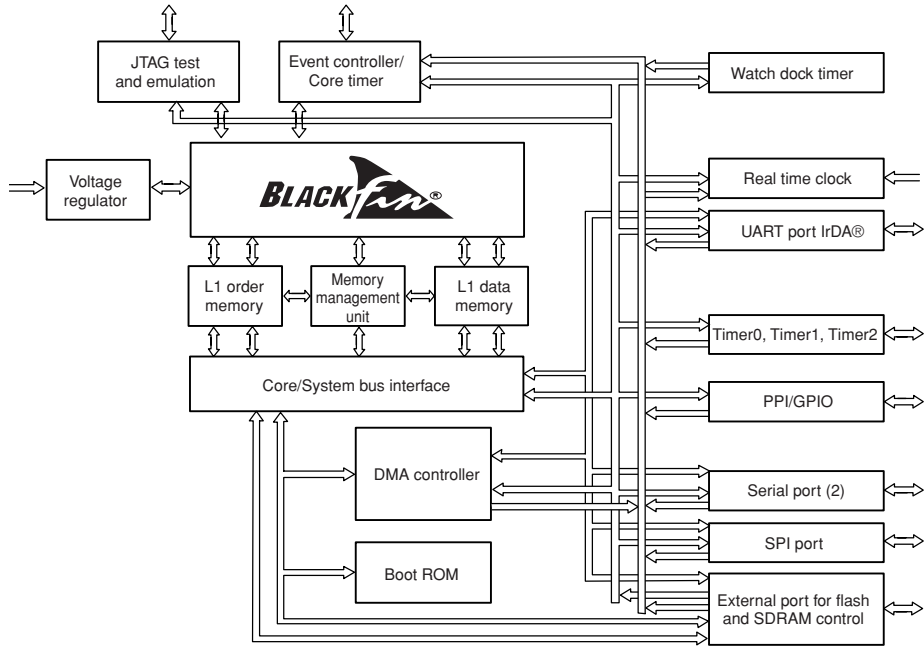


● ANODE CONNECTION

| | 17G | 16G | 15G | 14G | 13G-1G |
|-----|------------------|------------------|--------------|-----|--------|
| 1P | dtc | S1 | S2 | 1-1 | 1-1 |
| 2P | ES | S6 | S26 | 2-1 | 2-1 |
| 3P | MATRIX | S7 | S27 | 3-1 | 3-1 |
| 4P | DISCRETE | S8 | S22 | 4-1 | 4-1 |
| 5P | 96 24 | S9 | 1a | 5-1 | 5-1 |
| 6P | DSD | S10 | 1b | 1-2 | 1-2 |
| 7P | ENHANCER | S11 | 1c | 2-2 | 2-2 |
| 8P | EX | S12 | 1d | 3-2 | 3-2 |
| 9P | DIGITAL | HDMI | 1e | 4-2 | 4-2 |
| 10P | CSII | S20 | 1f | 5-2 | 5-2 |
| 11P | PLIX | SP | 1g | 1-3 | 1-3 |
| 12P | PLII | A | 2a | 2-3 | 2-3 |
| 13P | PL | B | 2b | 3-3 | 3-3 |
| 14P | PCM | SILENT CINEMA | 2c | 4-3 | 4-3 |
| 15P | AAC | ZONE2 | 2d | 5-3 | 5-3 |
| 16P | neural | NIGHT | 2e | 1-4 | 1-4 |
| 17P | NET | DOCK | 2f | 2-4 | 2-4 |
| 18P | USB | S21 | 2g | 3-4 | 3-4 |
| 19P | VCR | HiFi DSP | S23 | 4-4 | 4-4 |
| 20P | S3 | YPAO | S24 | 5-4 | 5-4 |
| 21P | S5 | AUTO | S25 | 1-5 | 1-5 |
| 22P | S4 | TUNED | XM | 2-5 | 2-5 |
| 23P | S15 | STEREO | PHONO | 3-5 | 3-5 |
| 24P | S16 | MEMORY | S13 | 4-5 | 4-5 |
| 25P | S17 | HD | S14 | 5-5 | 5-5 |
| 26P | S18 | DAB | SUR. | 1-6 | 1-6 |
| 27P | S19 | SECONDARY | MUTE | 2-6 | 2-6 |
| 28P | VIRTUAL | DRC | DUAL | 3-6 | 3-6 |
| 29P | STANDARD | PRESET | 96/24 | 4-6 | 4-6 |
| 30P | – | PTY (HOLD) | ft | 5-6 | 5-6 |
| 31P | – | HOLD | LFE | 1-7 | 1-7 |
| 32P | – | PS | L | 2-7 | 2-7 |
| 33P | – | PTY | C | 3-7 | 3-7 |
| 34P | – | RT | R | 4-7 | 4-7 |
| 35P | – | CT | SL | 5-7 | 5-7 |
| 36P | – | EON | SB | ms | – |
| 37P | – | SLEEP | SR | dB | – |

IC DATA

IC101: ADSP-BF531 CPU (DSP P.C.B.)
 Microprocessor and DSP



RX-V363/HTR-6130

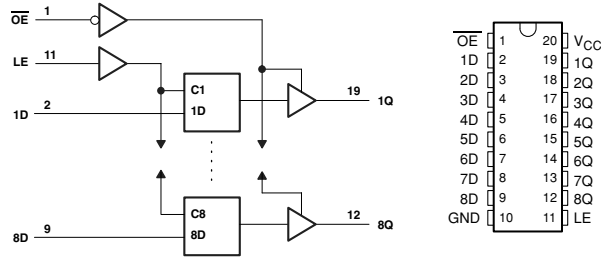
| Pin No. | Port Name | Function Name | I/O | Detail of Function |
|---------|------------|---------------|-----|--|
| 1 | DGND | GND | – | Ground of external |
| 2 | DGND | GND | – | Ground of external |
| 3 | DGND | GND | – | Ground of external |
| 4 | /VINTSW | VROUT2 | O | Voltage regulator drive for Q101 |
| 5 | /VINTSW | VROUT1 | O | Voltage regulator drive for Q101 |
| 6 | VDDEXT | VDDEXT | – | I/O power supply (EX3.3) |
| 7 | DGND | GND | – | Ground of external |
| 8 | DGND | GND | – | Ground of external |
| 9 | DGND | GND | – | Ground of external |
| 10 | CLKIN | CLKIN | I | Clock/oscillation input |
| 11 | XTAL | XTAL | O | Oscillation output |
| 12 | VDDEXT | VDDEXT | – | I/O power supply (EX3.3) |
| 13 | /DRESET | /RESET | I | Delayed reset |
| 14 | NMI/DGND | NMI | I | (Pull-down) |
| 15 | DGND | GND | – | Ground of external |
| 16 | – | RTXO | O | |
| 17 | RTXI/DGND | RTXI | I | (Pull-down) |
| 18 | – | VDDRTC | – | |
| 19 | DGND | GND | – | Ground of external |
| 20 | VDDEXT | VDDEXT | – | I/O power supply (EX3.3) |
| 21 | – | PPI_CLK | I | |
| 22 | – | PP10 | I/O | |
| 23 | – | PP11 | I/O | |
| 24 | – | PP12 | I/O | |
| 25 | VDDINT | VDDINT | – | Power supply of microprocessor (BF1.2) |
| 26 | – | PP13 | I/O | |
| 27 | VIB | PF15 | O | Video select B |
| 28 | VIA | PF14 | O | Video select A |
| 29 | – | PF13 | I | |
| 30 | DGND | GND | – | Ground of external |
| 31 | VDDEXT | VDDEXT | – | I/O power supply (EX3.3) |
| 32 | /ICXM | PF12 | O | |
| 33 | /XMPWR | PF11 | O | |
| 34 | INTAK | PF10 | I | CODEC IC (IC301) interrupt |
| 35 | FSYNC/TFS0 | PF9 | I | Frame sync detect |
| 36 | R2A_DATA | PF8 | O | DATA for R2A volume/select IC (IC162) |
| 37 | R2A_CLK | PF7 | O | CLK for R2A volume/select IC (IC161) |
| 38 | VRB | PF6 | I | Volume rotary B |
| 39 | DGND | GND | – | Ground of external |
| 40 | DGND | GND | – | Ground of external |
| 41 | DGND | GND | – | Ground of external |
| 42 | DGND | GND | – | Ground of external |
| 43 | DGND | GND | – | Ground of external |
| 44 | DGND | GND | – | Ground of external |
| 45 | VDDEXT | VDDEXT | – | I/O power supply (EX3.3) |
| 46 | VRA | PF5 | I | Volume rotary A |
| 47 | REM | PF4 | I | IR remote control pulse input |
| 48 | PSW | PF3 | I | Power switch (STANDBY/ON) |
| 49 | /SPISEL2 | PF2 | O | CS for EEPROM (IC102) |
| 50 | /SPISEL1 | PF1 | O | CS for 4ch ADC (IC401) |
| 51 | /EXPE | PF0 | O | Extended port enable |
| 52 | VDDINT | VDDINT | – | Power supply of microprocessor (BF1.2) |
| 53 | SPISCK | SCK | I/O | SPI clock |
| 54 | SPIMI | MISO | I/O | Master input/slave output |
| 55 | SPIMO | MOSI | I/O | Master output/slave input |
| 56 | DGND | GND | – | Ground of external |
| 57 | VDDEXT | VDDEXT | – | I/O power supply (EX3.3) |
| 58 | DT1SEC | DT1SEC | O | Serial port 1, secondary transmission data |
| 59 | DT1PRI | DT1PRI | O | Serial port 1, primary transmission data |
| 60 | TFS1 | TFS1 | I/O | Serial port 1, frame asynchronous transmission |

| Pin No. | Port Name | Function Name | I/O | Detail of Function |
|---------|-----------|---------------|-----|--|
| 61 | TSCLK1 | TSCLK1 | I/O | Serial port 1, serial transmission clock |
| 62 | DR1SEC | DR1SEC | I | Serial port 1, secondary reception data |
| 63 | DR1PRI | DR1PRI | I | Serial port 1, primary reception data |
| 64 | RFS1 | RFS1 | I/O | Serial port 1, frame synchronization reception |
| 65 | RSCLK1 | RSCLK1 | I/O | Serial port 1, serial reception clock |
| 66 | VDDINT | VDDINT | - | Power supply of microprocessor (BF1.2) |
| 67 | DT0SEC | DT0SEC | O | Serial port 0, secondary transmission data |
| 68 | DT0PRI | DT0PRI | O | Serial port 0, primary transmission data |
| 69 | TFS0 | TFS0 | I/O | Serial port 0, frame asynchronous transmission |
| 70 | DGND | GND | - | Ground of external |
| 71 | VDDEXT | VDDEXT | - | I/O power supply (EX3.3) |
| 72 | TSCLK0 | TSCLK0 | I/O | Serial port 0, serial transmission clock |
| 73 | DR0SEC | DR0SEC | I | Serial port 0, secondary reception data |
| 74 | DR0PRI | DR0PRI | I | Serial port 0, primary reception data |
| 75 | RFS0 | RFS0 | I/O | Serial port 0, frame synchronization reception |
| 76 | RSCLK0 | RSCLK0 | I/O | Serial port 0, serial reception clock |
| 77 | - | TMR2 | I/O | |
| 78 | - | TMR1 | I/O | |
| 79 | LIMITER | TMR0 | O | Limiter control output |
| 80 | VDDINT | VDDINT | - | Power supply of microprocessor (BF1.2) |
| 81 | DTXM | TX | O | |
| 82 | DRXM | RX | I | |
| 83 | - | /EMU | O | |
| 84 | - | /TRST | I | |
| 85 | - | TMS | I | |
| 86 | - | TDI | I | |
| 87 | - | TDO | O | |
| 88 | DGND | GND | - | Ground of external |
| 89 | DGND | GND | - | Ground of external |
| 90 | DGND | GND | - | Ground of external |
| 91 | DGND | GND | - | Ground of external |
| 92 | DGND | GND | - | Ground of external |
| 93 | VDDEXT | VDDEXT | - | I/O power supply (EX3.3) |
| 94 | - | TCK | I | |
| 95 | BMODE1 | BMODE1 | I | (Pull-down) |
| 96 | BMODE0 | BMODE0 | I | (Pull-up) |
| 97 | DGND | GND | - | Ground of external |
| 98 | D16 | DATA15 | I/O | SDRAM data bus 16 |
| 99 | D15 | DATA14 | I/O | SDRAM data bus 15 |
| 100 | D14 | DATA13 | I/O | SDRAM data bus 14 |
| 101 | D13 | DATA12 | I/O | SDRAM data bus 13 |
| 102 | D12 | DATA11 | I/O | SDRAM data bus 12 |
| 103 | D11 | DATA10 | I/O | SDRAM data bus 11 |
| 104 | D09 | DATA9 | I/O | SDRAM data bus 09 |
| 105 | D08 | DATA8 | I/O | SDRAM data bus 08 |
| 106 | DGND | GND | - | Ground of external |
| 107 | VDDEXT | VDDEXT | - | I/O power supply (EX3.3) |
| 108 | D07 | DATA7 | I/O | SDRAM data bus 07 |
| 109 | D06 | DATA6 | I/O | SDRAM data bus 06 |
| 110 | D05 | DATA5 | I/O | SDRAM data bus 05 |
| 111 | VDDINT | VDDINT | - | Power supply of microprocessor (BF1.2) |
| 112 | D04 | DATA4 | I/O | SDRAM data bus 04 |
| 113 | D03 | DATA3 | I/O | SDRAM data bus 03 |
| 114 | D02 | DATA2 | I/O | SDRAM data bus 02 |
| 115 | D01 | DATA1 | I/O | SDRAM data bus 01 |
| 116 | D00 | DATA0 | I/O | SDRAM data bus 00 |
| 117 | DGND | GND | - | Ground of external |
| 118 | VDDEXT | VDDEXT | - | I/O power supply (EX3.3) |
| 119 | - | /BG | O | |
| 120 | - | /BGH | O | |

| Pin No. | Port Name | Function Name | I/O | Detail of Function |
|---------|-----------|---------------|-----|--|
| 121 | A19 | ADDR19 | O | SDRAM address bus 19 |
| 122 | A18 | ADDR18 | O | SDRAM address bus 18 |
| 123 | A17 | ADDR17 | O | SDRAM address bus 17 |
| 124 | A16 | ADDR16 | O | SDRAM address bus 16 |
| 125 | A15 | ADDR15 | O | SDRAM address bus 15 |
| 126 | A14 | ADDR14 | O | SDRAM address bus 14 |
| 127 | A13 | ADDR13 | O | SDRAM address bus 13 |
| 128 | DGND | GND | - | Ground of external |
| 129 | DGND | GND | - | Ground of external |
| 130 | DGND | GND | - | Ground of external |
| 131 | DGND | GND | - | Ground of external |
| 132 | DGND | GND | - | Ground of external |
| 133 | DGND | GND | - | Ground of external |
| 134 | VDDEXT | VDDEXT | - | I/O power supply (EX3.3) |
| 135 | A12 | ADDR12 | O | SDRAM address bus 12 |
| 136 | A11 | ADDR11 | O | SDRAM address bus 11 |
| 137 | A10 | ADDR10 | O | SDRAM address bus 10 |
| 138 | A09 | ADDR9 | O | SDRAM address bus 09 |
| 139 | A08 | ADDR8 | O | SDRAM address bus 08 |
| 140 | A07 | ADDR7 | O | SDRAM address bus 07 |
| 141 | A06 | ADDR6 | O | SDRAM address bus 06 |
| 142 | A05 | ADDR5 | O | SDRAM address bus 05 |
| 143 | VDDINT | VDDINT | - | Power supply of microprocessor (BF1.2) |
| 144 | DGND | GND | - | Ground of external |
| 145 | VDDEXT | VDDEXT | - | I/O power supply (EX3.3) |
| 146 | A04 | ADDR4 | O | SDRAM address bus 04 |
| 147 | A03 | ADDR3 | O | SDRAM address bus 03 |
| 148 | A02 | ADDR2 | O | SDRAM address bus 02 |
| 149 | A01 | ADDR1 | O | SDRAM address bus 01 |
| 150 | SDQM1 | /ABE1 | O | SDRAM byte enable/data mask 1 |
| 151 | SDQM0 | /ABE0 | O | SDRAM byte enable/data mask 0 |
| 152 | /AWE | /AWE | O | Write enable (Asynchronous) |
| 153 | /ARE | /ARE | O | Read enable |
| 154 | /AOE | /AOE | O | Output enable |
| 155 | DGND | GND | - | Ground of external |
| 156 | VDDEXT | VDDEXT | - | I/O power supply (EX3.3) |
| 157 | VDDINT | VDDINT | - | Power supply of microprocessor (BF1.2) |
| 158 | /AMS3 | /AMS3 | O | Bank select 3 |
| 159 | /AMS2 | /AMS2 | O | Bank select 2 |
| 160 | /AMS1 | /AMS1 | O | Bank select 1 |
| 161 | /AMS0 | /AMS0 | O | Bank select 0 |
| 162 | ARDY | ARDY | I | Hardware ready control |
| 163 | /BR | /BR | I | (Pull-up) |
| 164 | SA10 | SA10 | O | A10 pin |
| 165 | /SWE | /SWE | O | Write enable (Synchronization) |
| 166 | /SCAS | /SCAS | O | Sequence address strobe |
| 167 | /SRAS | /SRAS | O | Line address strobe |
| 168 | VDDINT | VDDINT | - | Power supply of microprocessor (BF1.2) |
| 169 | CLKOUT | CLKOUT | O | Clock output |
| 170 | DGND | GND | - | Ground of external |
| 171 | VDDEXT | VDDEXT | - | I/O power supply (EX3.3) |
| 172 | /SMS | /SMS | O | Bank select |
| 173 | SCKE | SCKE | O | Clock enable |
| 174 | DGND | GND | - | Ground of external |
| 175 | DGND | GND | - | Ground of external |
| 176 | DGND | GND | - | Ground of external |

• **Microprocessor extended port**

IC204-IC206: SN74LV573APWR (DSP P.C.B.)
 Octal 3-state D-latches with 3-state outputs



IC204

| Pin No. | Port Name | Function Name | Detail of Function |
|---------|-----------|---------------|-------------------------------------|
| 1 | /OE | /EXPE | Extended port enable |
| 2 | 1D | D00 | Data bus 00 |
| 3 | 2D | D01 | Data bus 01 |
| 4 | 3D | D02 | Data bus 02 |
| 5 | 4D | D03 | Data bus 03 |
| 6 | 5D | D04 | Data bus 04 |
| 7 | 6D | D05 | Data bus 05 |
| 8 | 7D | D06 | Data bus 06 |
| 9 | 8D | D07 | Data bus 07 |
| 10 | GND | DGND | Ground of external |
| 11 | LE | LEEX1 | Bank select 1 |
| 12 | 8Q | /SPISEL3 | CS for CODEC IC (IC301, DSP P.C.B.) |
| 13 | 7Q | ADSEL2 | 4ch ADC input select 2 |
| 14 | 6Q | ADSEL1 | 4ch ADC input select 1 |
| 15 | 5Q | ADSEL0 | 4ch ADC input select 0 |
| 16 | 4Q | /CCBE | SPI bus switch |
| 17 | 3Q | /CMT | Center mute |
| 18 | 2Q | /SMT | Surround mute |
| 19 | 1Q | /FMT | Front mute |
| 20 | VCC | EX3.3 | Power supply |

IC205

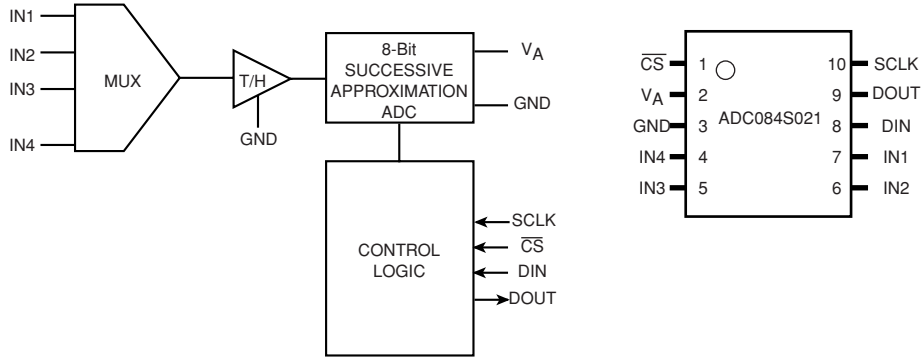
| Pin No. | Port Name | Function Name | Detail of Function |
|---------|-----------|----------------|---|
| 1 | /OE | /EXPE | Extended port enable |
| 2 | 1D | D08 | Data bus 08 |
| 3 | 2D | D09 | Data bus 09 |
| 4 | 3D | D10 | Data bus 10 |
| 5 | 4D | D11 | Data bus 11 |
| 6 | 5D | D12 | Data bus 12 |
| 7 | 6D | D13 | Data bus 13 |
| 8 | 7D | D14 | Data bus 14 |
| 9 | 8D | D15 | Data bus 15 |
| 10 | GND | DGND | Ground of external |
| 11 | LE | LEEX1 | Bank select 1 (B, G, E, F models) |
| 12 | 8Q | CLKSEL/RDS_RST | Reset for RDS (B, G, E, F models) |
| 13 | 7Q | SSEL3 | SCENE select LED switch 3 |
| 14 | 6Q | SSEL2 | SCENE select LED switch 2 |
| 15 | 5Q | SSEL1 | SCENE select LED switch 1 |
| 16 | 4Q | /IC_AK | IC for CODEC IC (IC301, DSP P.C.B.) and VFD (IC201, OPERATION P.C.B.) |
| 17 | 3Q | /SPISEL4 | CS for VFD (IC201, OPERATION P.C.B.) |
| 18 | 2Q | /3.3SW | +3.3S switch |
| 19 | 1Q | PRY | Power relay |
| 20 | VCC | EX3.3 | Power supply |

IC206

| Pin No. | Port Name | Function Name | Detail of Function |
|---------|-----------|---------------|---|
| 1 | /OE | /EXPE | Extended port enable |
| 2 | 1D | D00 | Data bus 00 |
| 3 | 2D | D01 | Data bus 01 |
| 4 | 3D | D02 | Data bus 02 |
| 5 | 4D | D03 | Data bus 03 |
| 6 | 5D | D04 | Data bus 04 |
| 7 | 6D | D05 | Data bus 05 |
| 8 | 7D | D06 | Data bus 06 |
| 9 | 8D | D07 | Data bus 07 |
| 10 | GND | DGND | Ground of external |
| 11 | LE | LEEX2 | Bank select 2 |
| 12 | 8Q | /VR1 | Video select R |
| 13 | 7Q | SPISEL5 | CE for tuner |
| 14 | 6Q | /8ohmSW | AC H/L relay (RY106, MAIN P.C.B.) |
| 15 | 5Q | HPRY | Headphone relay (RY102, MAIN P.C.B.) |
| 16 | 4Q | MRYA | Main speakers A relay (RY101, MAIN P.C.B.) |
| 17 | 3Q | MRYB | Main speakers B relay (RY102, MAIN P.C.B.) |
| 18 | 2Q | CSRY | Center/surround speakers relay (RY103/RY105, MAIN P.C.B.) |
| 19 | 1Q | /SWMT | Subwoofer mute |
| 20 | VCC | EX3.3 | Power supply |

• **Microprocessor ADC select port**

IC401: ADC084S021CIMM (DSP P.C.B.)
4-channel, 200 kSPS, 8-bit A/D converter

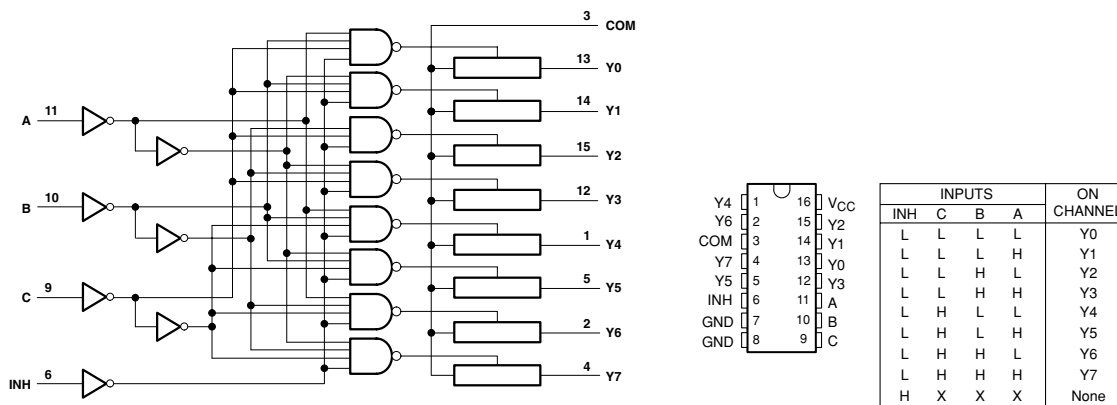


| Pin No. | Port Name | Function Name | Detail of Function |
|---------|-----------|---------------|---------------------------|
| 1 | /CS | /SPISEL1 | CS for microprocessor |
| 2 | VA | VA | +3.3S |
| 3 | GND | DGND | Ground of external |
| 4 | IN4 | IN4 | SPI bus COM (IC402) |
| 5 | IN3 | IN3 | SPI bus COM (IC403) |
| 6 | IN2 | KEY1 | Key input 1 |
| 7 | IN1 | KEY0 | Key input 0 |
| 8 | DIN | SPIMO | Master output/slave input |
| 9 | DOUT | SPIMI | Master input/slave output |
| 10 | SCLK | SPISCK | SPI clock |

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

| Ohm [ohm] | +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 [V] | 0.3 | 0.55 | 0.86 | 1.2 | 1.56 | 1.91 | 2.14 | 2.36 | 2.57 | 2.81 |
| KEY0 (7 pin) | SCENE 1 | SCENE 2 | PROGRAM < | PROGRAM > | STRAIGHT | TONE CONTROL | SEARCH MODE | FM/AM | A/B/C/D/E | SPEAKERS |
| KEY1 (6 pin) | SCENE 3 | SCENE 4 | DIRECT | AUDIO SELECT | INPUT < | INPUT > | PRESET/TUNING < | PRESET/TUNING > | MEMORY | TUNING |

IC402, IC403: SN74LV4051APWR (DSP P.C.B.)
8-channel analog multiplexers/demultiplexers



IC402

| Pin No. | Port Name | Function Name | Detail of Function |
|---------|-----------|---------------|---------------------------|
| 1 | Y4 | - | |
| 2 | Y6 | - | |
| 3 | COM | COM | SPI bus IN4 (IC401) |
| 4 | Y7 | LINKACTIVE | Link detect (U, C models) |
| 5 | Y5 | XM_MUTE | |
| 6 | INH | DGND | (Pull-down) |
| 7 | GND | DGND | Ground of external |
| 8 | GND | DGND | Ground of external |
| 9 | COM | ADSEL2 | Input select 2 |
| 10 | B | ADSEL1 | Input select 1 |
| 11 | A | ADSEL0 | Input select 0 |
| 12 | Y3 | - | |
| 13 | Y0 | - | |
| 14 | Y1 | /ST | Stereo for tuner |
| 15 | Y2 | /TUNED | Tuned for tuner |
| 16 | Vcc | +3.3S | Power supply |

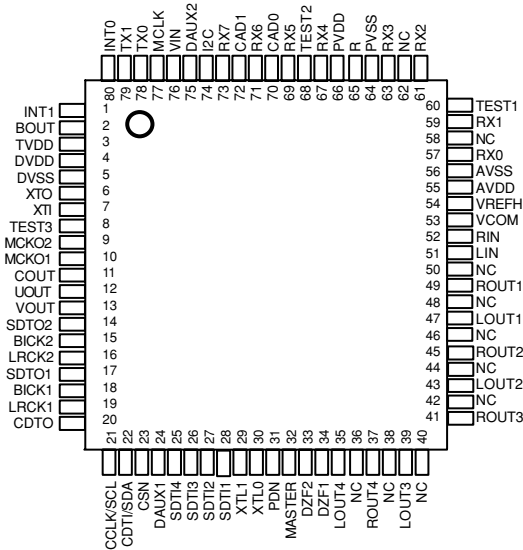
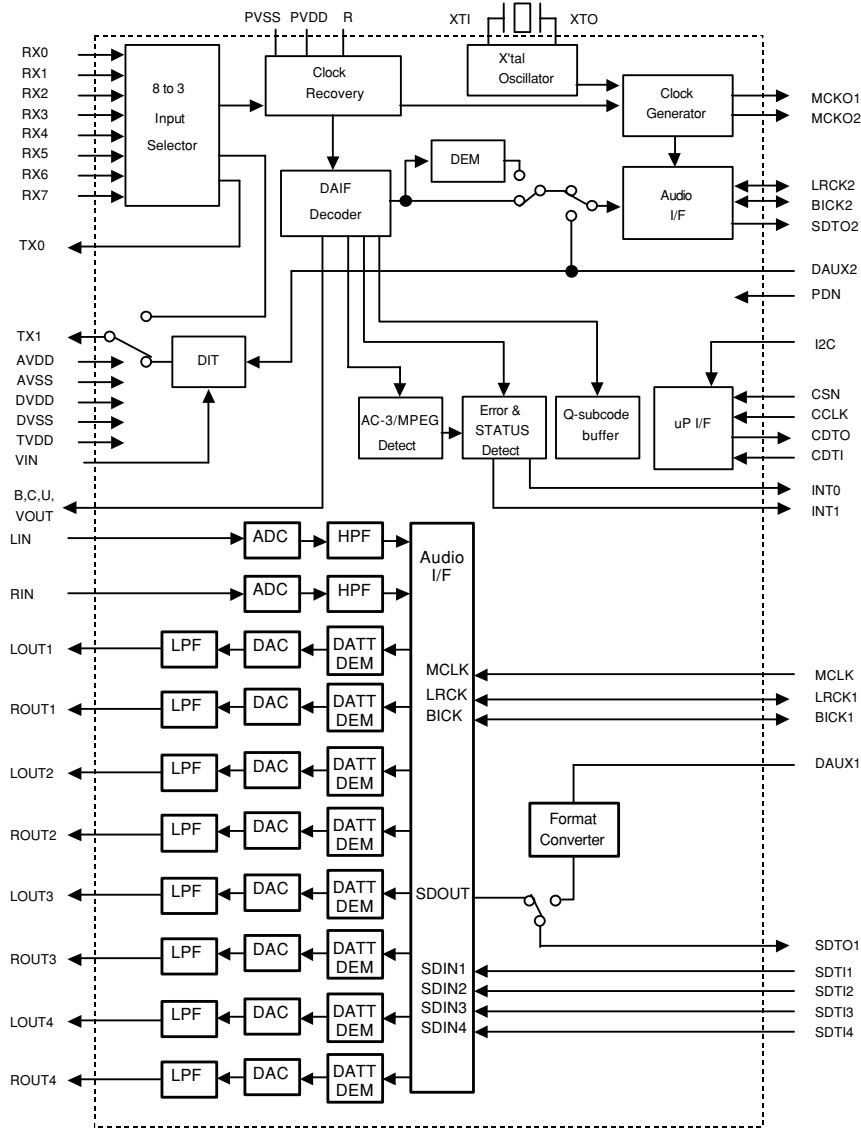
IC403

| Pin No. | Port Name | Function Name | Detail of Function |
|---------|-----------|---------------|---------------------|
| 1 | Y4 | DEST | Destination 1 * |
| 2 | Y6 | /PDET | Sub-trans detect |
| 3 | COM | COM | SPI bus IN3 (IC401) |
| 4 | Y7 | /HP | Headphone detect |
| 5 | Y5 | PRIIN | Current protection |
| 6 | INH | DGND | (Pull-down) |
| 7 | GND | DGND | Ground of external |
| 8 | GND | DGND | Ground of external |
| 9 | COM | ADSEL2 | Input select 2 |
| 10 | B | ADSEL1 | Input select 1 |
| 11 | A | ADSEL0 | Input select 0 |
| 12 | Y3 | PLDET | Limiter detect |
| 13 | Y0 | PRDIN | Amplifier DC detect |
| 14 | Y1 | PRVIN | Voltage protection |
| 15 | Y2 | THMIN | Thermo protection |
| 16 | Vcc | +3.3S | Power supply |

* Destination for A/D port

| | | | | | |
|-----------------------|---------|---------|---------|---------|------------|
| R406 [ohm] | 1.5 k | 3.3 k | 4.7 k | 6.8 k | 8.2 k |
| R407 [ohm] | 8.2 k | 6.8 k | 5.6 k | 3.9 k | 2.2 k |
| DEST (1 pin) [V] | 2.6-3.0 | 2.0-2.4 | 1.6-2.0 | 1.0-1.4 | 0.5-0.9 |
| A/D value (3.3 V=255) | 206-226 | 162-182 | 129-149 | 83-103 | 44-64 |
| Destination | U, C | R, L | T | K, A | B, G, E, F |

IC301: AK4588VQ (DSP P.C.B.)
2/8-channel audio CODEC with DIR



RX-V363/HTR-6130

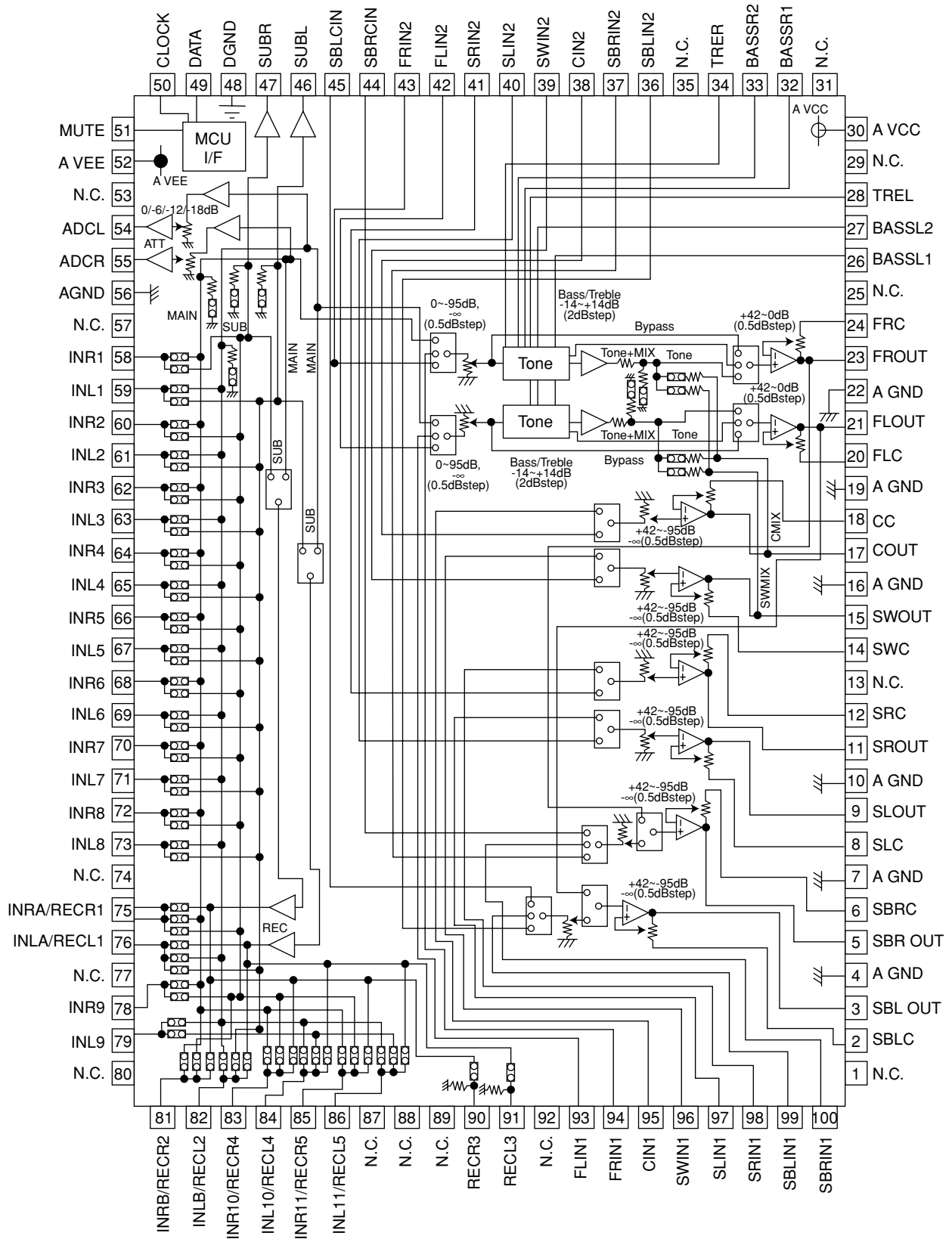
| Pin No. | Function Name | I/O | Detail of Function |
|---------|---------------|-----|--|
| 1 | INT1 | O | Interrupt 1 pin |
| 2 | BOUT | O | Block-start output pin for receiver input "H" during first 40 flames |
| 3 | TVDD | – | Output buffer power supply pin, 2.7 V to 5.5 V |
| 4 | DVDD | – | Digital power supply pin, 4.5 V to 5.5 V |
| 5 | DVSS | – | Digital ground pin |
| 6 | XTO | O | X'tal clock output pin |
| 7 | XTI | I | X'tal / External clock input pin |
| 8 | TEST3 | I | Test 3 pin This pin should be connected to DVSS |
| 9 | MCKO2 | O | Master clock output 2 pin |
| 10 | MCKO1 | O | Master clock output 1 pin |
| 11 | COUT | O | C-bit output pin for receiver input |
| 12 | UOUT | O | U-bit output pin for receiver input |
| 13 | VOUT | O | V-bit output pin for receiver input |
| 14 | SDTO2 | O | Audio serial data output pin (DIR/DIT part) |
| 15 | BICK2 | I/O | Audio serial data clock pin (DIR/DIT part) |
| 16 | LRCK2 | I/O | Channel clock pin (DIR/DIT part) |
| 17 | SDTO1 | O | Audio serial data output pin (ADC/DAC part) |
| 18 | BICK1 | I/O | Audio serial data clock pin (ADC/DAC part) |
| 19 | LRCK1 | I/O | Input channel clock pin |
| 20 | CDTO | O | Control data output pin in serial mode, I2C pin= "L" |
| 21 | CCLK | I | Control data clock pin in serial mode, I2C pin= "L" |
| | SCL | I | Control data clock pin in serial mode, I2C pin= "H" |
| 22 | CDTI | I | Control data input pin in serial mode, I2C pin= "L" |
| | SDA | I/O | Control data pin in serial mode, I2C pin= "H" |
| 23 | CSN | I | Chip select pin in serial mode, I2C pin="L" |
| | | I | This pin should be connected to DVSS, I2C pin="H" |
| 24 | DAUX1 | I | AUX audio serial data input pin (ADC/DAC part) |
| 25 | SDTI4 | I | DAC4 audio serial data input pin |
| 26 | SDTI3 | I | DAC3 audio serial data input pin |
| 27 | SDTI2 | I | DAC2 audio serial data input pin |
| 28 | SDTI1 | I | DAC1 audio serial data input pin |
| 29 | XTL1 | I | X'tal frequency select 0 pin |
| 30 | XTL0 | I | X'tal frequency select 1 pin |
| 31 | PDN | I | Power-down mode pin When "L", the AK4588 is powered-down, all output pin goes "L", all registers are reset When CAD1-0 pins are changed, the AK4588 should be reset by PDN pin |
| 32 | MASTER | I | Master mode select pin "H": Master mode, "L": Slave mode |
| 33 | DZF2 | O | Zero input detect 2 pin (table 13) When the input data of the group 1 follow total 8192 LRCK cycles with "0" input data, this pin goes to "H" / When RSTN1 bit is "0" or PWDAN bit is "0", this pin goes to "H" |
| | OVF | O | Analog input overflow detect pin This pin goes to "H" if the analog input of L ch or R ch overflows This pin becomes OVF pin if OVFE bit is set to 1 |
| 34 | DZF1 | O | Zero input detect 1 pin (table 13) When the input data of the group 1 follow total 8192 LRCK cycles with "0" input data, this pin goes to "H" / When RSTN1 bit is "0" or PWDAN bit is "0", this pin goes to "H" |
| 35 | LOUT4 | O | DAC4 L ch analog output pin |
| 36 | NC | – | No connect pin No internal bonding / This pin should be opened |
| 37 | ROUT4 | O | DAC4 R ch analog output pin |
| 38 | NC | – | No connect pin No internal bonding / This pin should be opened |
| 39 | LOUT3 | O | DAC3 L ch analog output pin |
| 40 | NC | – | No connect pin No internal bonding / This pin should be opened |

| Pin No. | Function Name | I/O | Detail of Function |
|---------|---------------|-----|--|
| 41 | ROUT3 | O | DAC3 R ch analog output pin |
| 42 | NC | – | No connect pin No internal bonding / This pin should be opened |
| 43 | LOUT2 | O | DAC2 L ch analog output pin |
| 44 | NC | – | No connect pin No internal bonding / This pin should be opened |
| 45 | ROUT2 | O | DAC2 R ch analog output pin |
| 46 | NC | – | No connect pin No internal bonding / This pin should be opened |
| 47 | LOUT1 | O | DAC1 L ch analog output pin |
| 48 | NC | – | No connect pin No internal bonding / This pin should be opened |
| 49 | ROUT1 | O | DAC1 R ch analog output pin |
| 50 | NC | – | No connect pin No internal bonding / This pin should be opened |
| 51 | LIN | I | L ch analog input pin |
| 52 | RIN | I | R ch analog input pin |
| 53 | VCOM | – | Common voltage output pin 2.2 F capacitor should be connected to AVSS externally |
| 54 | VREFH | – | Positive voltage reference input pin, AVDD |
| 55 | AVDD | – | Analog power supply pin, 4.5 V to 4.5 V |
| 56 | AVSS | – | Analog ground pin, 0 V |
| 57 | RX0 | I | Receiver channel 0 pin (Internal biased pin / Internally biased at PVDD/2) |
| 58 | NC | – | No connect pin No internal bonding / This pin should be connected to PVSS |
| 59 | RX1 | I | Receiver channel 1 pin (Internal biased pin / Internally biased at PVDD/2) |
| 60 | TEST1 | I | Test 1 pin This pin should be connected to PVSS |
| 61 | RX2 | I | Receiver channel 2 pin (Internal biased pin / Internally biased at PVDD/2) |
| 62 | NC | – | No connect pin No internal bonding / This pin should be connected to PVSS |
| 63 | RX3 | I | Receiver channel 3 pin (Internal biased pin / Internally biased at PVDD/2) |
| 64 | PVSS | – | PLL ground pin |
| 65 | R | – | External resistor pin 12 k-ohms +/-1 % resistor should be connected to PVSS externally |
| 66 | PVDD | – | PLL power supply pin, 4.5 V to 4.5 V |
| 67 | RX4 | I | Receiver channel 4 pin (Internal biased pin / Internally biased at PVDD/2) |
| 68 | TEST2 | I | Test 2 pin This pin should be connected to PVSS |
| 69 | RX5 | I | Receiver channel 5 pin (Internal biased pin / Internally biased at PVDD/2) |
| 70 | CAD0 | I | Chip address 0 pin (ADC/DAC part) |
| 71 | RX6 | I | Receiver channel 6 pin (Internal biased pin / Internally biased at PVDD/2) |
| 72 | CAD1 | I | Chip address 1 pin (ADC/DAC part) |
| 73 | RX7 | I | Receiver channel 7 pin (Internal biased pin / Internally biased at PVDD/2) |
| 74 | I2C | I | Control mode select pin “L”: 4-wire serial, “H”: I2C bus |
| 75 | DAUX2 | I | Auxiliary audio data input pin (DIR/DIT part) |
| 76 | VIN | I | V-bit input pin for transmitter output |
| 77 | MCLK | I | Master clock input pin |
| 78 | TX0 | O | Transmit channel (through data) output 0 pin |
| 79 | TX1 | O | Transmit channel output 1 pin When TX bit = “0”, transmit channel (through data) output 1 pin. When TX bit = “1”, transmit channel (DAUX2 data) output pin (default) |
| 80 | INT0 | O | Interrupt 0 pin |

Note: All input pins except internal biased pins and internal pull-down pin should not be left floating.

IC161: R2A15218FP (MAIN P.C.B.)

8-channel electronic volume with 11 input selector and tone control

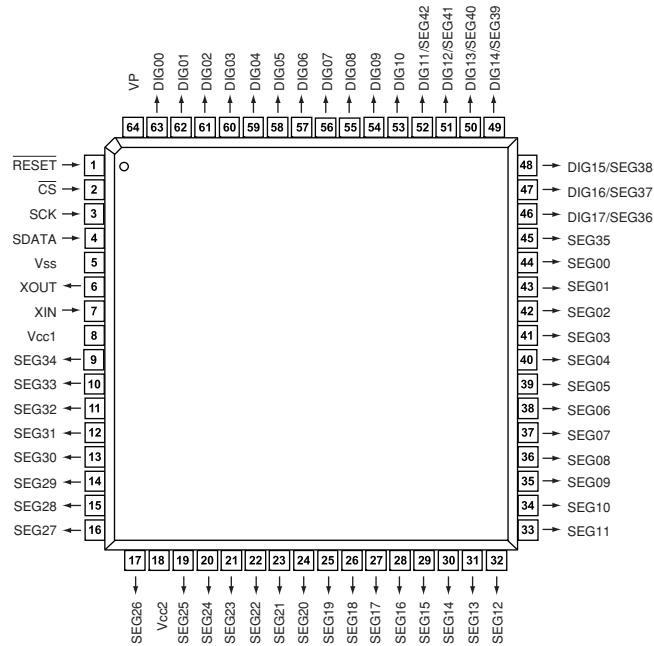
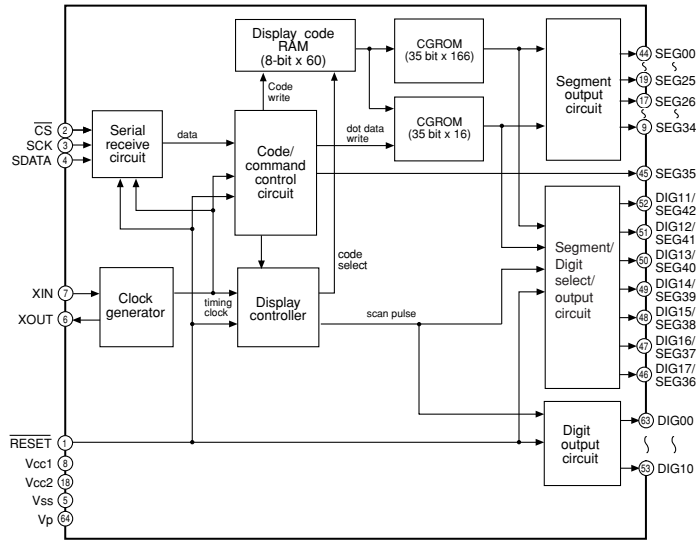


RX-V363/HTR-6130

| Pin No. | Function Name | Detail of Function |
|---------|---------------|--|
| 1 | N.C. | No connected |
| 2 | SBLC | L/R/C/SW/SL/SR/SBL/SBR ch terminal to connect capacitor to reduce noise from changing the volume |
| 3 | SBLOUT | FL/FR/C/SW/SL/SR/SBL/SBR ch output terminal |
| 4 | AGND | Analog GND terminal |
| 5 | SBROUT | FL/FR/C/SW/SL/SR/SBL/SBR ch output terminal |
| 6 | SBRC | L/R/C/SW/SL/SR/SBL/SBR ch terminal to connect capacitor to reduce noise from changing the volume |
| 7 | AGND | Analog GND terminal |
| 8 | SLC | L/R/C/SW/SL/SR/SBL/SBR ch terminal to connect capacitor to reduce noise from changing the volume |
| 9 | SLOUT | FL/FR/C/SW/SL/SR/SBL/SBR ch output terminal |
| 10 | AGND | Analog GND terminal |
| 11 | SROUT | FL/FR/C/SW/SL/SR/SBL/SBR ch output terminal |
| 12 | SRC | L/R/C/SW/SL/SR/SBL/SBR ch terminal to connect capacitor to reduce noise from changing the volume |
| 13 | N.C. | No connected |
| 14 | SWC | L/R/C/SW/SL/SR/SBL/SBR ch terminal to connect capacitor to reduce noise from changing the volume |
| 15 | SWOUT | FL/FR/C/SW/SL/SR/SBL/SBR ch output terminal |
| 16 | AGND | Analog GND terminal |
| 17 | COUT | FL/FR/C/SW/SL/SR/SBL/SBR ch output terminal |
| 18 | CC | L/R/C/SW/SL/SR/SBL/SBR ch terminal to connect capacitor to reduce noise from changing the volume |
| 19 | AGND | Analog GND terminal |
| 20 | FLC | L/R/C/SW/SL/SR/SBL/SBR ch terminal to connect capacitor to reduce noise from changing the volume |
| 21 | FLOUT | FL/FR/C/SW/SL/SR/SBL/SBR ch output terminal |
| 22 | AGND | Analog GND terminal |
| 23 | FROUT | FL/FR/C/SW/SL/SR/SBL/SBR ch output terminal |
| 24 | FRC | L/R/C/SW/SL/SR/SBL/SBR ch terminal to connect capacitor to reduce noise from changing the volume |
| 25 | N.C. | No connected |
| 26 | BASSL1 | L/R ch tone control (Bass) terminal for setting frequency characteristics |
| 27 | BASSL2 | L/R ch tone control (Bass) terminal for setting frequency characteristics |
| 28 | TREL | L/R ch tone control (Treble) terminal for setting frequency characteristics |
| 29 | N.C. | No connected |
| 30 | AVCC | Positive side power terminal |
| 31 | N.C. | No connected |
| 32 | BASSR1 | L/R ch tone control (Bass) terminal for setting frequency characteristics |
| 33 | BASSR2 | L/R ch tone control (Bass) terminal for setting frequency characteristics |
| 34 | TRER | L/R ch tone control (Treble) terminal for setting frequency characteristics |
| 35 | N.C. | No connected |
| 36 | SBLIN2 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 37 | SBRIN2 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 38 | CIN2 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 39 | SWIN2 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 40 | SLIN2 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 41 | SRIN2 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 42 | FLIN2 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 43 | FRIN2 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 44 | SBRCIN | SBL/SBR ch volume input terminal |
| 45 | SBLCIN | SBL/SBR ch volume input terminal |
| 46 | SUBL | L/R ch SUB output terminal |
| 47 | SUBR | L/R ch SUB output terminal |
| 48 | DGND | Digital GND terminal |
| 49 | DATA | Control data input terminal |
| 50 | CLOCK | Control data input terminal |
| 51 | MUTE | External Mute Control terminal |
| 52 | AVEE | Negative side power terminal |
| 53 | N.C. | No connected |
| 54 | ADCL | L/R ch ADC output terminal |
| 55 | ADCR | L/R ch ADC output terminal |

| Pin No. | Function Name | Detail of Function |
|---------|---------------|---|
| 56 | AGND | Analog GND terminal |
| 57 | N.C. | No connected |
| 58 | INR1 | L/R ch input terminal (input selector) |
| 59 | INL1 | L/R ch input terminal (input selector) |
| 60 | INR2 | L/R ch input terminal (input selector) |
| 61 | INL2 | L/R ch input terminal (input selector) |
| 62 | INR3 | L/R ch input terminal (input selector) |
| 63 | INL3 | L/R ch input terminal (input selector) |
| 64 | INR4 | L/R ch input terminal (input selector) |
| 65 | INL4 | L/R ch input terminal (input selector) |
| 66 | INR5 | L/R ch input terminal (input selector) |
| 67 | INL5 | L/R ch input terminal (input selector) |
| 68 | INR6 | L/R ch input terminal (input selector) |
| 69 | INL6 | L/R ch input terminal (input selector) |
| 70 | INR7 | L/R ch input terminal (input selector) |
| 71 | INL7 | L/R ch input terminal (input selector) |
| 72 | INR8 | L/R ch input terminal (input selector) |
| 73 | INL8 | L/R ch input terminal (input selector) |
| 74 | N.C. | No connected |
| 75 | INRA/RECR1 | L/R ch input terminal (input selector) / L/R ch REC output terminal |
| 76 | INLA/RECL1 | L/R ch input terminal (input selector) / L/R ch REC output terminal |
| 77 | N.C. | No connected |
| 78 | INR9 | L/R ch input terminal (input selector) |
| 79 | INL9 | L/R ch input terminal (input selector) |
| 80 | N.C. | No connected |
| 81 | INRB/RECR2 | L/R ch input terminal (input selector) / L/R ch REC output terminal |
| 82 | INLB/RECL2 | L/R ch input terminal (input selector) / L/R ch REC output terminal |
| 83 | INR10/RECR4 | L/R ch input terminal (input selector) / L/R ch REC output terminal |
| 84 | INL10/RECL4 | L/R ch input terminal (input selector) / L/R ch REC output terminal |
| 85 | INR11/RECR5 | L/R ch input terminal (input selector) / L/R ch REC output terminal |
| 86 | INL11/RECL5 | L/R ch input terminal (input selector) / L/R ch REC output terminal |
| 87 | N.C. | No connected |
| 88 | N.C. | No connected |
| 89 | N.C. | No connected |
| 90 | RECR3 | L/R ch REC output terminal |
| 91 | RECL3 | L/R ch REC output terminal |
| 92 | N.C. | No connected |
| 93 | FLIN1 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 94 | FRIN1 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 95 | CIN1 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 96 | SWIN1 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 97 | SLIN1 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 98 | SRIN1 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 99 | SBLIN1 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |
| 100 | SBRIN1 | L/R/C/SW/SL/SR/SBL/SBR ch input terminal (multi input 1/2) |

IC201: M66003-0131FP-R (OPERATION P.C.B.)
18 digit 5x7 segment VFD controller/driver



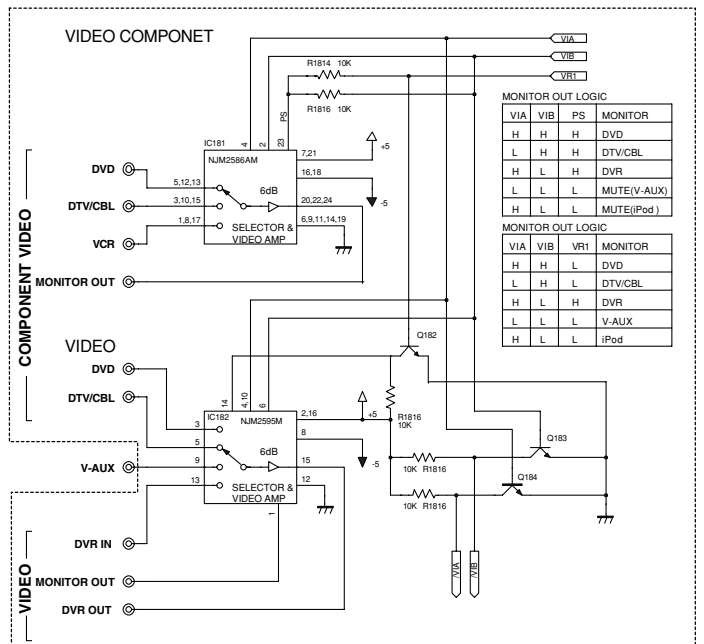
RX-V363/HTR-6130

| 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 When "H", any instruction from the MCU is neglected | |
| 3 | SCK | CKFL | Shift clock input | Serial input data is taken and shifted by the positive edge of SCK | |
| 4 | SDATA | DTFL | Serial data input | | |
| 5 | Vss | VSS | | GND (0V) | |
| 6 | XOUT | XOUT | Clock output | When use as a CR oscillator, connect external resistor and capacitor / When use an external clock, input external clock to XIN, and XOUT must be opened | |
| 7 | XIN | XIN | Clock input | | |
| 8 | Vcc1 | VDD | | Positive power supply for internal logic | |
| 9 | SEG34 | P11 | Segment output | Positive power supply for DIG and SEG outputs | |
| 10 | SEG33 | P2 | Segment output | | |
| 11 | SEG32 | P3 | Segment output | | |
| 12 | SEG31 | P4 | Segment output | | |
| 13 | SEG30 | P5 | Segment output | | |
| 14 | SEG29 | P6 | Segment output | | |
| 15 | SEG28 | P7 | Segment output | | |
| 16 | SEG27 | P8 | Segment output | | |
| 17 | SEG26 | P9 | Segment output | | |
| 18 | Vcc2 | VDD | | Connect to segment (anode) pins of VFD | |
| 19 | SEG25 | P10 | Segment output | | |
| 20 | SEG24 | P11 | Segment output | | |
| 21 | SEG23 | P12 | Segment output | | |
| 22 | SEG22 | P13 | Segment output | | |
| 23 | SEG21 | P14 | Segment output | | |
| 24 | SEG20 | P15 | Segment output | | |
| 25 | SEG19 | P16 | Segment output | | |
| 26 | SEG18 | P17 | Segment output | | |
| 27 | SEG17 | P18 | Segment output | | |
| 28 | SEG16 | P19 | Segment output | | |
| 29 | SEG15 | P20 | Segment output | | |
| 30 | SEG14 | P21 | Segment output | | |
| 31 | SEG13 | P22 | Segment output | | |
| 32 | SEG12 | P23 | Segment output | | |
| 33 | SEG11 | P24 | Segment output | | |
| 34 | SEG10 | P25 | Segment output | | |
| 35 | SEG09 | P26 | Segment output | | |
| 36 | SEG08 | P27 | Segment output | | |
| 37 | SEG07 | P28 | Segment output | | |
| 38 | SEG06 | P29 | Segment output | | |
| 39 | SEG05 | P30 | Segment output | | |
| 40 | SEG04 | P31 | Segment output | | |
| 41 | SEG03 | P32 | Segment output | | |
| 42 | SEG02 | P33 | Segment output | | |
| 43 | SEG01 | P34 | Segment output | | |
| 44 | SEG00 | P35 | Segment output | | |
| 45 | SEG35 | P36 | Segment output | | |
| 46 | DIG17/SEG36 | P37 | Segment output | | Connect to digit (grid) pins of VFD |
| 47 | DIG16/SEG37 | G17I | Digit output | | |
| 48 | DIG15/SEG38 | G16I | Digit output | | |
| 49 | DIG14/SEG39 | G15I | Digit output | | |
| 50 | DIG13/SEG40 | G14 | Digit output | | |
| 51 | DIG12/SEG41 | G13 | Digit output | | |
| 52 | DIG11/SEG42 | G12 | Digit output | | |
| 53 | DIG10 | G11 | Digit output | | |
| 54 | DIG09 | G10 | Digit output | | |
| 55 | DIG08 | G9 | Digit output | | |
| 56 | DIG07 | G8 | Digit output | | |
| 57 | DIG06 | G7 | Digit output | | |
| 58 | DIG05 | G6 | Digit output | | |
| 59 | DIG04 | G5 | Digit output | | |
| 60 | DIG03 | G4 | Digit output | | |
| 61 | DIG02 | G3 | Digit output | | |
| 62 | DIG01 | G2 | Digit output | | |
| 63 | DIG00 | G1 | Digit output | | |
| 64 | Vp | VP | | Negative power supply to pull down | |

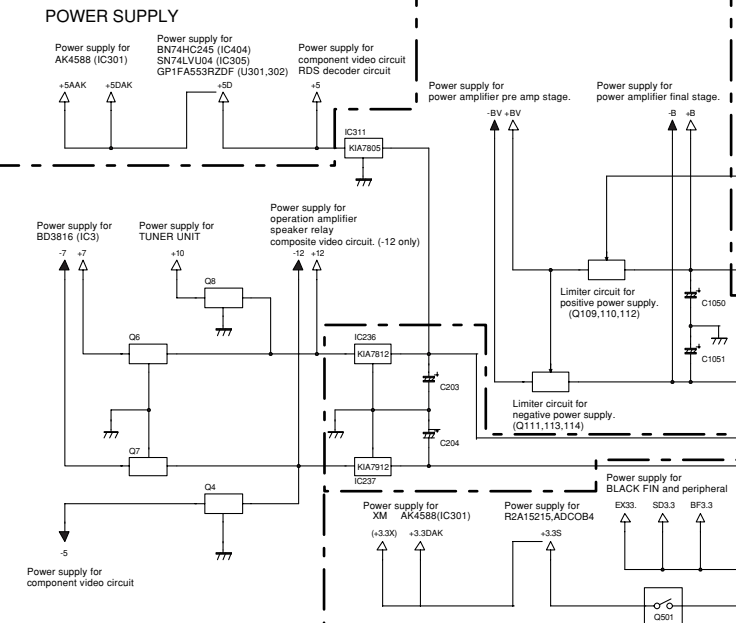
BLOCK DIAGRAMS

VIDEO, AUDIO and Power Supply Sections

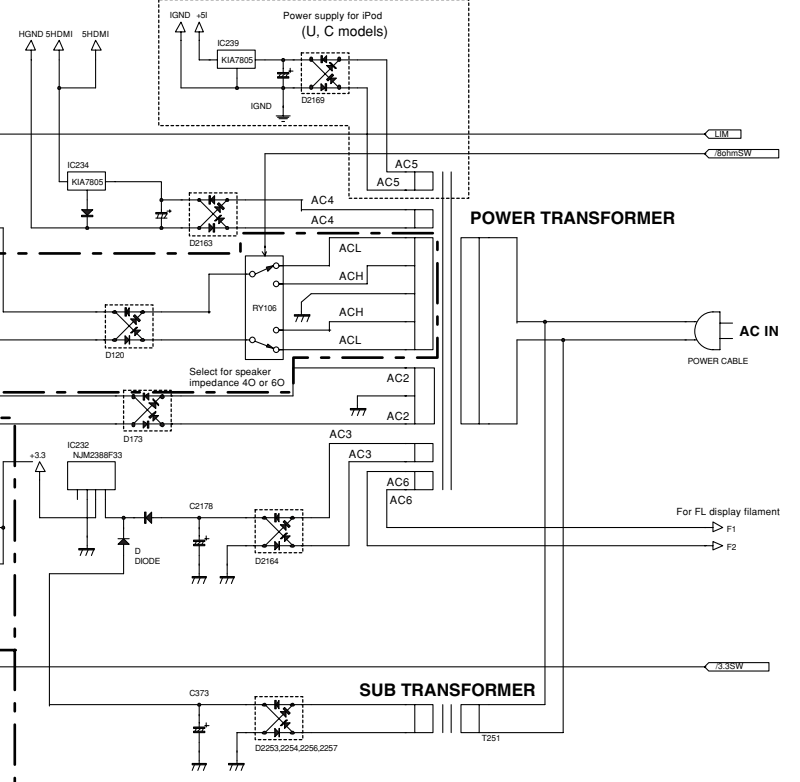
OPERATION
• See page 79, 80 →
SCHEMATIC DIAGRAM



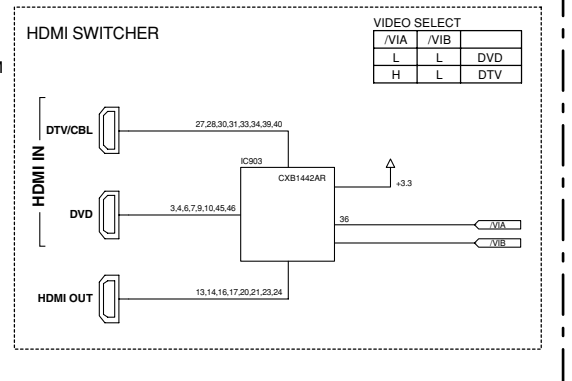
DSP • See page 73-78 →
SCHEMATIC DIAGRAM



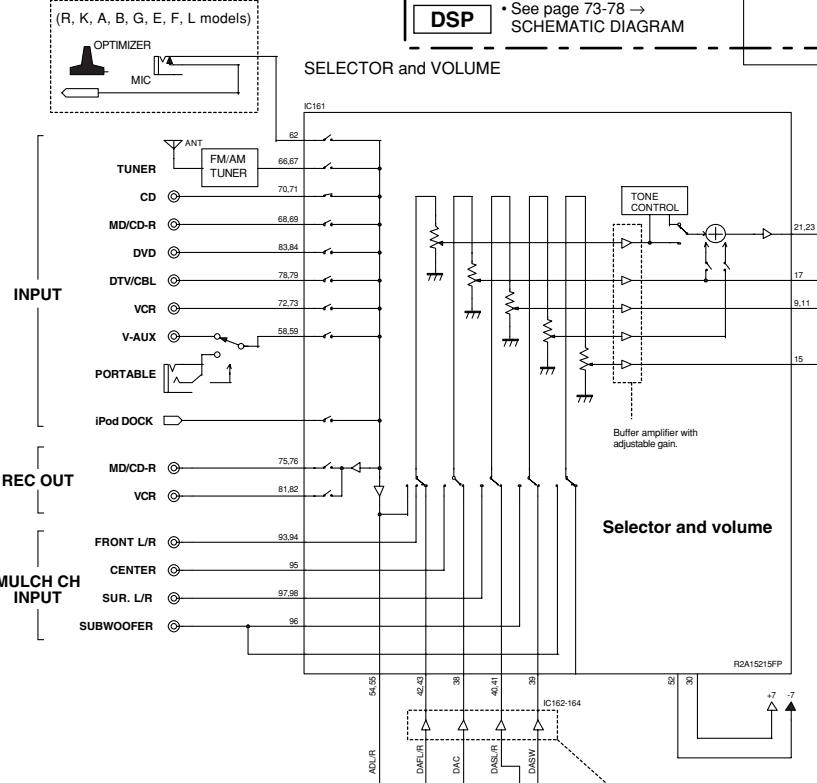
OPERATION
• See page 79, 80 →
SCHEMATIC DIAGRAM



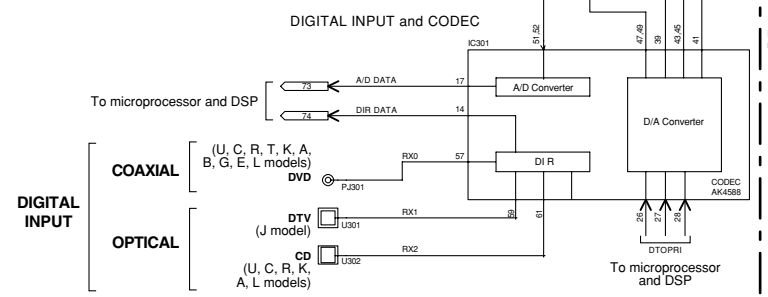
HDMI
• See page 83 →
SCHEMATIC DIAGRAM



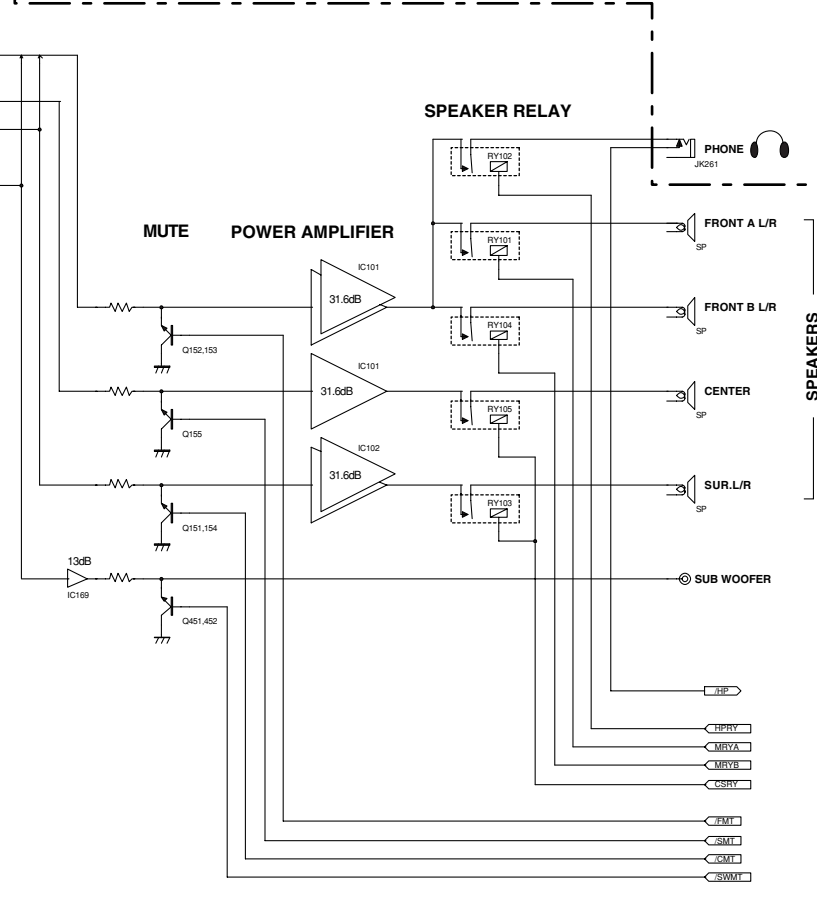
DSP • See page 73-78 →
SCHEMATIC DIAGRAM



DSP
• See page 73-78 →
SCHEMATIC DIAGRAM

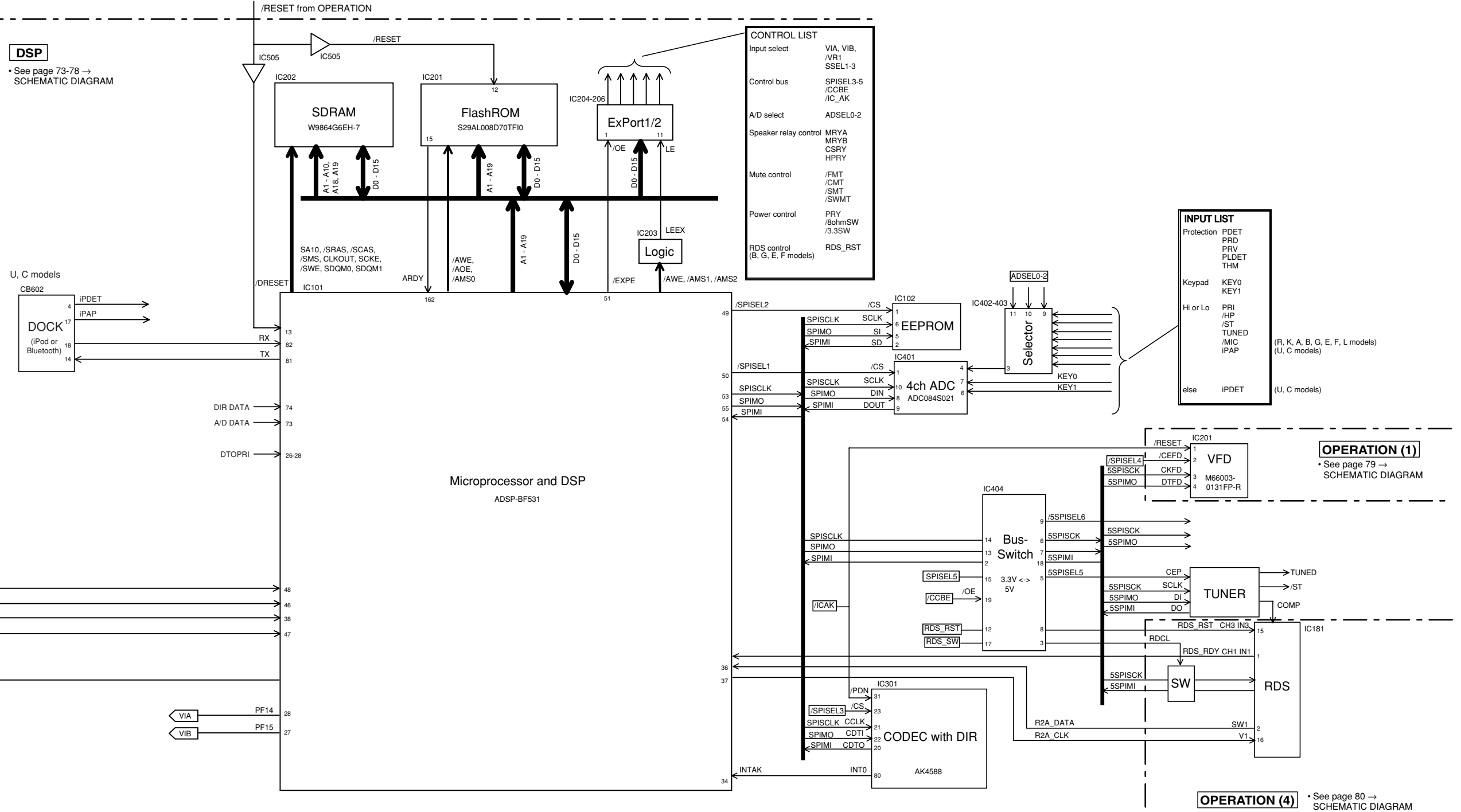


MAIN
• See page 81, 82 →
SCHEMATIC DIAGRAM



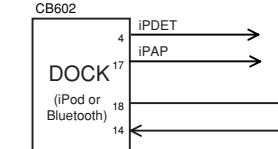
Control Sections

OPERATION • See page 79, 80 → SCHEMATIC DIAGRAM



DSP
• See page 73-78 → SCHEMATIC DIAGRAM

U, C models

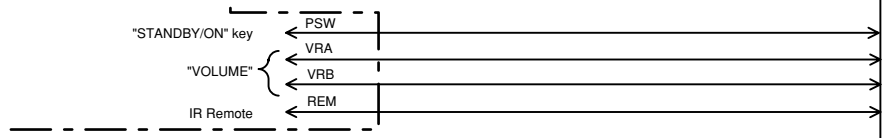


| CONTROL LIST | |
|---------------------------------|--------------------------|
| Input select | VIA, VIB, /VR1, SSEL1-3 |
| Control bus | SPISEL3-5, /CCBE, /IC_AK |
| A/D select | ADSEL0-2 |
| Speaker relay control | MRYA, MRYB, CSRY, HPRY |
| Mute control | /FMT, /CMT, /SMT, /SWMT |
| Power control | PRY, /BohmSW, /3.3SW |
| RDS control (B, G, E, F models) | RDS_RST |

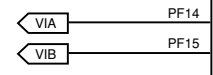
| INPUT LIST | |
|------------|----------------------------------|
| Protection | PDET, PRD, PRV, PLDET, THM |
| Keypad | KEY0, KEY1 |
| Hi or Lo | PRI, /HP, /ST, TUNED, /MIC, IPAP |
| else | IPDET |

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

OPERATION
• See page 79, 80 → SCHEMATIC DIAGRAM



MAIN
• See page 81, 82 → SCHEMATIC DIAGRAM

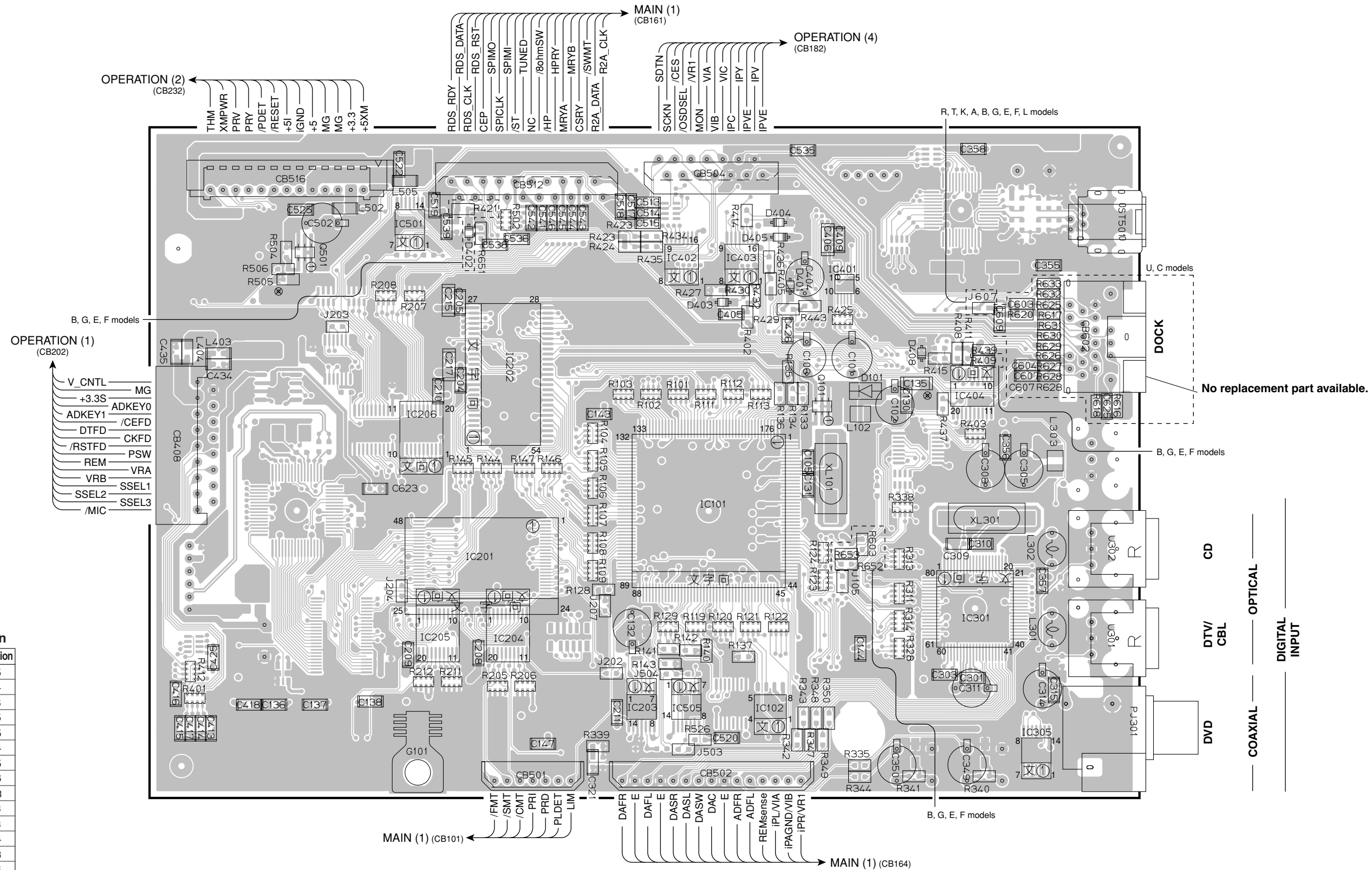


OPERATION (1)
• See page 79 → SCHEMATIC DIAGRAM

OPERATION (4) • See page 80 → SCHEMATIC DIAGRAM

PRINTED CIRCUIT BOARDS

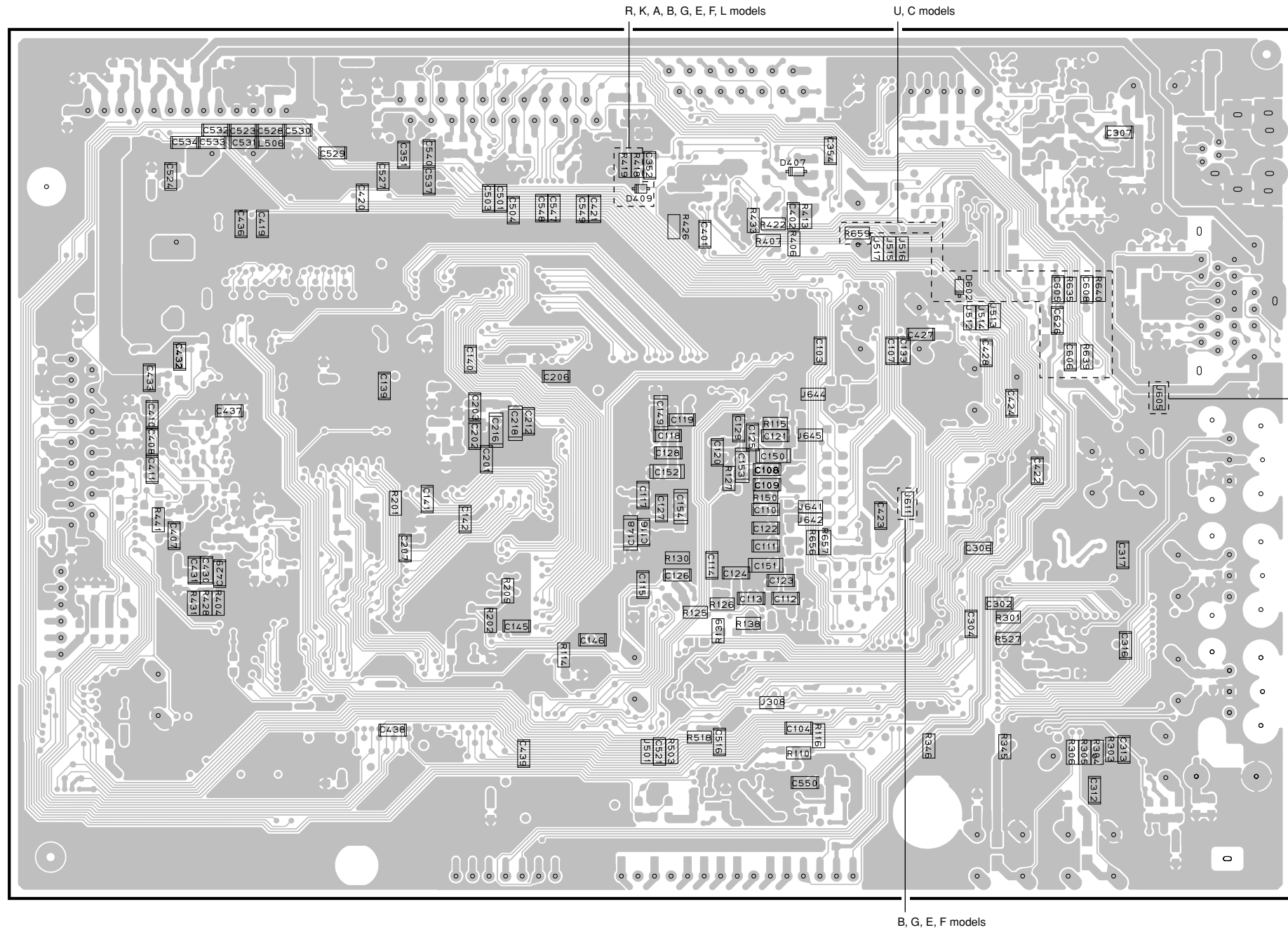
DSP P.C.B. (Side A)



Semiconductor Location

| Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|
| CB408 | C4 | IC201 | E5 |
| CB501 | E6 | IC202 | E4 |
| CB502 | F6 | IC203 | F6 |
| CB504 | F3 | IC204 | E5 |
| CB512 | E3 | IC205 | D5 |
| CB516 | D3 | IC206 | D4 |
| CB602 | I4 | IC301 | H5 |
| D101 | G4 | IC305 | H6 |
| D401 | G3 | IC401 | G3 |
| D402 | D3 | IC402 | F3 |
| D403 | F3 | IC403 | F3 |
| D404 | G3 | IC404 | H4 |
| D405 | G3 | IC501 | D3 |
| D408 | G4 | IC505 | F6 |
| IC101 | F5 | Q101 | G4 |
| IC102 | F6 | Q501 | D3 |

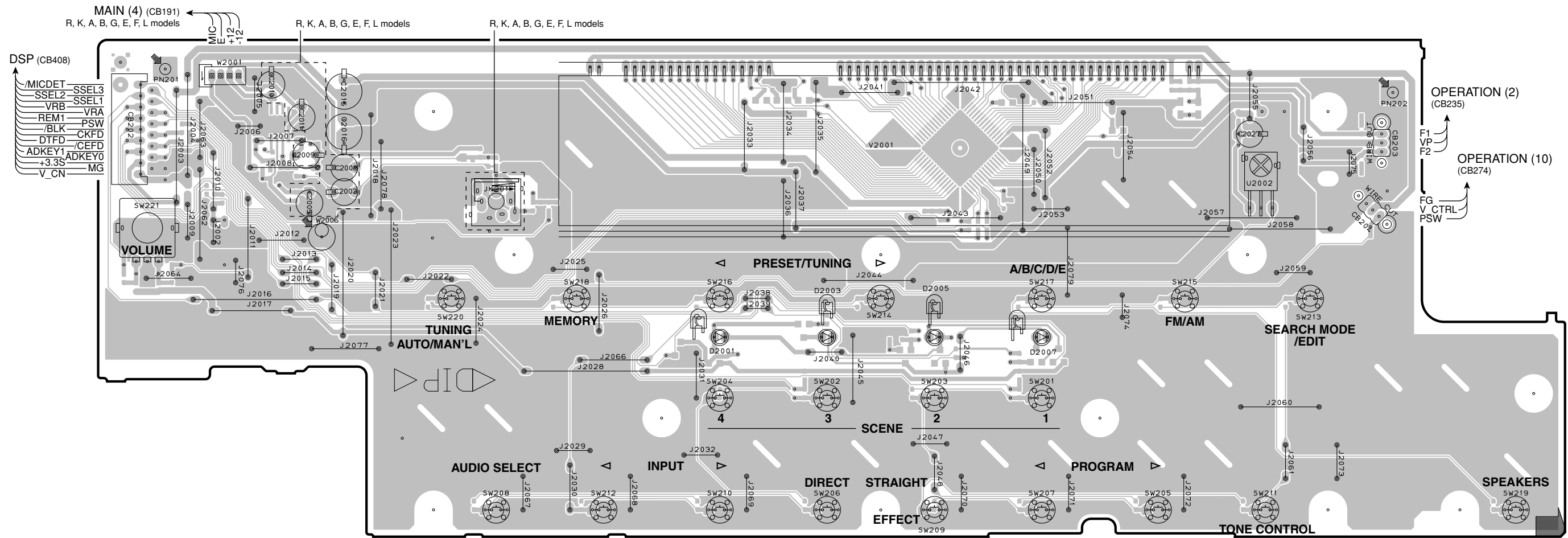
DSP P.C.B. (Side B)



• Semiconductor Location

| Ref no. | Location |
|---------|----------|
| D407 | F3 |
| D409 | F3 |
| D602 | G4 |

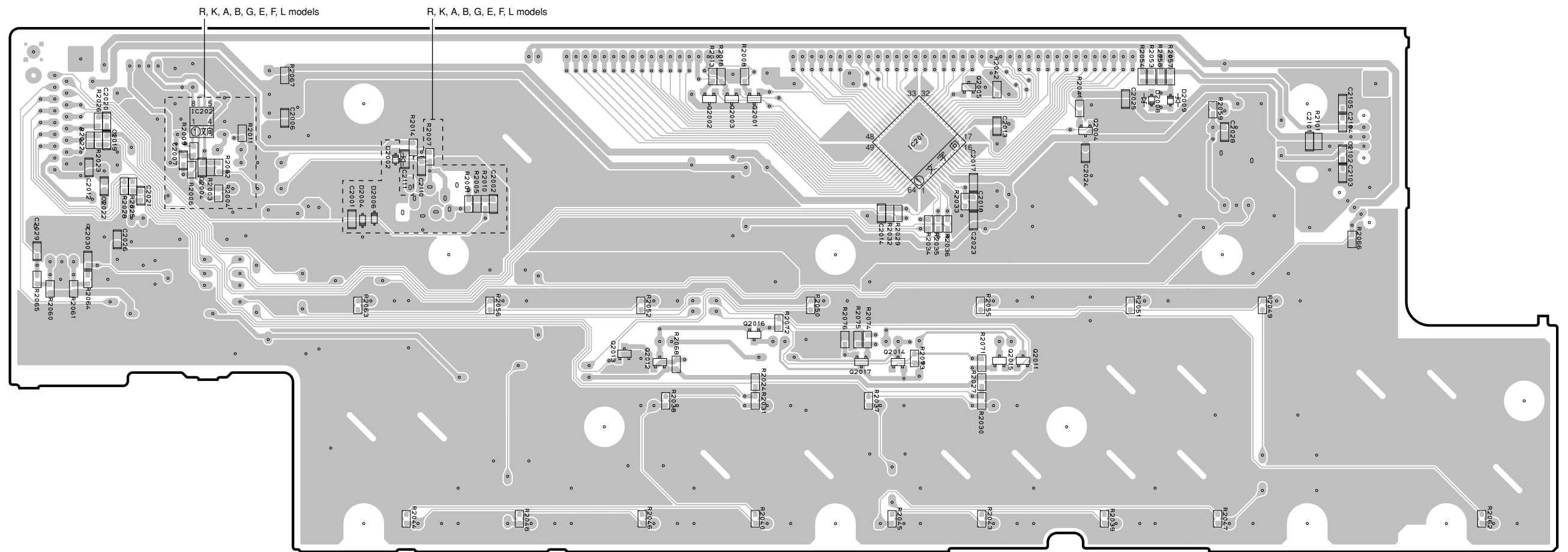
OPERATION (1) P.C.B. (Side A)



• Semiconductor Location

| Ref no. | Location |
|---------|----------|
| CB202 | B3 |
| CB203 | I3 |
| CB204 | I4 |
| D2001 | E4 |
| D2003 | F4 |
| D2005 | F4 |
| D2007 | G5 |
| D2002 | D4 |

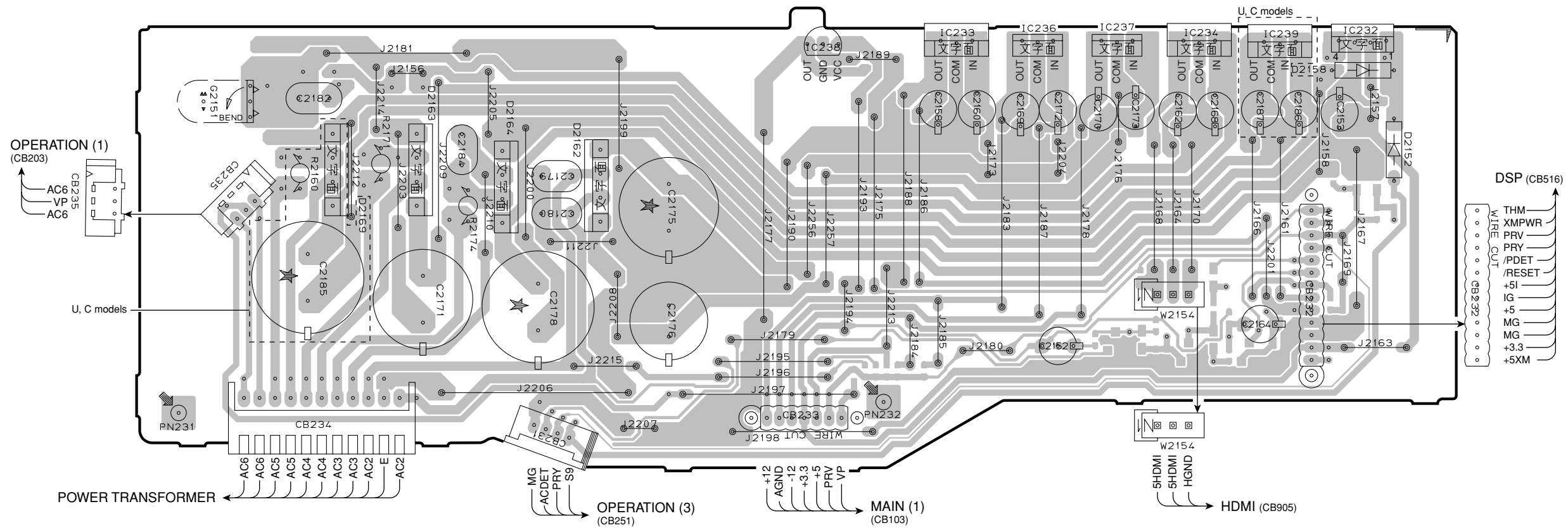
OPERATION (1) P.C.B. (Side B)



• **Semiconductor Location**

| Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|
| D2002 | D4 | Q2004 | H3 |
| D2004 | D4 | Q2005 | G3 |
| D2006 | D4 | Q2011 | G5 |
| D2008 | H3 | Q2012 | E5 |
| D2009 | H3 | Q2013 | E5 |
| IC201 | G3 | Q2014 | F5 |
| IC202 | C3 | Q2015 | G5 |
| Q2001 | F3 | Q2016 | F5 |
| Q2002 | E3 | Q2017 | F5 |
| Q2003 | F3 | | |

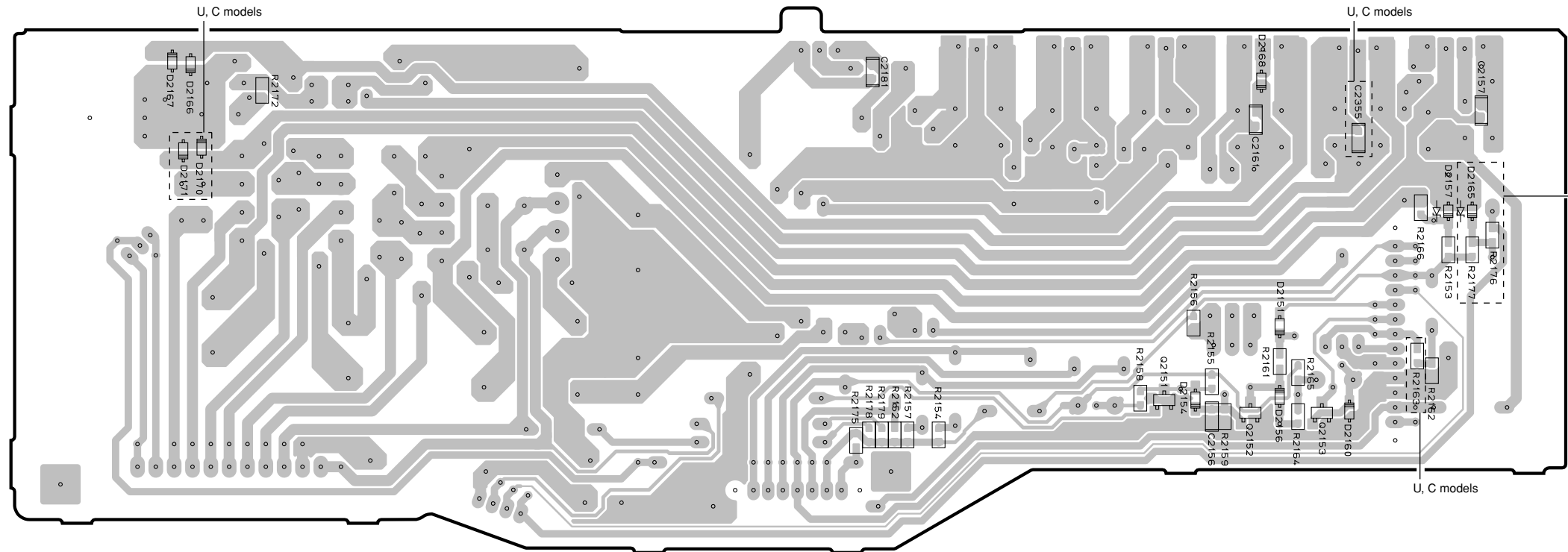
OPERATION (2) P.C.B. (Side A)



• **Semiconductor Location**

| Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|
| CB231 | D5 | D2164 | D3 |
| CB232 | H4 | D2169 | C3 |
| CB233 | F5 | IC232 | I3 |
| CB234 | C5 | IC233 | G3 |
| CB235 | C4 | IC234 | H3 |
| D2152 | I3 | IC236 | G3 |
| D2158 | I3 | IC237 | G3 |
| D2162 | D3 | IC238 | F3 |
| D2163 | D3 | IC239 | H3 |

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

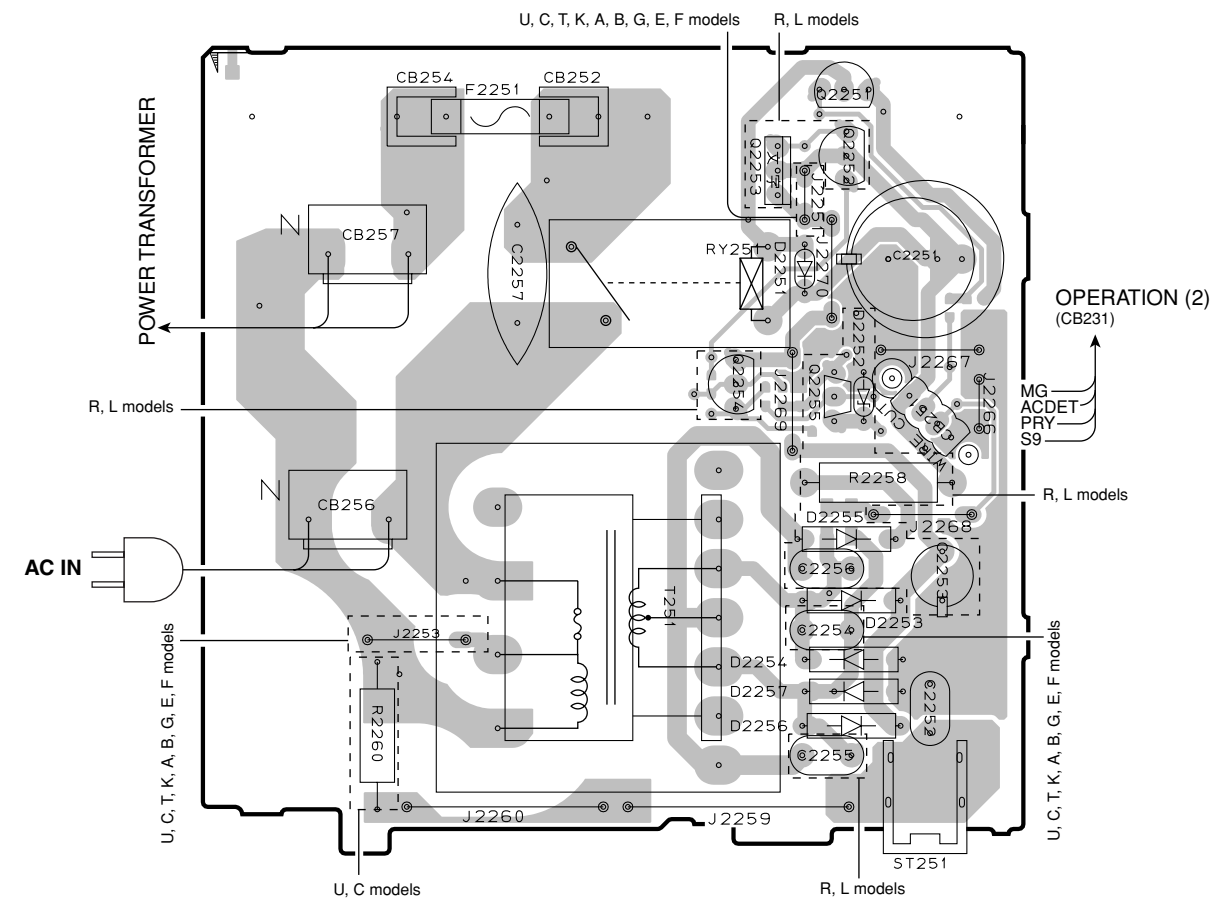


R, T, K, A, B, G, E, F, L models

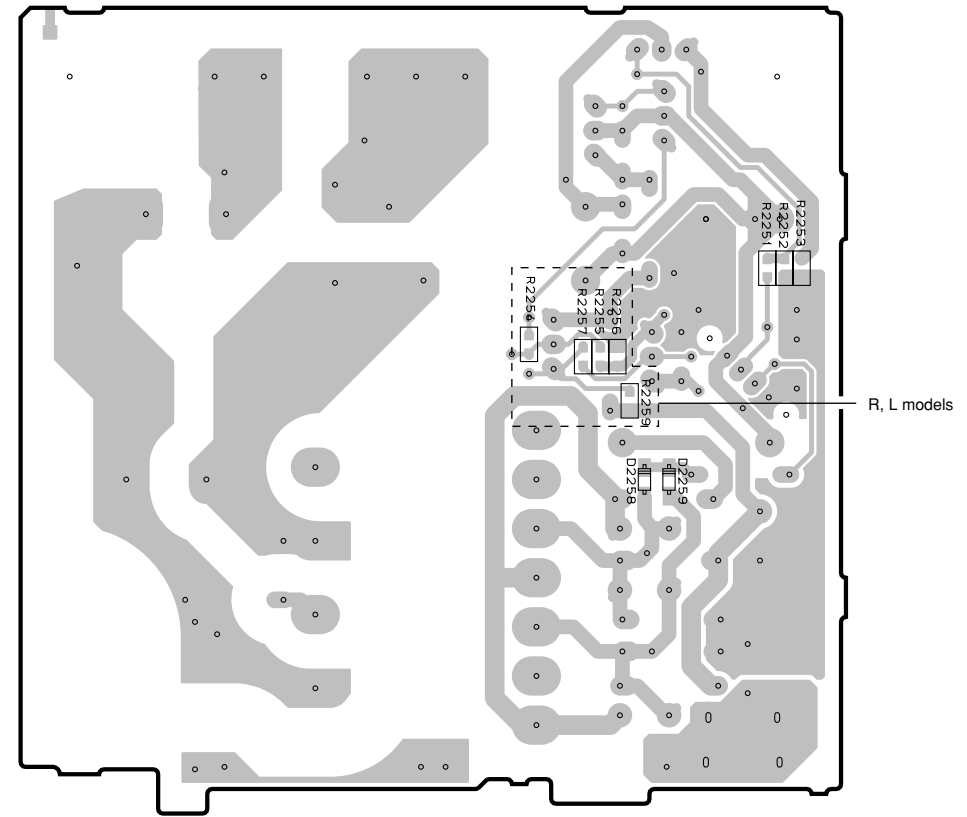
• **Semiconductor Location**

| Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|
| D2151 | H4 | D2167 | C3 |
| D2154 | H4 | D2168 | H3 |
| D2156 | H4 | D2170 | C3 |
| D2157 | I3 | D2171 | C3 |
| D2160 | H4 | Q2151 | G4 |
| D2165 | I3 | Q2152 | H4 |
| D2166 | C3 | Q2153 | H4 |

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



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

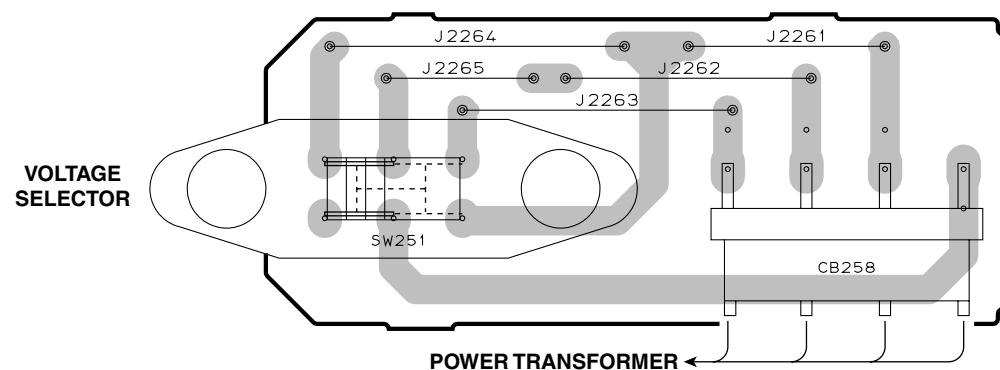


• **Semiconductor Location**

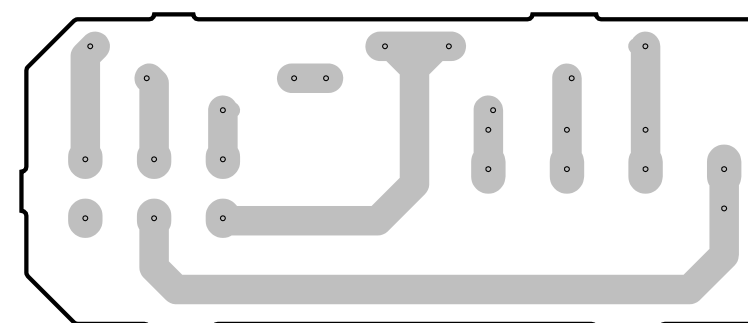
| Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|
| CB251 | D4 | D2256 | D5 |
| CB252 | C3 | D2257 | D5 |
| CB254 | C3 | Q2251 | D3 |
| CB256 | B4 | Q2252 | D3 |
| CB257 | B3 | Q2253 | D3 |
| D2251 | D3 | Q2254 | D4 |
| D2252 | D4 | Q2255 | D4 |
| D2253 | D4 | D2258 | H4 |
| D2254 | D5 | D2259 | I4 |
| D2255 | D4 | | |

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

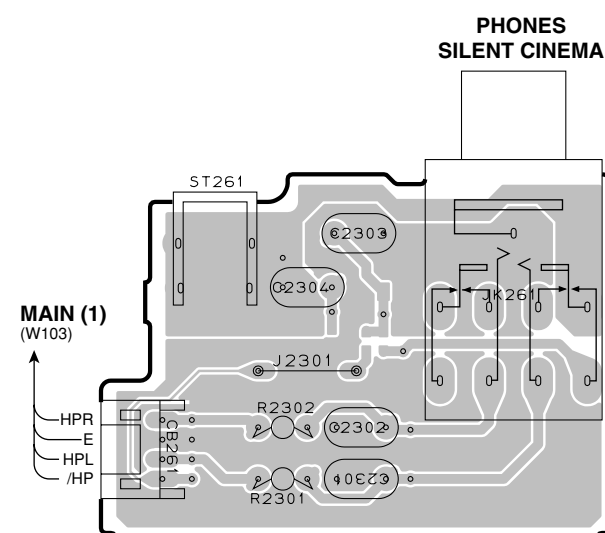
R, L models



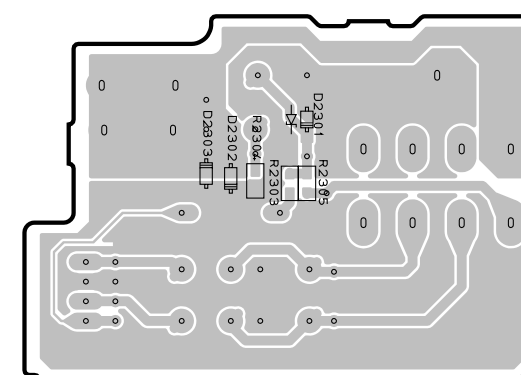
OPERATION (5) P.C.B. (Side B)



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



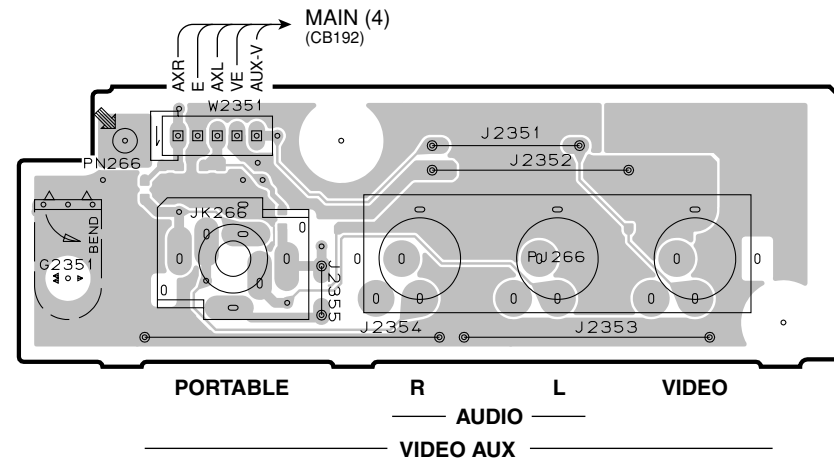
OPERATION (6) P.C.B. (Side B)



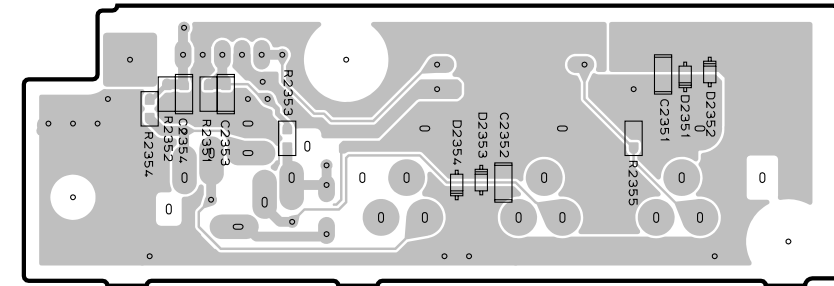
• Semiconductor Location

| Ref no. | Location |
|---------|----------|
| CB258 | D3 |
| CB261 | C6 |
| D2301 | H5 |
| D2302 | H6 |
| D2303 | H6 |

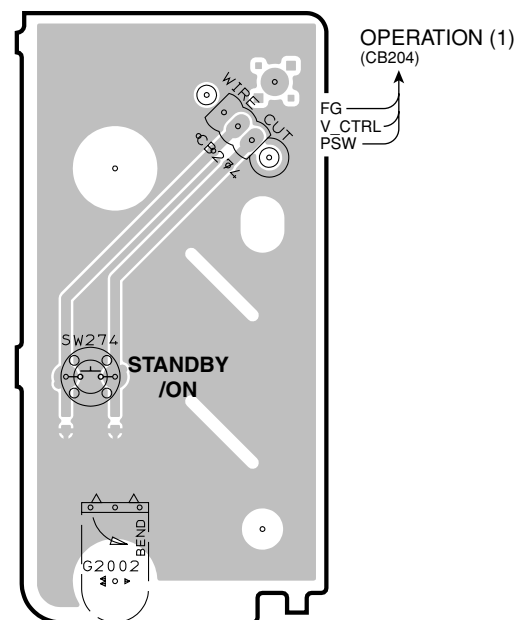
OPERATION (7) P.C.B. (Side A)



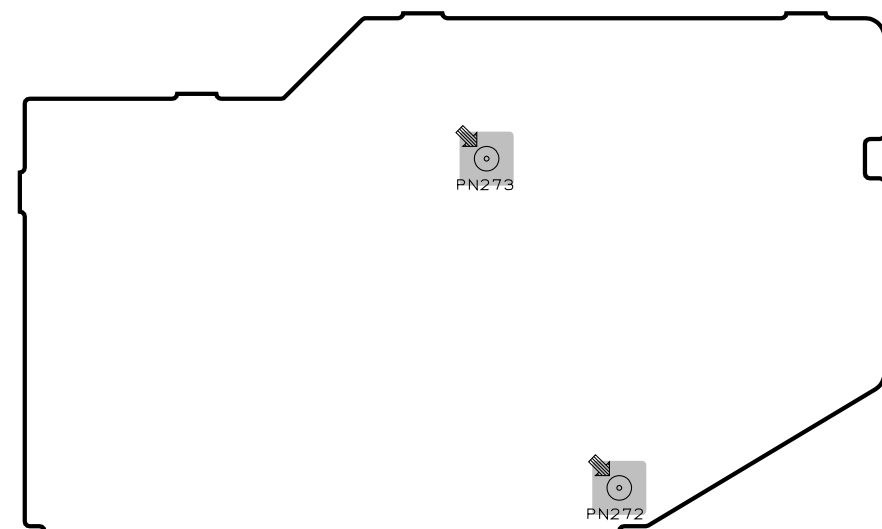
OPERATION (7) P.C.B. (Side B)



OPERATION (10) P.C.B. (Side A)



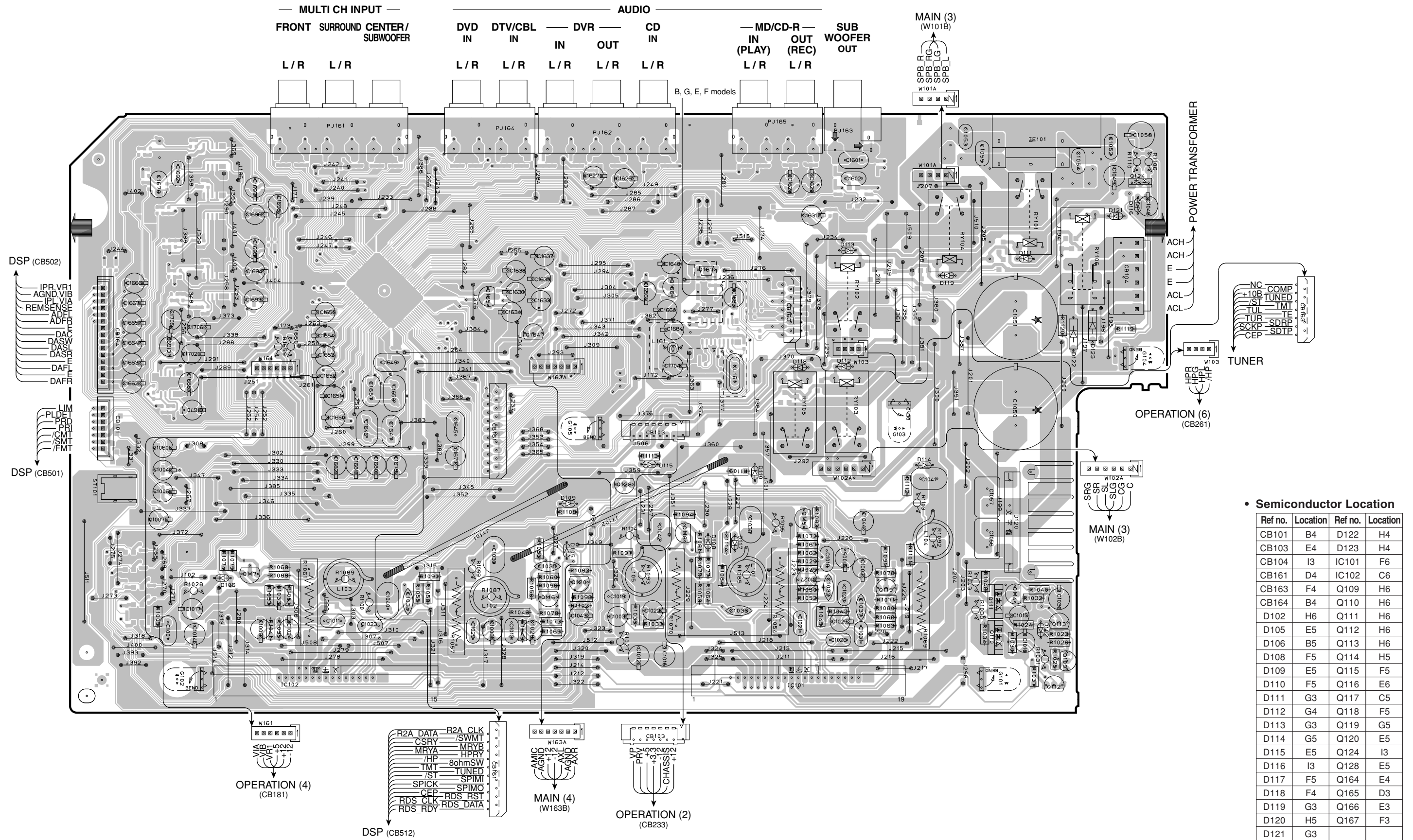
OPERATION (11) P.C.B. (Side A)



• Semiconductor Location

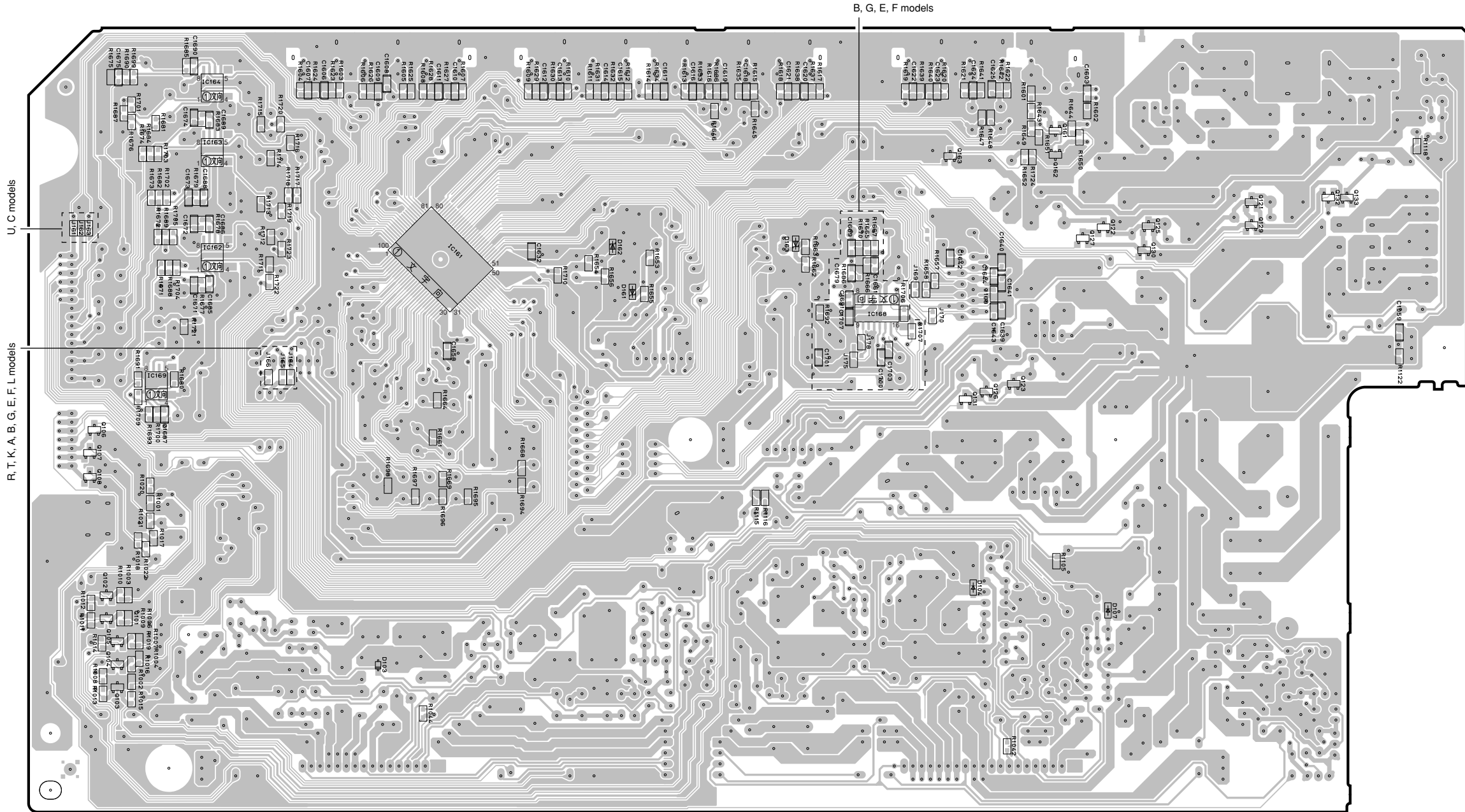
| Ref no. | Location |
|---------|----------|
| CB274 | C5 |
| D2351 | I2 |
| D2352 | I2 |
| D2353 | H3 |
| D2354 | H3 |

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



| Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|
| CB101 | B4 | D122 | H4 |
| CB103 | E4 | D123 | H4 |
| CB104 | I3 | IC101 | F6 |
| CB161 | D4 | IC102 | C6 |
| CB163 | F4 | Q109 | H6 |
| CB164 | B4 | Q110 | H6 |
| D102 | H6 | Q111 | H6 |
| D105 | E5 | Q112 | H6 |
| D106 | B5 | Q113 | H6 |
| D108 | F5 | Q114 | H5 |
| D109 | E5 | Q115 | F5 |
| D110 | F5 | Q116 | E6 |
| D111 | G3 | Q117 | C5 |
| D112 | G4 | Q118 | F5 |
| D113 | G3 | Q119 | G5 |
| D114 | G5 | Q120 | E5 |
| D115 | E5 | Q124 | I3 |
| D116 | I3 | Q128 | E5 |
| D117 | F5 | Q164 | E4 |
| D118 | F4 | Q165 | D3 |
| D119 | G3 | Q166 | E3 |
| D120 | H5 | Q167 | F3 |
| D121 | G3 | | |

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



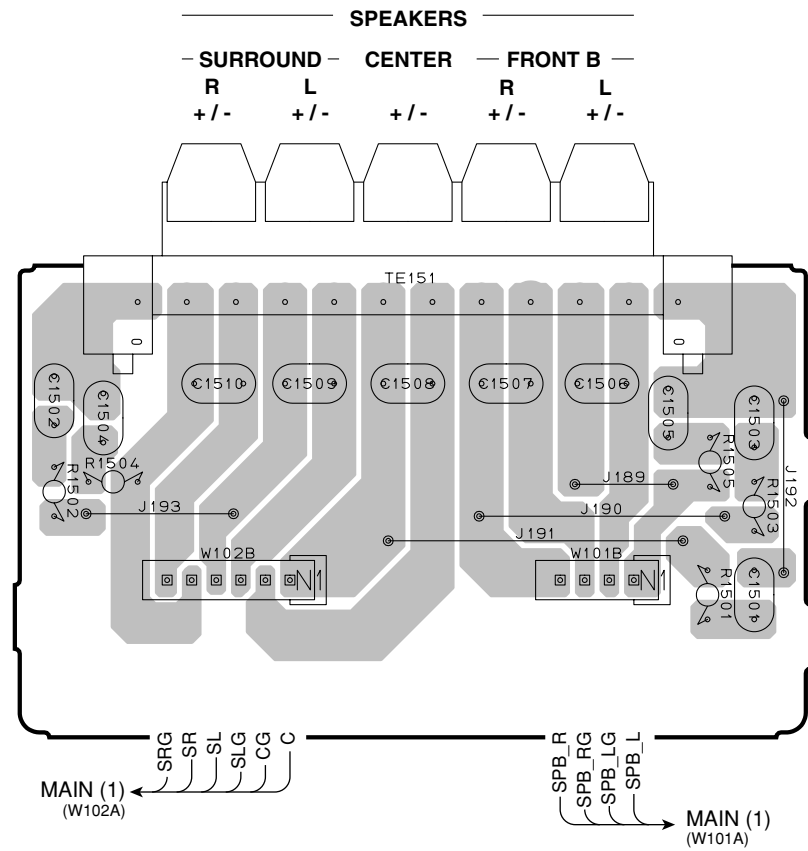
• **Semiconductor Location**

| Ref no. | Location | Ref no. | Location |
|---------|----------|---------|----------|
| D103 | C6 | Q106 | B4 |
| D104 | F5 | Q107 | B4 |
| D107 | G5 | Q108 | B5 |
| D161 | E4 | Q121 | H3 |
| D162 | D3 | Q122 | G3 |
| D163 | E3 | Q123 | G4 |
| IC161 | D3 | Q125 | G3 |
| IC162 | B3 | Q126 | F4 |
| IC163 | B3 | Q127 | G3 |
| IC164 | B3 | Q129 | H3 |
| IC168 | F4 | Q130 | G3 |
| IC169 | B4 | Q131 | F4 |
| Q101 | B5 | Q132 | H3 |
| Q102 | B5 | Q133 | H3 |
| Q103 | B6 | Q161 | G3 |
| Q104 | B6 | Q162 | G3 |
| Q105 | B5 | Q163 | F3 |

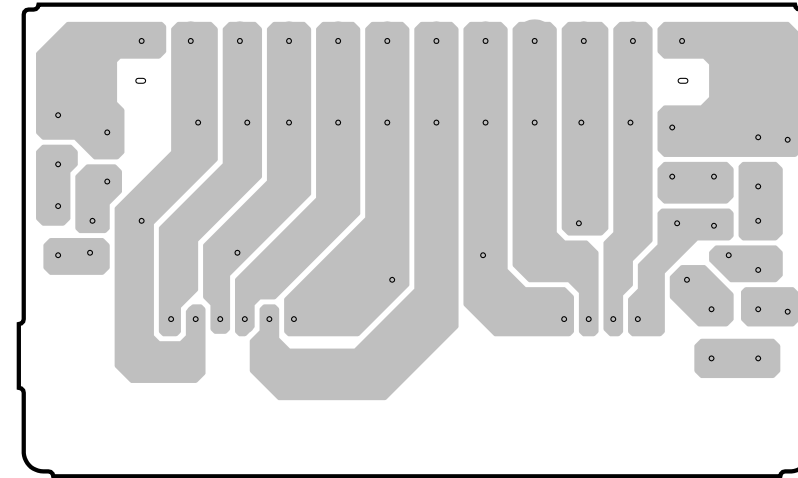
• Semiconductor Location

| Ref no. | Location |
|---------|----------|
| CB191 | B6 |
| CB192 | B6 |
| CB193 | C7 |

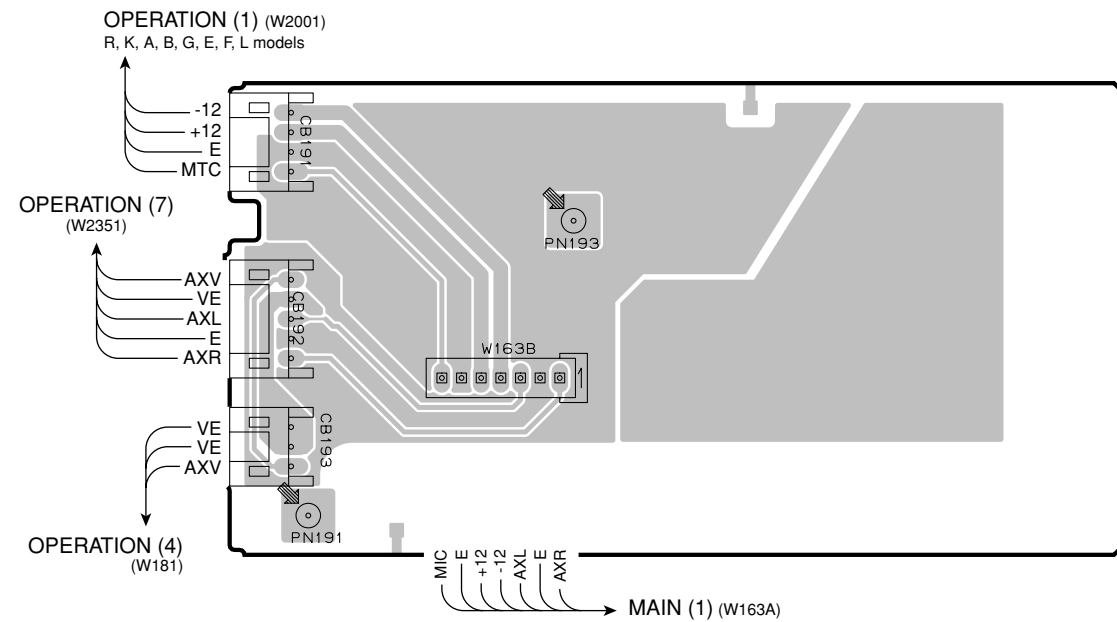
MAIN (3) P.C.B. (Side A)



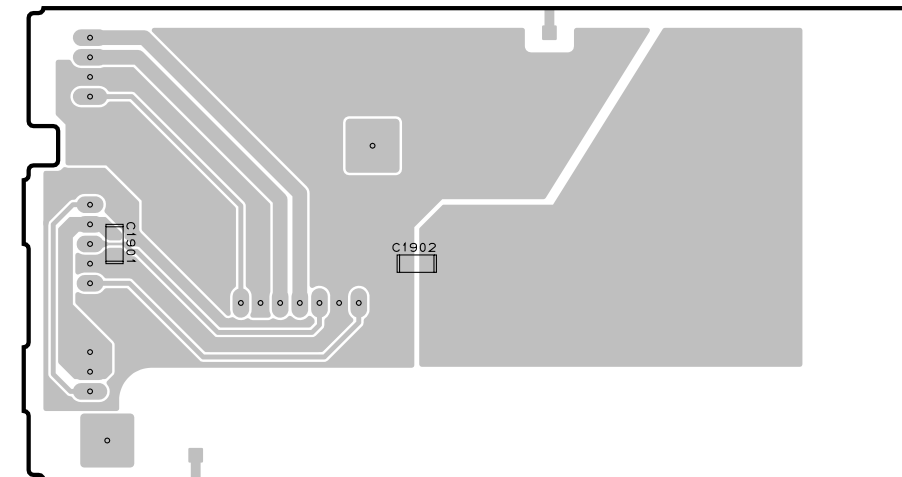
MAIN (3) P.C.B. (Side B)



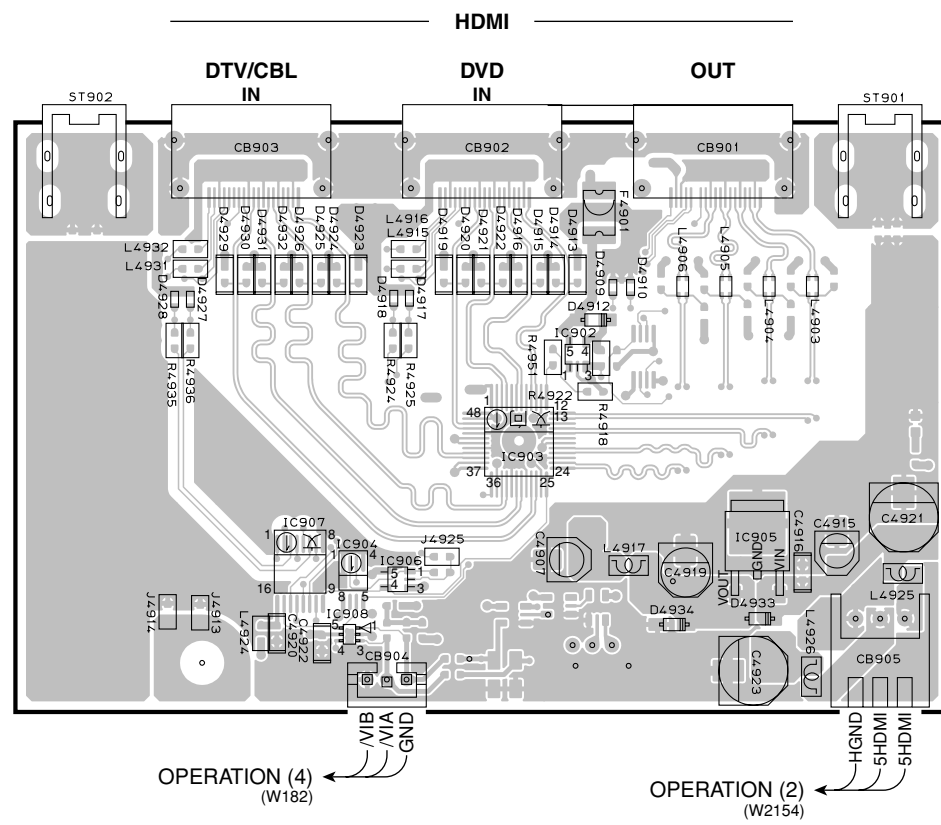
MAIN (4) P.C.B. (Side A)



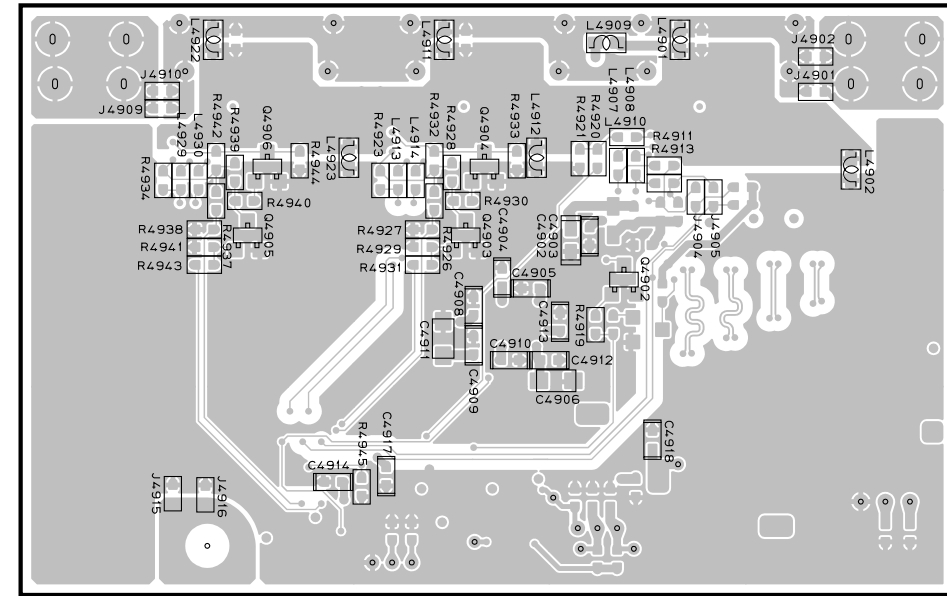
MAIN (4) P.C.B. (Side B)



HDMI P.C.B. (Side A)



HDMI 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 |
|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|----------|
| CB901 | D3 | D4913 | D4 | D4921 | C4 | D4929 | B4 | IC904 | C5 | Q4905 | G4 |
| CB902 | C3 | D4914 | D4 | D4922 | C4 | D4930 | C4 | IC905 | D5 | Q4906 | G4 |
| CB903 | C3 | D4915 | C4 | D4923 | C4 | D4931 | C4 | IC906 | C5 | | |
| CB904 | C5 | D4916 | C4 | D4924 | C4 | D4932 | C4 | IC907 | C5 | | |
| CB905 | D5 | D4917 | C4 | D4925 | C4 | D4933 | D5 | IC908 | C5 | | |
| D4909 | D4 | D4918 | C4 | D4926 | C4 | D4934 | D5 | Q4902 | H4 | | |
| D4910 | D4 | D4919 | C4 | D4927 | B4 | IC902 | D4 | Q4903 | H4 | | |
| D4912 | D4 | D4920 | C4 | D4928 | B4 | IC903 | C4 | Q4904 | H4 | | |

■ PIN CONNECTION DIAGRAMS

• ICs

| | | | |
|---------------------|---|-------------------------------------|-----------------------------|
| ADC084S021 CIMM | ADSP-BF531 CPU | AK4588VQ | BR25L320F-W EEPROM |
| CXB1442AR-T4 | K4S641632K-UC60000 | KIA7805API KIA7812API | KIA79M05PI KIA7912PI |
| LM61CIZ | LC72725KM NJM2595M (TE1) SN74CB3Q3257PWR | M66003-0131FP-R | NJM2867F3-05 |
| NJM2885DL1-33 | NJM2586AM | NJM2388F05 NJM2388F33 | NJM4565M |
| R2A15218FP | SN74AHC02PWR SN74AHC08PWR SN74LV08APWR SN74LVU04APWR | SN74AHCT245PWR SN74LV573APWR | SN74LVC1G08DCKR |
| SN74LVC2G17DCKR | SN74LVC3G04DCTR | SN74LV157APWR SN74LV4051APWR | STK433-130-E |
| | | | STK433-330-E |

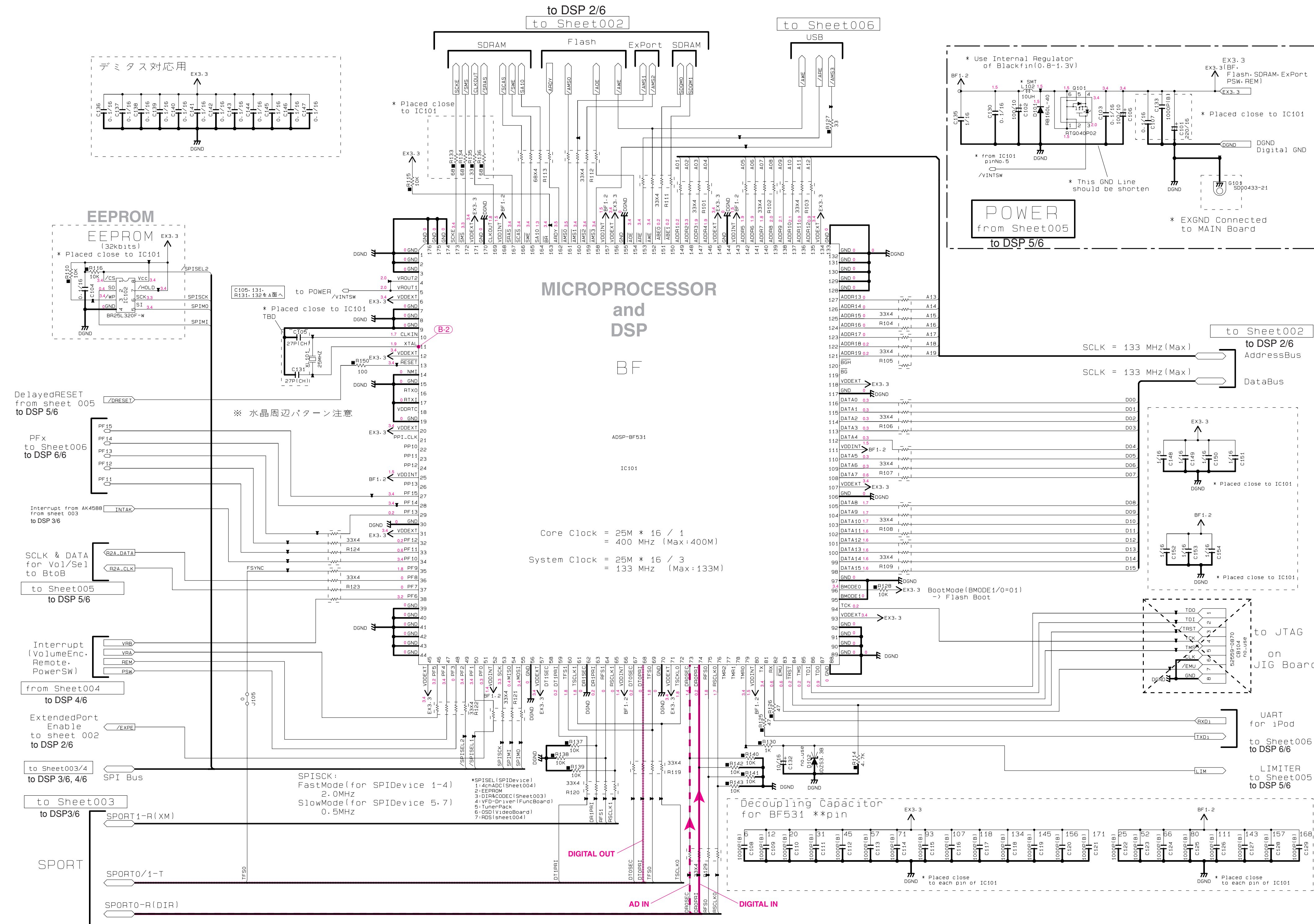
• Diodes

| | | | |
|---|--|--------------------------|----------------|
| 1SS133, 176 1SS270A 1T2 MTZJ4.7A MTZJ3.3B | RB160L-40 TE25 | MA8075-H MA8100-H | KDS160-RTK |
| KBP103G 1.0A 200V | 1SS355 RB500V-40 UDZ3.6BTE-17 UDZ5.1B UDZS3.3BTE-17 UDZS5.6BTE-17 UDZS9.1B | TS6P03G 6.0A 200V | |

• Transistors

| | | | | |
|-----------------------------------|--|-------------------|---------------|------------------------|
| 2SA1015 2N5401C 2N5551C | 2SA1037K 2SC2412K 2SC3326 2SD1938F | 2SA1708 | 2SC1740S | 2SC1815 2SC2705 |
| KRC102M-AT | KRA102S-RTK/P KRA104S-RTK KRC102S-RTK KRC104S-RTK | KTA1046-Y-U/P | RTQ040P02 | |

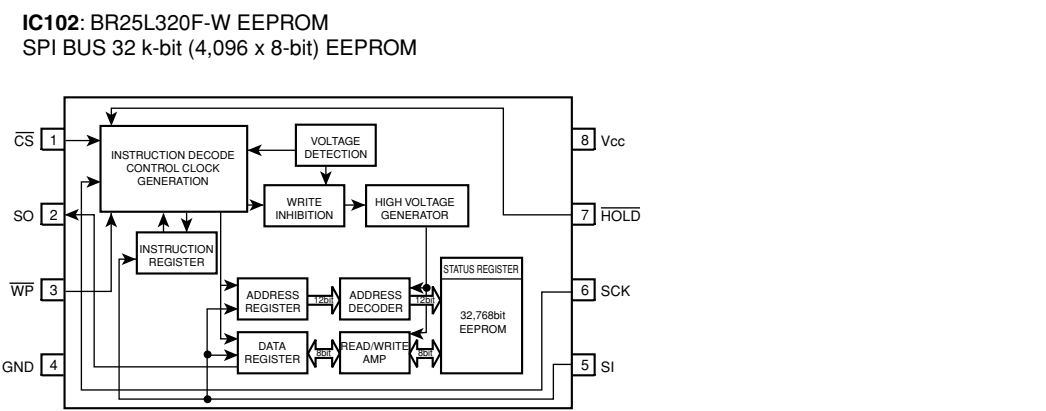
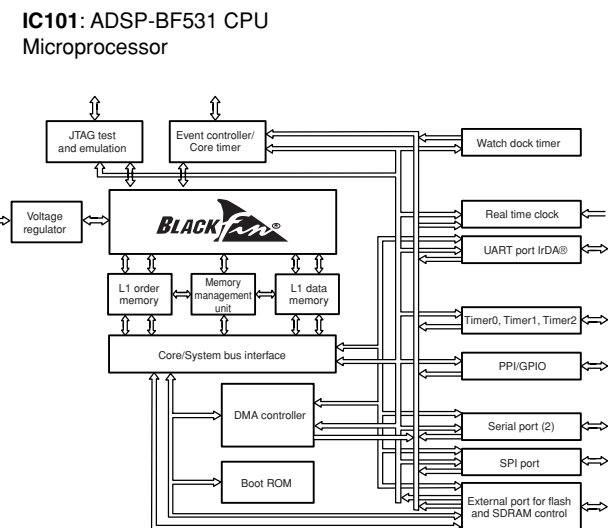
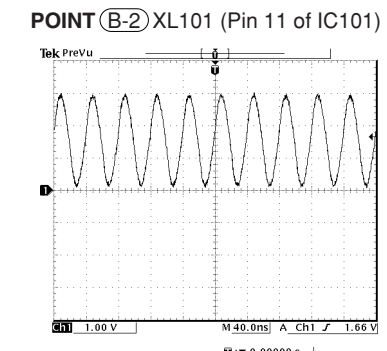
SCHEMATIC DIAGRAMS
DSP 1/6



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

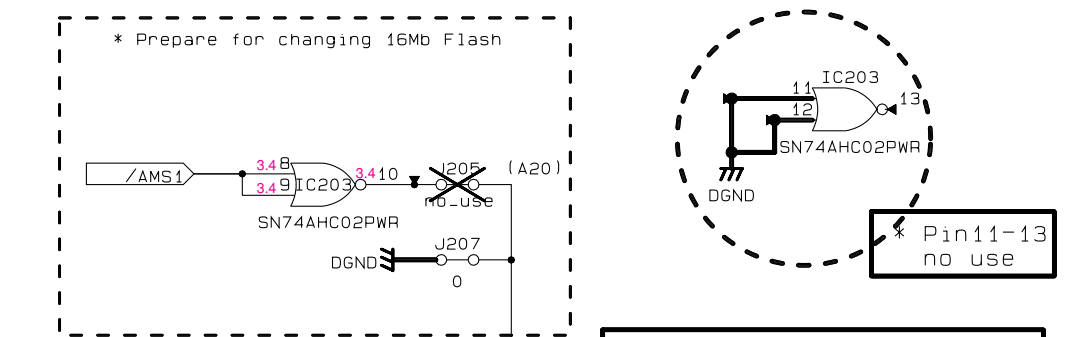
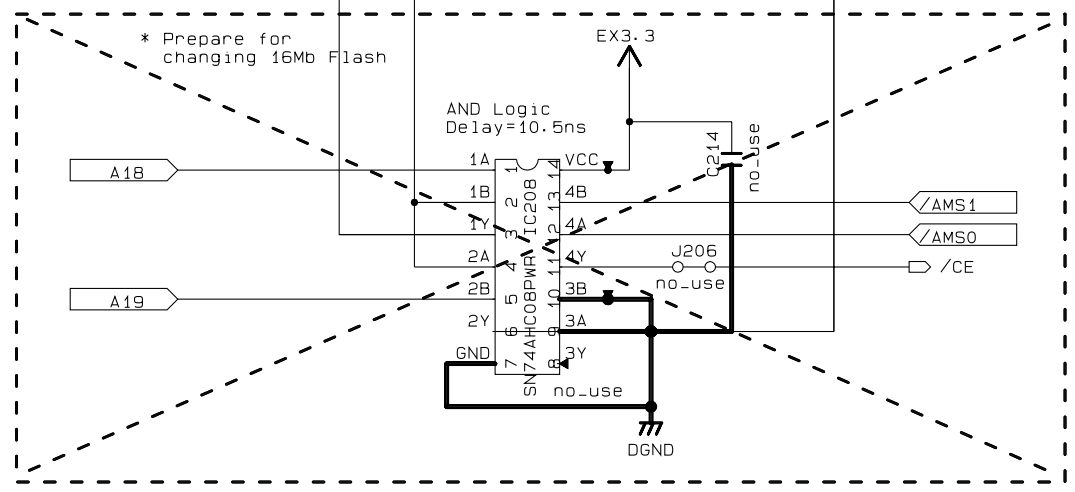
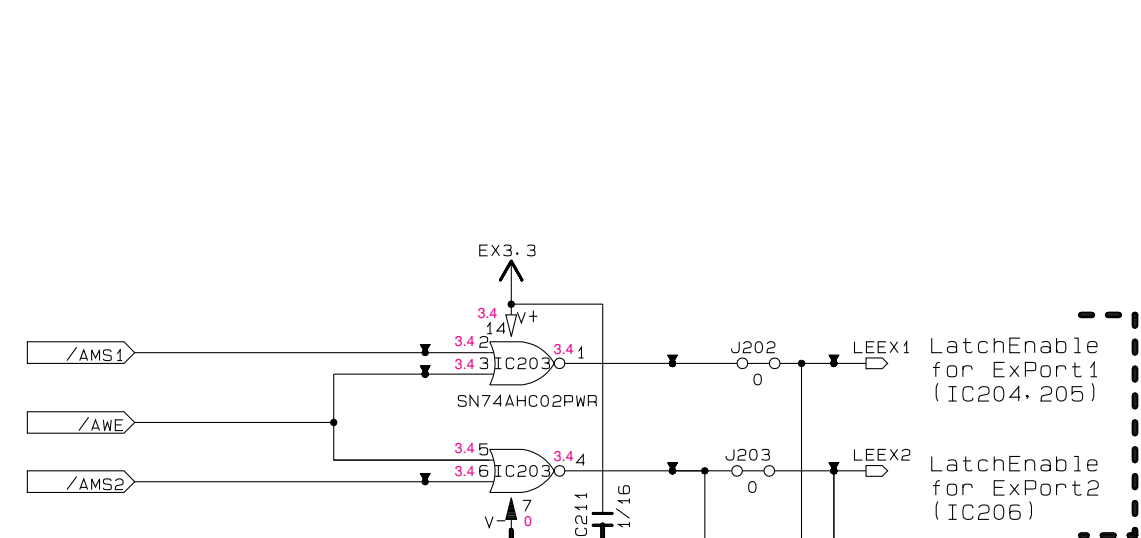
| REMARKS | PARTS_NAME |
|---------|--------------------------------------|
| NO MARK | ELECTROLYTIC CAPACITOR |
| ⊗ | TANTALUM CAPACITOR |
| NO MARK | CERAMIC CAPACITOR |
| ● | CERAMIC TUBULAR CAPACITOR |
| ○ | POLYESTER FILM CAPACITOR |
| ○ | POLYSTYRENE FILM CAPACITOR |
| ○ | MICA CAPACITOR |
| ○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

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

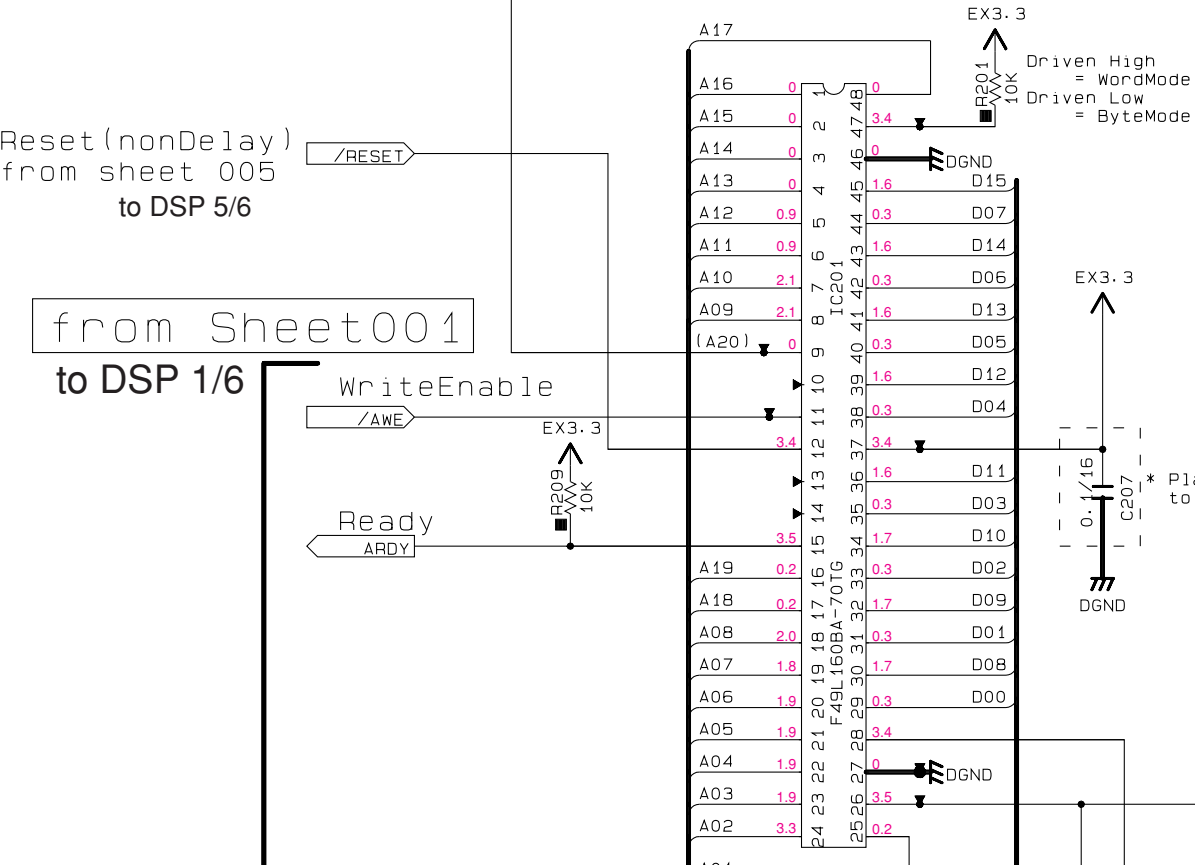


* All voltages are measured with a 10MQ/V DC electronic voltmeter.
* Components having special characteristics are marked .! and must be replaced with parts having specifications equal to those originally installed.
* Schematic diagram is subject to change without notice.

DSP 2/6



FlashROM
X9590A0
(F49L160BA-70TG)



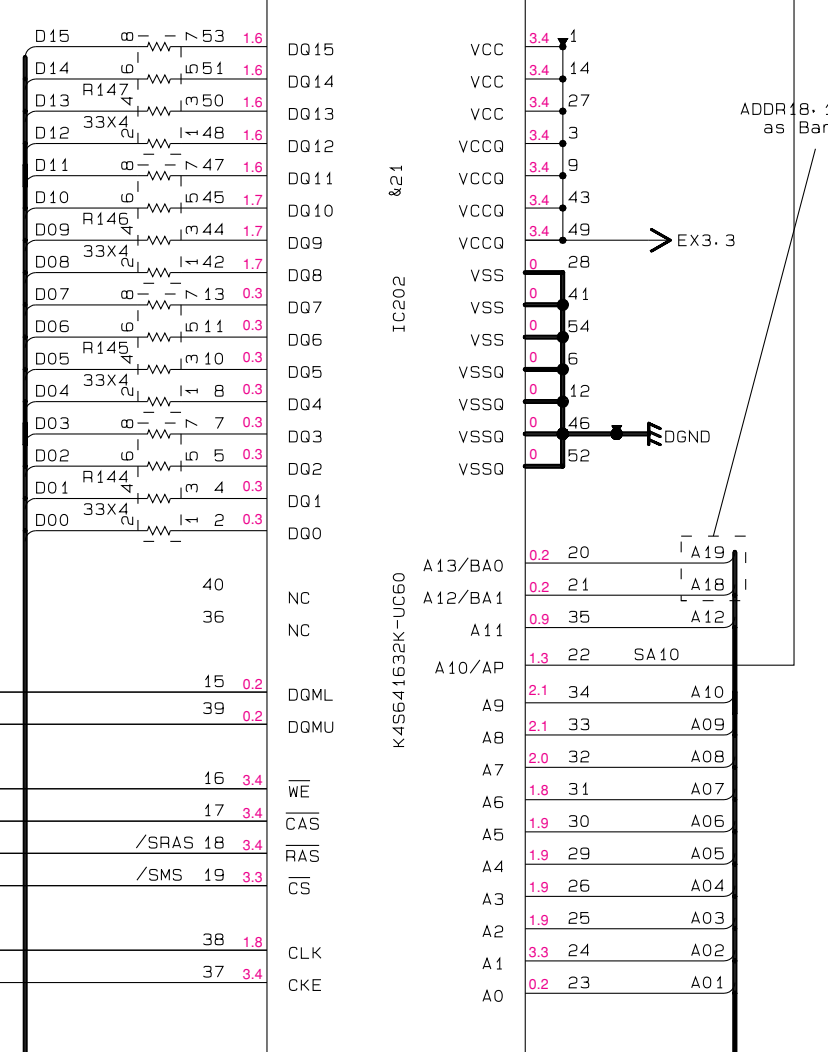
Asynchronous Memory Bank '0'

- Setup : ** Cycle (1-4)
- Read : ** Cycle (1-15)
- Write : ** Cycle (1-15)
- Hold : ** Cycle (0-3)
- Trans : ** Cycle (1-4)

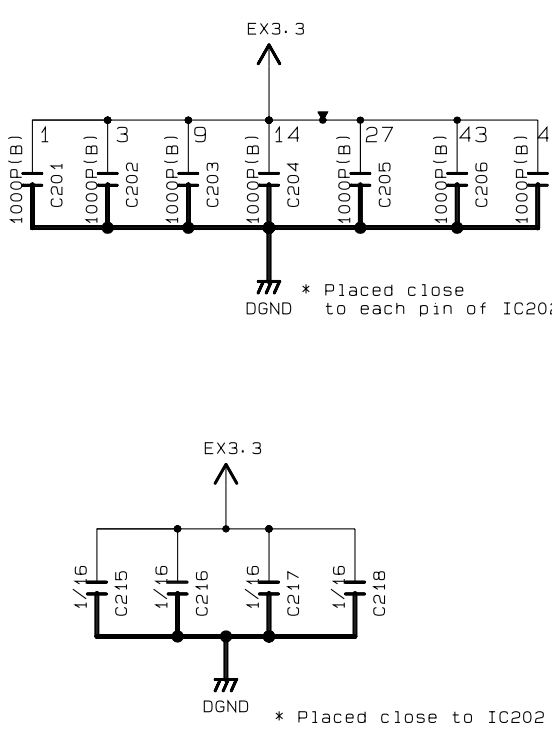
* If use 16Mb FlashROM
Setup = 3. Read = Write = 10 for FlashROM
Setup = 4. Write = 3 for Ex-Port

to DSP 1/6
from sheet 001

SDRAM
SDRAM

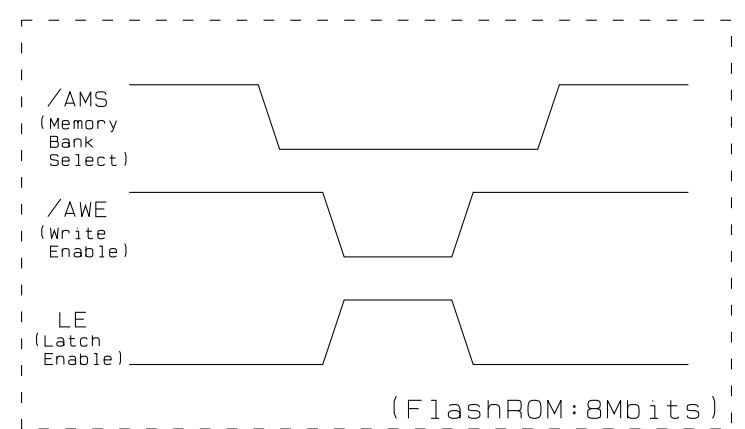


Decoupling Capacitor for SDRAM *pin



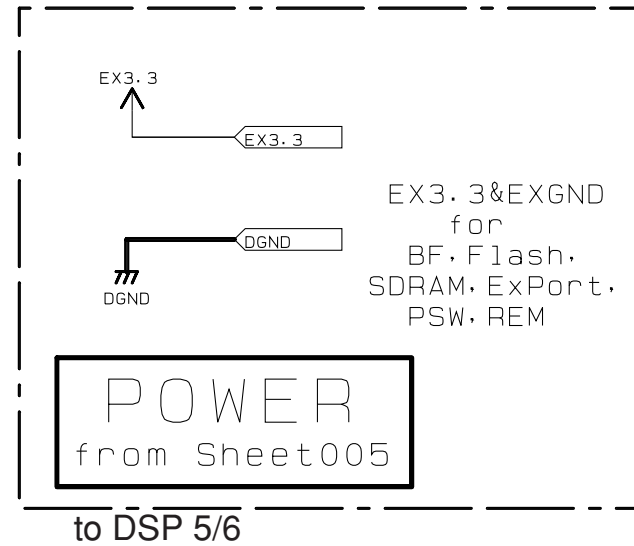
Asynchronous Memory Bank '2'

- Setup : ** Cycle (1-4)
- Read : ** Cycle (1-15)
- Write : ** Cycle (1-15)
- Hold : ** Cycle (0-3)
- Trans : ** Cycle (1-4)

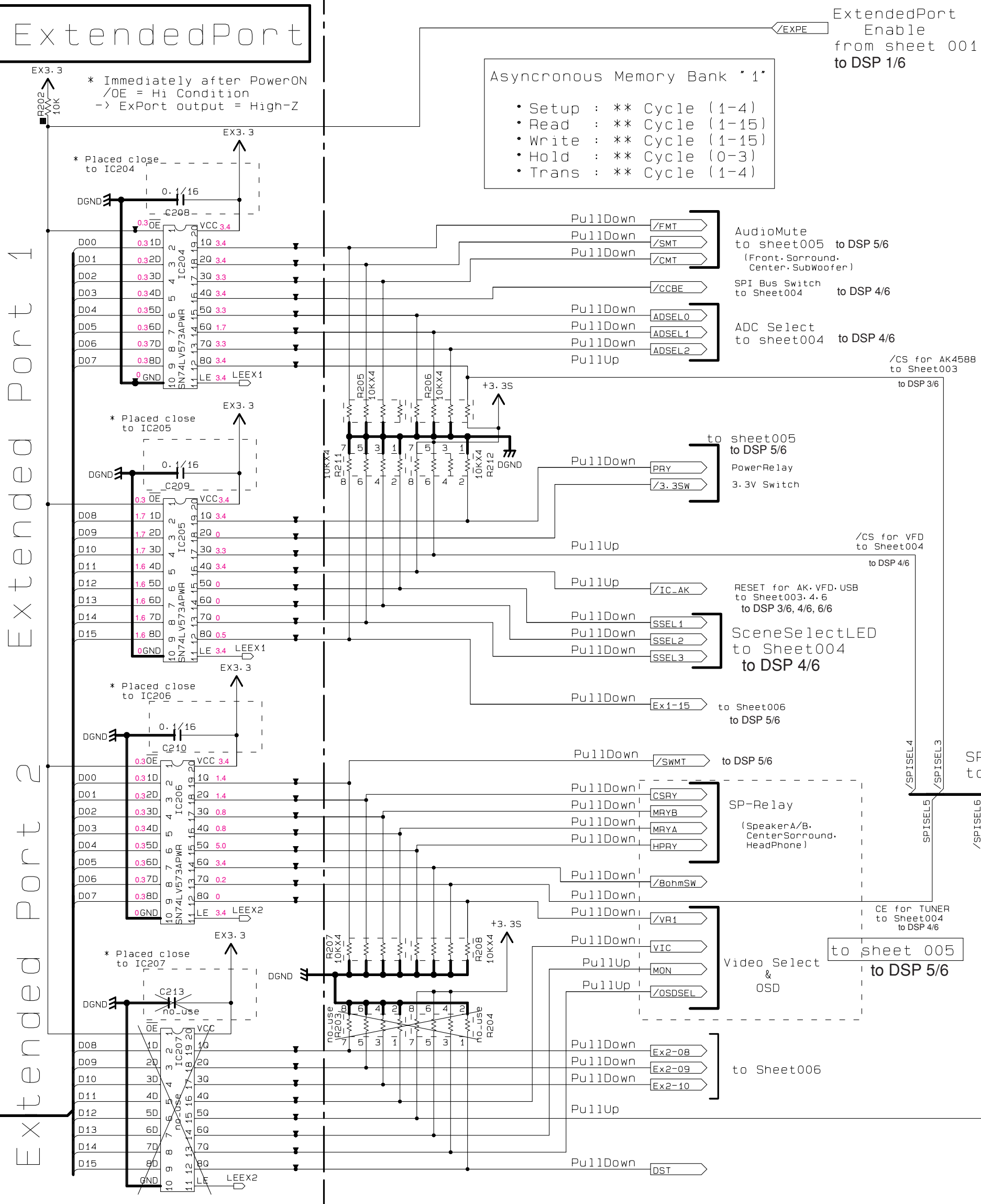


Interchangeable Parts at Manufacture-Stage

| Mark | Reference Parts Number | Parts Name |
|------|------------------------|--------------------|
| 421 | IC202 | K4S641632K-UC60000 |
| | | M12L64164A-5TG |

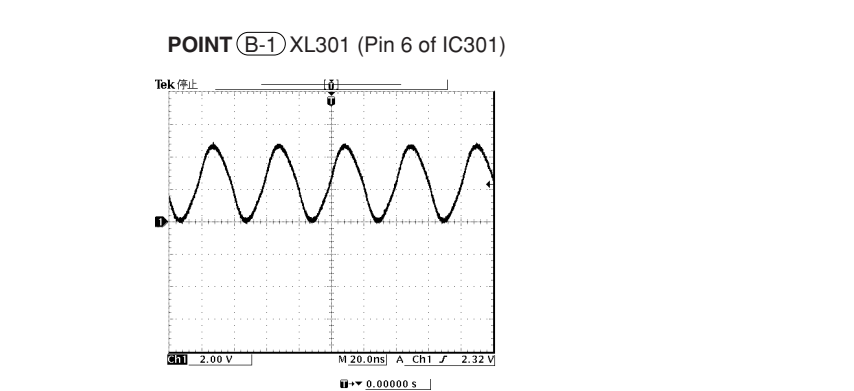
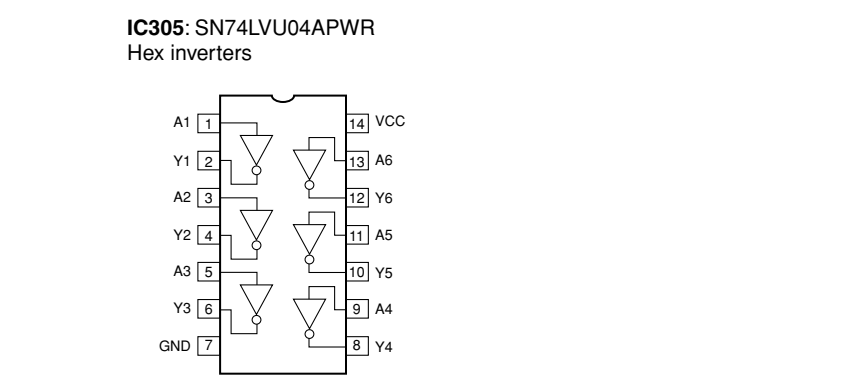
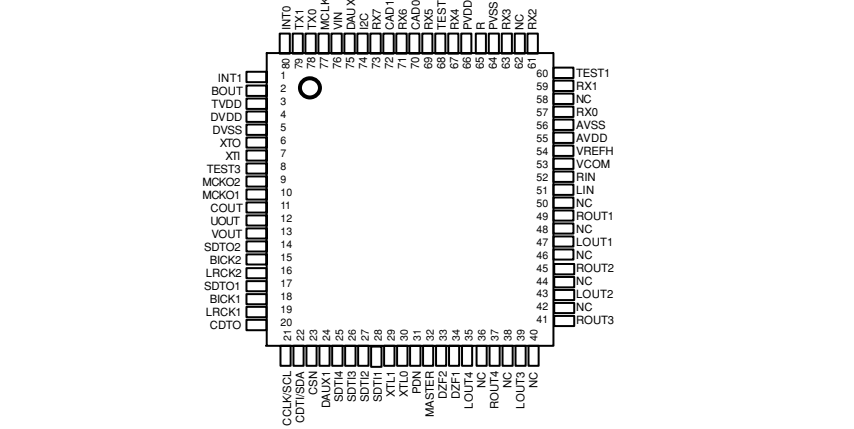
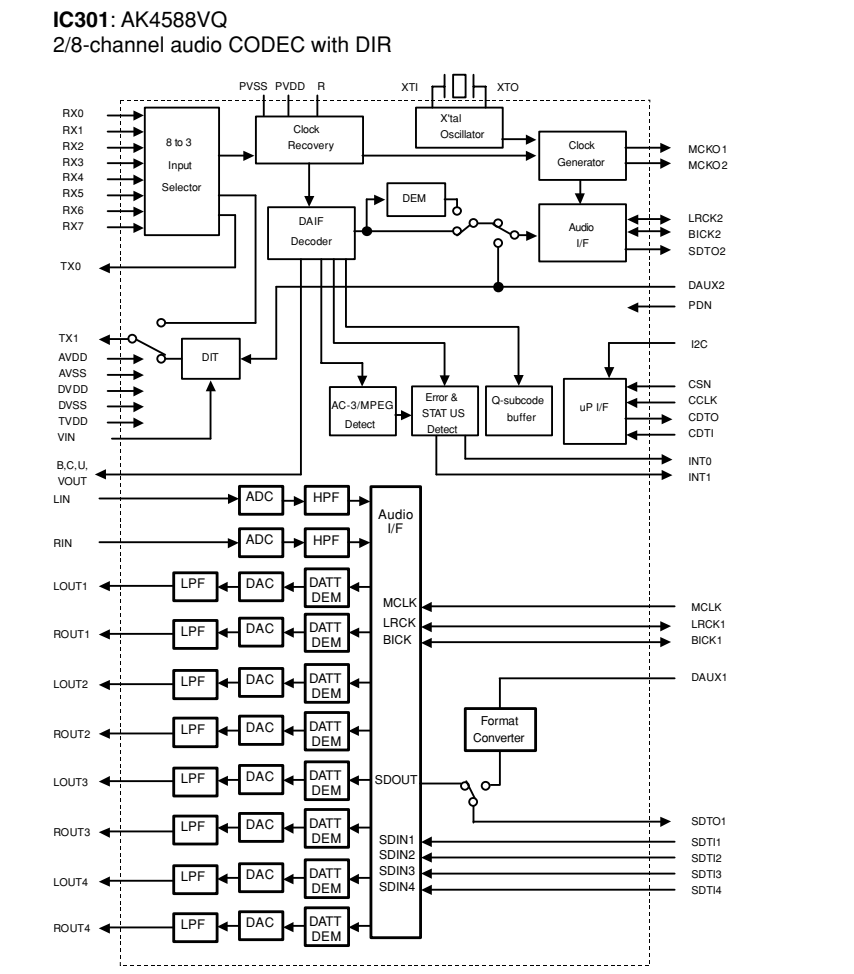
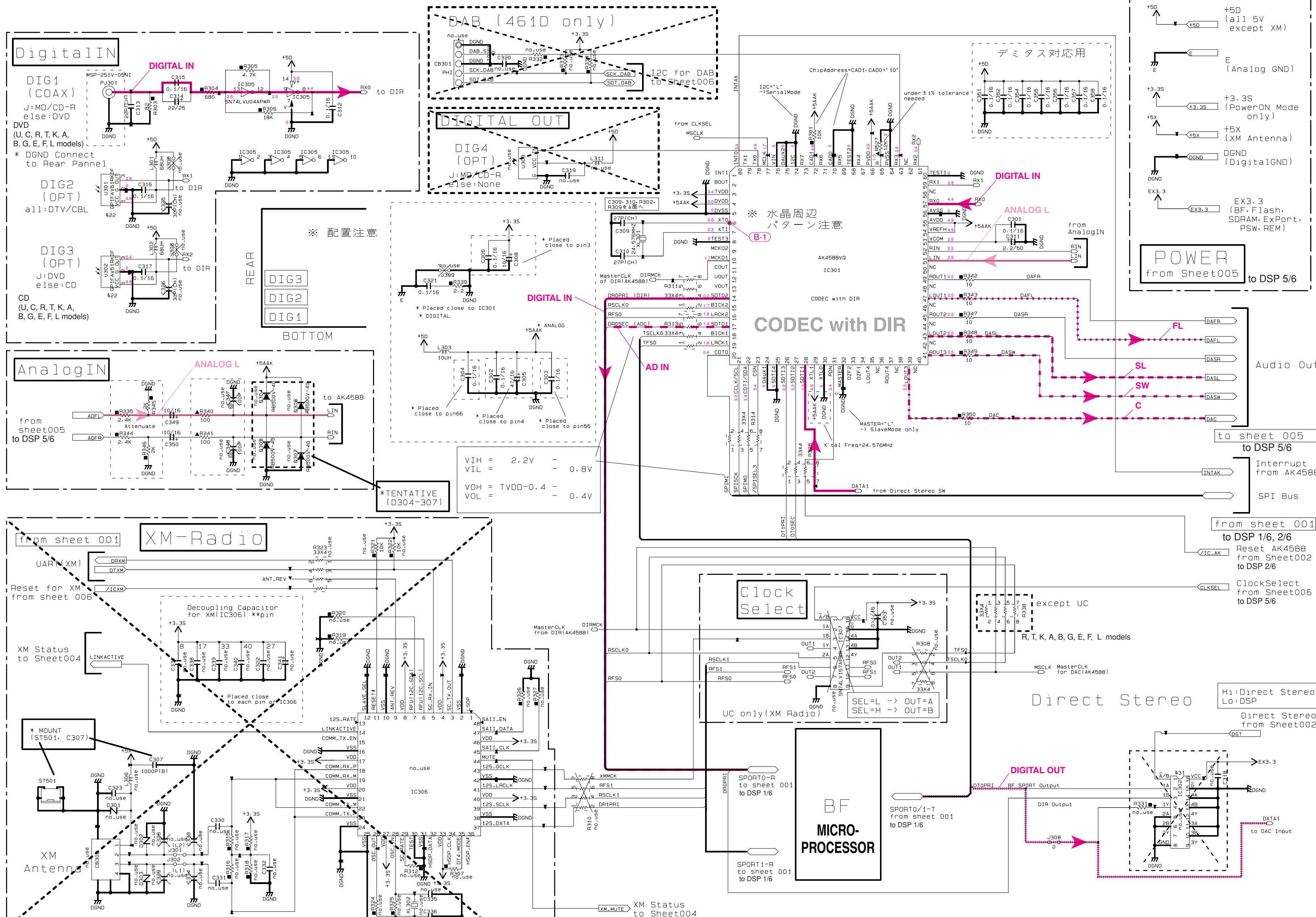


EXTENDED PORT
ExtendedPort



Interchangeable Parts at Manufacture-Stage

| Mark | Reference Parts Number | Parts Name |
|------|------------------------|------------------------|
| 422 | U301-U302 | JSR1165 GP1F4V51RKF |



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

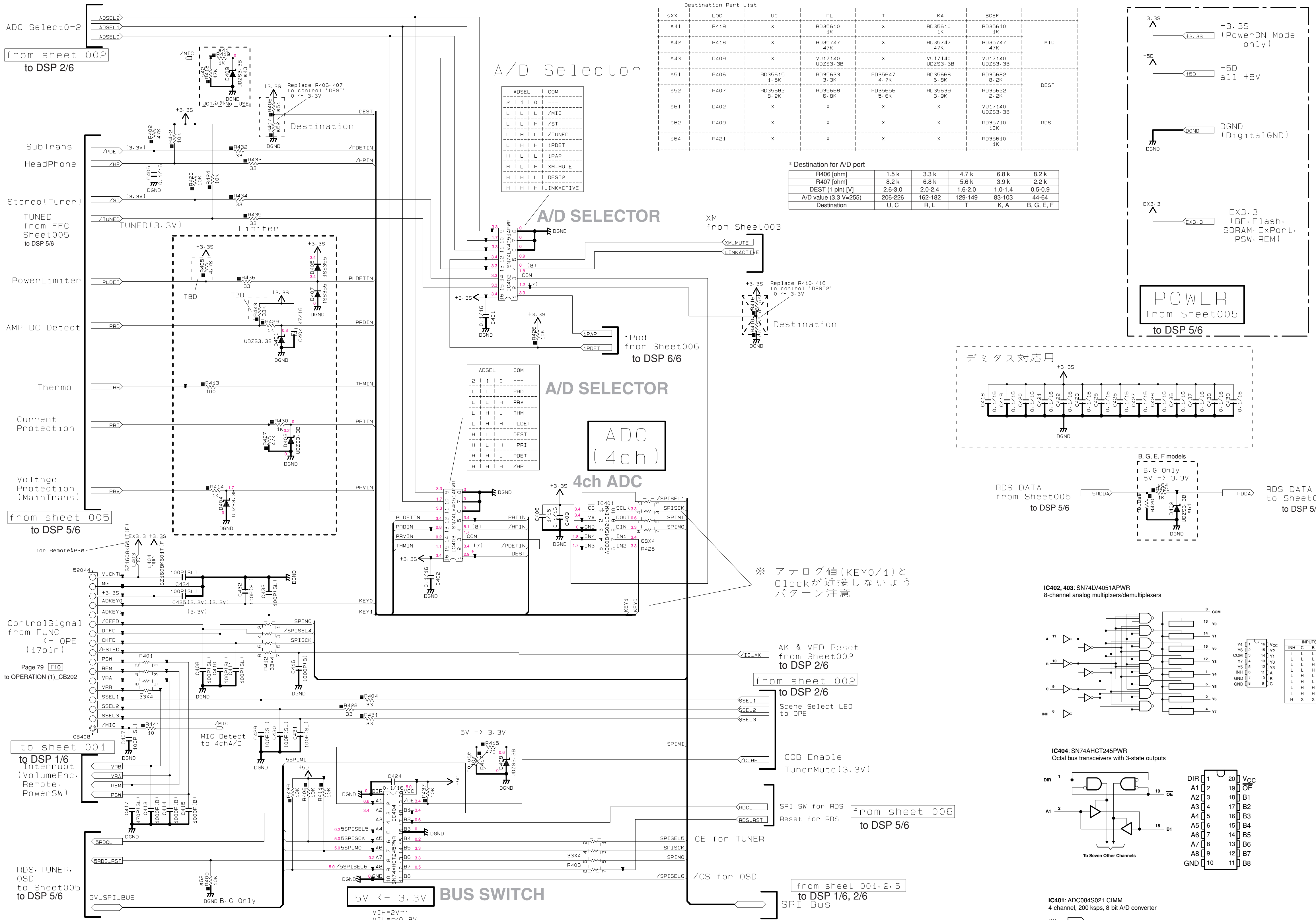
| REMARKS | PARTS NAME |
|---------|--------------------------------------|
| ⊗ | TANTALUM CAPACITOR |
| ○ | ELECTROLYTIC CAPACITOR |
| □ | CERAMIC CAPACITOR |
| ● | CERAMIC TUBULAR CAPACITOR |
| ⊙ | POLYESTER FILM CAPACITOR |
| ⊖ | POLYSTYRENE FILM CAPACITOR |
| Ⓜ | MICA CAPACITOR |
| Ⓢ | POLYPROPYLENE FILM CAPACITOR |
| Ⓣ | SEMICONDUCTIVE CERAMIC CAPACITOR |
| Ⓤ | POLYPHENYLENE SULFIDE FILM CAPACITOR |

NOTICE (mode1)

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

* 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.

DSP 4/6

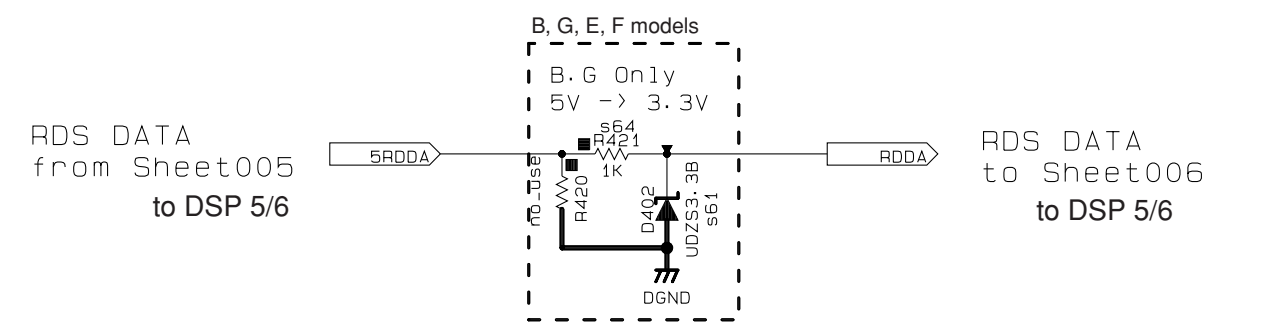
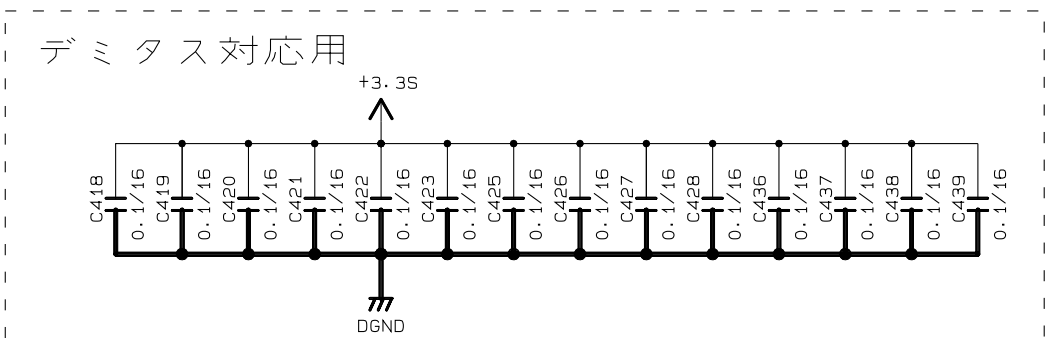
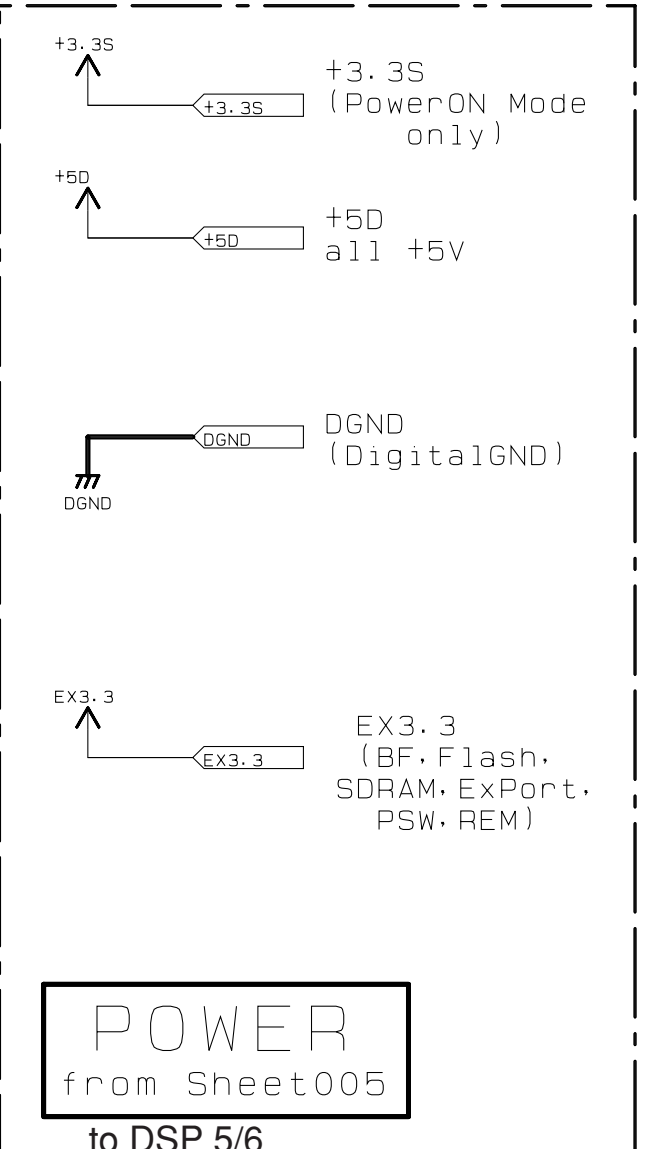


Destination Part List

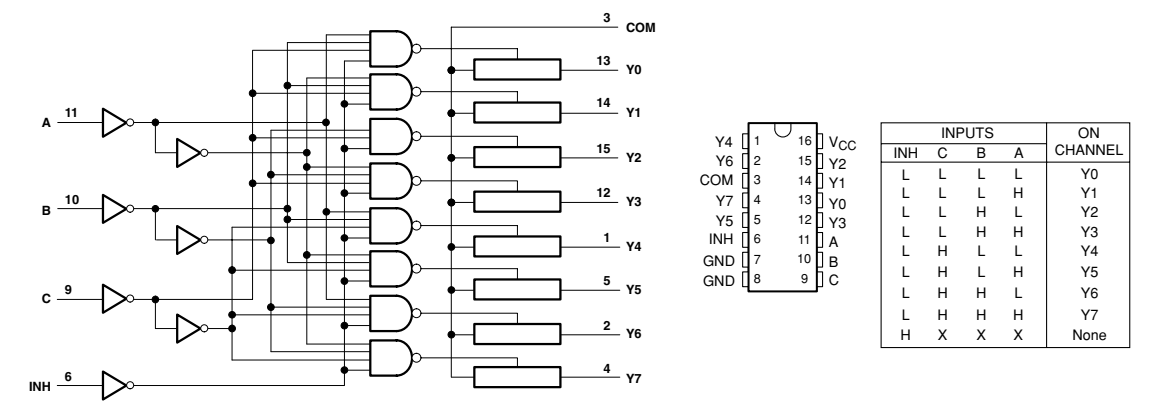
| SXX | LOC | UC | RL | T | KA | BGEF | |
|-----|------|--------------|------------------|--------------|------------------|------------------|------|
| s41 | R419 | X | RD35610 1K | X | RD35610 1K | RD35610 1K | |
| s42 | R418 | X | RD35747 47K | X | RD35747 47K | RD35747 47K | MIC |
| s43 | D409 | X | VU17140 UOZ53.3B | X | VU17140 UOZ53.3B | VU17140 UOZ53.3B | |
| s51 | R406 | RD35615 1.5K | RD35633 3.3K | RD35647 4.7K | RD35668 6.8K | RD35682 8.2K | DEST |
| s52 | R407 | RD35682 8.2K | RD35668 6.8K | RD35656 5.6K | RD35639 3.9K | RD35622 2.2K | |
| s51 | D402 | X | X | X | X | X | RDS |
| s62 | R409 | X | X | X | X | X | |
| s64 | R421 | X | X | X | X | RD35610 1K | |

* Destination for A/D port

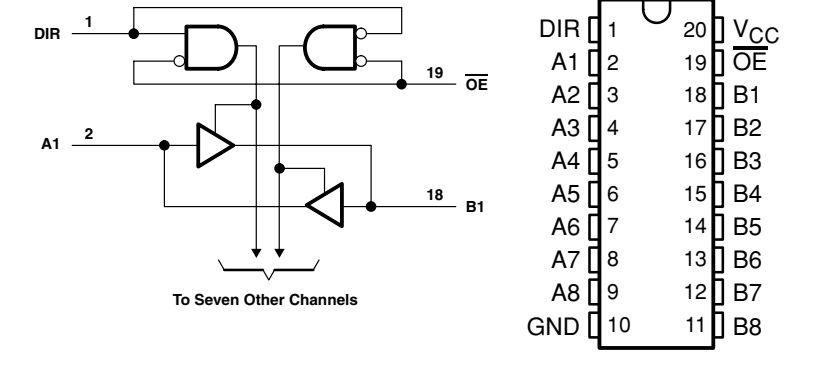
| R406 (ohm) | 1.5 k | 3.3 k | 4.7 k | 6.8 k | 8.2 k |
|-----------------------|---------|---------|---------|---------|------------|
| R407 (ohm) | 8.2 k | 6.8 k | 5.6 k | 3.9 k | 2.2 k |
| DEST (1 pin) [V] | 2.6-3.0 | 2.0-2.4 | 1.6-2.0 | 1.0-1.4 | 0.5-0.9 |
| A/D value (3.3 V=255) | 206-226 | 162-182 | 129-149 | 83-103 | 44-64 |
| Destination | U, C | R, L | T | K, A | B, G, E, F |



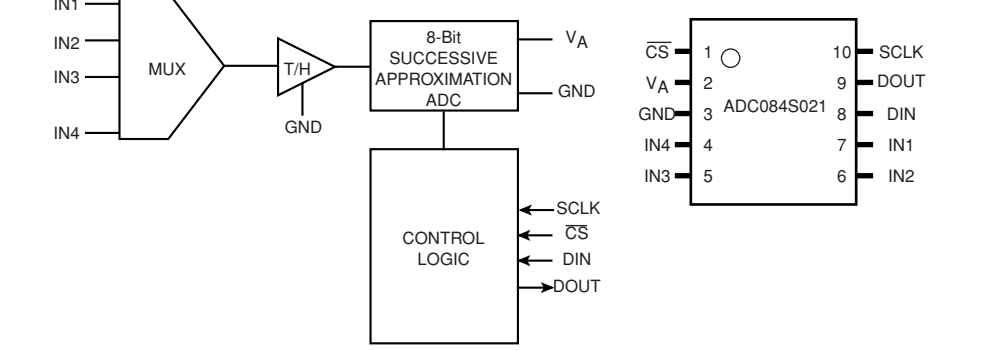
IC402, 403: SN74LV4051APWR 8-channel analog multiplexers/demultiplexers



IC404: SN74AHCT245PWR Octal bus transceivers with 3-state outputs



IC401: ADC084S021 CIMM 4-channel, 200 ksps, 8-bit A/D converter



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 |
| □ | FINE PROF. CARBON FILM RESISTOR |
| □ | CEMENT MOLDED RESISTOR |
| □ | SEM1 VARIABLE RESISTOR |
| ■ | CHIP RESISTOR |

CAPACITOR

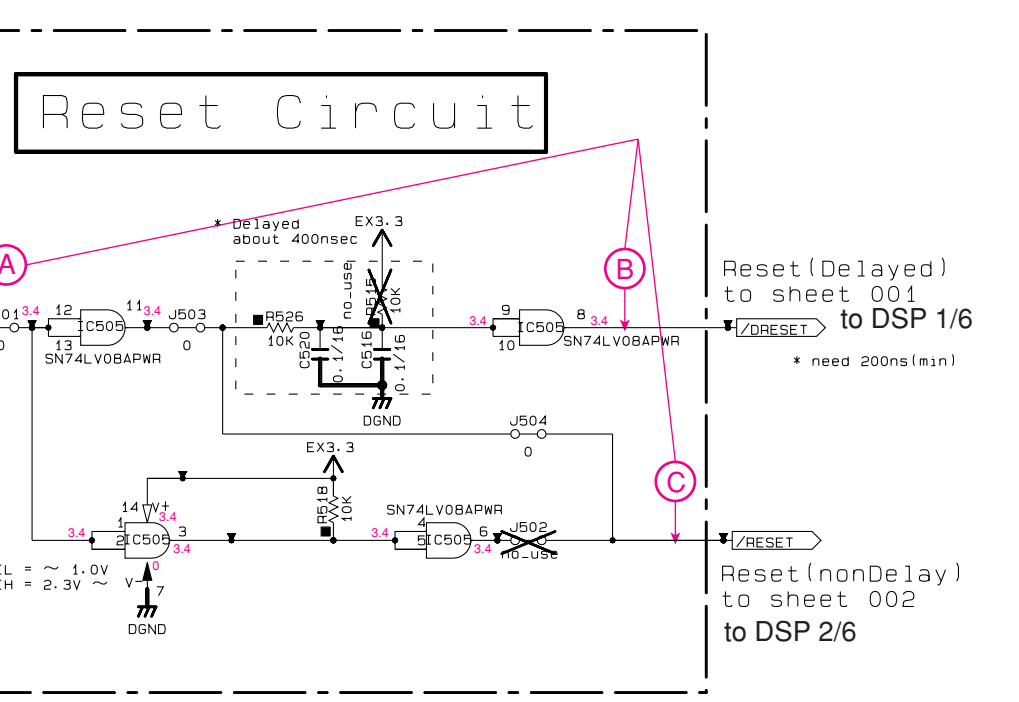
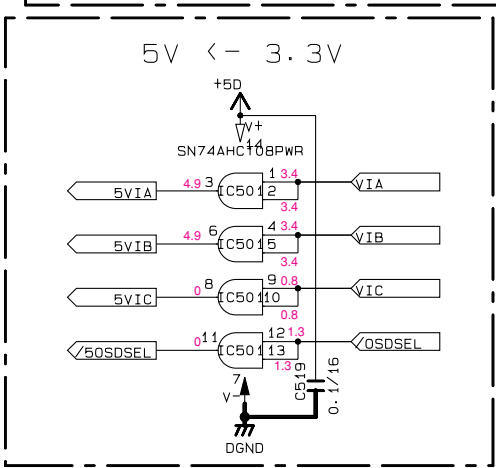
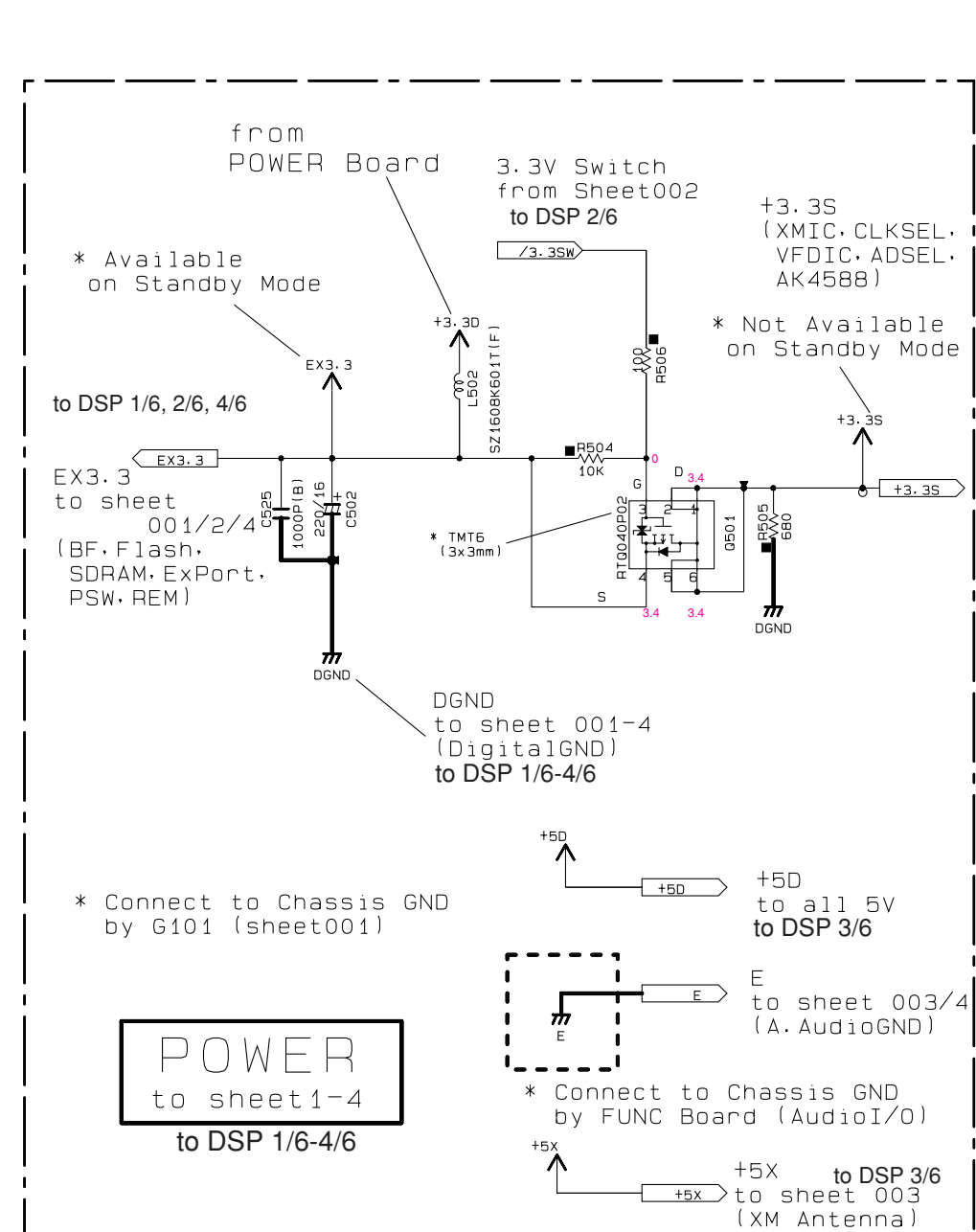
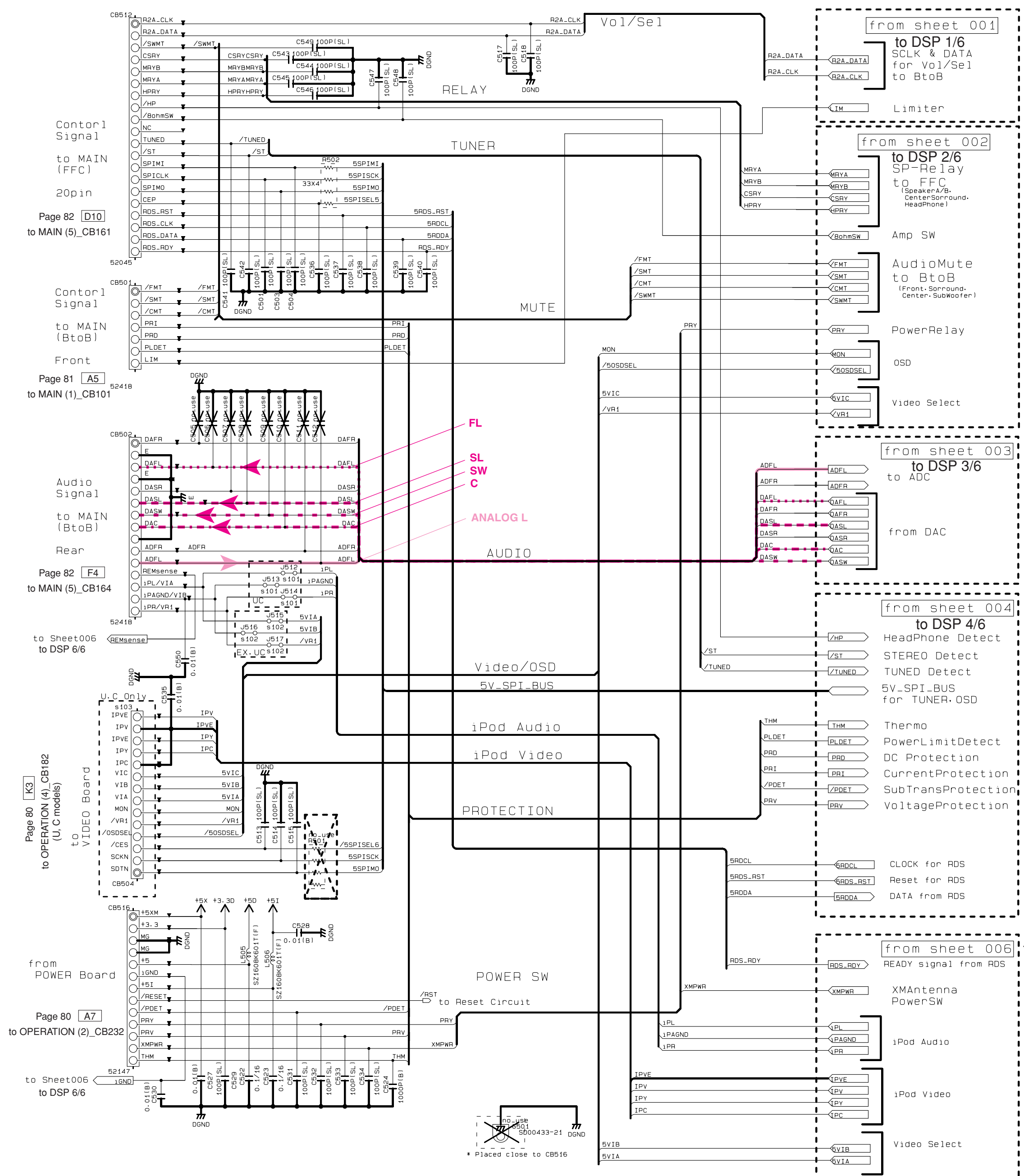
| REMARKS | PARTS_NAME |
|---------|--------------------------------------|
| NO MARK | ELECTROLYTIC CAPACITOR |
| ⊗ | TANTALUM CAPACITOR |
| NO MARK | CERAMIC CAPACITOR |
| ⊙ | CERAMIC TUBULAR CAPACITOR |
| △ | POLYESTER FILM CAPACITOR |
| ▲ | POLYSTYRENE FILM CAPACITOR |
| □ | MICA CAPACITOR |
| ⊙ | POLYPROPYLENE FILM CAPACITOR |
| ⊙ | SEMICONDUCTIVE CERAMIC CAPACITOR |
| ⊙ | POLYPHENYLENE SULFIDE FILM CAPACITOR |

NOIICE (mode)!

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

* All voltages are measured with a 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.

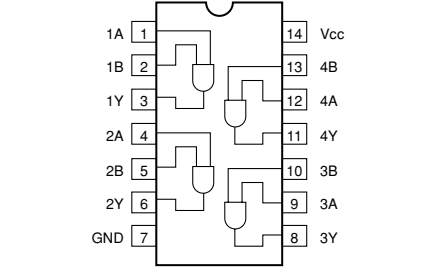
DSP 5/6



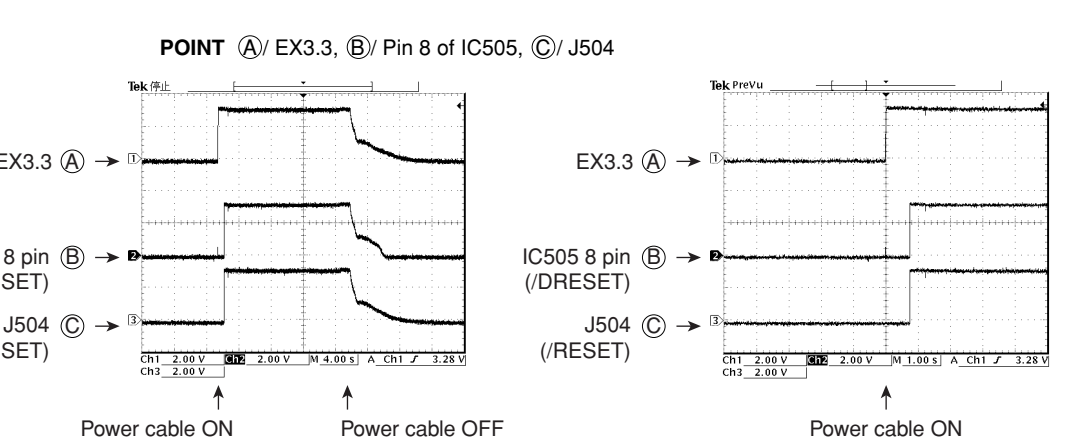
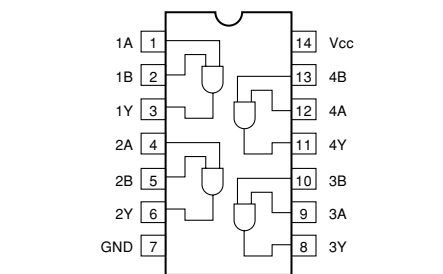
Destination Part List

| sxx | LOC | UC | RL | T | KA | BOEF |
|------|-------|---------|---------|---|---------|------|
| s101 | J514 | RD35000 | X | X | X | X |
| | J512 | 0 | | | | |
| | J513 | 0 | | | | |
| s102 | J517 | X | RD35000 | 0 | RD35000 | 0 |
| | J518 | 0 | | | | |
| | J519 | 0 | | | | |
| s103 | CB504 | VN39490 | X | X | X | X |
| | | 52045 | | | | |

IC501: SN74AHC10BWPWR
Quaduple 2-input positive-AND gates



IC505: SN74LV08APWR
Quaduple 2-input positive-AND gate



| RESISTOR | | CAPACITOR | |
|----------|---------------------------------|-----------|--------------------------------------|
| REMARKS | PARTS NAME | REMARKS | PARTS NAME |
| NO MARK | CARBON FILM RESISTOR (P=5) | NO MARK | ELECTROLYTIC CAPACITOR |
| Z | CARBON FILM RESISTOR (P=10) | ⊗ | TANTALUM CAPACITOR |
| Δ | METAL OXIDE FILM RESISTOR | ⊙ | CERAMIC CAPACITOR |
| ▲ | METAL FILM RESISTOR | ⊚ | CERAMIC TUBULAR CAPACITOR |
| ⊠ | METAL PLATE RESISTOR | ⊙ | POLYESTER FILM CAPACITOR |
| ⊞ | FIRE PROOF CARBON FILM RESISTOR | ○ | POLYSTYRENE FILM CAPACITOR |
| ⊞ | CEMENT MOLDED RESISTOR | ⊙ | MICA CAPACITOR |
| ⊞ | SEMI VARIABLE RESISTOR | ⊙ | POLYPROPYLENE FILM CAPACITOR |
| ■ | CHIP RESISTOR | ⊙ | SEMICONDUCTIVE CERAMIC CAPACITOR |
| | | ⊙ | POLYPHENYLENE SULFIDE FILM CAPACITOR |

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

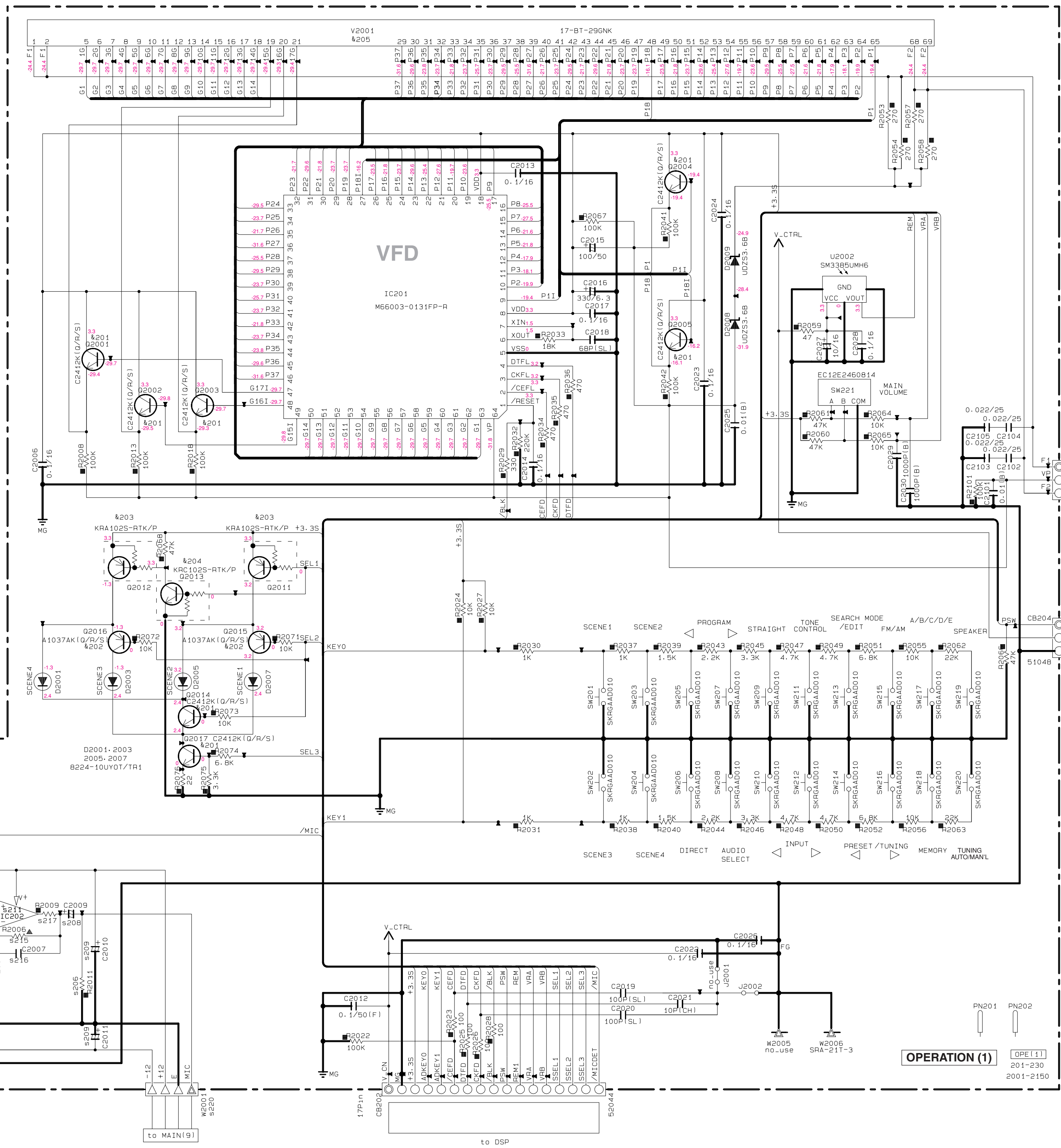
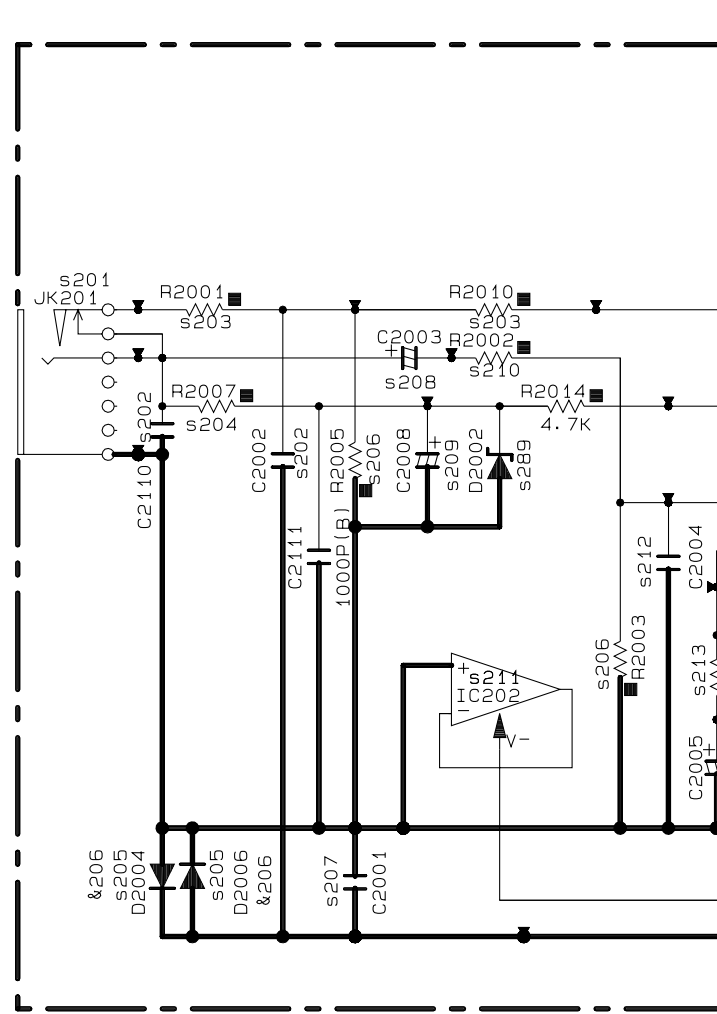
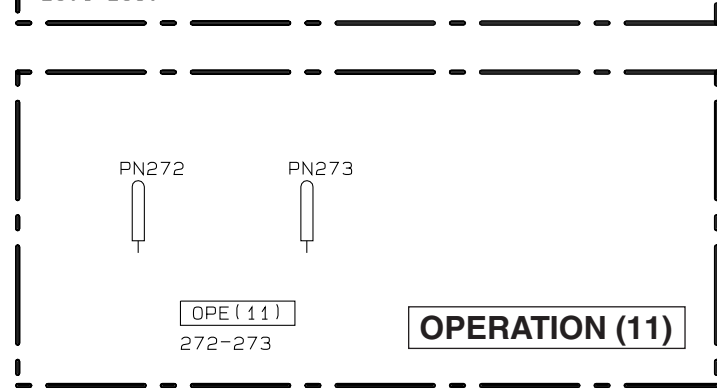
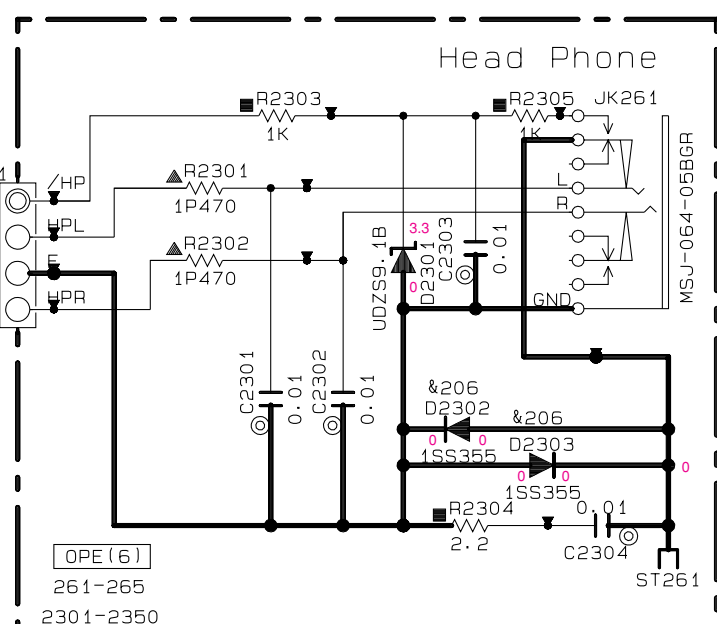
* All voltages are measured with a 10MΩ/V DC electronic voltmeter.
 * Components having special characteristics are marked ! and must be replaced with parts having specifications equal to those originally installed.
 * Schematic diagram is subject to change without notice.

OPERATION 1/2

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

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

OPERATION (6)

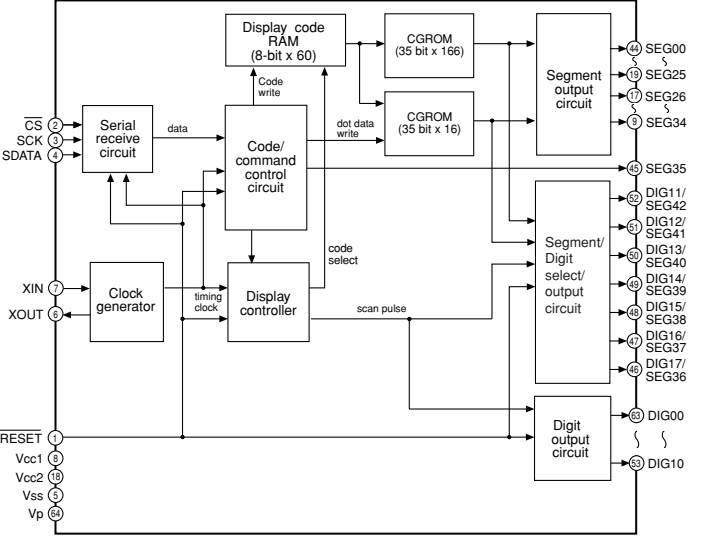


Interchangeable Parts at Manufacture-Stage

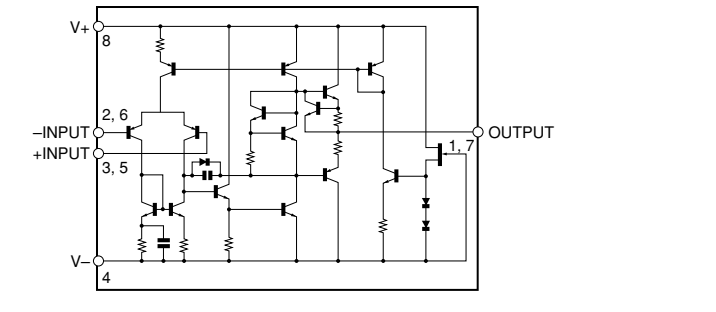
| Mark | Reference Parts Number | Parts Name |
|------|------------------------------------|---|
| ⊕201 | Q2001-2005-2014-2017 | 25C2412K10/R/S 25D0601ARL/ABL10/R/S K1C38755-Y-GR-RTK/P |
| ⊕202 | Q2015-2016 | 25A1037AK10/R/S KTA1504S-Y-GR-RTK/P |
| ⊕203 | Q2011-2012 | DTA114EKA KRA102S-RTK/P |
| ⊕204 | Q2013 | DTA114EKA KRC102S-RTK/P |
| ⊕205 | V2001 | 17-B1-29GNK HNA-17MM04T |
| ⊕206 | Q2004-2006-2302-2303 Q2351-2354 | 1S5355 MA111 |

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

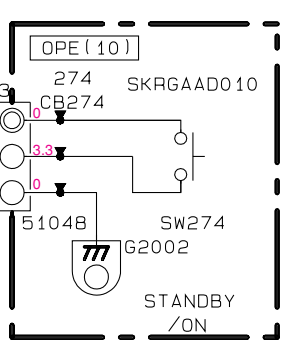
IC201: M66003-0131FP-R



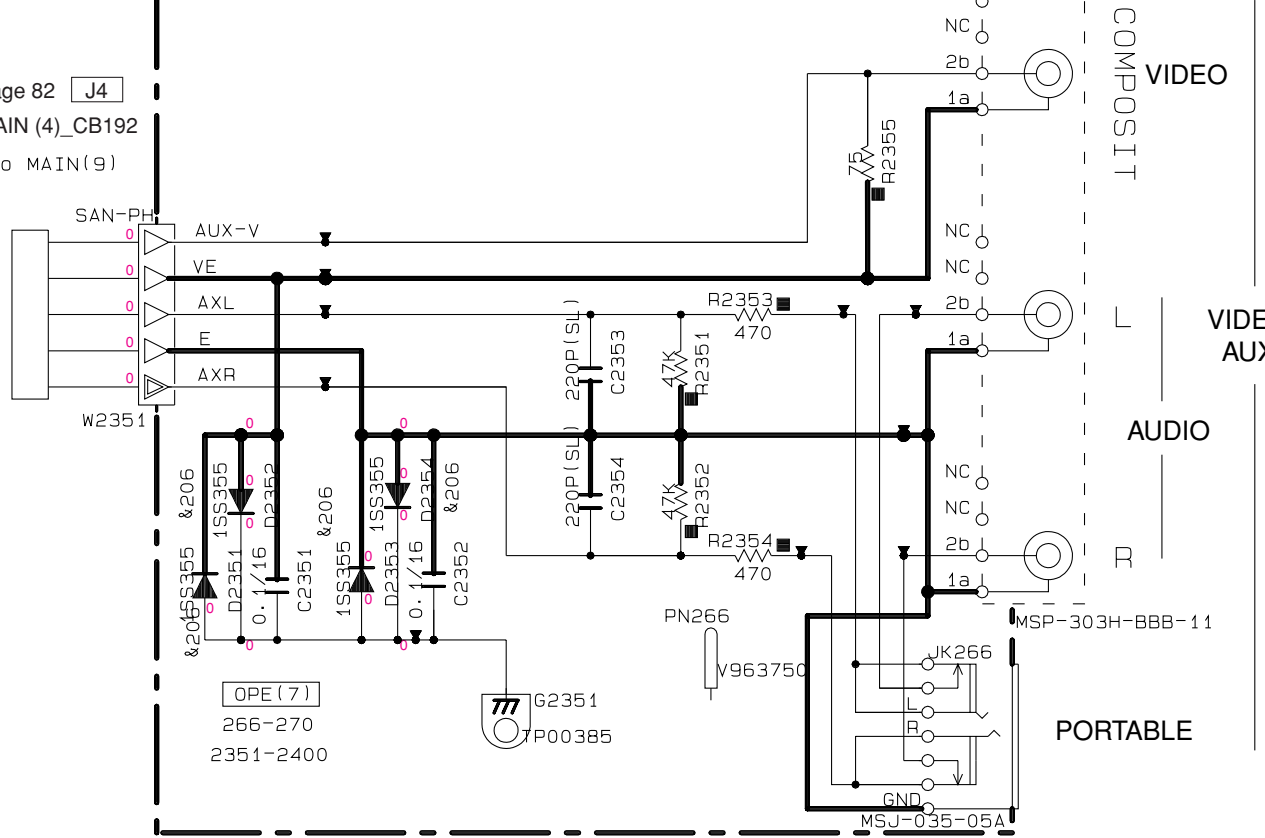
IC202: NJM4558M



OPERATION (10)



OPERATION (7)

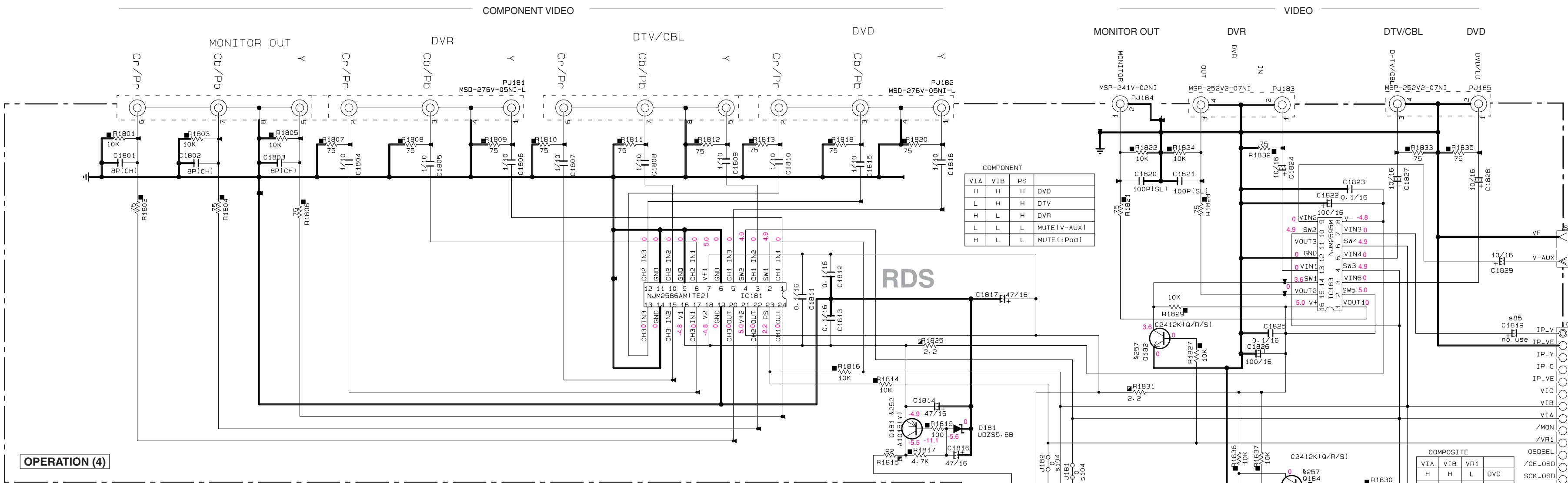


Page 82 [I4]
 to MAIN (4) CB191
 (R, K, A, B, G, E, F, L models)

Page 76 [C7]
 to DSP CB408

* 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.

OPERATION 2/2



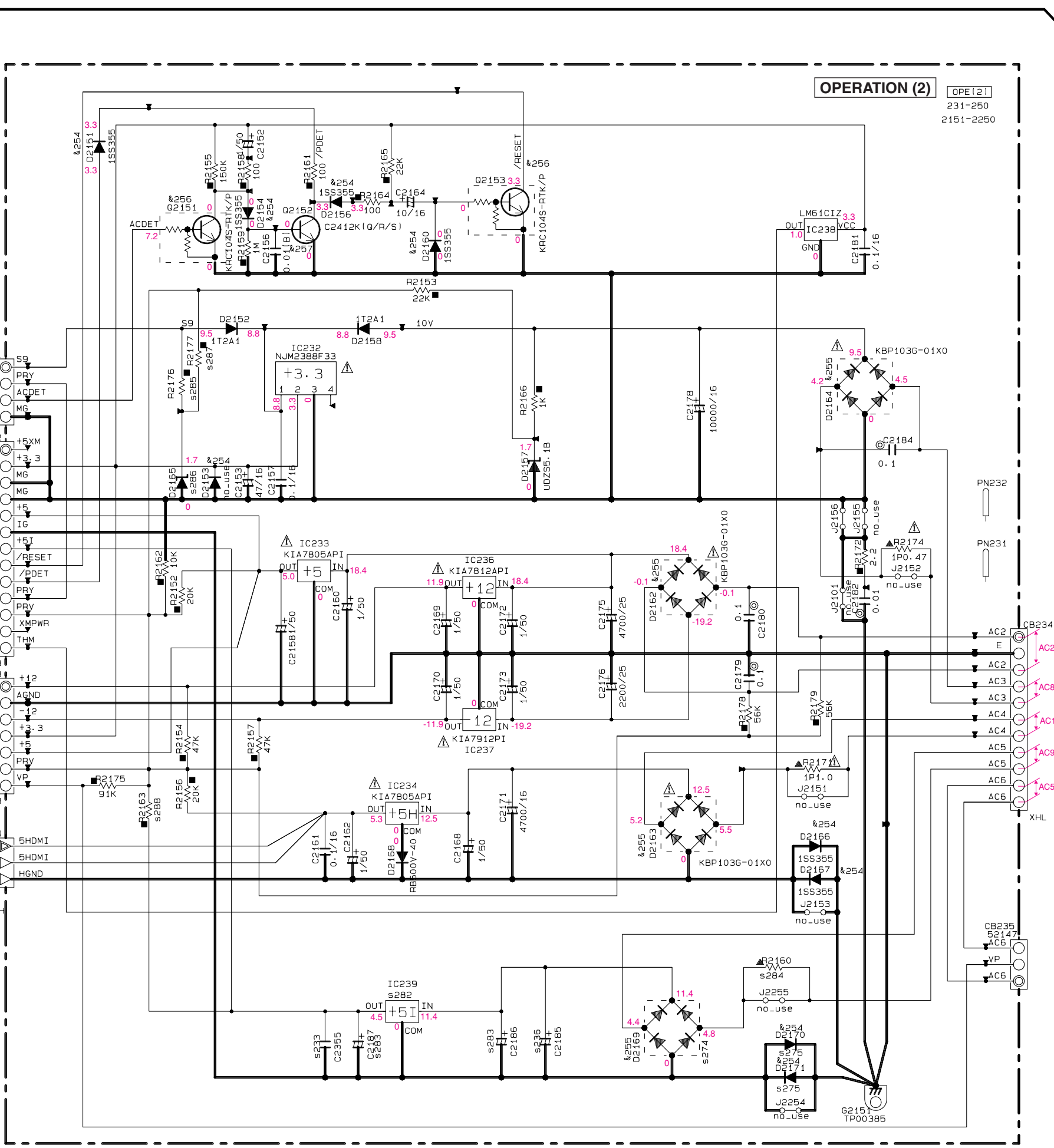
| VIA | V1B | PS | DVD |
|-----|-----|----|-------------|
| H | H | H | DTV |
| L | L | L | DTV |
| L | L | L | MUTE(Y-AUX) |
| L | L | L | MUTE(L-Pod) |

| VIA | V1B | V1R1 | OSDSEL | /CE.OSD | SOT.OSD |
|-----|-----|------|--------|---------|---------|
| H | H | L | DVD | | |
| L | L | H | DTV | | |
| L | L | L | V-AUX | | |
| H | L | L | 3POD | | |

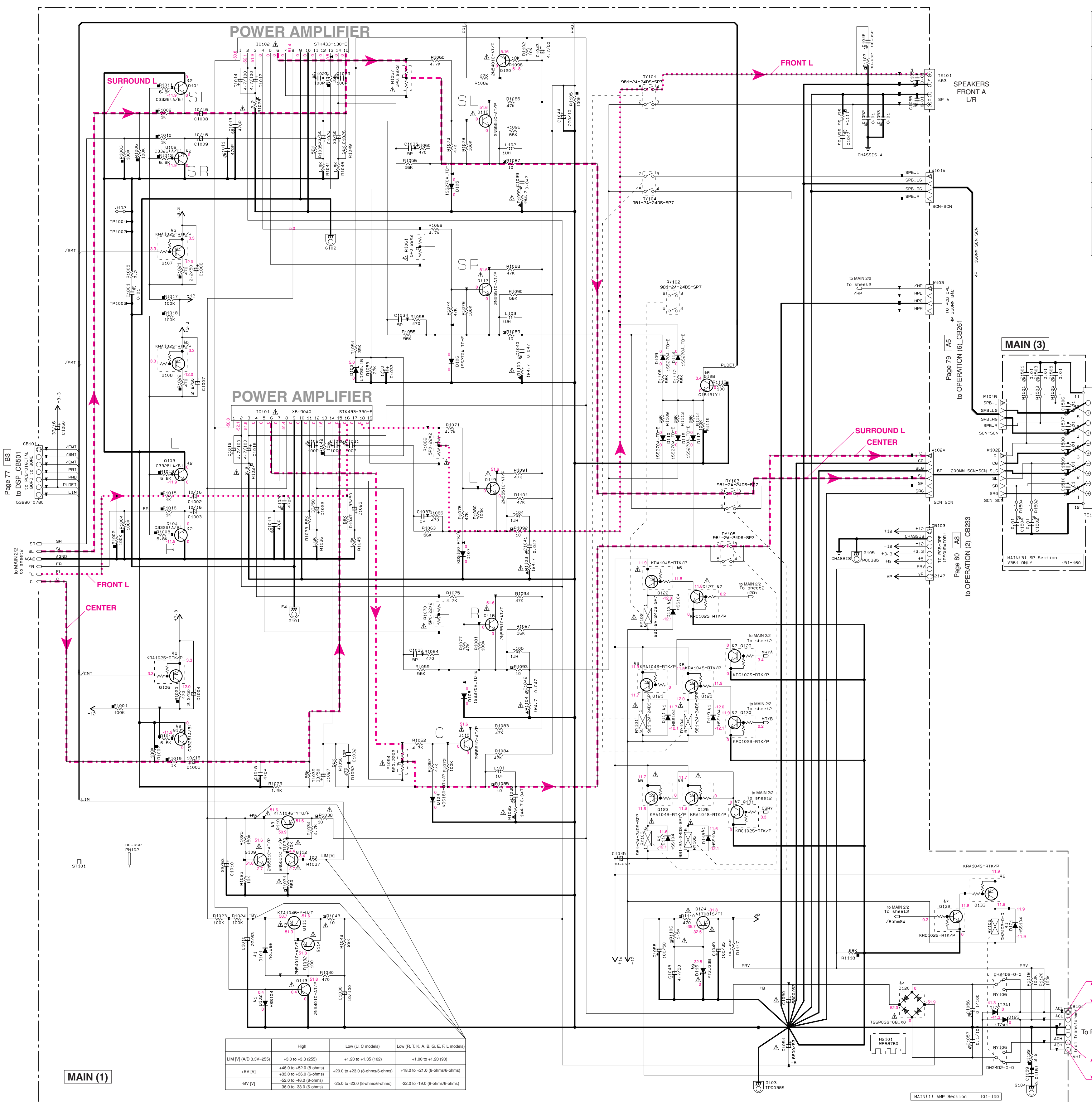
| SXX | LOC | UC | RL | T | KABEF |
|------|-------|---------------|-------------------|-----------|-------------------|
| 985 | C1819 | UR83710 10/16 | X | X | X |
| 9103 | C1822 | VF98220 50/4 | X | X | X |
| 9104 | J181 | J181 | RD35000 0 | RD35000 0 | RD35000 0 |
| 9201 | W201 | X | MSJ-2800C.AG | X | MSJ-2800C.AG |
| 9202 | C2002 | X | US06310 100P/1B1 | X | US06310 100P/1B1 |
| 9203 | R2010 | X | RD35610 1K | X | RD35610 1K |
| 9204 | R2007 | X | RD35647 4.7K | X | RD35647 4.7K |
| 9205 | D2006 | X | V133290 15S355 | X | V133290 15S355 |
| 9206 | R2005 | X | RD35810 100K | X | RD35810 100K |
| 9207 | C2001 | X | US06410 0.01181 | X | US06410 0.01181 |
| 9208 | C2003 | X | UM39710 10/16 | X | UM39710 10/16 |
| 9209 | C2008 | X | UM39722 22/16 | X | UM39722 22/16 |
| 9210 | R2002 | X | RD35522 100K | X | RD35522 100K |
| 9211 | IC202 | X | V133290 NLM4659M | X | V133290 NLM4659M |
| 9212 | C2004 | X | US06210 100P/1SL1 | X | US06210 100P/1SL1 |
| 9213 | R2004 | X | RF35547 470 | X | RF35547 470 |
| 9214 | C2005 | X | UM39747 47/6.3 | X | UM39747 47/6.3 |
| 9215 | R2006 | X | RF35712 12K | X | RF35712 12K |

| SXX | LOC | UC | RL | T | KABEF |
|------|-------|-----------------|--------------------|---------------|--------------------|
| 9216 | C2007 | X | US06133 33P/1CH1 | X | US06133 33P/1CH1 |
| 9217 | R2009 | X | RD35682 8.2K | X | RD35682 8.2K |
| 9220 | W2001 | X | MF40410 | X | MF40410 |
| 9233 | C2355 | U513510 0.1/16 | X | X | X |
| 9236 | C2185 | UR73947 4700/16 | X | X | X |
| 9251 | T251 | X852140 X8521 | X852340 X8523 | X852340 X8523 | X852340 X8523 |
| 9252 | C2256 | X | WJ60500 0.01 | X | WJ60500 0.01 |
| 9253 | C2254 | X | WJ60500 0.01 | X | WJ60500 0.01 |
| 9254 | D2255 | X | V999780 11241 | X | V999780 11241 |
| 9255 | R2258 | X | V75790 2P47 | X | V75790 2P47 |
| 9256 | J2251 | X | VN50000 | X | VN50000 |
| 9257 | D2253 | X | U987260 A170815/11 | X | U987260 A170815/11 |
| 9258 | D2252 | X | I10151 I10151V1 | X | I10151 I10151V1 |
| 9259 | D2255 | X | KRC1045-RTK/P | X | KRC1045-RTK/P |
| 9260 | R2257 | X | RD35747 47K | X | RD35747 47K |
| 9261 | D2252 | X | V643700 WZ14-7A | X | V643700 WZ14-7A |
| 9262 | R2254 | X | RD35610 1K | X | RD35610 1K |
| 9263 | R2255 | X | RD35722 22K | X | RD35722 22K |
| 9264 | R2256 | X | RD35647 4.7K | X | RD35647 4.7K |

| SXX | LOC | UC | RL | T | KABEF |
|------|-------|----|--------------------|--------------------|--------------------|
| 9265 | R2251 | X | RD35647 4.7K | X | RD35647 4.7K |
| 9266 | R2252 | X | RD35610 100K | X | RD35610 100K |
| 9267 | R2253 | X | RD35638 6.8 | X | RD35638 6.8 |
| 9268 | R2260 | X | V673000 1/2R2-2M | X | V673000 1/2R2-2M |
| 9271 | F2251 | X | W93310 15AL250V | V07170 T3.15AL250V | V07170 T3.15AL250V |
| 9274 | D2169 | X | W8510 | X | W8510 |
| 9275 | D2171 | X | VT33290 15S355 | X | VT33290 15S355 |
| 9276 | SW251 | X | V207550 SL14-224MF | X | V207550 SL14-224MF |
| 9277 | CB258 | X | V93790 84P75-VH | X | V93790 84P75-VH |
| 9278 | C2253 | X | UR87110 10/100 | X | UR87110 10/100 |
| 9279 | R2259 | X | RD35810 100K | X | RD35810 100K |
| 9280 | J2253 | X | VN50000 | X | VN50000 |
| 9281 | C2251 | X | UR74922 2200/25 | UR74922 2200/25 | UR74922 2200/25 |
| 9282 | IC239 | X | KIA7805API | X | KIA7805API |
| 9283 | C2187 | X | UR86510 1/50 | X | UR86510 1/50 |
| 9284 | R2160 | X | WJ68240 1P1.0 | X | WJ68240 1P1.0 |
| 9285 | R2176 | X | RD35610 1K | RD35610 1K | RD35610 1K |
| 9286 | D2165 | X | VU17190 UOZ55-1B | VU17190 UOZ55-1B | VU17190 UOZ55-1B |
| 9287 | R2177 | X | RD35722 22K | RD35722 22K | RD35722 22K |
| 9288 | R2163 | X | RD35720 20K | X | RD35720 20K |
| 9289 | D2002 | X | VU17190 UOZ55-1B | X | VU17190 UOZ55-1B |



MAIN 1/2



Interchangeable Parts at Manufacture-Stage

| Mark | Reference Parts Number | Parts Name |
|------|-----------------------------|--|
| 41 | D102-111-113 118-119-121 | H55104 1S5133 1S5176 |
| 42 | G101-105 | 2SC3361A/B1 2SC3361B1 2SC9981A/B1 2SD1938F1S/F1 2SD2794K |
| 43 | G10-111 | 2SB12741R/G1 2SB1661E/F1 KT41046-Y-U/D |
| 44 | D120 | T56P030-08-X0 R5603M-B-C-J80 |
| 45 | G106-108 | KRA102S-RTK/P DTA114EXA |
| 46 | G121-123-125-126-133 | KRA104S-RTK/P DTA144EXA |
| 47 | G127-129-132 | KRC102S-RTK/P DTC114EXA |
| 48 | G128 | 2SC18151-Y1 KTC198B-Y*AT |
| 49 | D116 | HTZJ33B GDZJ33B |

REMARKS

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 |

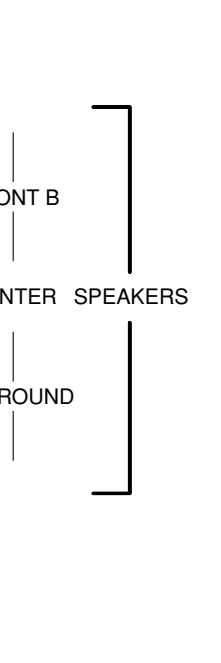
NOTICE (mode1)

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

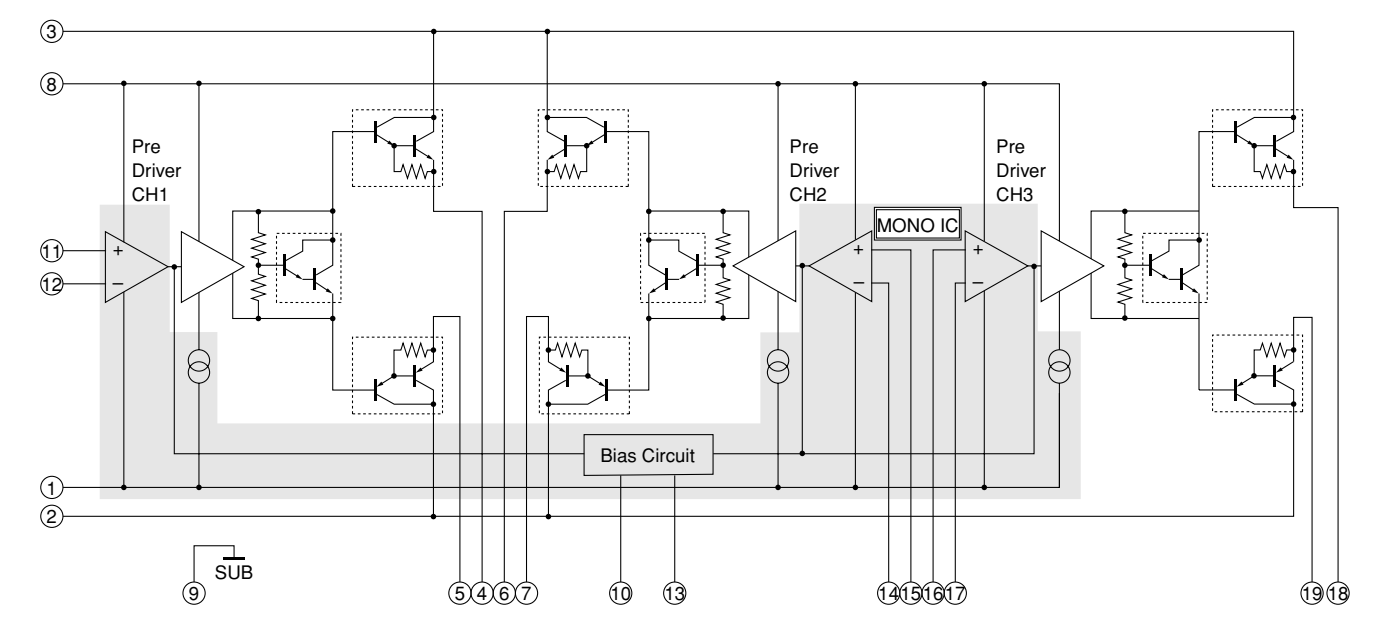
CAPACITOR

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

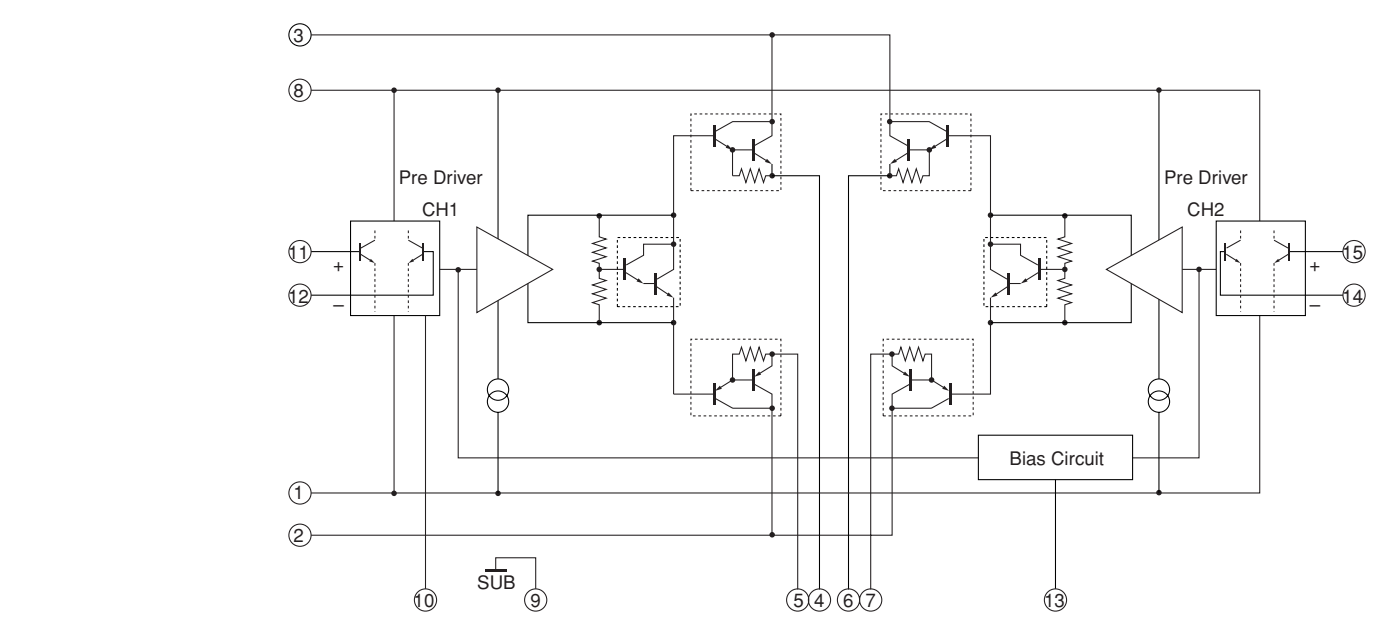
MAIN (3)



IC101: STK433-330-E 3-channel AF power amplifier, stand-by circuit built-in



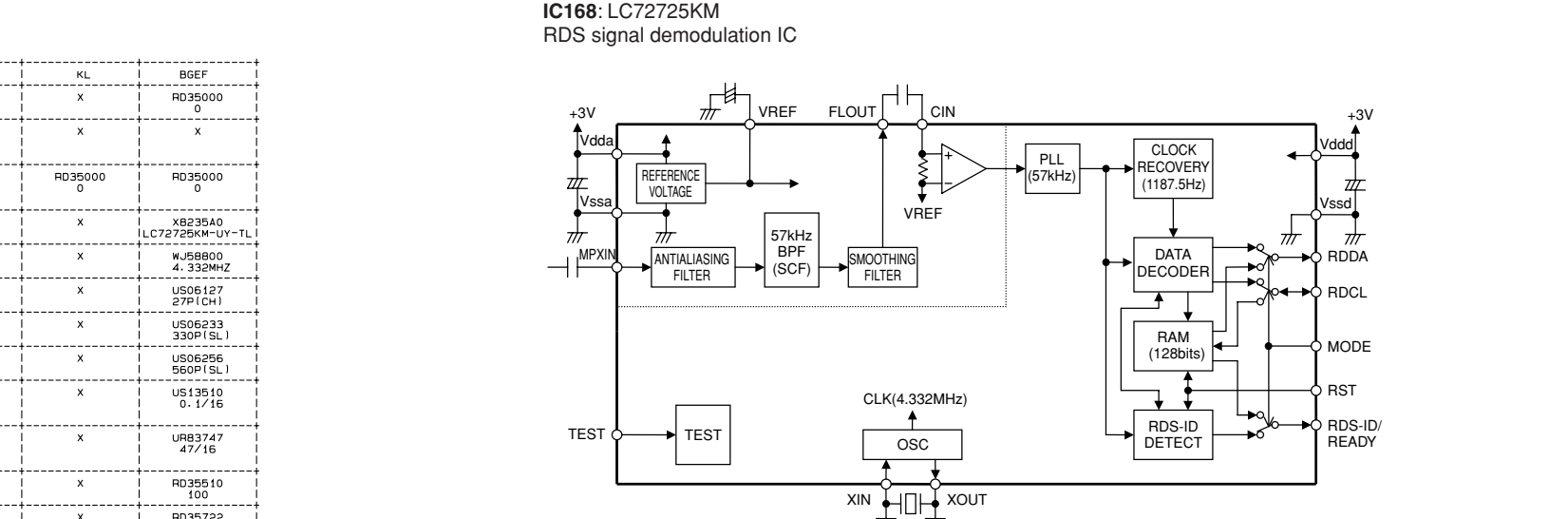
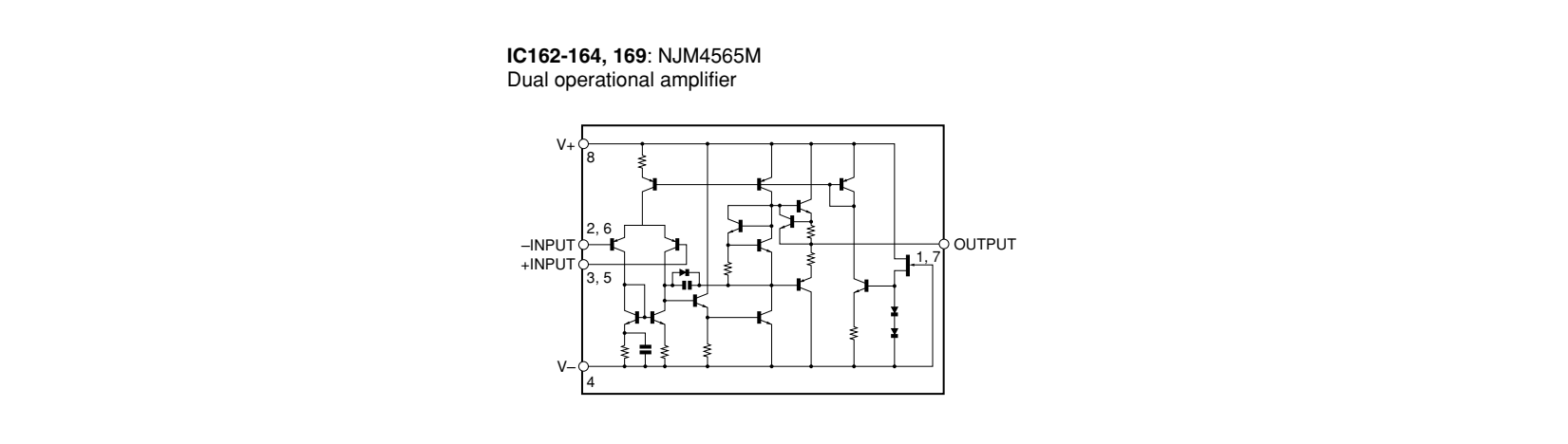
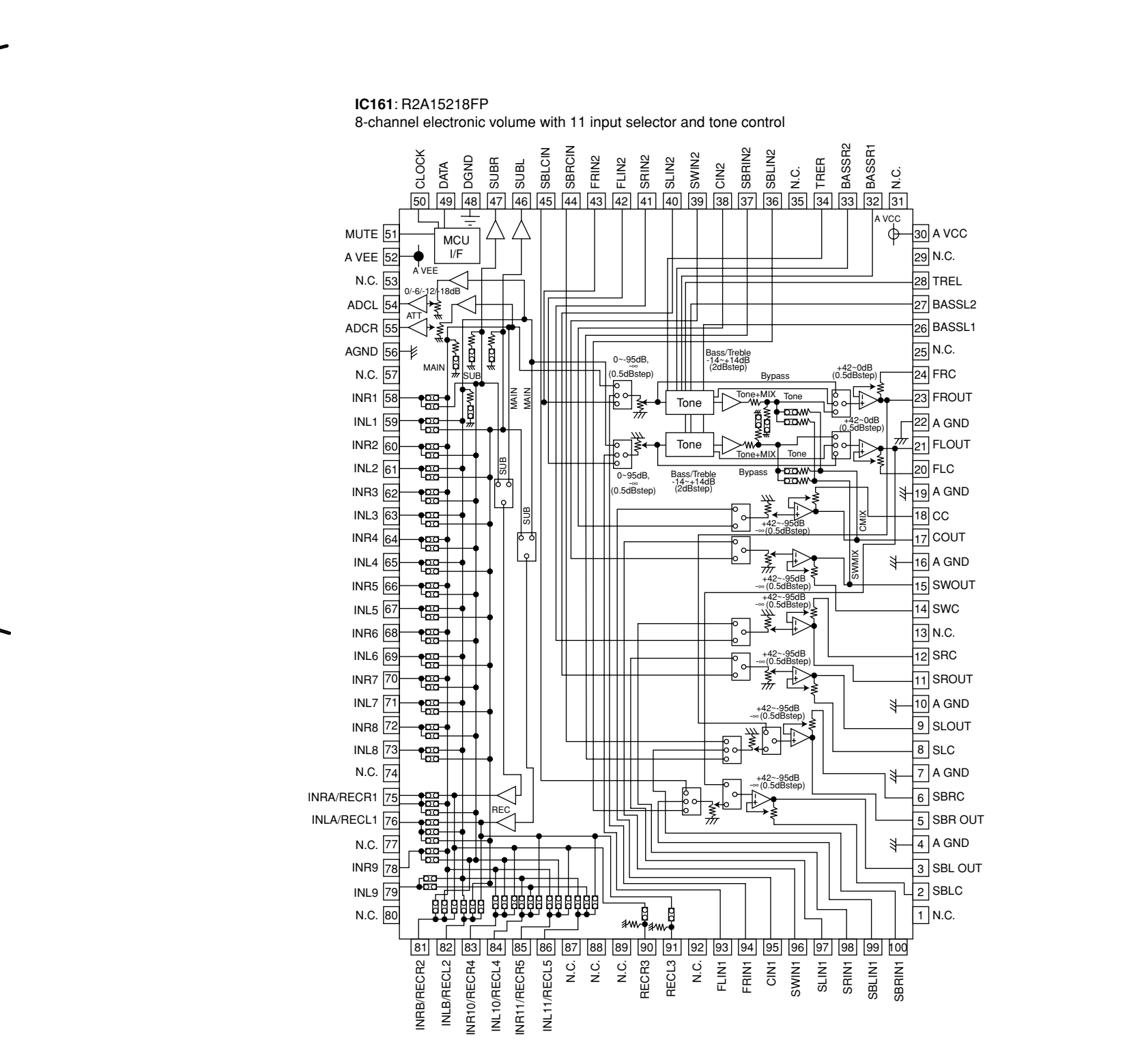
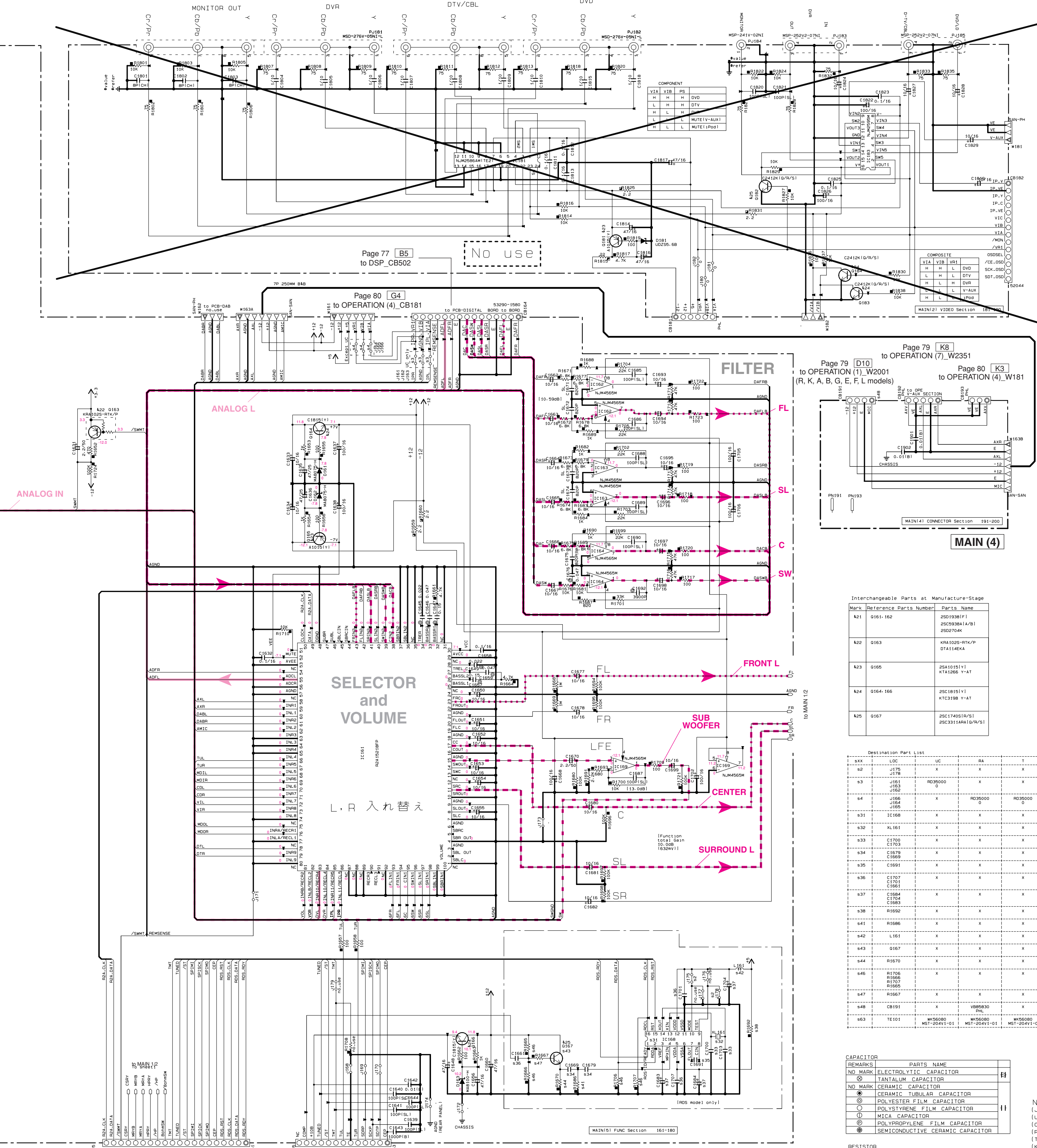
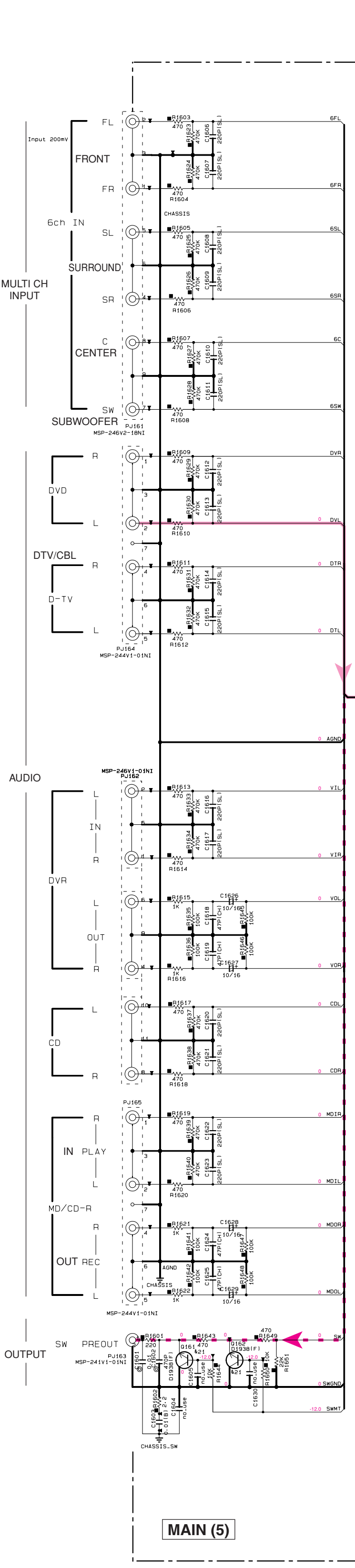
IC102: STK433-130-E 2-channel AF power amplifier, stand-by circuit built-in



| | High | Low (L, C models) | Low (R, T, K, A, B, G, E, F, L models) |
|-----------------------|-------------------------|--------------------------------|--|
| LM [V] (A/D 3.3V±25%) | +3.0 to +3.3 (25%) | +1.20 to +1.35 (10%) | +1.00 to +1.20 (9%) |
| +8V [V] | +46.0 to +52.0 (8-ohms) | +20.0 to +23.0 (8-ohms/6-ohms) | +18.0 to +21.0 (8-ohms/6-ohms) |
| -8V [V] | +33.0 to +36.0 (8-ohms) | -25.0 to -23.0 (8-ohms/6-ohms) | -22.0 to -19.0 (8-ohms/6-ohms) |
| -18V [V] | +52.0 to +6.0 (8-ohms) | -25.0 to -23.0 (8-ohms/6-ohms) | -22.0 to -19.0 (8-ohms/6-ohms) |

★ 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.

MAIN 2/2



Interchangeable Parts at Manufacture Stage

| Mark | Reference Parts Number | Parts Name |
|------|------------------------|-----------------------------------|
| 421 | 0161-162 | 2SD1938(I) 2SC928(A) (V) 2SD1938 |
| 422 | 0163 | HA1029-RTK/P DT114EXA |
| 423 | 0165 | 2SA1015(V) 2SA1206 (V-A) |
| 424 | 0164-166 | 2SC1815(V) 2SC1319B (V-A) |
| 425 | 0167 | 2SC1740(B) (V) 2SC1318(A) (V) (V) |

Destination Part List

| MARK | LOC | UC | RA | T | NL | RDF |
|------|------|---------|---------|---------|---------|--------|
| 42 | J75 | X | X | X | X | RD9000 |
| 43 | J161 | RD30000 | X | X | X | RD9000 |
| 44 | J162 | X | RD30000 | RD30000 | RD30000 | RD9000 |
| 45 | J169 | X | X | X | X | RD9000 |
| 46 | J170 | X | X | X | X | RD9000 |
| 47 | J171 | X | X | X | X | RD9000 |
| 48 | J172 | X | X | X | X | RD9000 |
| 49 | J173 | X | X | X | X | RD9000 |
| 50 | J174 | X | X | X | X | RD9000 |
| 51 | J175 | X | X | X | X | RD9000 |
| 52 | J176 | X | X | X | X | RD9000 |
| 53 | J177 | X | X | X | X | RD9000 |
| 54 | J178 | X | X | X | X | RD9000 |
| 55 | J179 | X | X | X | X | RD9000 |
| 56 | J180 | X | X | X | X | RD9000 |
| 57 | J181 | X | X | X | X | RD9000 |
| 58 | J182 | X | X | X | X | RD9000 |
| 59 | J183 | X | X | X | X | RD9000 |
| 60 | J184 | X | X | X | X | RD9000 |
| 61 | J185 | X | X | X | X | RD9000 |
| 62 | J186 | X | X | X | X | RD9000 |
| 63 | J187 | X | X | X | X | RD9000 |
| 64 | J188 | X | X | X | X | RD9000 |
| 65 | J189 | X | X | X | X | RD9000 |
| 66 | J190 | X | X | X | X | RD9000 |
| 67 | J191 | X | X | X | X | RD9000 |
| 68 | J192 | X | X | X | X | RD9000 |
| 69 | J193 | X | X | X | X | RD9000 |
| 70 | J194 | X | X | X | X | RD9000 |
| 71 | J195 | X | X | X | X | RD9000 |
| 72 | J196 | X | X | X | X | RD9000 |
| 73 | J197 | X | X | X | X | RD9000 |
| 74 | J198 | X | X | X | X | RD9000 |
| 75 | J199 | X | X | X | X | RD9000 |
| 76 | J200 | X | X | X | X | RD9000 |
| 77 | J201 | X | X | X | X | RD9000 |
| 78 | J202 | X | X | X | X | RD9000 |
| 79 | J203 | X | X | X | X | RD9000 |
| 80 | J204 | X | X | X | X | RD9000 |
| 81 | J205 | X | X | X | X | RD9000 |
| 82 | J206 | X | X | X | X | RD9000 |
| 83 | J207 | X | X | X | X | RD9000 |
| 84 | J208 | X | X | X | X | RD9000 |
| 85 | J209 | X | X | X | X | RD9000 |
| 86 | J210 | X | X | X | X | RD9000 |
| 87 | J211 | X | X | X | X | RD9000 |
| 88 | J212 | X | X | X | X | RD9000 |
| 89 | J213 | X | X | X | X | RD9000 |
| 90 | J214 | X | X | X | X | RD9000 |
| 91 | J215 | X | X | X | X | RD9000 |
| 92 | J216 | X | X | X | X | RD9000 |
| 93 | J217 | X | X | X | X | RD9000 |
| 94 | J218 | X | X | X | X | RD9000 |
| 95 | J219 | X | X | X | X | RD9000 |
| 96 | J220 | X | X | X | X | RD9000 |
| 97 | J221 | X | X | X | X | RD9000 |
| 98 | J222 | X | X | X | X | RD9000 |
| 99 | J223 | X | X | X | X | RD9000 |
| 100 | J224 | X | X | X | X | RD9000 |

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 |

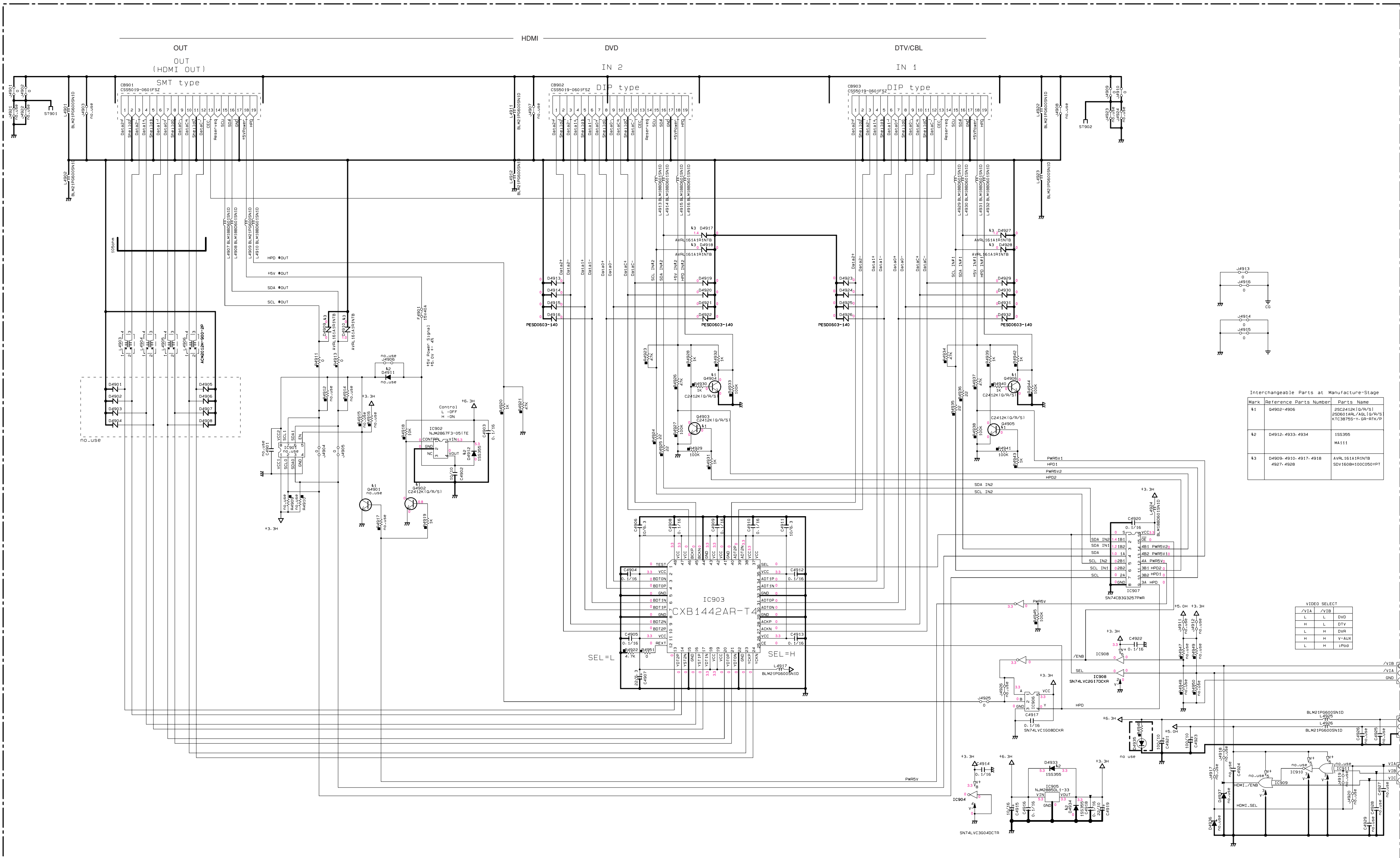
RESISTOR

| 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 |
| ⊞ | FINE-PROOF CARBON FILM RESISTOR |
| ⊟ | CEMENT MOLDED RESISTOR |
| ⊡ | SEMI-VARIABLE RESISTOR |
| ⊛ | CHIP RESISTOR |

NOTICE (mode1)
 (J) JAPAN
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 (C) CANADA
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 (K) KOREA
 (A) AUSTRALIA
 (B) BRITISH
 (G) EUROPE
 (L) SINGAPORE
 (E) SOUTH EUROPE
 (V) TAIWAN
 (F) RUSSIAN

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

HDMI



Interchangeable Parts at Manufacture-Stage

| Mark | Reference Parts Number | Parts Name |
|------|-----------------------------------|---|
| 41 | 04902-4906 | ESC6412K1G/R/S1 P20604ARL700,1G/R/S1 KTC30755-V-GR-REV.2P |
| 42 | 04912-4933-4934 | ISS395 MA111 |
| 43 | 04909-4910-4917-4918 4927-4928 | AVL16141R1N7B SDV1609H100C050VPT |

VIDEO SELECT

| VIA | V1B | BVD |
|-----|-----|-------|
| L | L | DTV |
| H | L | DTV |
| L | H | DVR |
| H | H | V-AUX |
| L | H | 1P00 |

Page 80 14
to OPERATION (4)_W182

Page 80 1A8
to OPERATION (2)_W2154

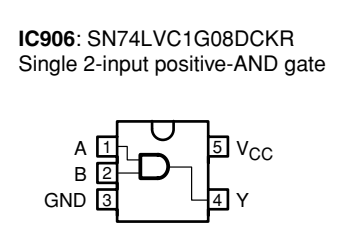
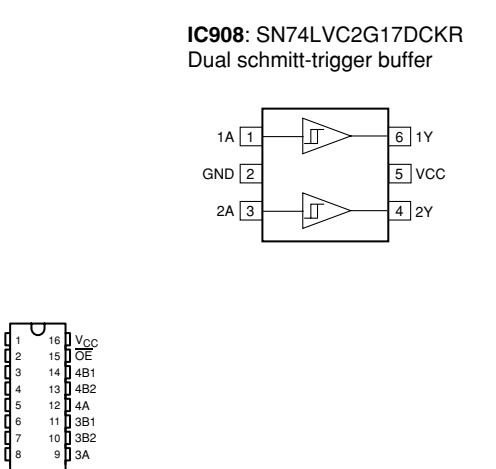
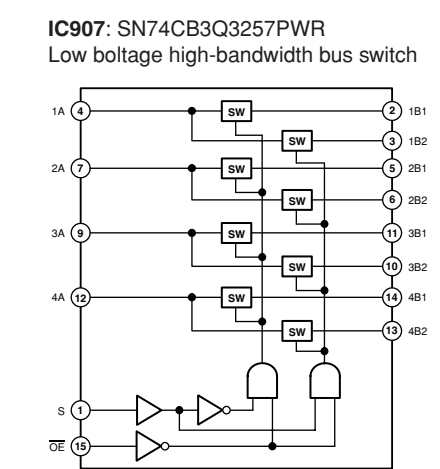
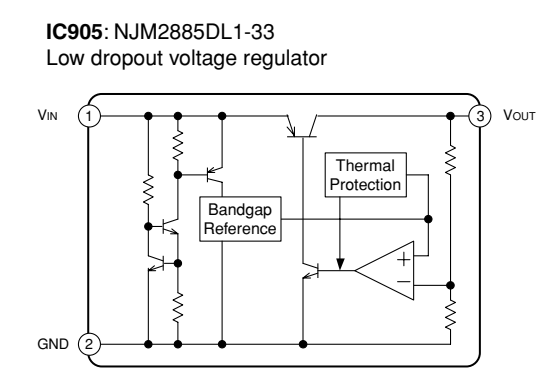
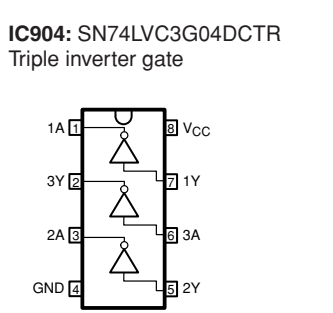
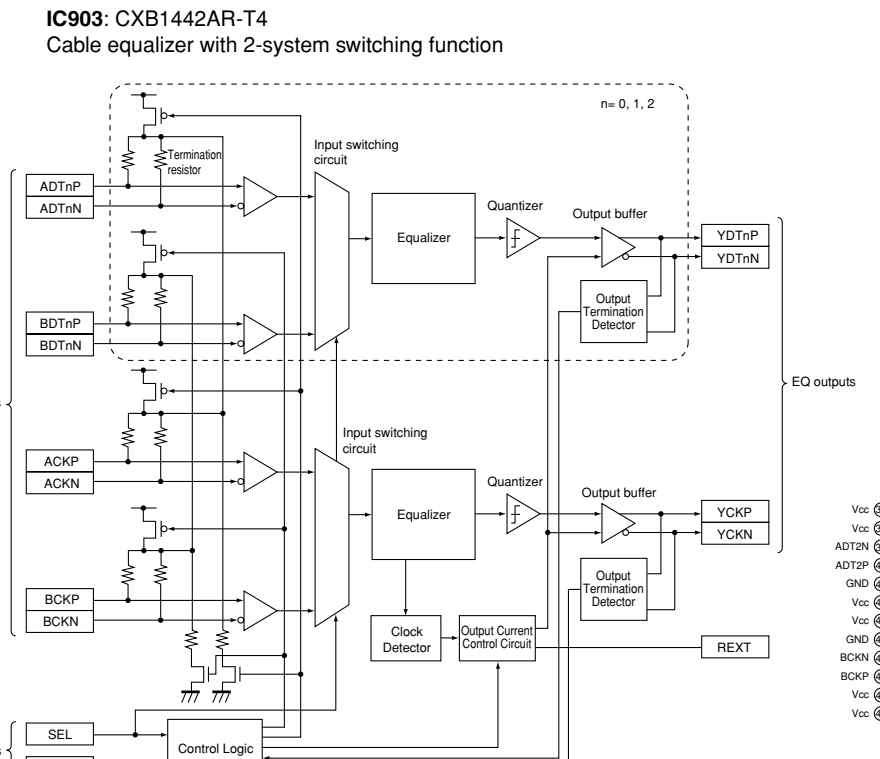
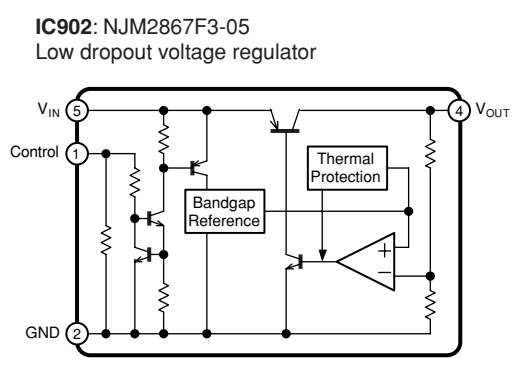
RESISTOR

| 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 |
| ⊞ | CERAMIC CAPACITOR |
| ⊞ | CERAMIC TUBULAR CAPACITOR |
| ⊞ | POLYESTER FILM CAPACITOR |
| ⊞ | POLYSTYRENE FILM CAPACITOR |
| ⊞ | MICA CAPACITOR |
| ⊞ | POLYPROPYLENE FILM CAPACITOR |
| ⊞ | SEMICONDUCTIVE CERAMIC CAPACITOR |
| ⊞ | POLYPHENYLENE SULFIDE FILM CAPACITOR |

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



* All voltages are measured with a 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.

■ REPLACEMENT PARTS LIST

• ELECTRICAL COMPONENT PARTS

WARNING

- Components having special characteristics are marked \triangle and must be replaced with parts having specifications equal to those originally installed.
- The chip resistor is not supplied as a replacement part.
 - * When a chip resistor is necessary, use the following part.
AAX60720: CHIP RESISTOR SAMPLE BOOK

ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS:

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

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

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| Ref. No. | Part No. | Description | Markets |
|----------|----------|-------------------------|---------|
| | WN242100 | P. C. B. DSP | UC |
| | WN242200 | P. C. B. DSP | RL |
| | WN242300 | P. C. B. DSP | T |
| | WN242400 | P. C. B. DSP | KA |
| | WN242500 | P. C. B. DSP | BGEF |
| CB408 | VF982300 | CN. BS. PIN 17P | |
| CB501 | VQ961000 | CN. BS. PIN 7P | |
| CB502 | VQ961800 | CN. BS. PIN 15P | |
| CB504 | VN394900 | CN. BS. PIN 14P | UC |
| CB512 | VQ047500 | CN. BS. PIN 20P | |
| CB516 | VK025700 | CN. BS. PIN 13P | |
| C101 | UR838220 | C. EL 220uF 16V | |
| C102 | WH771300 | C. EL 100uF 10V | |
| C103-104 | US135100 | C. CE. CHP 0.1uF 16V | |
| C105 | US061270 | C. CE. CHP 27pF 50V B | |
| C106 | WH771300 | C. EL 100uF 10V | |
| C107 | US135100 | C. CE. CHP 0.1uF 16V | |
| C108-129 | US063100 | C. CE. CHP 1000pF 50V B | |
| C130 | US135100 | C. CE. CHP 0.1uF 16V | |
| C131 | US061270 | C. CE. CHP 27pF 50V B | |
| C132 | UR837100 | C. EL 10uF 16V | |
| C133 | US063100 | C. CE. CHP 1000pF 50V B | |
| C135 | UB446100 | C. CE. CHP 1uF 16V | |
| C136-147 | US135100 | C. CE. CHP 0.1uF 16V | |
| C148-154 | UB446100 | C. CE. CHP 1uF 16V | |
| C201-206 | US063100 | C. CE. CHP 1000pF 50V B | |
| C207-211 | US135100 | C. CE. CHP 0.1uF 16V | |
| C212 | US063100 | C. CE. CHP 1000pF 50V B | |
| C215-218 | UB446100 | C. CE. CHP 1uF 16V | |
| C301-304 | US135100 | C. CE. CHP 0.1uF 16V | |
| C305 | UR837470 | C. EL 47uF 16V | |
| C306 | US135100 | C. CE. CHP 0.1uF 16V | |
| C307 | US063100 | C. CE. CHP 1000pF 50V B | |
| C308 | UR837100 | C. EL 10uF 16V | |
| C309-310 | US061270 | C. CE. CHP 27pF 50V B | |
| C311 | UR866220 | C. EL 2.2uF 50V | |
| C312 | US135100 | C. CE. CHP 0.1uF 16V | |
| C313 | US061220 | C. CE. CHP 22pF 50V B | |
| C314 | UR847220 | C. EL 22uF 25V | |
| C315-317 | US135100 | C. CE. CHP 0.1uF 16V | |
| C321 | US135100 | C. CE. CHP 0.1uF 16V | |
| C349-350 | UR837100 | C. EL 10uF 16V | |
| C351-352 | US135100 | C. CE. CHP 0.1uF 16V | |
| C354-358 | US135100 | C. CE. CHP 0.1uF 16V | |
| C401-402 | US135100 | C. CE. CHP 0.1uF 16V | |
| C404 | UR837470 | C. EL 47uF 16V | |
| C405 | US135100 | C. CE. CHP 0.1uF 16V | |
| C406 | UB446100 | C. CE. CHP 1uF 16V | |
| C407-408 | US062100 | C. CE. CHP 100pF 50V B | |
| C409 | US135100 | C. CE. CHP 0.1uF 16V | |
| C410-411 | US062100 | C. CE. CHP 100pF 50V B | |
| C413-416 | US063100 | C. CE. CHP 1000pF 50V B | |
| C417 | US062470 | C. CE. CHP 470pF 50V B | |
| C418-428 | US135100 | C. CE. CHP 0.1uF 16V | |
| C429-435 | US062100 | C. CE. CHP 100pF 50V B | |
| C436-439 | US135100 | C. CE. CHP 0.1uF 16V | |
| C501 | US062100 | C. CE. CHP 100pF 50V B | |
| C502 | UR838220 | C. EL 220uF 16V | |
| C503-504 | US062100 | C. CE. CHP 100pF 50V B | |
| C513-515 | US062100 | C. CE. CHP 100pF 50V B | |

* New Parts

| Ref. No. | Part No. | Description | Markets |
|-----------|----------|--------------------------------|-------------|
| C516 | US035100 | C. CE. CHP 0.1uF 16V B | |
| C517-518 | US062100 | C. CE. CHP 100pF 50V B | |
| C519 | US135100 | C. CE. CHP 0.1uF 16V | |
| C520 | US035100 | C. CE. CHP 0.1uF 16V B | |
| C521 | US063100 | C. CE. CHP 1000pF 50V B | |
| C522-523 | US135100 | C. CE. CHP 0.1uF 16V | |
| C524-525 | US063100 | C. CE. CHP 1000pF 50V B | |
| C527-528 | US064100 | C. CE. CHP 0.01uF 50V B | |
| C529 | US062100 | C. CE. CHP 100pF 50V B | |
| C530 | US064100 | C. CE. CHP 0.01uF 50V B | |
| C531-534 | US062100 | C. CE. CHP 100pF 50V B | |
| C535 | US064100 | C. CE. CHP 0.01uF 50V B | |
| C536-549 | US062100 | C. CE. CHP 100pF 50V B | |
| C550 | US064100 | C. CE. CHP 0.01uF 50V B | |
| C603-608 | US062220 | C. CE. CHP 220pF 50V B | UC |
| C609 | US135100 | C. CE. CHP 0.1uF 16V | UC |
| C623 | US135100 | C. CE. CHP 0.1uF 16V | |
| C625 | US063100 | C. CE. CHP 1000pF 50V B | UC |
| C626 | US064100 | C. CE. CHP 0.01uF 50V B | UC |
| D101 | VS597600 | DIODE. CHP RB160L-40 TE25 | |
| D401 | VU171400 | DIODE. ZENR UDZS3.3BTE-17 3.3V | |
| D402 | VU171400 | DIODE. ZENR UDZS3.3BTE-17 3.3V | BGEF |
| D403-404 | VU171400 | DIODE. ZENR UDZS3.3BTE-17 3.3V | |
| D405 | VT332900 | DIODE 1SS355 | |
| D407 | VT332900 | DIODE 1SS355 | |
| D408 | VU171400 | DIODE. ZENR UDZS3.3BTE-17 3.3V | |
| D409 | VU171400 | DIODE. ZENR UDZS3.3BTE-17 3.3V | RKABGEFL |
| D602 | VT332900 | DIODE 1SS355 | UC |
| G101 | WB438000 | TERM. GND M4 SD00433-21 | |
| IC101 | X7534A00 | IC. CPU ADSP-BF531 CPU | |
| IC102 | X8653A00 | IC BR25L320F-W EEPROM | |
| IC201 | X9590A00 | IC. MEMORY F49L160BA-70TG | (boot only) |
| IC202 | X9626A00 | IC. MEMORY K4S641632K-UC60000 | |
| IC203 | X4201A00 | IC SN74AHC02PWR | |
| IC204-206 | X4285A00 | IC SN74LV573APWR | |
| IC301 | X7919A00 | IC AK4588VQ | |
| IC305 | X3936A00 | IC SN74LVU04APWR | |
| IC401 | X6905A00 | IC ADC084S021CIMM | |
| IC402-403 | X5875A00 | IC SN74LV4051APWR | |
| IC404 | X2709A00 | IC SN74AHCT245PWR | |
| IC501 | X3824A00 | IC SN74AHCT08PWR | |
| IC505 | X4463A00 | IC SN74LV08APWR | |
| PJ301 | V8795700 | JACK. PIN 1P | |
| Q101 | WE736300 | FET RT0040P02 | |
| Q501 | WE736300 | FET RT0040P02 | |
| U301-302 | WH169900 | CN. PHOTO. R 1P GP1FAV51RK0F | |
| XL101 | VZ540700 | RSNR. CRY S 25MHz SMD-49 | |
| XL301 | WJ625200 | RSNR. CRY S 24.576MHz | |
| | WN242700 | P. C. B. OPERATION | UC |
| | WN242800 | P. C. B. OPERATION | RL |
| | WN242900 | P. C. B. OPERATION | T |
| | WN243000 | P. C. B. OPERATION | KABGEF |
| CB181 | VB858500 | CN. BS. PIN 6P | |
| CB182 | VF982200 | CN. BS. PIN 14P | UC |
| CB202 | VF982300 | CN. BS. PIN 17P | |
| CB231 | VK026300 | CN. BS. PIN 4P | |
| CB234 | LB919110 | CN. BS. PIN 11P SE | |

* New Parts

RX-V363/HTR-6130

P.C.B. OPERATION

| Ref. No. | Part No. | Description | Markets |
|------------|----------|-------------------------------|----------|
| CB235 | VK024700 | CN. BS. PIN 3P | |
| CB252 | WN077700 | CLIP. FUSE CLIP PFC5000-0202F | |
| CB254 | WN077700 | CLIP. FUSE CLIP PFC5000-0202F | |
| CB256-257 | VG879900 | CN. BS. PIN 2P | |
| CB258 | V9377900 | CN. BS. PIN 4P | RL |
| CB261 | VB858300 | CN. BS. PIN 4P | |
| C1801-1803 | US060800 | C. CE. CHP 8pF 50V B | |
| C1804-1810 | WE773800 | C. CE. M. CHP 1uF 10V B | |
| C1811-1813 | US135100 | C. CE. CHP 0.1uF 16V | |
| C1814 | UR837470 | C. EL 47uF 16V | |
| C1815 | WE773800 | C. CE. M. CHP 1uF 10V B | |
| C1816-1817 | UR837470 | C. EL 47uF 16V | |
| C1818 | WE773800 | C. CE. M. CHP 1uF 10V B | |
| C1819 | UR837100 | C. EL 10uF 16V | UC |
| C1820-1821 | US062100 | C. CE. CHP 100pF 50V B | |
| C1822 | UR838100 | C. EL 100uF 16V | |
| C1823 | US135100 | C. CE. CHP 0.1uF 16V | |
| C1824 | UR837100 | C. EL 10uF 16V | |
| C1825 | US135100 | C. CE. CHP 0.1uF 16V | |
| C1826 | UR838100 | C. EL 100uF 16V | |
| C1827-1829 | UR837100 | C. EL 10uF 16V | |
| C2001 | US064100 | C. CE. CHP 0.01uF 50V B | RKABGEFL |
| C2002 | US063100 | C. CE. CHP 1000pF 50V B | RKABGEFL |
| C2003 | UM397100 | C. EL 10uF 16V | RKABGEFL |
| C2004 | US062100 | C. CE. CHP 100pF 50V B | RKABGEFL |
| C2005 | UM387470 | C. EL 47uF 16V | RKABGEFL |
| C2006 | US135100 | C. CE. CHP 0.1uF 16V | |
| C2007 | US061330 | C. CE. CHP 33pF 50V B | RKABGEFL |
| C2008 | UM397220 | C. EL 22uF 25V | RKABGEFL |
| C2009 | UM397100 | C. EL 10uF 16V | RKABGEFL |
| C2010-2011 | UM397220 | C. EL 22uF 25V | RKABGEFL |
| C2012 | US065100 | C. CE. CHP 0.1uF 50V B | |
| C2013-2014 | US135100 | C. CE. CHP 0.1uF 16V | |
| C2015 | UR068100 | C. EL 100uF 50V | |
| C2016 | UM388330 | C. EL 330uF 6.3V | |
| C2017 | US135100 | C. CE. CHP 0.1uF 16V | |
| C2018 | US061820 | C. CE. CHP 82pF 50V B | |
| C2019-2020 | US062100 | C. CE. CHP 100pF 50V B | |
| C2021 | US061100 | C. CE. CHP 10pF 50V B | |
| C2022-2024 | US135100 | C. CE. CHP 0.1uF 16V | |
| C2025 | US064100 | C. CE. CHP 0.01uF 50V B | |
| C2026 | US135100 | C. CE. CHP 0.1uF 16V | |
| C2027 | UM397100 | C. EL 10uF 16V | |
| C2028 | US135100 | C. CE. CHP 0.1uF 16V | |
| C2029-2030 | US063100 | C. CE. CHP 1000pF 50V B | |
| C2101 | US064100 | C. CE. CHP 0.01uF 50V B | |
| C2102-2105 | US044220 | C. CE. CHP 0.022uF 25V B | |
| C2110-2111 | US063100 | C. CE. CHP 1000pF 50V B | RKABGEFL |
| C2152 | UR866100 | C. EL 1uF 50V | |
| C2153 | UR837470 | C. EL 47uF 16V | |
| C2156 | US064100 | C. CE. CHP 0.01uF 50V B | |
| C2157 | US135100 | C. CE. CHP 0.1uF 16V | |
| C2158 | UR866100 | C. EL 1uF 50V | |
| C2160 | UR866100 | C. EL 1uF 50V | |
| C2161 | US135100 | C. CE. CHP 0.1uF 16V | |
| C2162 | UR866100 | C. EL 1uF 50V | |
| C2164 | UR837100 | C. EL 10uF 16V | |
| C2168-2170 | UR866100 | C. EL 1uF 50V | |
| C2171 | UR739470 | C. EL 4700uF 16V | |
| C2172-2173 | UR866100 | C. EL 1uF 50V | |

* New Parts

| Ref. No. | Part No. | Description | Markets |
|------------|----------|--------------------------------|------------|
| C2175 | UR749470 | C. EL 4700uF 25V | |
| C2176 | UR749220 | C. EL 2200uF 25V | |
| C2178 | UR73A100 | C. EL 10000uF 16V | |
| C2179-2180 | VE326000 | C. MYLAR 0.1uF 50V | |
| C2181 | US135100 | C. CE. CHP 0.1uF 16V | |
| C2182 | WJ605000 | C. MYLAR 0.01uF 50V J | |
| C2184 | VE326000 | C. MYLAR 0.1uF 50V | |
| C2185 | UR739470 | C. EL 4700uF 16V | UC |
| C2186-2187 | UR866100 | C. EL 1uF 50V | UC |
| C2251 | UR749220 | C. EL 2200uF 25V | UCKABGEFL |
| C2251 | UR759220 | C. EL 2200uF 35V | RL |
| C2252 | WJ605000 | C. MYLAR 0.01uF 50V J | |
| C2253 | UR897100 | C. EL 10uF 100V | RL |
| C2254 | WJ605000 | C. MYLAR 0.01uF 50V J | UCTKABGEFL |
| C2255-2256 | WJ605000 | C. MYLAR 0.01uF 50V J | RL |
| C2257 | WB121400 | C. CE. SAFTY 0.01uF 295V | |
| C2301-2304 | WJ605000 | C. MYLAR 0.01uF 50V J | |
| C2351-2352 | US135100 | C. CE. CHP 0.1uF 16V | |
| C2353-2354 | US062220 | C. CE. CHP 220pF 50V B | |
| C2355 | US135100 | C. CE. CHP 0.1uF 16V | UC |
| D181 | VU172000 | DIODE. ZENR UDZS5.6BTE-17 5.6V | |
| D2001 | WJ249600 | LED ORANGE | |
| D2002 | VU171900 | DIODE. ZENR UDZ5.1B 5.1V | RKABGEFL |
| D2003 | WJ249600 | LED ORANGE | |
| D2004 | VT332900 | DIODE 1SS355 | RKABGEFL |
| D2005 | WJ249600 | LED ORANGE | |
| D2006 | VT332900 | DIODE 1SS355 | RKABGEFL |
| D2007 | WJ249600 | LED ORANGE | |
| D2008-2009 | VU171500 | DIODE. ZENR UDZ 3.6BTE-17 3.6V | |
| D2151 | VT332900 | DIODE 1SS355 | |
| D2152 | VS997800 | DIODE 1T2 | |
| D2154 | VT332900 | DIODE 1SS355 | |
| D2156 | VT332900 | DIODE 1SS355 | |
| D2157 | VU171900 | DIODE. ZENR UDZ5.1B 5.1V | |
| D2158 | VS997800 | DIODE 1T2 | |
| D2160 | VT332900 | DIODE 1SS355 | |
| D2162-2164 | WA653100 | DIODE. BRG KBP103G 1A 200V | |
| D2165 | VU171900 | DIODE. ZENR UDZ5.1B 5.1V | RTKABGEFL |
| D2166-2167 | VT332900 | DIODE 1SS355 | |
| D2168 | V2376600 | DIODE. SHOT RB500V-40 | |
| D2169 | WA653100 | DIODE. BRG KBP103G 1A 200V | UC |
| D2170-2171 | VT332900 | DIODE 1SS355 | UC |
| D2251 | VD631600 | DIODE 1SS133, 176 | |
| D2252 | VG437000 | DIODE. ZENR MTZJ4.7A 4.7V | RL |
| D2253-2254 | VS997800 | DIODE 1T2 | |
| D2255 | VS997800 | DIODE 1T2 | RL |
| D2256-2257 | VS997800 | DIODE 1T2 | |
| D2258-2259 | WC398800 | DIODE KDS160-RTK | |
| D2301 | VU172500 | DIODE. ZENR UDZS9.1B | |
| D2302-2303 | VT332900 | DIODE 1SS355 | |
| D2351-2354 | VT332900 | DIODE 1SS355 | |
| F2251 | WB221200 | FUSE T6A 125V | UC |
| F2251 | WM933100 | FUSE T5A 250V | RL |
| F2251 | VV071700 | FUSE 3.15A 250V | TKABGEFL |
| IC181 | X7362A00 | IC NJM2586AM (TE2) | |
| IC183 | X9374A00 | IC NJM2595M | |
| IC201 | X6386A00 | IC M66003-0131FP | |
| IC202 | X7378A00 | IC NJM4565M (TE1) | RKABGEFL |
| IC232 | X6248A00 | IC NJM2388F33 | |
| IC233-234 | X4928A00 | IC KIA7805API 5V | |

* New Parts

RX-V363/HTR-6130

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

| Ref. No. | Part No. | Description | Markets |
|------------|----------|----------------------------|----------|
| △ IC236 | X4153A00 | IC KIA7812API | |
| △ IC237 | X4154A00 | IC KIA7912PI | |
| IC238 | X0515A00 | IC LM61CIZ THERMAL | |
| IC239 | X4928A00 | IC KIA7805API 5V | UC |
| JK201 | WJ117300 | JACK. PHONE PHONES | RKABGEFL |
| JK261 | V9408200 | JACK. PHONE MSJ-064-05B GR | |
| JK266 | WJ117400 | JACK. MNI OPTIMIZER MIC | |
| PJ181-182 | WG505100 | JACK. PIN 6P | |
| PJ183 | V7190000 | JACK. PIN 2P | |
| PJ184 | V7189800 | JACK. PIN 1P | |
| PJ185 | V7190000 | JACK. PIN 2P | |
| PJ266 | WJ117500 | JACK. PIN 3P | |
| PN201-202 | V9637500 | PIN L=70 #18 | |
| PN231-232 | V9637500 | PIN L=70 #18 | |
| PN266 | V9637500 | PIN L=70 #18 | |
| PN272-273 | V9637500 | PIN L=70 #18 | |
| Q181 | iA101510 | TR 2SA1015 Y | |
| Q182-184 | VV556400 | TR 2SC2412K Q, R, S | |
| Q2001-2005 | VV556400 | TR 2SC2412K Q, R, S | |
| Q2011-2012 | WC434800 | TR. DGT KRA102S-RTK/P | |
| Q2013 | WC435000 | TR. DGT KRC102S-RTK | |
| Q2014 | VV556400 | TR 2SC2412K Q, R, S | |
| Q2015-2016 | VV556500 | TR 2SA1037K Q, R, S | |
| Q2017 | VV556400 | TR 2SC2412K Q, R, S | |
| Q2151 | WC435100 | TR. DGT KRC104S-RTK | |
| Q2152 | VV556400 | TR 2SC2412K Q, R, S | |
| Q2153 | WC435100 | TR. DGT KRC104S-RTK | |
| Q2251 | iC181510 | TR 2SC1815 Y | |
| Q2252 | iA101510 | TR 2SA1015 Y | RL |
| △ Q2253 | VP872600 | TR 2SA1708 S, T | RL |
| △ Q2254 | iA101510 | TR 2SA1015 Y | RL |
| △ Q2255 | WC529200 | TR. DGT KRC102M-AT | RL |
| R1815 | HV754220 | R. CAR. FP 22Ω 1/4W | |
| R1825 | HV753220 | R. CAR. FP 2.2Ω 1/4W | |
| R1831 | HV753220 | R. CAR. FP 2.2Ω 1/4W | |
| * R2160 | WJ682400 | R. MTL. FLM 1Ω 1W J | UC |
| * R2171 | WJ682400 | R. MTL. FLM 1Ω 1W J | |
| * R2174 | WJ682000 | R. MTL. FLM 0.47Ω 1W J | |
| R2258 | VC757900 | R. MTL. OXD 47Ω 2W | RL |
| R2260 | V6730000 | R. CAR. 2.2MΩ 1/2W | UC |
| R2301-2302 | WJ685600 | R. MTL. FLM 470Ω 1W J | |
| △ RY251 | V9366900 | RELAY DLS9D1-0(M)0.25W | |
| ST251 | WA789600 | SCR. TERM M3 | |
| ST261 | WA789700 | SCR. TERM D3.5 | |
| SW201-220 | WD483100 | SW. TACT SKRGAAD010 | |
| △ SW221 | V9597100 | SW. RT. ENC EC12E2460802 | |
| △ SW251 | VZ075500 | SW. SL IDE SL14-22AM5F | RL |
| SW274 | WD483100 | SW. TACT SKRGAAD010 | |
| △ T251 | X8521A00 | TRANS. PWR | UC |
| △ T251 | X8522A00 | TRANS. PWR | RL |
| △ T251 | X8523A00 | TRANS. PWR | T |
| △ T251 | X8523A00 | TRANS. PWR | KABGEF |
| U2002 | WJ645300 | L. DTCT SM3385UMH6 | |
| V2001 | WJ264400 | FL. DSPLY 17-BT-29GNK | |
| | V6007100 | SPACER. FL 4.6/10/32 | |

* New Parts

| Ref. No. | Part No. | Description | Markets |
|--------------|----------|-------------------------|----------|
| * | WN241400 | P. C. B. MAIN | UC |
| * | WN241500 | P. C. B. MAIN | RA |
| * | WN241600 | P. C. B. MAIN | T |
| * | WN241700 | P. C. B. MAIN | KL |
| * | WN241800 | P. C. B. MAIN | BGEF |
| CB101 | VQ962800 | CN. BS. PIN 7P | |
| CB103 | VK025100 | CN. BS. PIN 7P | |
| CB104 | LB932060 | CN. BS. PIN 6P | |
| CB161 | VQ047500 | CN. BS. PIN 20P | |
| CB163 | VM923600 | CN. BS. PIN 13P | |
| CB164 | VQ963600 | CN. BS. PIN 15P | |
| CB191 | VB858300 | CN. BS. PIN 4P | RKABGEFL |
| CB192 | VB858400 | CN. BS. PIN 5P | |
| CB193 | VB858200 | CN. BS. PIN 3P | |
| C1001 | WJ605000 | C. MYLAR 0.01uF 50V J | |
| C1002-1003 | UR837100 | C. EL 10uF 16V | |
| C1004 | UR866220 | C. EL 2.2uF 50V | |
| C1005 | UR837100 | C. EL 10uF 16V | |
| C1006-1007 | UR866220 | C. EL 2.2uF 50V | |
| C1008-1009 | UR837100 | C. EL 10uF 16V | |
| C1010 | UR877220 | C. EL 22uF 63V | |
| C1011 | WJ603300 | C. MYLAR 470pF 50V J | |
| C1012 | UR896470 | C. EL 4.7uF 100V | |
| C1013 | WJ603300 | C. MYLAR 470pF 50V J | |
| C1014 | UR896470 | C. EL 4.7uF 100V | |
| C1015 | UR877220 | C. EL 22uF 63V | |
| C1016-1017 | UR896470 | C. EL 4.7uF 100V | |
| C1018-1020 | WJ603300 | C. MYLAR 470pF 50V J | |
| C1021 | WJ602900 | C. MYLAR 100pF 50V K | |
| C1022 | UR867330 | C. EL 33uF 50V | |
| C1023 | WJ602900 | C. MYLAR 100pF 50V K | |
| C1024-1025 | UR867330 | C. EL 33uF 50V | |
| C1026 | WJ602900 | C. MYLAR 100pF 50V K | |
| C1027-1028 | UR867330 | C. EL 33uF 50V | |
| C1029 | WJ602900 | C. MYLAR 100pF 50V K | |
| C1030 | UR897100 | C. EL 10uF 100V | |
| C1031 | WJ602900 | C. MYLAR 100pF 50V K | |
| C1032 | FG651100 | C. CE 10pF 50V | |
| C1033 | UR866100 | C. EL 1uF 50V | |
| C1034-1037 | FG650500 | C. CE 5pF 50V | |
| C1038-1042 | WJ605800 | C. MYLAR 0.047uF 50V J | |
| C1043 | UR866470 | C. EL 4.7uF 50V | |
| C1044 | UR828220 | C. EL 220uF 10V | |
| C1048 | UR866470 | C. EL 4.7uF 50V | |
| C1049 | UR858100 | C. EL 100uF 35V | |
| △ C1050-1051 | WE514200 | C. EL 6800uF 63V | |
| C1052-1055 | WJ605000 | C. MYLAR 0.01uF 50V J | |
| C1056-1057 | WJ611400 | C. MYLAR 0.1uF 100V J | |
| C1058 | UR868100 | C. EL 100uF 50V | |
| C1059 | US064100 | C. CE. CHP 0.01uF 50V B | |
| C1060 | UR837330 | C. EL 33uF 16V | |
| C1501-1510 | WJ605000 | C. MYLAR 0.01uF 50V J | |
| C1601 | WJ605000 | C. MYLAR 0.01uF 50V J | |
| C1602 | WJ603300 | C. MYLAR 470pF 50V J | |
| C1603 | US064100 | C. CE. CHP 0.01uF 50V B | |
| C1606-1617 | US062220 | C. CE. CHP 220pF 50V B | |
| C1618-1619 | US061470 | C. CE. CHP 47pF 50V B | |
| C1620-1623 | US062220 | C. CE. CHP 220pF 50V B | |
| C1624-1625 | US061470 | C. CE. CHP 47pF 50V B | |
| C1626-1629 | UR837100 | C. EL 10uF 16V | |

* New Parts

RX-V363/HTR-6130

P.C.B. MAIN

| Ref. No. | Part No. | Description | Markets |
|------------|----------|----------------------------|---------|
| C1631 | UR866220 | C. EL 2.2uF 50V | |
| C1632 | US135100 | C. CE. CHP 0.1uF 16V | |
| C1633-1634 | UR837100 | C. EL 10uF 16V | |
| C1635-1636 | UR847470 | C. EL 47uF 25V | |
| C1637-1638 | UR838100 | C. EL 100uF 16V | |
| C1639-1641 | US062100 | C. CE. CHP 100pF 50V B | |
| C1642 | US064100 | C. CE. CHP 0.01uF 50V B | |
| C1643 | US063100 | C. CE. CHP 1000pF 50V B | |
| C1644 | US062100 | C. CE. CHP 100pF 50V B | |
| C1645 | WJ605400 | C. MYLAR 0.022uF 50V J | |
| C1646 | WJ605800 | C. MYLAR 0.047uF 50V J | |
| C1647 | VE326200 | C. MYLAR 0.15uF 50V | |
| C1648 | UR837470 | C. EL 47uF 16V | |
| C1649 | WJ605400 | C. MYLAR 0.022uF 50V J | |
| C1650-1655 | UR837100 | C. EL 10uF 16V | |
| C1656 | UR837470 | C. EL 47uF 16V | |
| C1657 | VE326200 | C. MYLAR 0.15uF 50V | |
| C1658 | US135100 | C. CE. CHP 0.1uF 16V | |
| C1659 | WJ605800 | C. MYLAR 0.047uF 50V J | |
| C1660 | UR837470 | C. EL 47uF 16V | |
| C1661 | US135100 | C. CE. CHP 0.1uF 16V | BGEF |
| C1662-1667 | UR837100 | C. EL 10uF 16V | |
| C1668 | UR838100 | C. EL 100uF 16V | |
| C1669 | US062330 | C. CE. CHP 330pF 50V B | BGEF |
| C1670 | UR866220 | C. EL 2.2uF 50V | |
| C1671-1674 | US162820 | C. CE. CHP 820pF 50V J | |
| C1675 | US062820 | C. CE. CHP 820pF 50V B | |
| C1676 | WJ605800 | C. MYLAR 0.047uF 50V J | |
| C1677-1678 | UR837100 | C. EL 10uF 16V | |
| C1679 | US062330 | C. CE. CHP 330pF 50V B | BGEF |
| C1680-1682 | UR837100 | C. EL 10uF 16V | |
| C1683-1684 | UR837470 | C. EL 47uF 16V | BGEF |
| C1685-1690 | US062100 | C. CE. CHP 100pF 50V B | |
| C1691 | US062560 | C. CE. CHP 560pF 50V B | BGEF |
| C1692 | WJ604400 | C. MYLAR 3900pF 50V J | |
| C1693-1699 | UR837100 | C. EL 10uF 16V | |
| C1700 | US061270 | C. CE. CHP 27pF 50V B | BGEF |
| C1701 | US135100 | C. CE. CHP 0.1uF 16V | BGEF |
| C1702 | UR838100 | C. EL 100uF 16V | |
| C1703 | US061270 | C. CE. CHP 27pF 50V B | BGEF |
| C1704 | UR837470 | C. EL 47uF 16V | BGEF |
| C1705-1706 | UR838100 | C. EL 100uF 16V | |
| C1707 | US135100 | C. CE. CHP 0.1uF 16V | BGEF |
| C1901-1902 | US064100 | C. CE. CHP 0.01uF 50V B | |
| D102 | VD631600 | D1ODE 1SS133, 176 | |
| D103 | VU171900 | D1ODE. ZENR UDZ5.1B 5.1V | |
| D104 | WC398800 | D1ODE KDS160-RTK | |
| D105-106 | VNO08700 | D1ODE 1SS270A | |
| D107 | WC398800 | D1ODE KDS160-RTK | |
| D108-110 | VNO08700 | D1ODE 1SS270A | |
| D111-113 | VD631600 | D1ODE 1SS133, 176 | |
| D114-115 | VNO08700 | D1ODE 1SS270A | |
| D116 | VG443700 | D1ODE. ZENR MTZJ33B 33V | |
| D117 | VNO08700 | D1ODE 1SS270A | |
| D118-119 | VD631600 | D1ODE 1SS133, 176 | |
| D120 | WA653200 | D1ODE. BRG TS6P03G 6A 200V | |
| D121 | VD631600 | D1ODE 1SS133, 176 | |
| D122-123 | VS997800 | D1ODE 1T2 | |
| D161-162 | VU994300 | D1ODE. ZENR MA8075-H 7.7V | |
| D163 | VU995500 | D1ODE. ZENR MA8100-H 10.3V | |

* New Parts

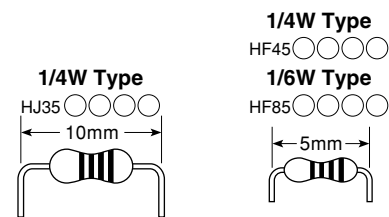
| Ref. No. | Part No. | Description | Markets |
|------------|----------|------------------------------|---------|
| IC101 | X8190A00 | IC STK433-330-E | |
| IC102 | X7427A00 | IC STK433-130-E | |
| IC161 | X8155B00 | IC R2A15218FP | |
| IC162-164 | X7378A00 | IC NJM4565M (TE1) | |
| IC168 | X8235A00 | IC LC72725KM | BGEF |
| IC169 | X7378A00 | IC NJM4565M (TE1) | |
| PJ161 | V7190400 | JACK. PIN 6P | |
| PJ162 | V7046800 | JACK. PIN 6P MSP-246V1-01N1 | |
| PJ163 | V7189700 | JACK. PIN 1P | |
| PJ164-165 | V7046700 | JACK. PIN 4P MSP-244V1-01N1 | |
| Q101-105 | VD303700 | TR 2SC3326 A, B | |
| Q106-108 | WC434800 | TR. DGT KRA102S-RTK/P | |
| Q109 | WC398400 | TR 2N5551C-AT | |
| Q110-111 | WG538600 | TR KTA1046-Y-U/P | |
| Q112 | WC398400 | TR 2N5551C-AT | |
| Q113-114 | WC397700 | TR 2N5401C-AT | |
| Q115-119 | WC398400 | TR 2N5551C-AT | |
| Q120 | WC397700 | TR 2N5401C-AT | |
| Q121-123 | WC434900 | TR. DGT KRA104S-RTK | |
| Q124 | VP872600 | TR 2SA1708 S, T | |
| Q125-126 | WC434900 | TR. DGT KRA104S-RTK | |
| Q127 | WC435000 | TR. DGT KRC102S-RTK | |
| Q128 | iC181510 | TR 2SC1815 Y | |
| Q129-132 | WC435000 | TR. DGT KRC102S-RTK | |
| Q133 | WC434900 | TR. DGT KRA104S-RTK | |
| Q161-162 | VZ725900 | TR 2SD1938F S, T | |
| Q163 | WC434800 | TR. DGT KRA102S-RTK/P | |
| Q164 | iC181510 | TR 2SC1815 Y | |
| Q165 | iA101510 | TR 2SA1015 Y | |
| Q166 | iC181510 | TR 2SC1815 Y | |
| Q167 | iC174020 | TR 2SC1740S QRS | BGEF |
| R1027-1028 | HV753220 | R. CAR. FP 2.2Ω 1/4W | |
| R1031 | HV755560 | R. CAR. FP 560Ω 1/4W | |
| R1038 | HV754100 | R. CAR. FP 10Ω 1/4W | |
| R1043 | HV754100 | R. CAR. FP 10Ω 1/4W | |
| R1054 | WB279900 | R. CEMENT RGC55C 0.22+0.22 | |
| R1057 | WB279900 | R. CEMENT RGC55C 0.22+0.22 | |
| R1061 | WB279900 | R. CEMENT RGC55C 0.22+0.22 | |
| R1069-1070 | WB279900 | R. CEMENT RGC55C 0.22+0.22 | |
| R1085 | HV754100 | R. CAR. FP 10Ω 1/4W | |
| R1087 | HV754100 | R. CAR. FP 10Ω 1/4W | |
| R1089 | HV754100 | R. CAR. FP 10Ω 1/4W | |
| R1092-1093 | HV754100 | R. CAR. FP 10Ω 1/4W | |
| R1095 | WB625100 | R. MTL. FLM 4.7Ω 1W J | |
| R1099-1100 | WB625100 | R. MTL. FLM 4.7Ω 1W J | |
| R1103-1104 | WB625100 | R. MTL. FLM 4.7Ω 1W J | |
| R1106 | HV756150 | R. CAR. FP 1.5KΩ 1/4W | |
| R1110 | HV755470 | R. CAR. FP 470Ω 1/4W | |
| R1659-1660 | HV753220 | R. CAR. FP 2.2Ω 1/4W | |
| RY101-105 | WJ122400 | RELAY 981-2A-24DS-SP7 | |
| RY106 | WE648700 | RELAY DC DH24D2-0-Q | |
| ST101 | WA789600 | SCR. TERM M3 | |
| TE101 | WK560800 | TERM. SP 4P MST-204V1-01 NC | UCRTA |
| TE101 | WK560900 | TERM. SP 4P MST-204V1-01 WC | KBGEFL |
| TE151 | WJ551900 | TERM. SP MSP-120V2-11 (765A) | |
| XL161 | WJ588000 | RSNR. CRYST 4.332MHz | BGEF |
| | WE774200 | SCR. BND. HD 3x10 MFZN2W3 | |

* New Parts

RX-V363/HTR-6130

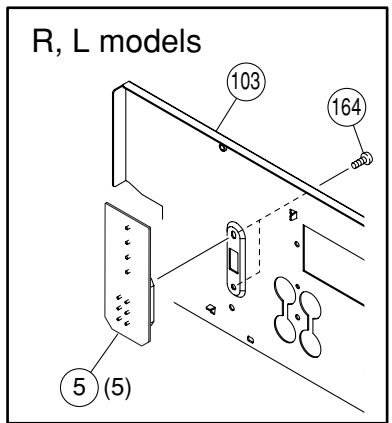
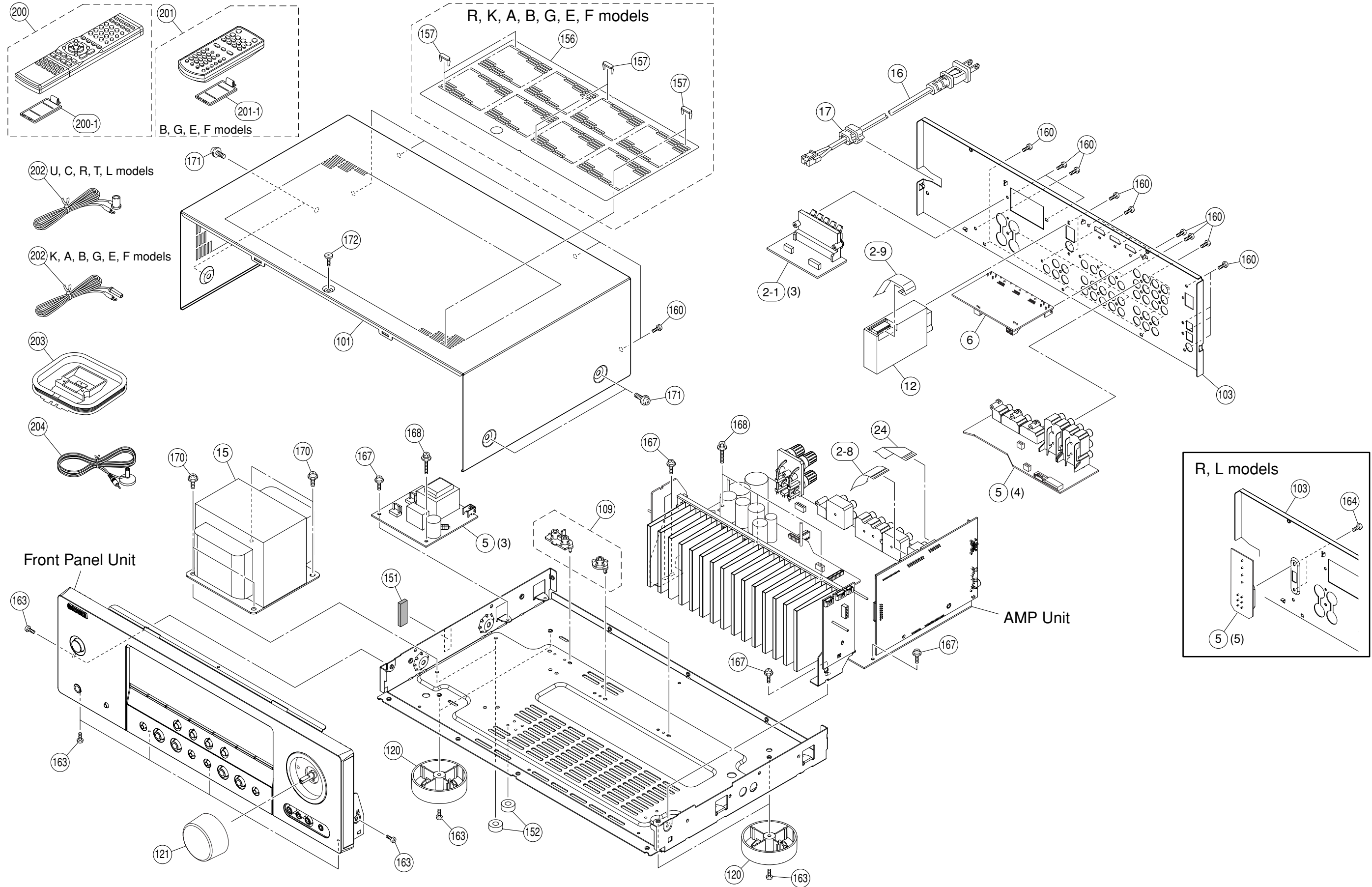
Carbon Resistors

| 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



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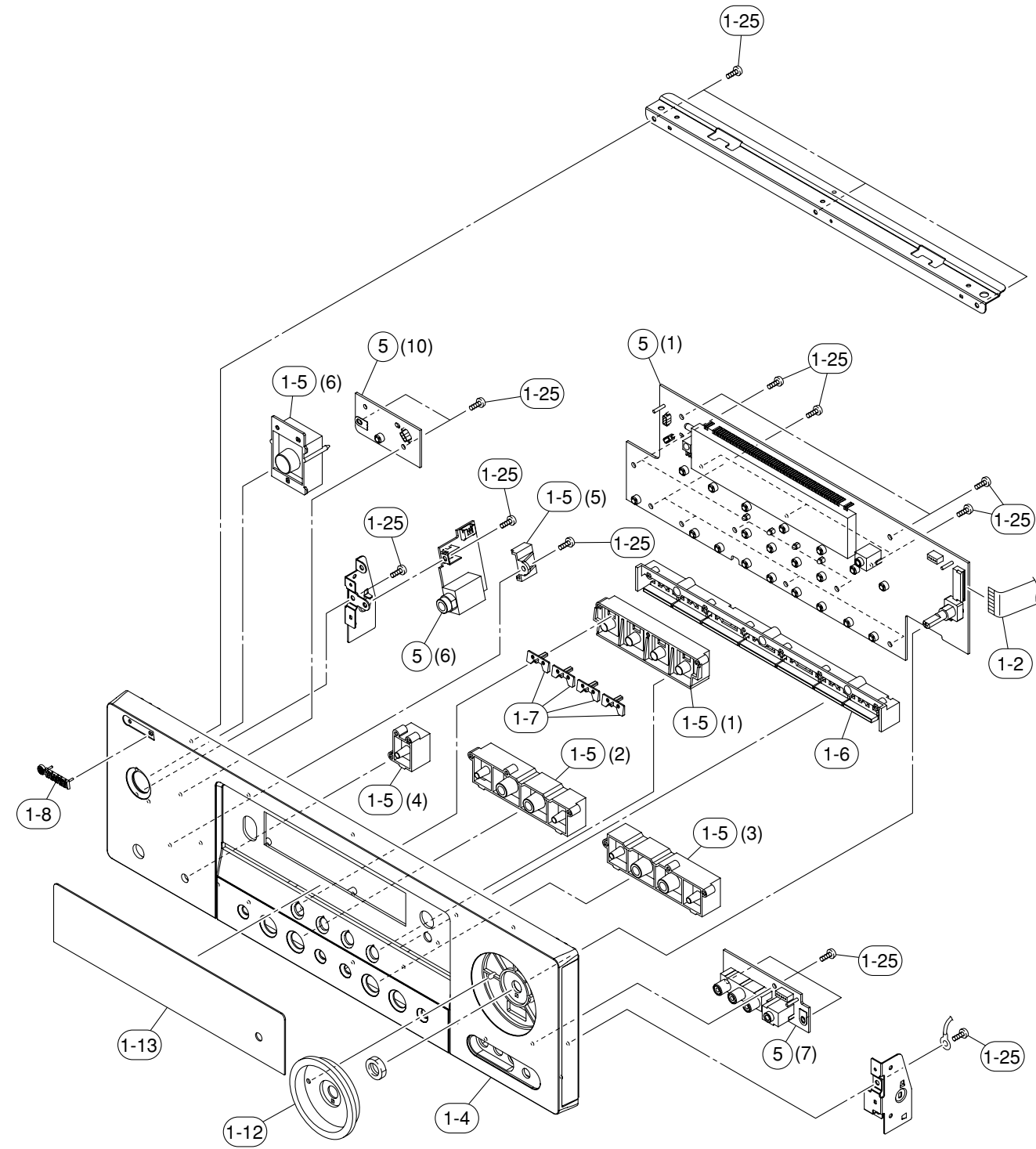
| Ref. No. | Part No. | Description | Remarks | Markets |
|----------|----------|------------------------------|------------------|------------|
| 2-8 | MF120180 | FLEXIBLE FLAT CABLE | 20P 180mm P=1.25 | |
| 2-9 | MF113120 | FLEXIBLE FLAT CABLE | 13P 120mm P=1.25 | |
| * 5 | WN242700 | P.C.B. ASS'Y | OPERATION | UC |
| * 5 | WN242800 | P.C.B. ASS'Y | OPERATION | RL |
| * 5 | WN242900 | P.C.B. ASS'Y | OPERATION | T |
| * 5 | WN243000 | P.C.B. ASS'Y | OPERATION | KABGEF |
| * 6 | WN243200 | P.C.B. ASS'Y | HDMI | |
| 12 | WB424000 | AM/FM TUNER | ENG06709Q | UCRL |
| 12 | WB877300 | AM/FM TUNER | FAE381-A07F | T |
| 12 | WB424100 | AM/FM TUNER | ENG07711Q | KABGEF |
| * △ 15 | X9582A00 | POWER TRANSFORMER | | UC |
| * △ 15 | X9583A00 | POWER TRANSFORMER | | RL |
| * △ 15 | X9584A00 | POWER TRANSFORMER | | TK |
| * △ 15 | X9585A00 | POWER TRANSFORMER | | A |
| * △ 15 | X9586A00 | POWER TRANSFORMER | | BGEF |
| △ 16 | WB120500 | POWER CABLE | 2m | UC |
| △ 16 | WC992700 | POWER CABLE | 2m | R |
| △ 16 | WB120600 | POWER CABLE | 2m | T |
| △ 16 | WC753000 | POWER CABLE | 2m | K |
| △ 16 | WC743700 | POWER CABLE | 2m | A |
| △ 16 | WB212200 | POWER CABLE | 2m | B |
| △ 16 | WB212300 | POWER CABLE | 2m | GEFL |
| 17 | V2438700 | CORD STOPPER | 10P1 | |
| 24 | MF114100 | FLEXIBLE FLAT CABLE | 14P 100mm P=1.25 | UC |
| 101 | WE065200 | TOP COVER | | GD |
| 101 | WE065000 | TOP COVER | | BL |
| 101 | WE065100 | TOP COVER | | TI |
| 101 | WG481900 | TOP COVER | | SI |
| * 103 | WM759500 | REAR PANEL | V363 | UC |
| * 103 | WM759700 | REAR PANEL | V363 | R |
| * 103 | WM759800 | REAR PANEL | V363 | T |
| * 103 | WM759900 | REAR PANEL | V363 | K |
| * 103 | WM760000 | REAR PANEL | V363 | A |
| * 103 | WM760100 | REAR PANEL | V363 | B |
| * 103 | WM760200 | REAR PANEL | V363 | GEF |
| * 103 | WM760300 | REAR PANEL | V363 | L |
| * 103 | WM760500 | REAR PANEL | 6130 | UC |
| * 103 | WM760700 | REAR PANEL | 6130 | R |
| * 103 | WM760800 | REAR PANEL | 6130 | T |
| * 103 | WM760900 | REAR PANEL | 6130 | K |
| * 103 | WM761000 | REAR PANEL | 6130 | A |
| * 103 | WM761100 | REAR PANEL | 6130 | GF |
| * 103 | WN121700 | REAR PANEL | 6130 | L |
| 109 | WA796100 | SUPPORT P.C.B. | | |
| 120 | WA790600 | LEG | D60/H21 GD | GD |
| 120 | WA790500 | LEG | D60/H21 HS | BL, TI, SI |
| * 121 | WM749500 | KNOB D48 | | GD |
| * 121 | WM749400 | KNOB D48 | | BL |
| * 121 | WM749600 | KNOB D48 | | TI |
| * 121 | WM749700 | KNOB D48 | | SI |
| 151 | WB408400 | DAMPER | 10x30 t=4 | |
| 152 | WB484700 | DAMPER | SCREW MASK | |
| 156 | WJ589800 | SHEET TOP | | RKABGEF |
| 157 | WJ323900 | RIVET TOP | | RKABGEF |
| 160 | WE774100 | BIND HEAD BONDING B-T. SCREW | 3x8 MFZN2B3 | |
| 163 | WE774300 | BIND HEAD B-TIGHT SCREW | 3x8 MFZN2W3 | |
| 164 | WE774000 | BIND HEAD SCREW | 3x6 MFZN2W3 | RL |
| 167 | WF002600 | PW HEAD B-TIGHT SCREW | 3x8 MFZN2W3 | |
| 168 | WE774600 | SCREW IC | 3x18 MFZN2W3 | |

* New Parts

| Ref. No. | Part No. | Description | Remarks | Markets |
|----------|----------|------------------------------|---------------------|----------------|
| 170 | WE774700 | BIND HEAD S-TIGHT SCREW | 4x10 MFZN2W3 | |
| 171 | VD069600 | PW HEAD S-TIGHT SCREW | 4x8-10 MFN133 | GD, TI, SI |
| 171 | VH313200 | PW HEAD S-TIGHT SCREW | 4x8-10 MFN13BL | BL |
| 172 | WE200400 | DISH HEAD B-TIGHT SCREW | 3x6 MFN133 | GD, TI, SI |
| 172 | WE200500 | DISH HEAD B-TIGHT SCREW | 3x6 MFN13BL | BL |
| | | ACCESSORIES | | |
| * 200 | WN058100 | REMOTE CONTROL | RAV283 | UC |
| * 200 | WN058200 | REMOTE CONTROL | RAV284 | RTKAL |
| 200-1 | AAX82380 | BATTERY COVER | | CG-2209 |
| * 201 | WN466800 | REMOTE CONTROL | RAV34 | BGEF |
| 201-1 | AAX70730 | BATTERY COVER | | CG-8912 |
| 202 | WB212500 | INDOOR FM ANTENNA | 1.4m 1pc | BGEF |
| 202 | WB212400 | INDOOR FM ANTENNA | 1.4m 1pc | UCRTL |
| 202 | WB212600 | AM LOOP ANTENNA | 1.0m 1pc | KABGEF |
| * 204 | WN649600 | OPTIMIZER MICROPHONE BATTERY | 6.0m 1pc | EM6022L-HN1700 |
| | | | RO3, AAA, UM-4 2pcs | RKABGEFL |
| | | SERVICE TOOL | | |
| | MF117350 | FLEXIBLE FLAT CABLE | 17P 350mm P=1.25 | |

* New Parts

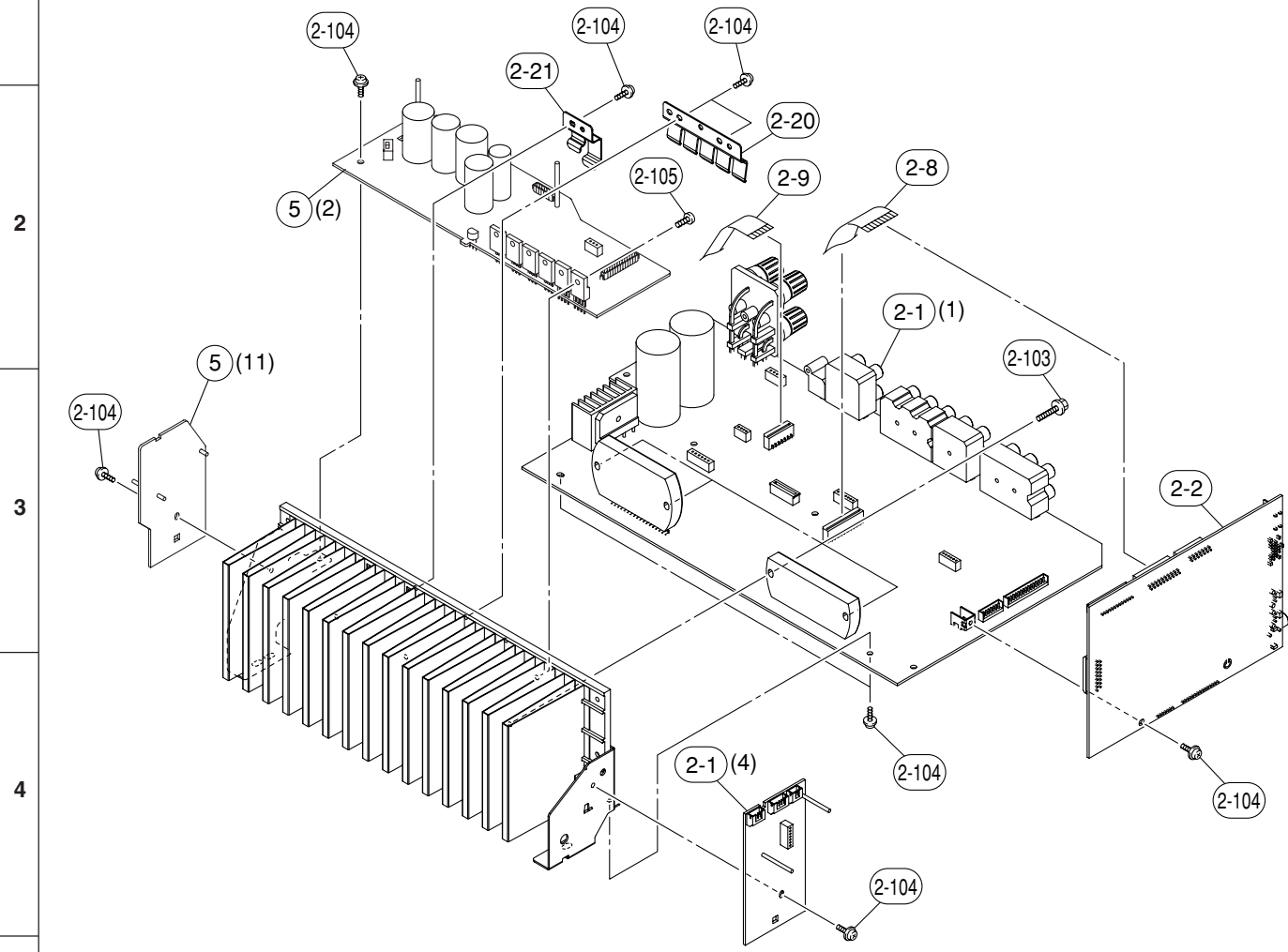
• FRONT PANEL UNIT



| Ref. No. | Part No. | Description | Remarks | Markets |
|----------|----------|-------------------------|------------------------------|------------|
| 1-2 | MF117180 | FLEXIBLE FLAT CABLE | 17P 180mm P=1.25 | |
| * 1-4 | WM753300 | FRONT PANEL | | V363GD |
| * 1-4 | WM752100 | FRONT PANEL | | V363BL |
| * 1-4 | WM754100 | FRONT PANEL | | V363TI |
| * 1-4 | WM754600 | FRONT PANEL | | V363SI |
| * 1-4 | WM753400 | FRONT PANEL | | 6130GD |
| * 1-4 | WM752200 | FRONT PANEL | | 6130BL |
| * 1-4 | WM755000 | FRONT PANEL | | 6130SI |
| * 1-4 | WM754700 | FRONT PANEL | | 6130SI |
| 1-5 | WJ192500 | BUTTON CASE | | GD |
| 1-5 | WJ192300 | BUTTON CASE | | BL |
| 1-5 | WJ192700 | BUTTON CASE | | TI |
| 1-5 | WJ192600 | BUTTON CASE | | SI |
| 1-6 | WJ192800 | BUTTON TUNER | | |
| 1-7 | WJ193200 | LENS BUTTON | SCENE | |
| 1-8 | WJ193400 | EMBLEM GD | | GD |
| 1-8 | WJ193300 | EMBLEM BL | | BL, TI, SI |
| * 1-12 | WM750100 | ESCUTCHEON VOL | | GD |
| * 1-12 | WM750000 | ESCUTCHEON VOL | | BL |
| * 1-12 | WM750200 | ESCUTCHEON VOL | | TI |
| * 1-12 | WM750300 | ESCUTCHEON VOL | | SI |
| * 1-13 | WM995900 | SHEET WINDOW | | UCT |
| * 1-13 | WM761800 | SHEET WINDOW | | RKABGEFL |
| 1-25 | WE774800 | BIND HEAD P-TIGHT SCREW | OPTIMIZER MIC 3x8 MFZN2W3 | |
| * 5 | WN242700 | P. C. B. ASS'Y | OPERATION | UC |
| * 5 | WN242800 | P. C. B. ASS'Y | OPERATION | RL |
| * 5 | WN242900 | P. C. B. ASS'Y | OPERATION | T |
| * 5 | WN243000 | P. C. B. ASS'Y | OPERATION | KABGEF |

*: New Parts

1 • AMP UNIT

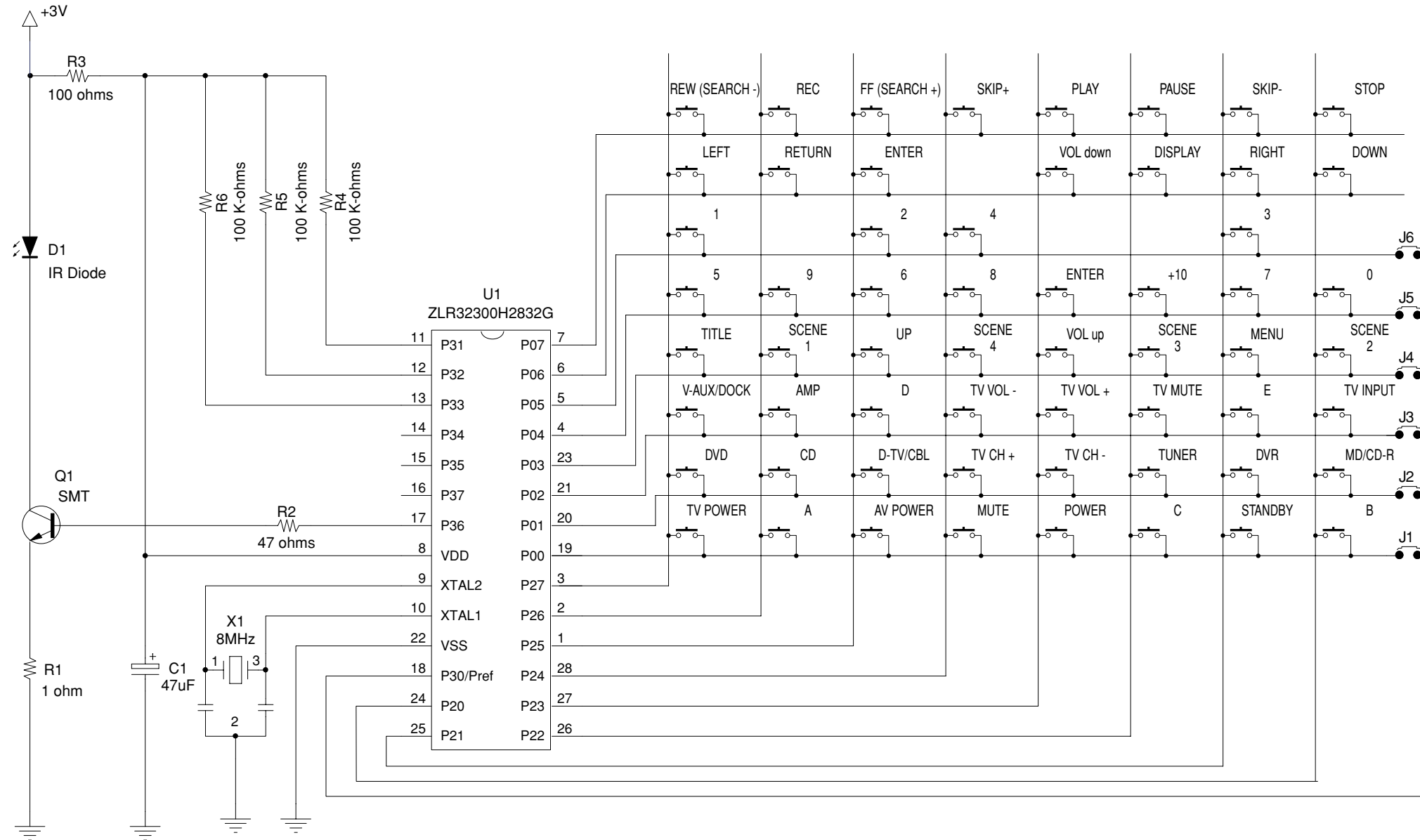


| Ref. No. | Part No. | Description | Remarks | Markets | |
|----------|----------|-------------|-------------------------|------------------|--------|
| * | 2-1 | WN241400 | P. C. B. ASS'Y | MAIN | UC |
| * | 2-1 | WN241500 | P. C. B. ASS'Y | MAIN | RA |
| * | 2-1 | WN241600 | P. C. B. ASS'Y | MAIN | T |
| * | 2-1 | WN241700 | P. C. B. ASS'Y | MAIN | KL |
| * | 2-1 | WN241800 | P. C. B. ASS'Y | MAIN | BGEF |
| * | 2-2 | WN242100 | P. C. B. ASS'Y | DSP | UC |
| * | 2-2 | WN242200 | P. C. B. ASS'Y | DSP | RL |
| * | 2-2 | WN242300 | P. C. B. ASS'Y | DSP | T |
| * | 2-2 | WN242400 | P. C. B. ASS'Y | DSP | KA |
| * | 2-2 | WN242500 | P. C. B. ASS'Y | DSP | BGEF |
| | 2-8 | MF120180 | FLEXIBLE FLAT CABLE | 20P 180mm P=1.25 | |
| | 2-9 | MF113120 | FLEXIBLE FLAT CABLE | 13P 120mm P=1.25 | |
| | 2-20 | WG451000 | SUPPORT TR-5P | | |
| | 2-21 | WJ187700 | SUPPORT TR-2P | | |
| | 2-103 | WE774600 | SCREW IC | 3x18 MFZN2W3 | |
| | 2-104 | WF002600 | PW HEAD B-TIGHT SCREW | 3x8 MFZN2W3 | |
| | 2-105 | WE774300 | BIND HEAD B-TIGHT SCREW | 3x8 MFZN2W3 | |
| * | 5 | WN242700 | P. C. B. ASS'Y | OPERATION | UC |
| * | 5 | WN242800 | P. C. B. ASS'Y | OPERATION | RL |
| * | 5 | WN242900 | P. C. B. ASS'Y | OPERATION | T |
| * | 5 | WN243000 | P. C. B. ASS'Y | OPERATION | KABGEF |

*: New Parts

REMOTE CONTROL

- **RAV283** RX-V363 (U, C models), HTR-6130 (U, C models)
- **RAV284** RX-V363 (R, T, K, A, L models), HTR-6130 (R, T, K, A, L models)
- **SCHEMATIC DIAGRAM**

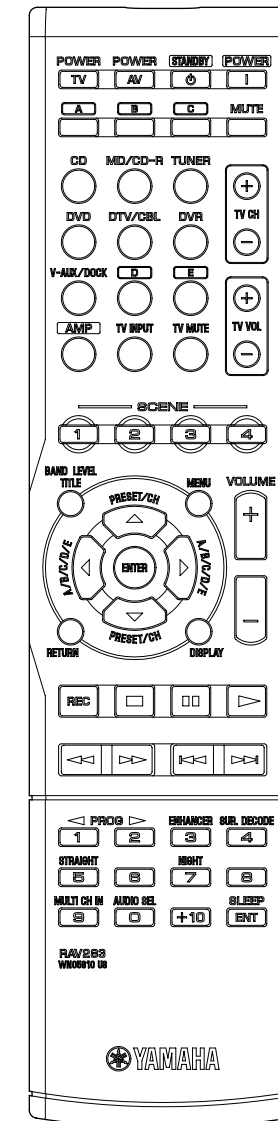


| | RAV283 | RAV284 |
|----|--------|--------|
| J1 | X | X |
| J2 | X | X |
| J3 | X | X |
| J4 | O | X |
| J5 | X | O |
| J6 | X | X |

PANELS

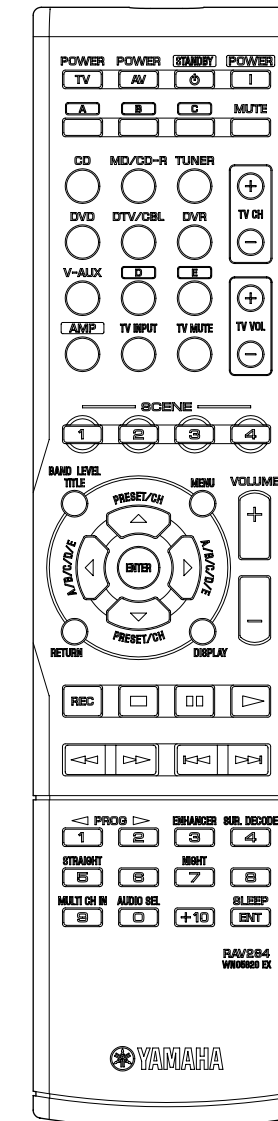
RAV283

RX-V363 (U, C models)
HTR-6130 (U, C models)

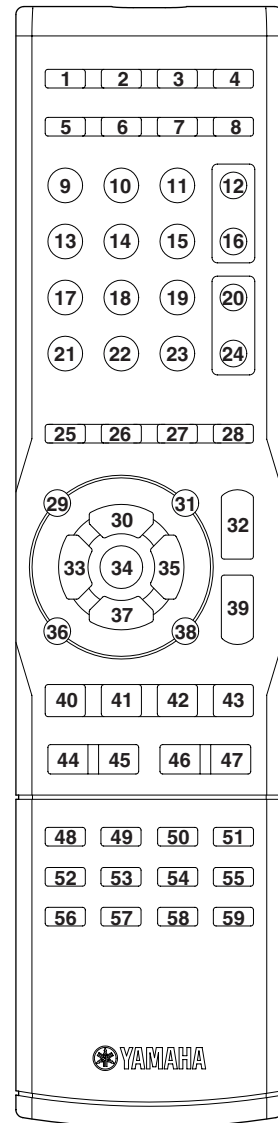


RAV284

RX-V363 (R, T, K, A, L models)
HTR-6130 (R, T, K, A, L models)



• KEY NO. LAYOUT

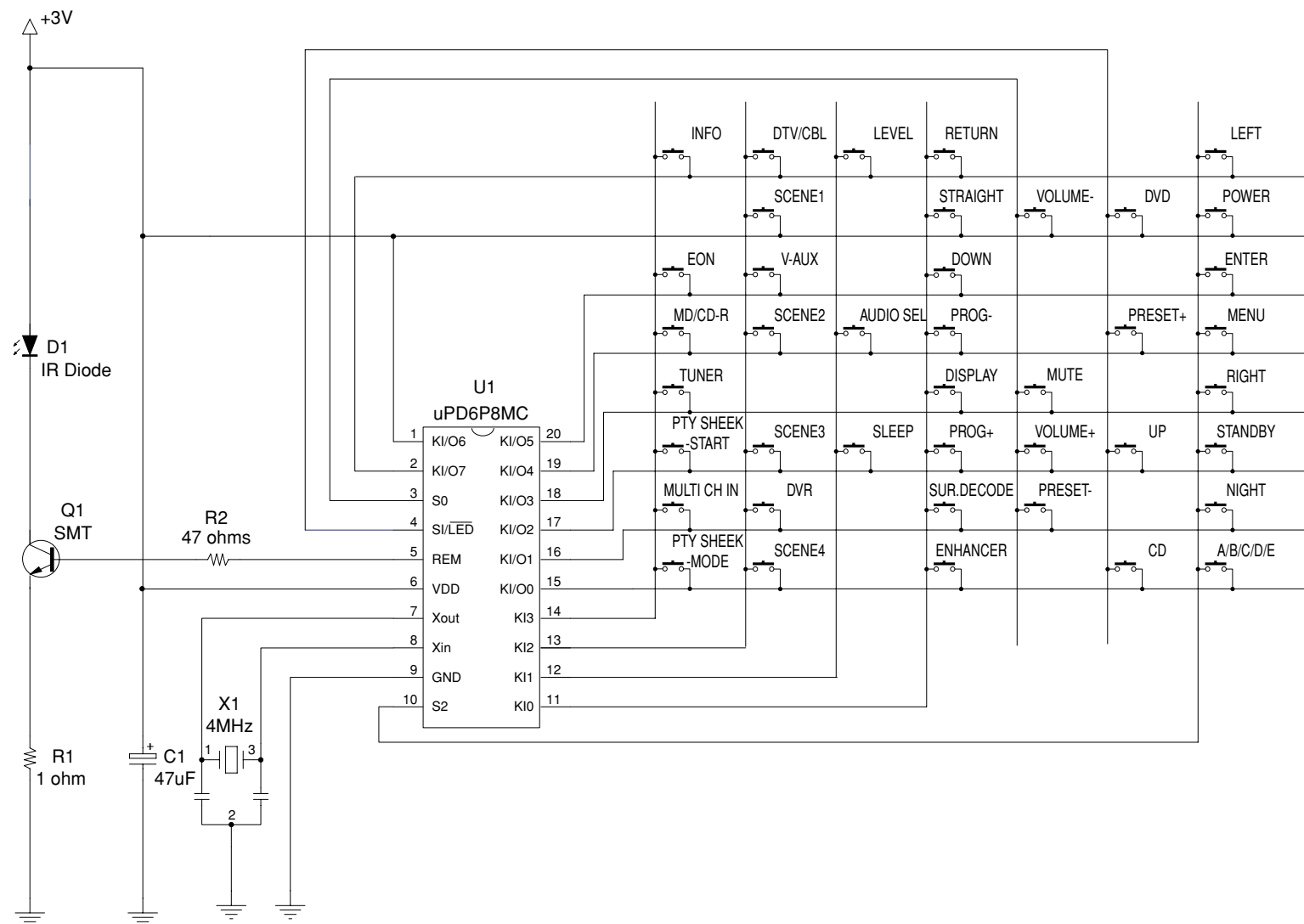


• KEY CODE

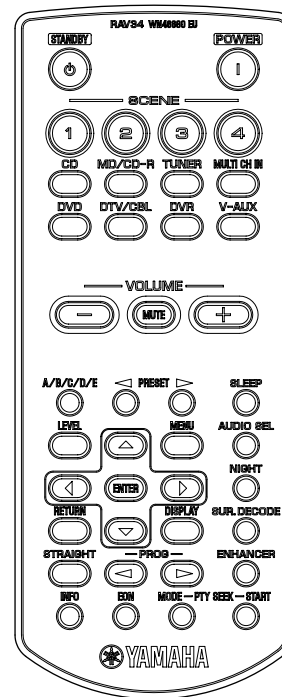
| Key No. | Label | Command key | AMP | | | | | | | | | | |
|---------|----------------|-------------|------------|---------------------|------------|------------|------------|-------------|------------|------------|------------|-------------|------------|
| 1 | TV POWER | — | (TV POWER) | (TV POWER) | (TV POWER) | (TV POWER) | (TV POWER) | (TV POWER) | (TV POWER) | (TV POWER) | (TV POWER) | (TV POWER) | (TV POWER) |
| 2 | AV POWER | — | (device) | 79-60 | 7F-80 | D1-1B | 7C-80 | (DVR POWER) | 048.012 | 7F01-00 | — | (DVR POWER) | |
| 3 | STANDBY | O | 7E-7F | STANDBY | | | | | | | | | |
| 4 | POWER | O | 7E-7E | POWER | | | | | | | | | |
| 5 | A | O | 7F01-3F | A | | | | | | | | | |
| 6 | B | O | 7A-B4 | B | | | | | | | | | |
| 7 | C | O | 7A-39 | C | | | | | | | | | |
| 8 | MUTE | O | 7A-1C | MUTE | | | | | | | | | |
| 9 | CD | O | 7A-15 | CD | | | | | | | | | |
| 10 | MD/CD-R | O | 7A-C9 | MD/CD-R | | | | | | | | | |
| 11 | TUNER | O | 7A-16 | 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 | DVD | | | | | | | | | |
| 14 | D-TV/CBL | O | 7A-54 | DTV/CBL | | | | | | | | | |
| 15 | DVR | O | 7A-13 | 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 | V-AUX (/DOCK) | | | | | | | | | |
| 18 | D | O | 7A-0F | VCR | | | | | | | | | |
| 19 | E | O | 7A-14 | 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 | 13 | 14 | 15 | 17 | 18 | 19 | |
| | | | | CD | MD/CD-R | 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) |
| 23 | TV MUTE | — | (TV MUTE) | (TV MUTE) | (TV MUTE) | (TV MUTE) | (TV MUTE) | (TV MUTE) | (TV MUTE) | (TV MUTE) | (TV MUTE) | (TV MUTE) | (TV MUTE) |
| 24 | TV VOL - | — | (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 | SCENE SELECT | | | | | | | | | |
| 26 | SCENE 2 | O | 7A-037C | SCENE SELECT | | | | | | | | | |
| 27 | SCENE 3 | O | 7A-0679 | SCENE SELECT | | | | | | | | | |
| 28 | SCENE 4 | O | 7A-0976 | SCENE SELECT | | | | | | | | | |
| 29 | TITLE | — | 7A-86 | — | — | 7A-AE | 7C-B1 | — | 048.200 | 7F01-0D | — | — | |
| 30 | UP | — | 7A-9D | — | — | 7A-10 | 7C-B4 | — | 048.088 | 7F01-0E | — | — | |
| 31 | MENU | — | 7A-84 | — | — | 7A-AB | 7C-B2 | — | 048.084 | 7F01-0F | — | — | |
| 32 | VOL up | O | 7A-1A | VOL UP | | | | | | | | | |
| 33 | LEFT | — | 7A-9F | — | — | 7A-AC | 7C-B5 | — | 048.090 | 7F01-10 | — | — | |
| 34 | ENTER | — | 7A-DE | — | — | 7A-AD | 7C-B8 | — | 048.092 | 7F01-11 | — | — | |
| 35 | RIGHT | — | 7A-9E | — | — | 7A-12 | 7C-B6 | — | 048.091 | 7F01-12 | — | — | |
| 36 | RETURN | — | 7A-AA | — | — | 7A-AF | 7C-B7 | — | 048.131 | 7F01-13 | — | — | |
| 37 | DOWN | — | 7A-9C | — | — | 7A-11 | 7C-B3 | — | 048.089 | 7F01-14 | — | — | |
| 38 | DISPLAY | — | 7A-C2 | 79-0A | 7F-9E | 7A-B0 | 7C-A6 | — | 048.015 | 7F01-15 | — | — | |
| 39 | VOL down | O | 7A-1B | VOL DOWN | | | | | | | | | |
| 40 | REC | — | (device) | 7A-4F | — | — | 7C-8B | (DVR REC) | 048.055 | 7F01-16 | — | (DVR REC) | |
| 41 | STOP | — | (device) | 7A-09 | 7F-84 | — | 7C-85 | (DVR STOP) | 048.049 | 7F01-1D | — | (DVR STOP) | |
| 42 | PAUSE | — | (device) | 7A-09 | 7F-83 | — | 7C-83 | (DVR PAUSE) | 048.048 | 7F01-1A | — | (DVR PAUSE) | |
| 43 | PLAY | — | (device) | 7A-08 | 7F-82 | — | 7C-82 | (DVR PLAY) | 048.044 | 7F01-1E | — | (DVR PLAY) | |
| 44 | REW (SEARCH -) | — | (device) | 7A-0D | 7F-88 | 7A-A4 | 7C-86 | (DVR REW) | 048.041 | 7F01-17 | — | (DVR REW) | |
| 45 | FF (SEARCH +) | — | (device) | 7A-0C | 7F-89 | 7A-A5 | 7C-87 | (DVR FF) | 048.040 | 7F01-18 | — | (DVR FF) | |
| 46 | SKIP - | — | (device) | 7A-0B | 7F-86 | 7A-A6 | 7C-B9 | (DVR SKIP-) | 048.033 | 7F01-1B | — | (DVR SKIP-) | |
| 47 | SKIP + | — | (device) | 7A-0A | 7F-87 | 7A-A7 | 7C-BA | (DVR SKIP+) | 048.032 | 7F01-1C | — | (DVR SKIP+) | |
| 48 | 1 | — | 7A-59 | 79-11 | 7F-91 | 7A-E5 | 7C-94 | — | 048.001 | 7F01-01 | — | — | |
| 49 | 2 | — | 7A-58 | 79-12 | 7F-92 | 7A-E6 | 7C-95 | — | 048.002 | 7F01-02 | — | — | |
| 50 | 3 | — | 7A-94 | 79-13 | 7F-93 | 7A-E7 | 7C-96 | — | 048.003 | 7F01-03 | — | — | |
| 51 | 4 | — | 7A-8D | 79-14 | 7F-94 | 7A-E8 | 7C-97 | — | 048.004 | 7F01-04 | — | — | |
| 52 | 5 | — | 7A-56 | 79-15 | 7F-95 | 7A-E9 | 7C-98 | — | 048.005 | 7F01-05 | — | — | |
| 53 | 6 | — | 7A-DD | 79-16 | 7F-96 | 7A-EA | 7C-99 | — | 048.006 | 7F01-06 | — | — | |
| 54 | 7 | — | 7A-95 | 79-17 | 7F-97 | 7A-EB | 7C-9A | — | 048.007 | 7F01-07 | — | — | |
| 55 | 8 | — | 7A-C4 | 79-18 | 7F-98 | 7A-EC | 7C-9B | — | 048.008 | 7F01-08 | — | — | |
| 56 | 9 | — | 7A-87 | 79-19 | 7F-99 | 7A-B1 | 7C-9C | — | 048.009 | 7F01-09 | — | — | |
| 57 | 0 | — | 7A-C3 | 79-10 | 7F-90 | 7A-B2 | 7C-93 | — | 048.000 | 7F01-0A | — | — | |
| 58 | +10 | — | — | 79-1A | 7F-9A | — | 7C-9D | — | — | 7F01-0B | — | — | |
| 59 | ENTER | — | 7A-57 | 79-0B | 7F-8A | 7A-B3 | 7C-9E | — | — | 7F01-0C | — | — | |

● RAV34 RX-V363 (B, G, E, F models), THR-6130 (G, E, F models)

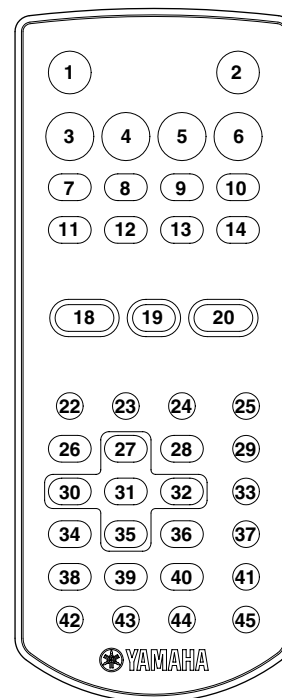
• SCHEMATIC DIAGRAM



• PANEL



• KEY NO. LAYOUT



• KEY CODE

| Key No. | Key Name | Custom Code | Data Code |
|---------|-----------------|-------------|-----------|
| 1 | STANDBY | 7E | 7F |
| 2 | POWER | 7E | 7E |
| 3 | SCENE1 | 7A | 007F |
| 4 | SCENE2 | 7A | 037C |
| 5 | SCENE3 | 7A | 0679 |
| 6 | SCENE4 | 7A | 0976 |
| 7 | CD | 7A | 15 |
| 8 | MD/CD-R | 7A | C9 |
| 9 | TUNER | 7A | 16 |
| 10 | MULTI CH IN | 7A | 87 |
| 11 | DVD | 7A | C1 |
| 12 | DTV/CBL | 7A | 54 |
| 13 | DVR | 7A | 13 |
| 14 | V-AUX | 7A | 55 |
| 18 | VOLUME- | 7A | 1B |
| 19 | MUTE | 7A | 1C |
| 20 | VOLUME+ | 7A | 1A |
| 22 | A/B/C/D/E | 7A | 12 |
| 23 | PRESET- | 7A | 11 |
| 24 | PRESET+ | 7A | 10 |
| 25 | SLEEP | 7A | 57 |
| 26 | LEVEL | 7A | 86 |
| 27 | UP | 7A | 9D |
| 28 | MENU | 7A | 84 |
| 29 | AUDIO SEL | 7A | C3 |
| 30 | LEFT | 7A | 9F |
| 31 | ENTER | 7A | DE |
| 32 | RIGHT | 7A | 9E |
| 33 | NIGHT | 7A | 95 |
| 34 | RETURN | 7A | AA |
| 35 | DOWN | 7A | 9C |
| 36 | DISPLAY | 7A | C2 |
| 37 | SUR.DECODE | 7A | 8D |
| 38 | STRAIGHT | 7A | 56 |
| 39 | PROG- | 7A | 59 |
| 40 | PROG+ | 7A | 58 |
| 41 | ENHANCER | 7A | 94 |
| 42 | INFO | 7A | A4 |
| 43 | EON | 7A | A5 |
| 44 | PTY SHEEK-MODE | 7A | A6 |
| 45 | PTY SHEEK-START | 7A | A7 |

Advanced setup

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

Notes

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

1 Press **STANDBY/ON on the front panel to set this unit to the standby mode.**

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

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

3 Press **PROGRAM $\triangleleft/\triangleright$ to select the parameter you want to adjust.**

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

4 Press **STRAIGHT repeatedly to change the selected parameter setting.**

5 Press **STANDBY/ON to confirm your selection and set this unit to the standby mode.**



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

■ **Speaker impedance** **SP IMP.** (U.S.A. and Canada models only)

Use this feature to set the speaker impedance of this unit so that it matches that of your speakers.

Choices: **8ΩMIN**, **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 (A or B) | The impedance of each speaker must be 8 Ω or higher. |
| | Center | |
| | Surround | |
| 6ΩMIN | Front (A or B) | The impedance of each speaker must be 6 Ω or higher. |
| | Center | |
| | Surround | |

■ **Tuner frequency step** **TU** (Asia and General models only)

Use this feature to set the tuner frequency step according to the frequency spacing in your area.

Choices: **AM10/FM100**, **AM9/FM50**

- Select “AM10/FM100” for North, Central and South America.
- Select “AM9/FM50” for all other areas.

■ **Initializing** **PRESET**

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

Choices: **CANCEL**, **RESET**

- Select “CANCEL” not to reset any parameters of this unit.
- Select “RESET” to reset the parameters of this unit.

Notes

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

RX-V363/HTR-6130

